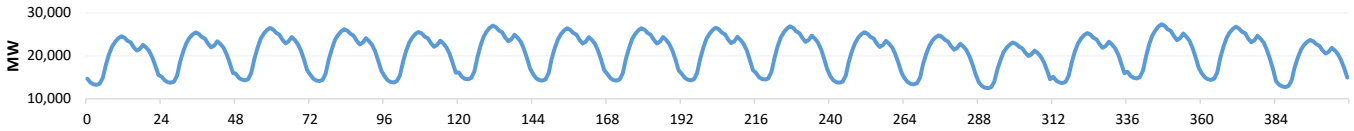
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 1 No Disruptions (Winter 2026/2027)

Hourly Results Summary

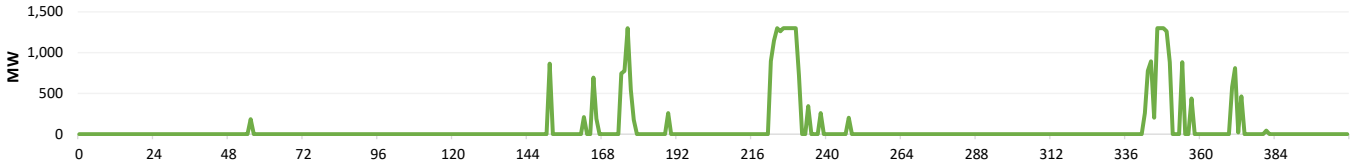
Case Name: Scenario 1 - PD 1 No Disruptions

Load During Modeling Period



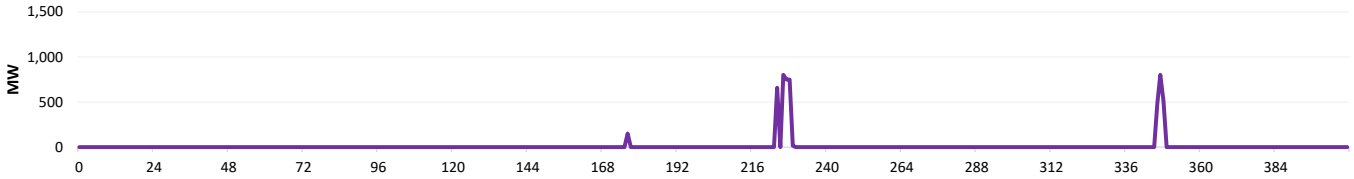
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



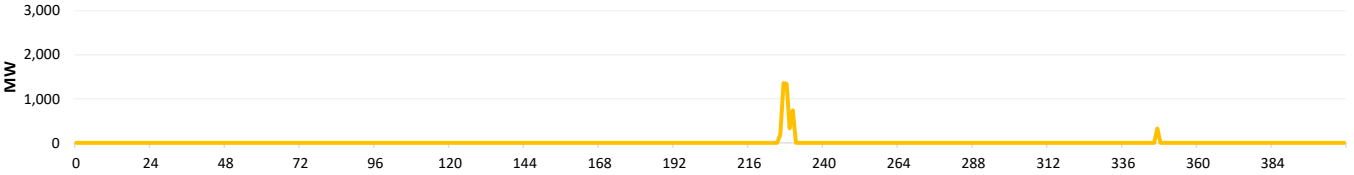
Export Reductions	
Total Hrs.	40
Total MWh	29,984
Avg. MW	73.5

SCR/EDRP Deployed During Modeling Period



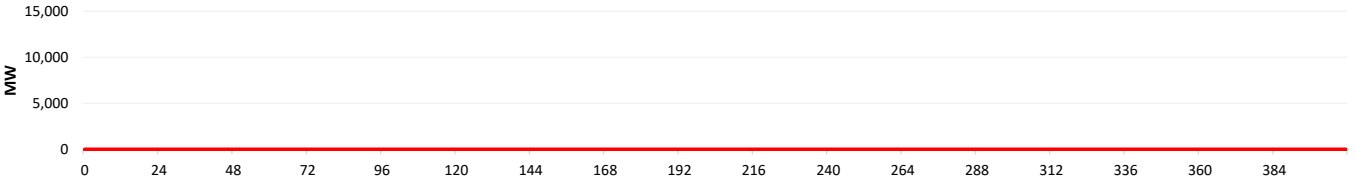
SCR Deployment	
Total Hrs.	9
Total MWh	4,926
Avg. MW	12.1

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	6
Total MWh	4,278
Avg. MW	10.5
First Hour with Viol.	226

Loss of Load During Modeling Period



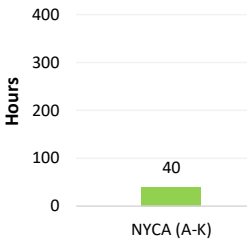
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

Full Period Results Summary

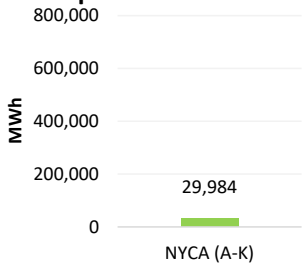
Case Name: Scenario 1 - PD 1 No Disruptions

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

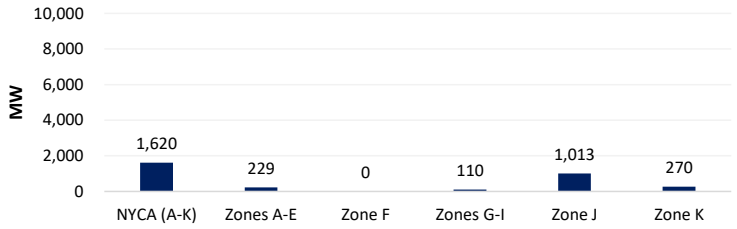
Hours Exports Reduced



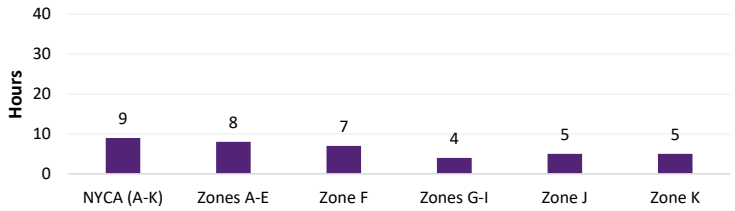
Total MWh of Exports Reduced



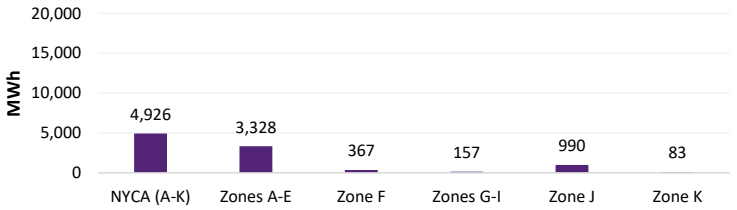
Average Capacity Not Available Due to Exhausted Fuel Inventory



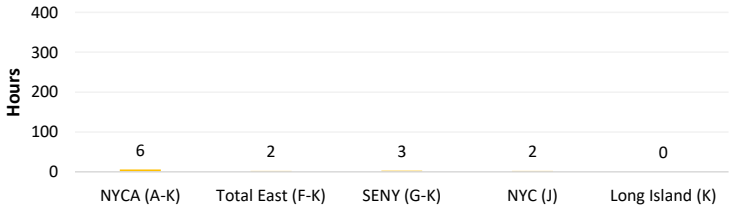
Hours SCR/EDRP Deployed



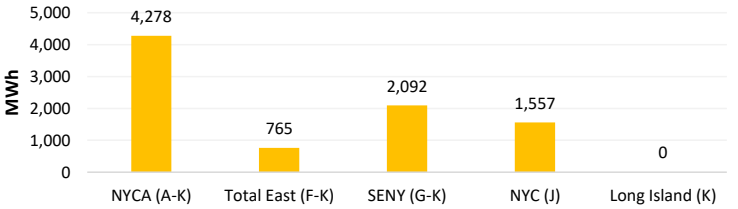
Total MWh SCR/EDRP Deployed



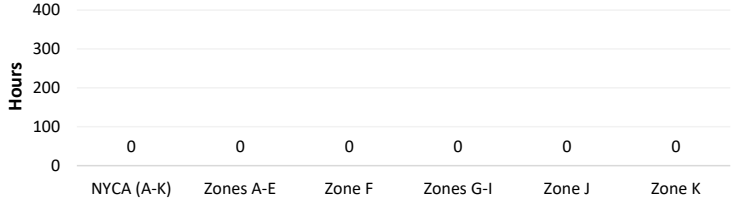
Hours with Reserve Violations



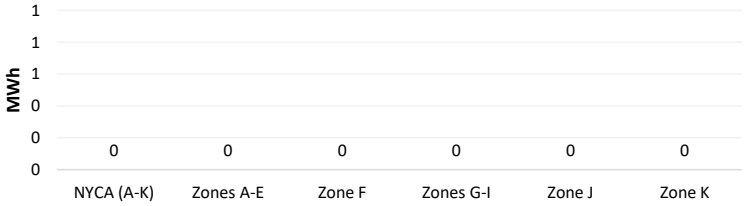
Total MWh of Reserve Violations

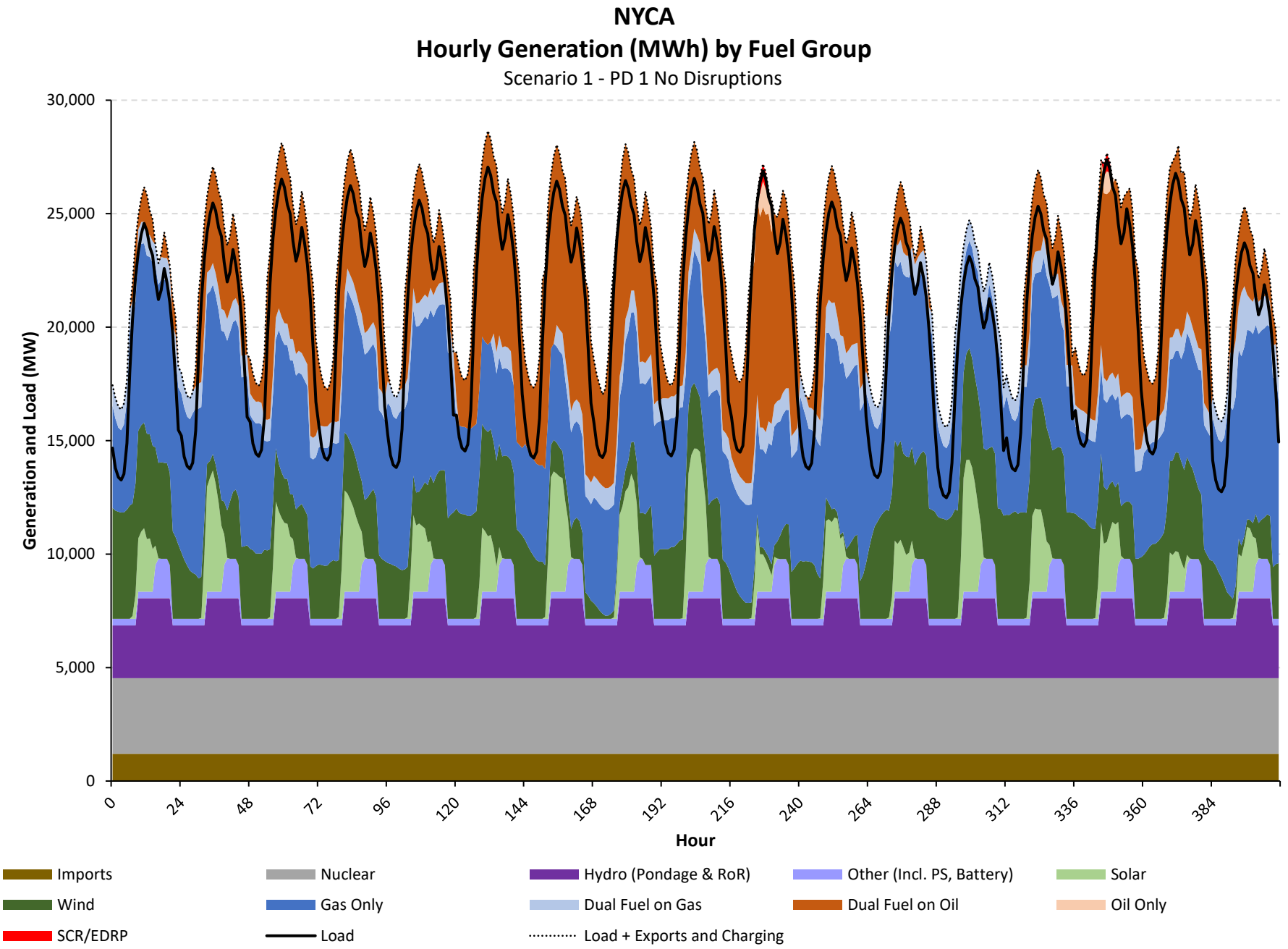


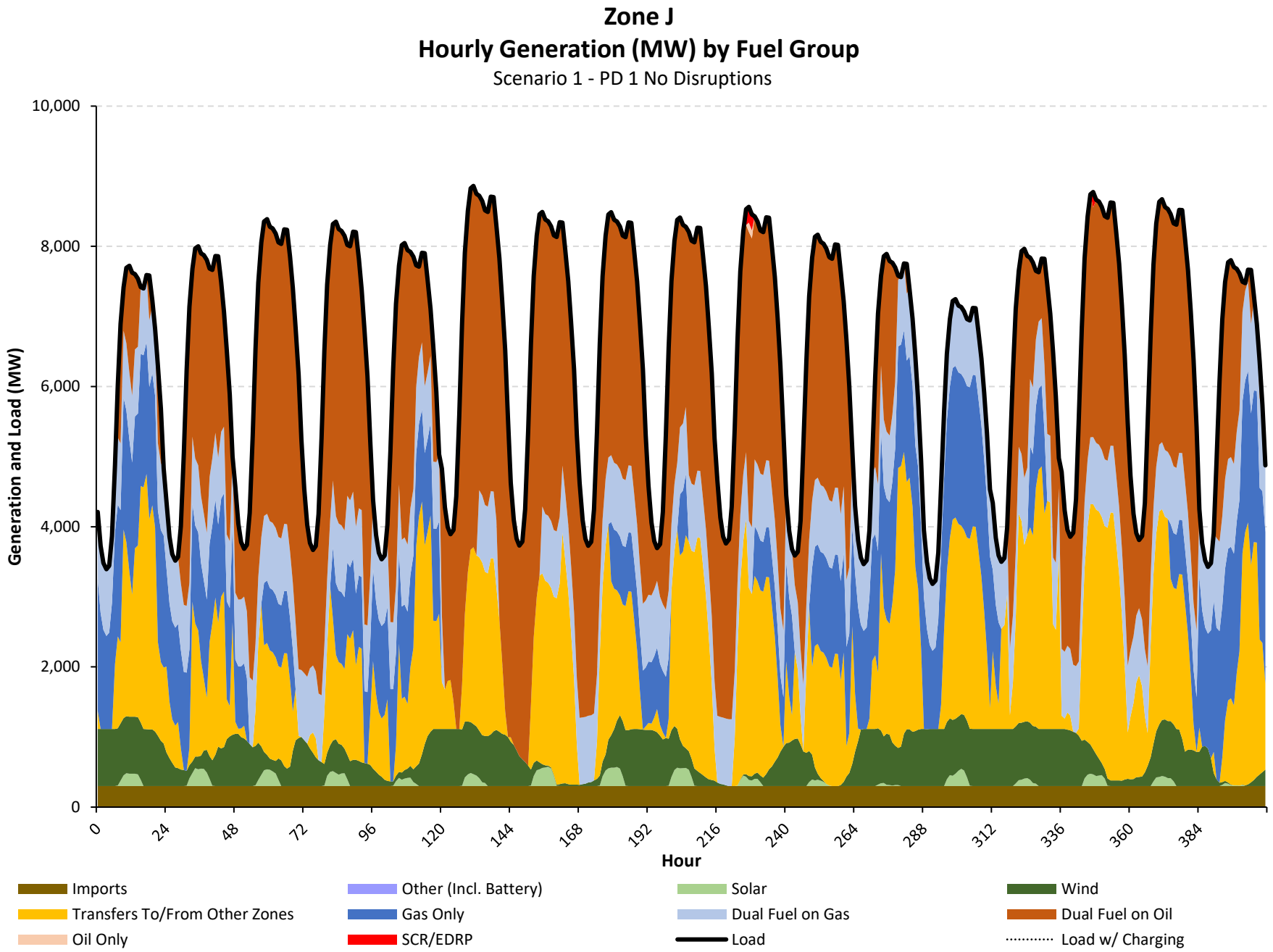
Hours with Loss of Load



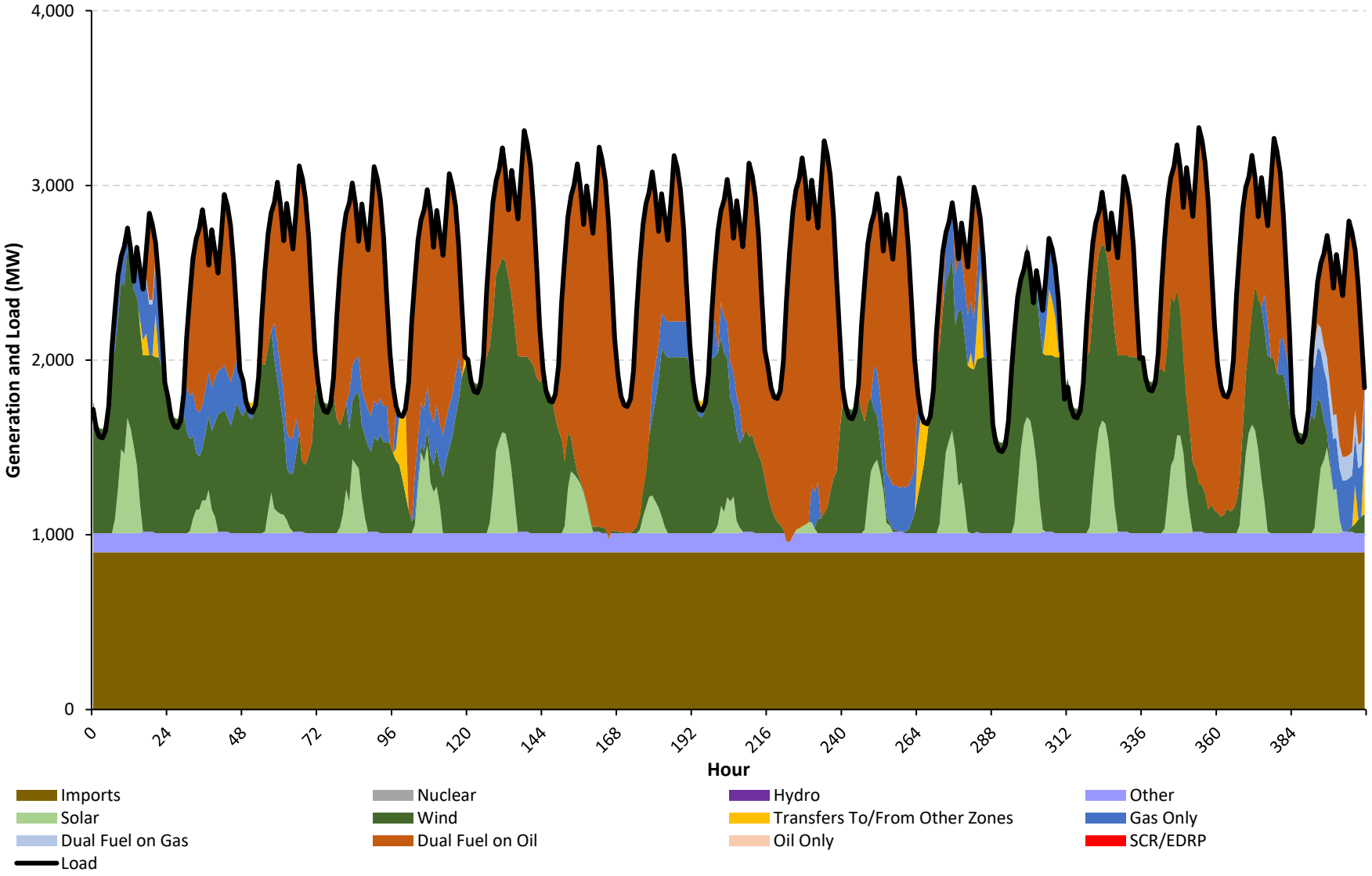
Total MWh of Lost Load

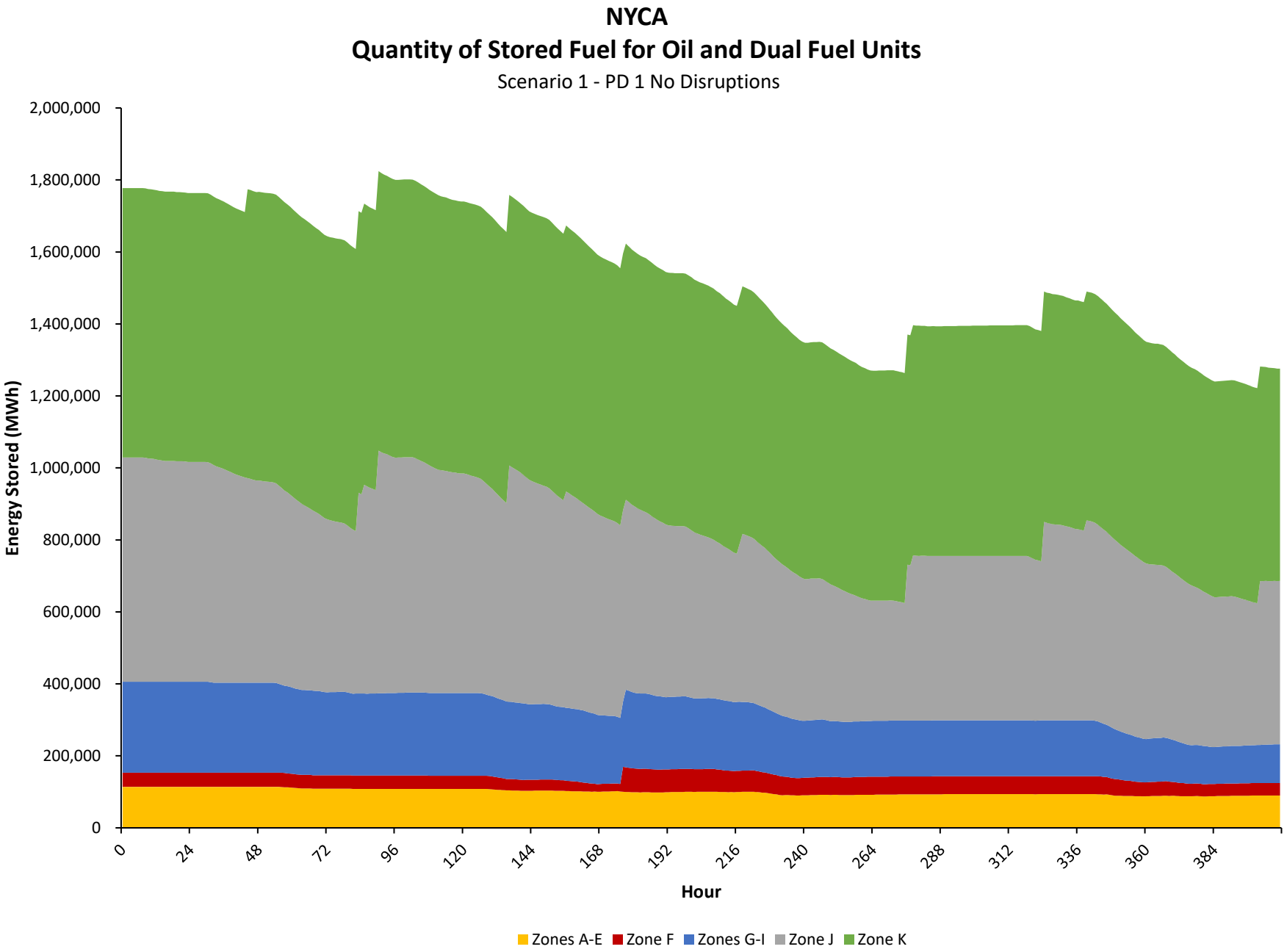


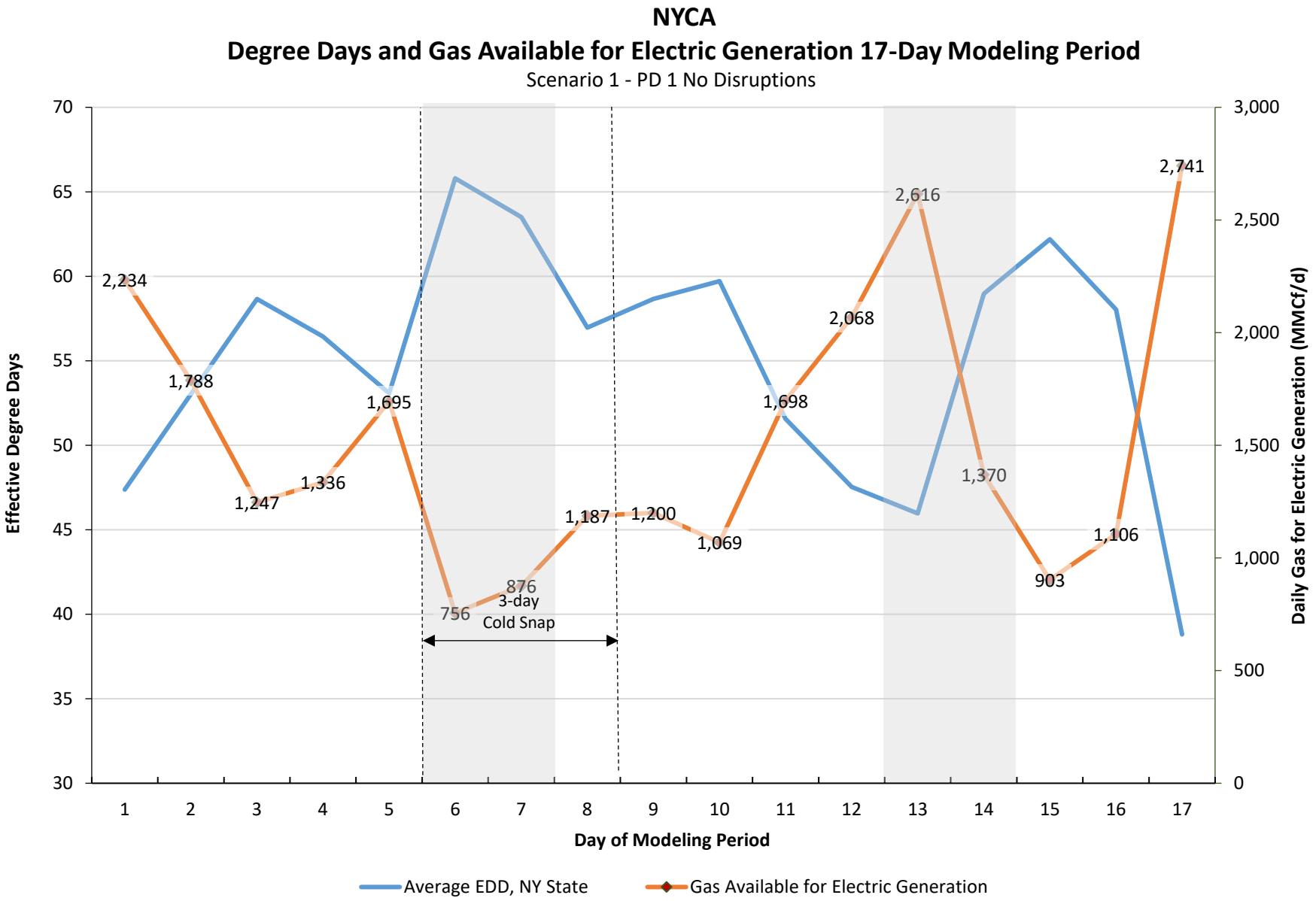

NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 1 - PD 1 No Disruptions
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging


Zone J
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 1 No Disruptions
Generation and Load (MW)
10,000
8,000
6,000
4,000
2,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Other (Incl. Battery)
Solar
Wind
Transfers To/From Other Zones
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load w/ Charging

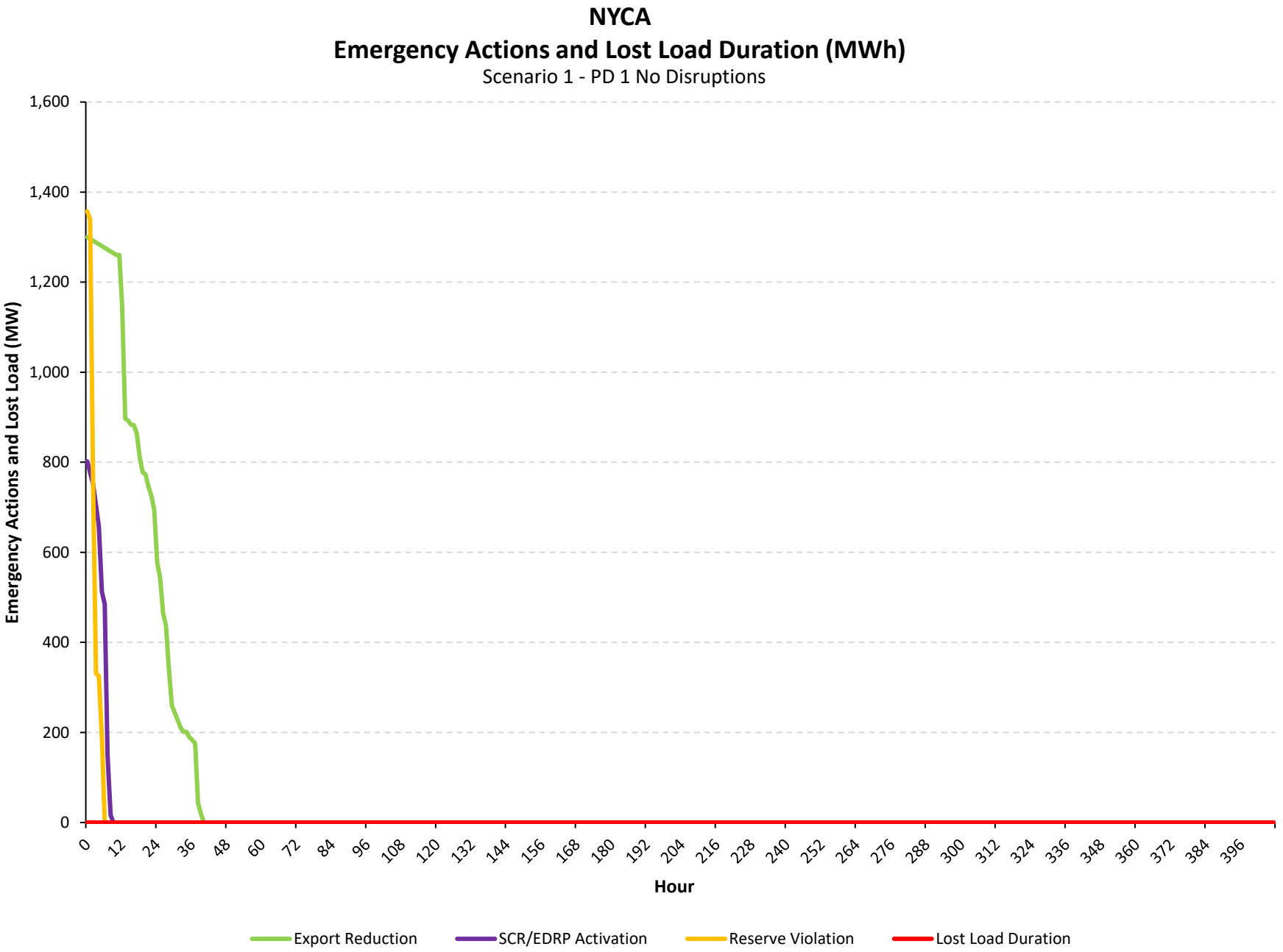
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 1 No Disruptions

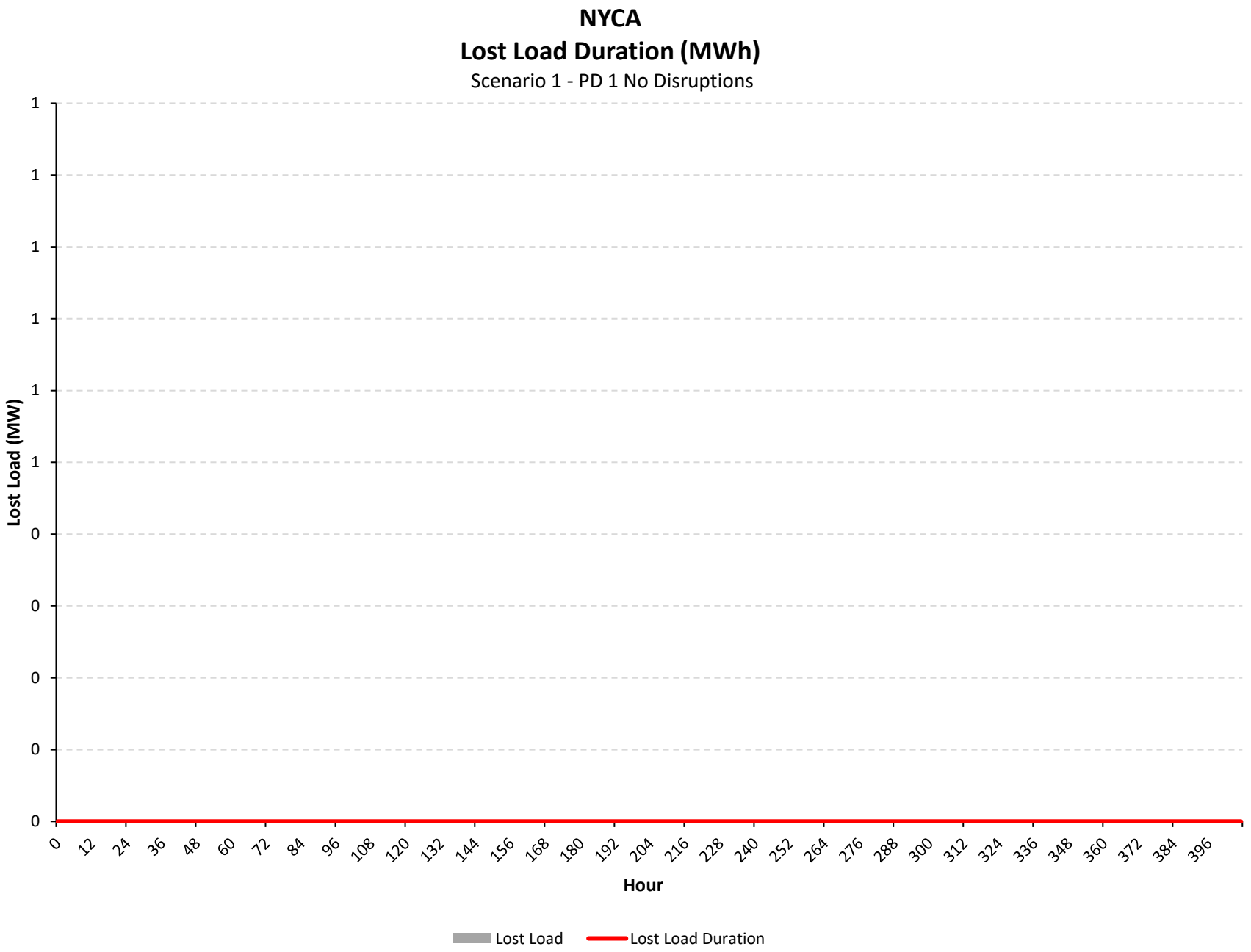



NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 1 - PD 1 No Disruptions
Energy Stored (MWh)
2,000,000
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Zones A-E
Zone F
Zones G-I
Zone J
Zone K



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 1 - PD 1 No Disruptions
Emergency Actions and Lost Load (MW)
1,600
1,400
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 1 - PD 1 No Disruptions
Lost Load (MW)
1
1
1
1
1
1
0
0
0
0
0
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

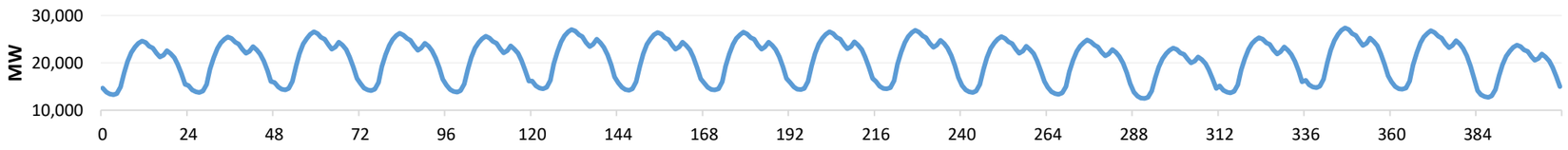
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 2 High Outage (Winter 2026/2027)

Hourly Results Summary

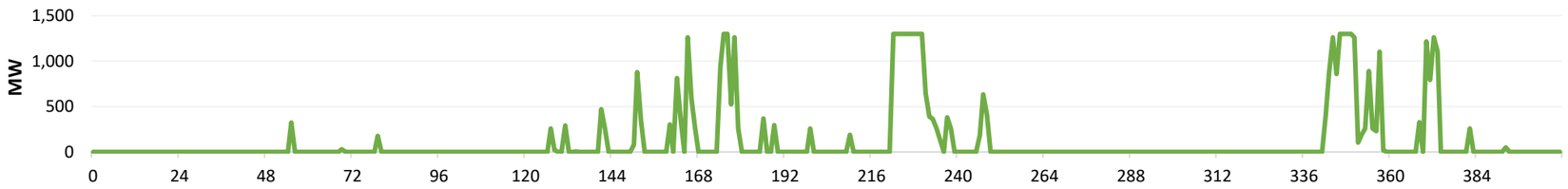
Case Name: Scenario 1 - PD 2 High Outage

Load During Modeling Period



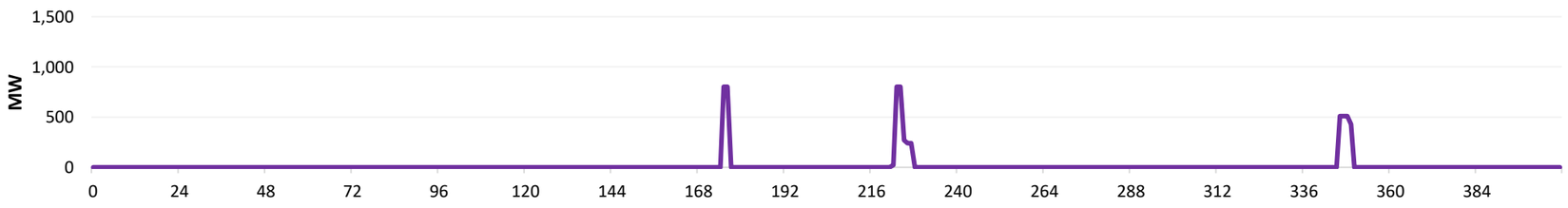
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



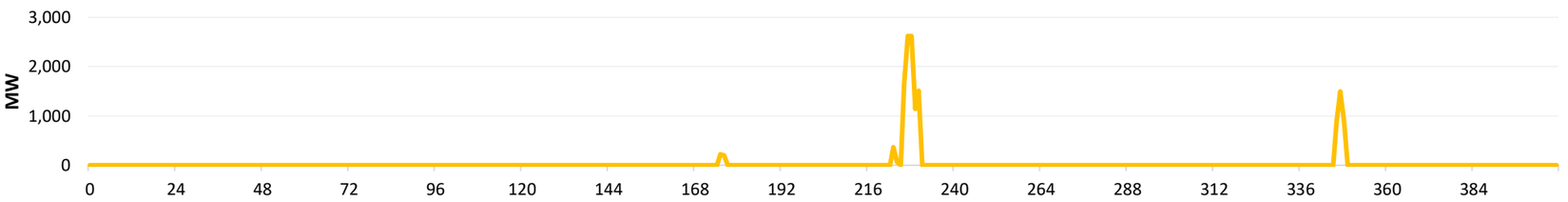
Export Reductions	
Total Hrs.	71
Total MWh	46,717
Avg. MW	114.5

SCR/EDRP Deployed During Modeling Period



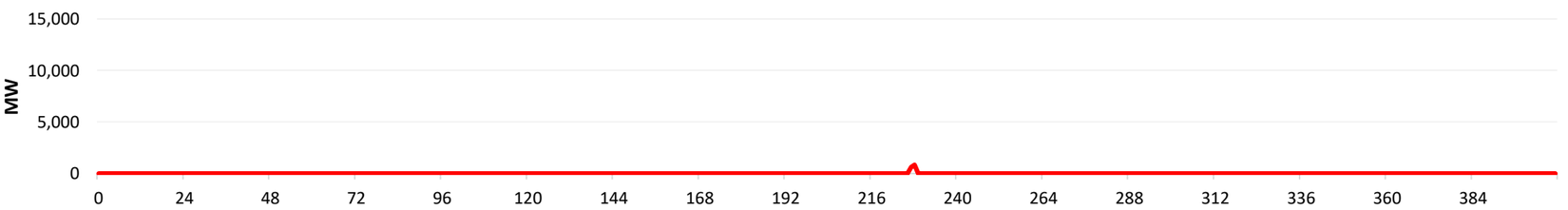
SCR Deployment	
Total Hrs.	12
Total MWh	5,939
Avg. MW	14.6

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	12
Total MWh	13,644
Avg. MW	33.4
First Hour with Viol.	175

Loss of Load During Modeling Period



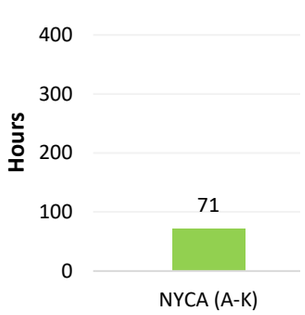
Loss of Load	
Total Hrs.	2
Total MWh	1,473
Avg. MW	3.6
First Hour with Losses	227

Full Period Results Summary

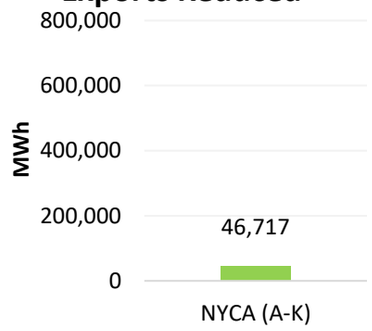
Case Name: Scenario 1 - PD 2 High Outage

Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

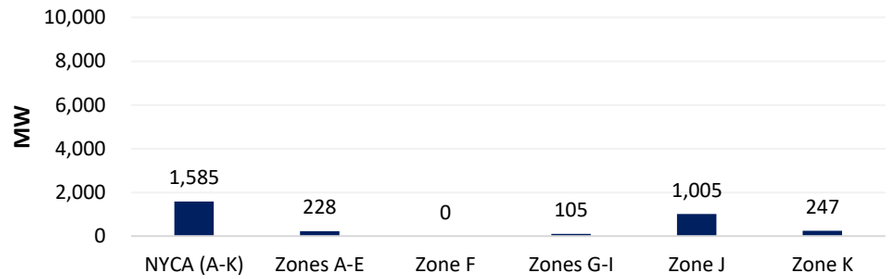
Hours Exports Reduced



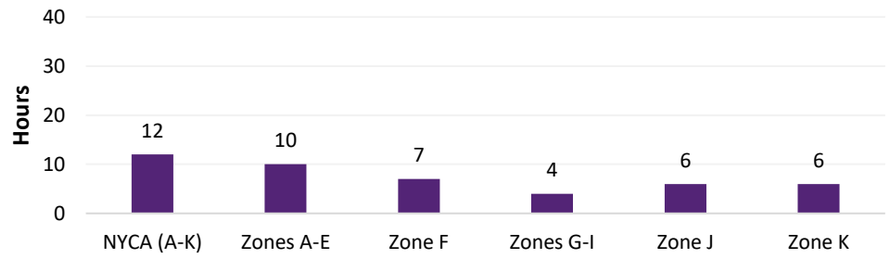
Total MWh of Exports Reduced



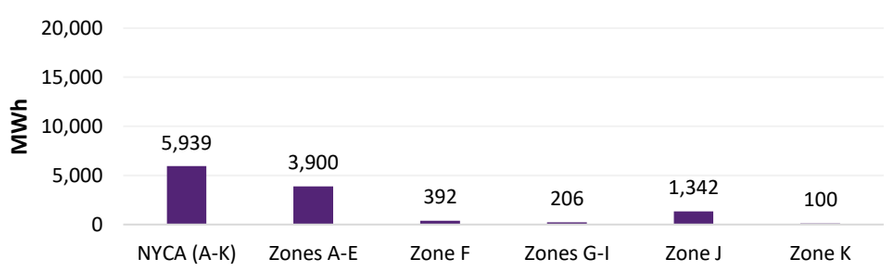
Average Capacity Not Available Due to Exhausted Fuel Inventory



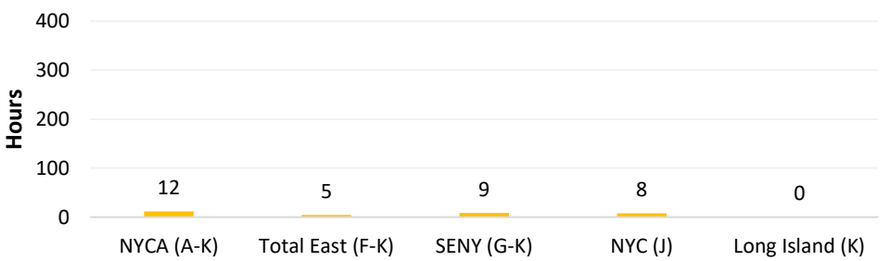
Hours SCR/EDRP Deployed



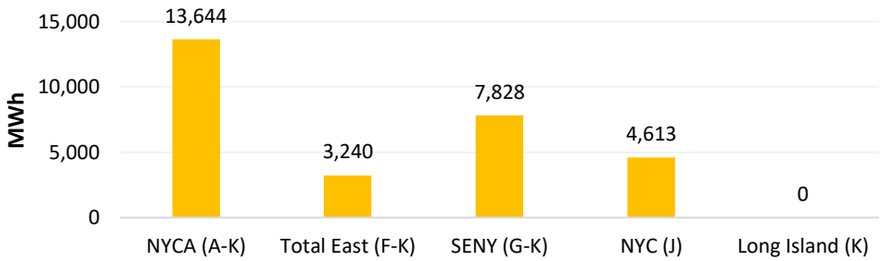
Total MWh SCR/EDRP Deployed



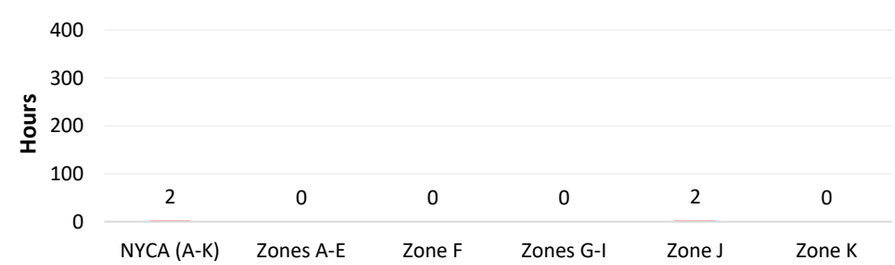
Hours with Reserve Violations



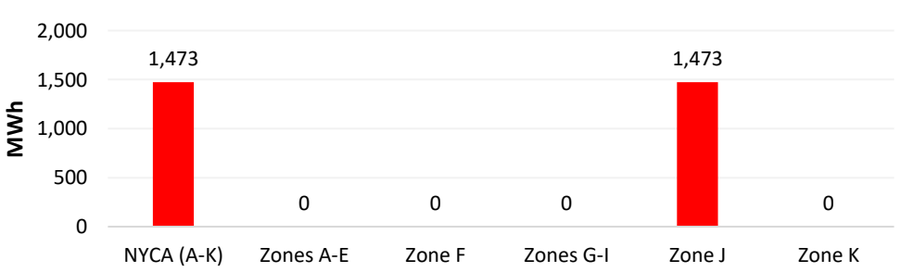
Total MWh of Reserve Violations

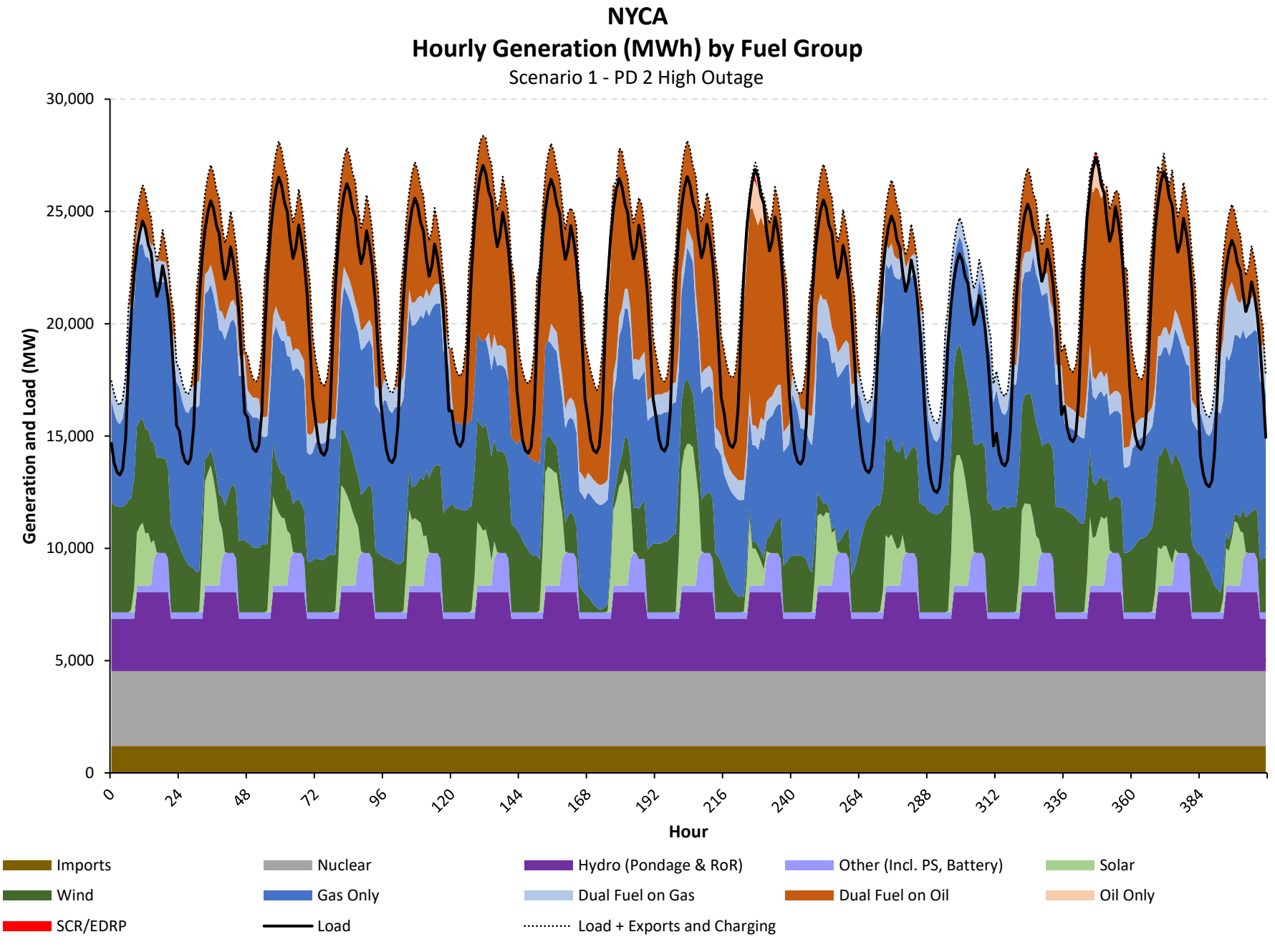


Hours with Loss of Load

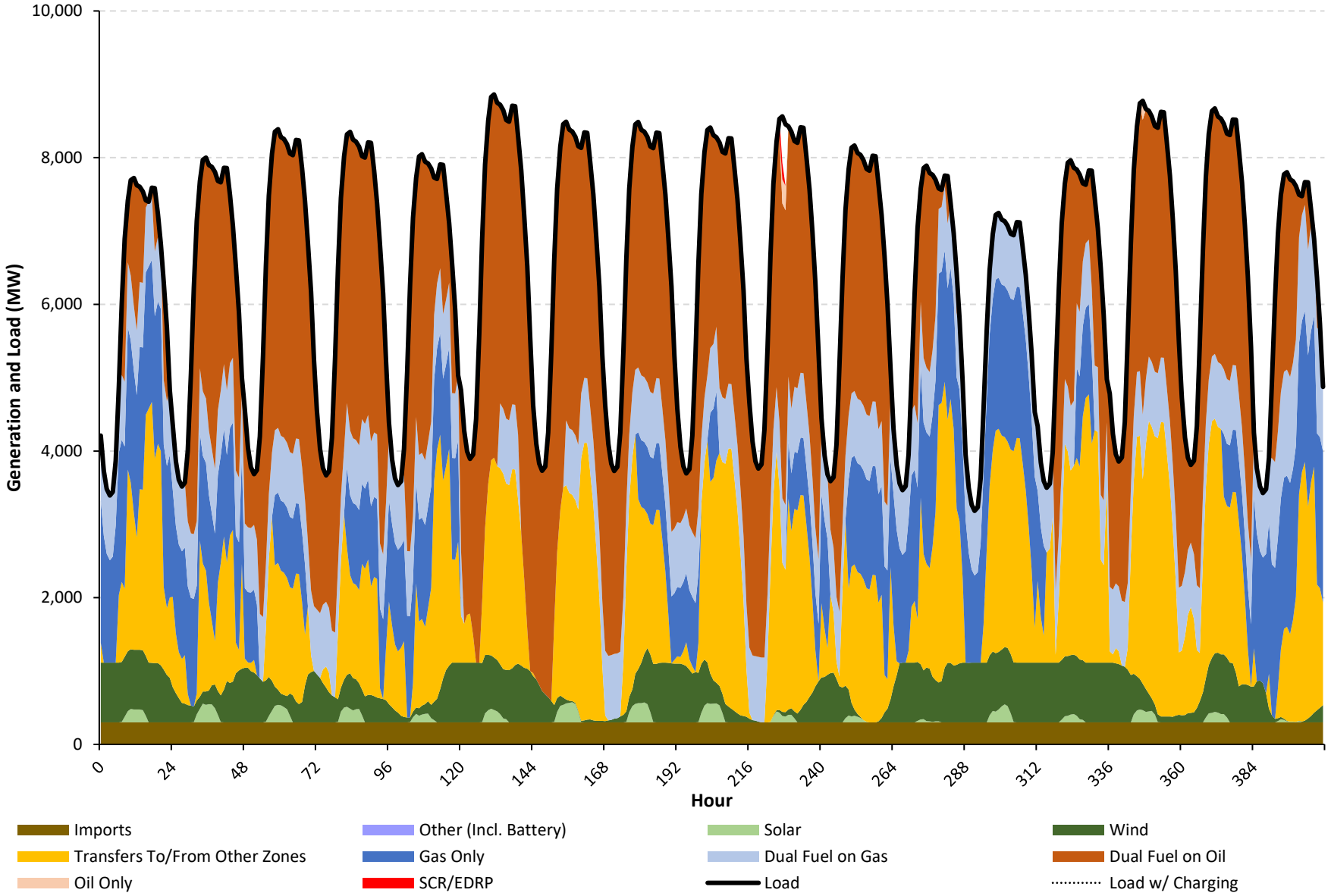


Total MWh of Lost Load

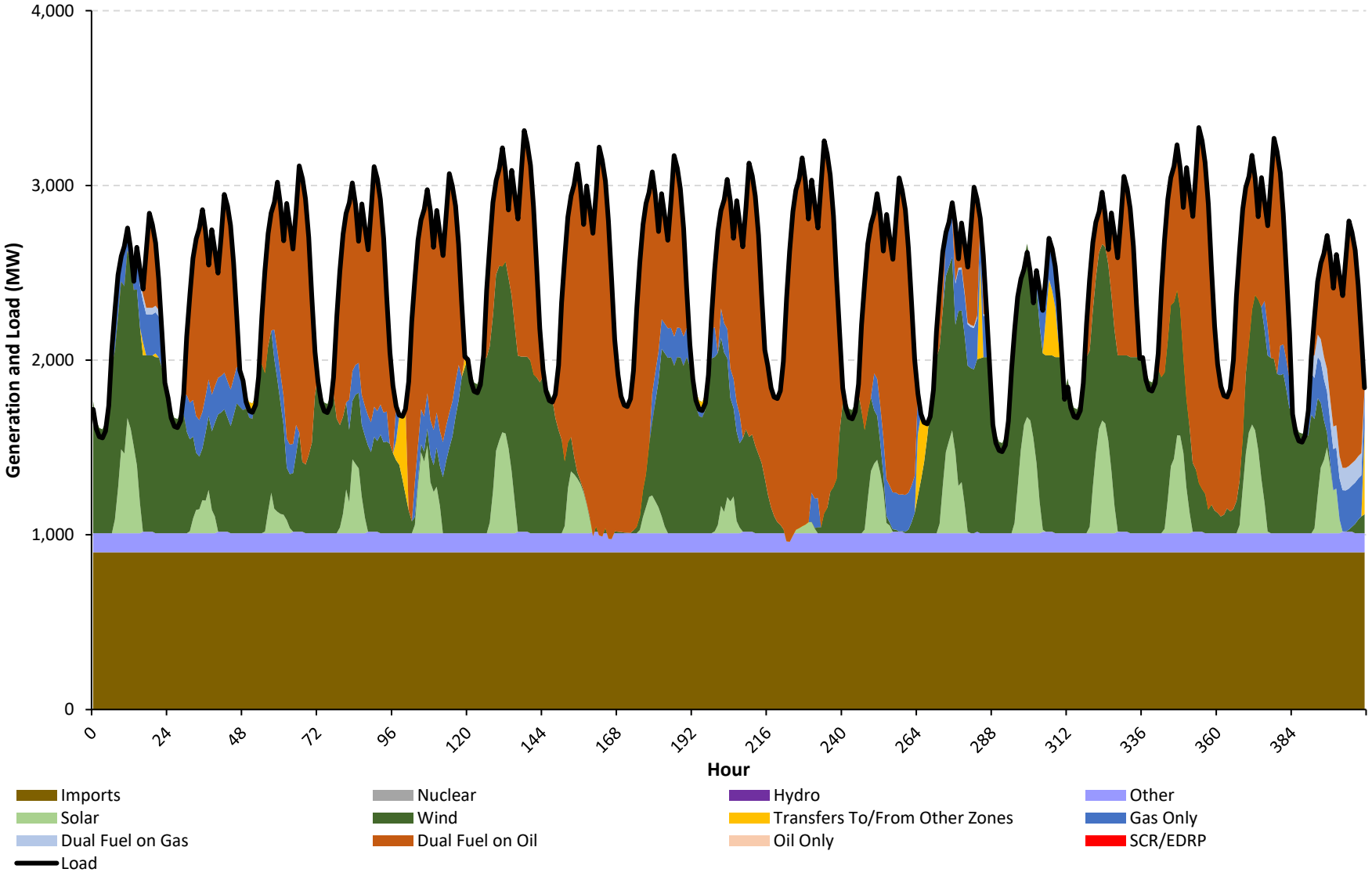


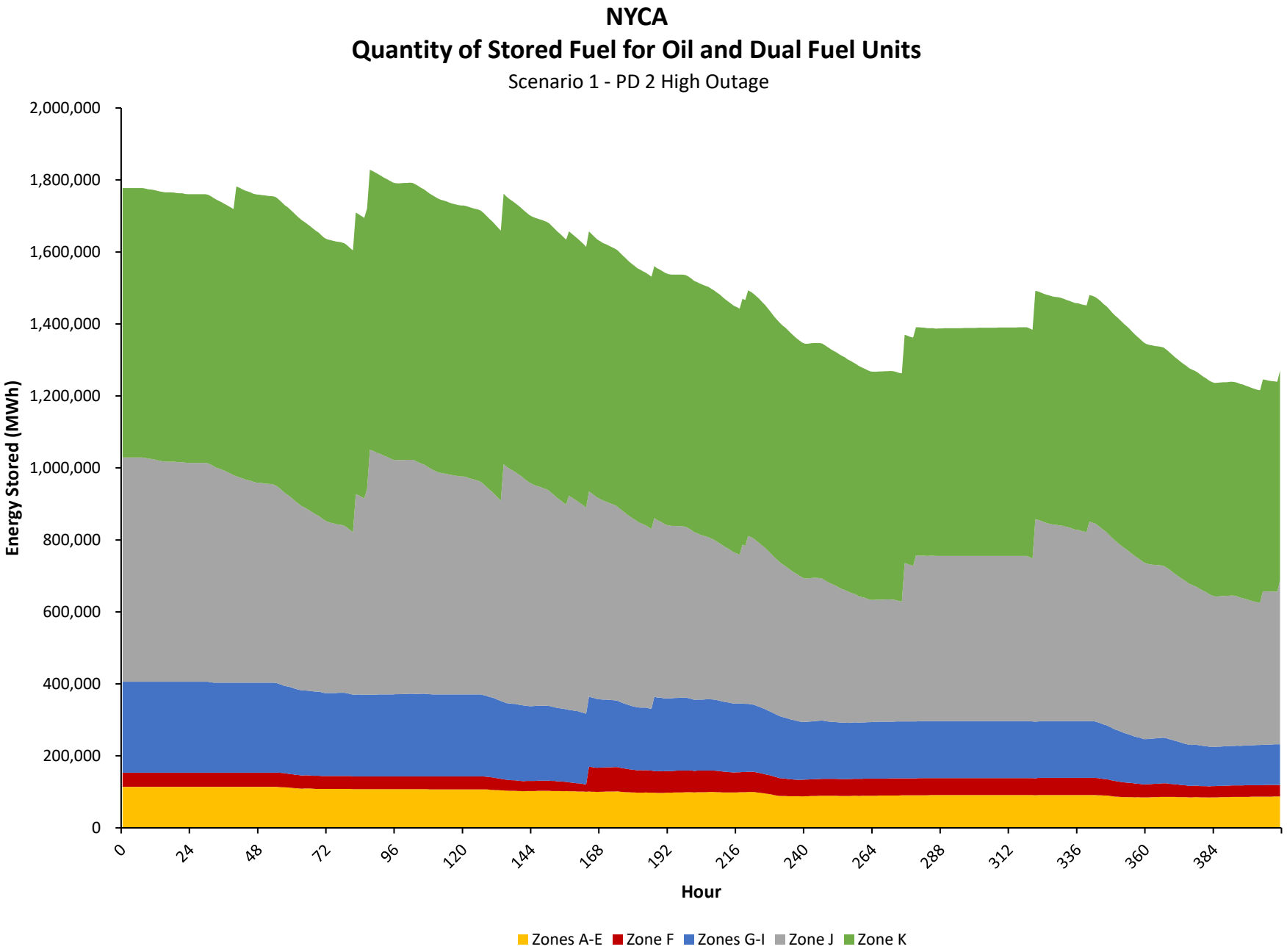

NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 1 - PD 2 High Outage
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

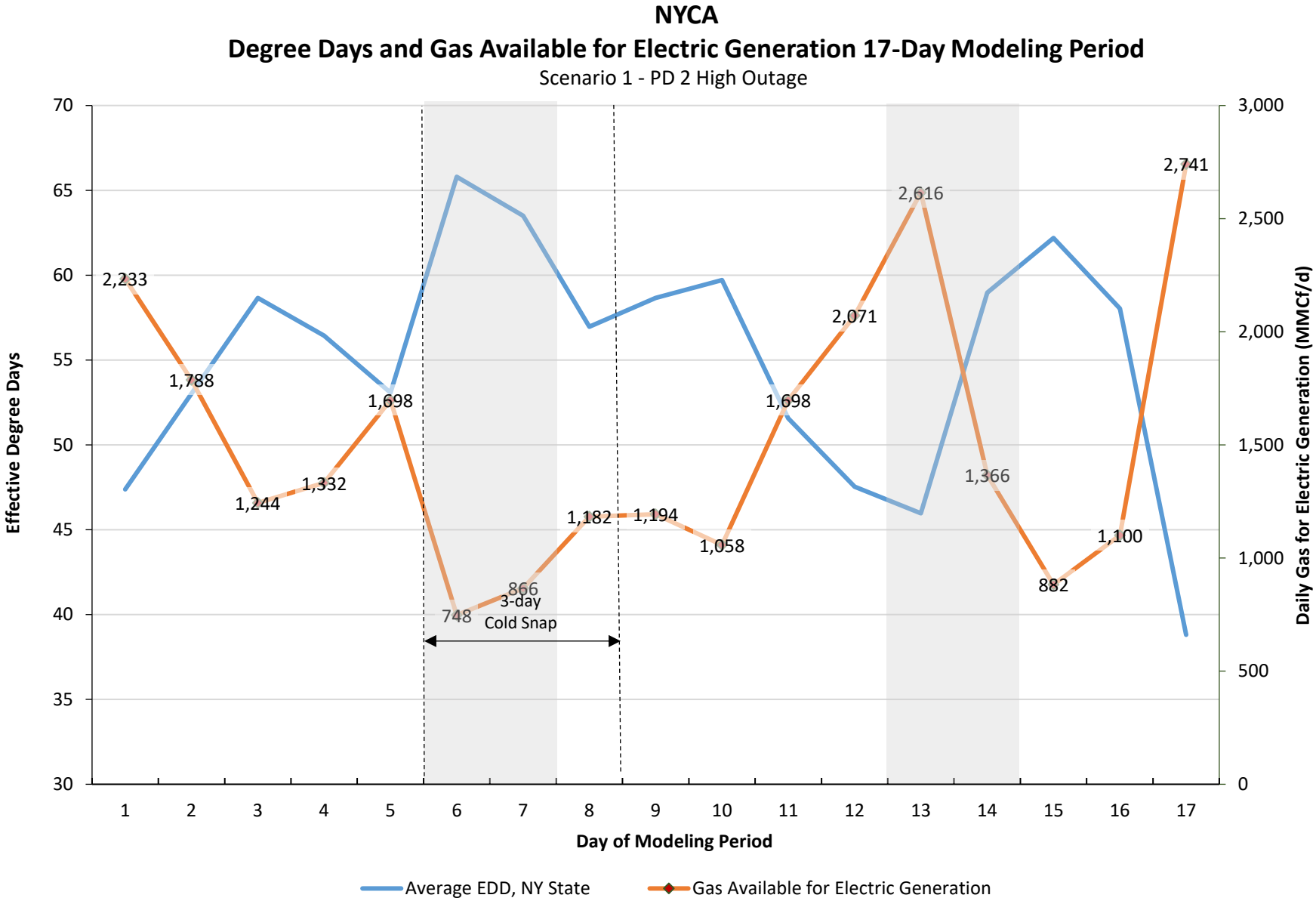
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 2 High Outage



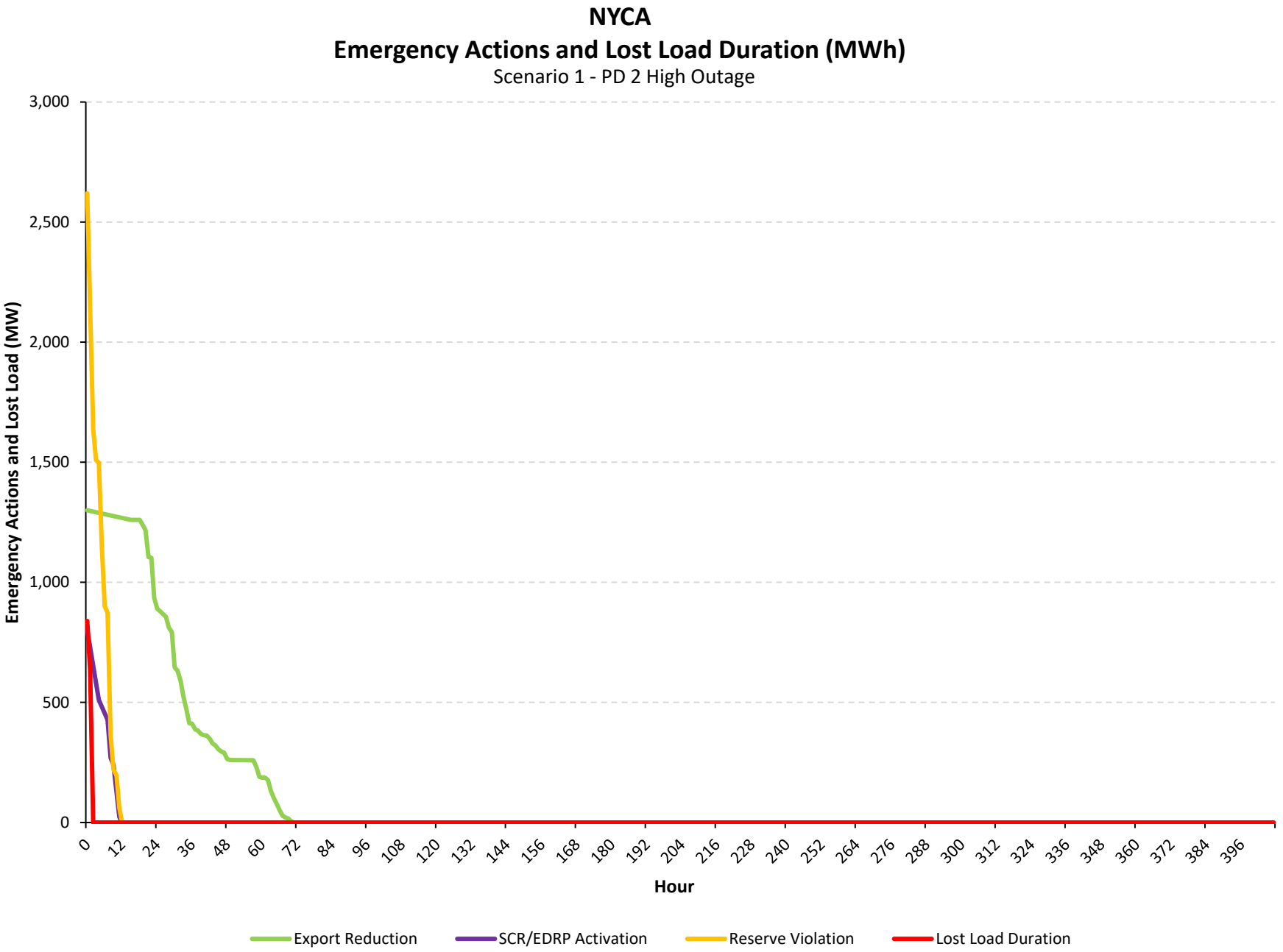
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 2 High Outage

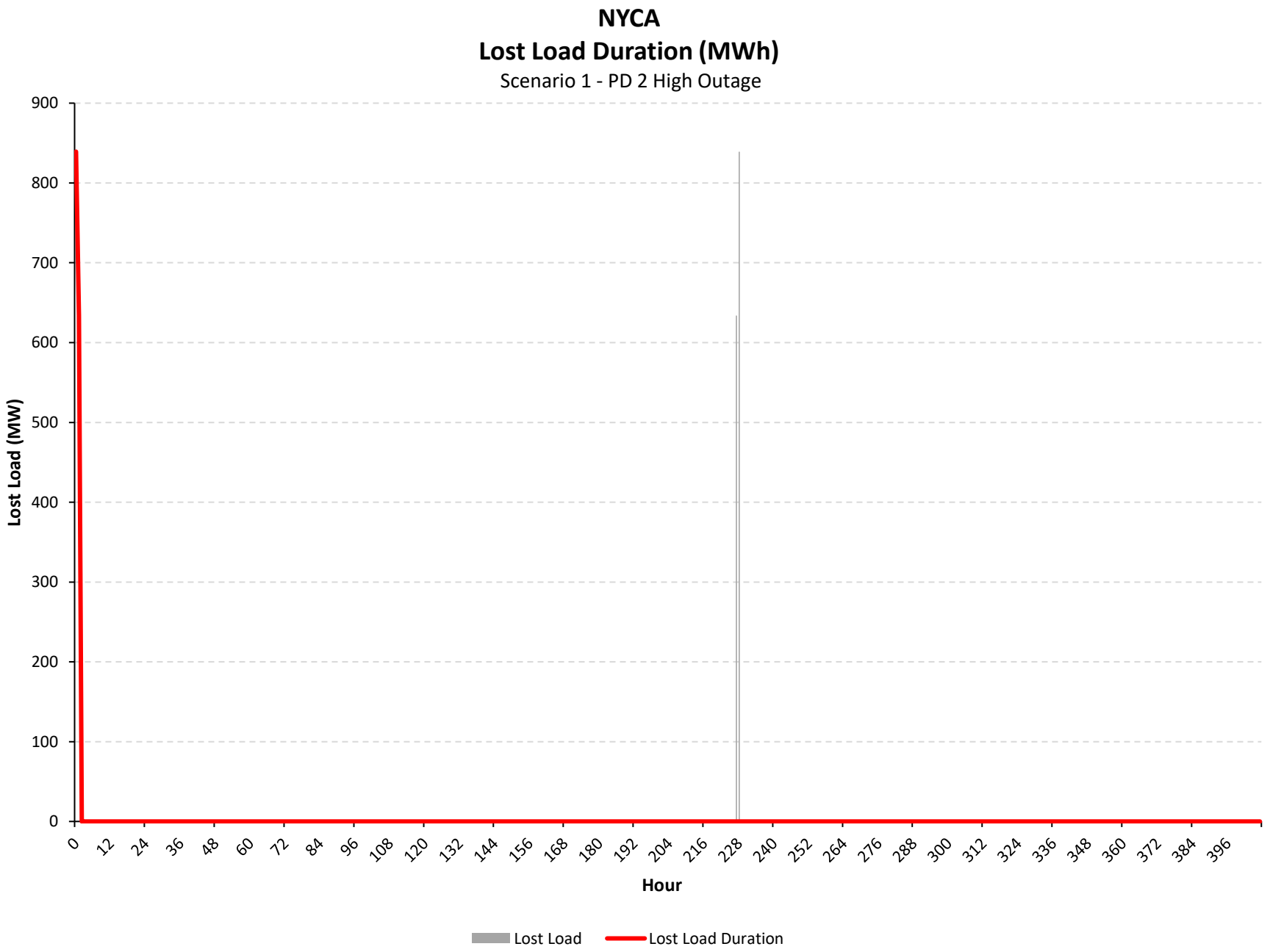



NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 1 - PD 2 High Outage
Energy Stored (MWh)
2,000,000
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Zones A-E
Zone F
Zones G-I
Zone J
Zone K



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 1 - PD 2 High Outage
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 1 - PD 2 High Outage
Lost Load (MW)
900
800
700
600
500
400
300
200
100
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

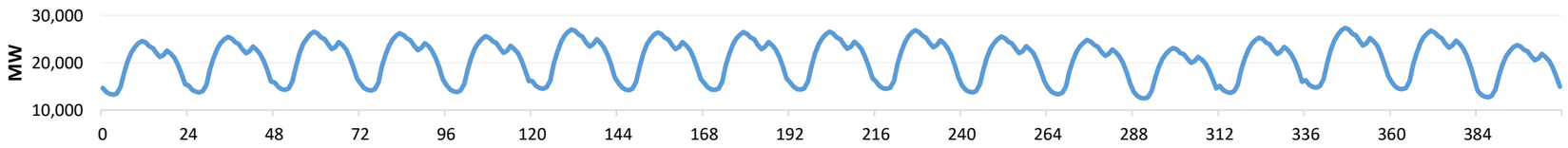
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 3 SENY Deactivation (Winter 2026/2027)

Hourly Results Summary

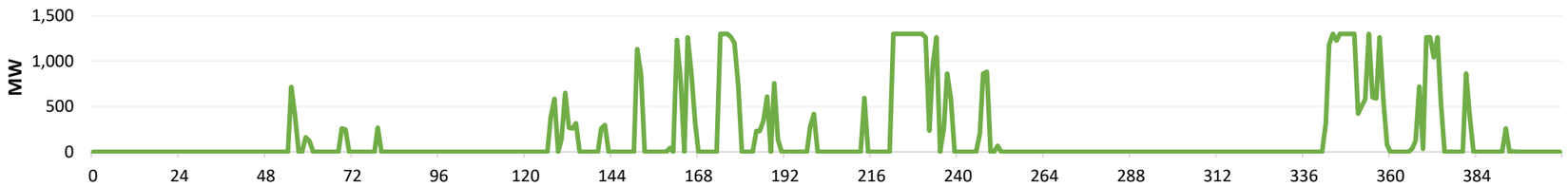
Case Name: Scenario 1 - PD 3 SENY Deactivation

Load During Modeling Period



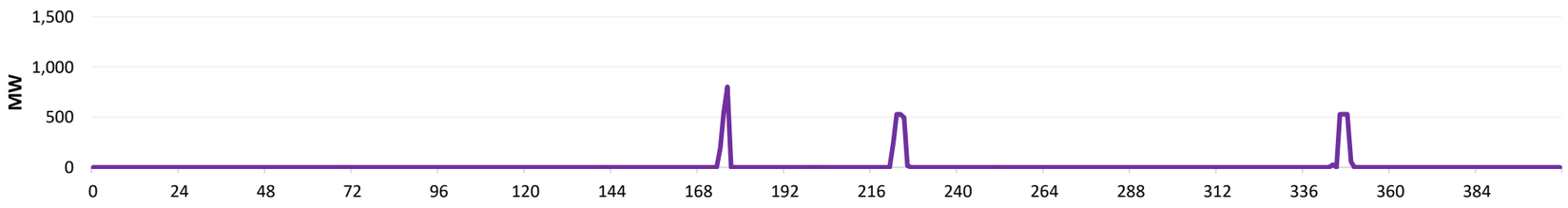
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



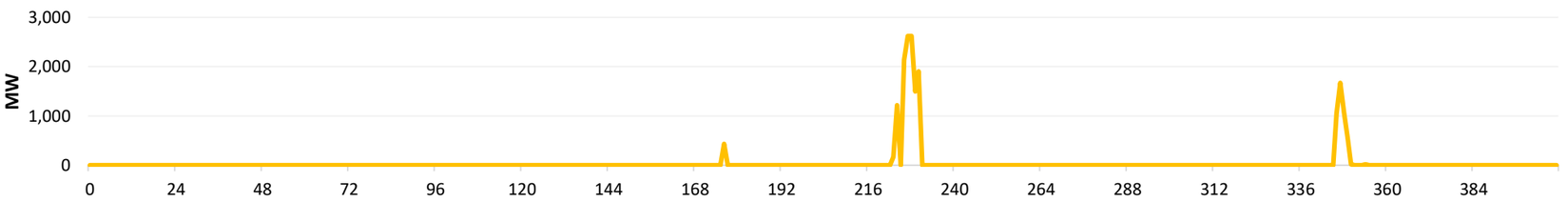
Export Reductions	
Total Hrs.	90
Total MWh	65,858
Avg. MW	161.4

SCR/EDRP Deployed During Modeling Period



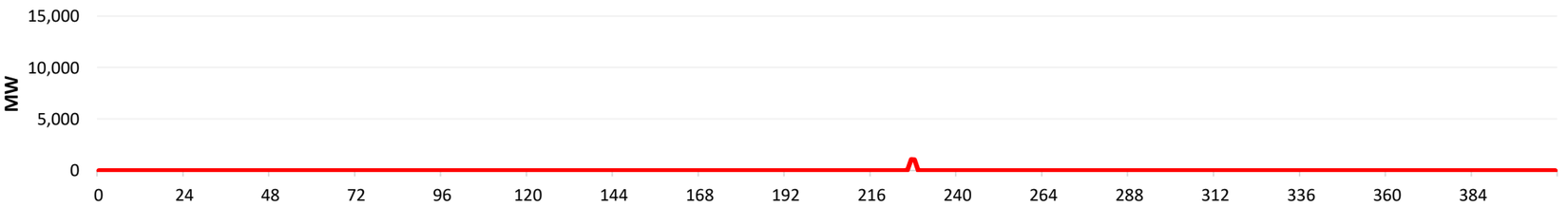
SCR Deployment	
Total Hrs.	13
Total MWh	5,022
Avg. MW	12.3

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	14
Total MWh	16,972
Avg. MW	41.6
First Hour with Viol.	176

Loss of Load During Modeling Period



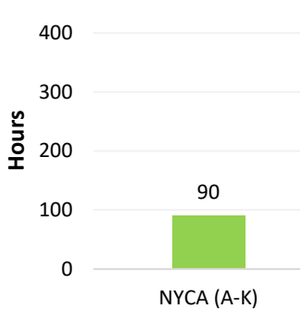
Loss of Load	
Total Hrs.	3
Total MWh	2,209
Avg. MW	5.4
First Hour with Losses	226

Full Period Results Summary

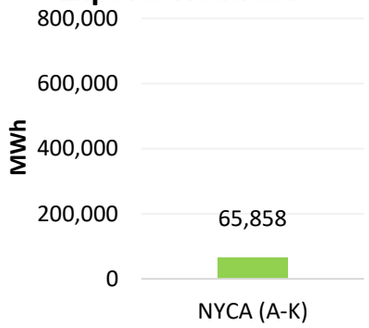
Case Name: Scenario 1 - PD 3 SENY Deactivation

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	All

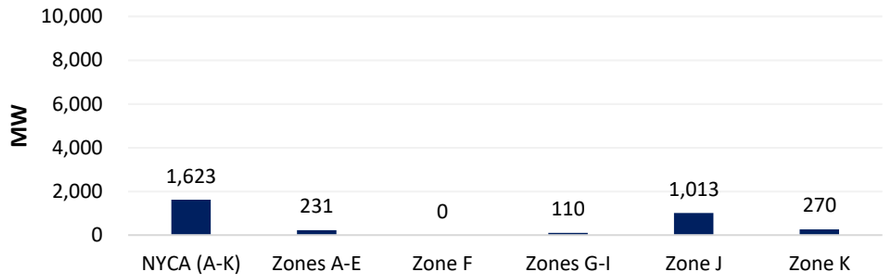
Hours Exports Reduced



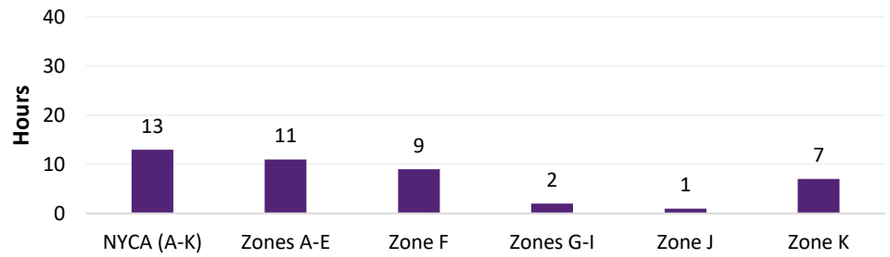
Total MWh of Exports Reduced



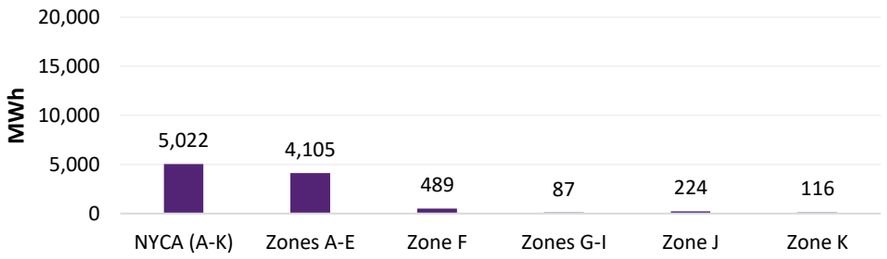
Average Capacity Not Available Due to Exhausted Fuel Inventory



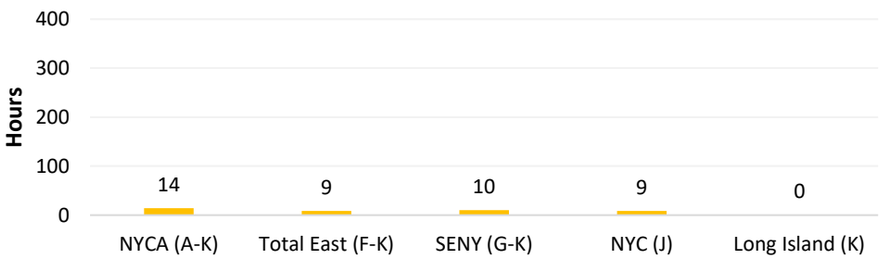
Hours SCR/EDRP Deployed



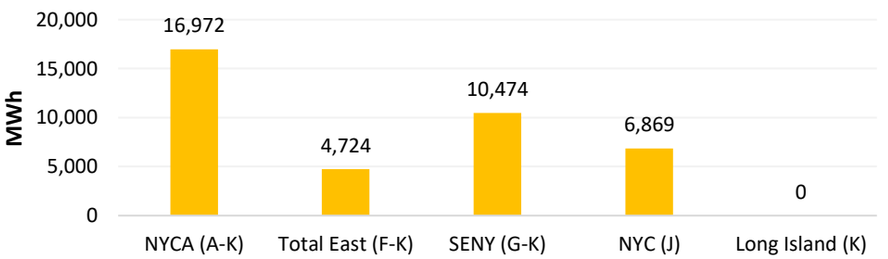
Total MWh SCR/EDRP Deployed



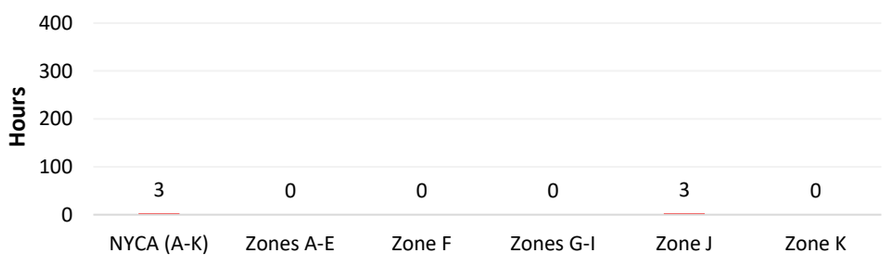
Hours with Reserve Violations



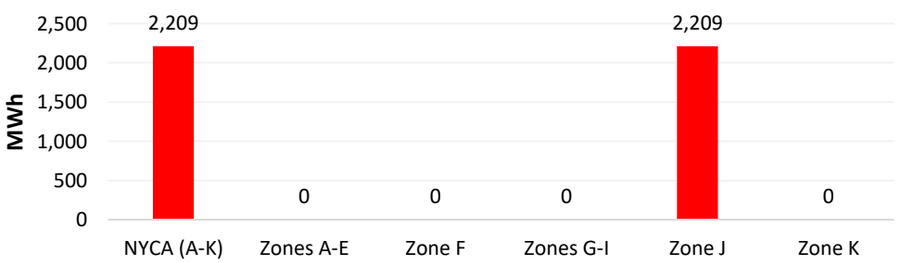
Total MWh of Reserve Violations

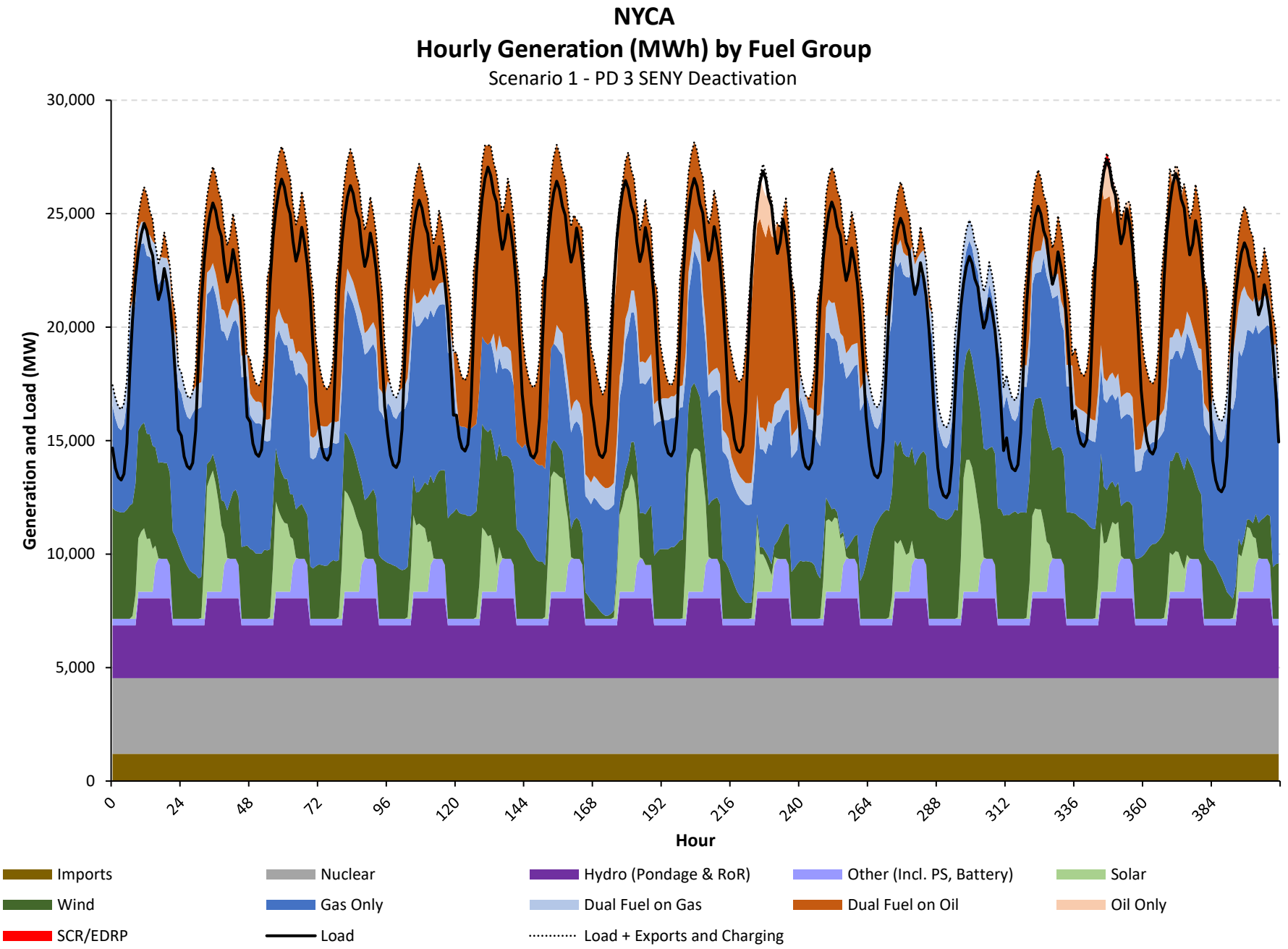


Hours with Loss of Load

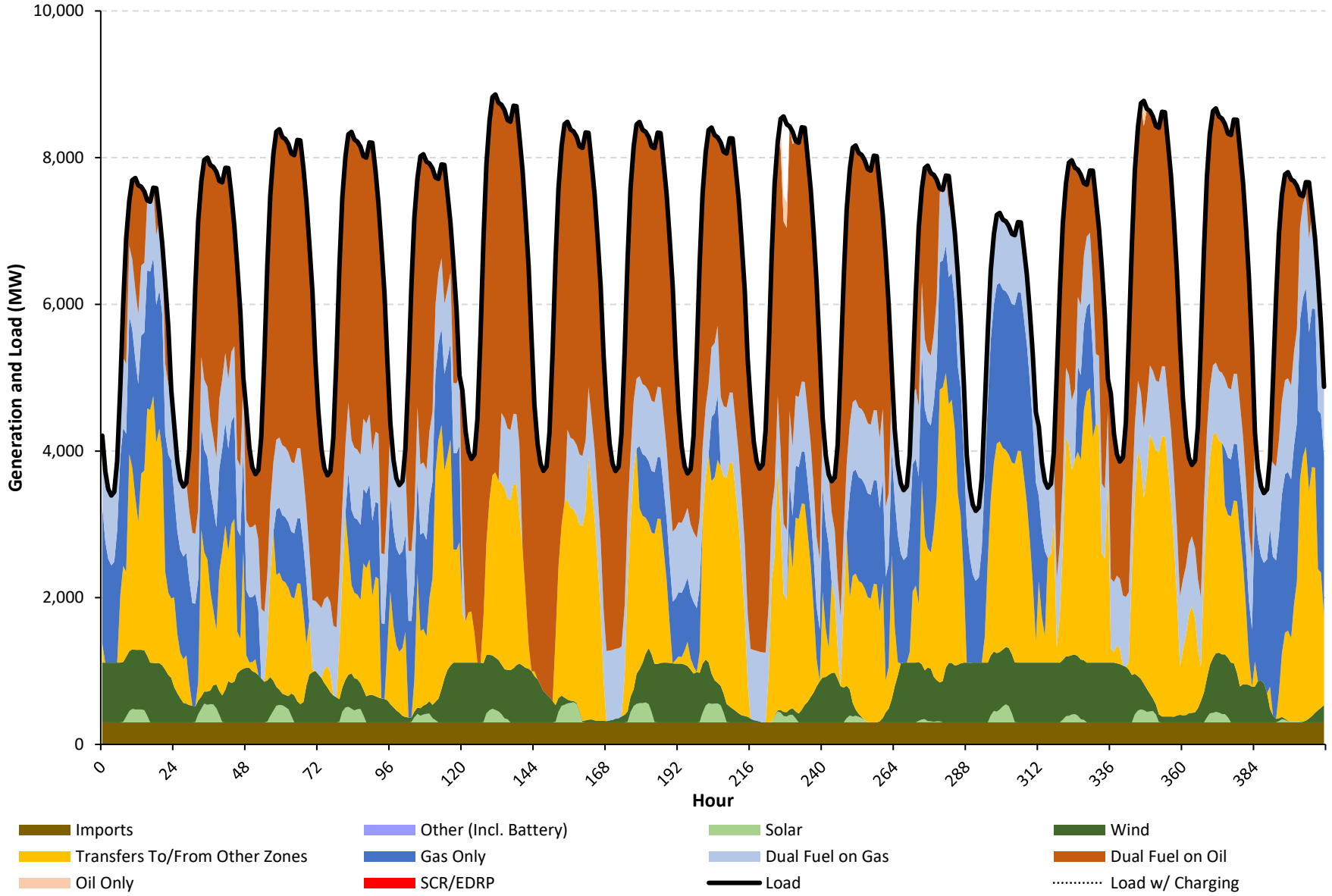


Total MWh of Lost Load

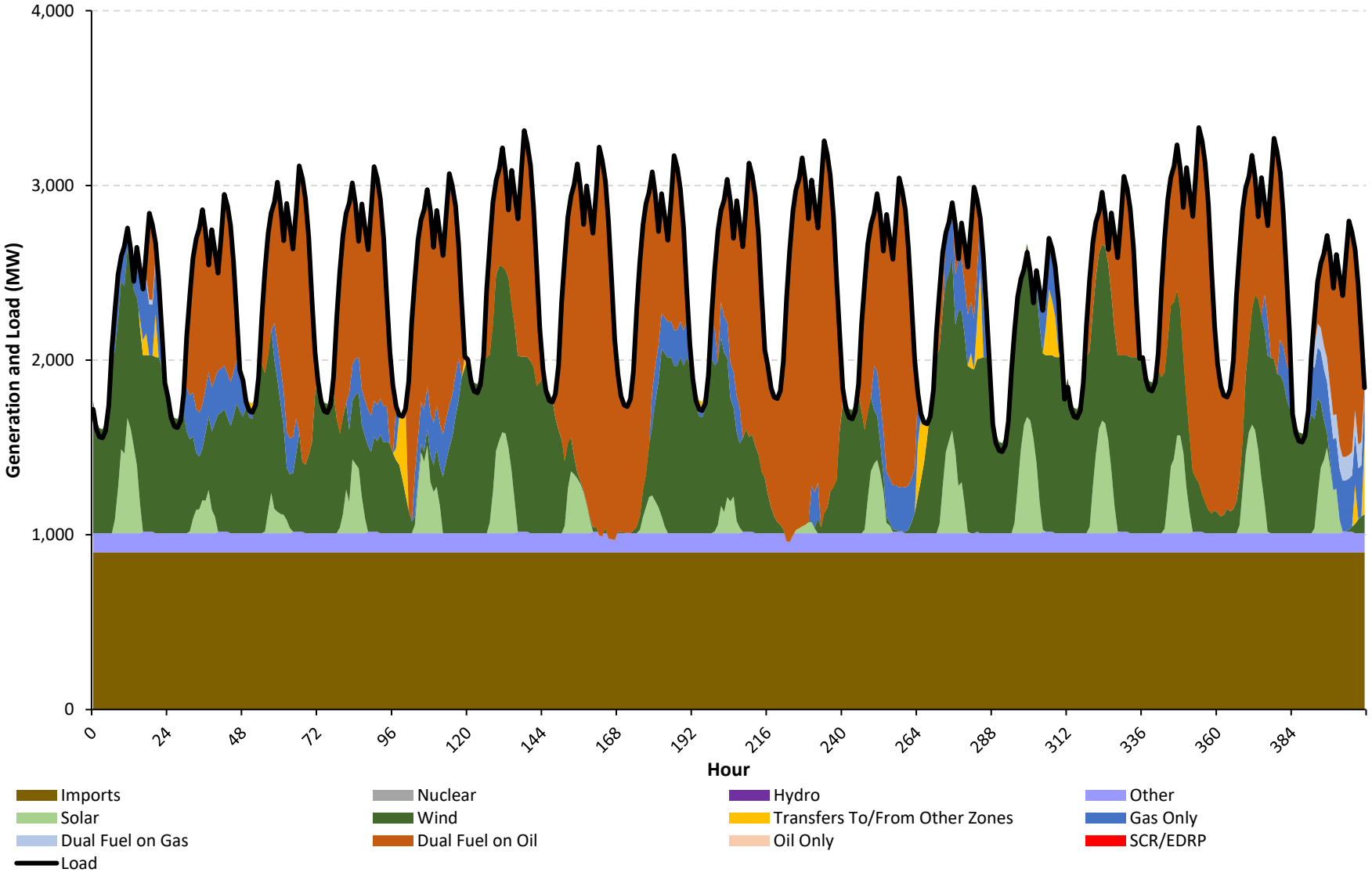



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 1 - PD 3 SENY Deactivation
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 3 SENY Deactivation



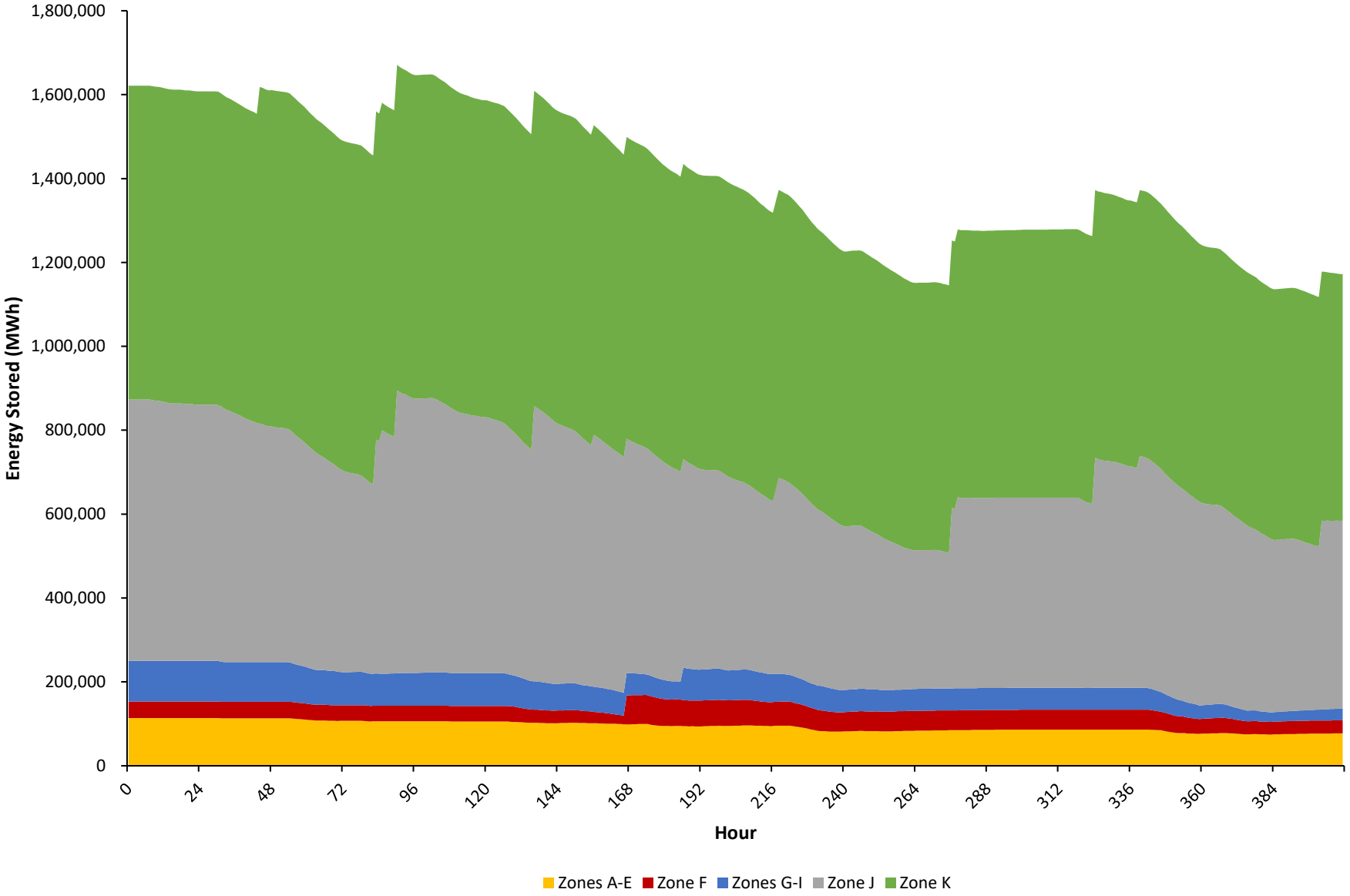
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 3 SENY Deactivation

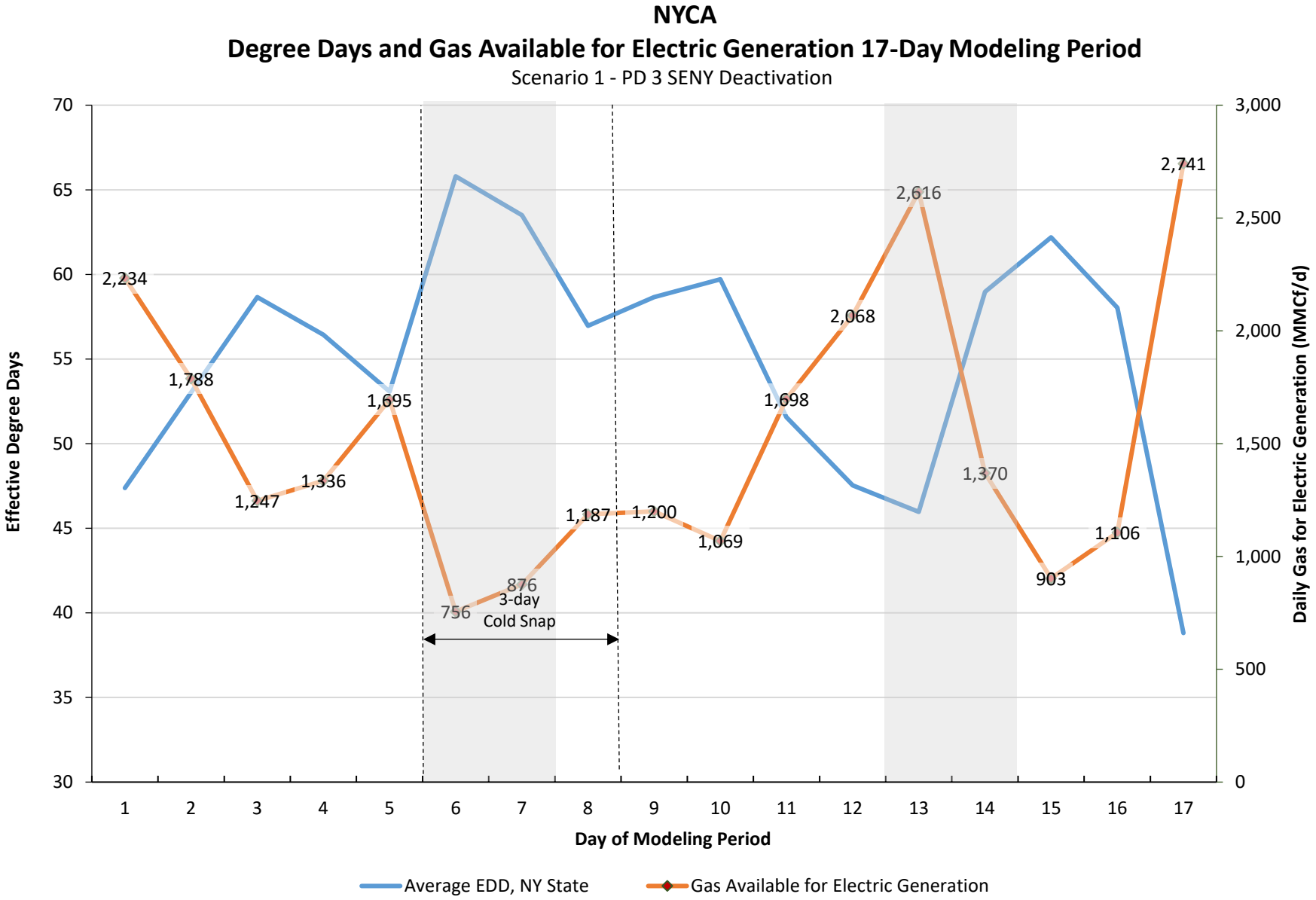


NYCA

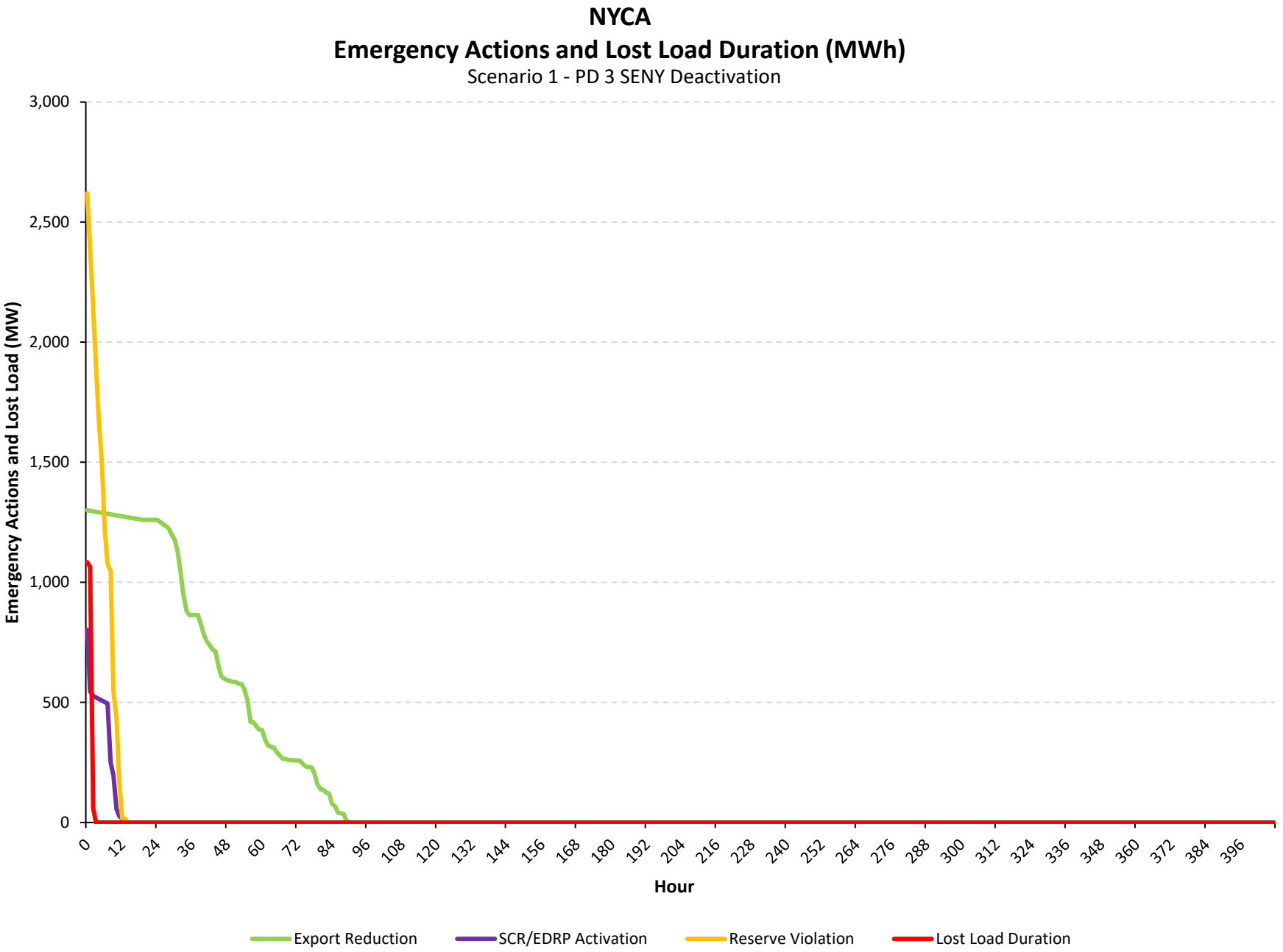
Quantity of Stored Fuel for Oil and Dual Fuel Units

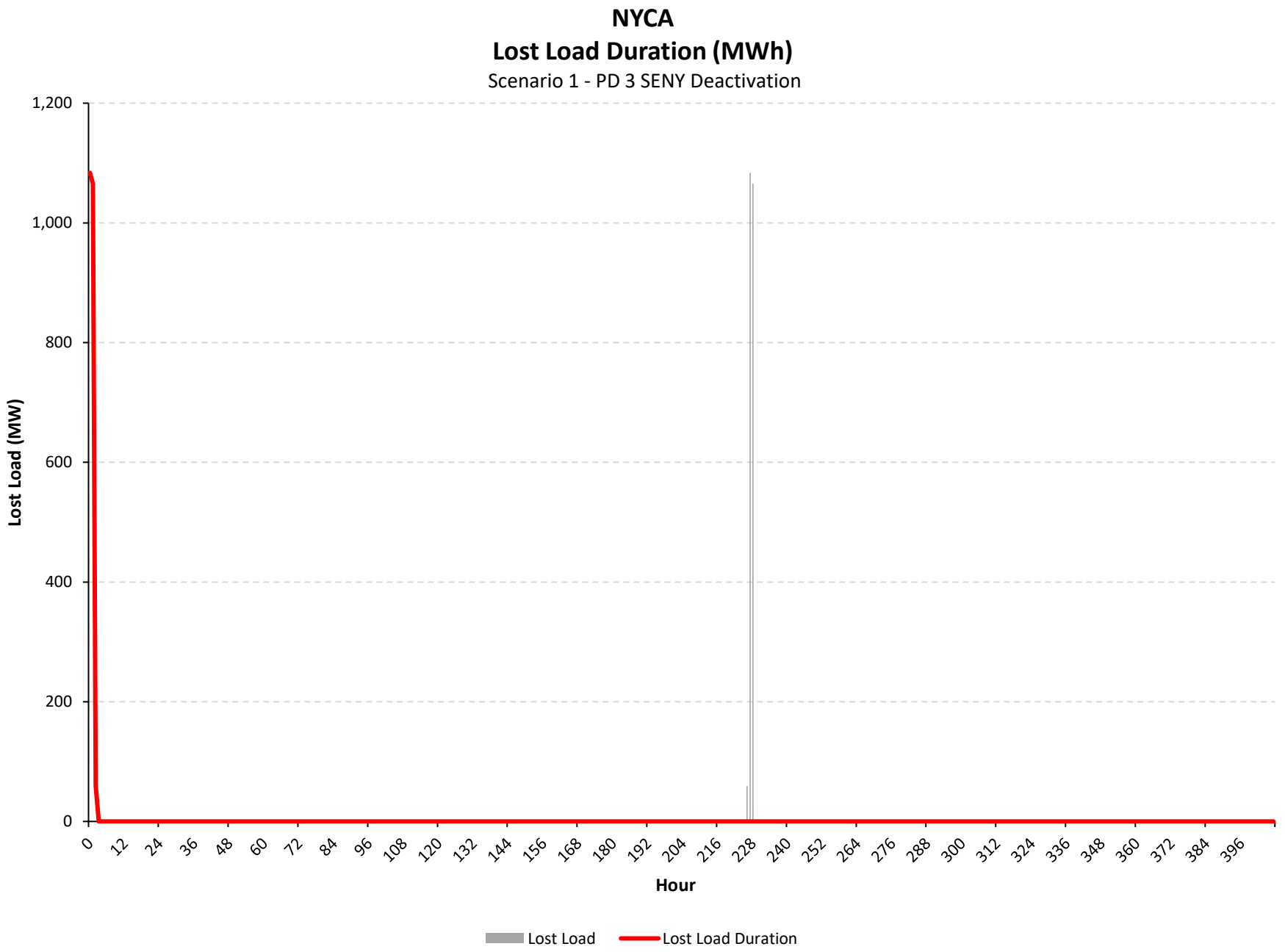
Scenario 1 - PD 3 SENY Deactivation





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 1 - PD 3 SENY Deactivation
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 1 - PD 3 SENY Deactivation
Lost Load (MW)
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

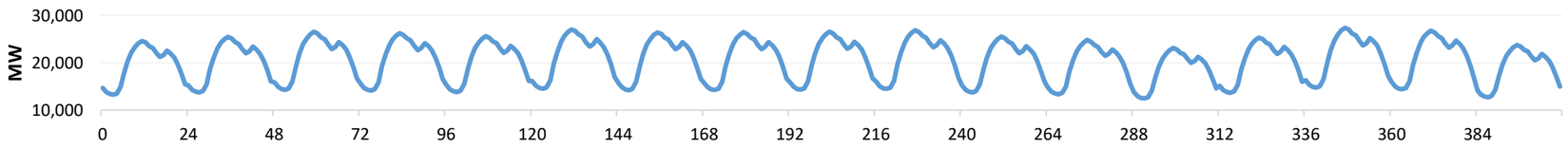
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 4 Nuclear Station Outage (Winter 2026/2027)

Hourly Results Summary

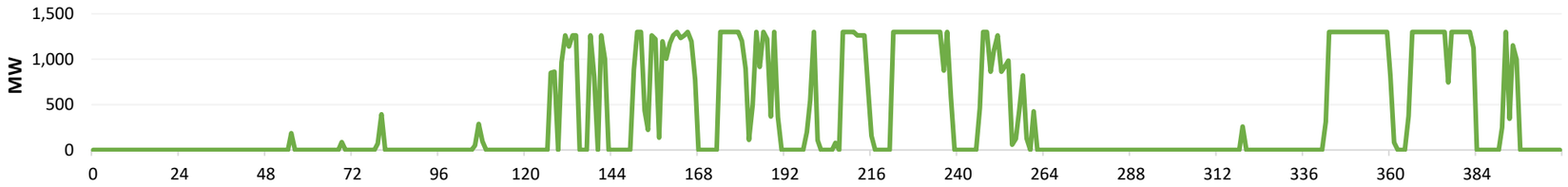
Case Name: Scenario 1 - PD 4 Nuclear Station Outage

Load During Modeling Period



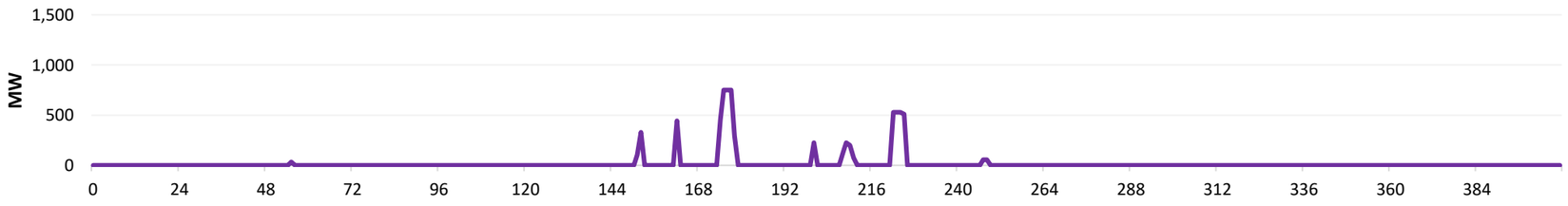
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



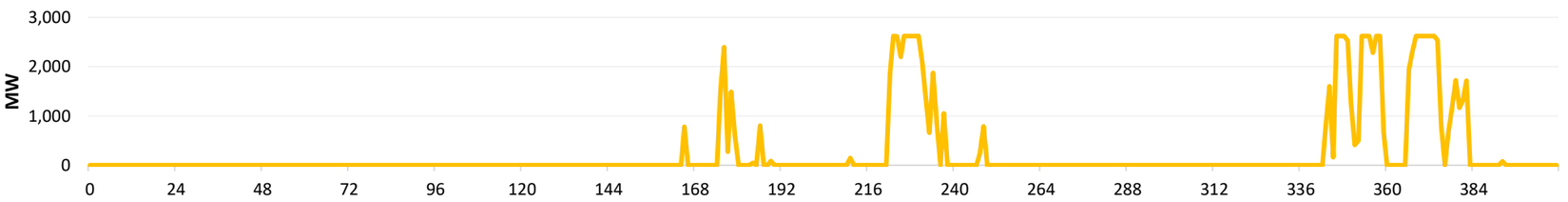
Export Reductions	
Total Hrs.	144
Total MWh	143,508
Avg. MW	351.7

SCR/EDRP Deployed During Modeling Period



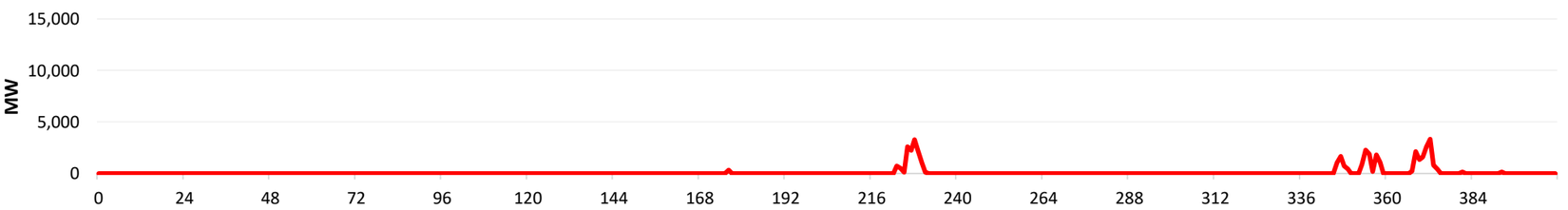
SCR Deployment	
Total Hrs.	20
Total MWh	6,959
Avg. MW	17.1

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	61
Total MWh	101,566
Avg. MW	248.9
First Hour with Viol.	165

Loss of Load During Modeling Period



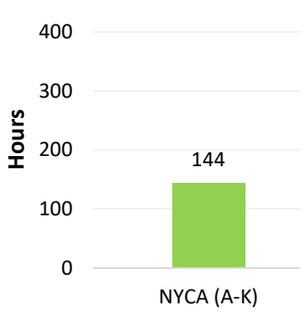
Loss of Load	
Total Hrs.	30
Total MWh	37,952
Avg. MW	93.0
First Hour with Losses	176

Full Period Results Summary

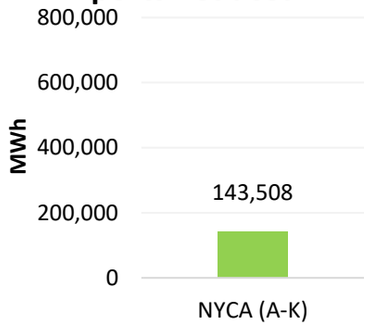
Case Name: Scenario 1 - PD 4 Nuclear Station Outage

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	All

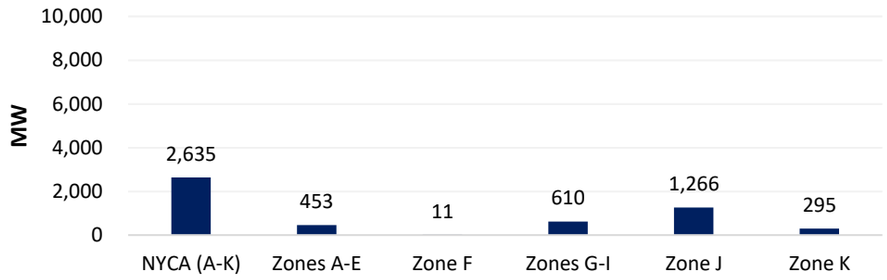
Hours Exports Reduced



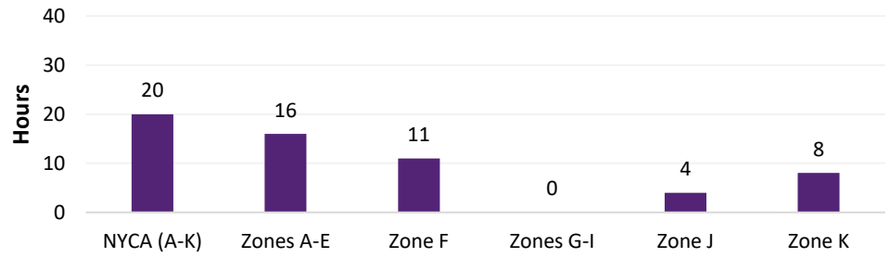
Total MWh of Exports Reduced



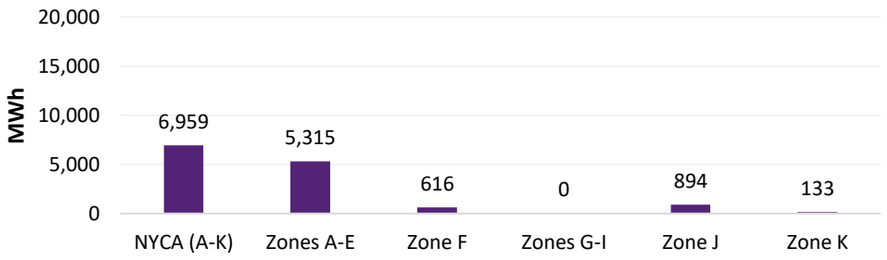
Average Capacity Not Available Due to Exhausted Fuel Inventory



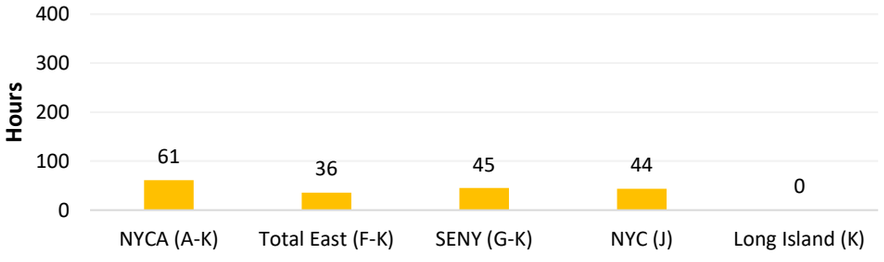
Hours SCR/EDRP Deployed



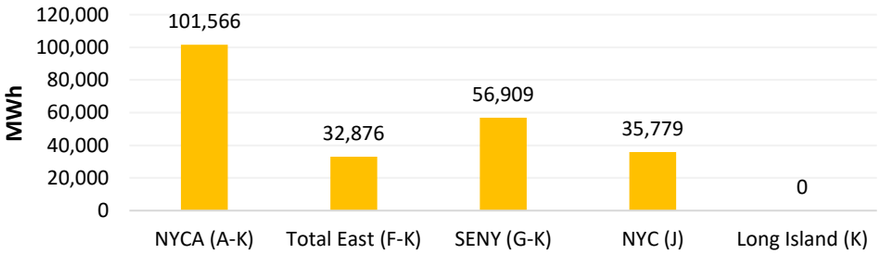
Total MWh SCR/EDRP Deployed



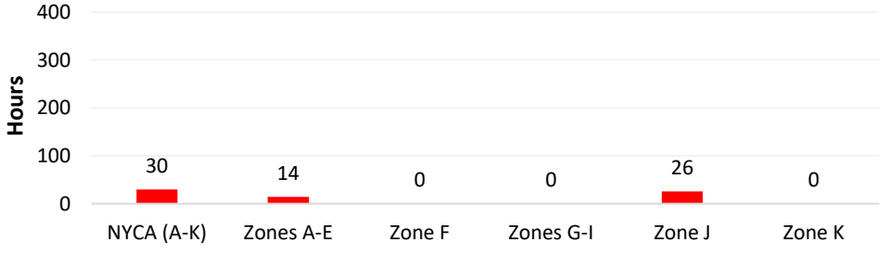
Hours with Reserve Violations



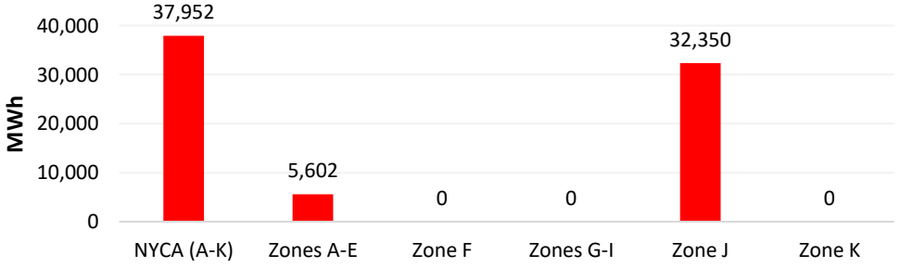
Total MWh of Reserve Violations

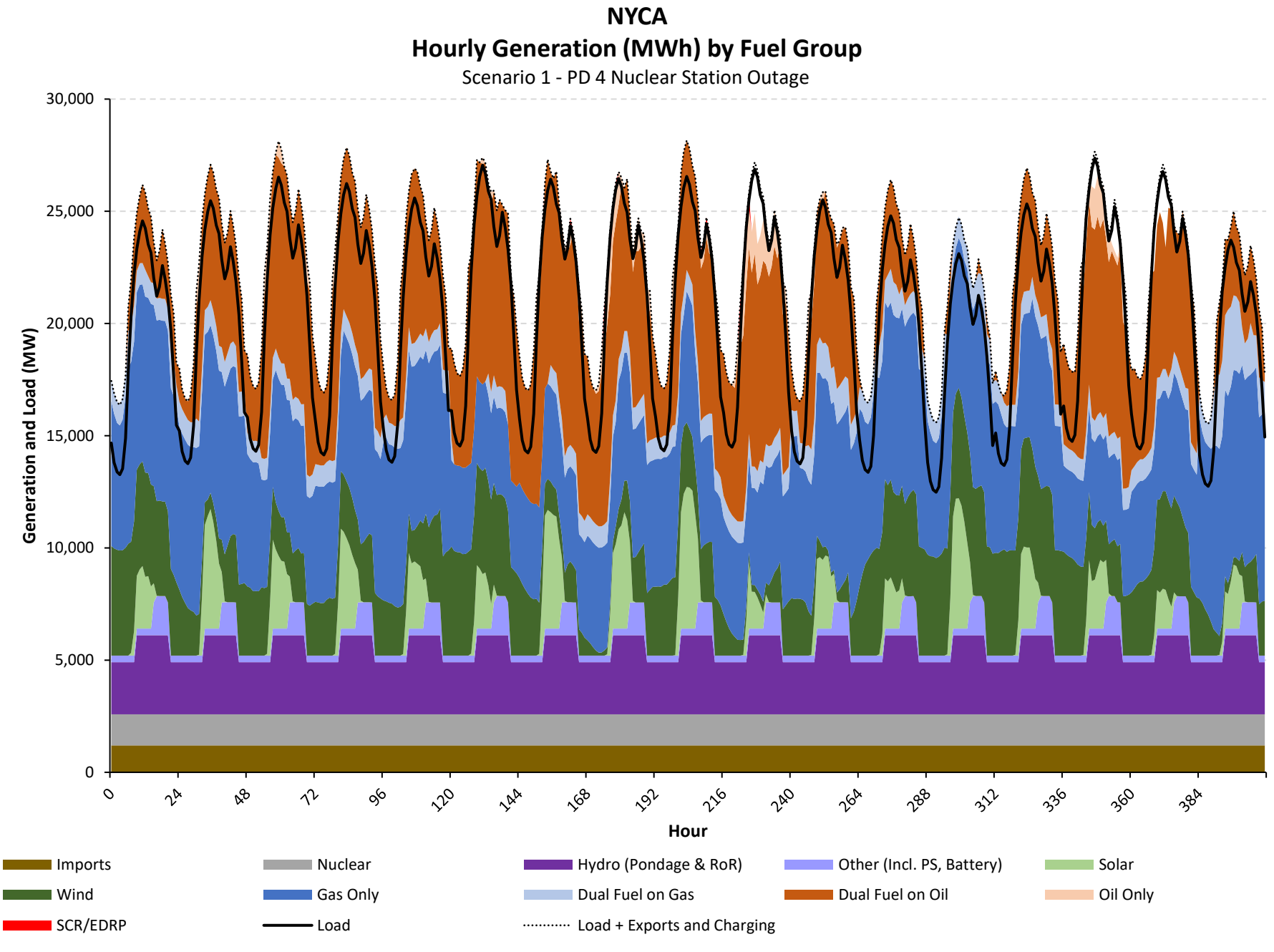


Hours with Loss of Load

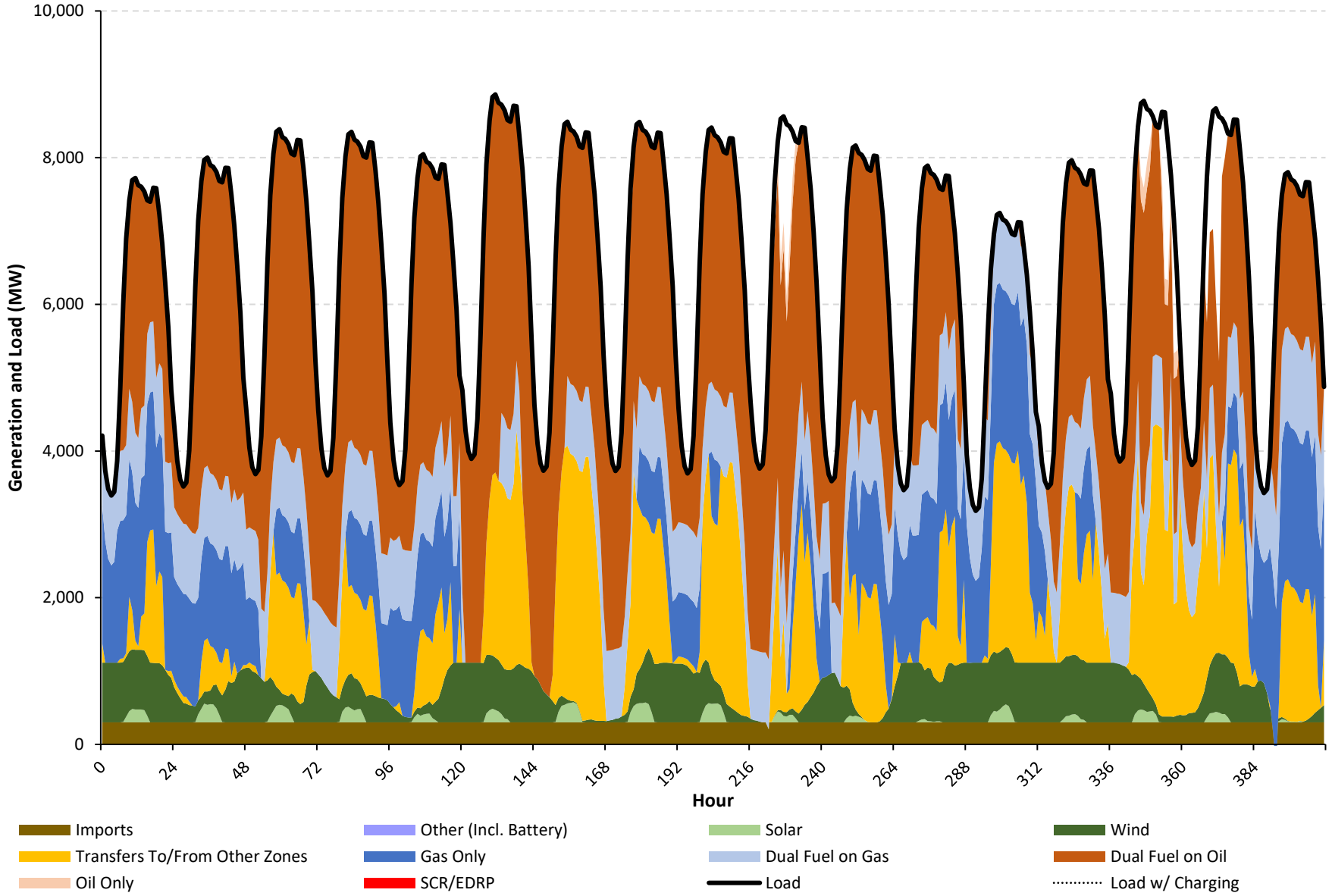


Total MWh of Lost Load

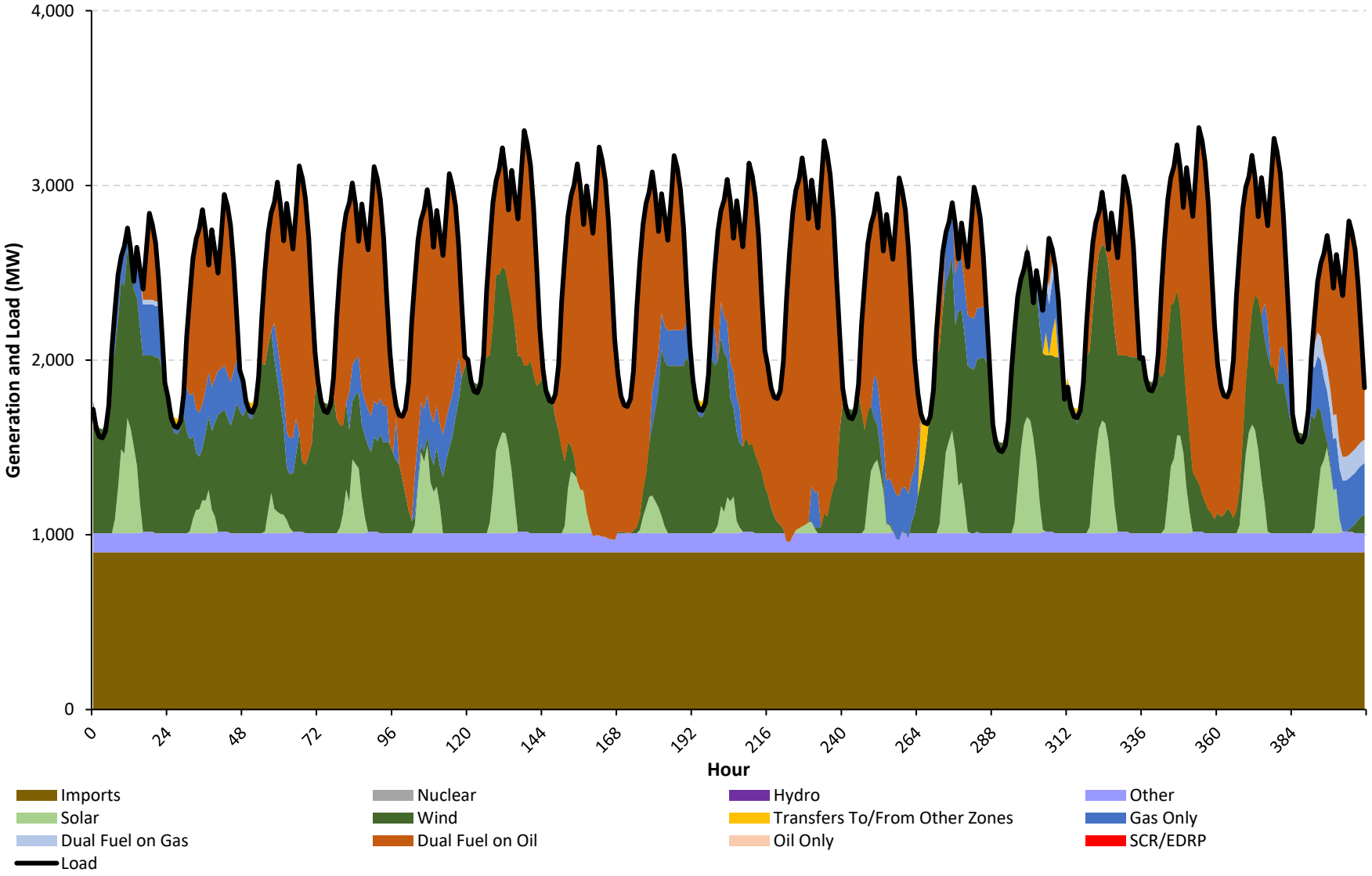


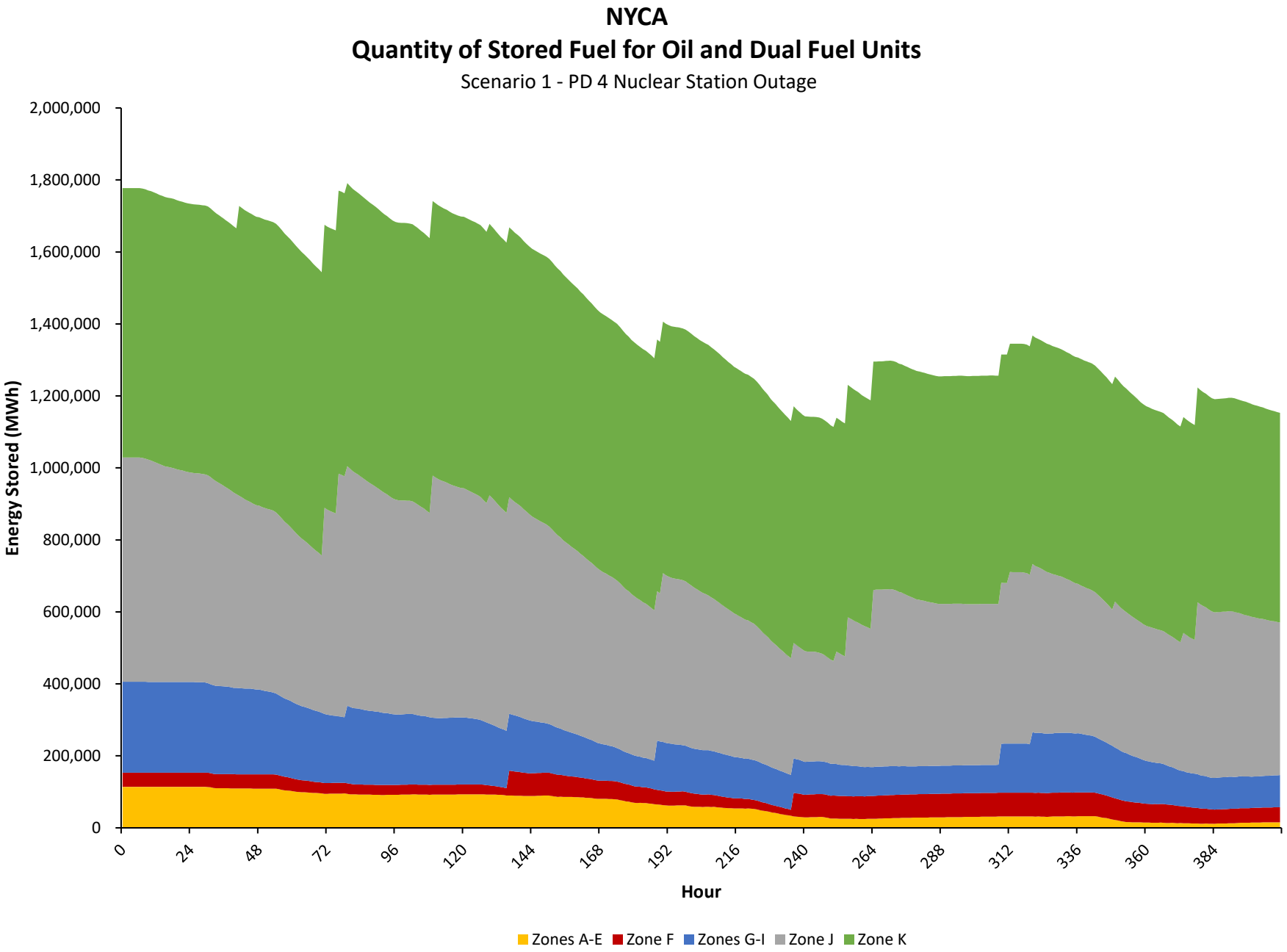

NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 1 - PD 4 Nuclear Station Outage
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

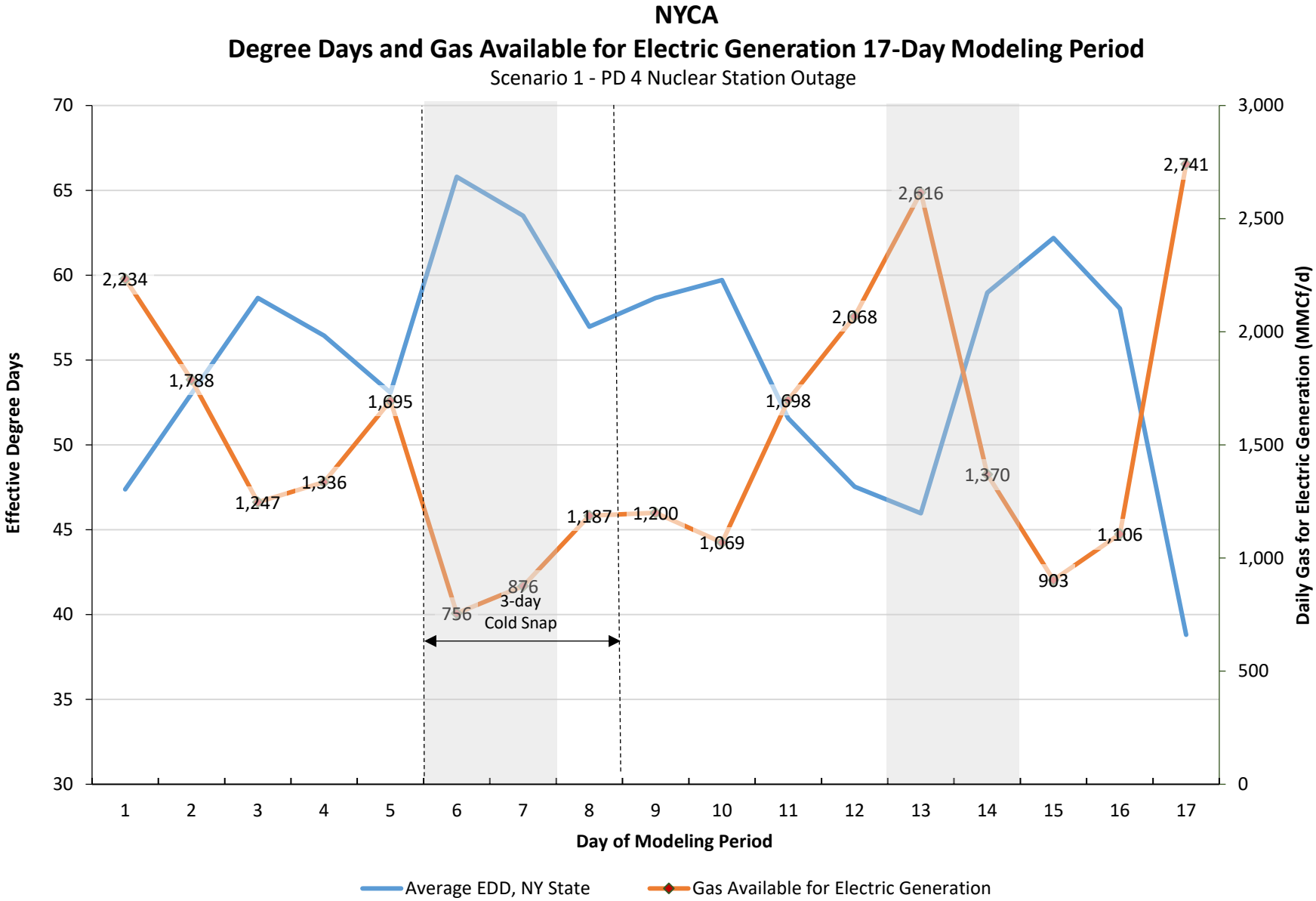
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 4 Nuclear Station Outage



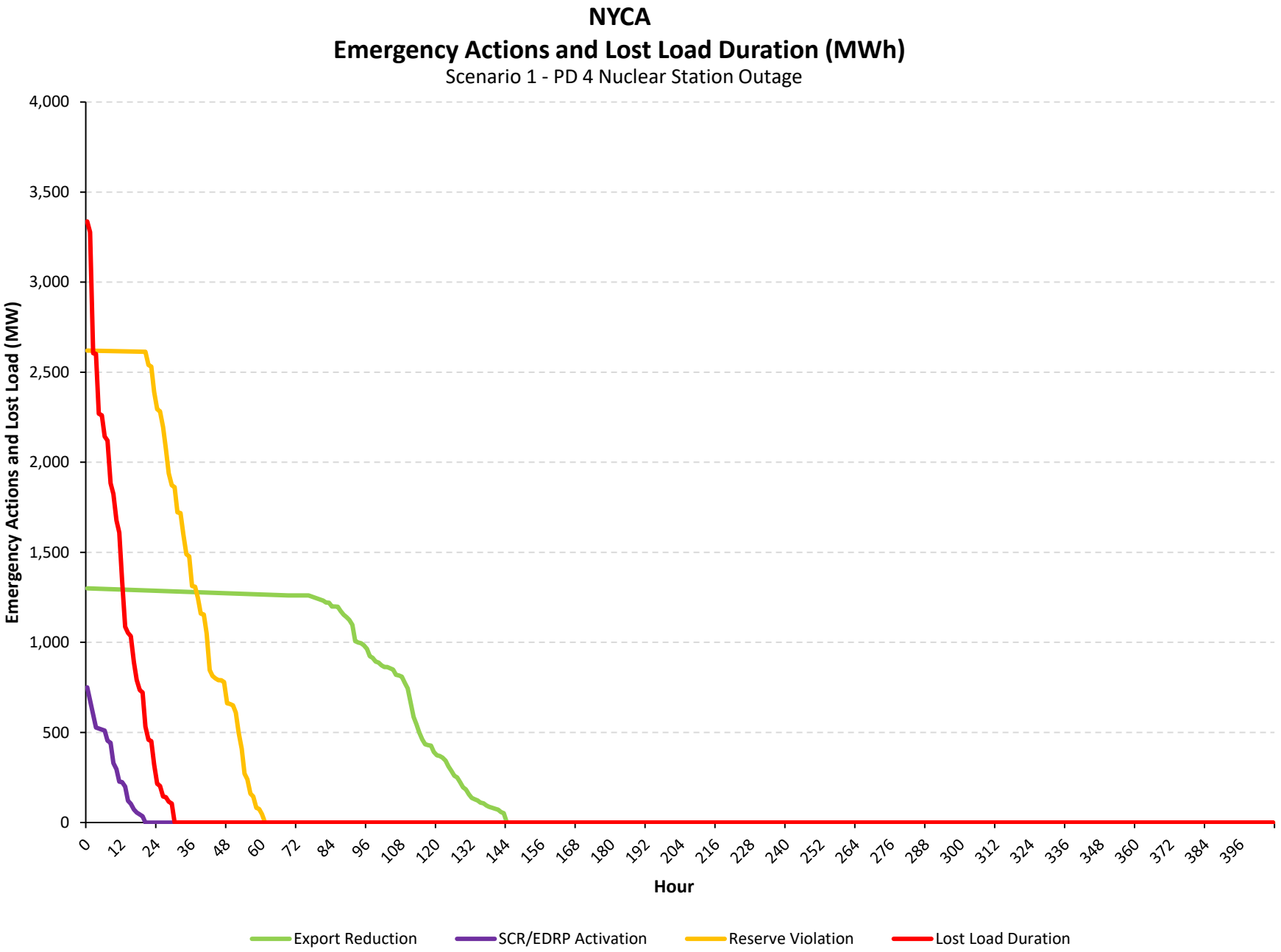
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 4 Nuclear Station Outage

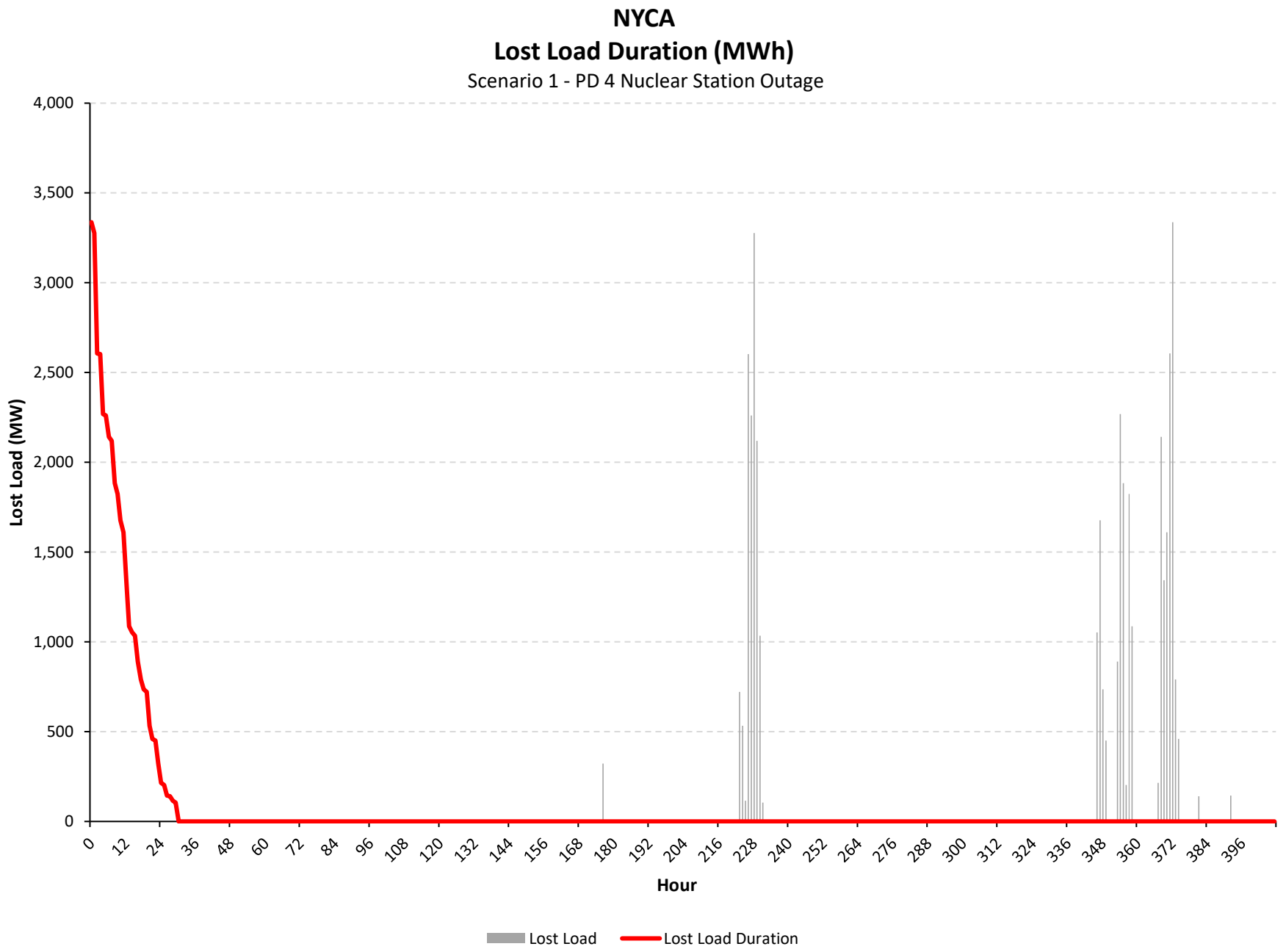



NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 1 - PD 4 Nuclear Station Outage
Energy Stored (MWh)
2,000,000
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Zones A-E
Zone F
Zones G-I
Zone J
Zone K



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 1 - PD 4 Nuclear Station Outage
Emergency Actions and Lost Load (MW)
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 1 - PD 4 Nuclear Station Outage
Lost Load (MW)
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

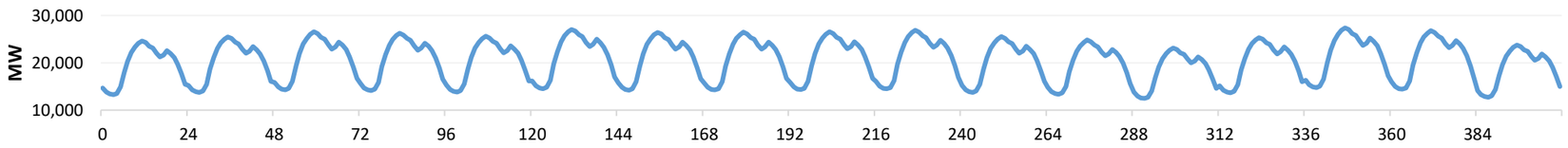
Case: Scenario 1 - PD 5 No Truck Refill (Winter 2026/2027)

Hourly Results Summary

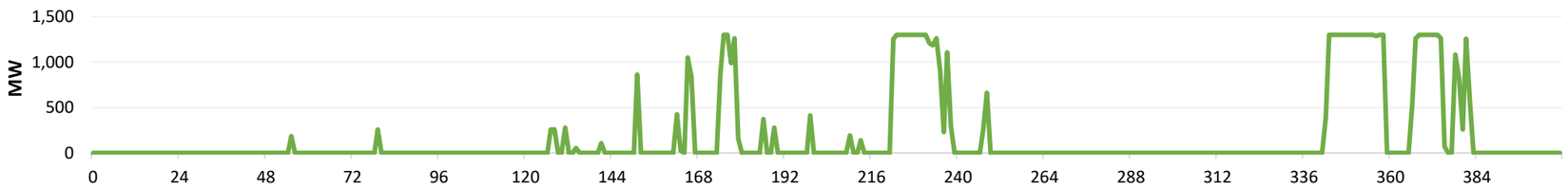
Case Name: Scenario 1 - PD 5 No Truck Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Load During Modeling Period

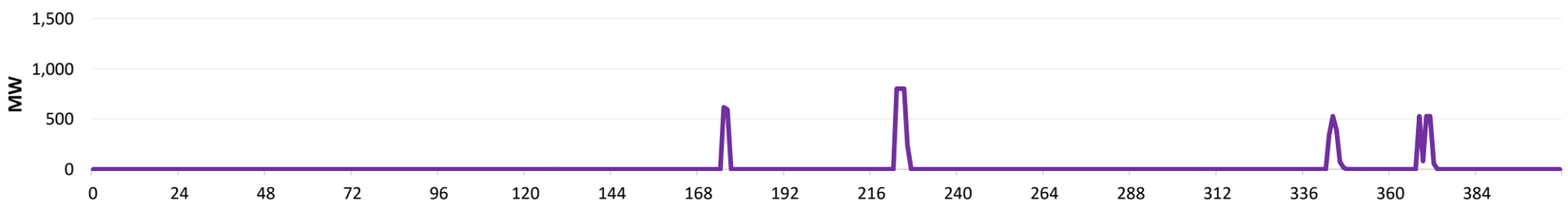


Export to ISO-NE Reduction During Modeling Period



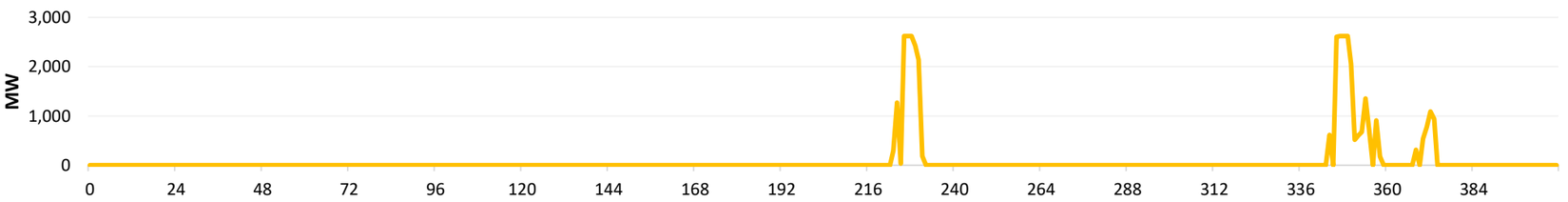
Export Reductions	
Total Hrs.	74
Total MWh	68,040
Avg. MW	166.8

SCR/EDRP Deployed During Modeling Period



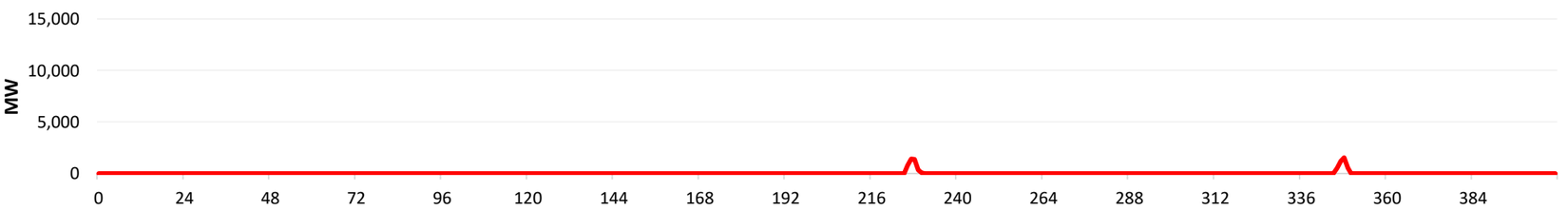
SCR Deployment	
Total Hrs.	16
Total MWh	6,922
Avg. MW	17.0

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	27
Total MWh	35,920
Avg. MW	88.0
First Hour with Viol.	223

Loss of Load During Modeling Period



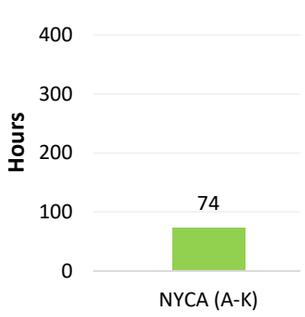
Loss of Load	
Total Hrs.	9
Total MWh	7,801
Avg. MW	19.1
First Hour with Losses	226

Full Period Results Summary

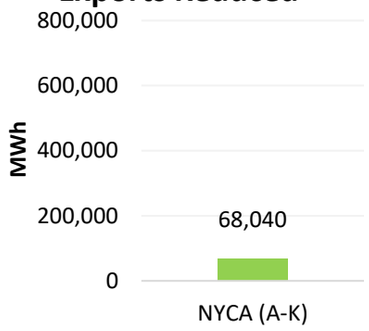
Case Name: Scenario 1 - PD 5 No Truck Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

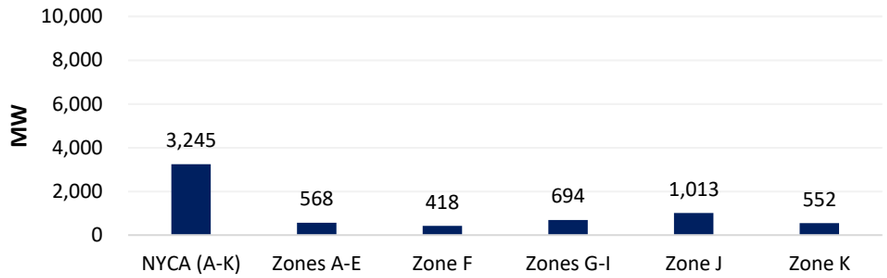
Hours Exports Reduced



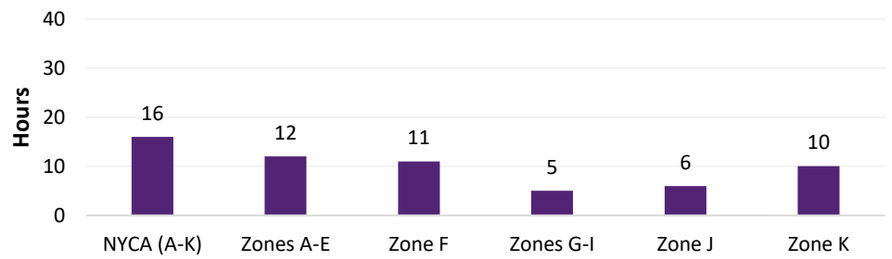
Total MWh of Exports Reduced



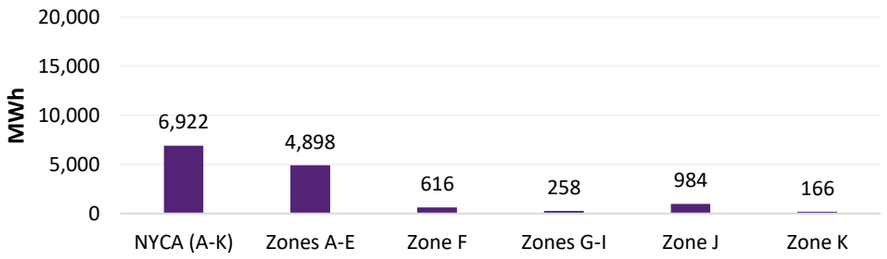
Average Capacity Not Available Due to Exhausted Fuel Inventory



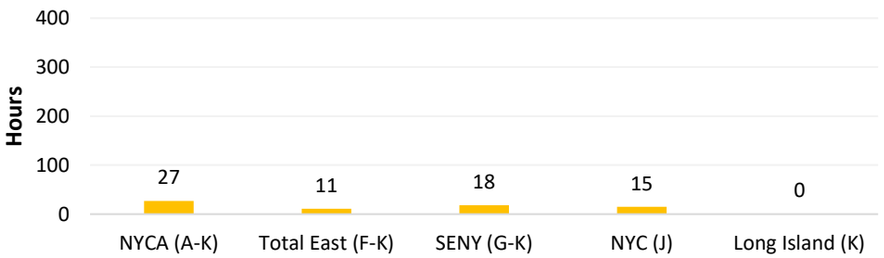
Hours SCR/EDRP Deployed



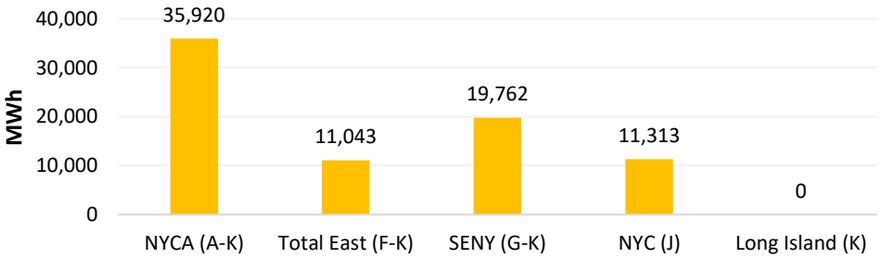
Total MWh SCR/EDRP Deployed



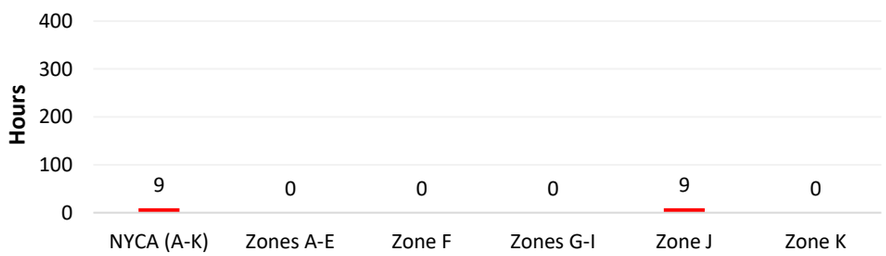
Hours with Reserve Violations



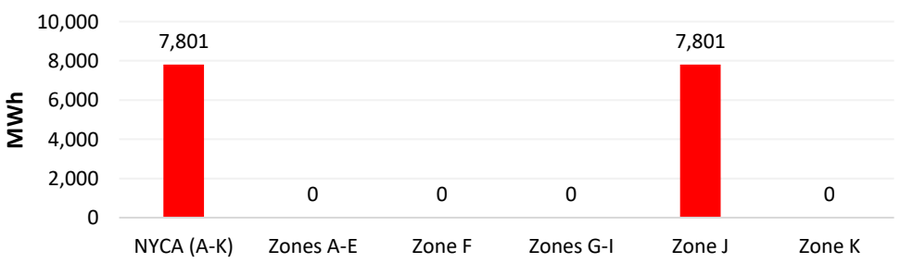
Total MWh of Reserve Violations

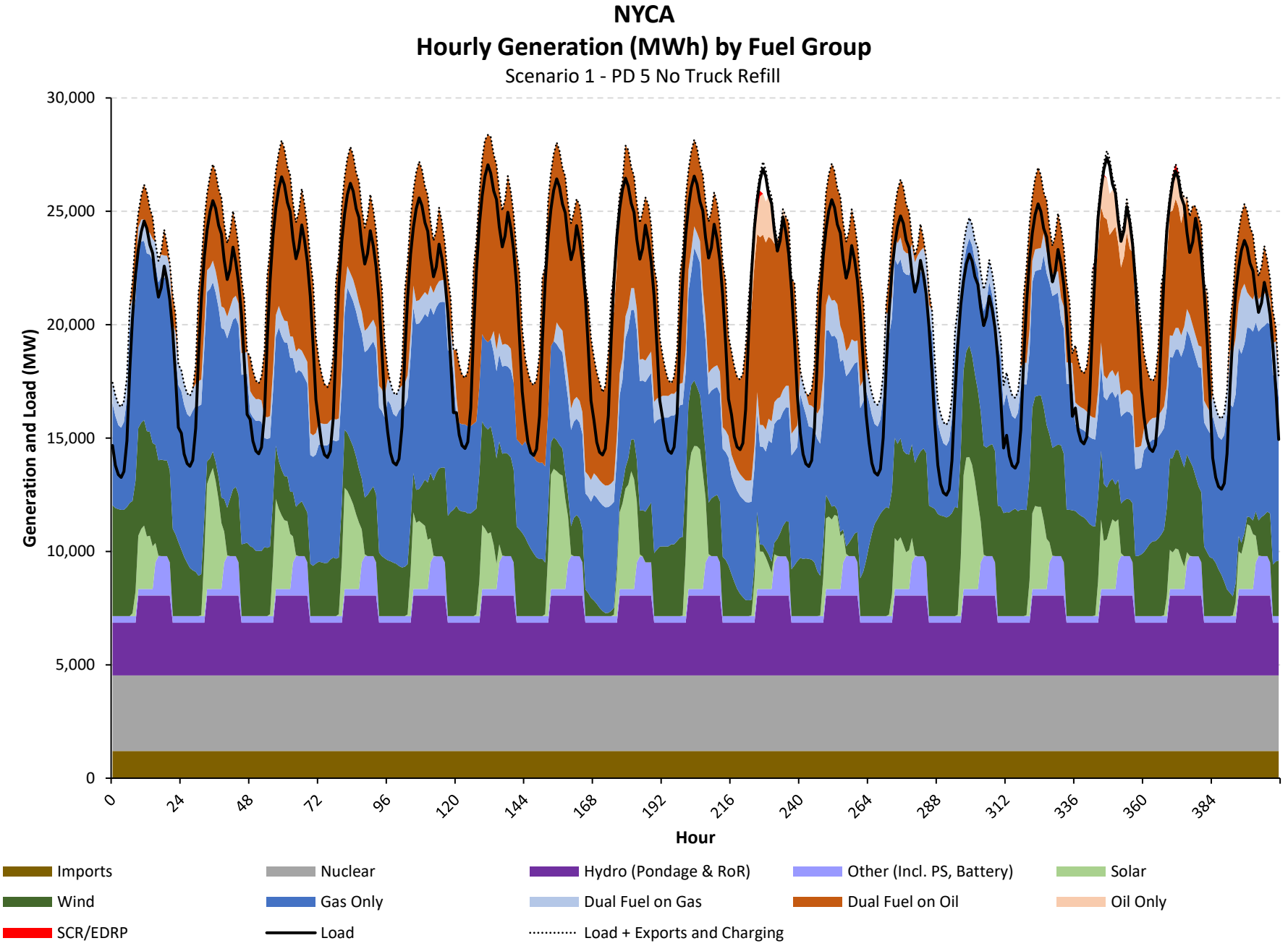


Hours with Loss of Load

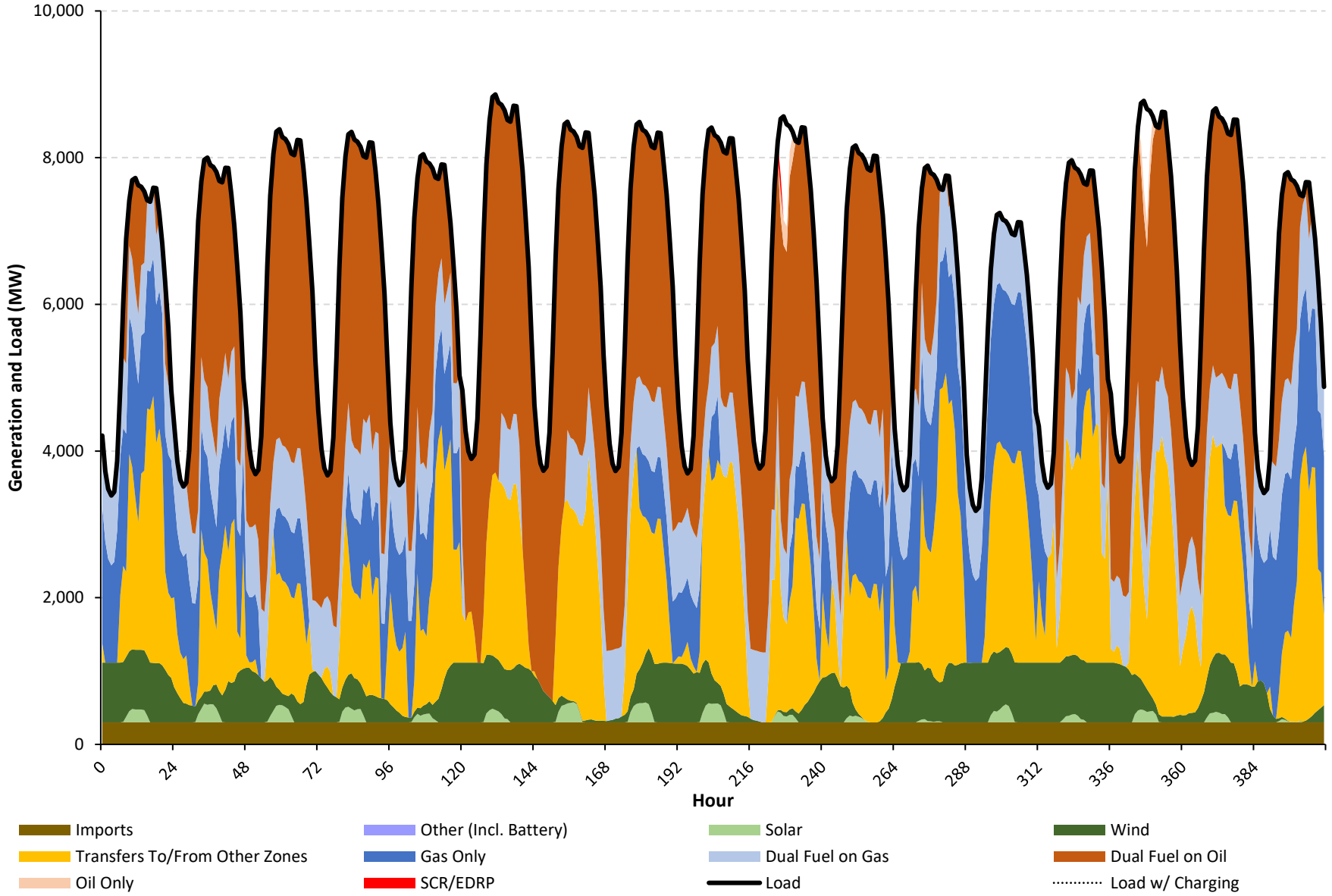


Total MWh of Lost Load

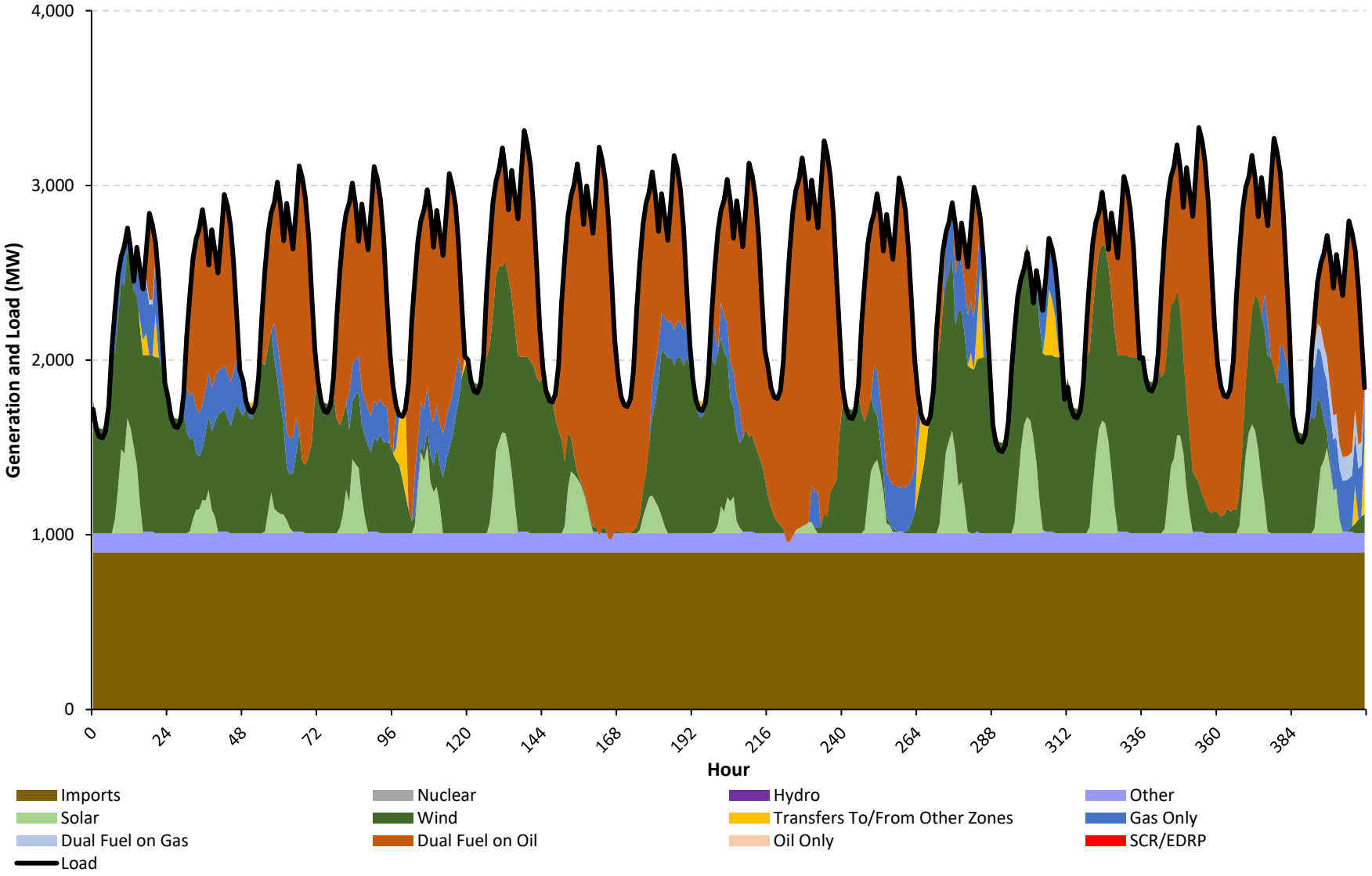



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 1 - PD 5 No Truck Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 5 No Truck Refill



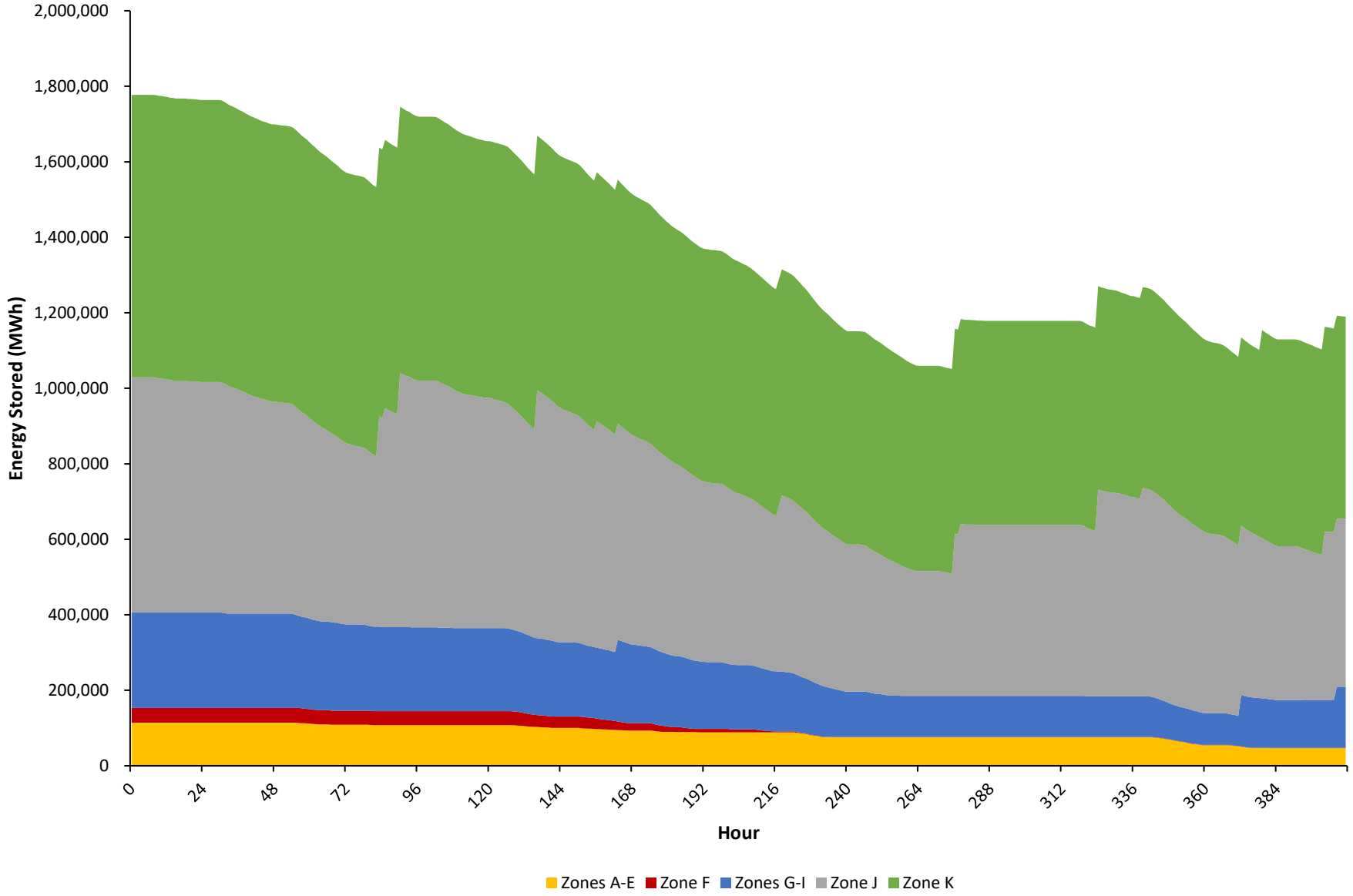
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 5 No Truck Refill

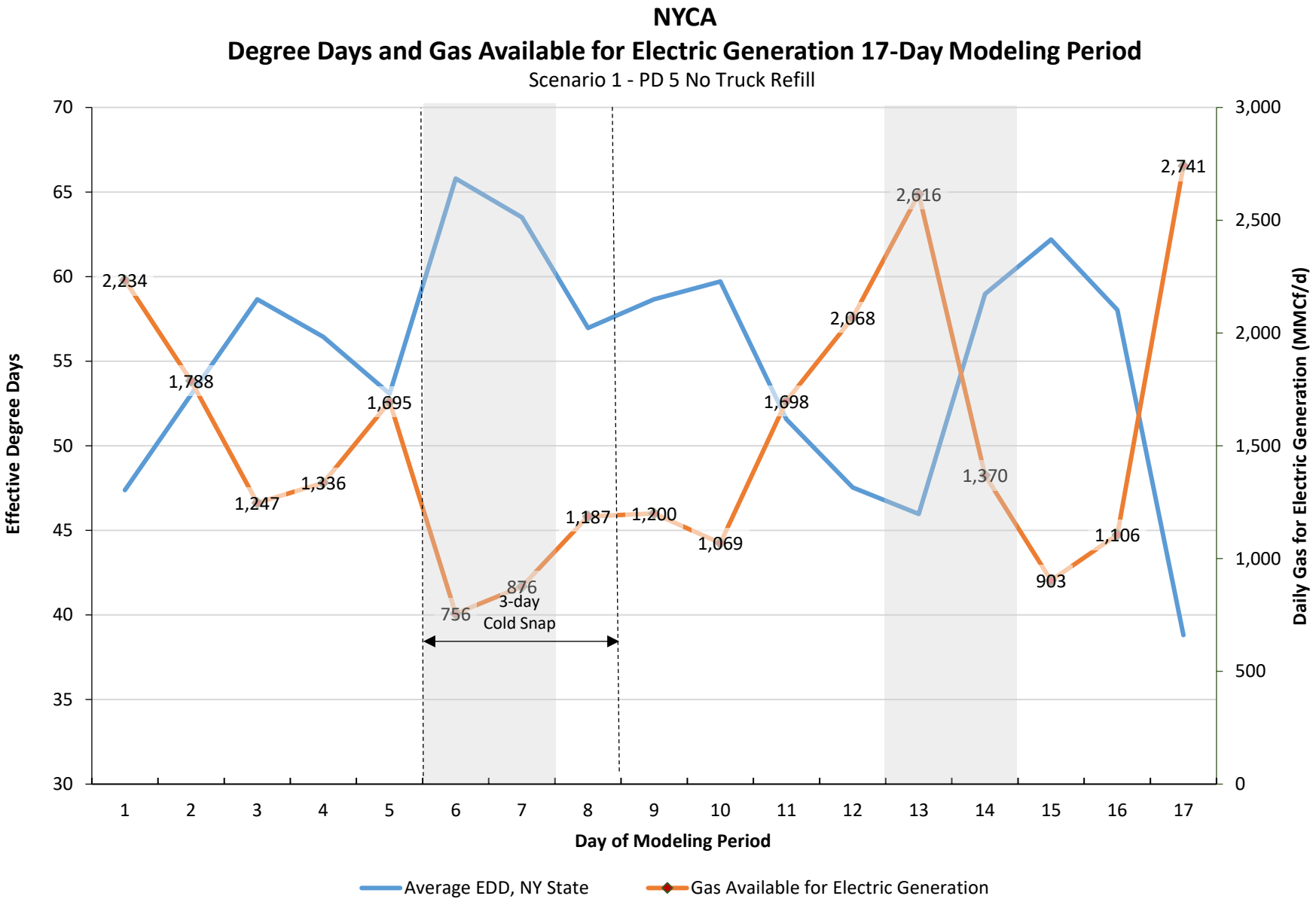


NYCA

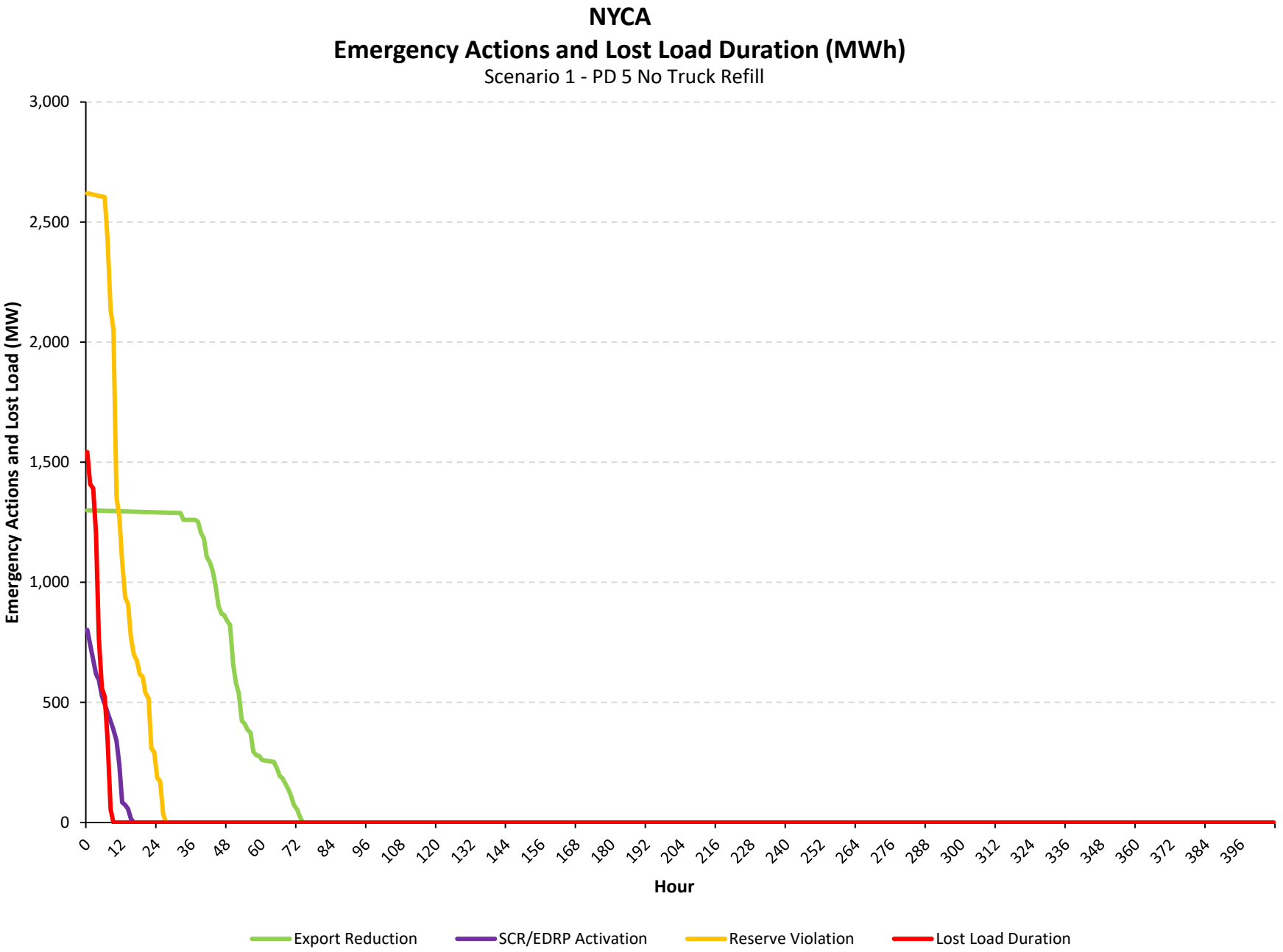
Quantity of Stored Fuel for Oil and Dual Fuel Units

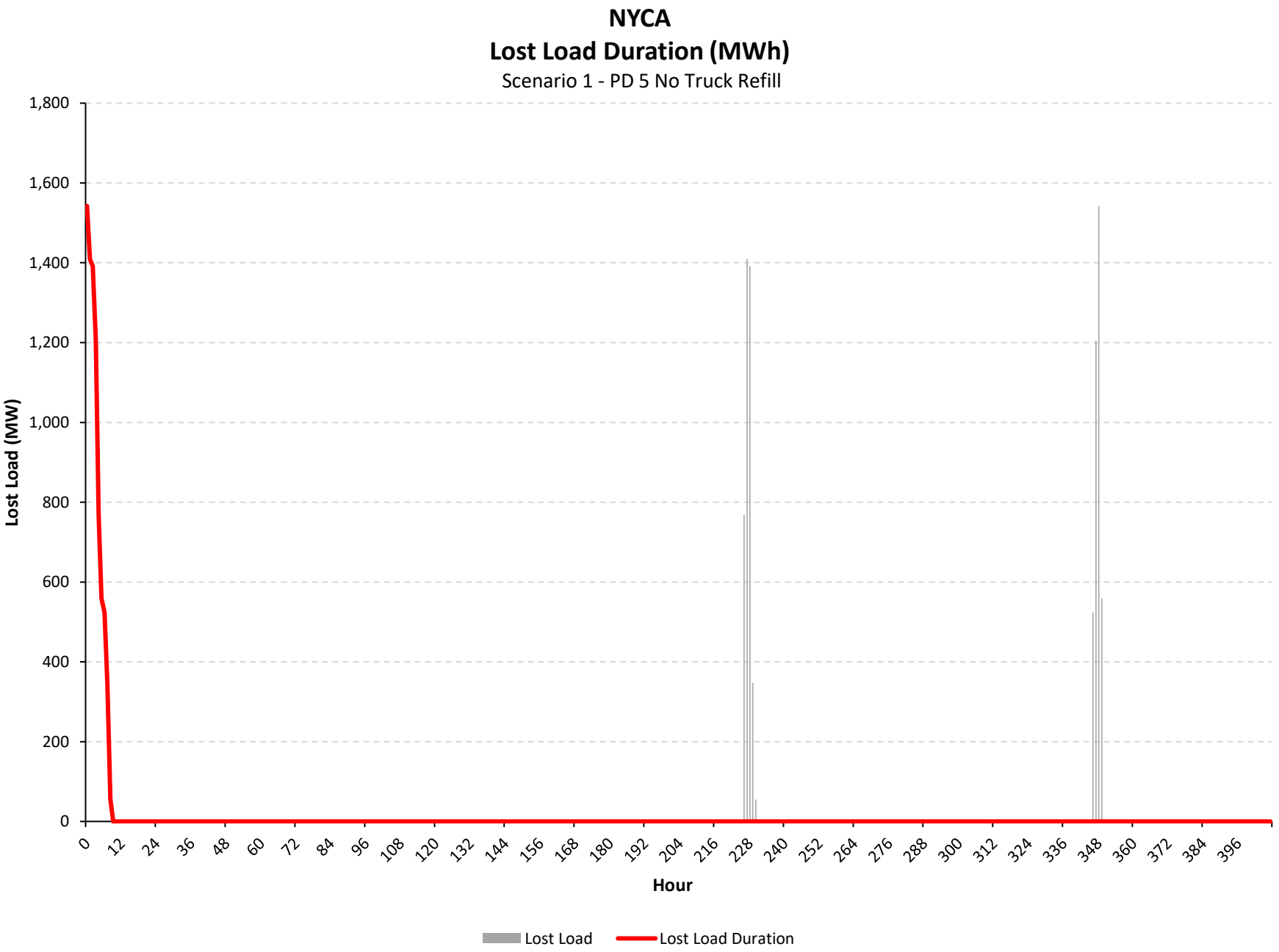
Scenario 1 - PD 5 No Truck Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 1 - PD 5 No Truck Refill
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 1 - PD 5 No Truck Refill
Lost Load (MW)
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

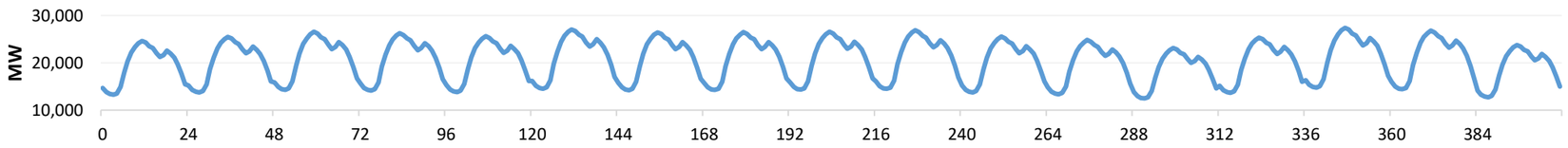
Case: Scenario 1 - PD 6 No Barge Refill (Winter 2026/2027)

Hourly Results Summary

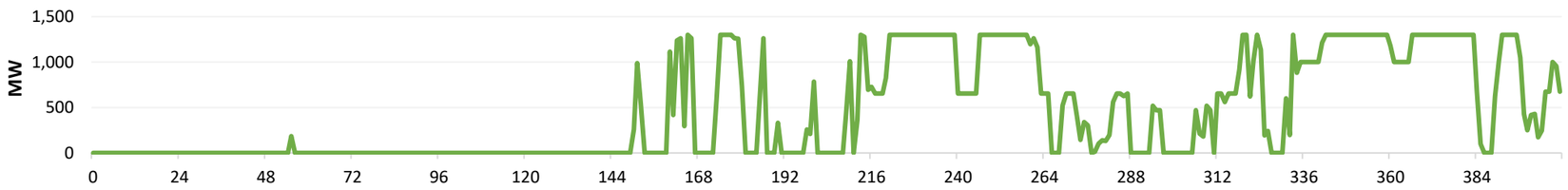
Case Name: Scenario 1 - PD 6 No Barge Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Load During Modeling Period

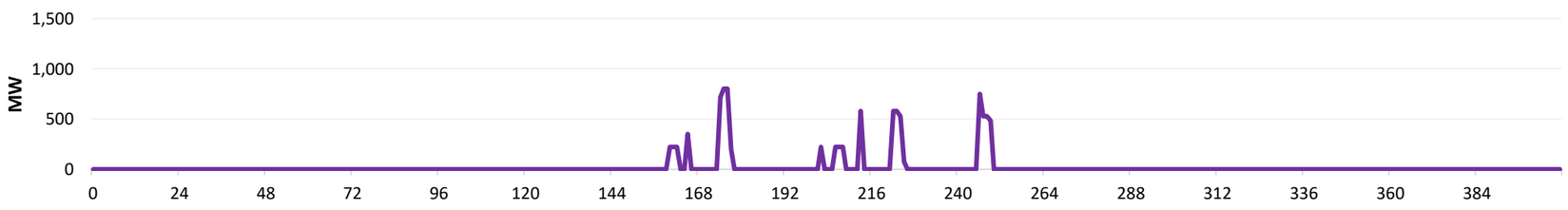


Export to ISO-NE Reduction During Modeling Period



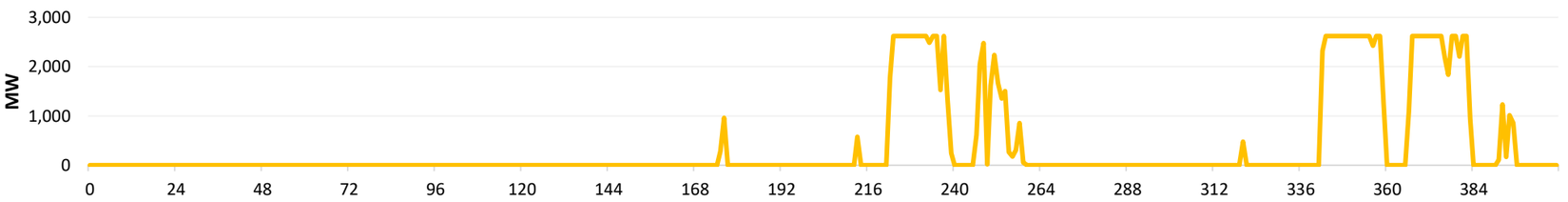
Export Reductions	
Total Hrs.	196
Total MWh	183,953
Avg. MW	450.9

SCR/EDRP Deployed During Modeling Period



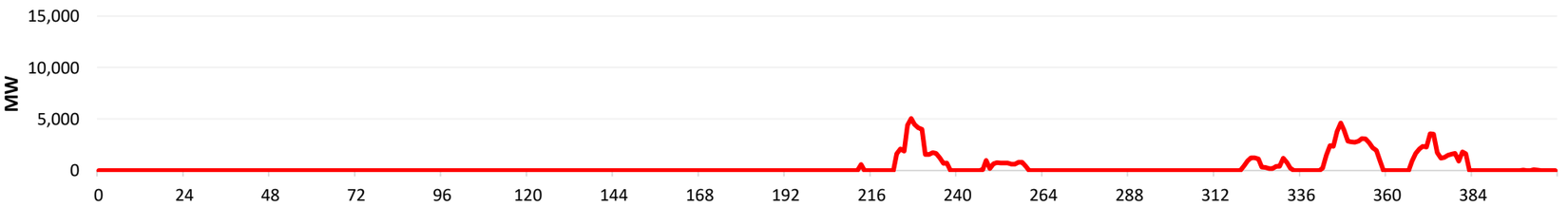
SCR Deployment	
Total Hrs.	22
Total MWh	9,060
Avg. MW	22.2

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	77
Total MWh	149,847
Avg. MW	367.3
First Hour with Viol.	160

Loss of Load During Modeling Period



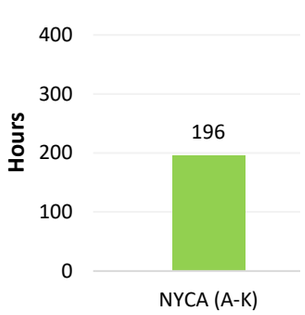
Loss of Load	
Total Hrs.	79
Total MWh	128,469
Avg. MW	314.9
First Hour with Losses	213

Full Period Results Summary

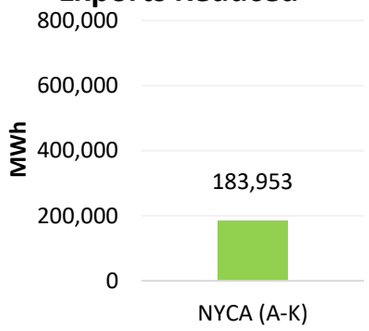
Case Name: Scenario 1 - PD 6 No Barge Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

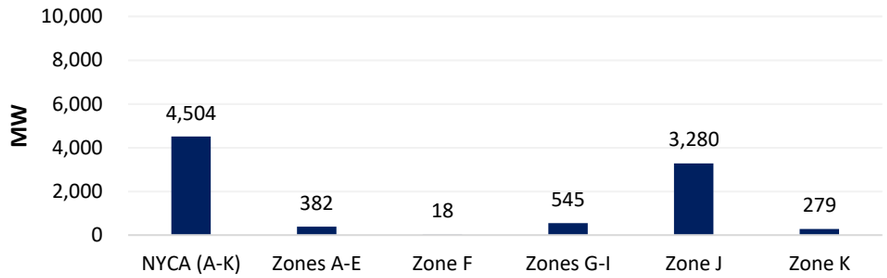
Hours Exports Reduced



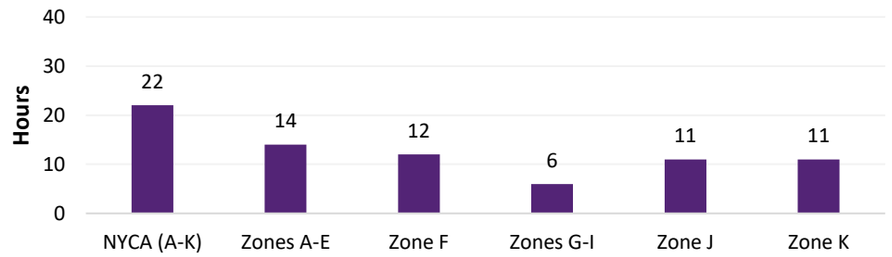
Total MWh of Exports Reduced



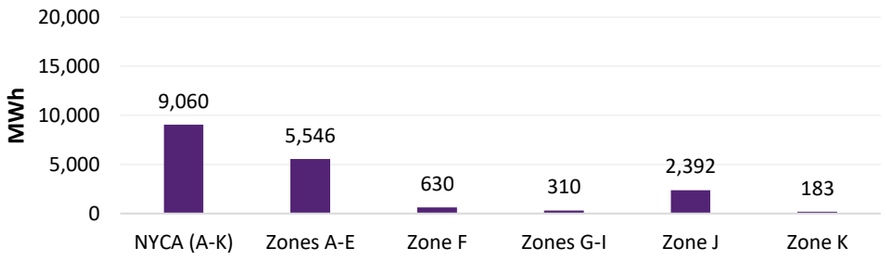
Average Capacity Not Available Due to Exhausted Fuel Inventory



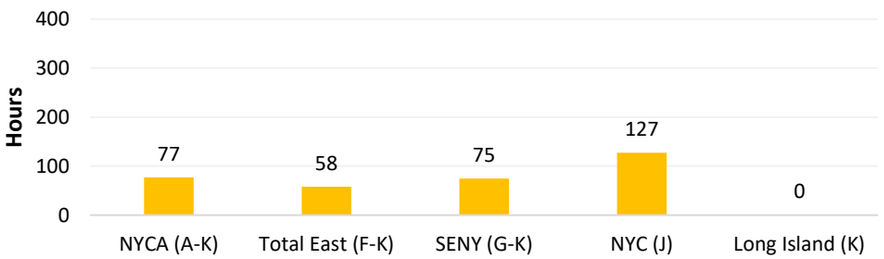
Hours SCR/EDRP Deployed



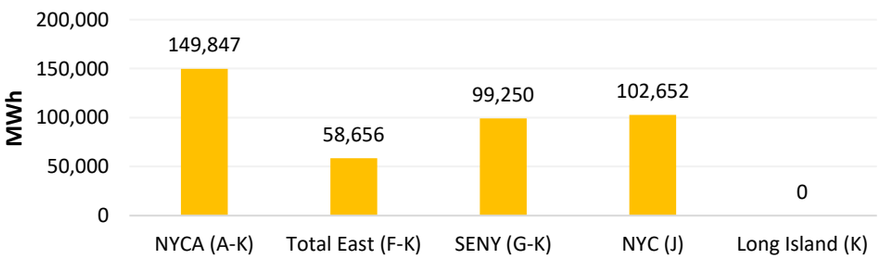
Total MWh SCR/EDRP Deployed



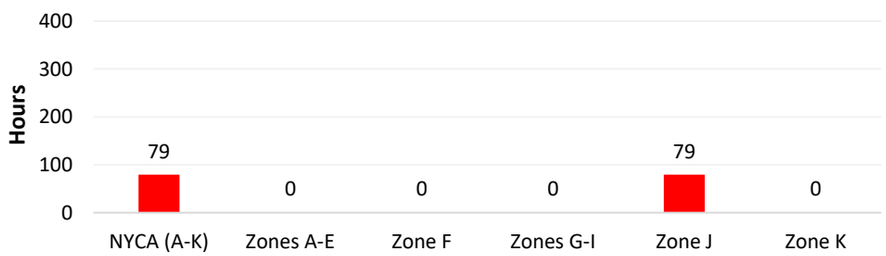
Hours with Reserve Violations



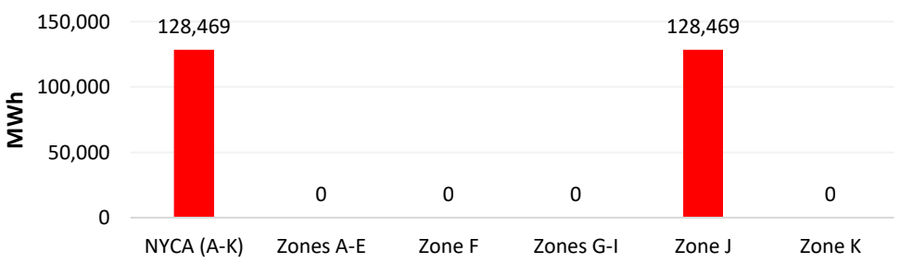
Total MWh of Reserve Violations

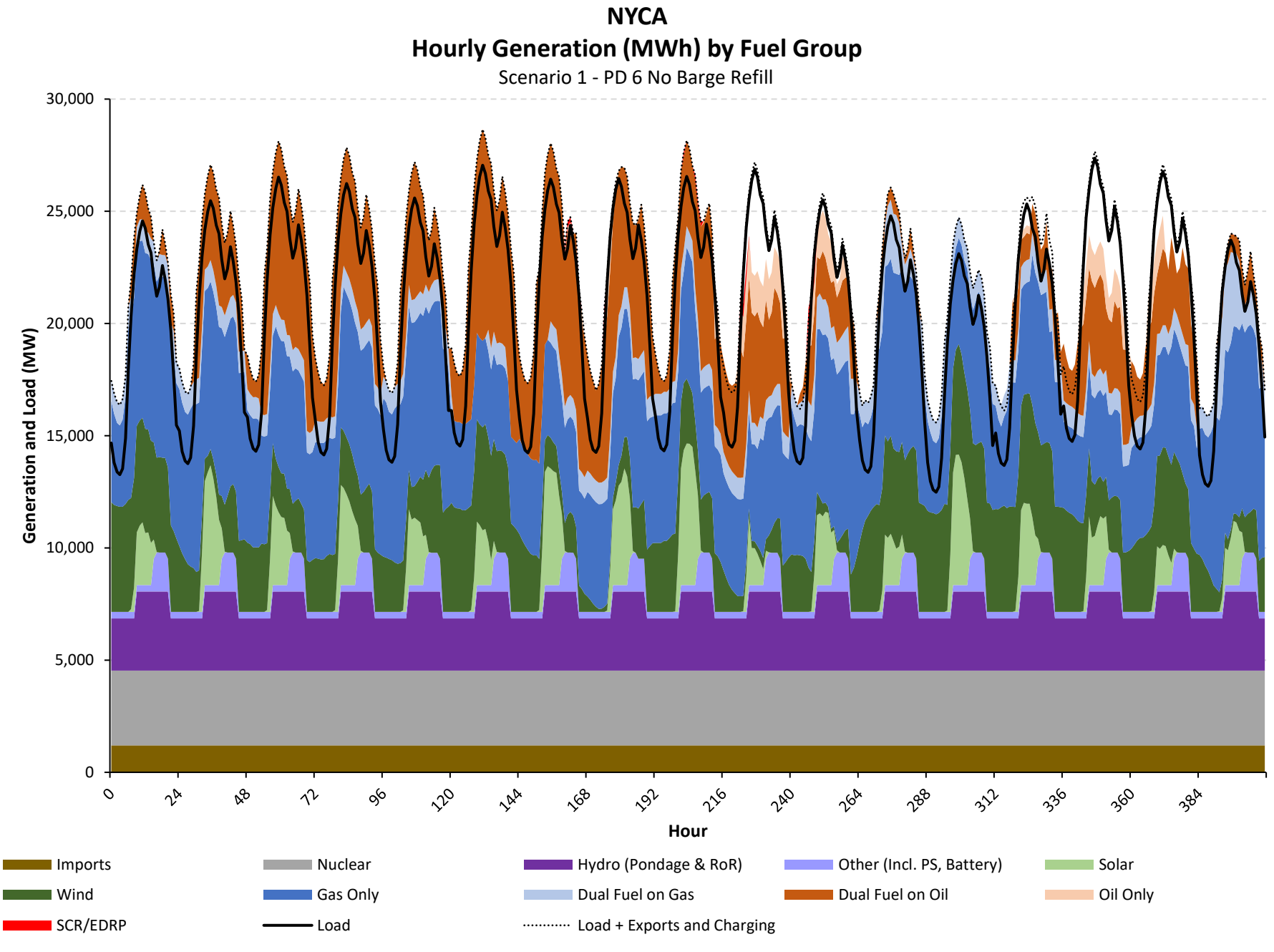


Hours with Loss of Load

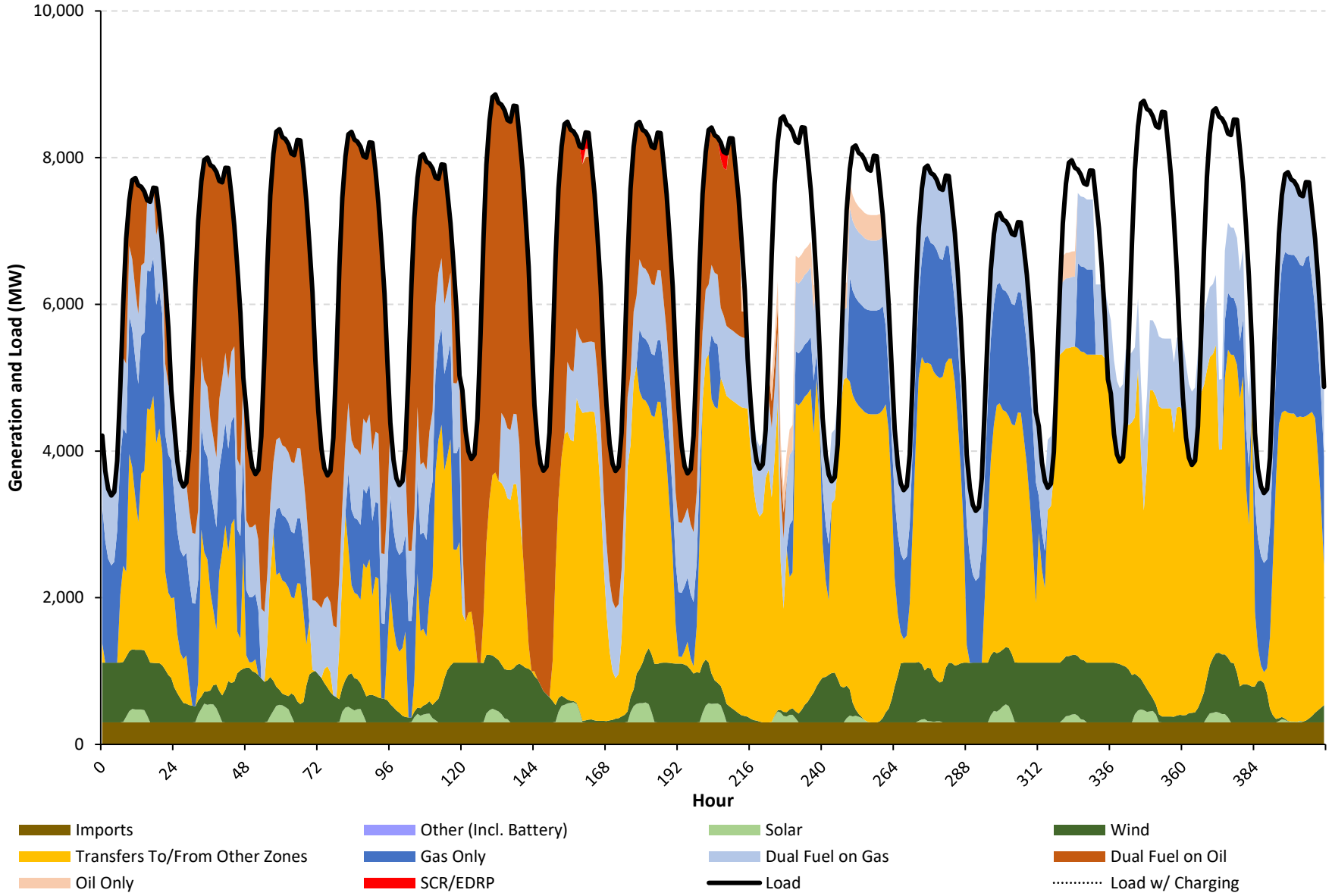


Total MWh of Lost Load

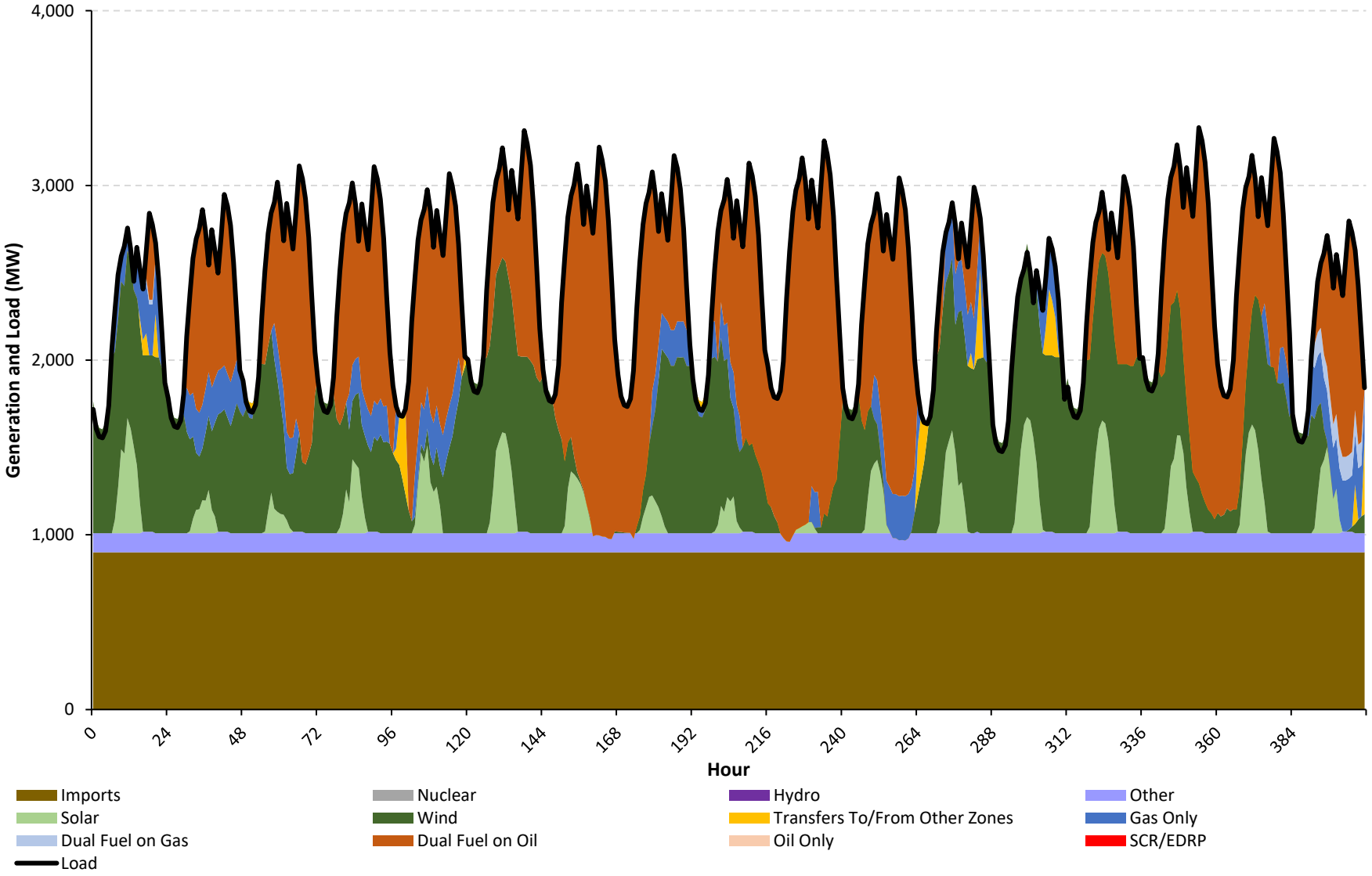



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 1 - PD 6 No Barge Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 6 No Barge Refill



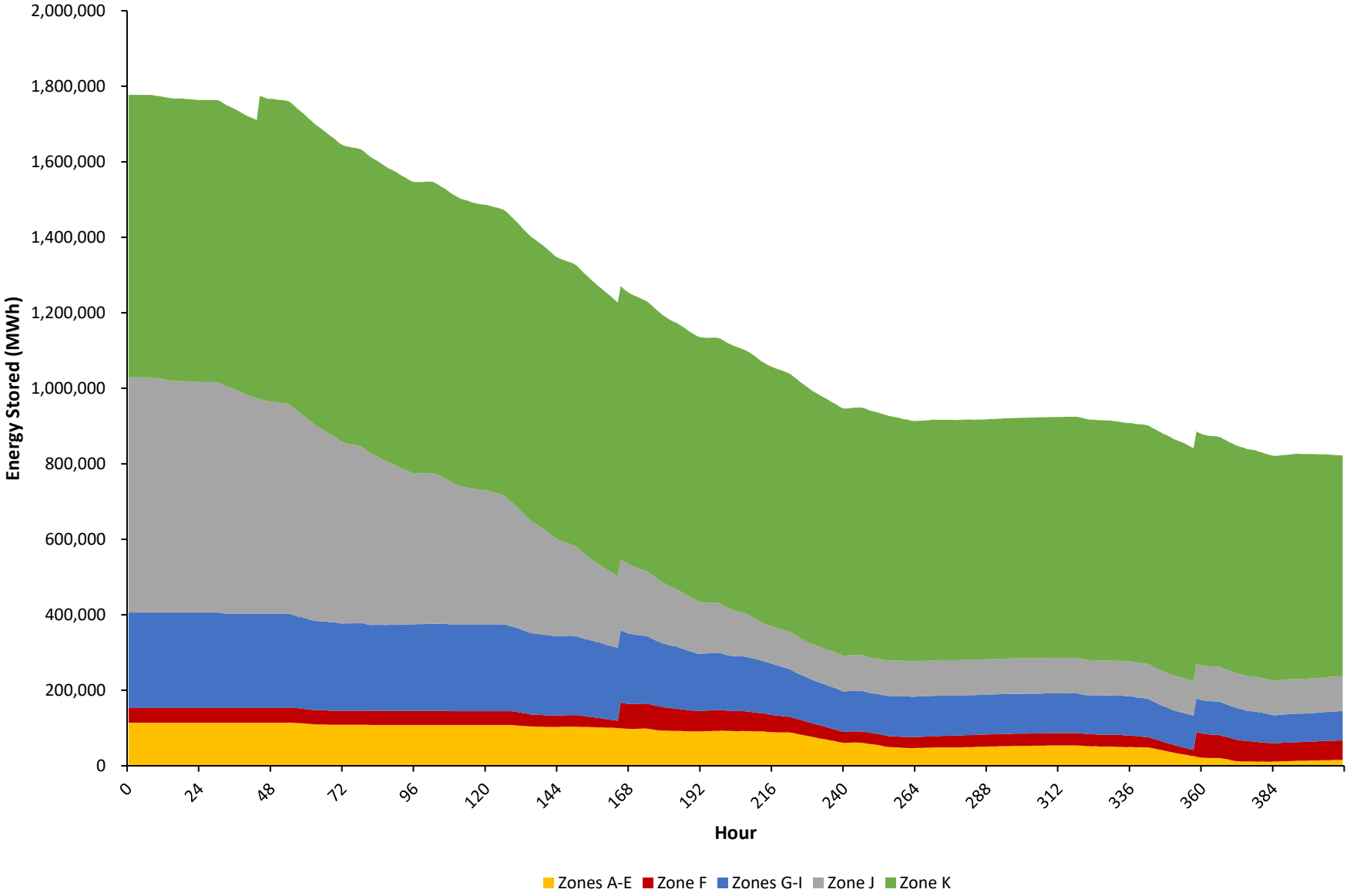
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 6 No Barge Refill

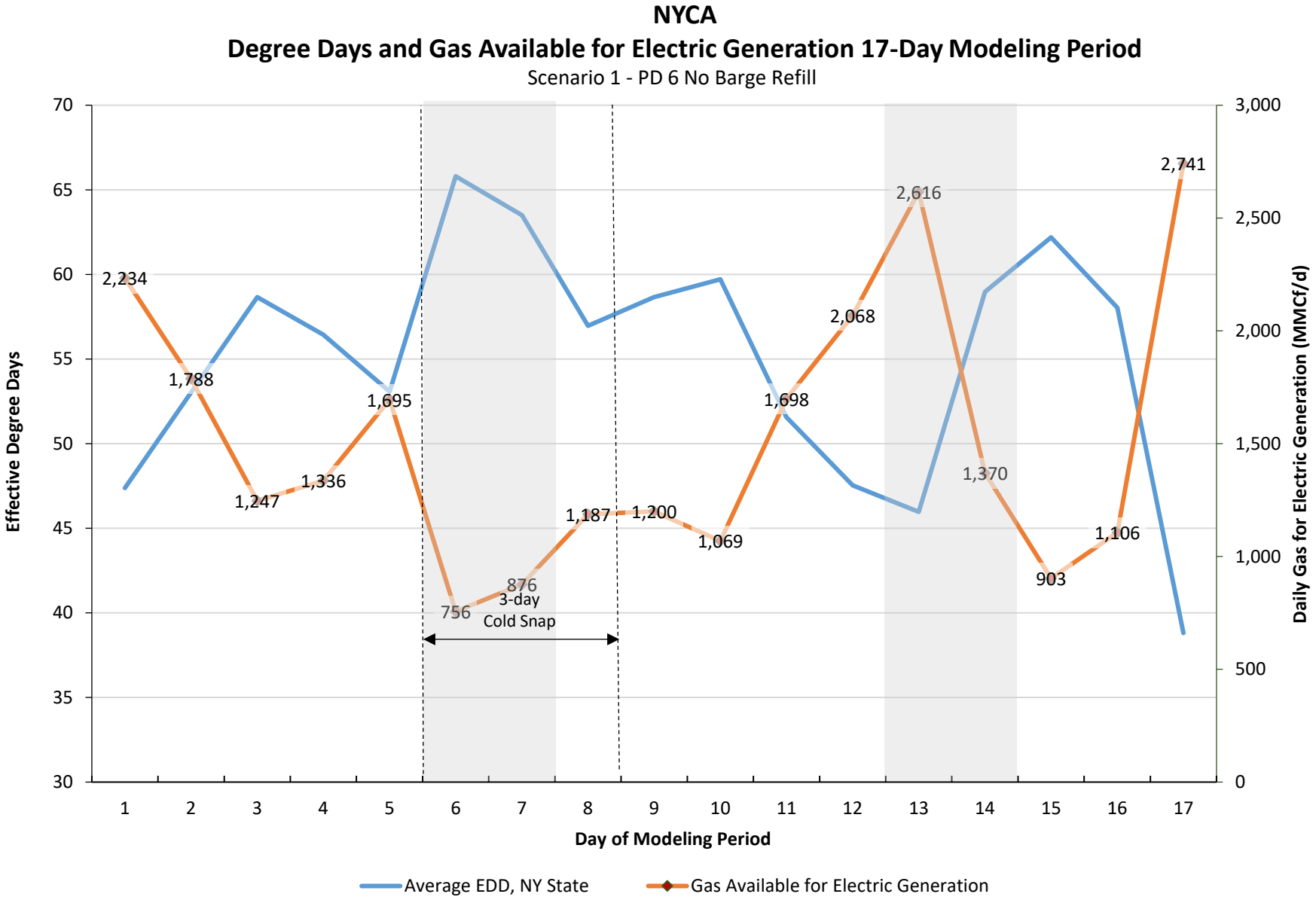


NYCA

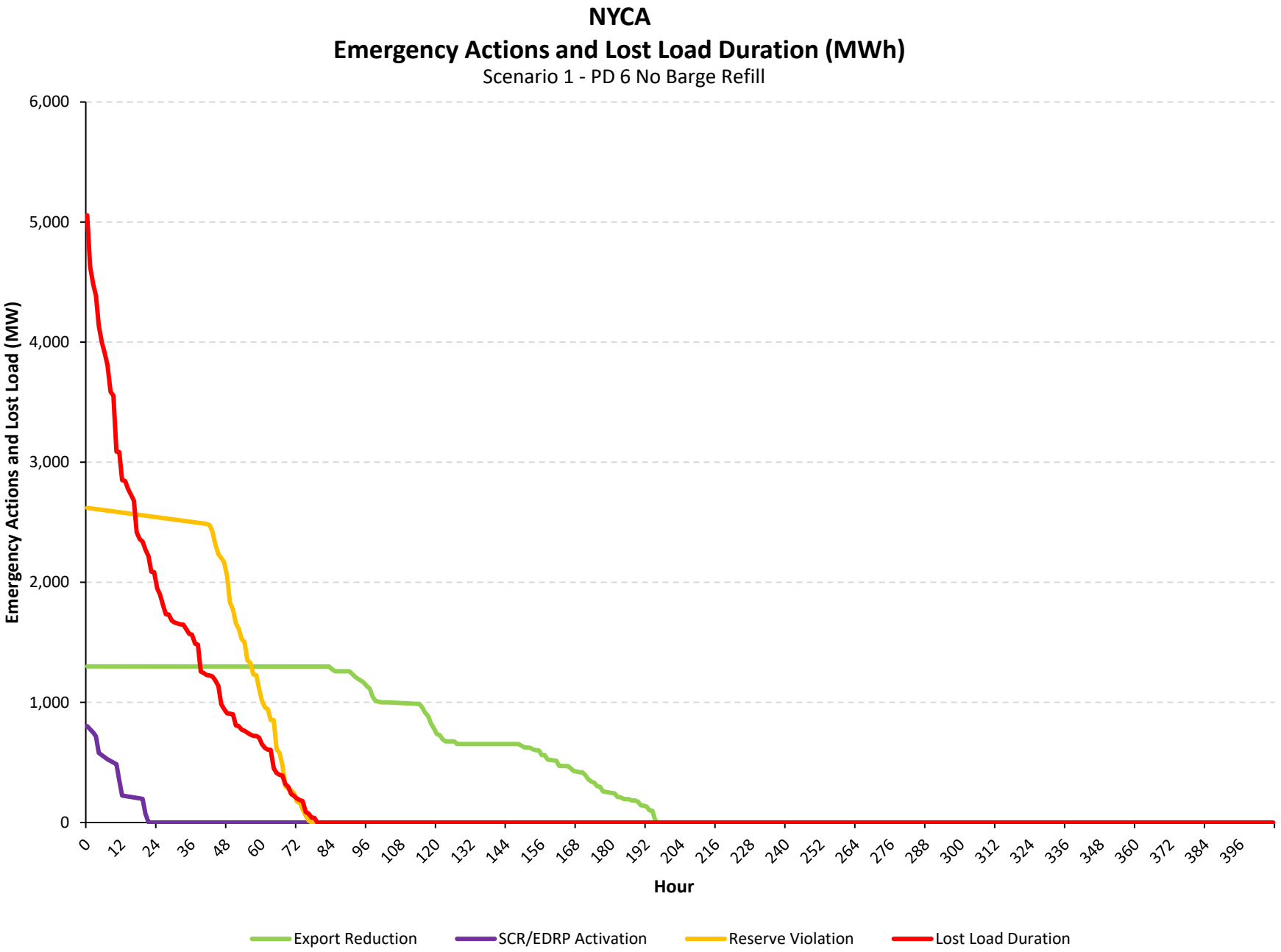
Quantity of Stored Fuel for Oil and Dual Fuel Units

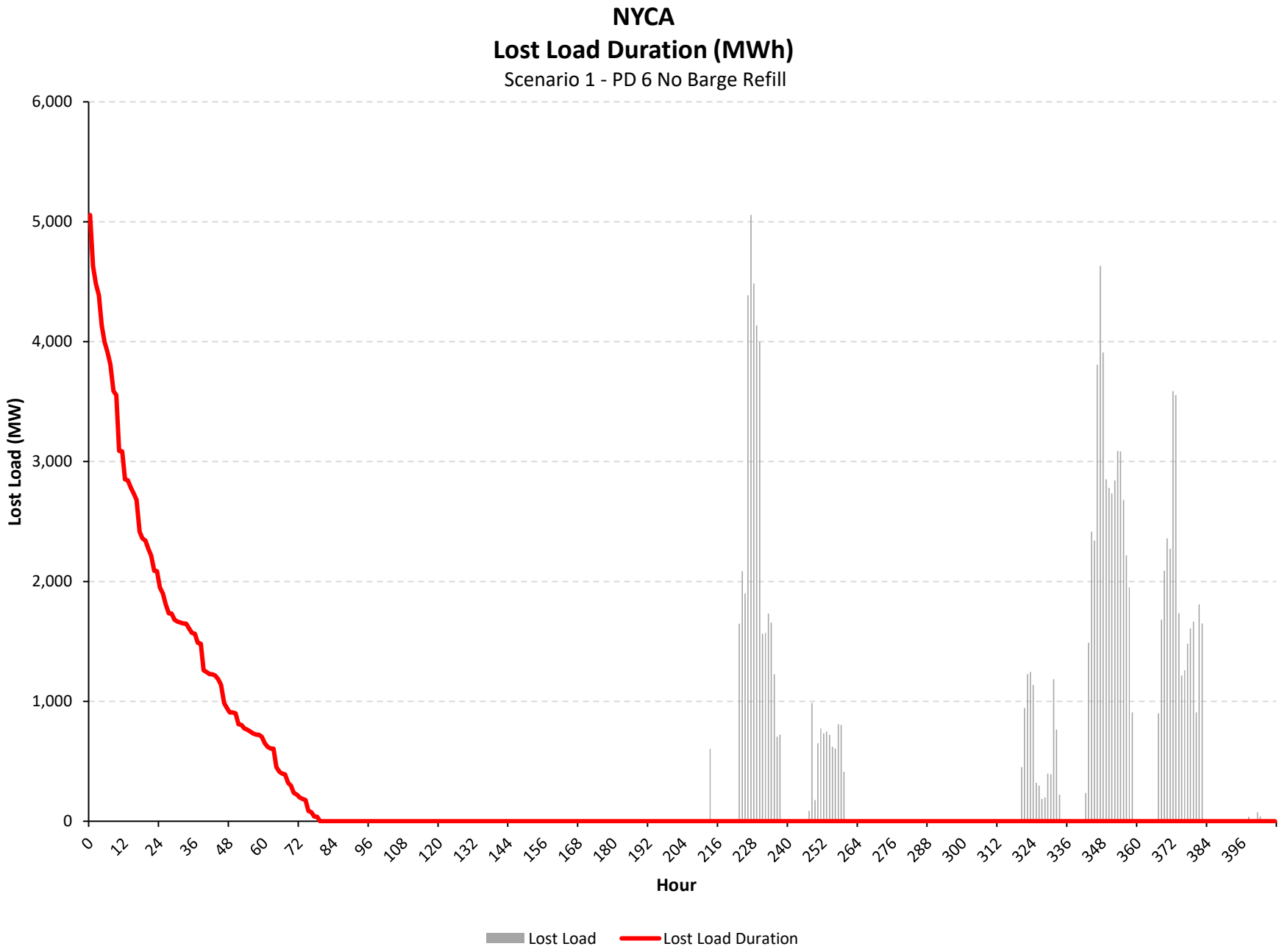
Scenario 1 - PD 6 No Barge Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 1 - PD 6 No Barge Refill
Emergency Actions and Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 1 - PD 6 No Barge Refill
Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

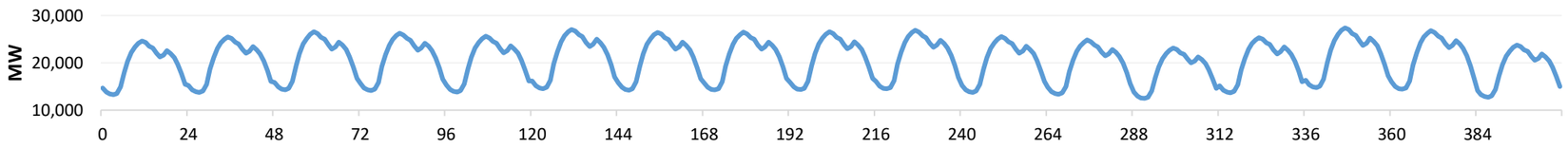
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 7 No Refill (Winter 2026/2027)

Hourly Results Summary

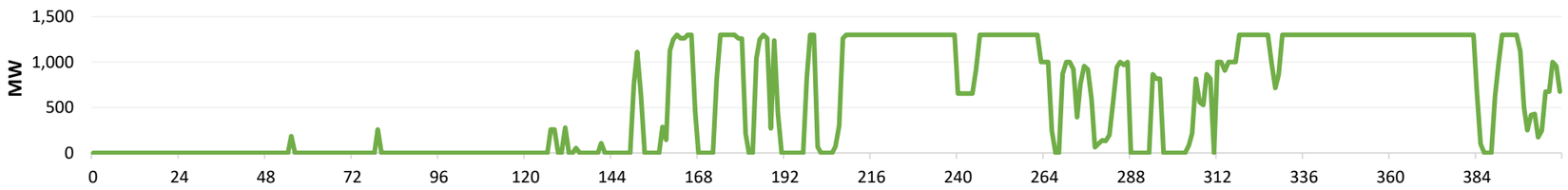
Case Name: Scenario 1 - PD 7 No Refill

Load During Modeling Period



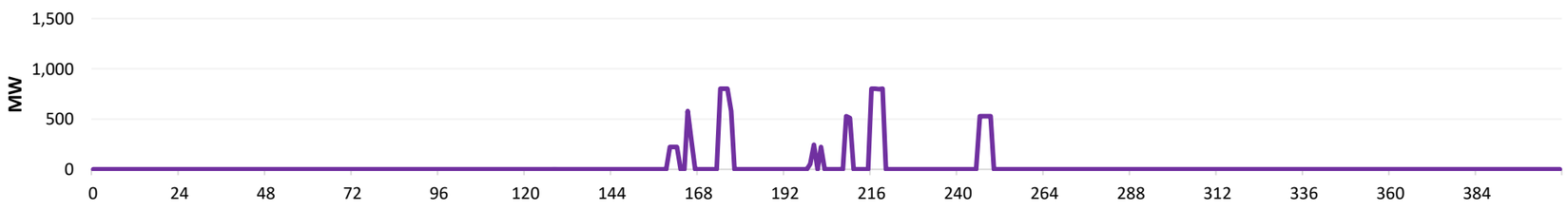
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



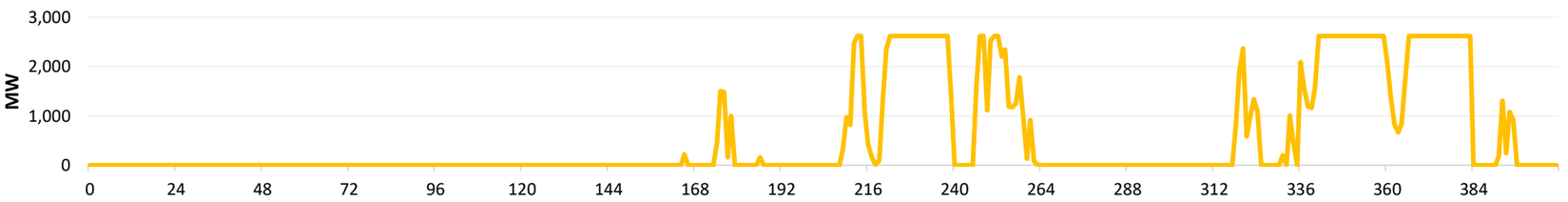
Export Reductions	
Total Hrs.	223
Total MWh	230,681
Avg. MW	565.4

SCR/EDRP Deployed During Modeling Period



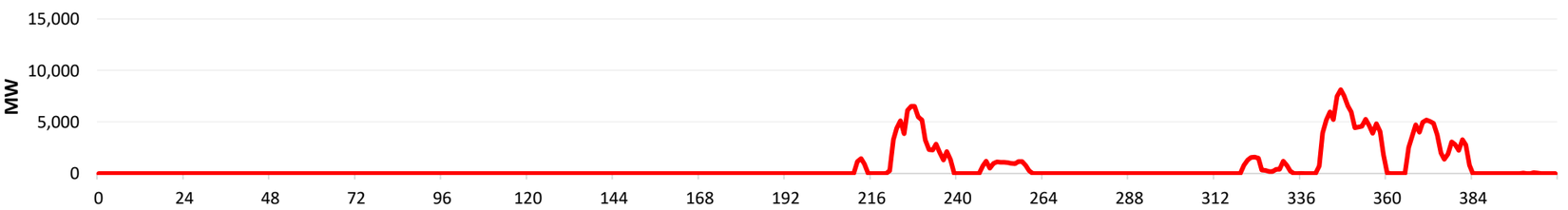
SCR Deployment	
Total Hrs.	22
Total MWh	11,387
Avg. MW	27.9

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	119
Total MWh	220,398
Avg. MW	540.2
First Hour with Viol.	160

Loss of Load During Modeling Period



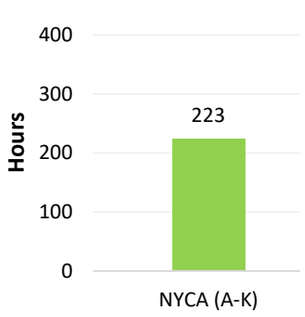
Loss of Load	
Total Hrs.	91
Total MWh	245,679
Avg. MW	602.2
First Hour with Losses	212

Full Period Results Summary

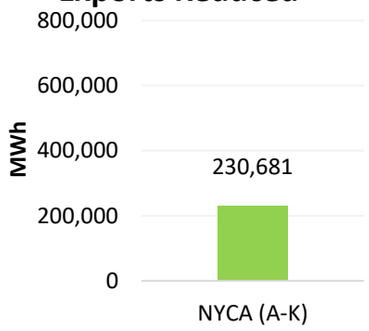
Case Name: Scenario 1 - PD 7 No Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

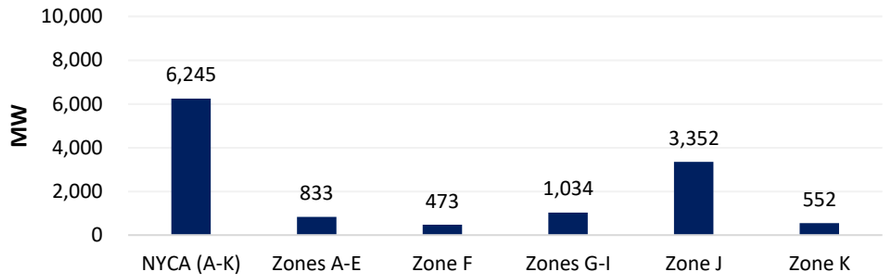
Hours Exports Reduced



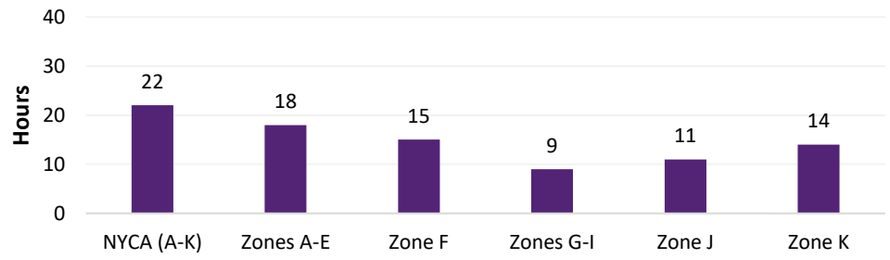
Total MWh of Exports Reduced



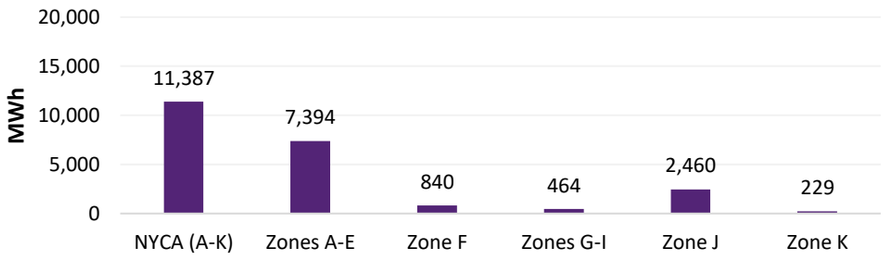
Average Capacity Not Available Due to Exhausted Fuel Inventory



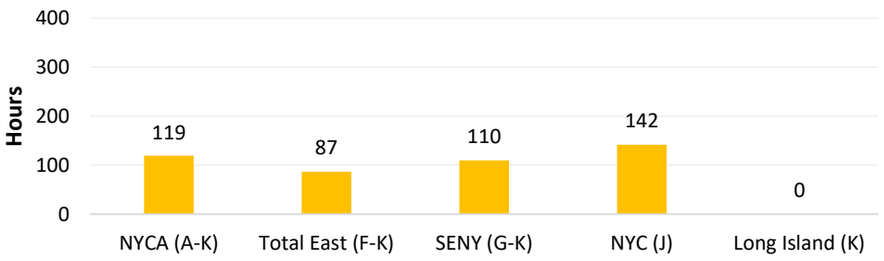
Hours SCR/EDRP Deployed



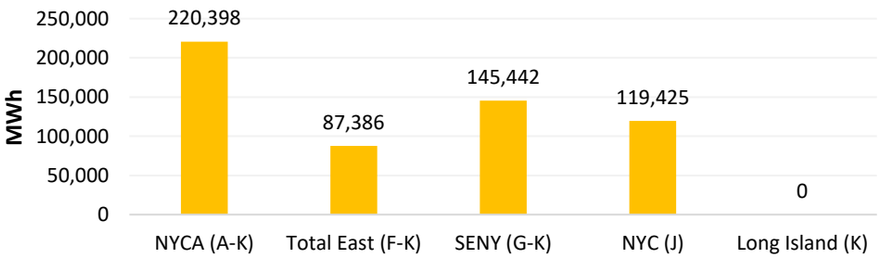
Total MWh SCR/EDRP Deployed



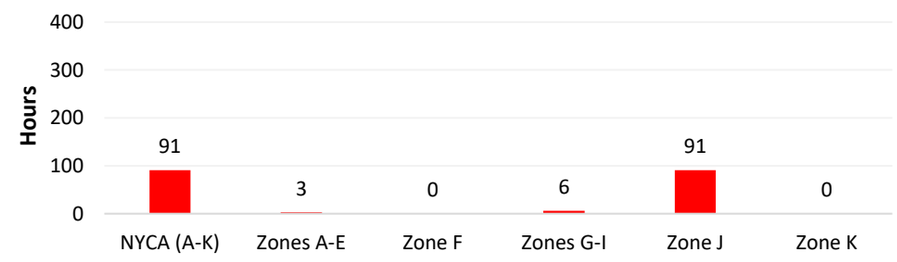
Hours with Reserve Violations



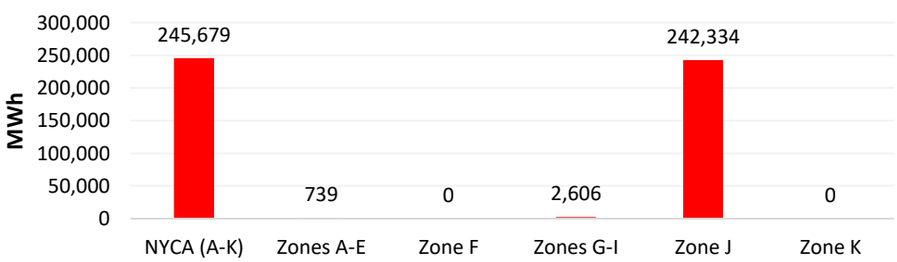
Total MWh of Reserve Violations

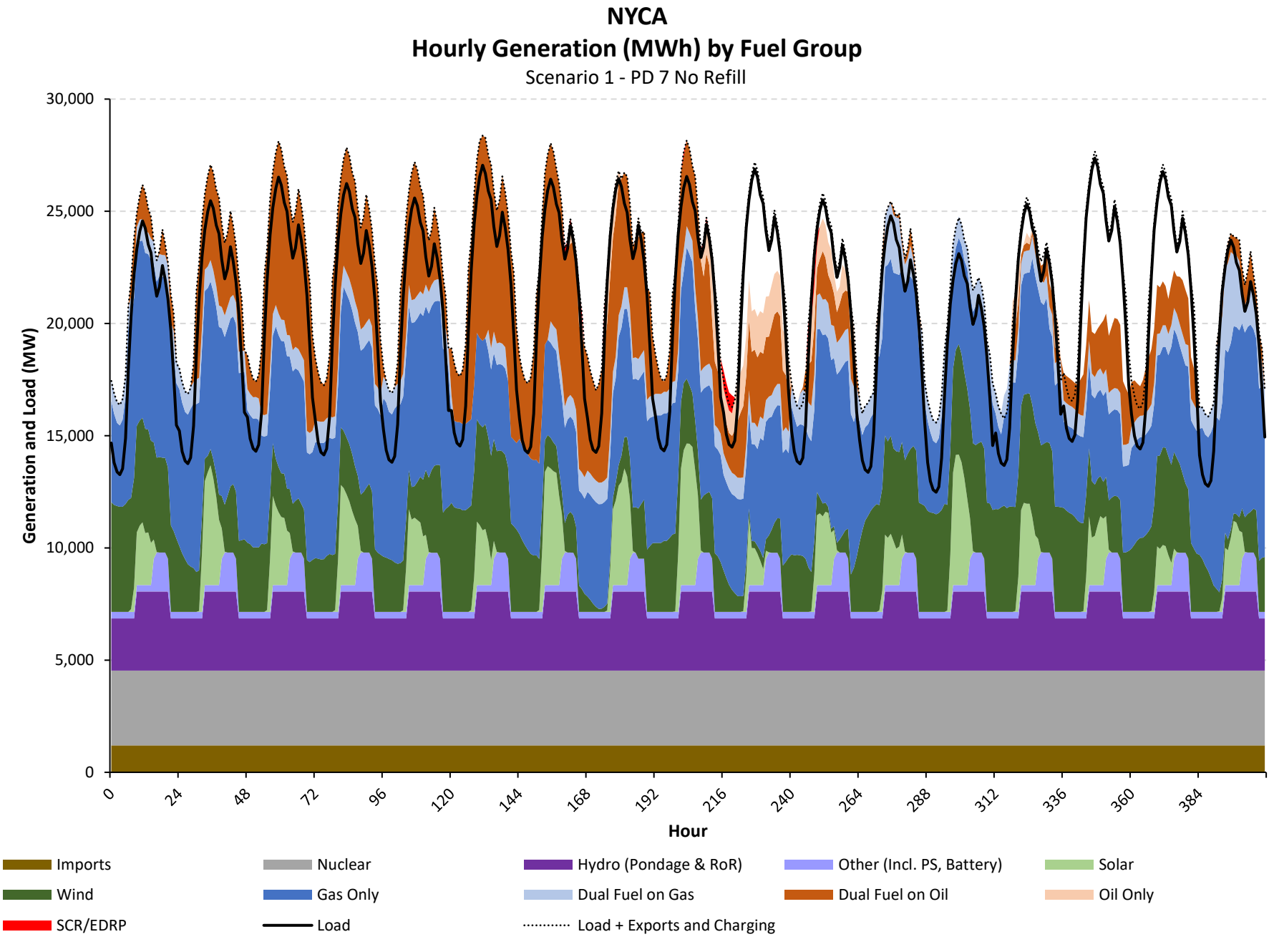


Hours with Loss of Load

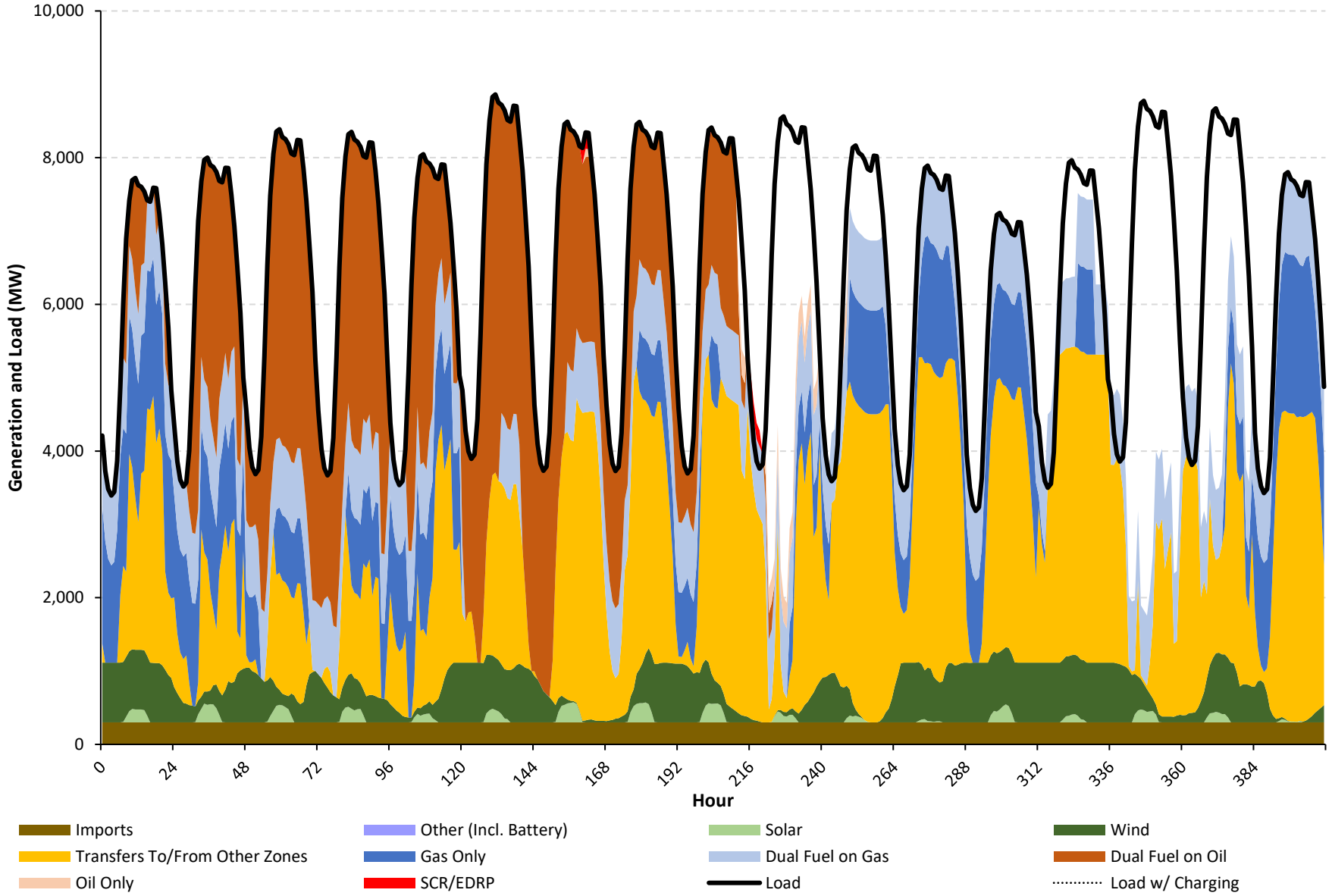


Total MWh of Lost Load

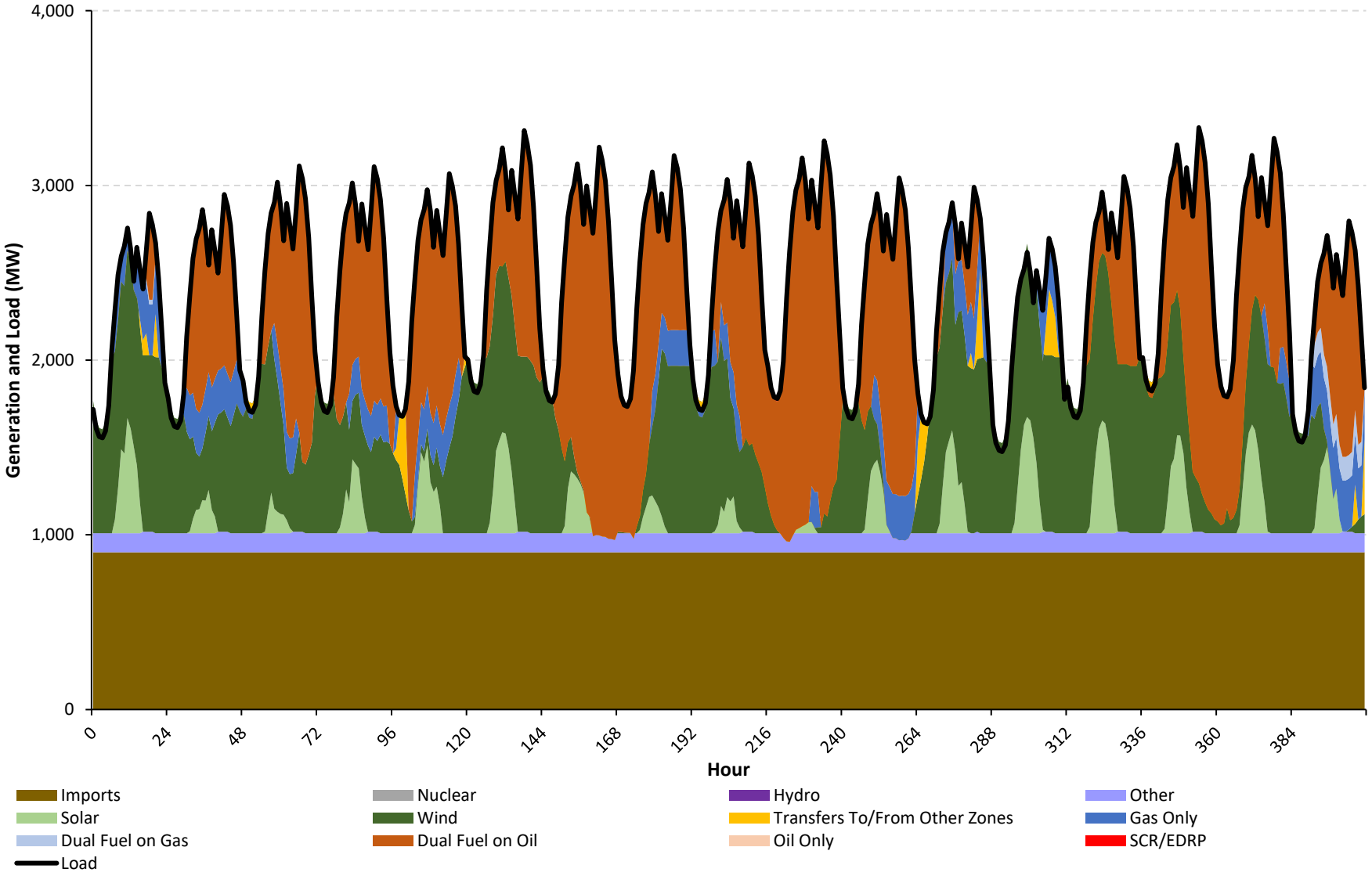


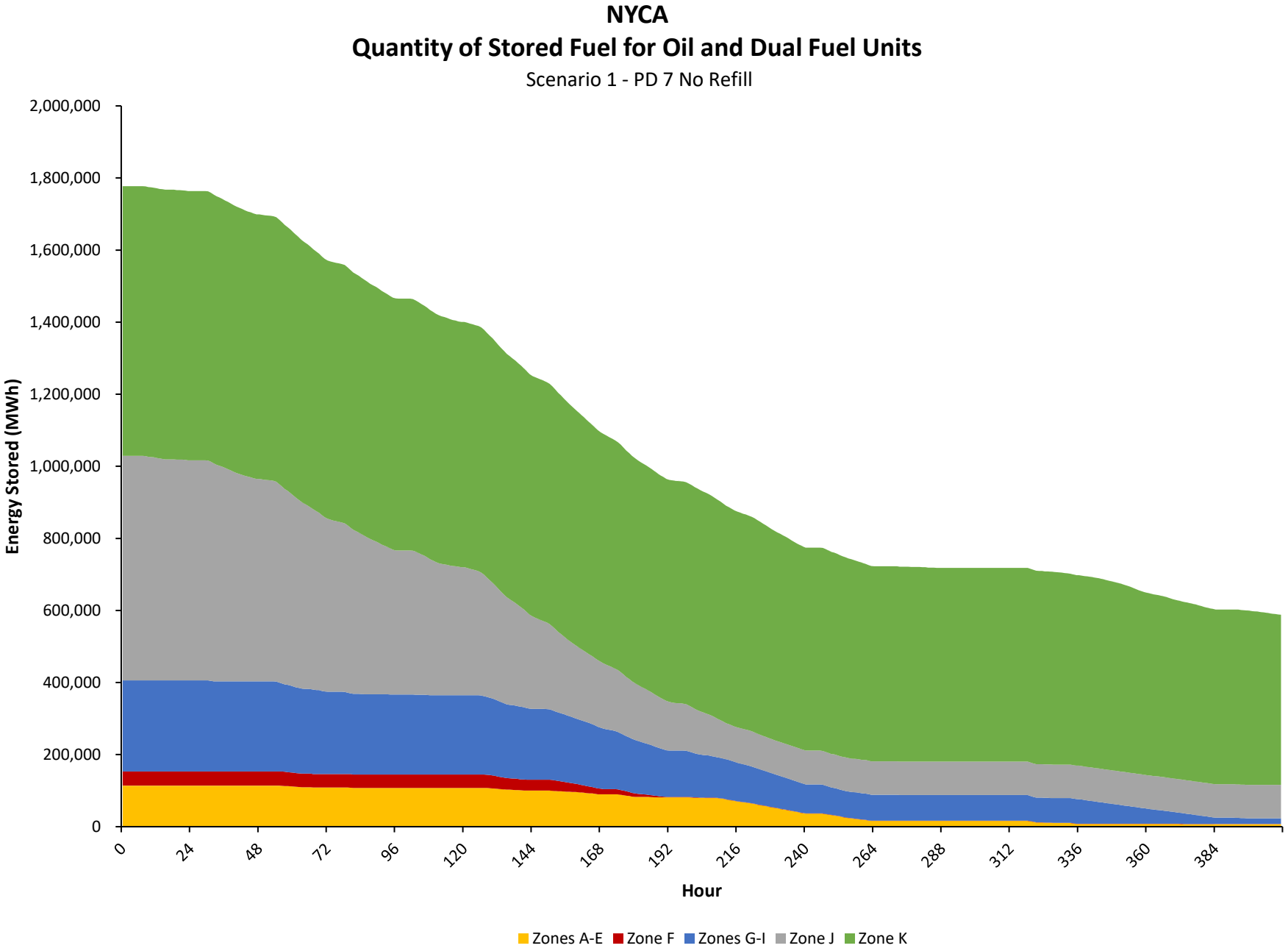

NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 1 - PD 7 No Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

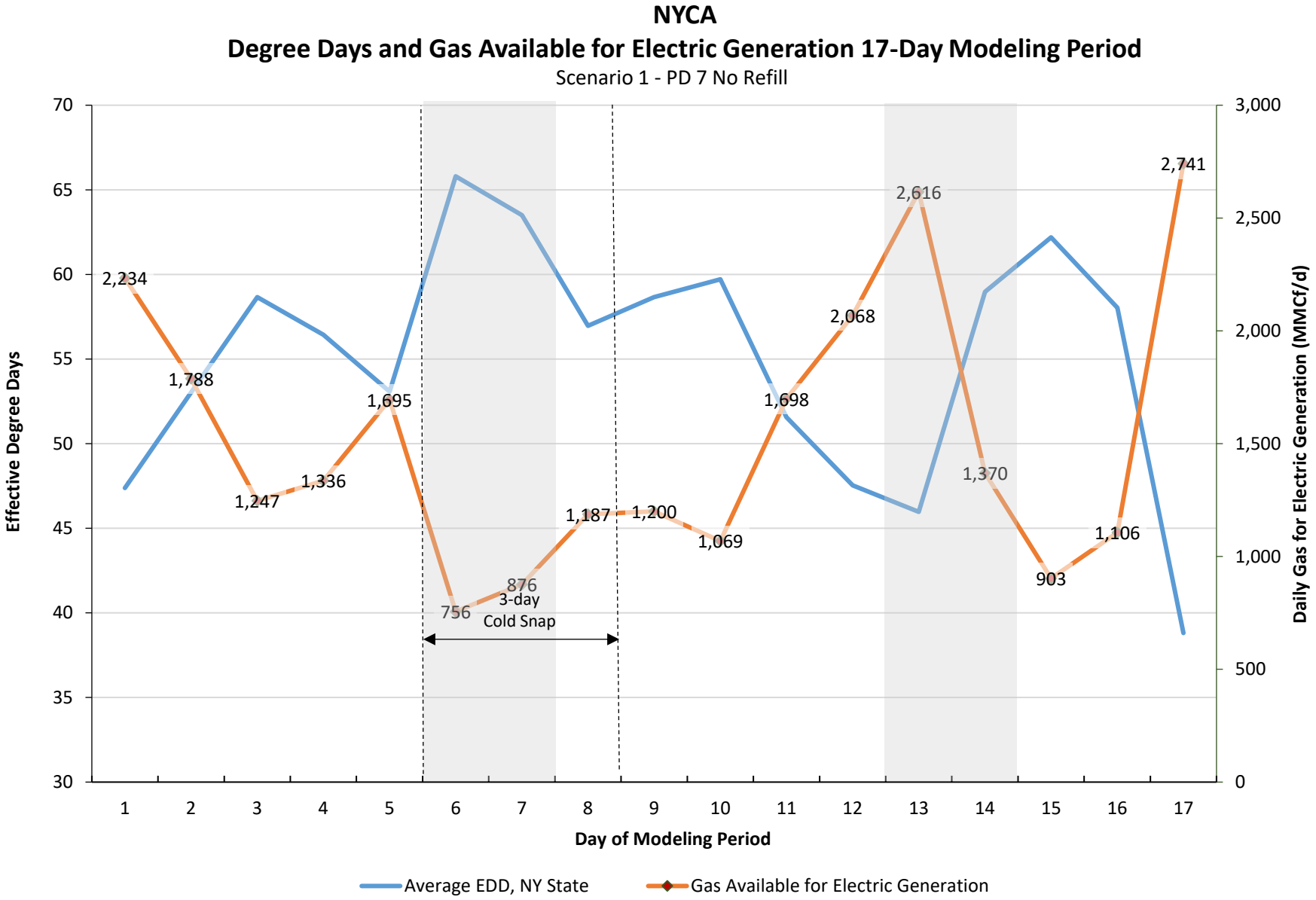
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 7 No Refill



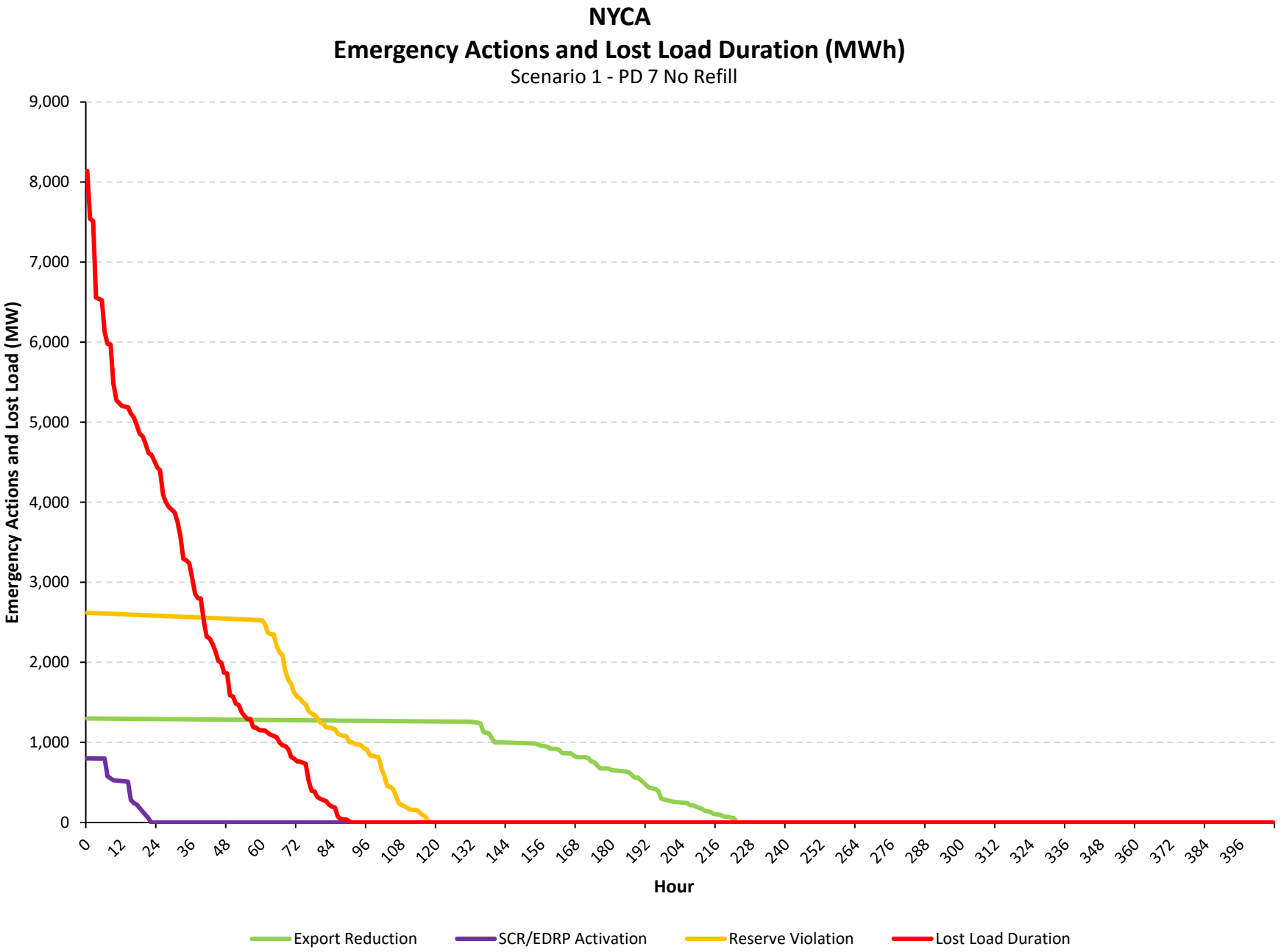
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 7 No Refill

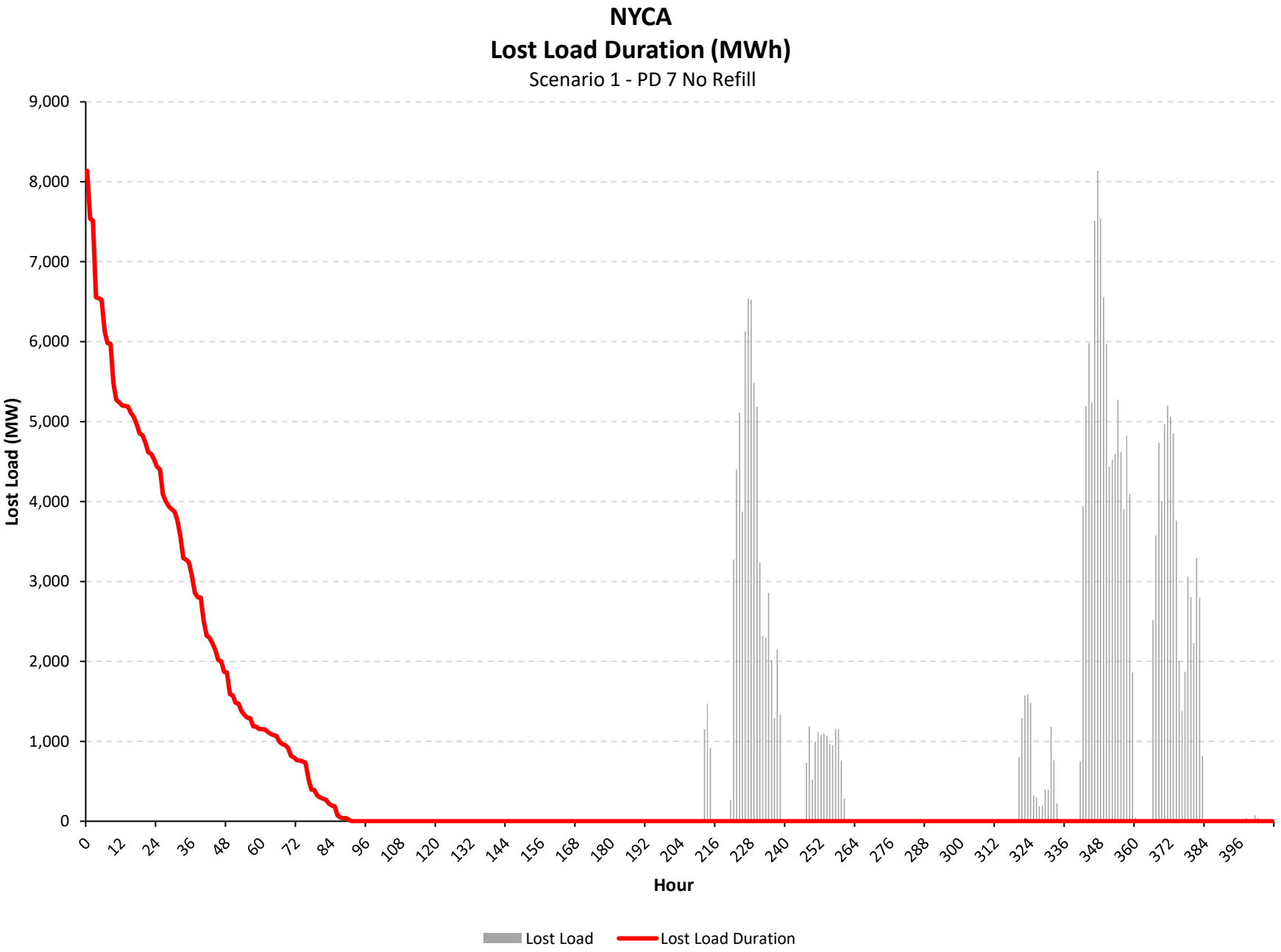



NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 1 - PD 7 No Refill
Energy Stored (MWh)
2,000,000
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Zones A-E
Zone F
Zones G-I
Zone J
Zone K



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 1 - PD 7 No Refill
Emergency Actions and Lost Load (MW)
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 1 - PD 7 No Refill
Lost Load (MW)
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

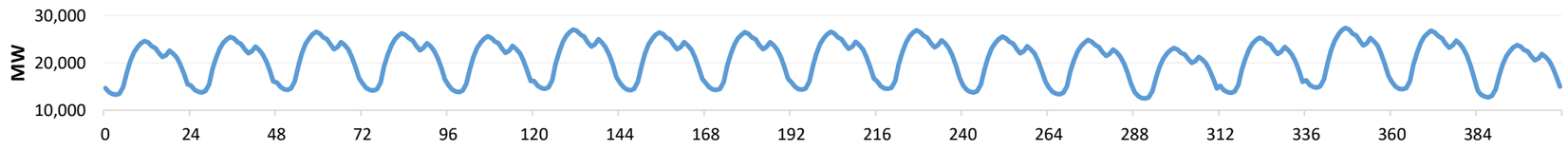
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 8 Non-Firm Gas Unavailable (F-K) (Winter 2026/2027)

Hourly Results Summary

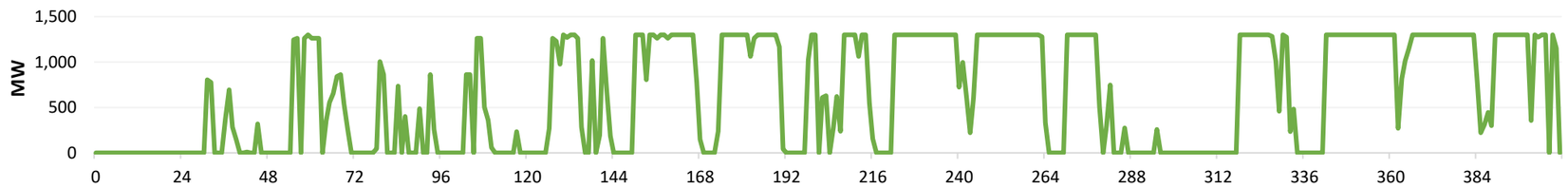
Case Name: Scenario 1 - PD 8 Non-Firm Gas Unavailable (F-K)

Load During Modeling Period



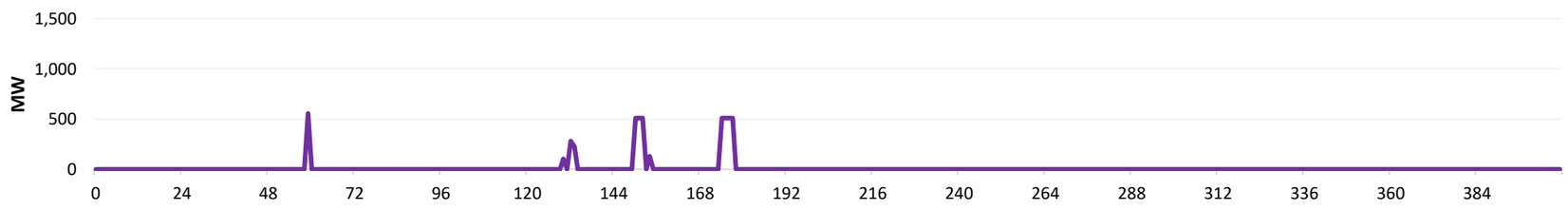
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



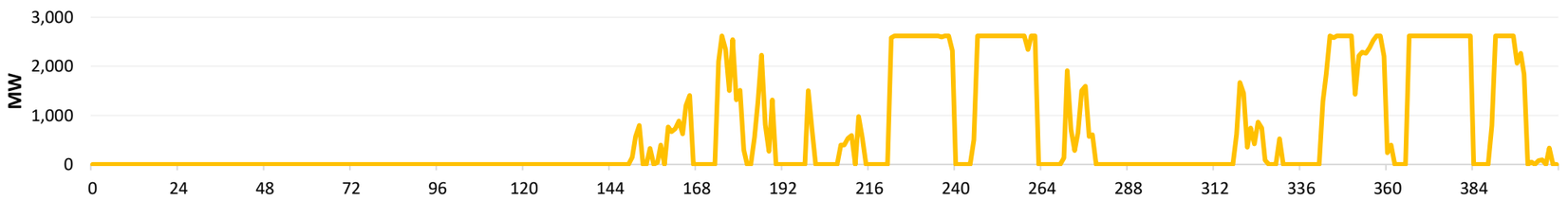
Export Reductions	
Total Hrs.	246
Total MWh	259,009
Avg. MW	634.8

SCR/EDRP Deployed During Modeling Period



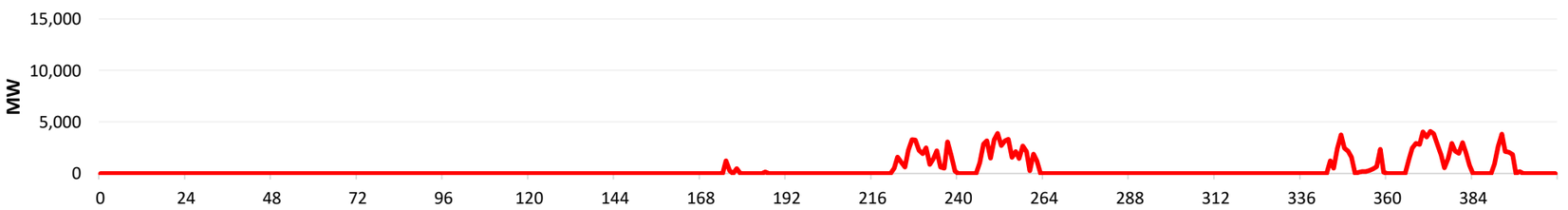
SCR Deployment	
Total Hrs.	12
Total MWh	4,867
Avg. MW	11.9

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	142
Total MWh	254,845
Avg. MW	624.6
First Hour with Viol.	150

Loss of Load During Modeling Period

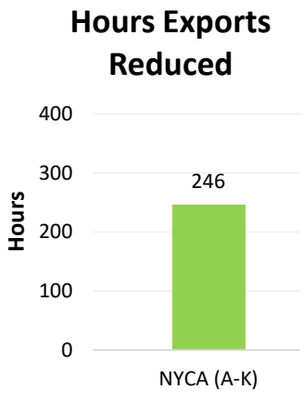


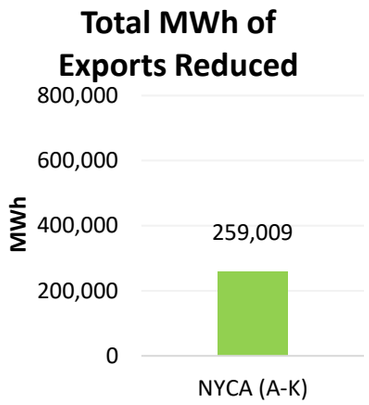
Loss of Load	
Total Hrs.	80
Total MWh	147,055
Avg. MW	360.4
First Hour with Losses	174

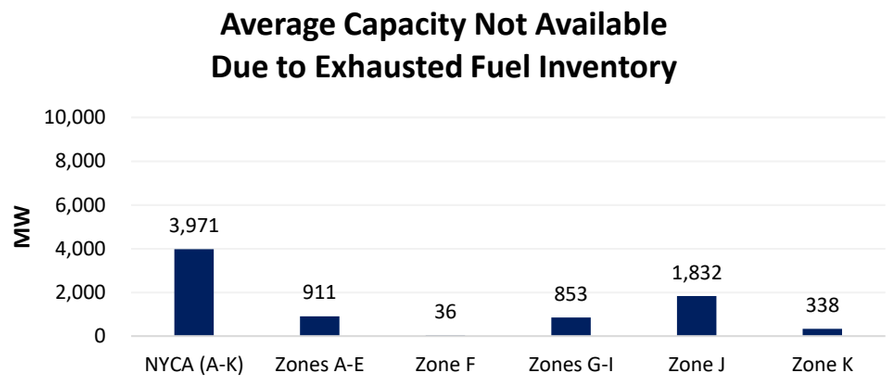
Full Period Results Summary

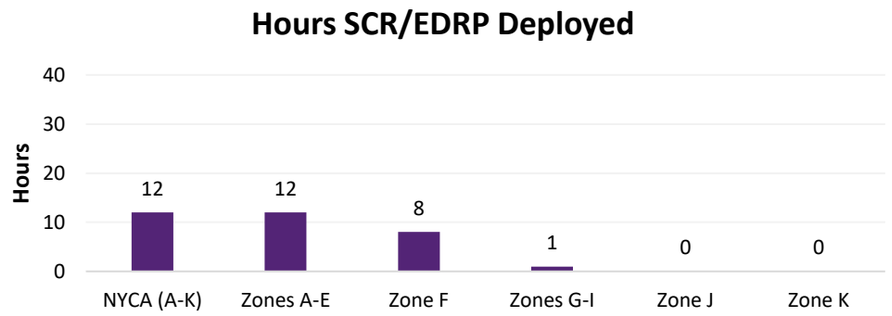
Case Name: Scenario 1 - PD 8 Non-Firm Gas Unavailable (F-K)

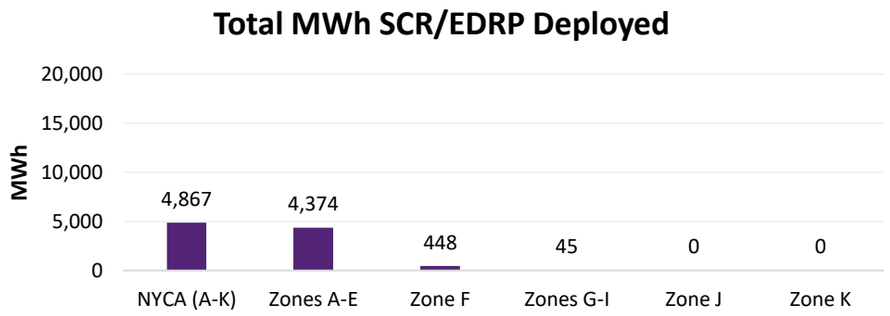
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

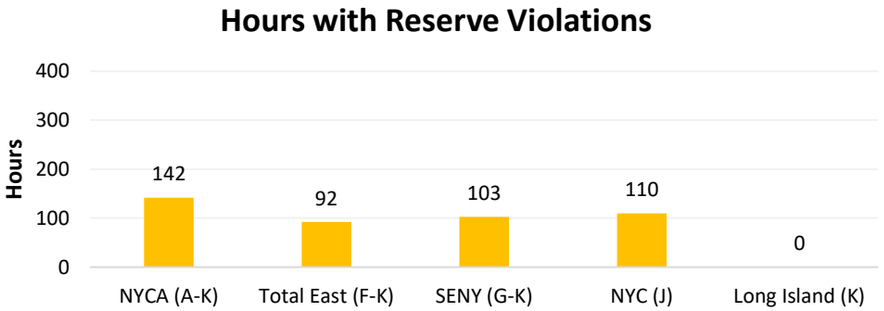


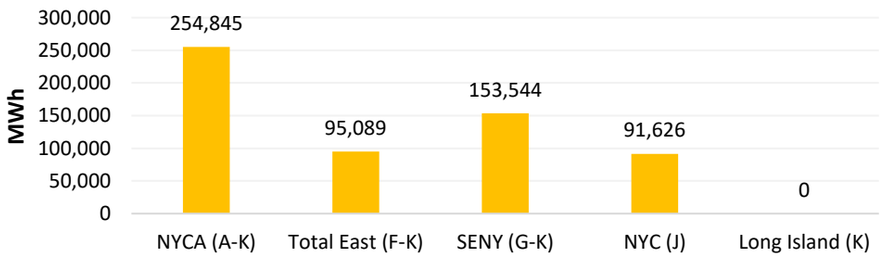


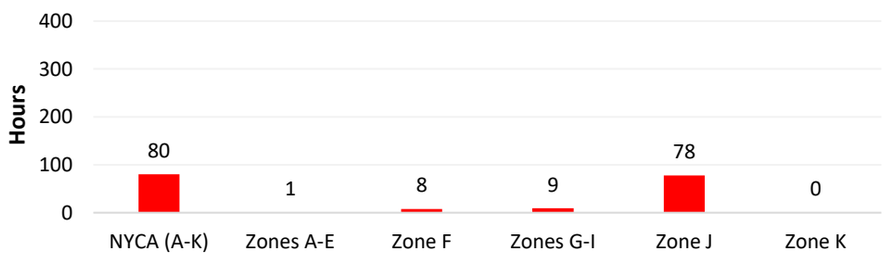


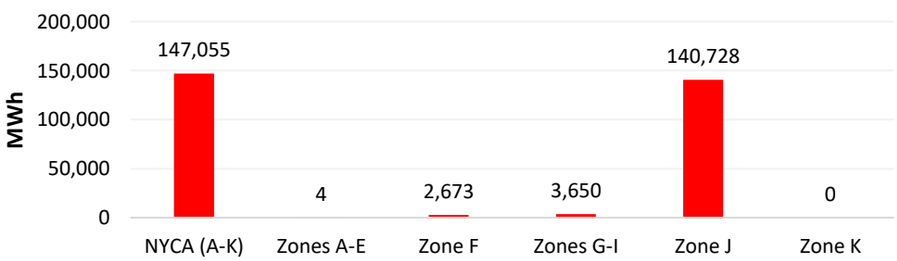


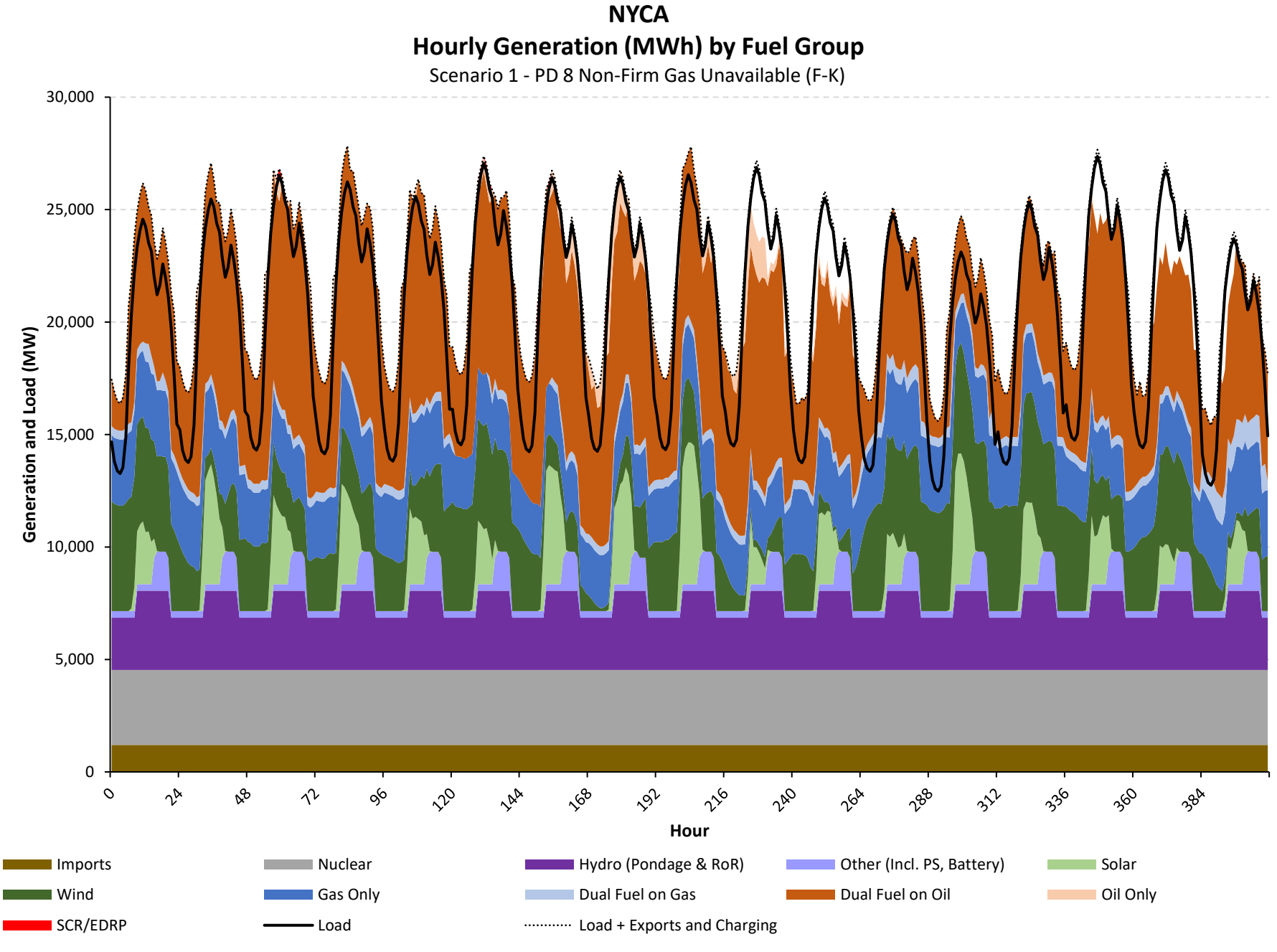




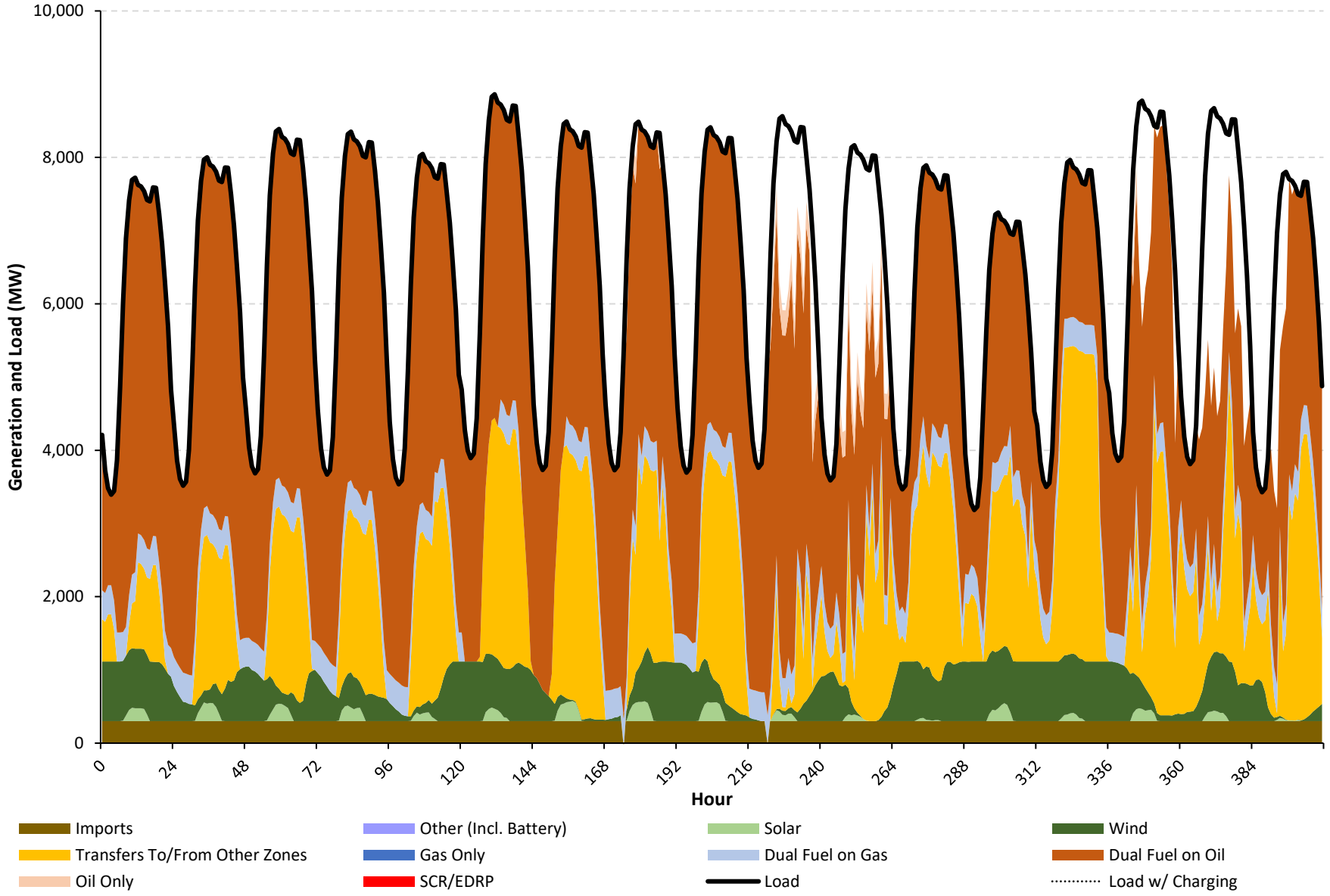




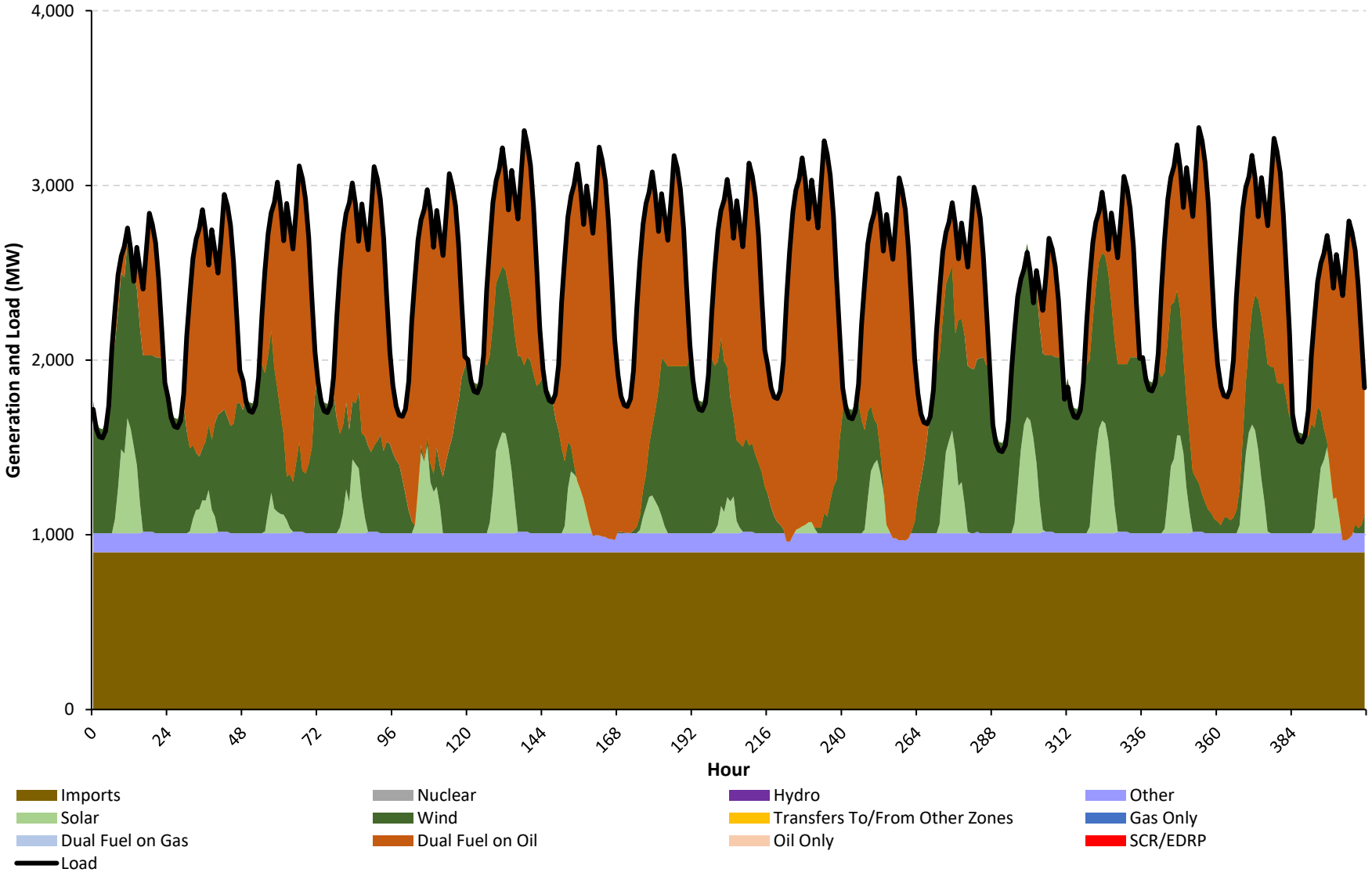



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 1 - PD 8 Non-Firm Gas Unavailable (F-K)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 8 Non-Firm Gas Unavailable (F-K)



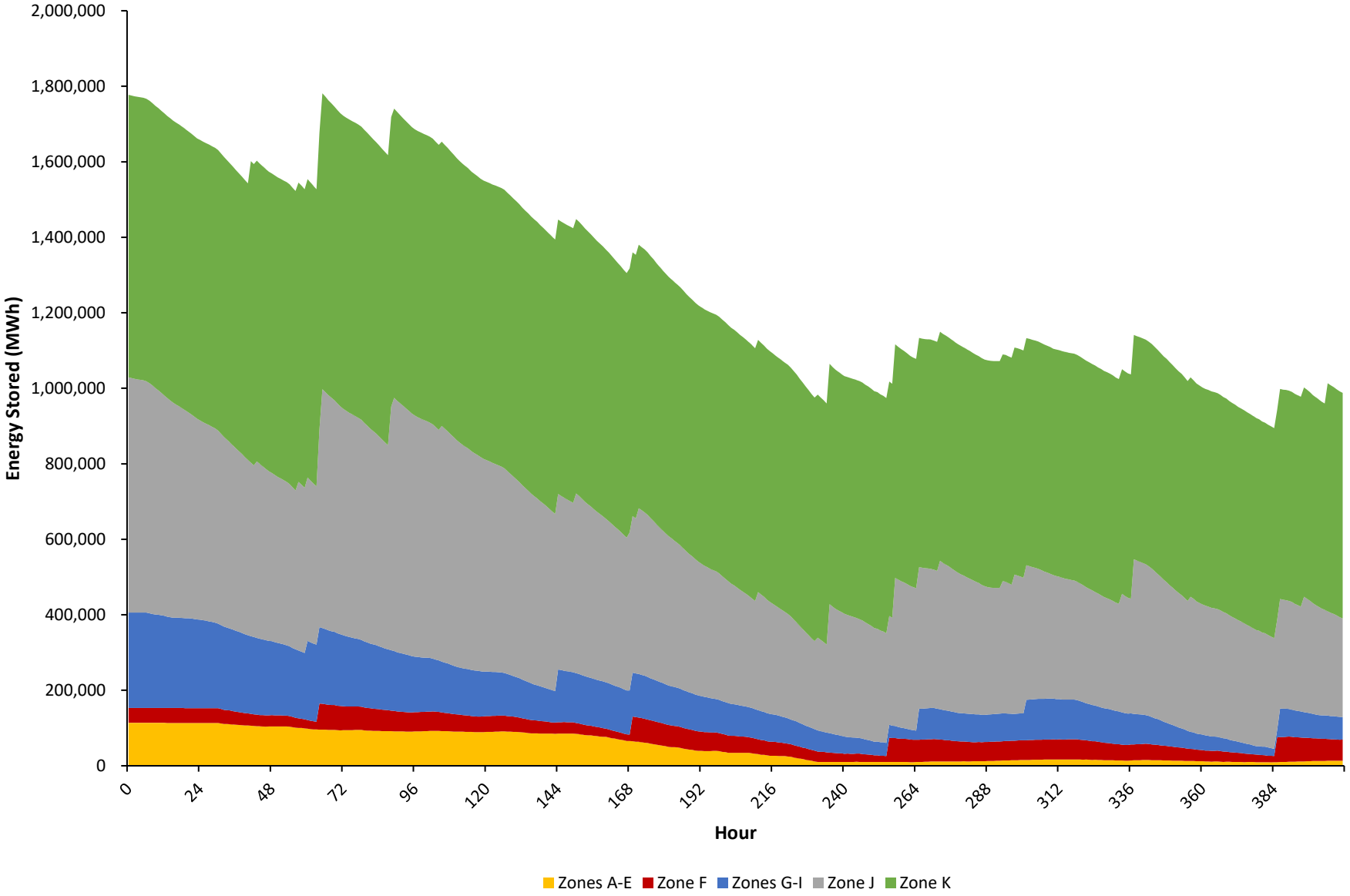
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 8 Non-Firm Gas Unavailable (F-K)

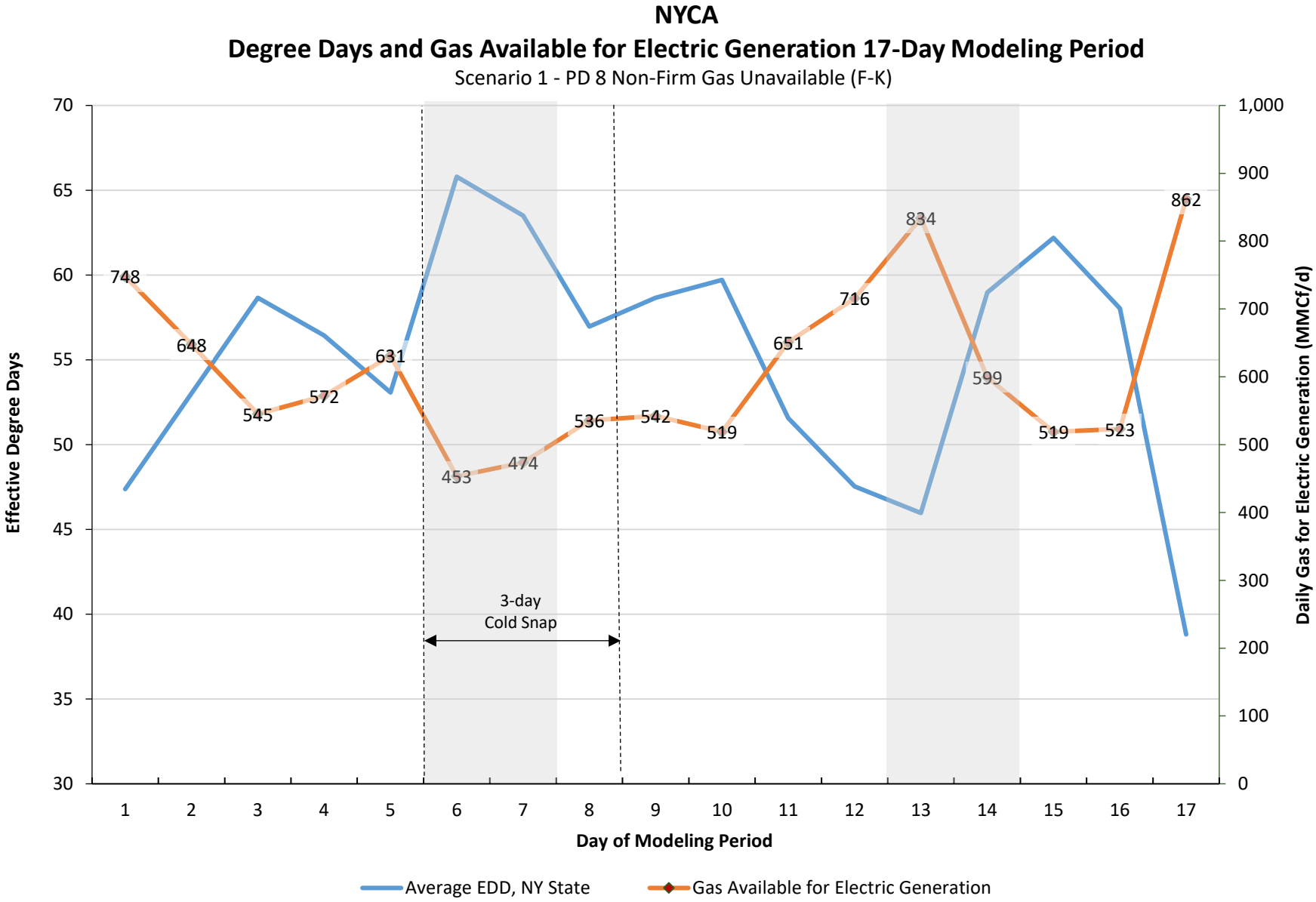


NYCA

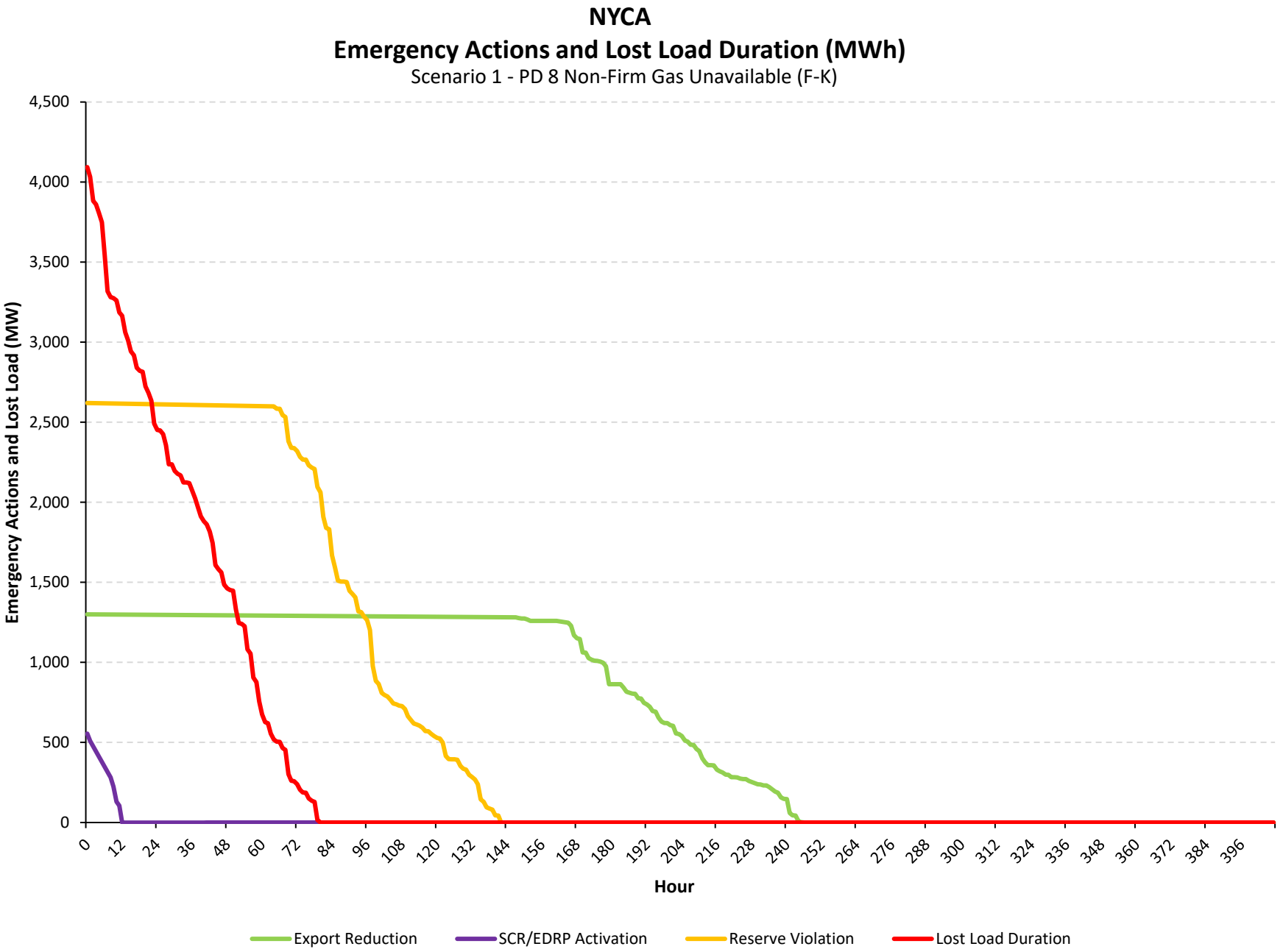
Quantity of Stored Fuel for Oil and Dual Fuel Units

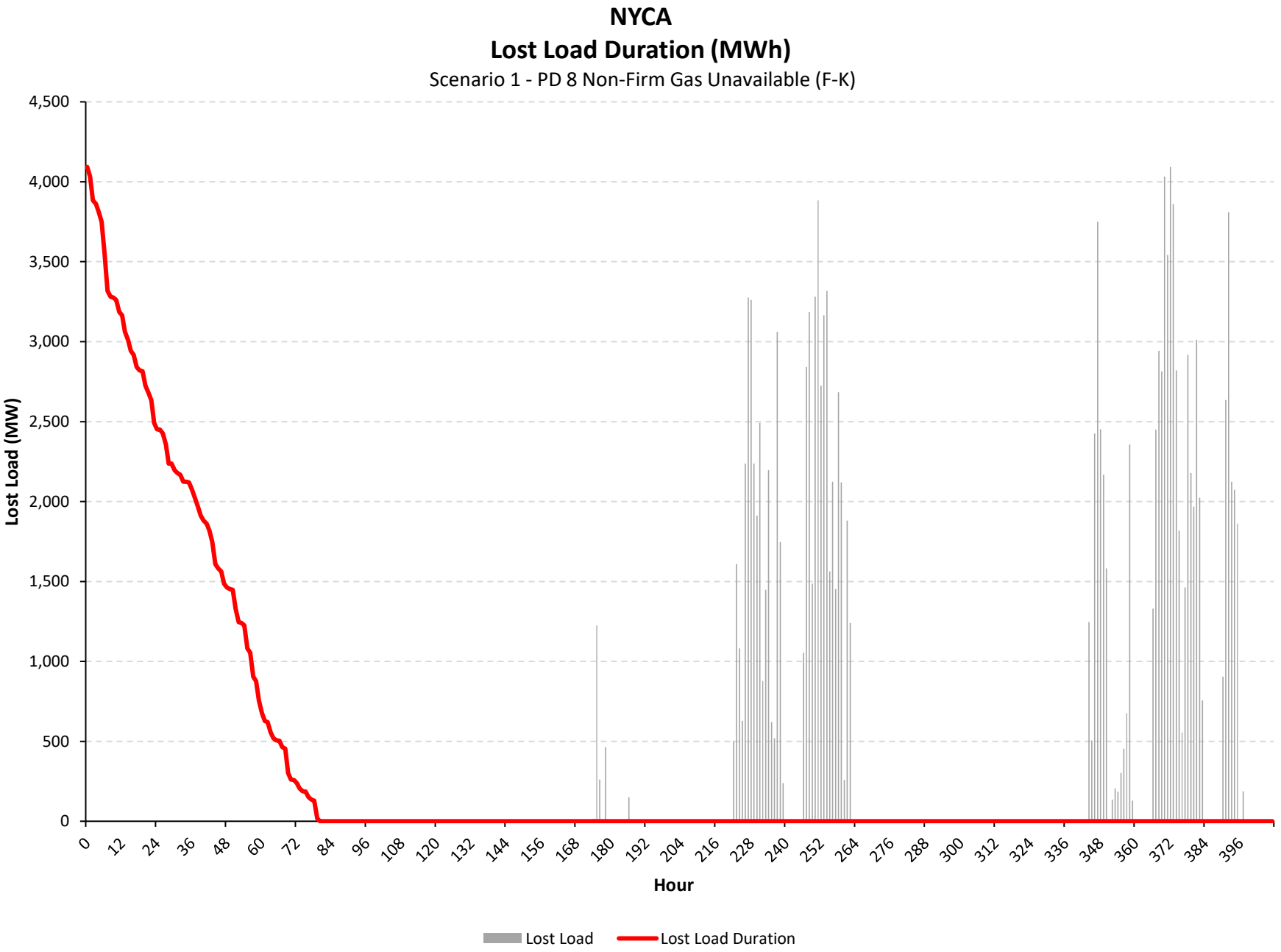
Scenario 1 - PD 8 Non-Firm Gas Unavailable (F-K)





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 1 - PD 8 Non-Firm Gas Unavailable (F-K)
Emergency Actions and Lost Load (MW)
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 1 - PD 8 Non-Firm Gas Unavailable (F-K)
Lost Load (MW)
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

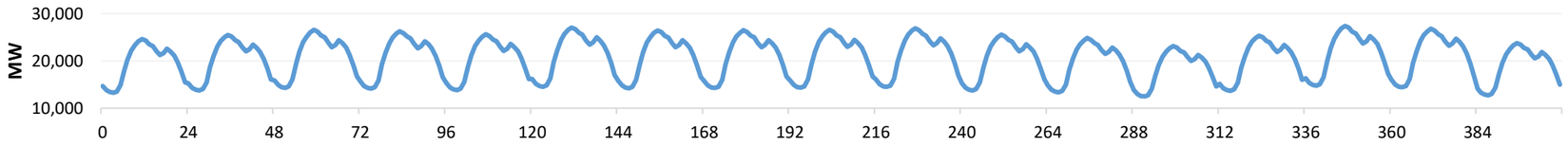
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 9 Non-Firm Gas Unavailable (NYCA) (Winter 2026/2027)

Hourly Results Summary

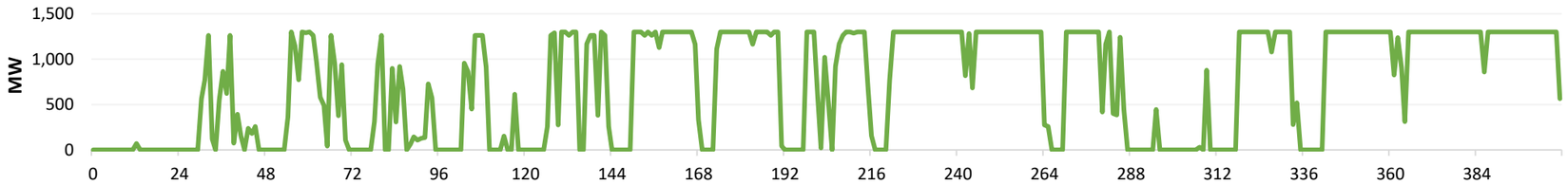
Case Name: Scenario 1 - PD 9 Non-Firm Gas Unavailable (NYCA)

Load During Modeling Period



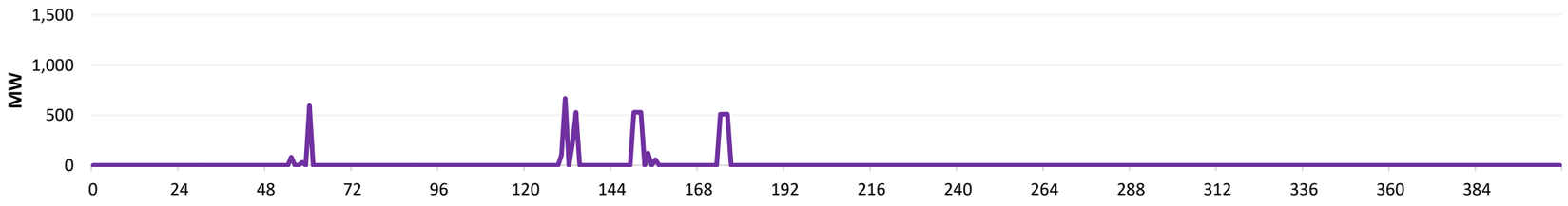
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



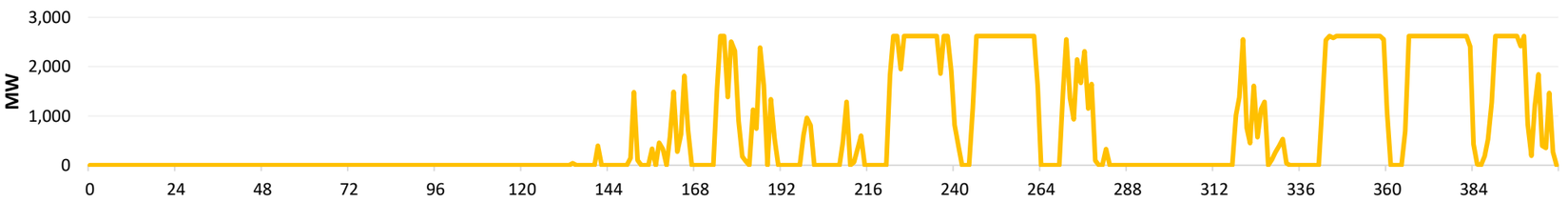
Export Reductions	
Total Hrs.	275
Total MWh	294,889
Avg. MW	722.8

SCR/EDRP Deployed During Modeling Period



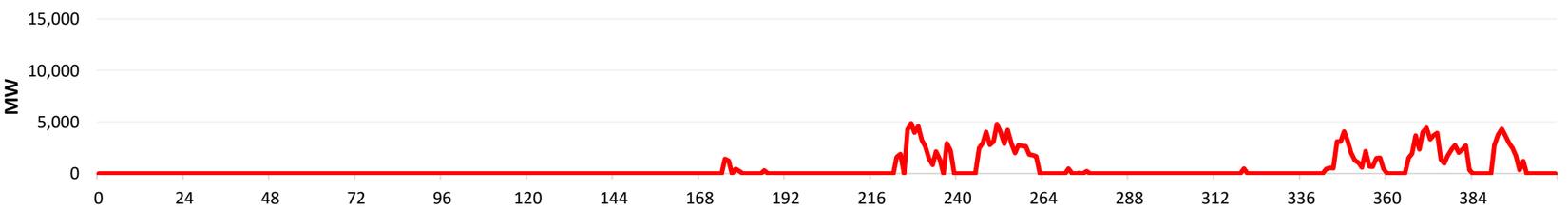
SCR Deployment	
Total Hrs.	15
Total MWh	5,519
Avg. MW	13.5

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	162
Total MWh	282,942
Avg. MW	693.5
First Hour with Viol.	134

Loss of Load During Modeling Period



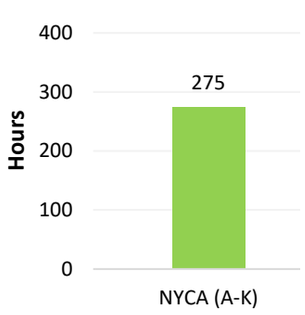
Loss of Load	
Total Hrs.	84
Total MWh	188,058
Avg. MW	460.9
First Hour with Losses	175

Full Period Results Summary

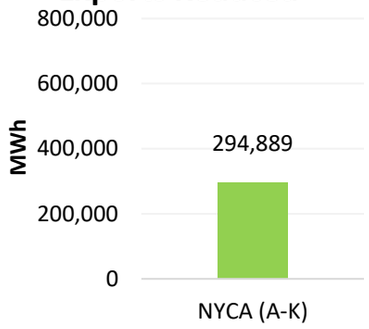
Case Name: Scenario 1 - PD 9 Non-Firm Gas Unavailable (NYCA)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

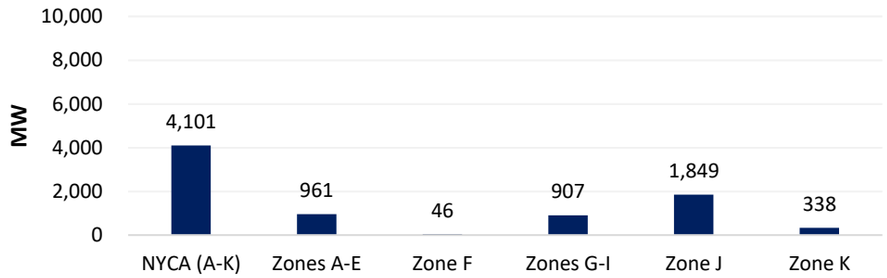
Hours Exports Reduced



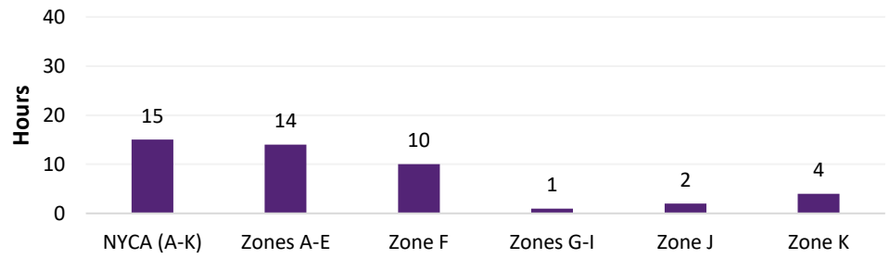
Total MWh of Exports Reduced



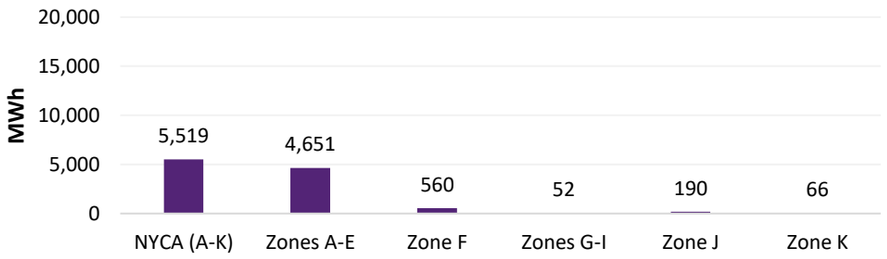
Average Capacity Not Available Due to Exhausted Fuel Inventory



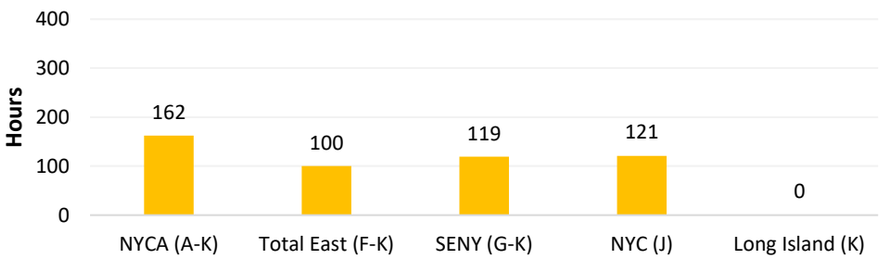
Hours SCR/EDRP Deployed



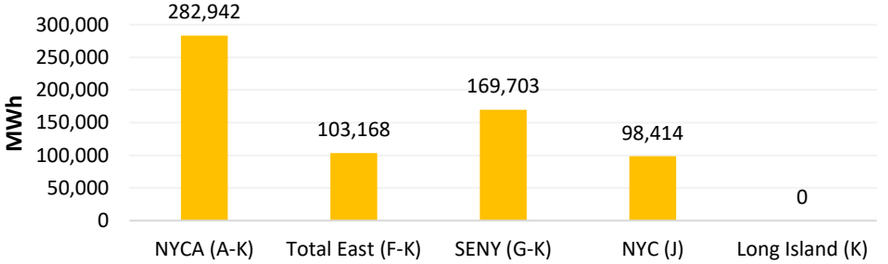
Total MWh SCR/EDRP Deployed



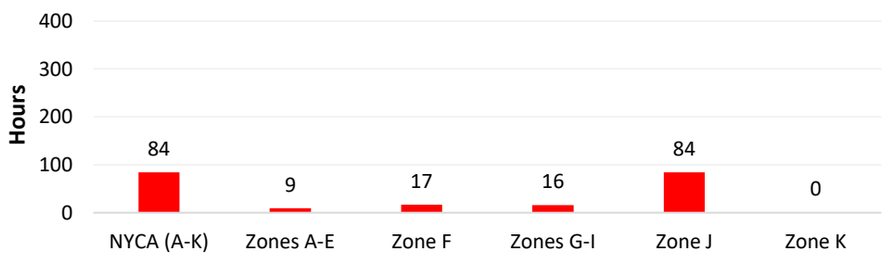
Hours with Reserve Violations



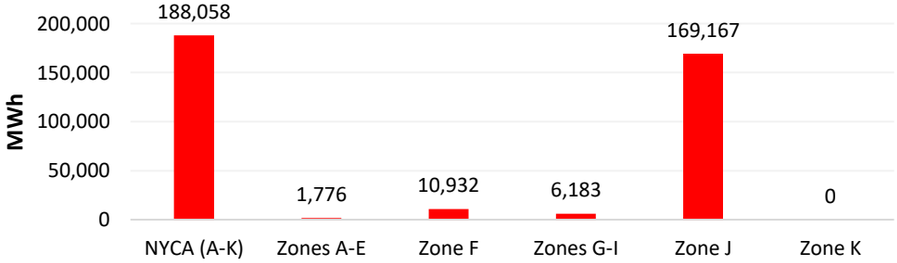
Total MWh of Reserve Violations

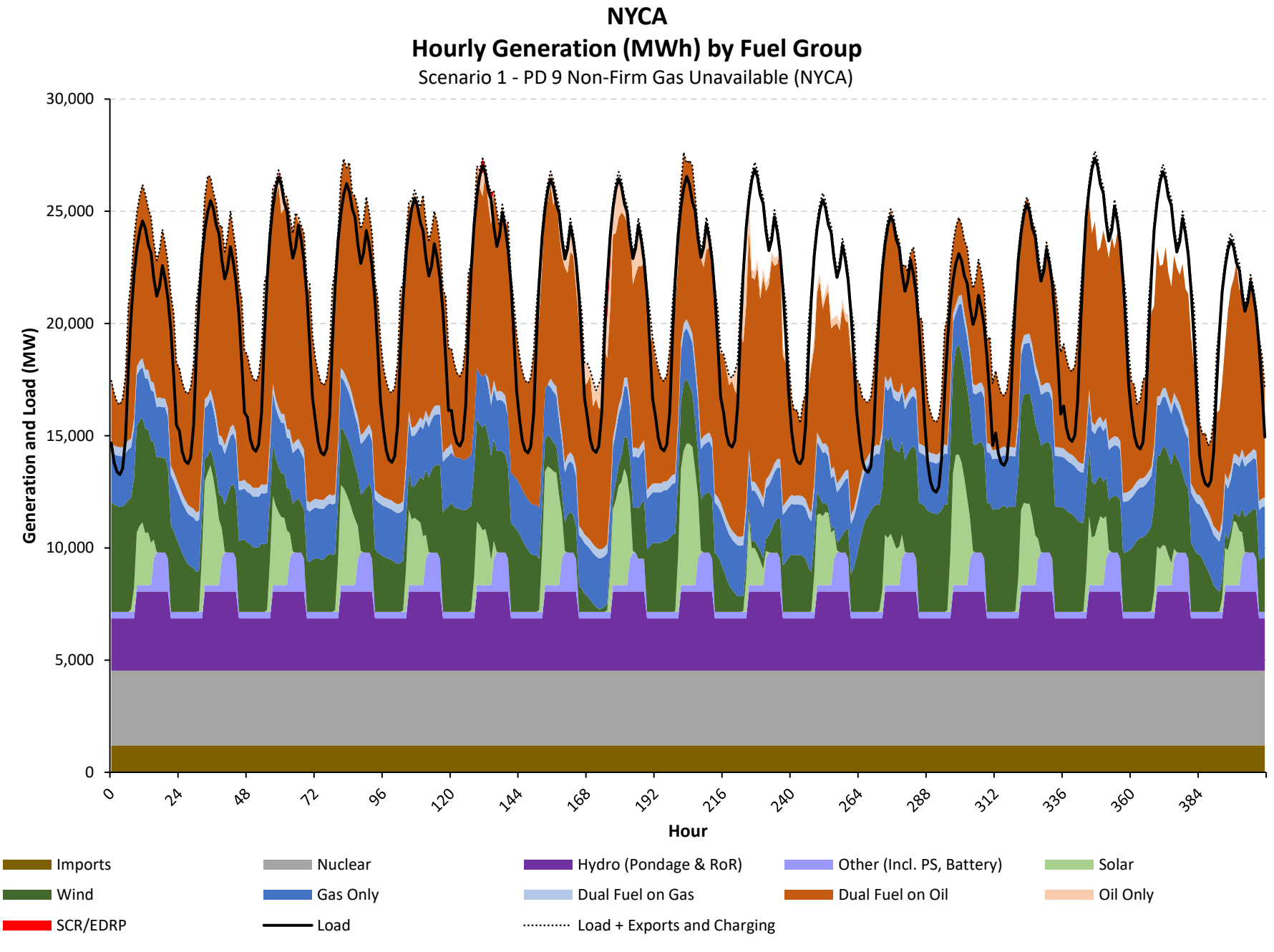


Hours with Loss of Load

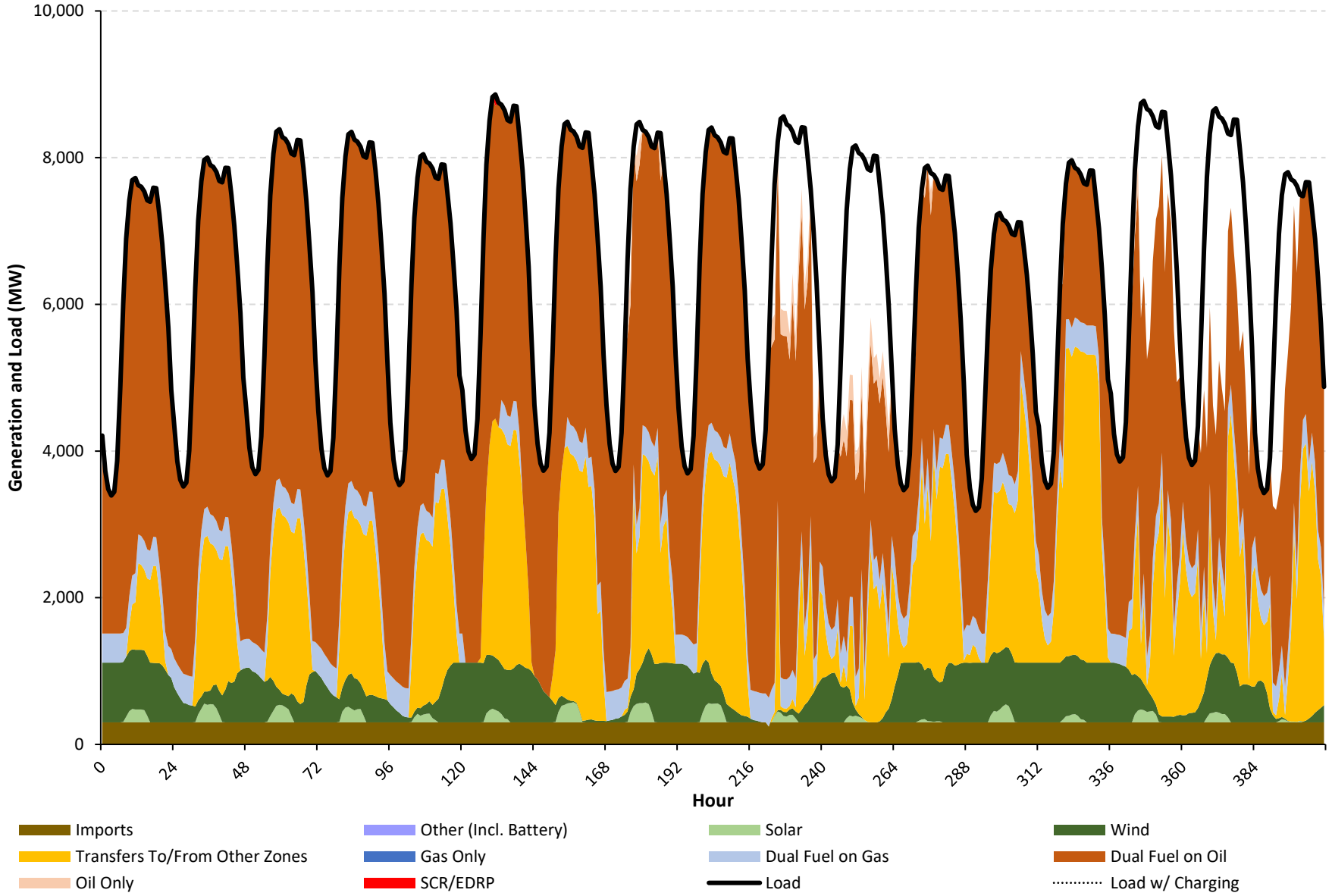


Total MWh of Lost Load

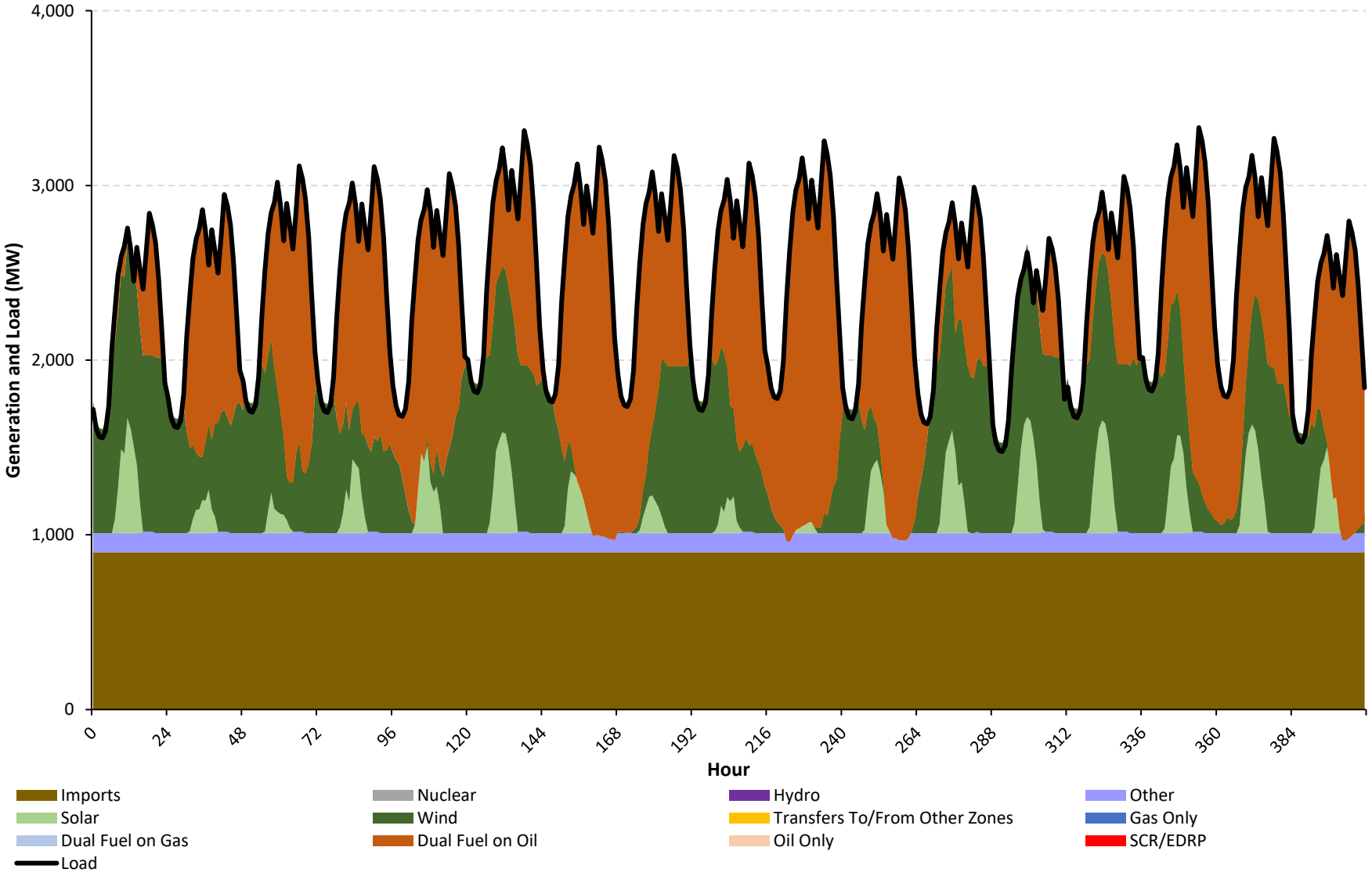



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 1 - PD 9 Non-Firm Gas Unavailable (NYCA)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 9 Non-Firm Gas Unavailable (NYCA)



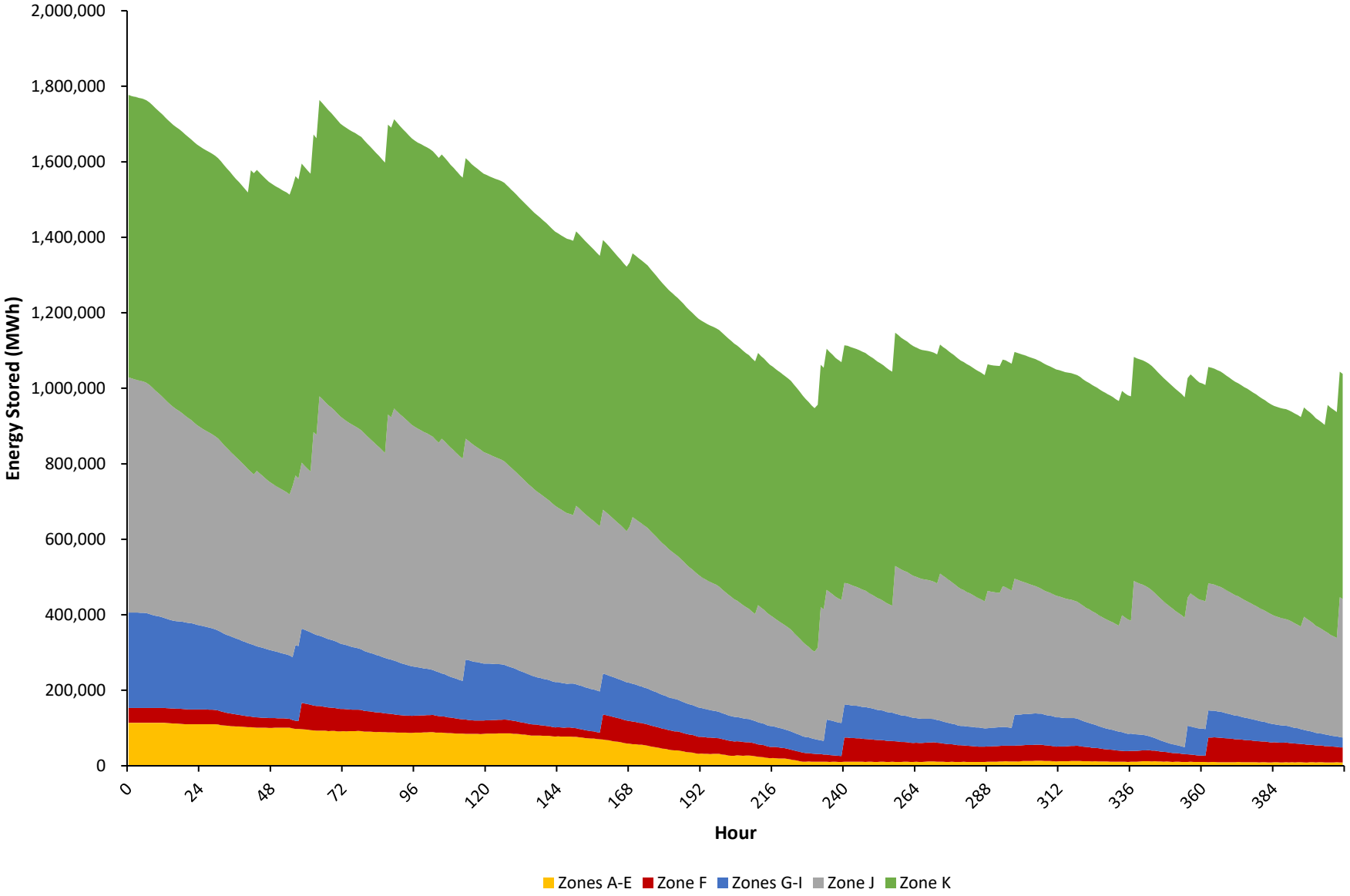
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 9 Non-Firm Gas Unavailable (NYCA)



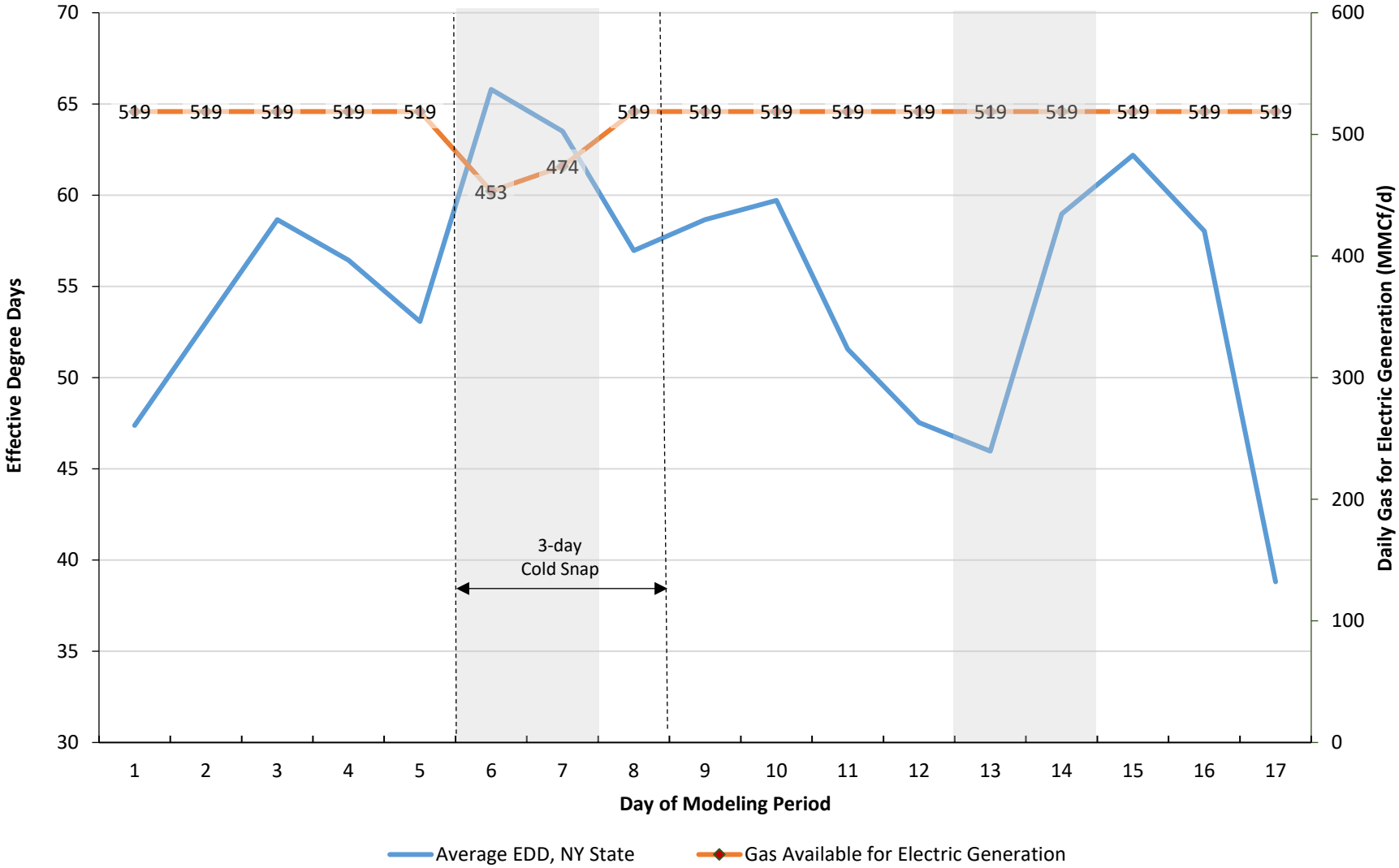
NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

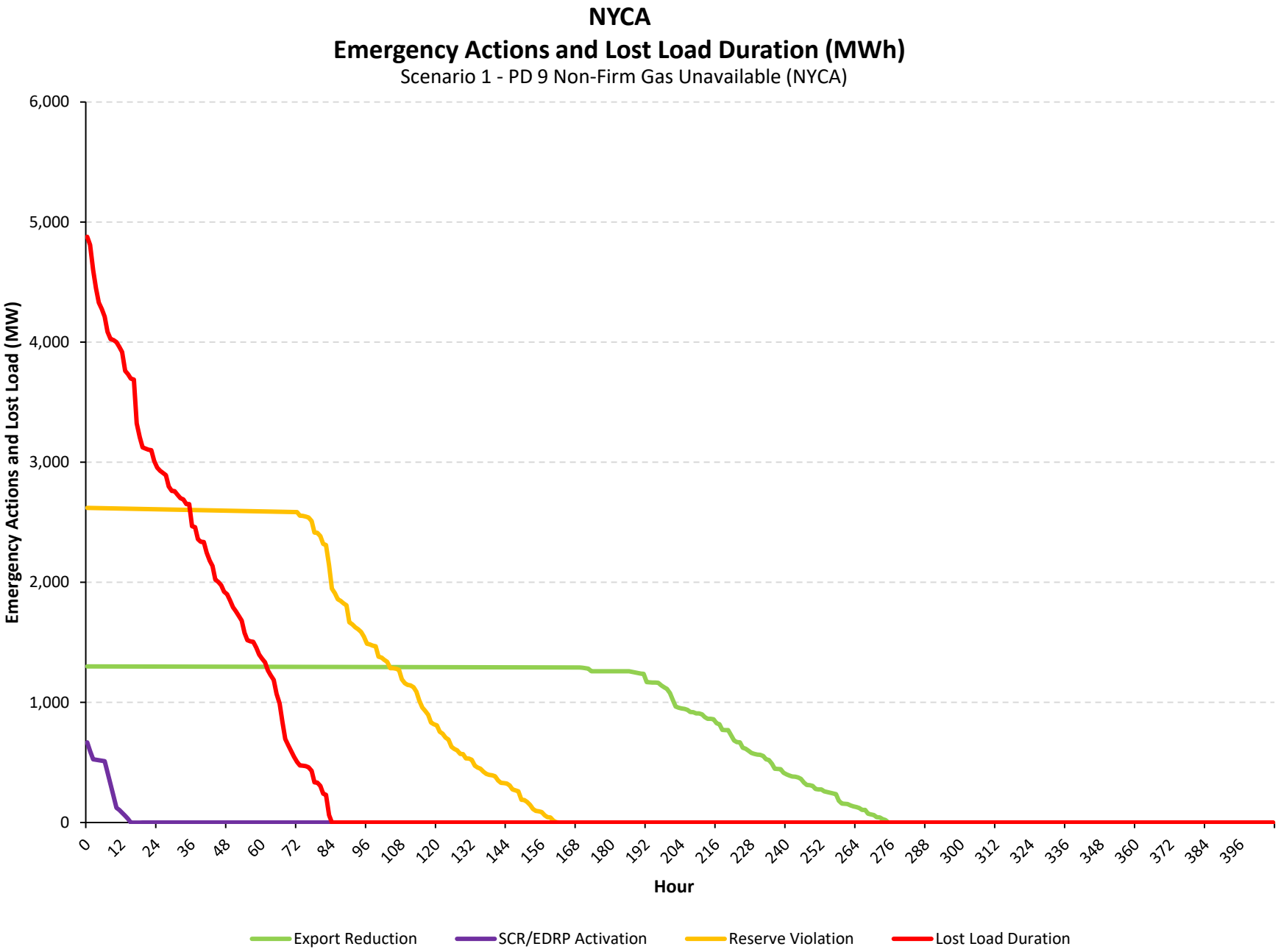
Scenario 1 - PD 9 Non-Firm Gas Unavailable (NYCA)

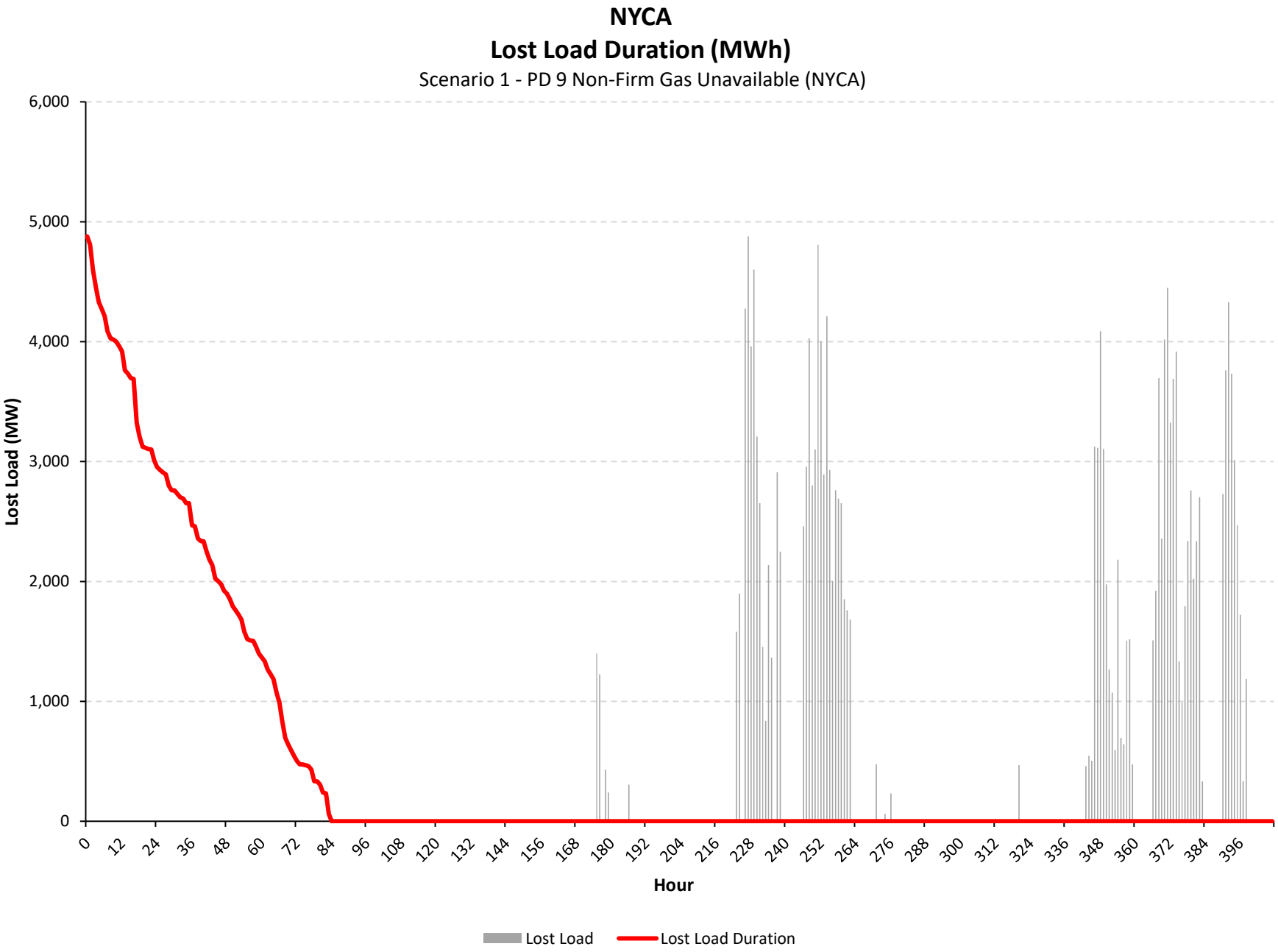


NYCA
Degree Days and Gas Available for Electric Generation 17-Day Modeling Period
Scenario 1 - PD 9 Non-Firm Gas Unavailable (NYCA)



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 1 - PD 9 Non-Firm Gas Unavailable (NYCA)
Emergency Actions and Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 1 - PD 9 Non-Firm Gas Unavailable (NYCA)
Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

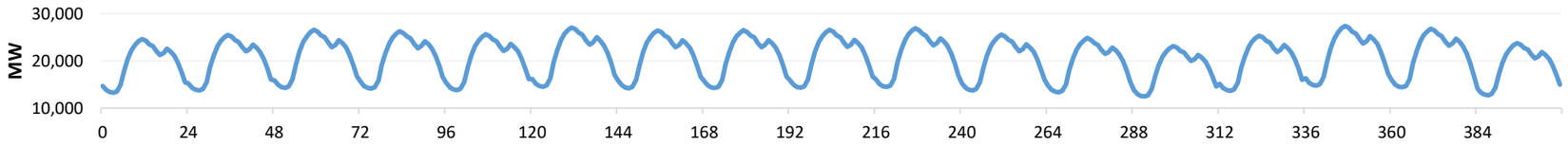
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 10 Non-Firm Gas Unavailable (4 days) (Winter 2026/2027)

Hourly Results Summary

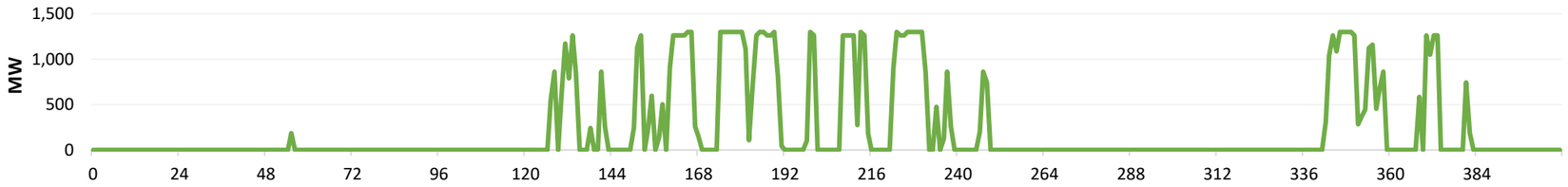
Case Name: Scenario 1 - PD 10 Non-Firm Gas Unavailable (4 days)

Load During Modeling Period



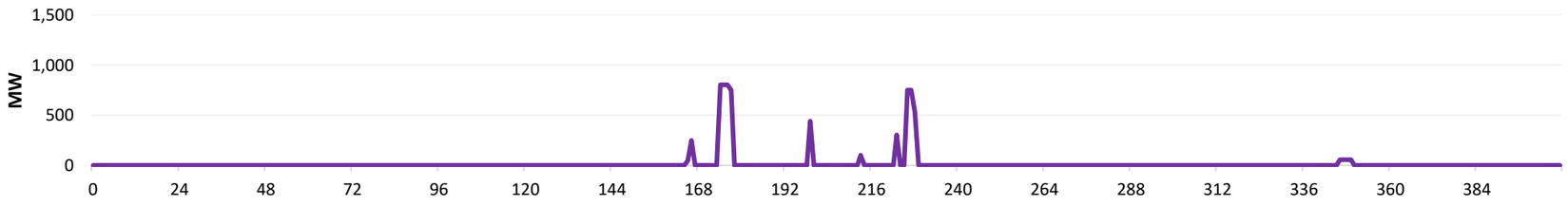
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



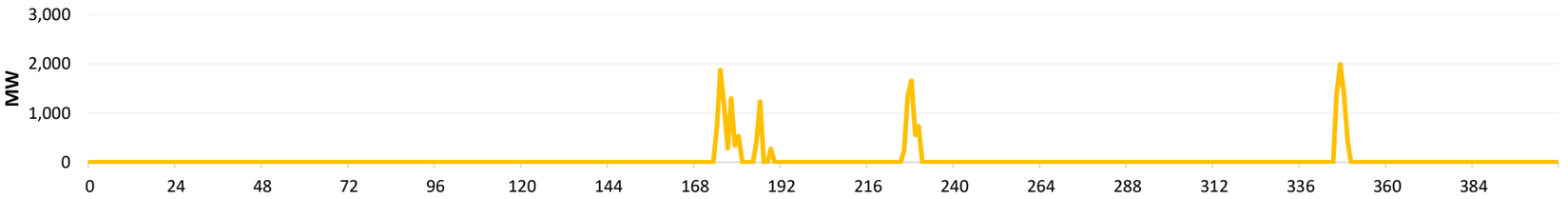
Export Reductions	
Total Hrs.	98
Total MWh	88,451
Avg. MW	216.8

SCR/EDRP Deployed During Modeling Period



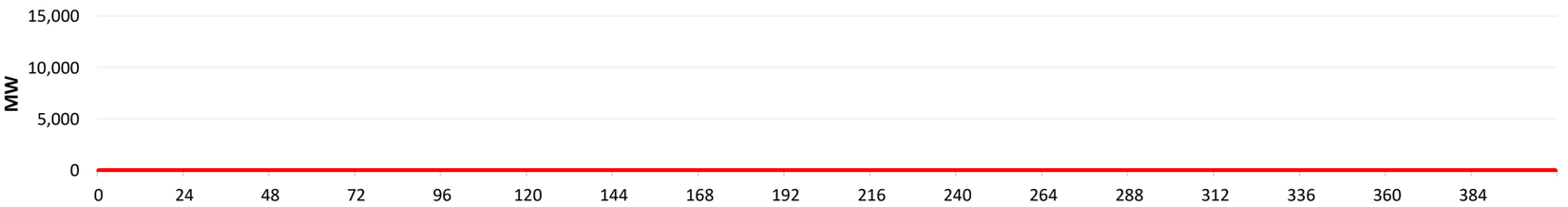
SCR Deployment	
Total Hrs.	16
Total MWh	6,547
Avg. MW	16.0

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	19
Total MWh	17,847
Avg. MW	43.7
First Hour with Viol.	174

Loss of Load During Modeling Period

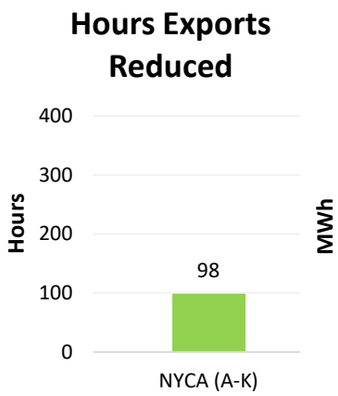


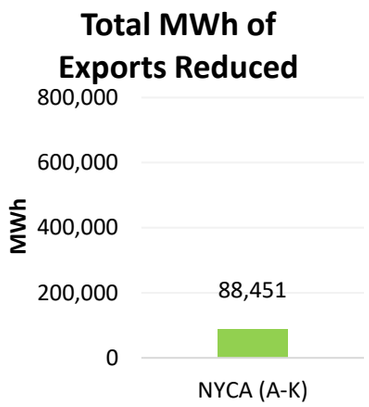
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

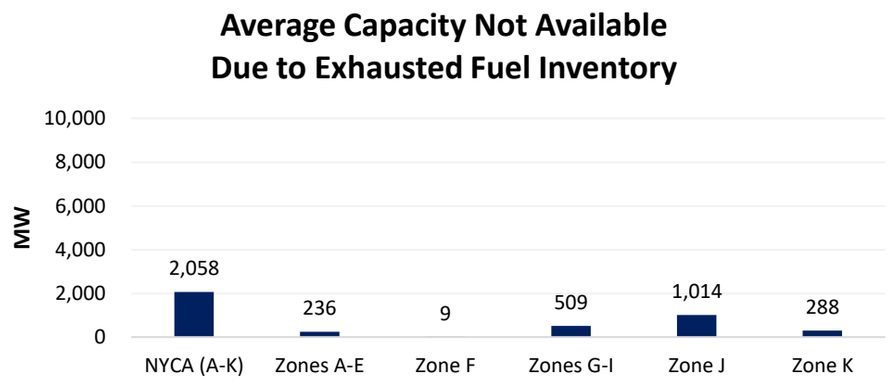
Full Period Results Summary

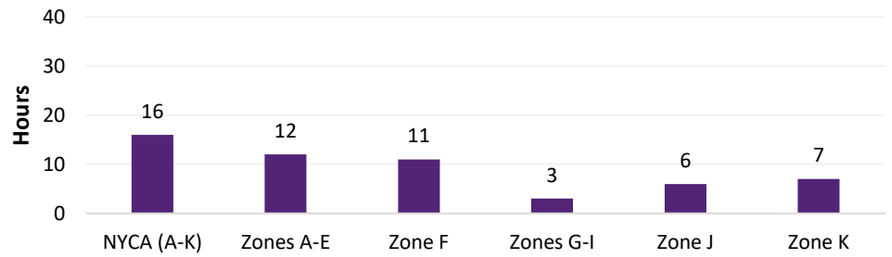
Case Name: Scenario 1 - PD 10 Non-Firm Gas Unavailable (4 days)

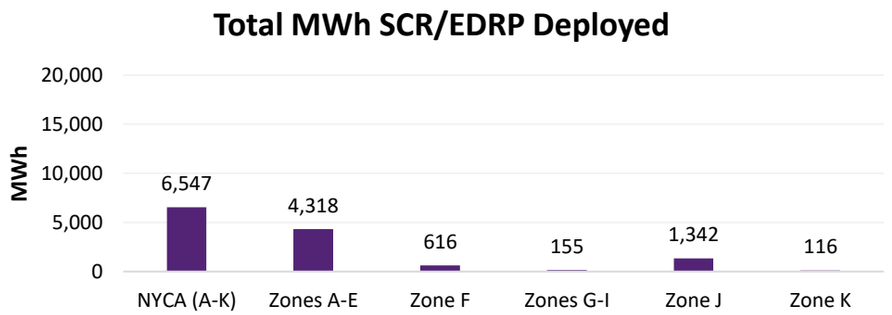
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

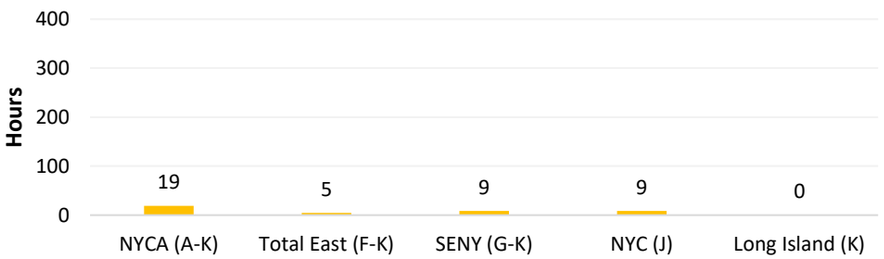


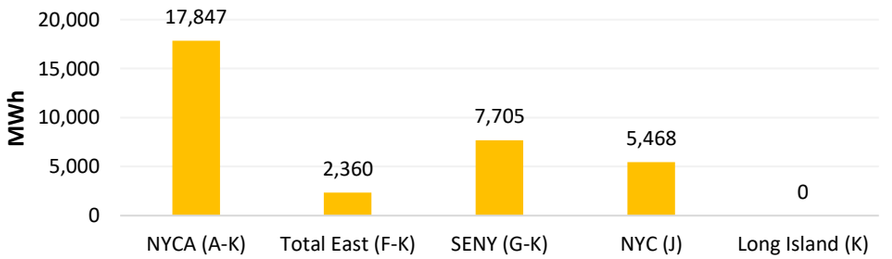


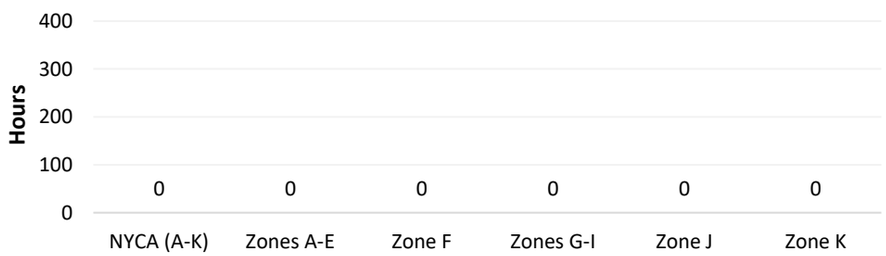


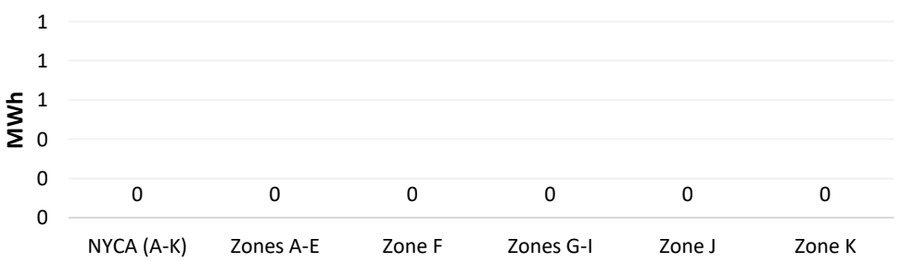


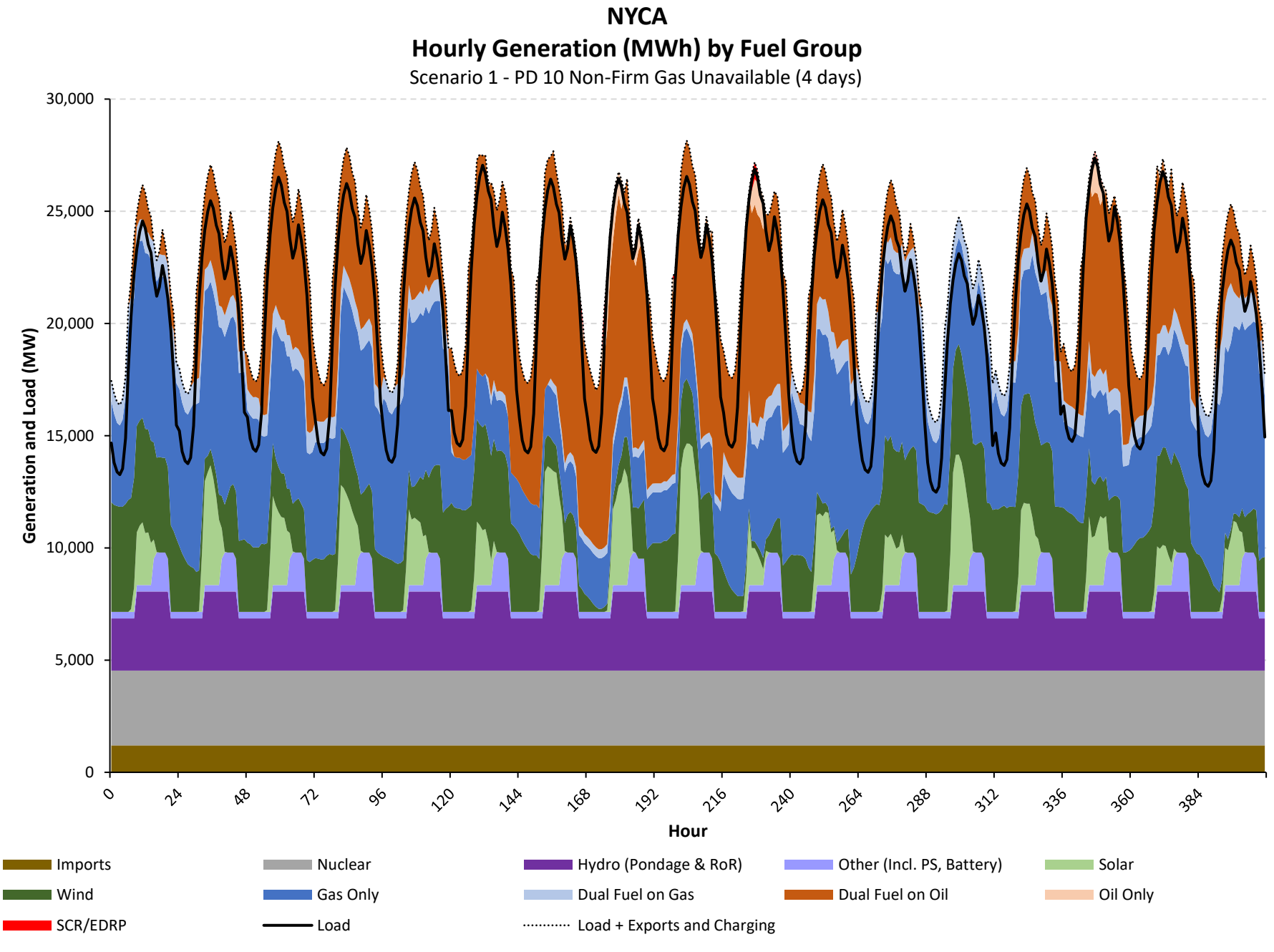




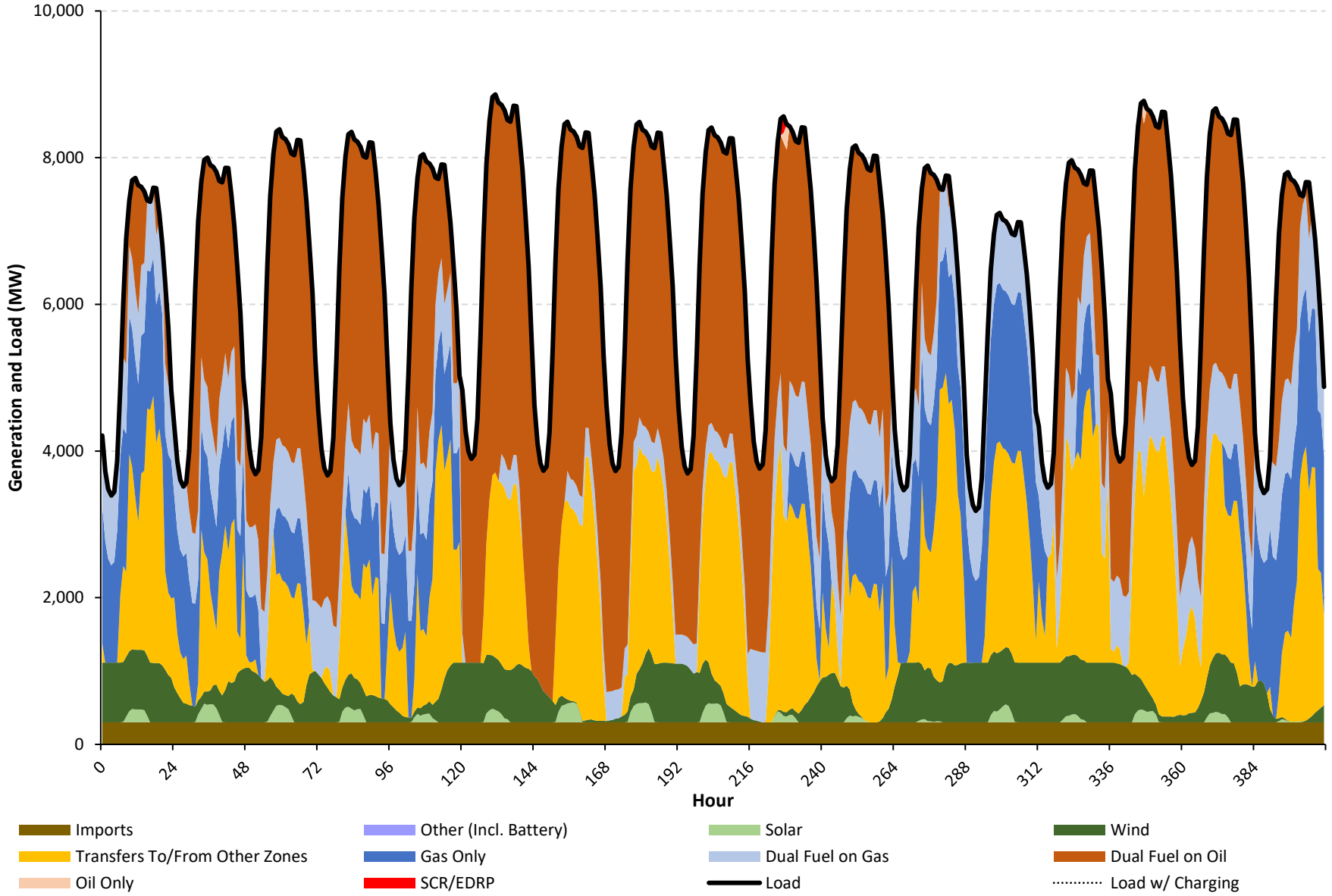




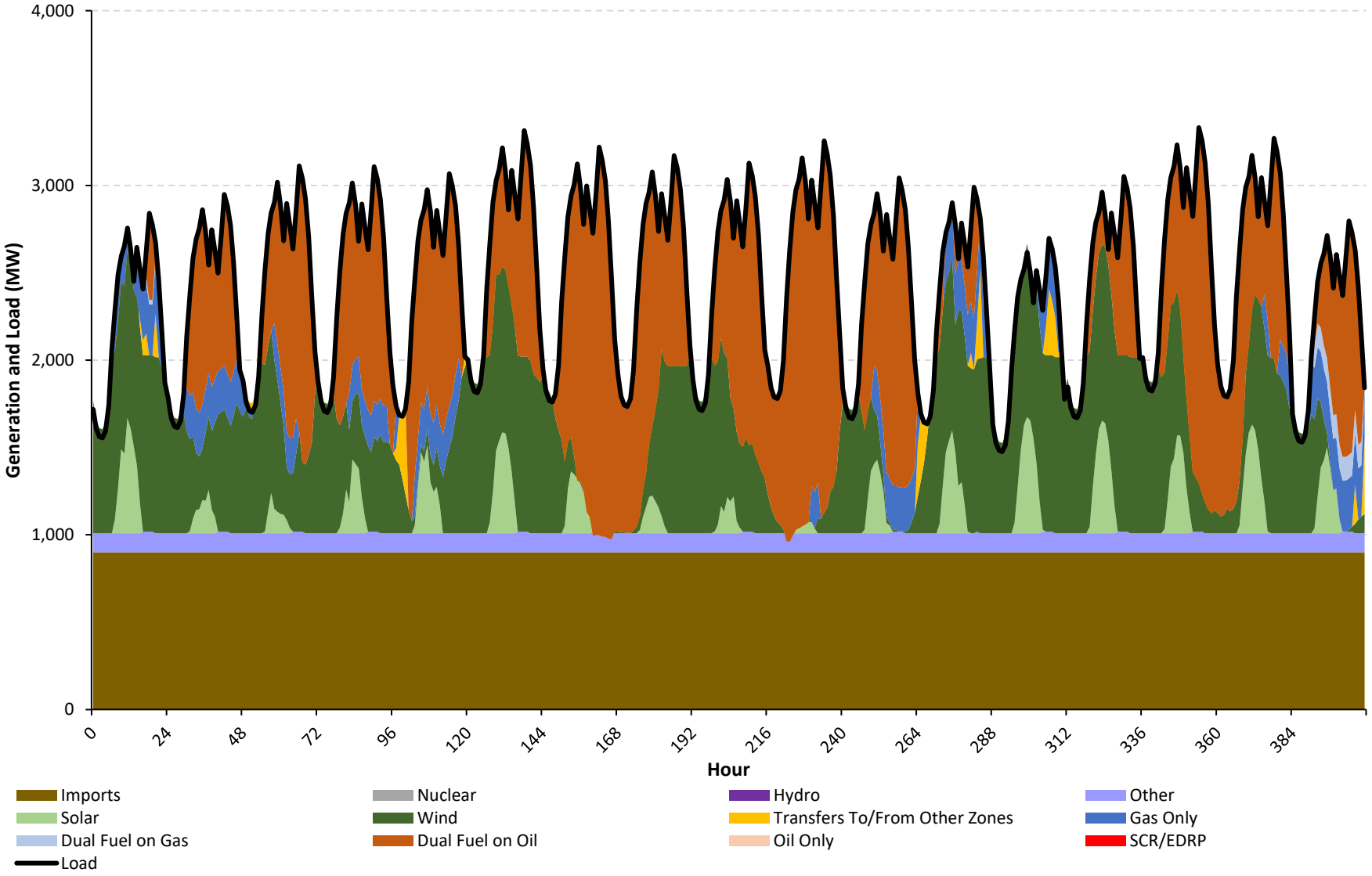



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 1 - PD 10 Non-Firm Gas Unavailable (4 days)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 10 Non-Firm Gas Unavailable (4 days)



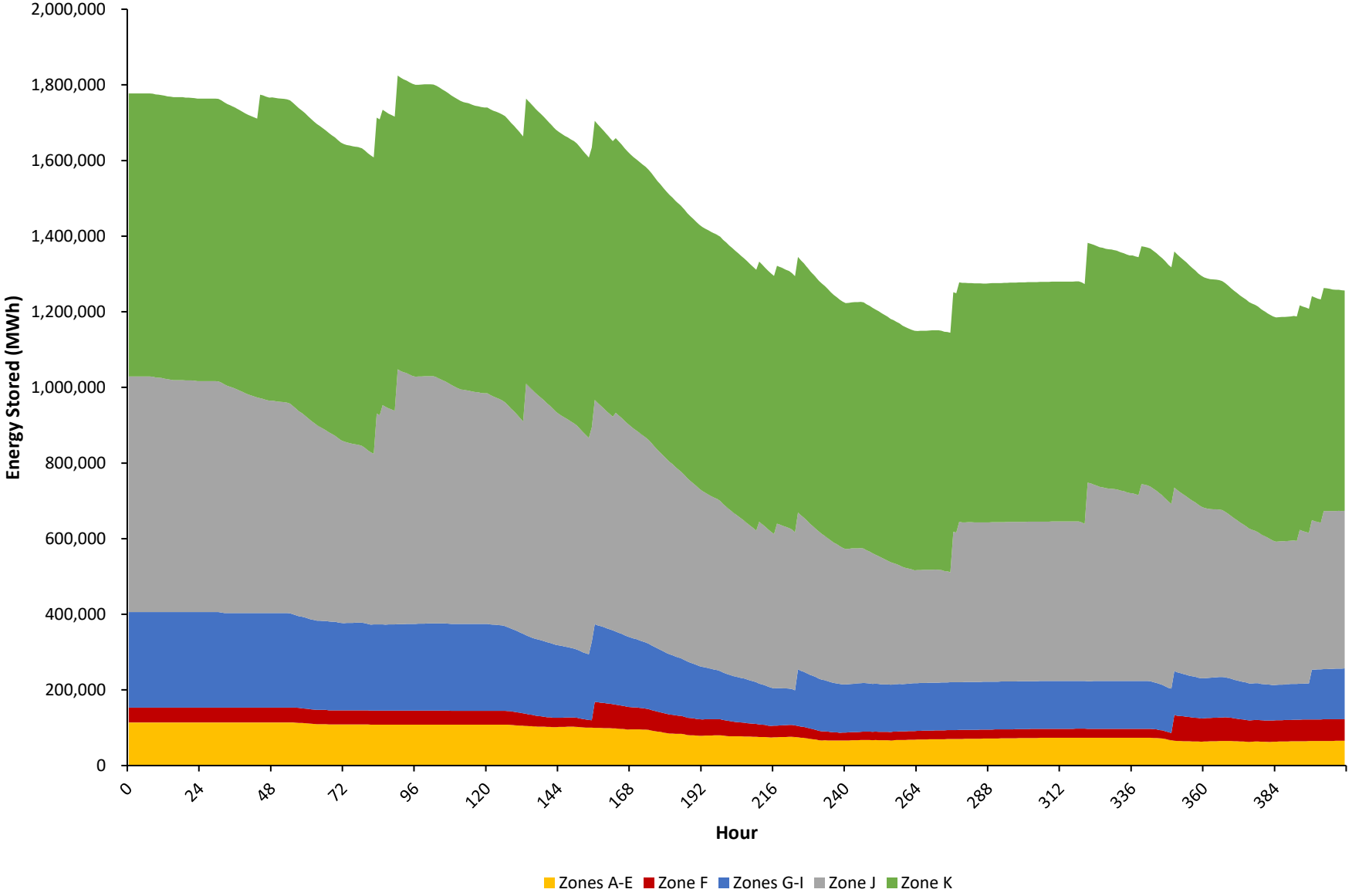
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 10 Non-Firm Gas Unavailable (4 days)

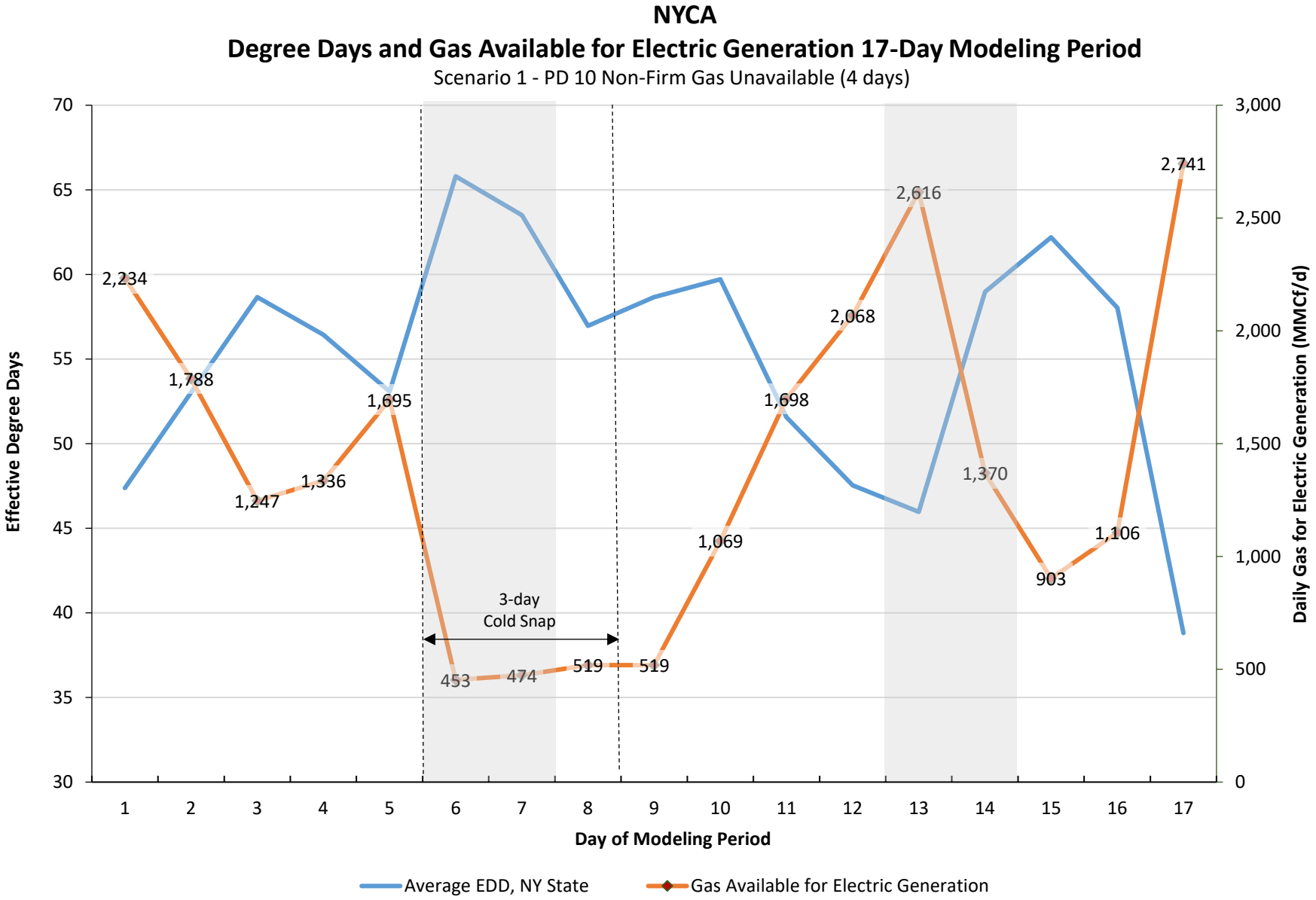


NYCA

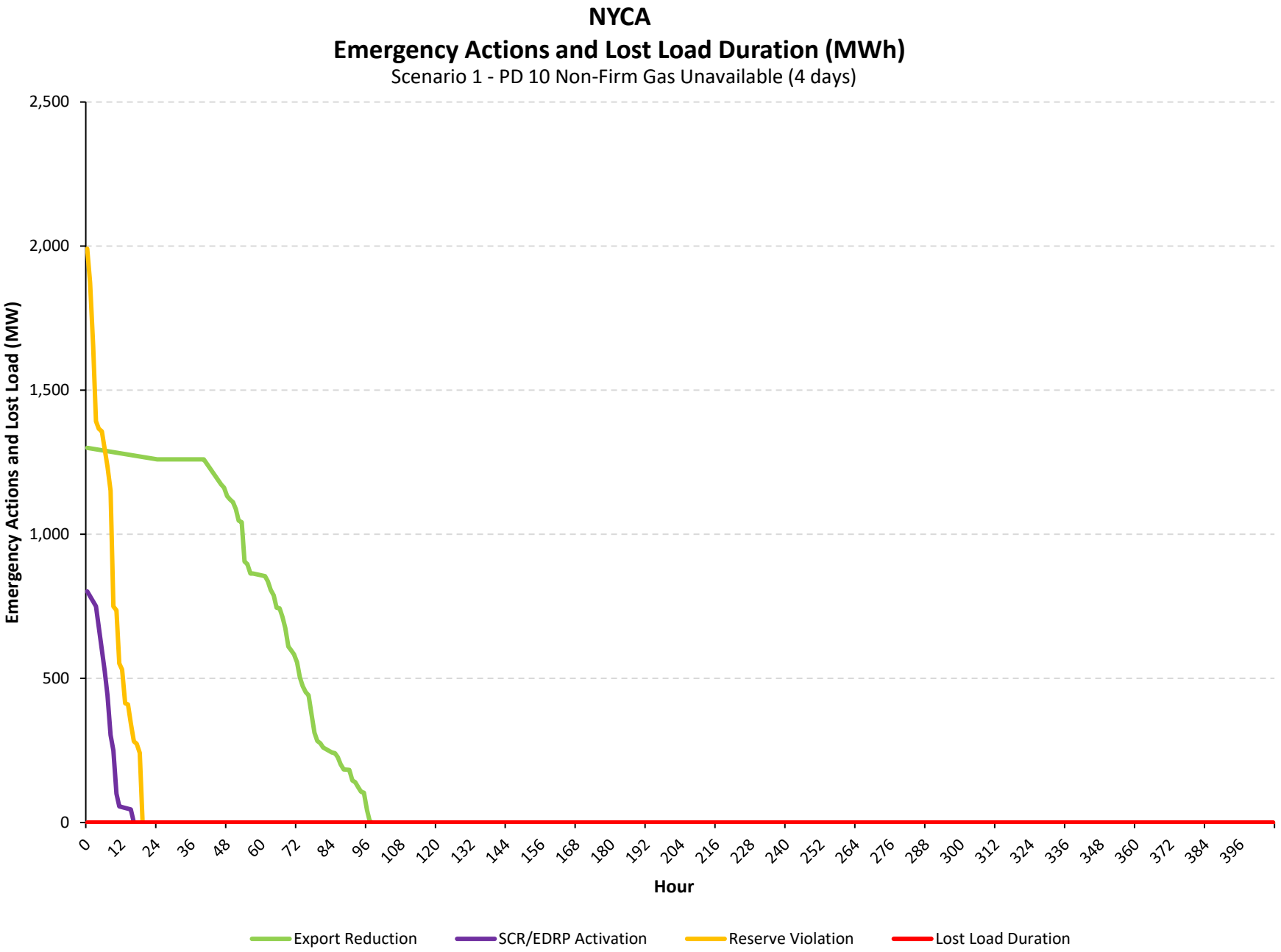
Quantity of Stored Fuel for Oil and Dual Fuel Units

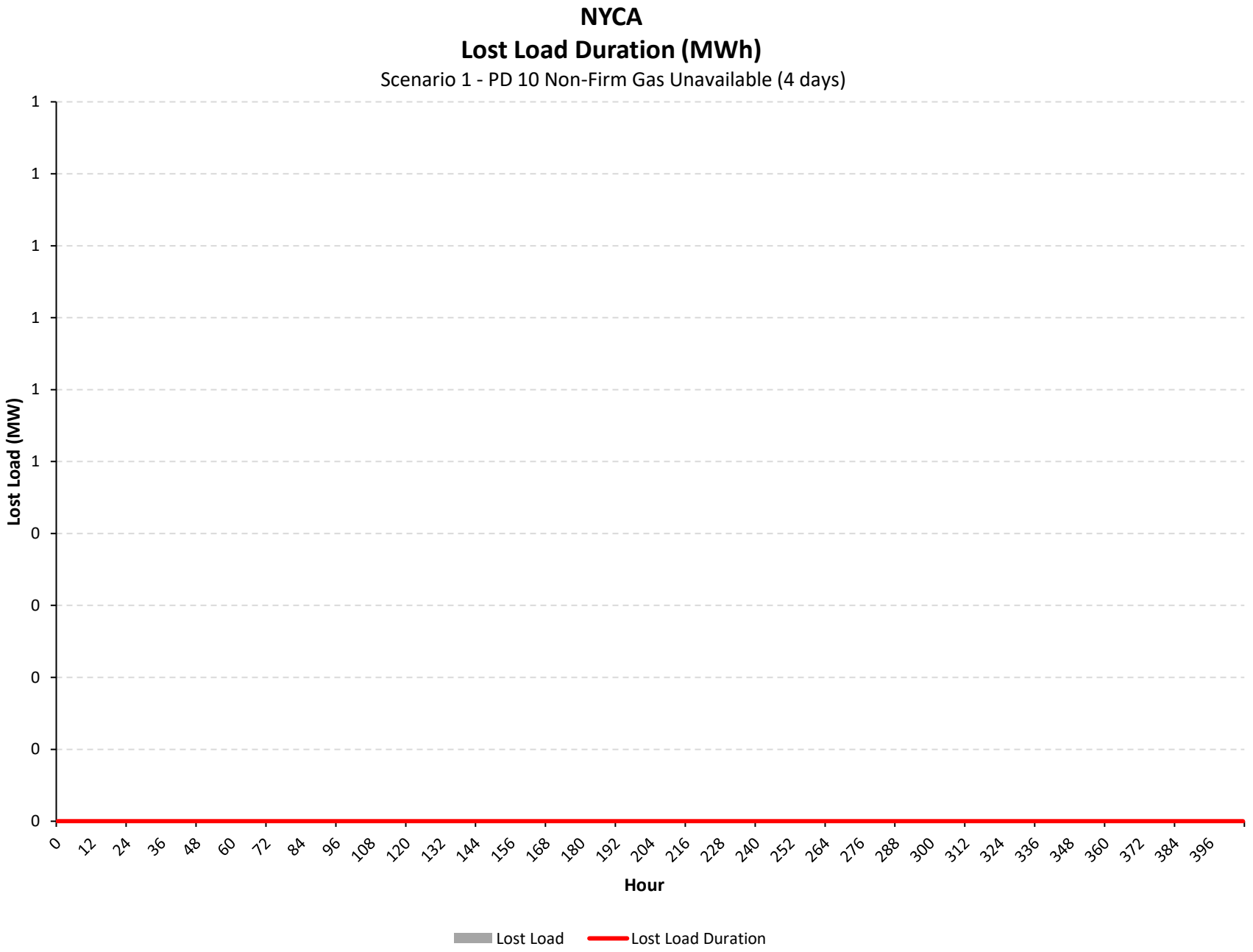
Scenario 1 - PD 10 Non-Firm Gas Unavailable (4 days)





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 1 - PD 10 Non-Firm Gas Unavailable (4 days)
Emergency Actions and Lost Load (MW)
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 1 - PD 10 Non-Firm Gas Unavailable (4 days)
Lost Load (MW)
1
1
1
1
1
1
0
0
0
0
0
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

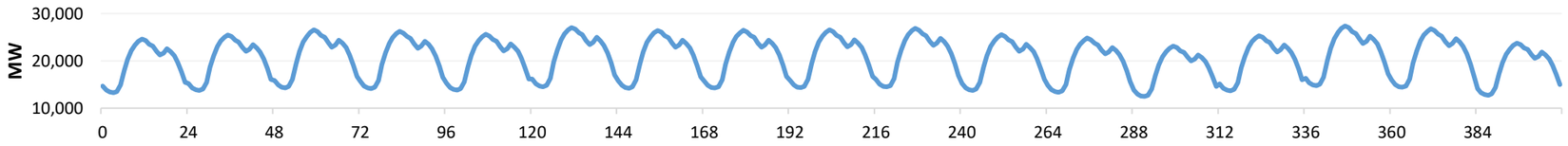
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 11 Combination Disruption (Winter 2026/2027)

Hourly Results Summary

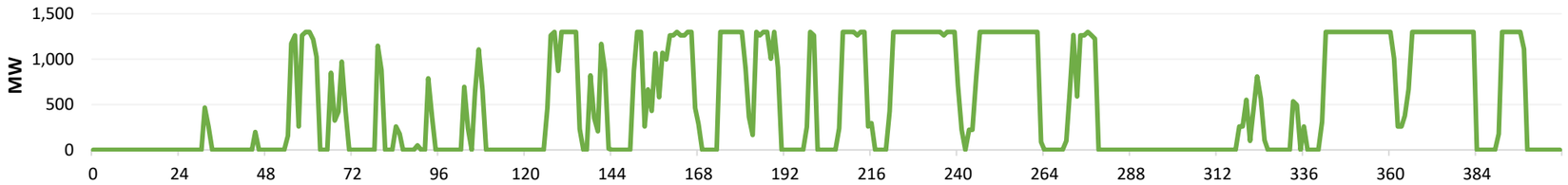
Case Name: Scenario 1 - PD 11 Combination Disruption

Load During Modeling Period



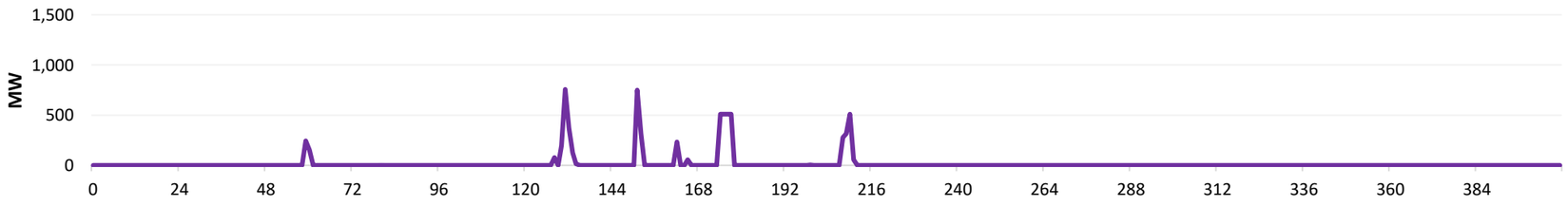
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



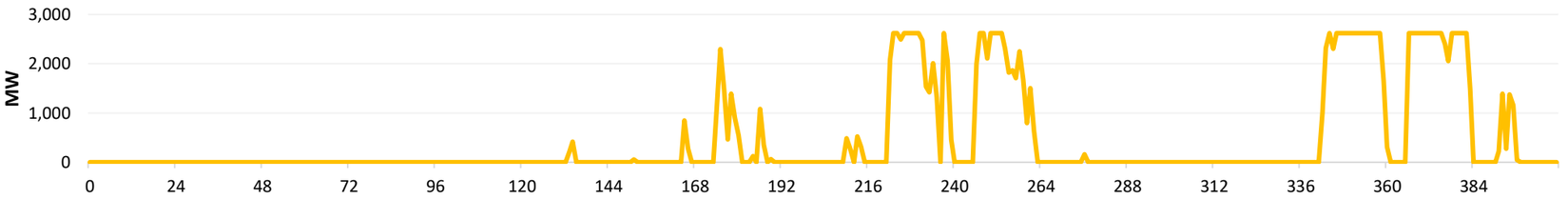
Export Reductions	
Total Hrs.	207
Total MWh	205,202
Avg. MW	502.9

SCR/EDRP Deployed During Modeling Period



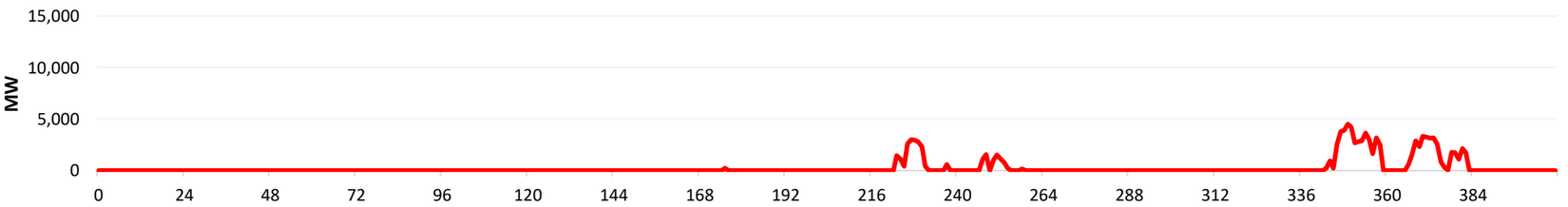
SCR Deployment	
Total Hrs.	21
Total MWh	6,498
Avg. MW	15.9

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	98
Total MWh	178,558
Avg. MW	437.6
First Hour with Viol.	133

Loss of Load During Modeling Period



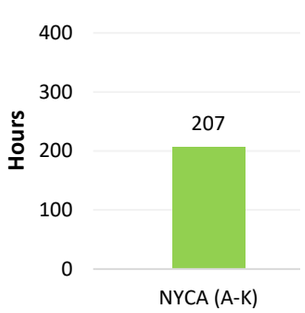
Loss of Load	
Total Hrs.	53
Total MWh	100,560
Avg. MW	246.5
First Hour with Losses	175

Full Period Results Summary

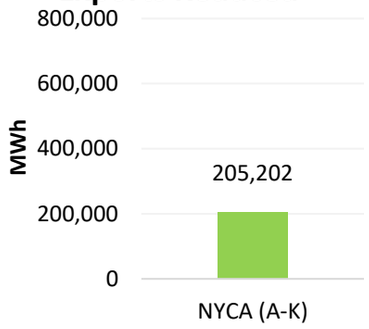
Case Name: Scenario 1 - PD 11 Combination Disruption

Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

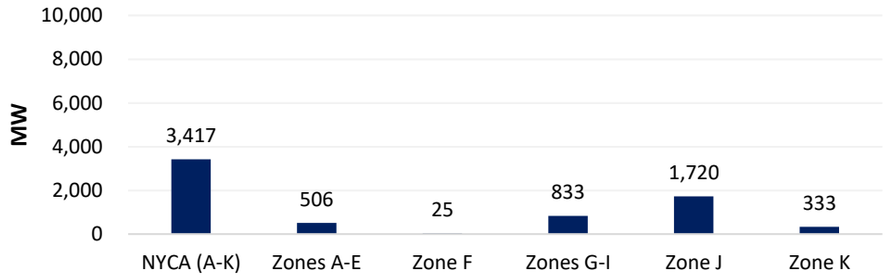
Hours Exports Reduced



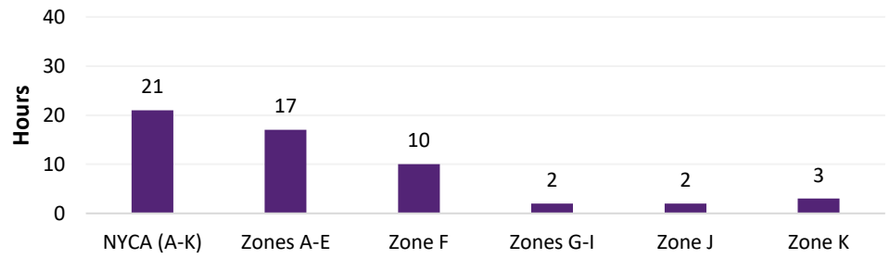
Total MWh of Exports Reduced



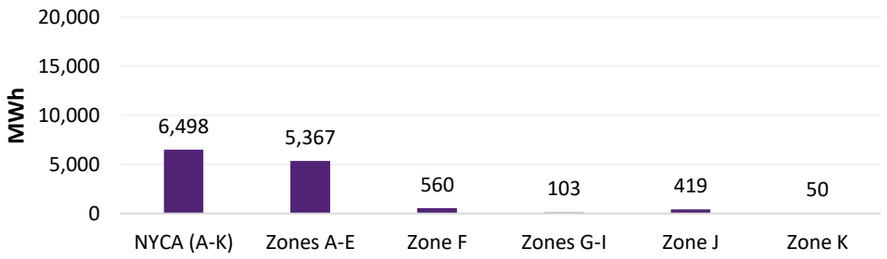
Average Capacity Not Available Due to Exhausted Fuel Inventory



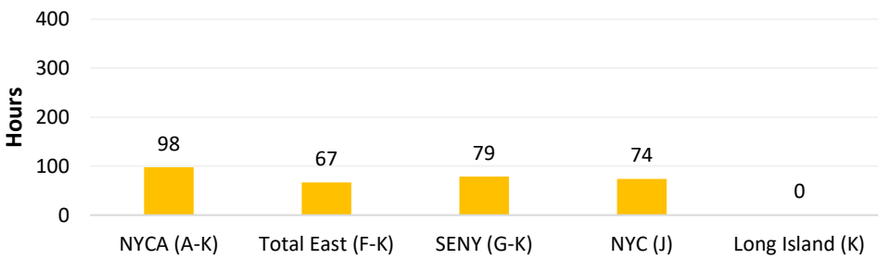
Hours SCR/EDRP Deployed



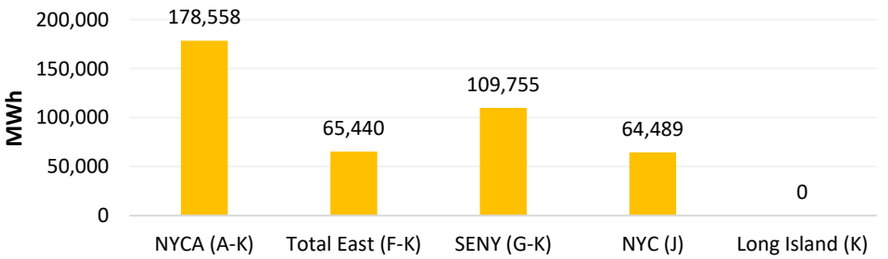
Total MWh SCR/EDRP Deployed



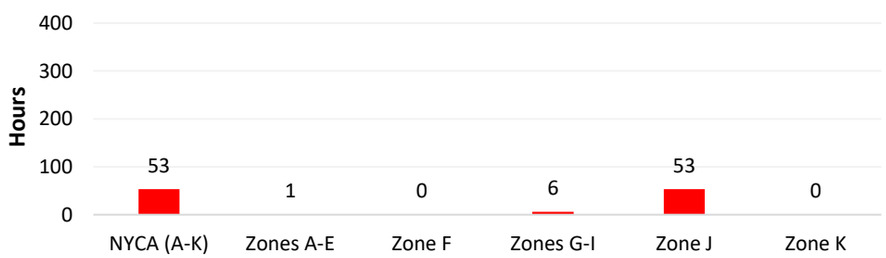
Hours with Reserve Violations



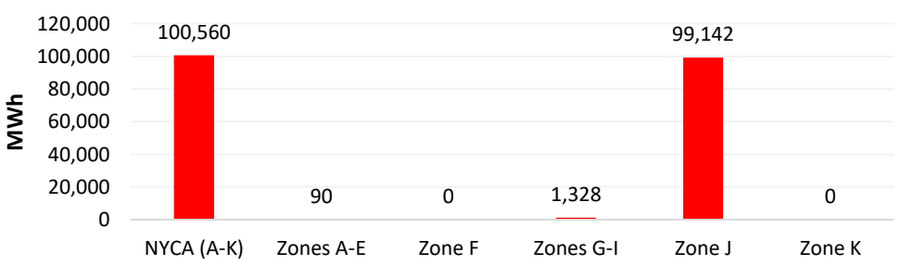
Total MWh of Reserve Violations

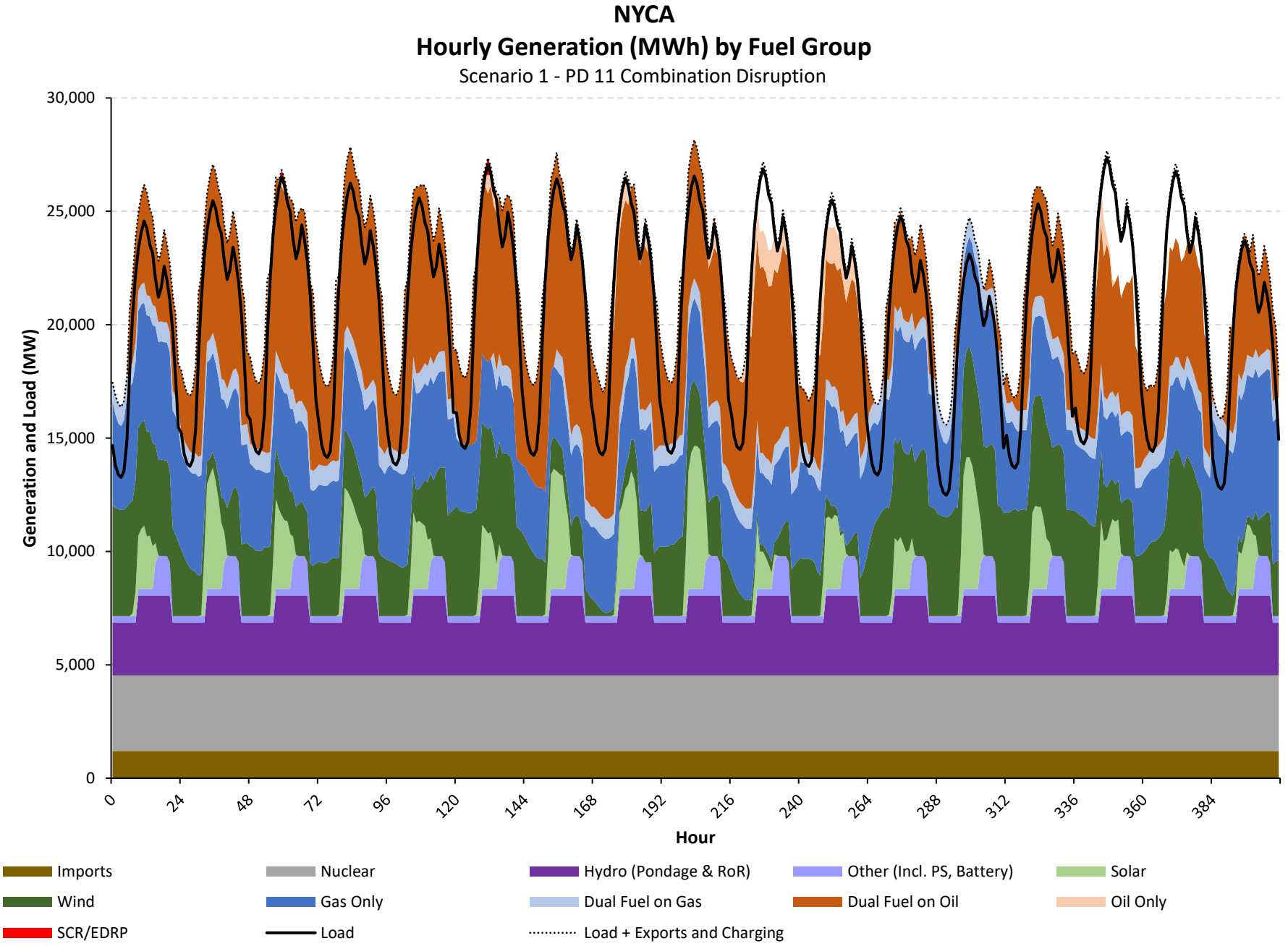


Hours with Loss of Load

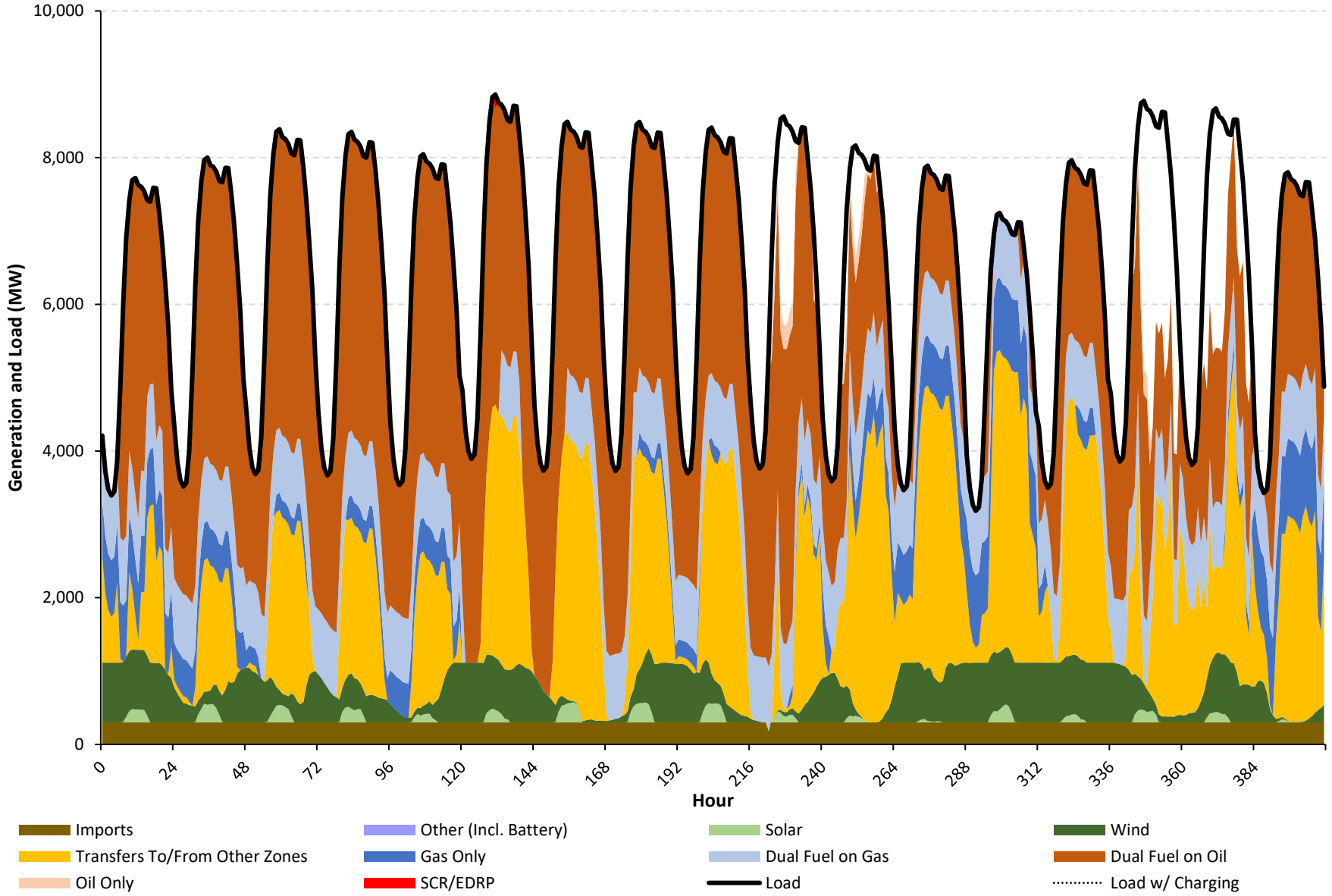


Total MWh of Lost Load

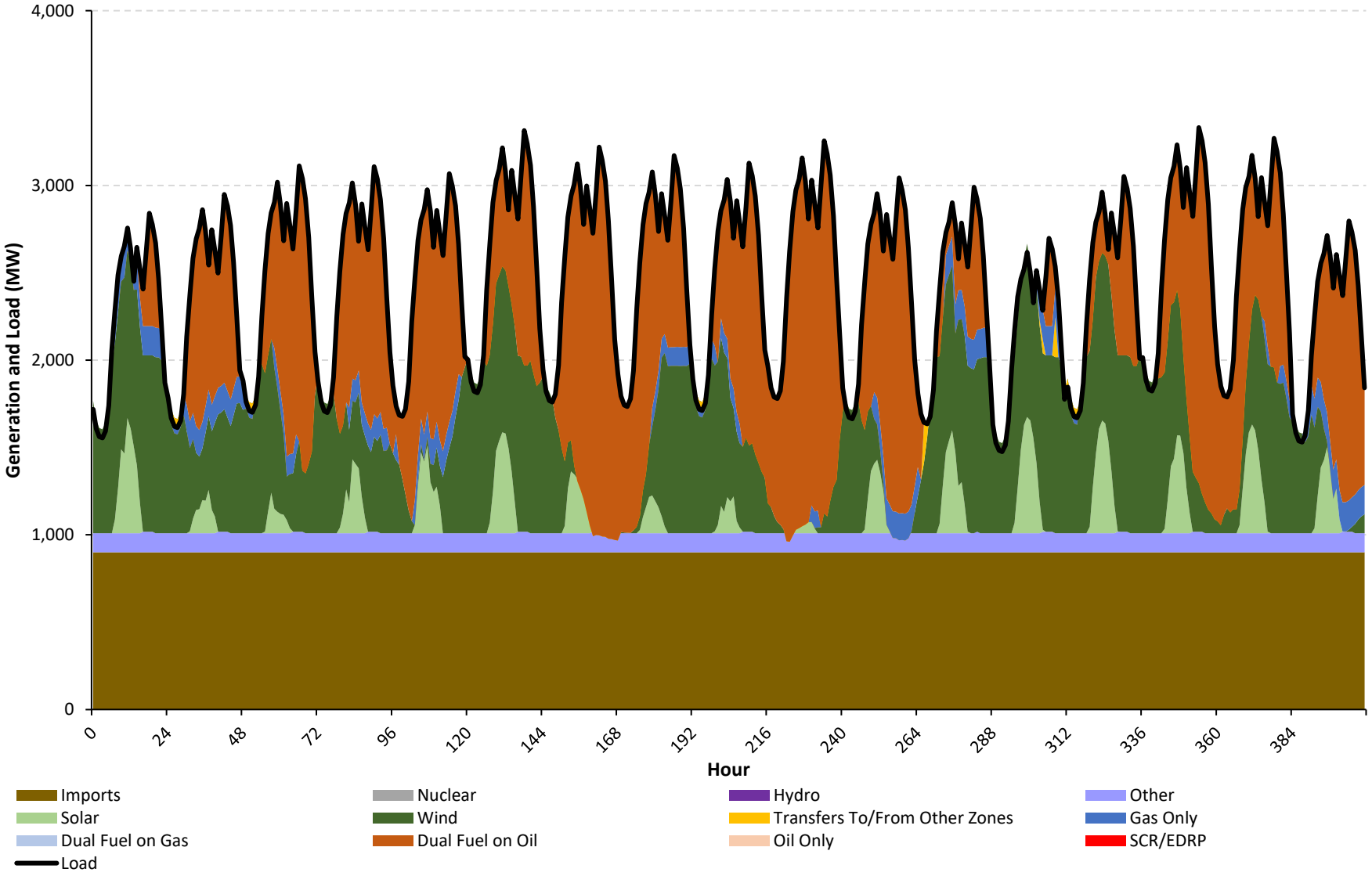



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 1 - PD 11 Combination Disruption
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 11 Combination Disruption



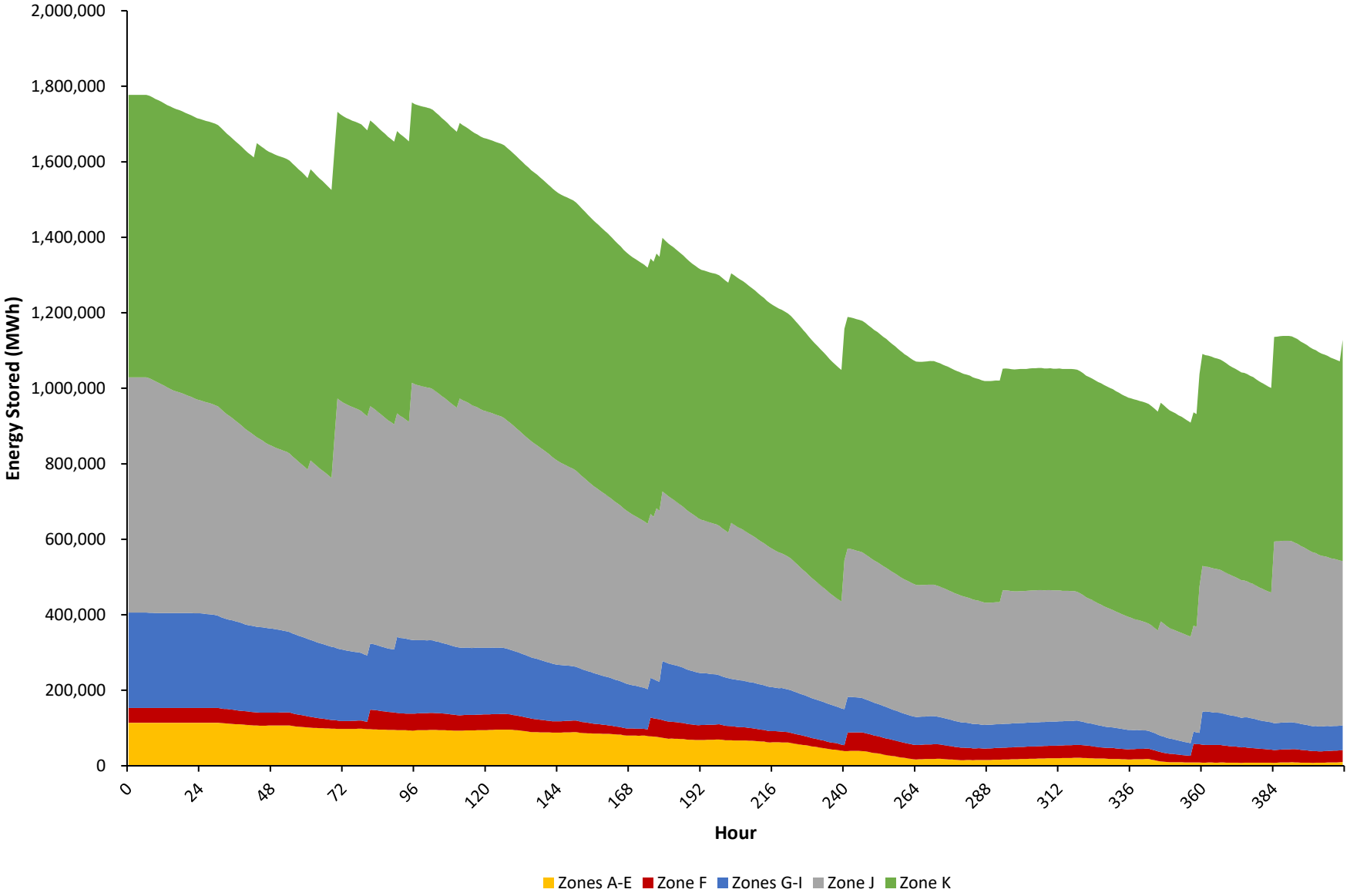
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 11 Combination Disruption



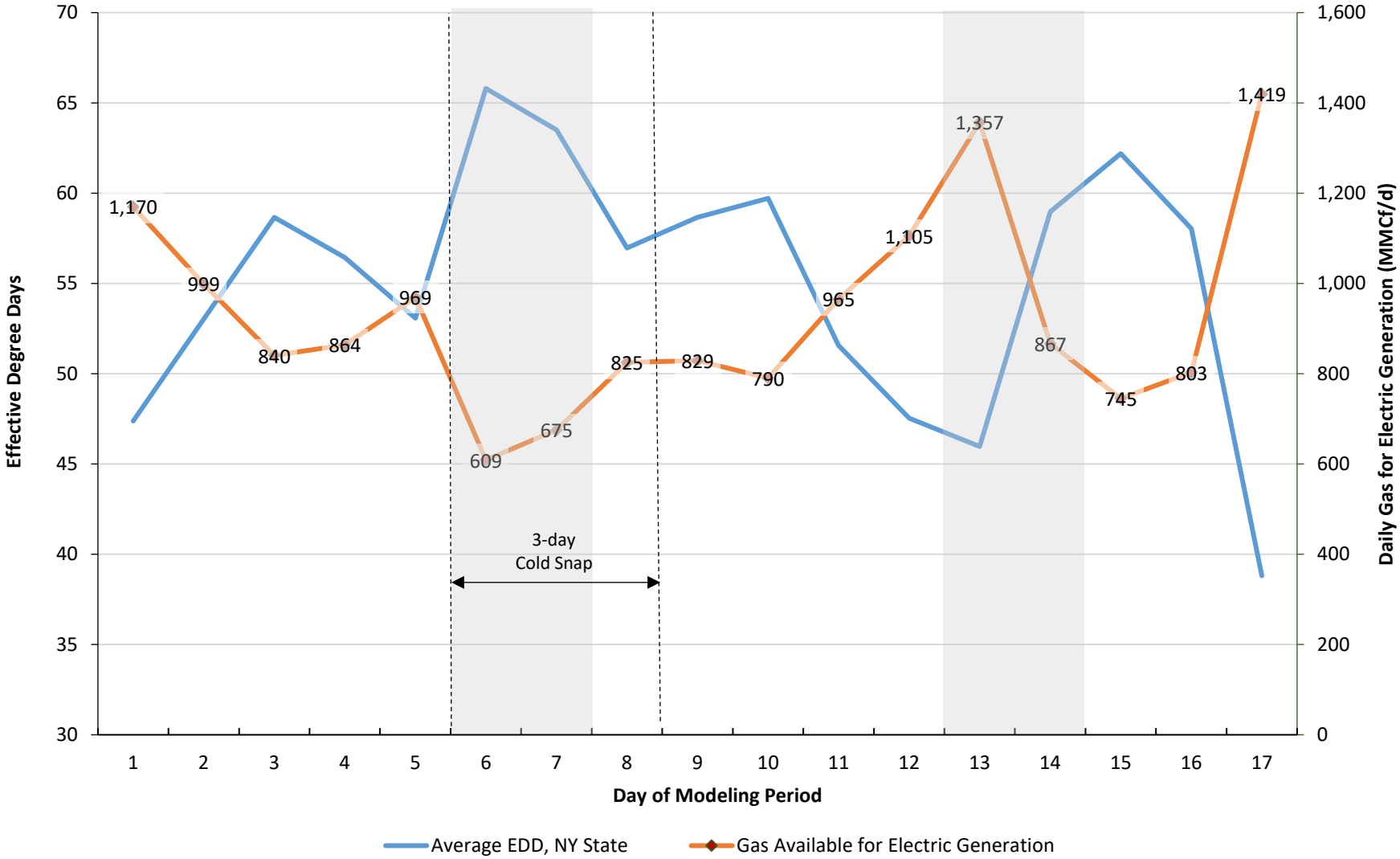
NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

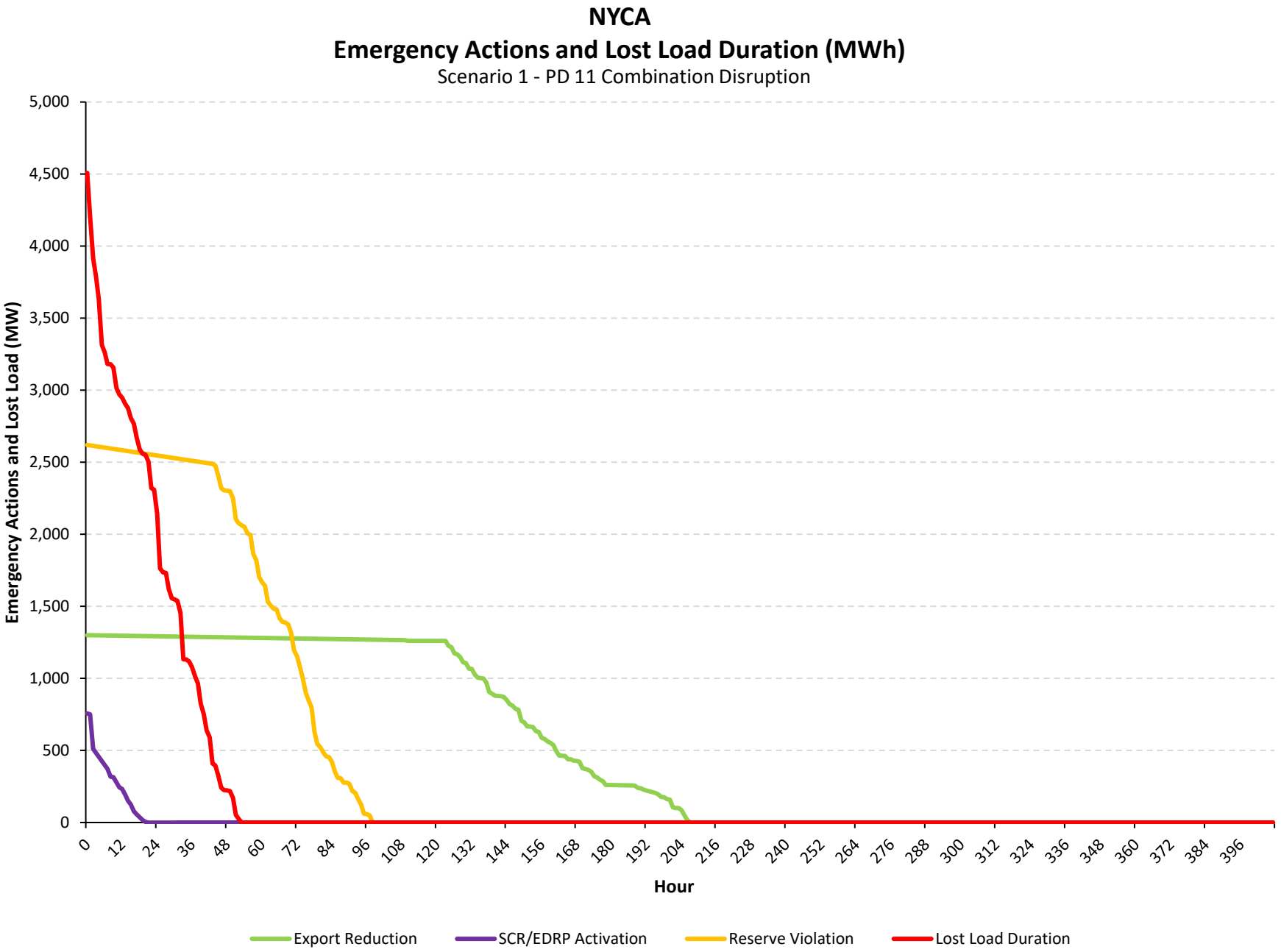
Scenario 1 - PD 11 Combination Disruption

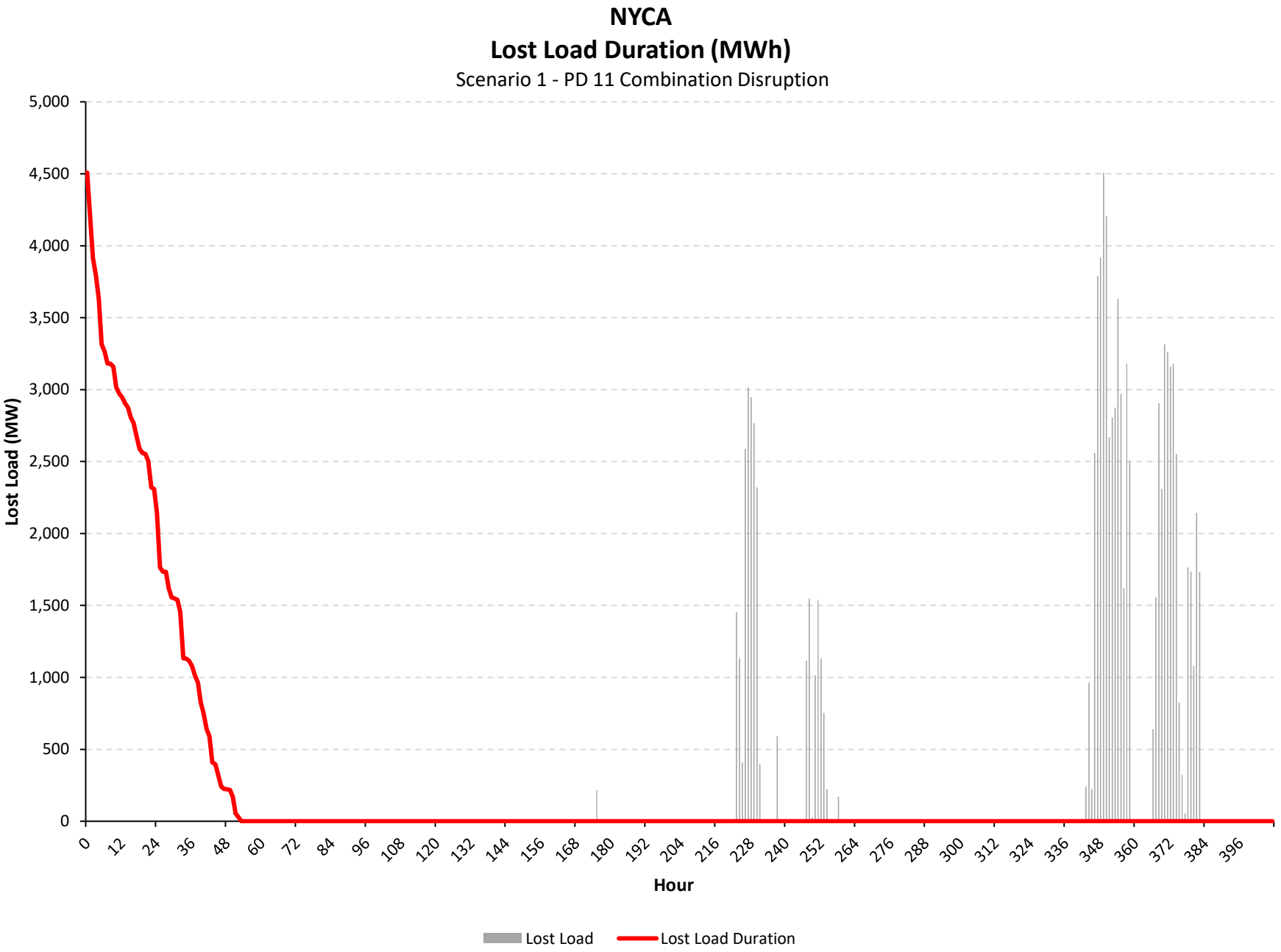


NYCA
Degree Days and Gas Available for Electric Generation 17-Day Modeling Period
Scenario 1 - PD 11 Combination Disruption



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 1 - PD 11 Combination Disruption
Emergency Actions and Lost Load (MW)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 1 - PD 11 Combination Disruption
Lost Load (MW)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

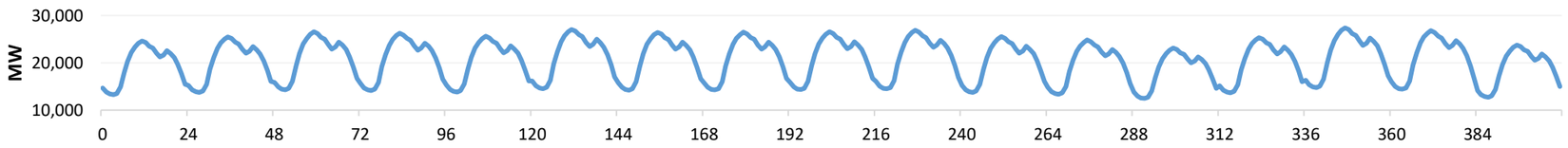
Case: Scenario 2 - PD 1 No Disruptions (Winter 2026/2027)

Hourly Results Summary

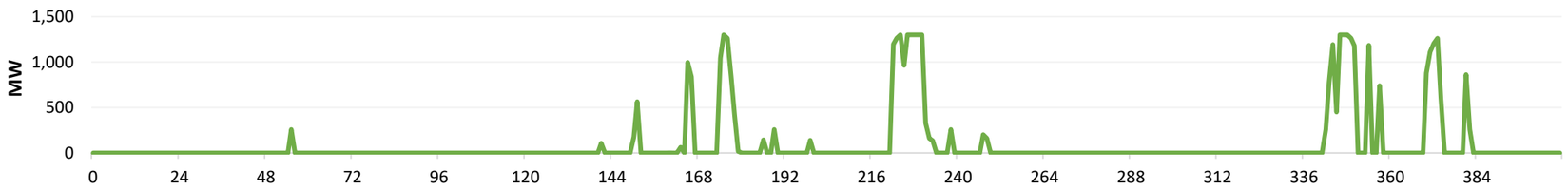
Case Name: Scenario 2 - PD 1 No Disruptions

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Load During Modeling Period

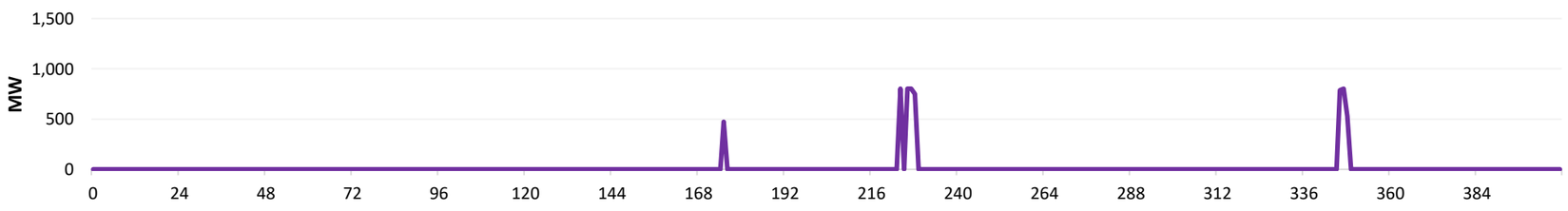


Export to ISO-NE Reduction During Modeling Period



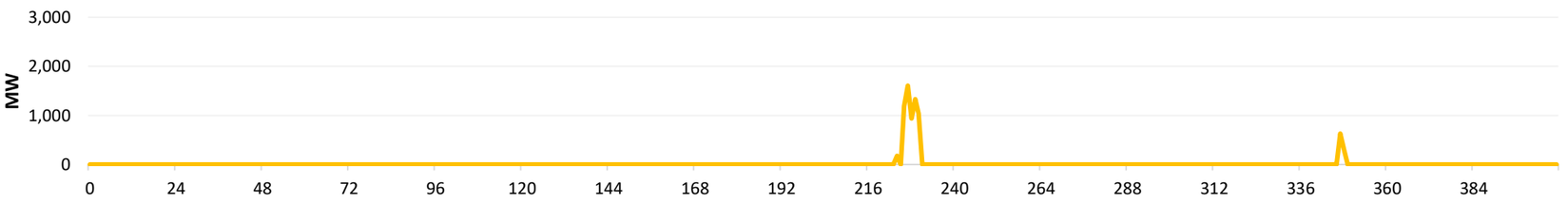
Export Reductions	
Total Hrs.	50
Total MWh	38,027
Avg. MW	93.2

SCR/EDRP Deployed During Modeling Period



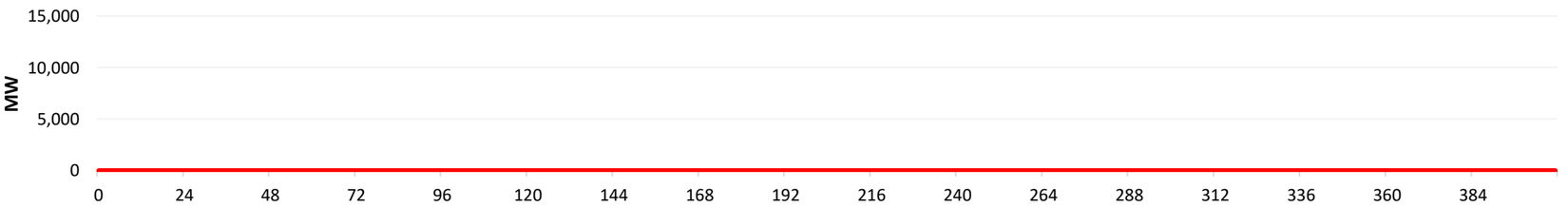
SCR Deployment	
Total Hrs.	8
Total MWh	5,743
Avg. MW	14.1

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	9
Total MWh	7,200
Avg. MW	17.6
First Hour with Viol.	224

Loss of Load During Modeling Period



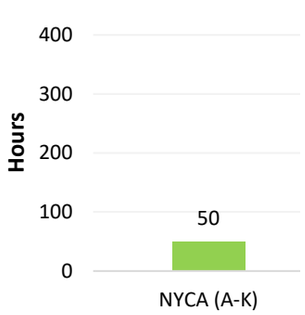
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

Full Period Results Summary

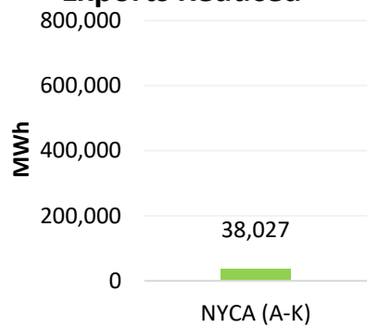
Case Name: Scenario 2 - PD 1 No Disruptions

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

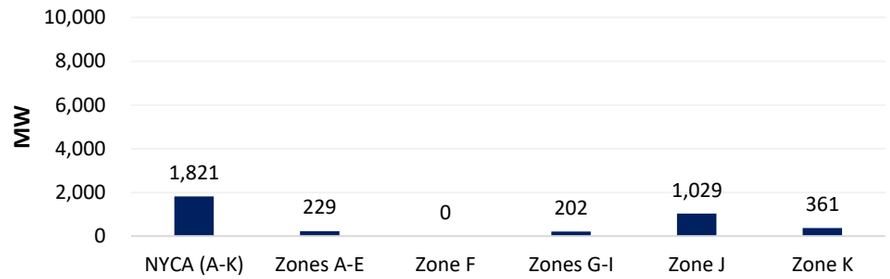
Hours Exports Reduced



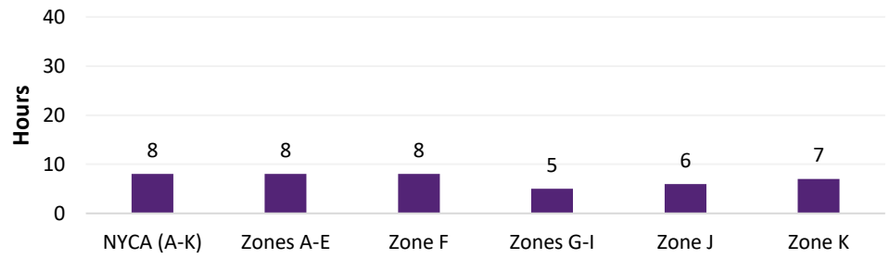
Total MWh of Exports Reduced



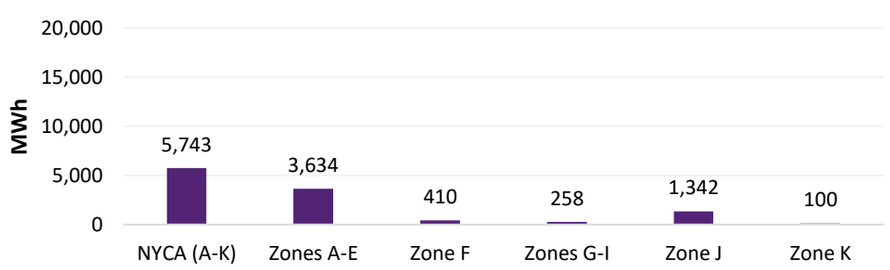
Average Capacity Not Available Due to Exhausted Fuel Inventory



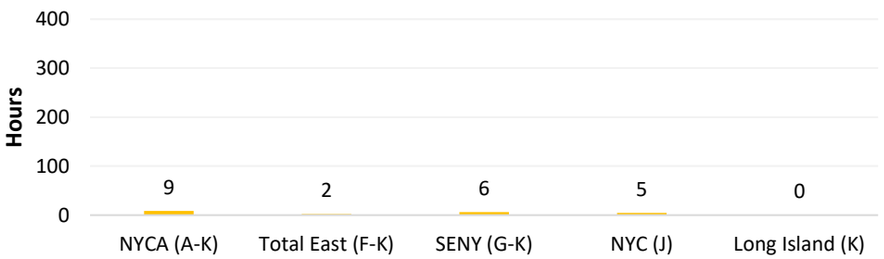
Hours SCR/EDRP Deployed



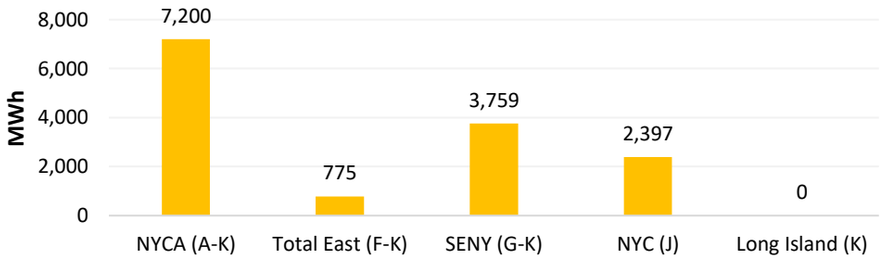
Total MWh SCR/EDRP Deployed



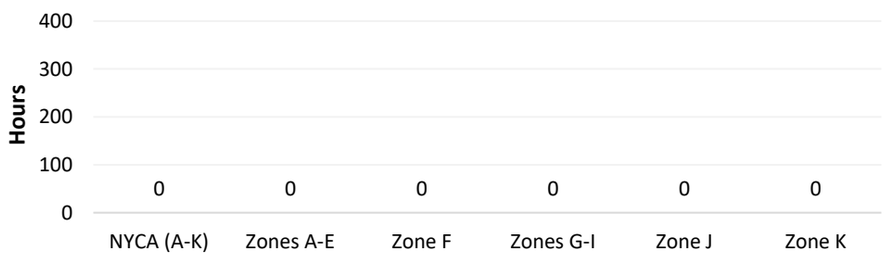
Hours with Reserve Violations



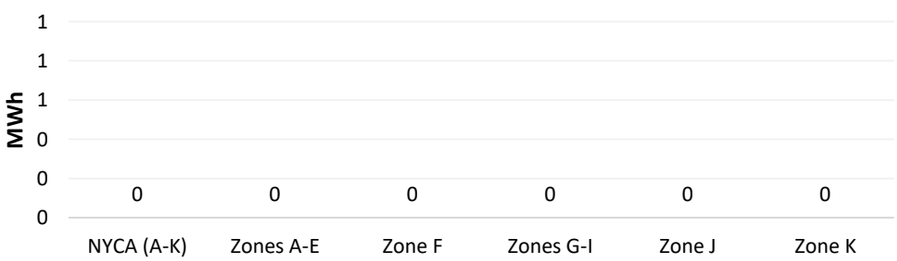
Total MWh of Reserve Violations

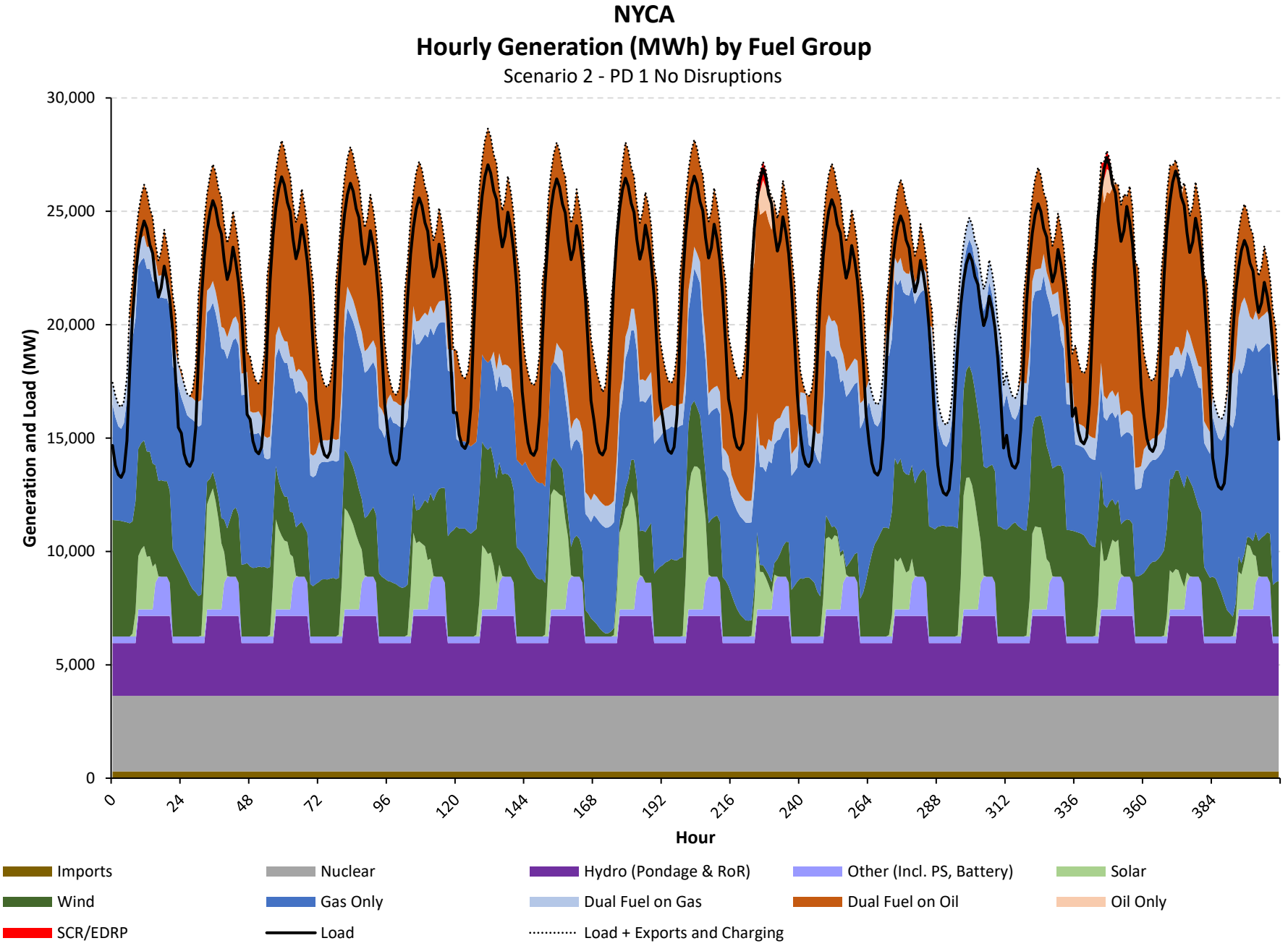


Hours with Loss of Load

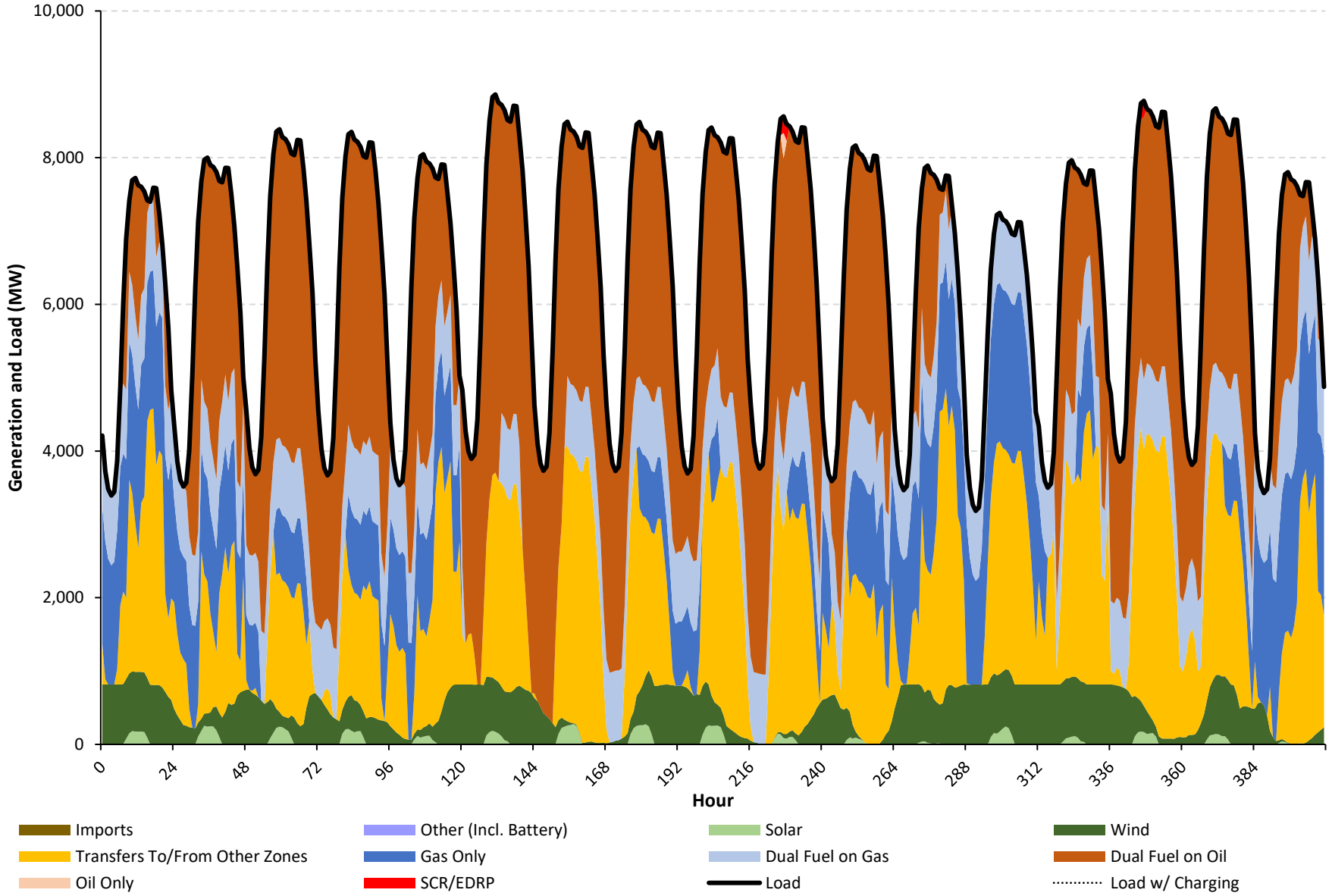


Total MWh of Lost Load

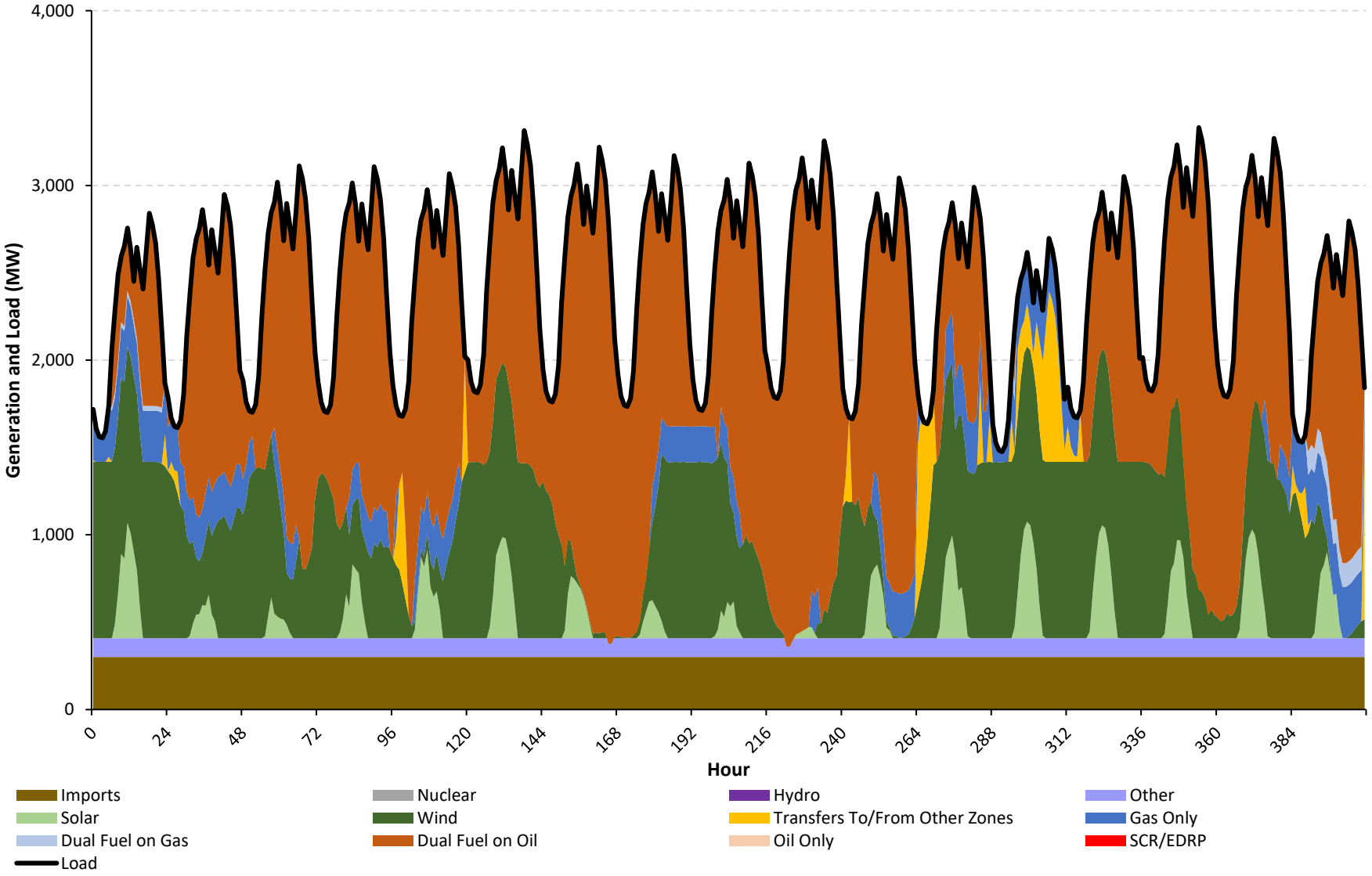


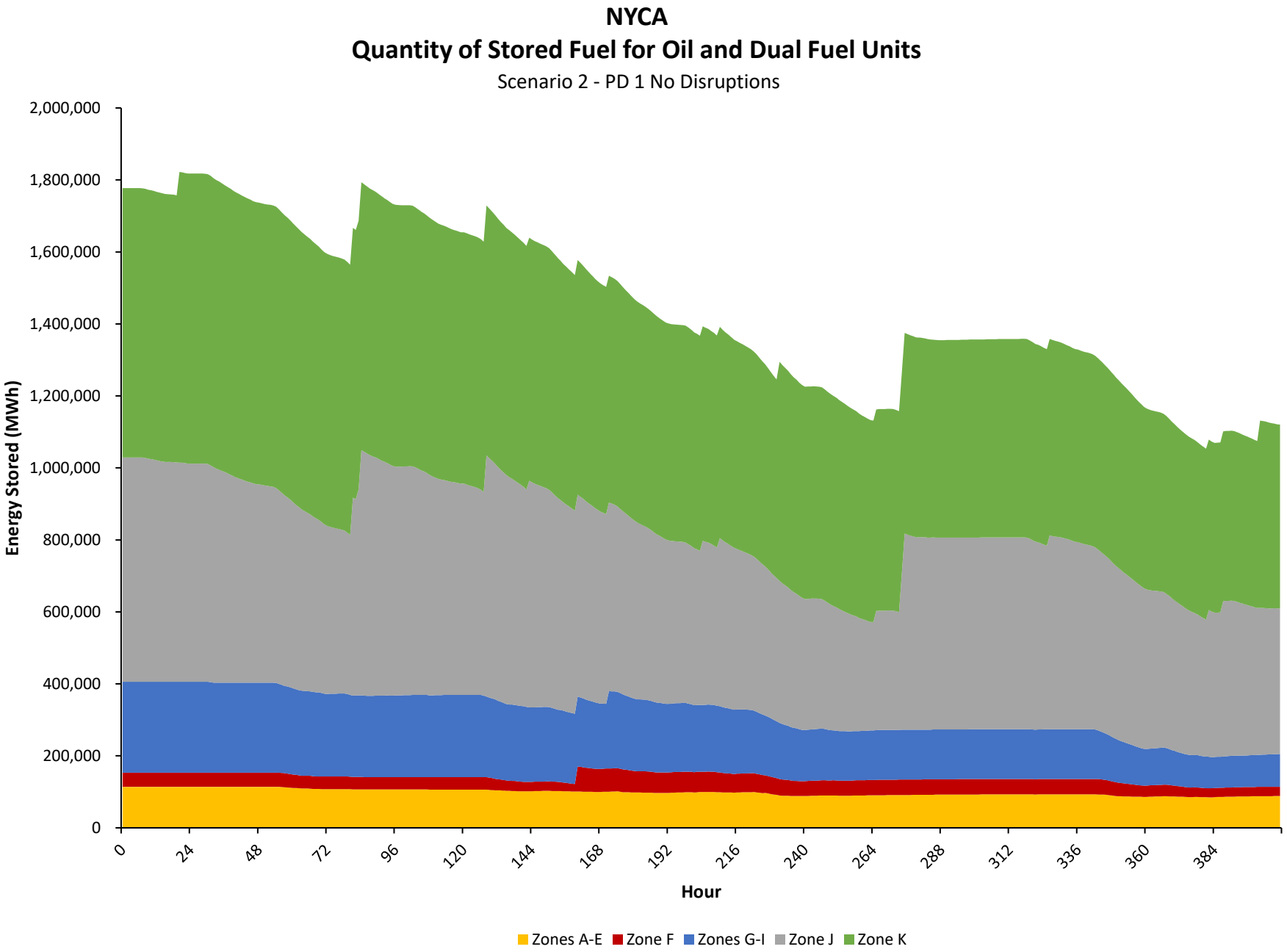

NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 2 - PD 1 No Disruptions
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

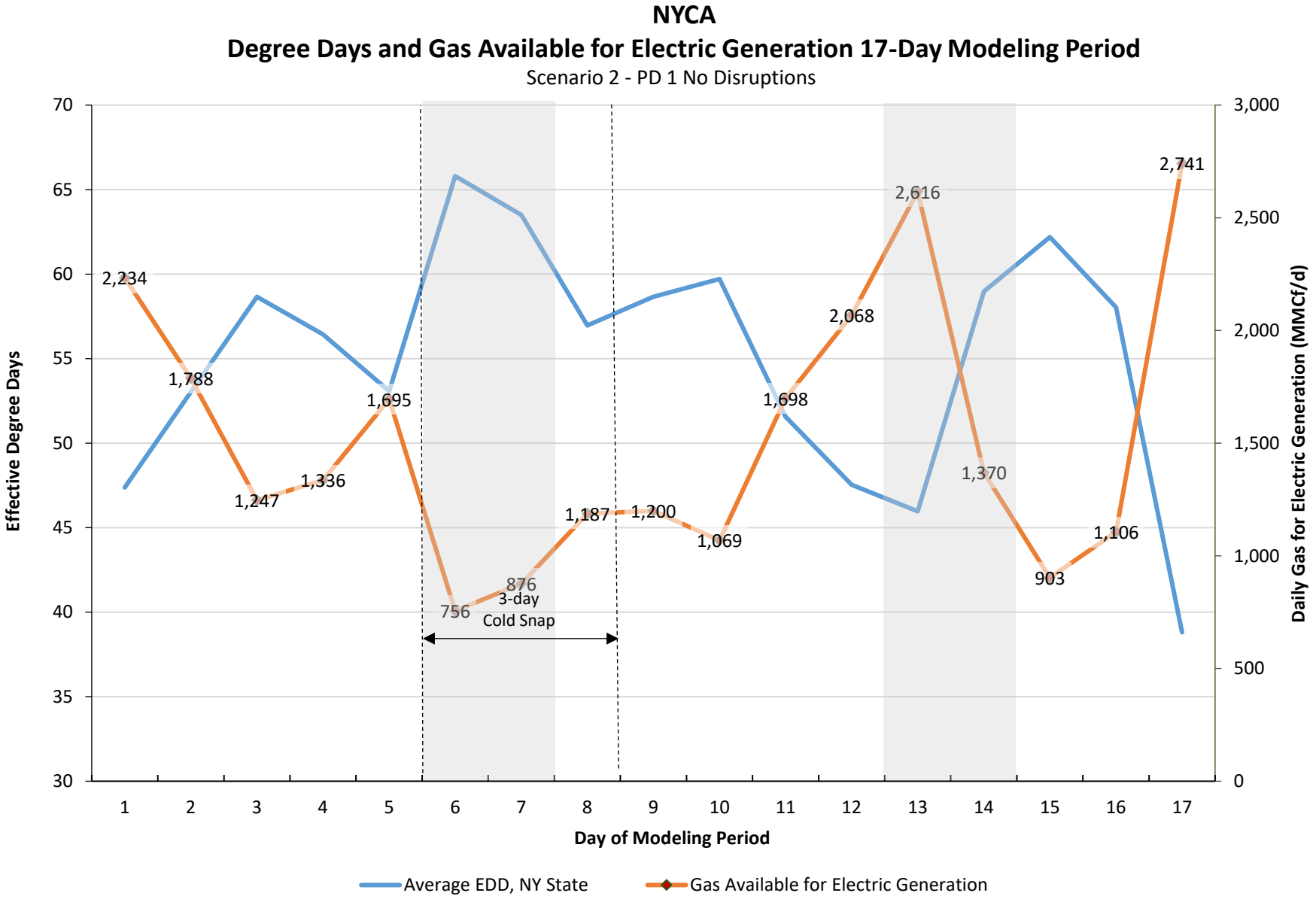
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 1 No Disruptions



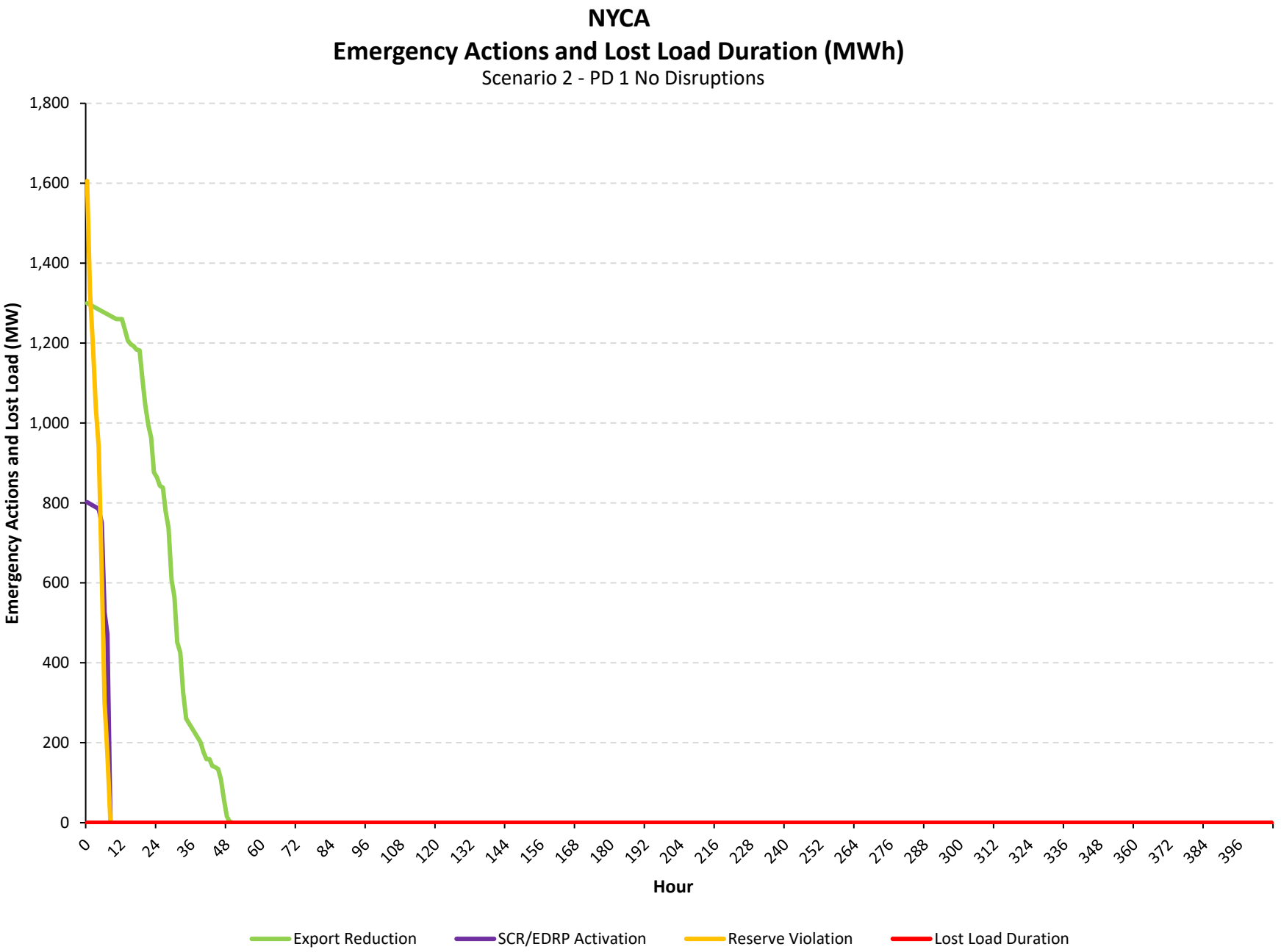
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 1 No Disruptions

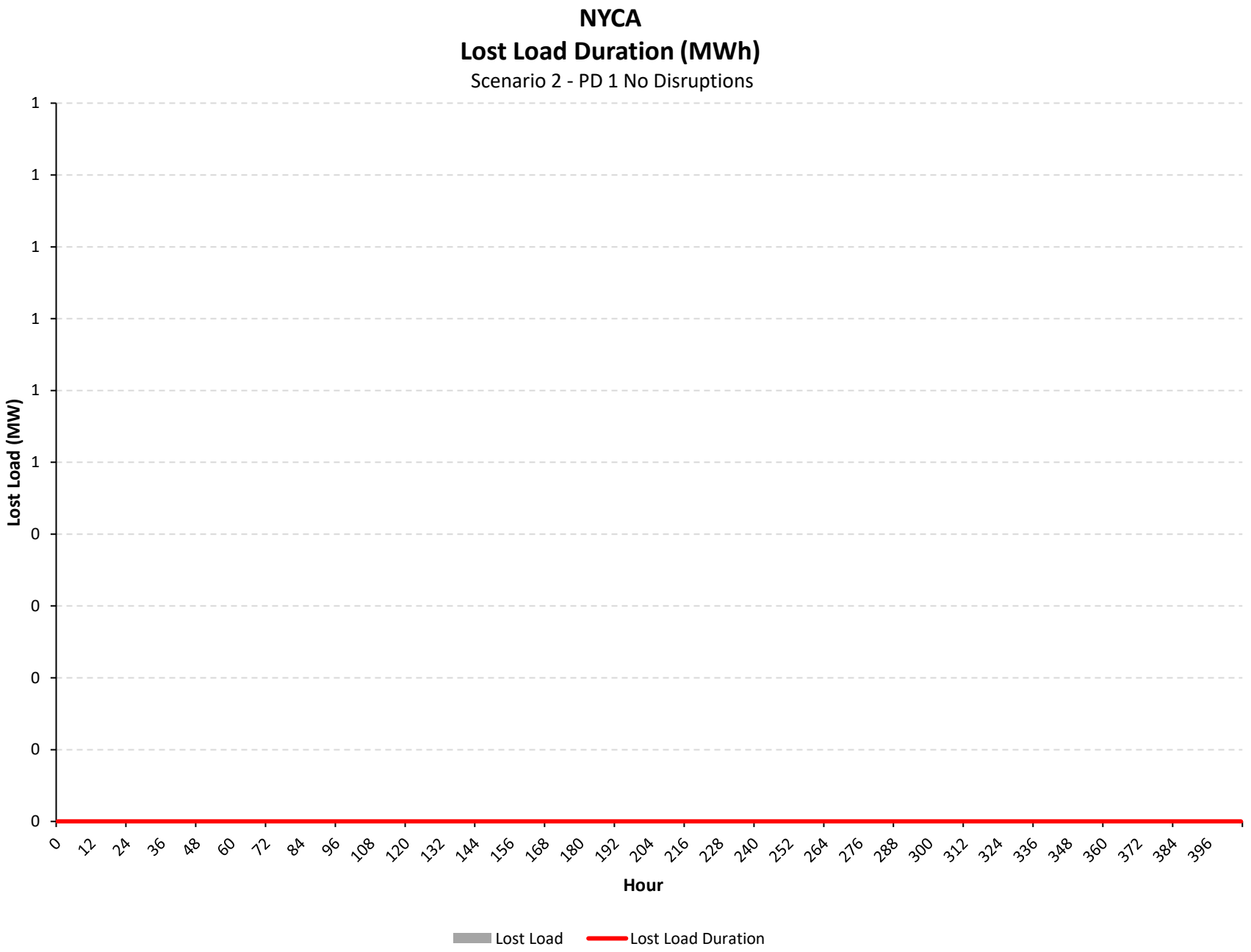



NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 2 - PD 1 No Disruptions
Energy Stored (MWh)
2,000,000
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Zones A-E
Zone F
Zones G-I
Zone J
Zone K



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 2 - PD 1 No Disruptions
Emergency Actions and Lost Load (MW)
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 2 - PD 1 No Disruptions
Lost Load (MW)
1
1
1
1
1
1
0
0
0
0
0
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

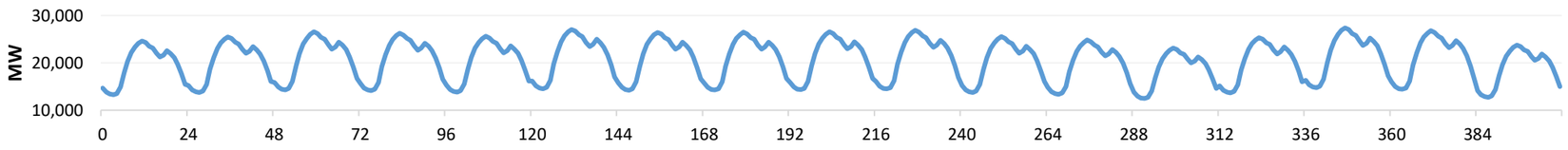
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 2 High Outage (Winter 2026/2027)

Hourly Results Summary

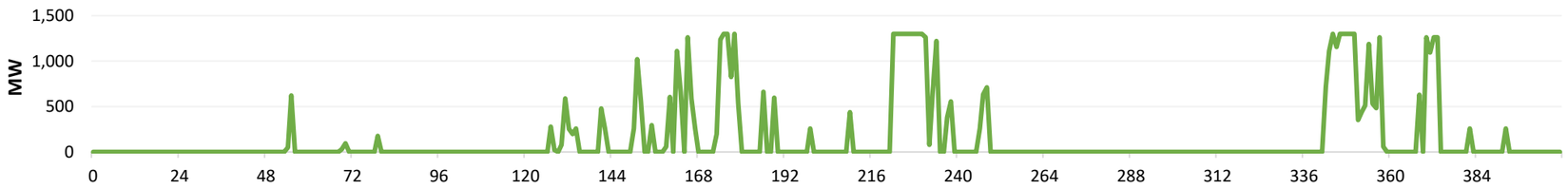
Case Name: Scenario 2 - PD 2 High Outage

Load During Modeling Period



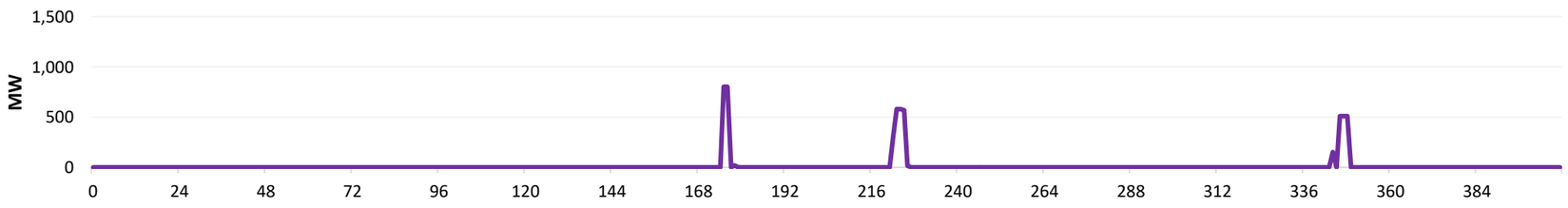
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



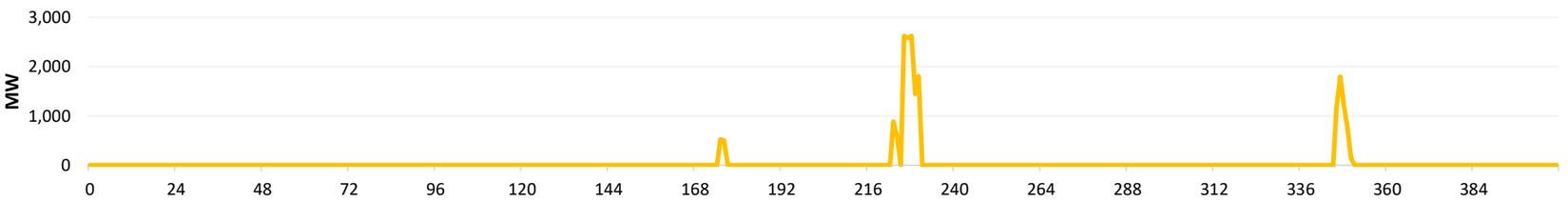
Export Reductions	
Total Hrs.	78
Total MWh	57,799
Avg. MW	141.7

SCR/EDRP Deployed During Modeling Period



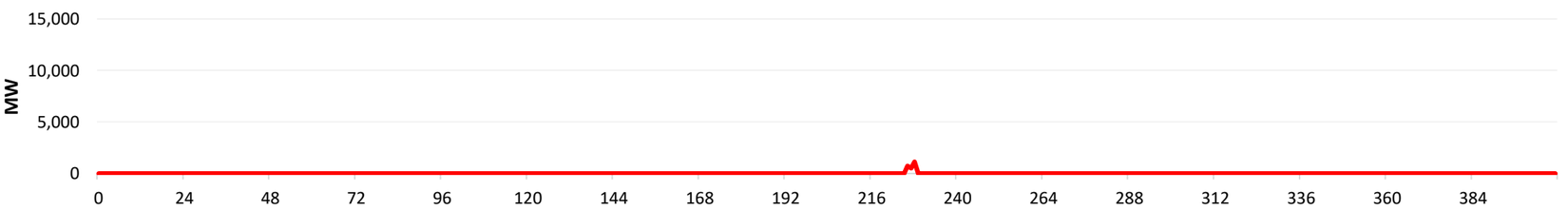
SCR Deployment	
Total Hrs.	12
Total MWh	5,371
Avg. MW	13.2

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	15
Total MWh	18,609
Avg. MW	45.6
First Hour with Viol.	175

Loss of Load During Modeling Period



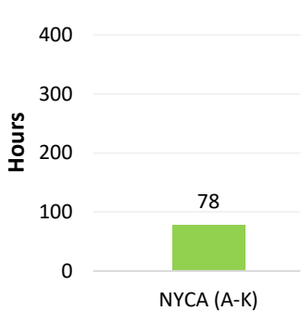
Loss of Load	
Total Hrs.	3
Total MWh	2,378
Avg. MW	5.8
First Hour with Losses	226

Full Period Results Summary

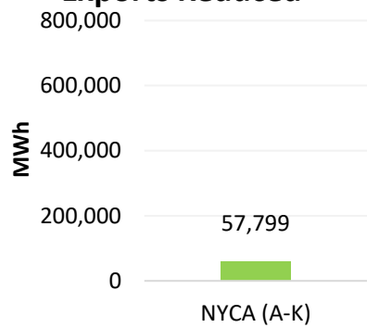
Case Name: Scenario 2 - PD 2 High Outage

Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

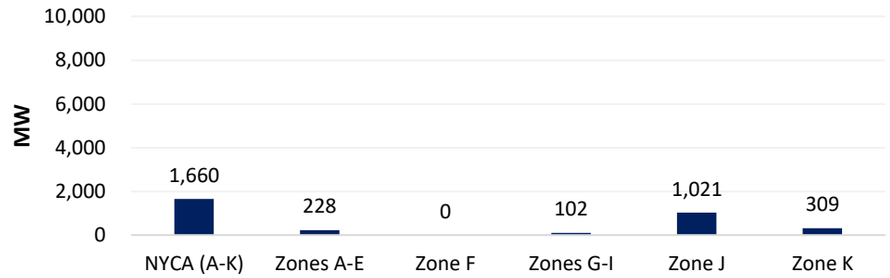
Hours Exports Reduced



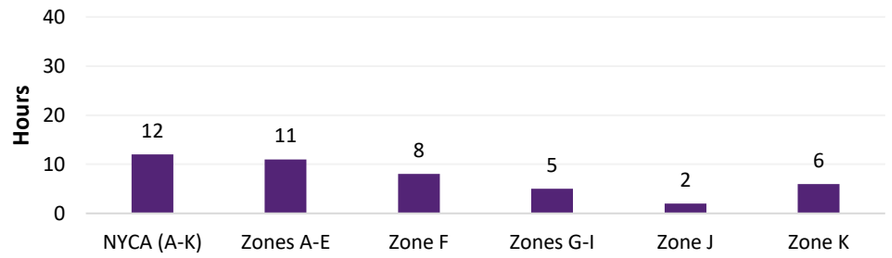
Total MWh of Exports Reduced



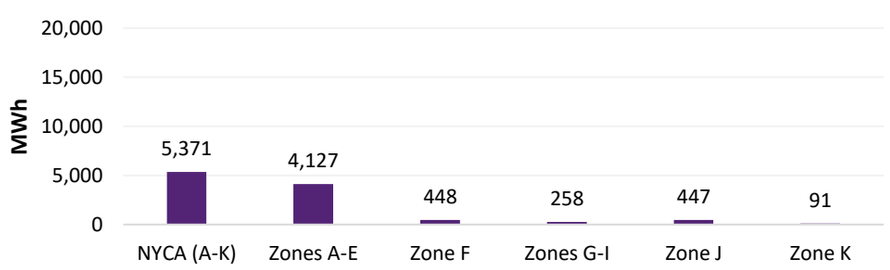
Average Capacity Not Available Due to Exhausted Fuel Inventory



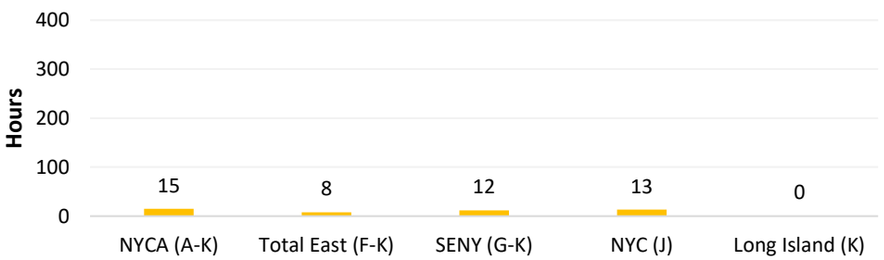
Hours SCR/EDRP Deployed



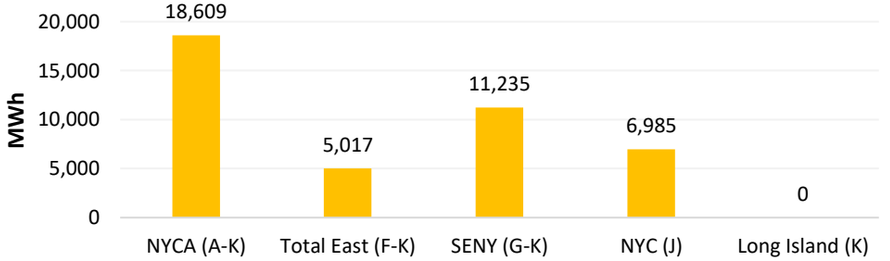
Total MWh SCR/EDRP Deployed



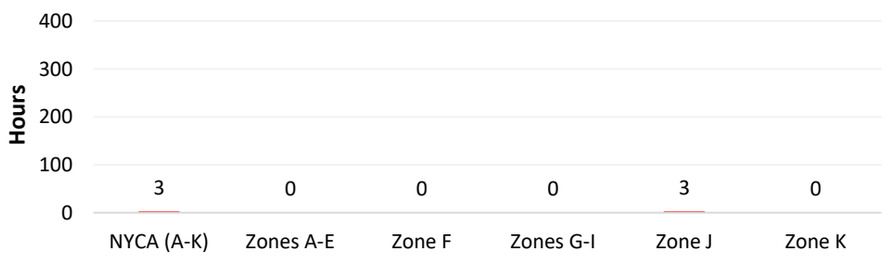
Hours with Reserve Violations



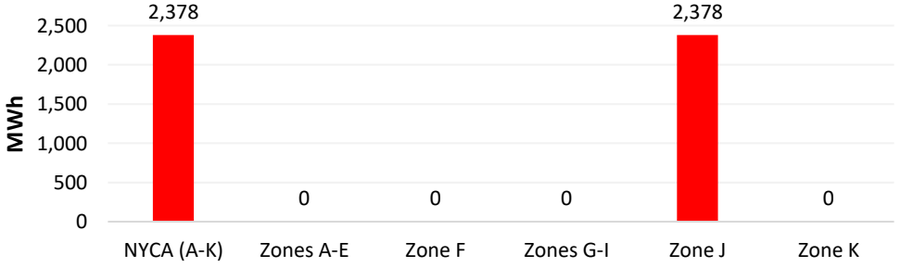
Total MWh of Reserve Violations

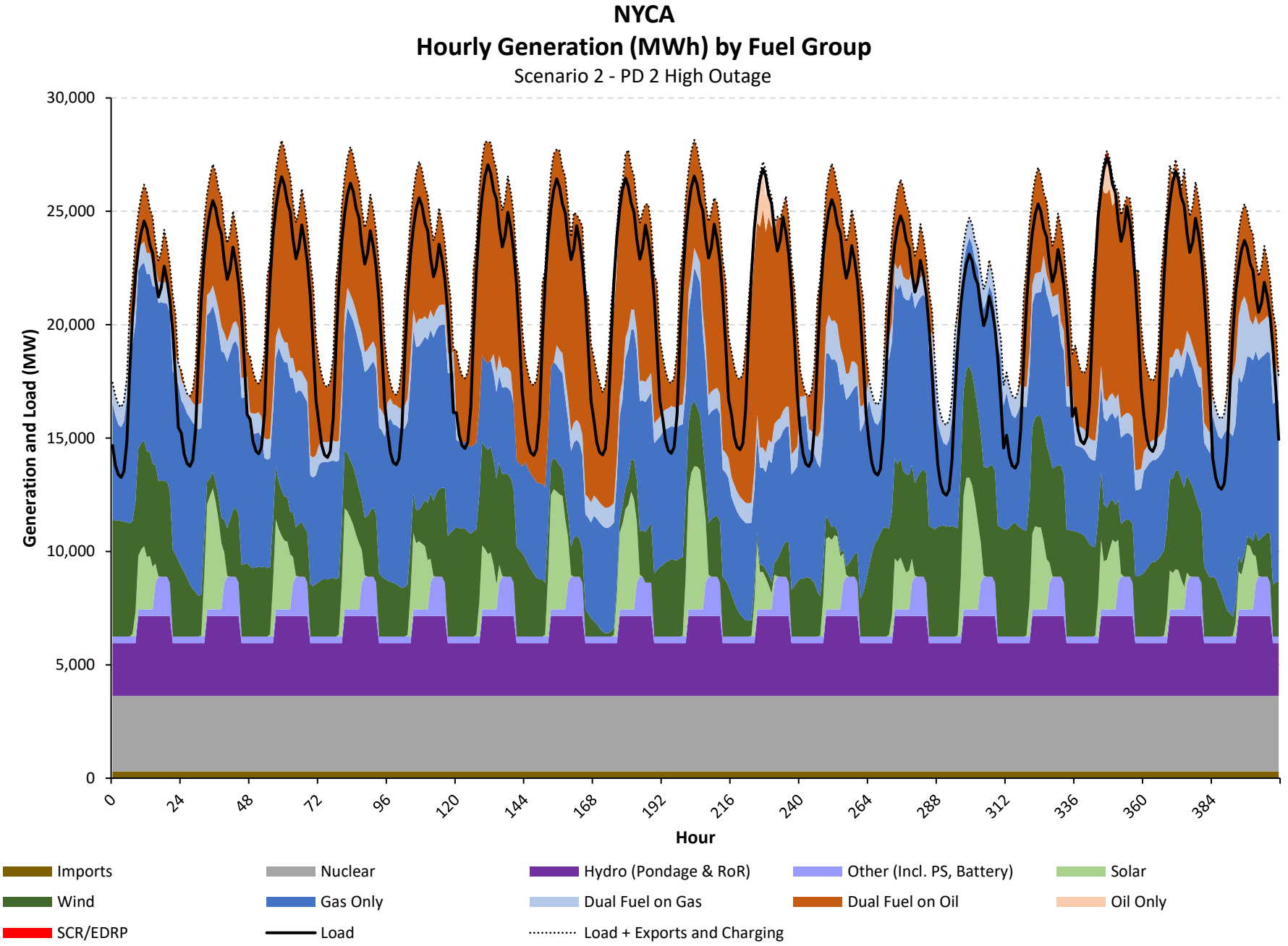


Hours with Loss of Load

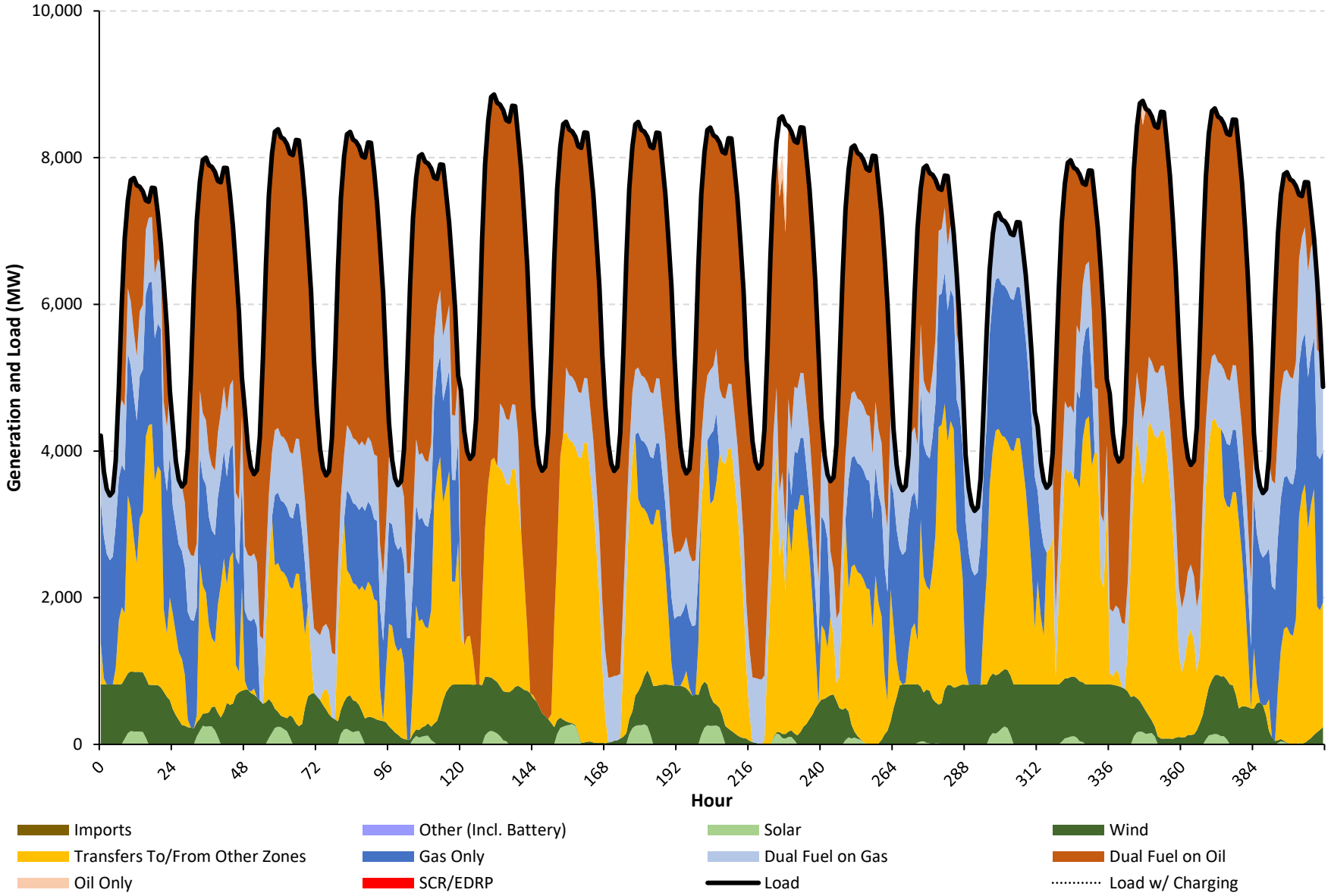


Total MWh of Lost Load

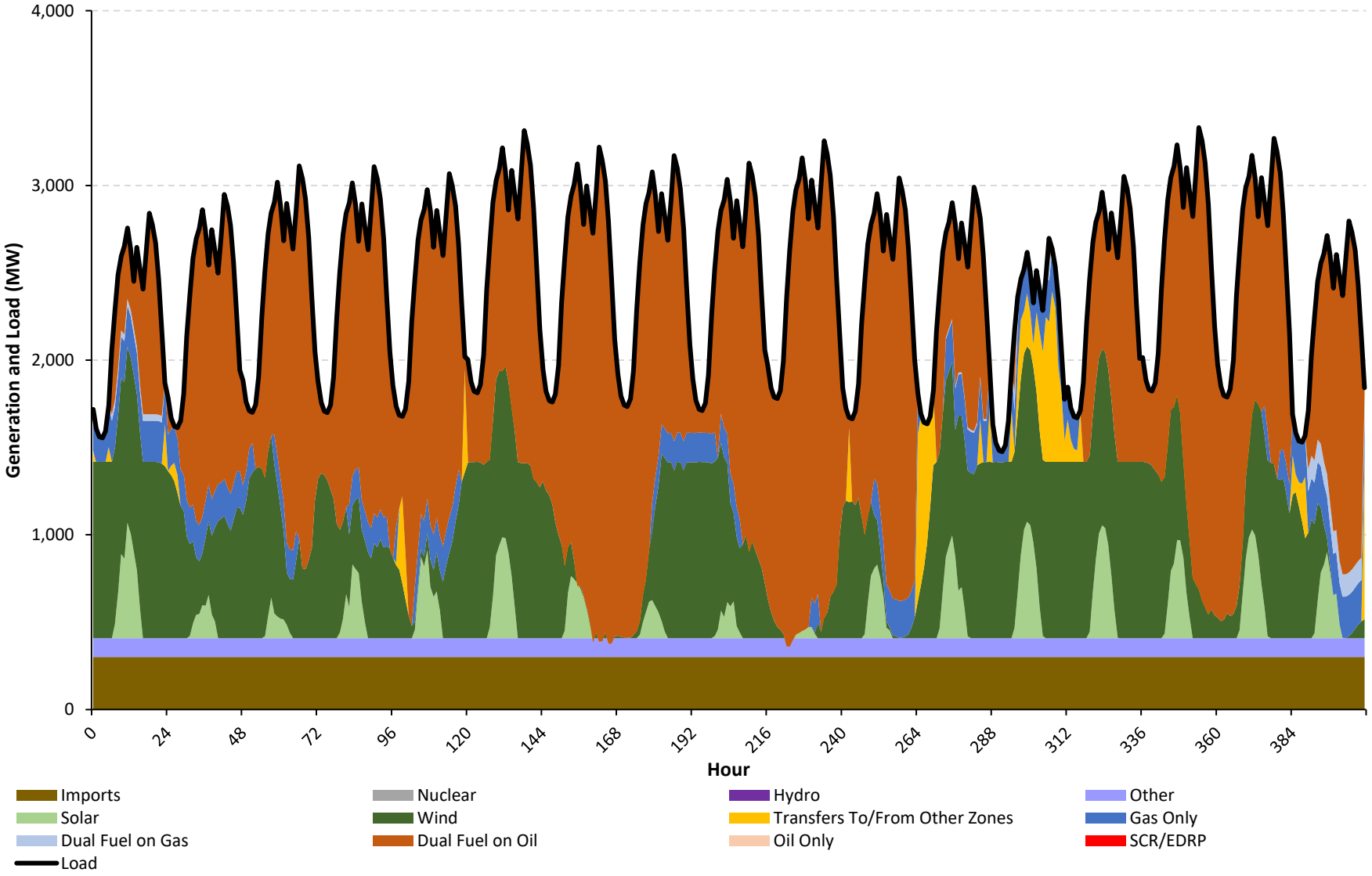


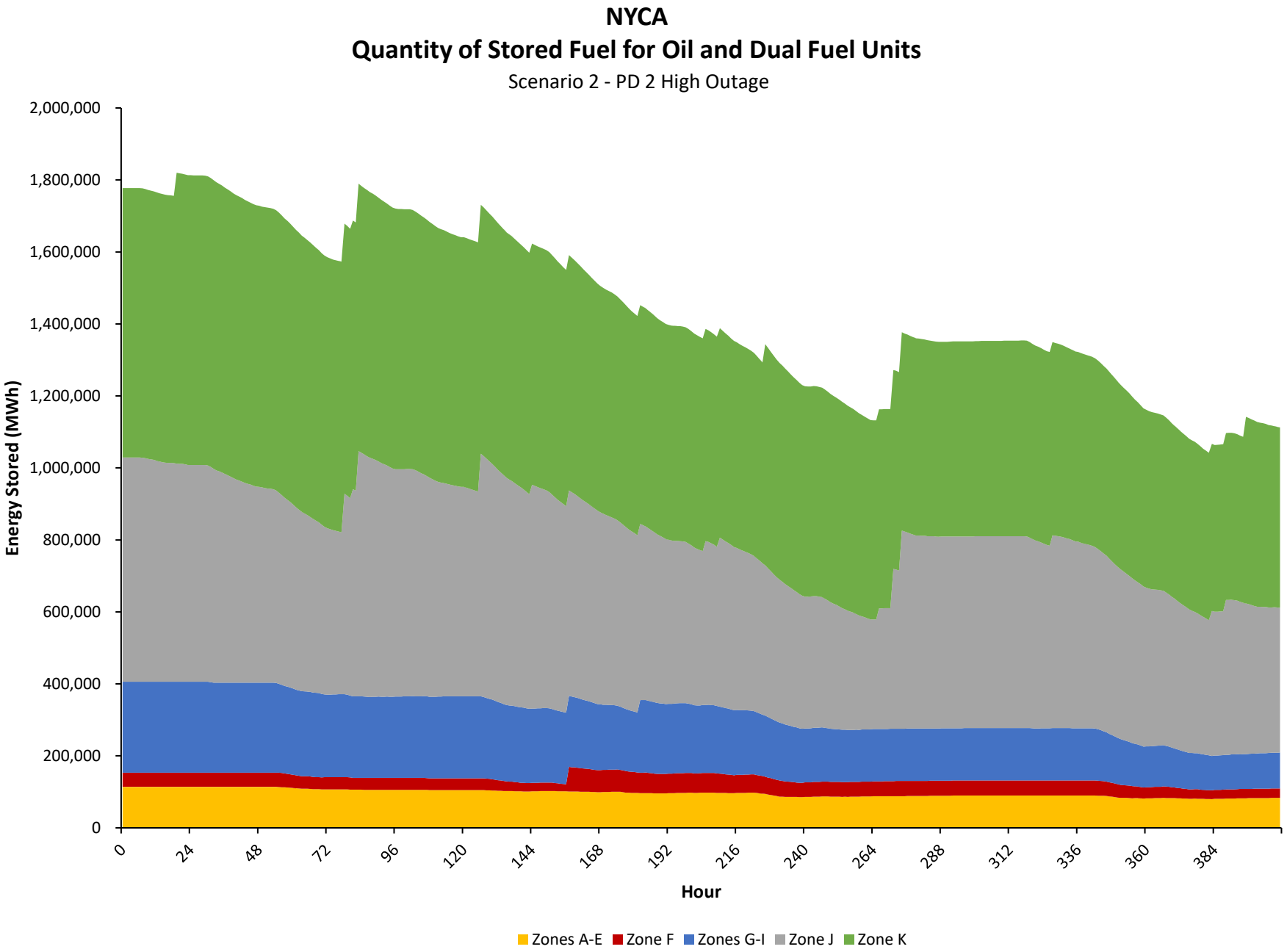

NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 2 - PD 2 High Outage
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

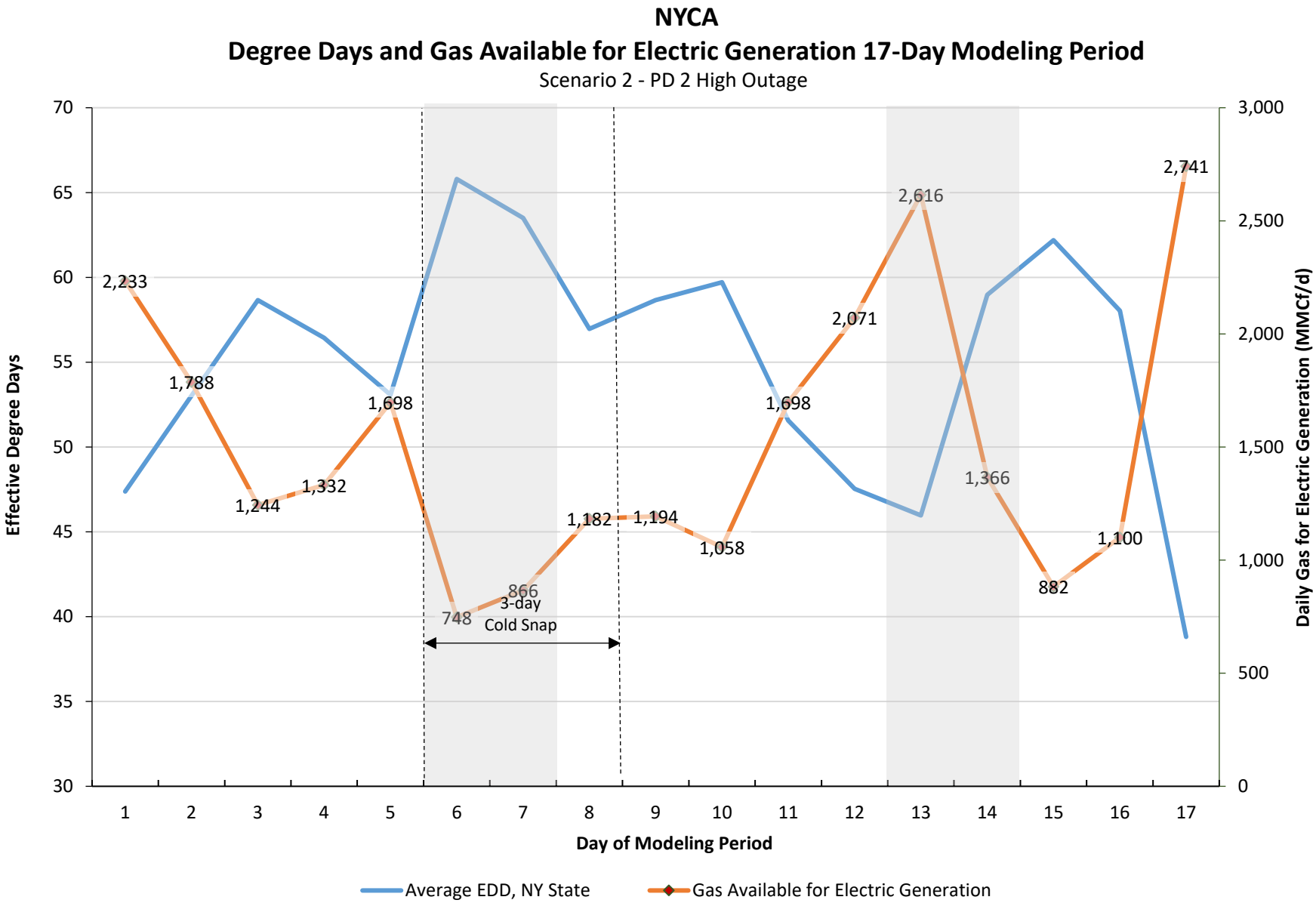
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 2 High Outage



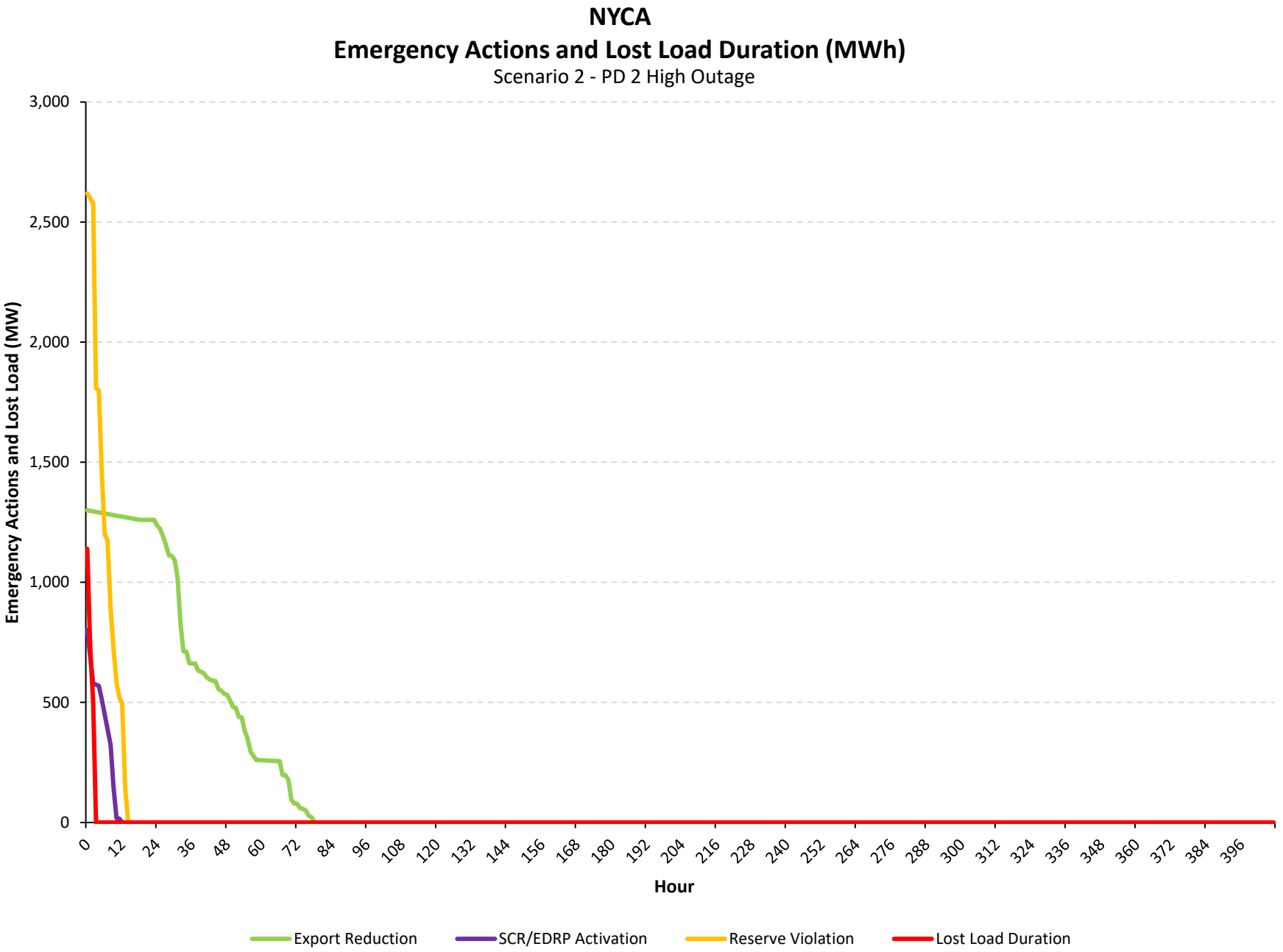
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 2 High Outage

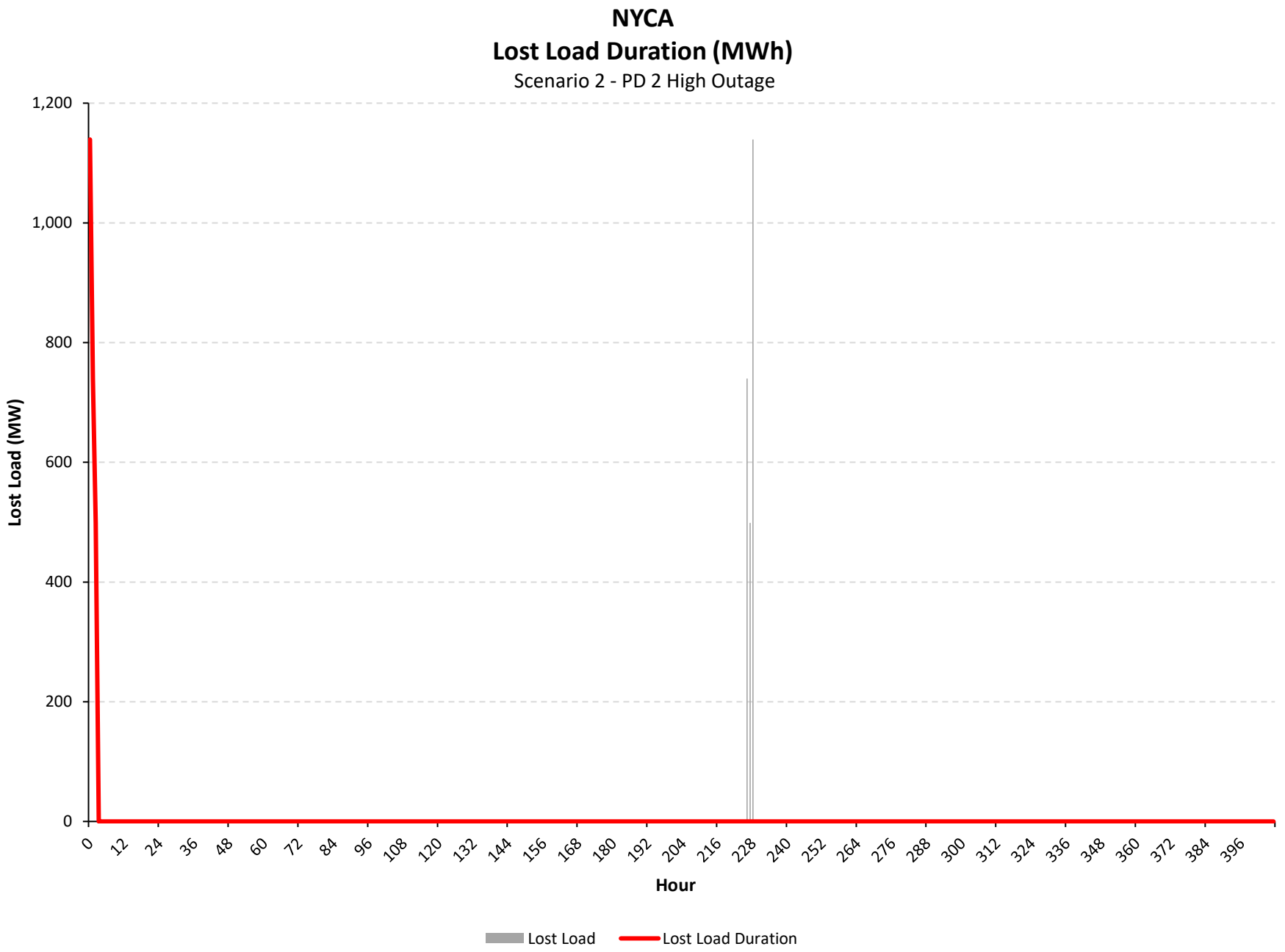



NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 2 - PD 2 High Outage
Energy Stored (MWh)
2,000,000
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Zones A-E
Zone F
Zones G-I
Zone J
Zone K



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 2 - PD 2 High Outage
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0
12
24
36
48
60
72
84
96
108
120
132
144
156
168
180
192
204
216
228
240
252
264
276
288
300
312
324
336
348
360
372
384
396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 2 - PD 2 High Outage
Lost Load (MW)
1,200
1,000
800
600
400
200
0
0
12
24
36
48
60
72
84
96
108
120
132
144
156
168
180
192
204
216
228
240
252
264
276
288
300
312
324
336
348
360
372
384
396
Hour
Lost Load
Lost Load Duration

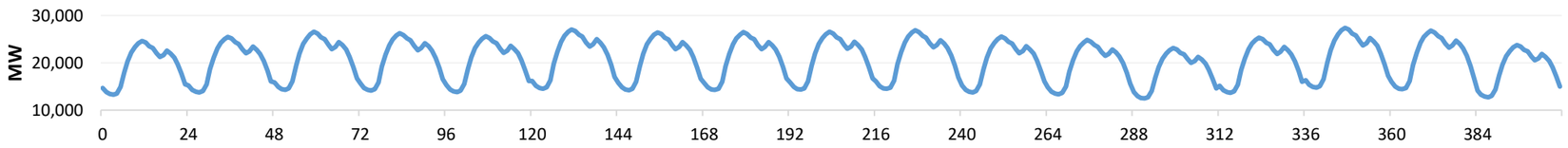
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 3 SENY Deactivation (Winter 2026/2027)

Hourly Results Summary

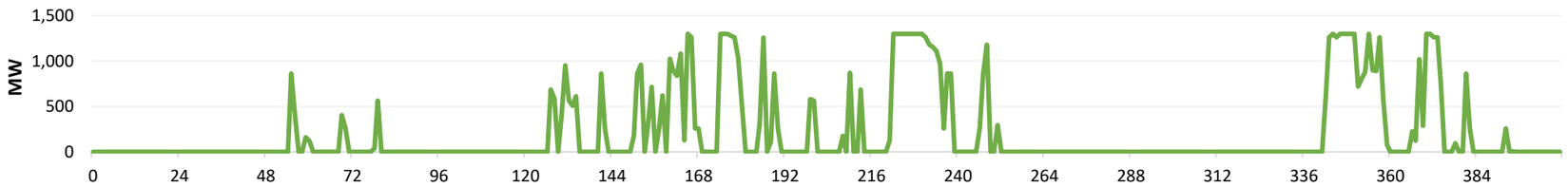
Case Name: Scenario 2 - PD 3 SENY Deactivation

Load During Modeling Period



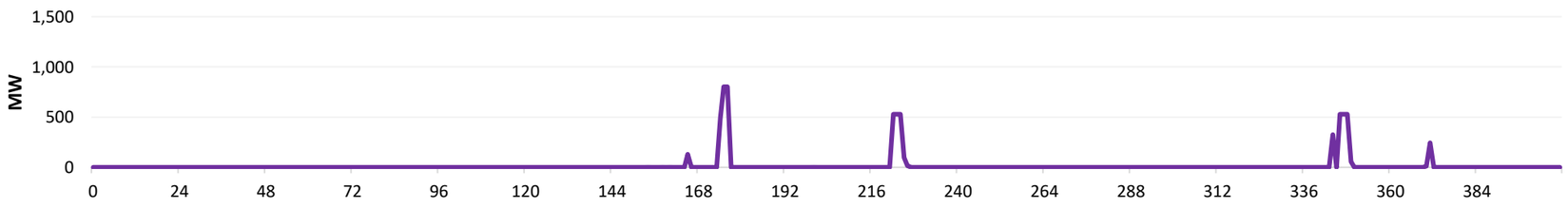
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



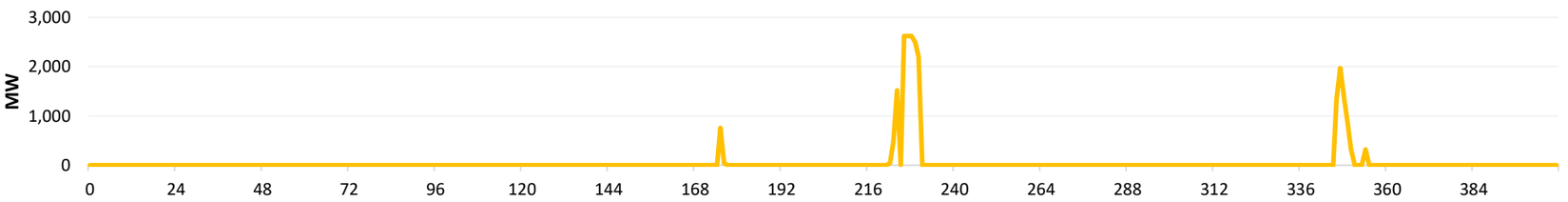
Export Reductions	
Total Hrs.	105
Total MWh	82,291
Avg. MW	201.7

SCR/EDRP Deployed During Modeling Period



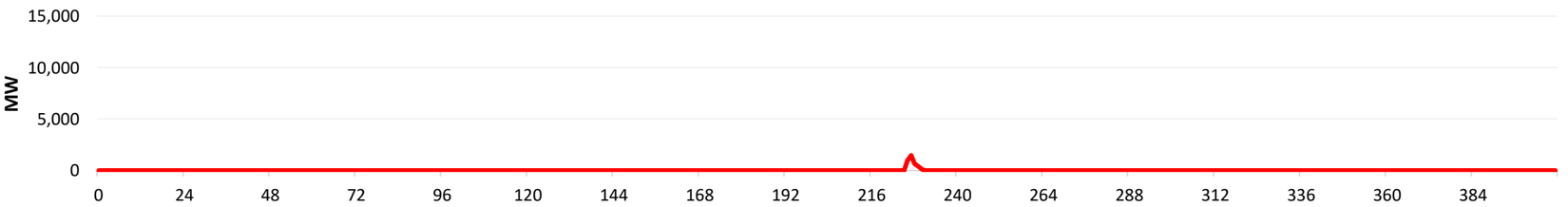
SCR Deployment	
Total Hrs.	16
Total MWh	6,139
Avg. MW	15.0

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	16
Total MWh	21,551
Avg. MW	52.8
First Hour with Viol.	175

Loss of Load During Modeling Period



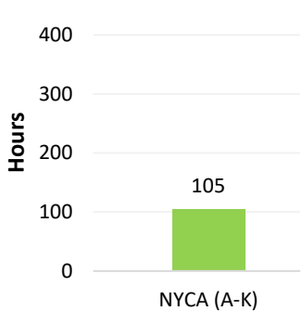
Loss of Load	
Total Hrs.	5
Total MWh	3,643
Avg. MW	8.9
First Hour with Losses	226

Full Period Results Summary

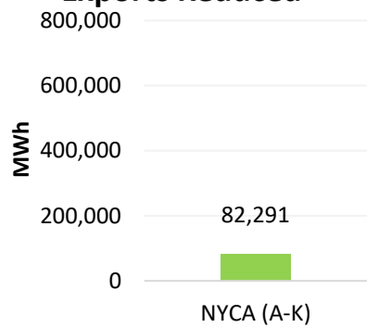
Case Name: Scenario 2 - PD 3 SENY Deactivation

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	Net Zero

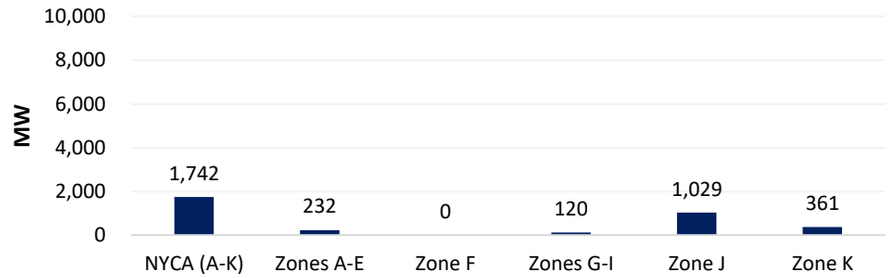
Hours Exports Reduced



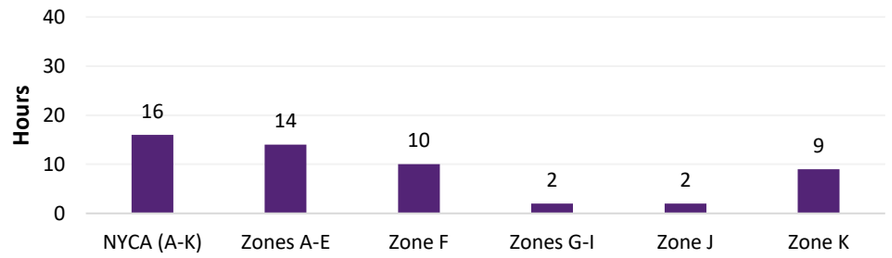
Total MWh of Exports Reduced



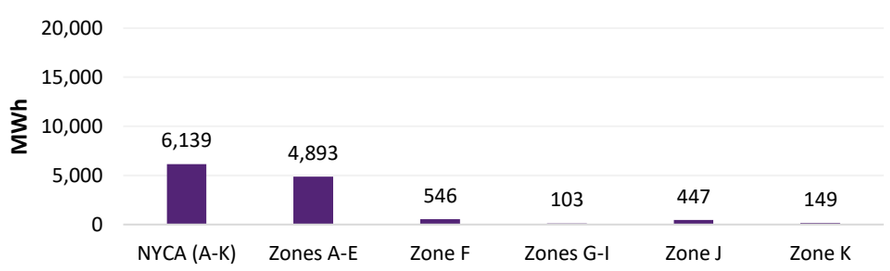
Average Capacity Not Available Due to Exhausted Fuel Inventory



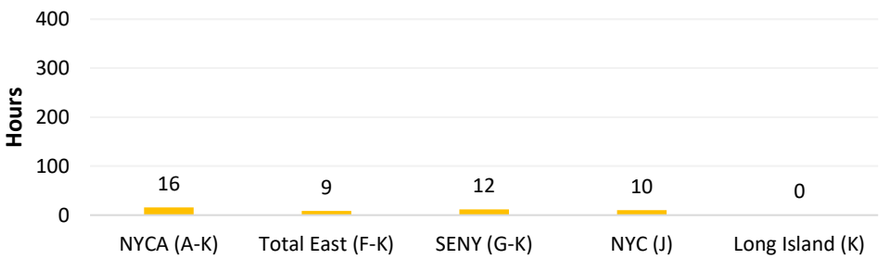
Hours SCR/EDRP Deployed



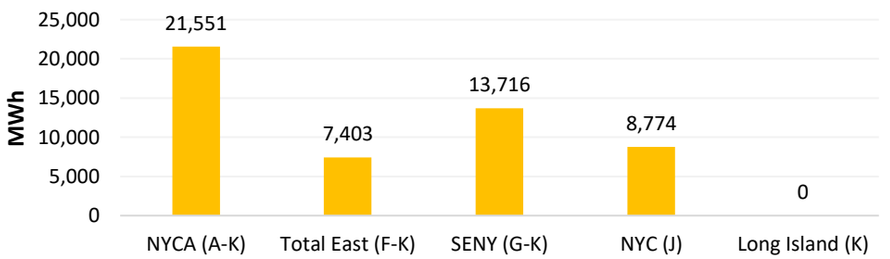
Total MWh SCR/EDRP Deployed



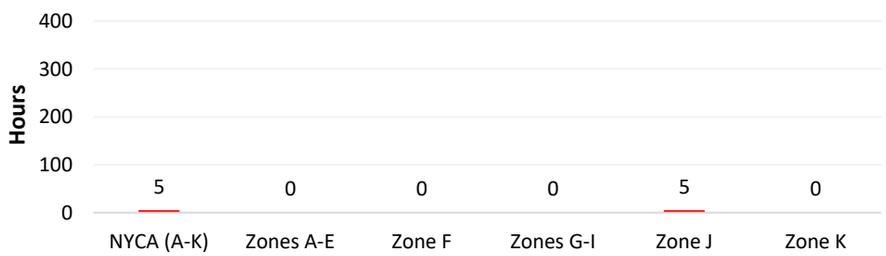
Hours with Reserve Violations



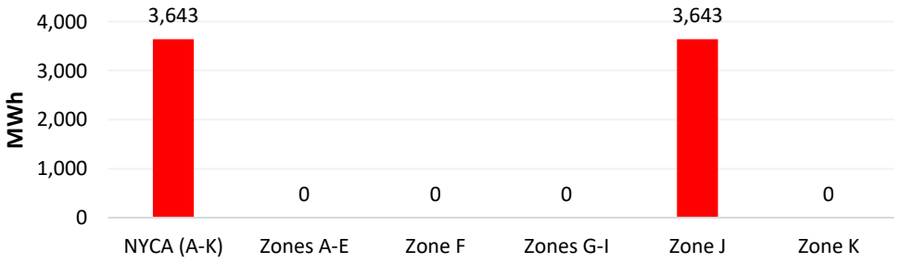
Total MWh of Reserve Violations

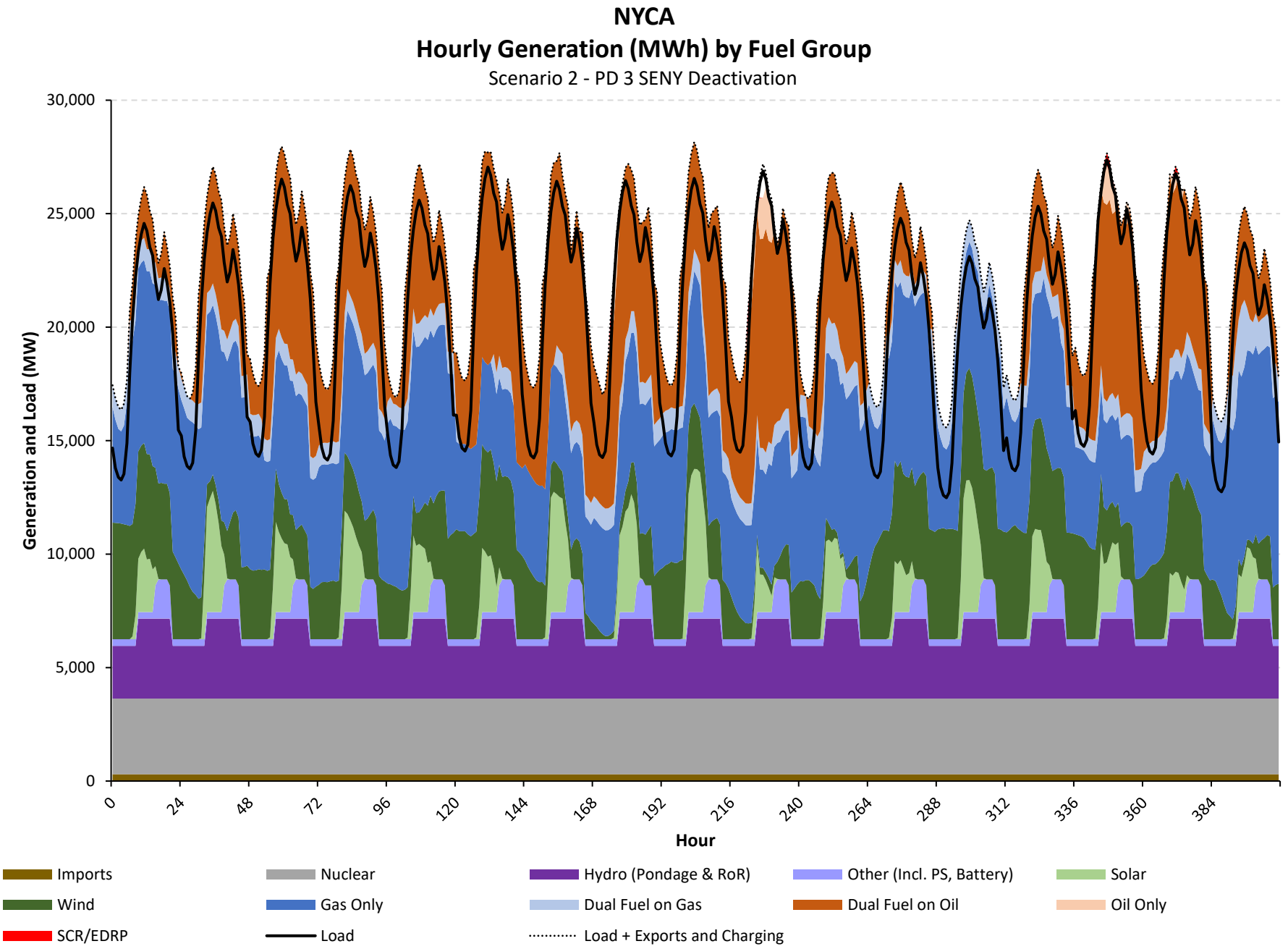


Hours with Loss of Load

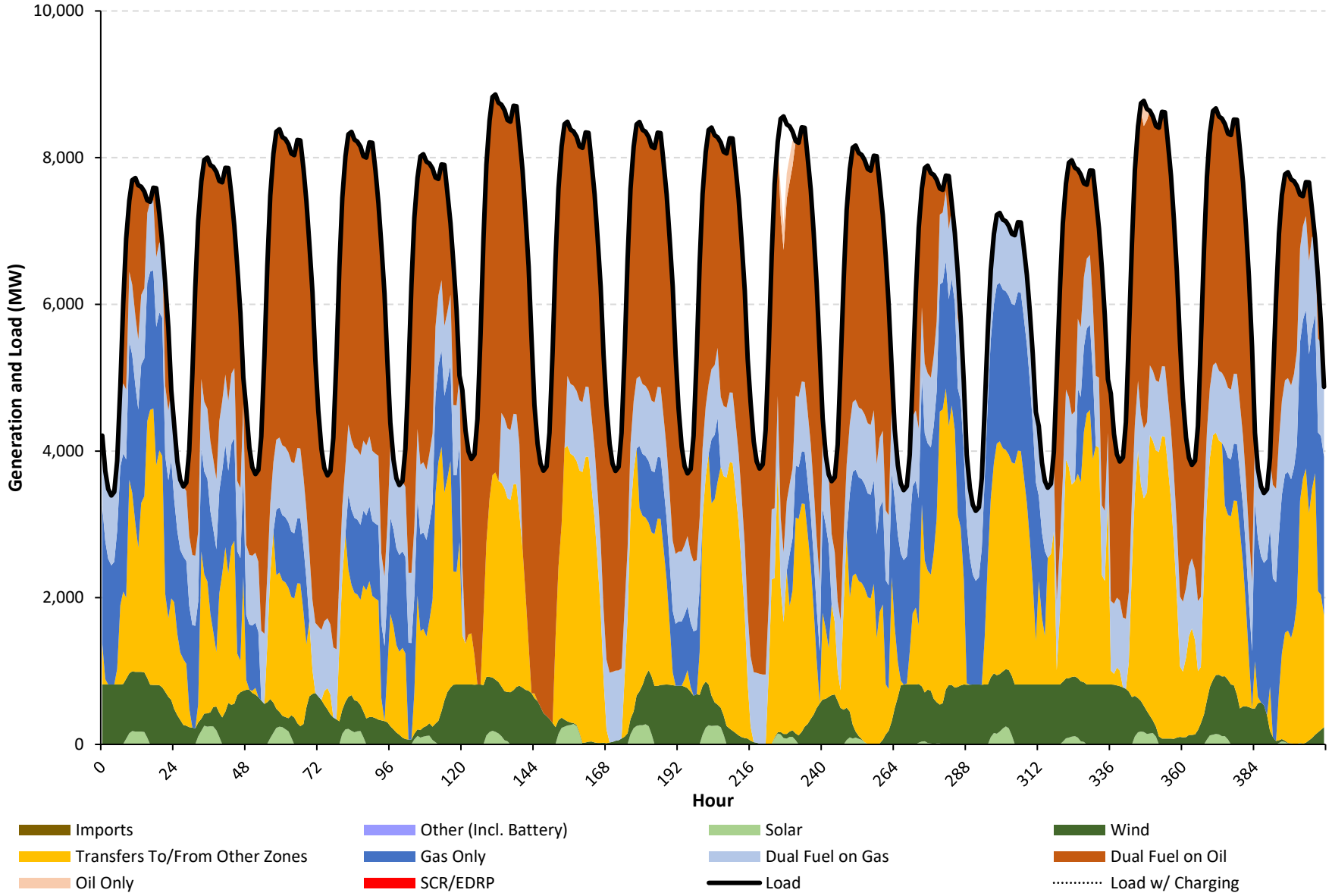


Total MWh of Lost Load

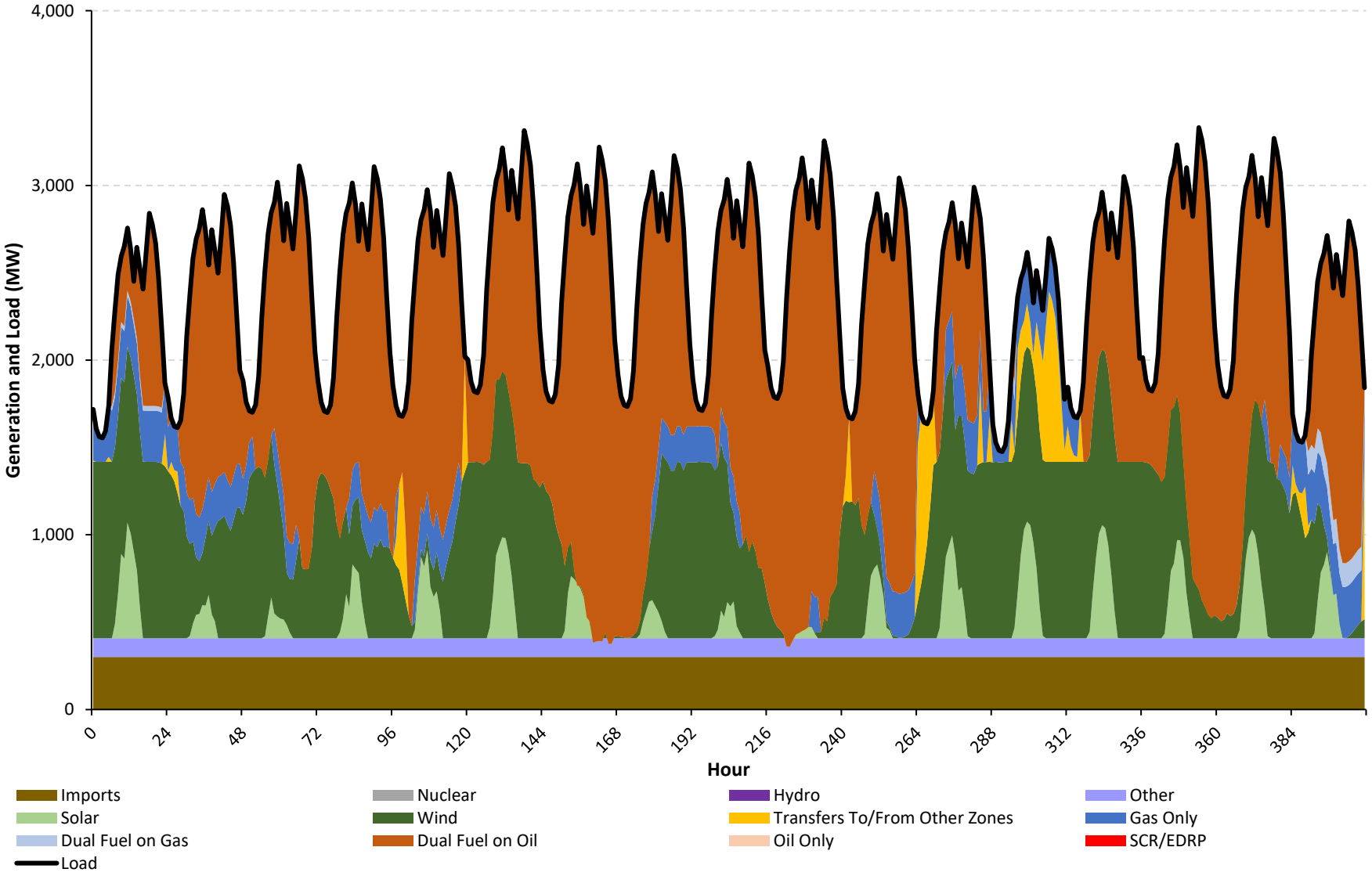



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 2 - PD 3 SENY Deactivation
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 3 SENY Deactivation



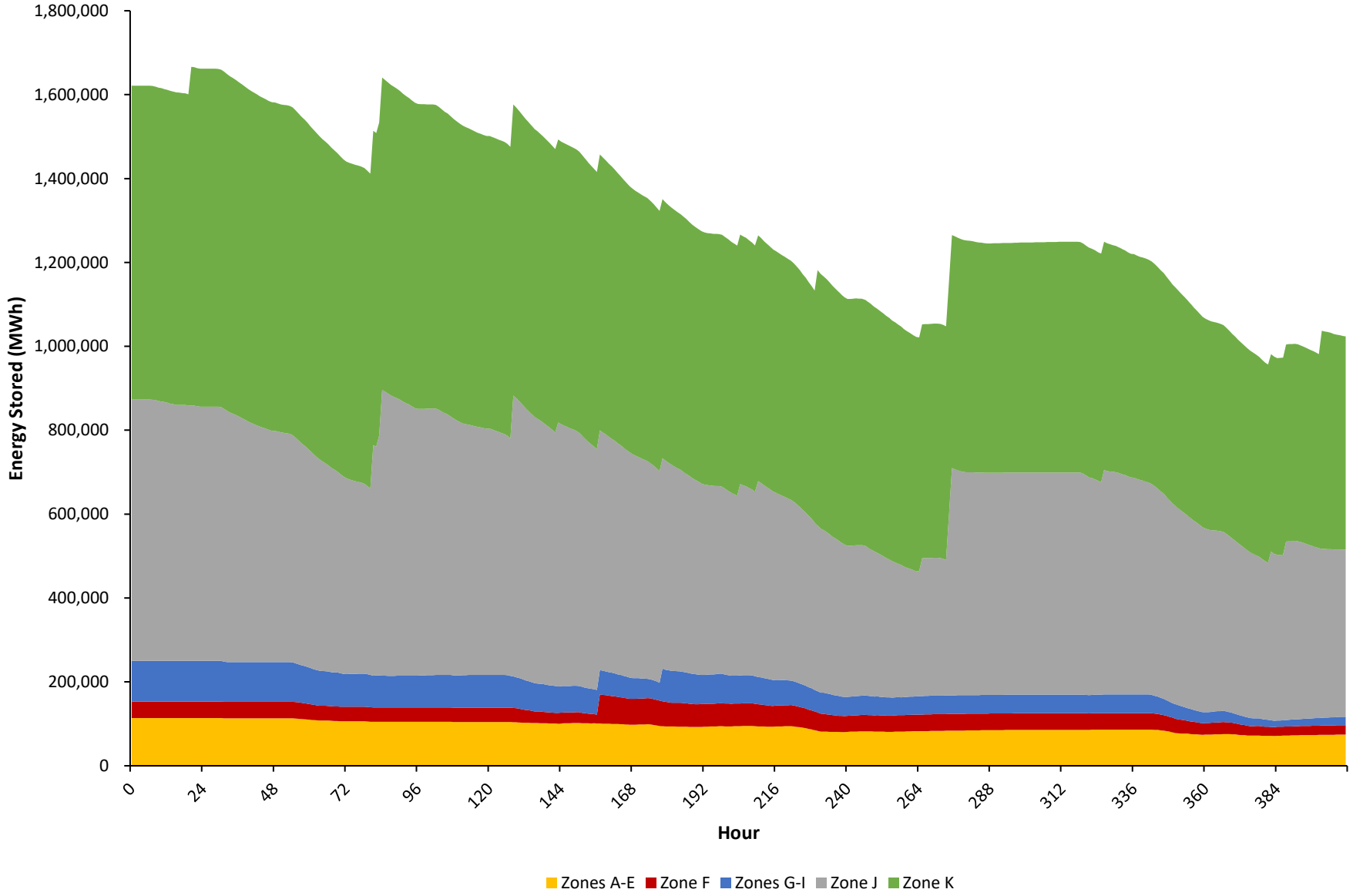
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 3 SENY Deactivation

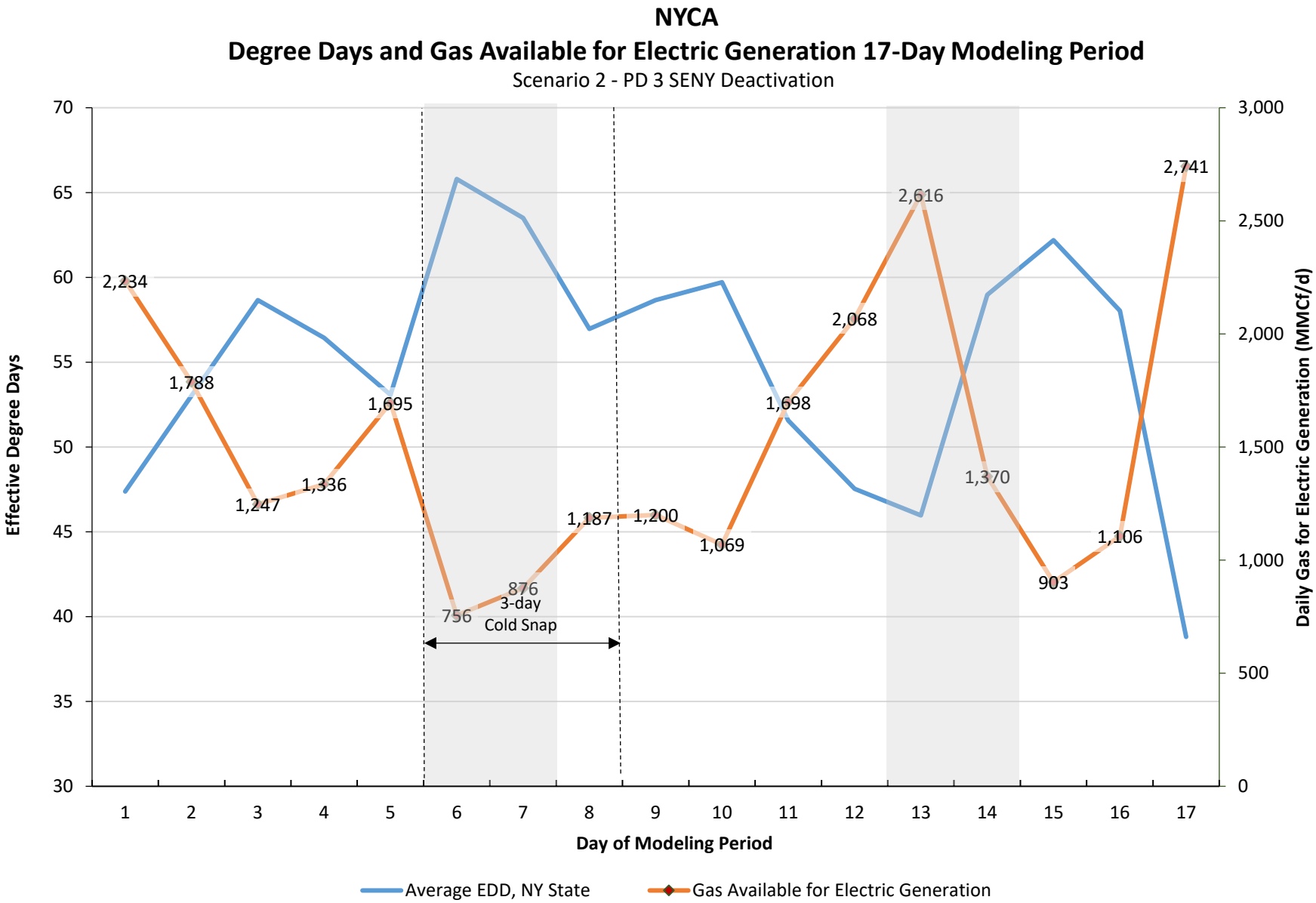


NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

Scenario 2 - PD 3 SENY Deactivation



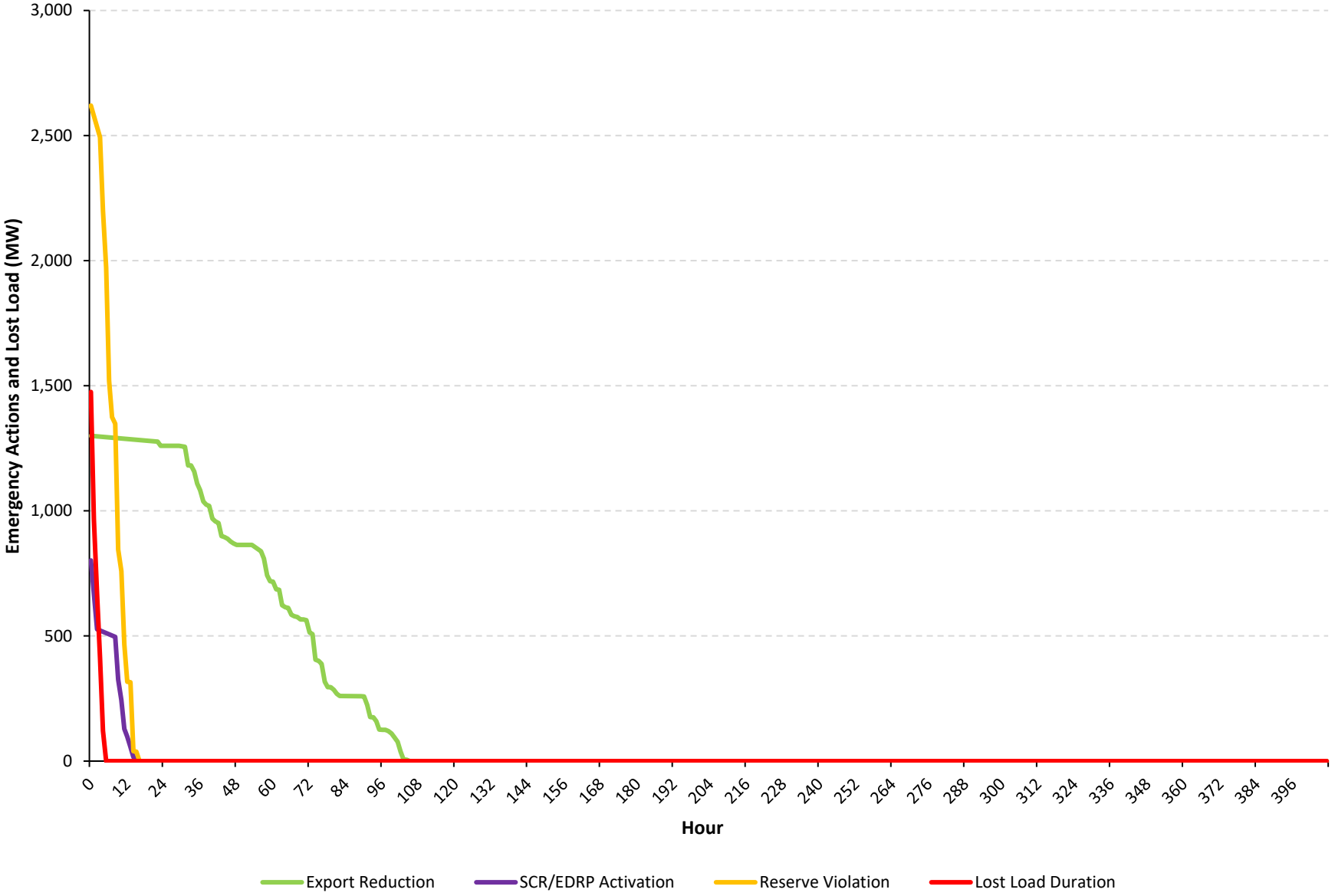


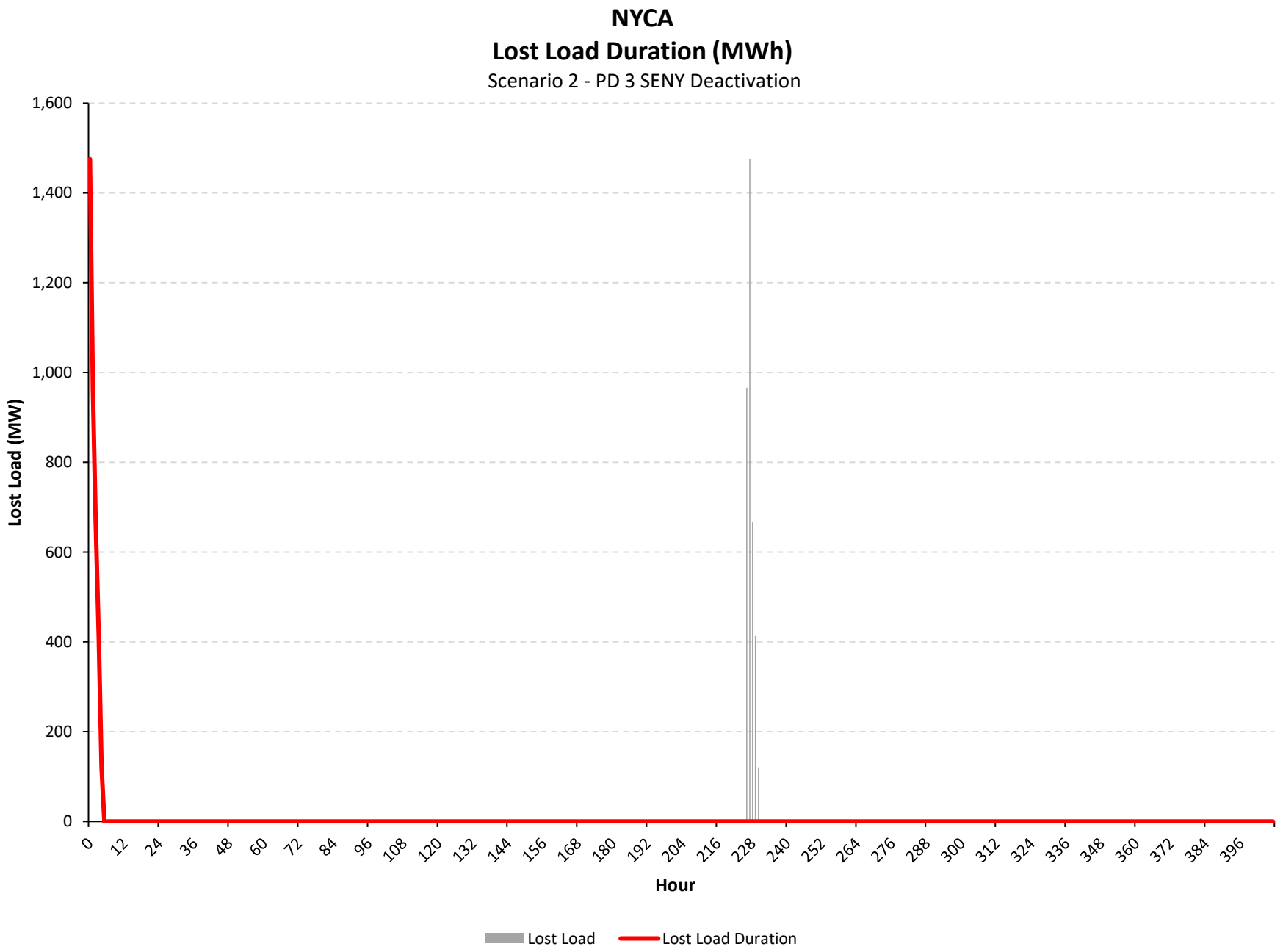
Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.

NYCA

Emergency Actions and Lost Load Duration (MWh)

Scenario 2 - PD 3 SENY Deactivation




NYCA
Lost Load Duration (MWh)
Scenario 2 - PD 3 SENY Deactivation
Lost Load (MW)
1,600
1,400
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

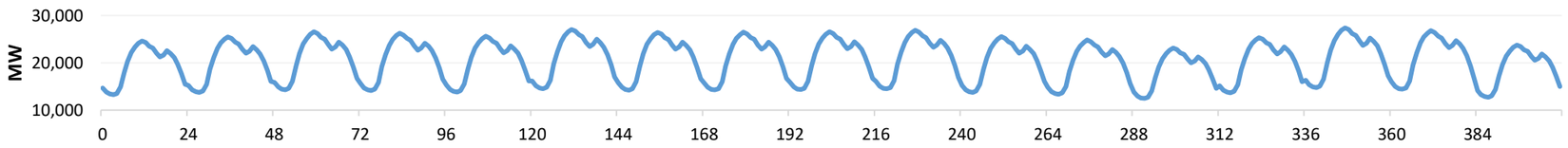
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 4 Nuclear Station Outage (Winter 2026/2027)

Hourly Results Summary

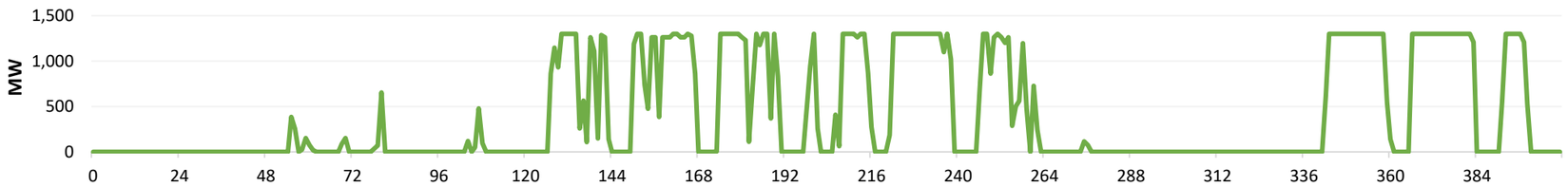
Case Name: Scenario 2 - PD 4 Nuclear Station Outage

Load During Modeling Period



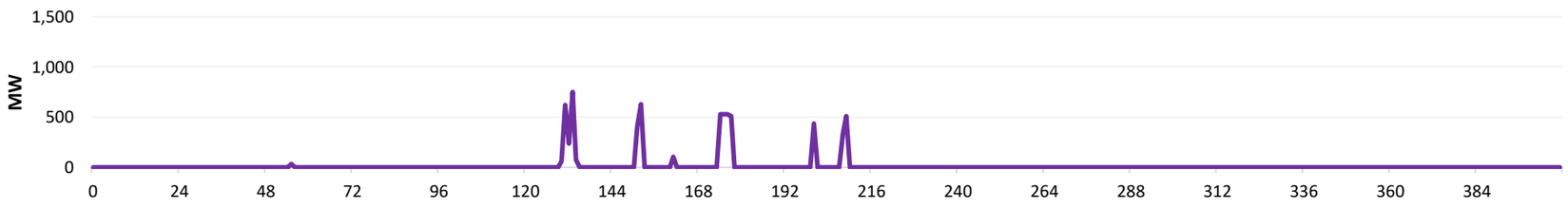
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



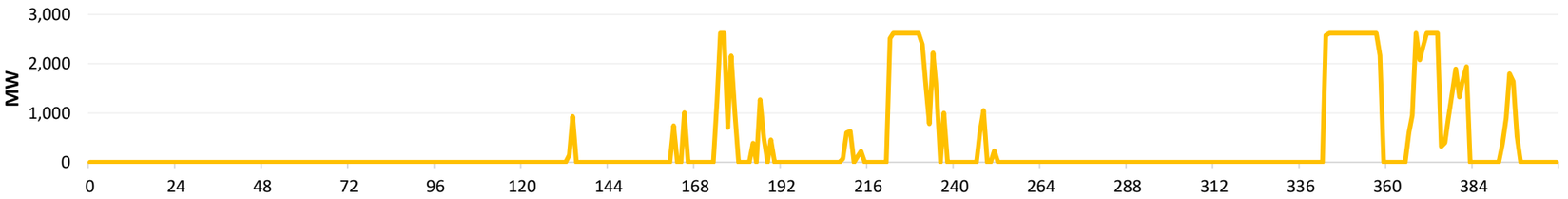
Export Reductions	
Total Hrs.	164
Total MWh	161,478
Avg. MW	395.8

SCR/EDRP Deployed During Modeling Period



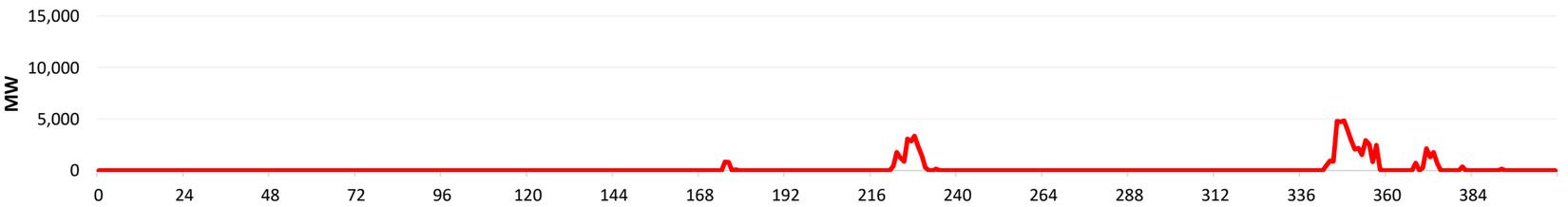
SCR Deployment	
Total Hrs.	16
Total MWh	6,284
Avg. MW	15.4

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	75
Total MWh	127,625
Avg. MW	312.8
First Hour with Viol.	133

Loss of Load During Modeling Period



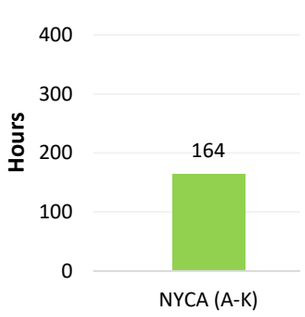
Loss of Load	
Total Hrs.	39
Total MWh	65,066
Avg. MW	159.5
First Hour with Losses	175

Full Period Results Summary

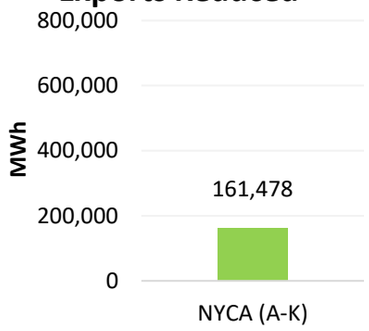
Case Name: Scenario 2 - PD 4 Nuclear Station Outage

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	Net Zero

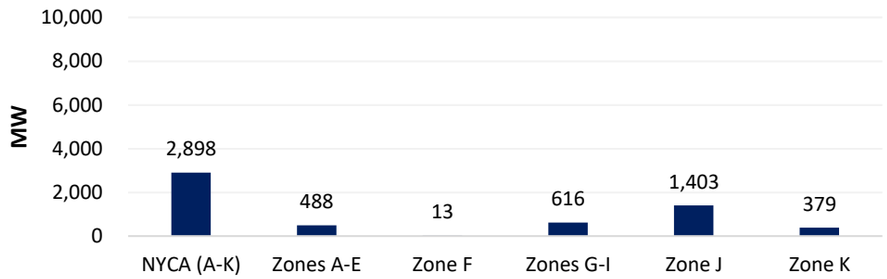
Hours Exports Reduced



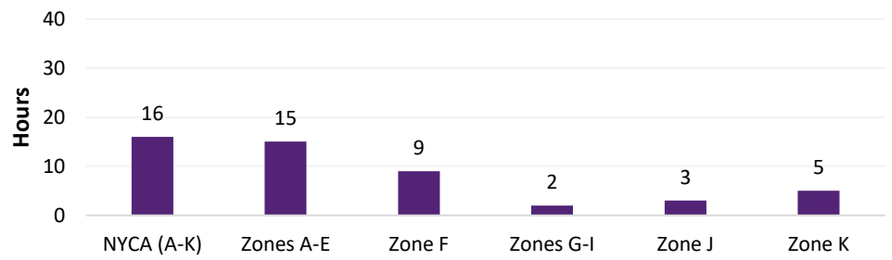
Total MWh of Exports Reduced



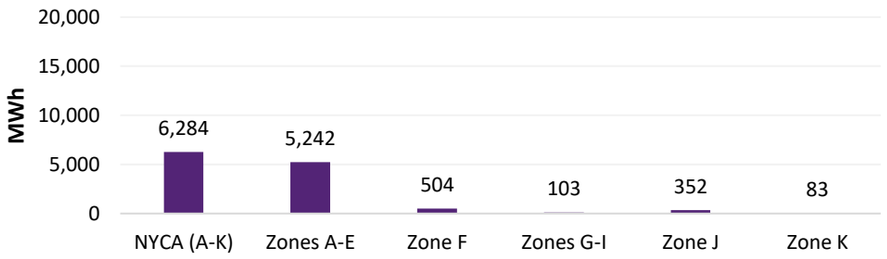
Average Capacity Not Available Due to Exhausted Fuel Inventory



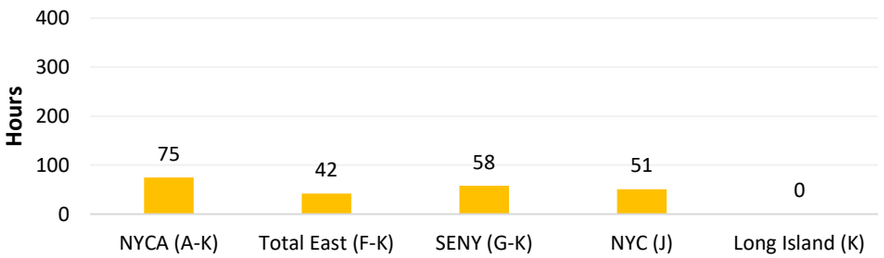
Hours SCR/EDRP Deployed



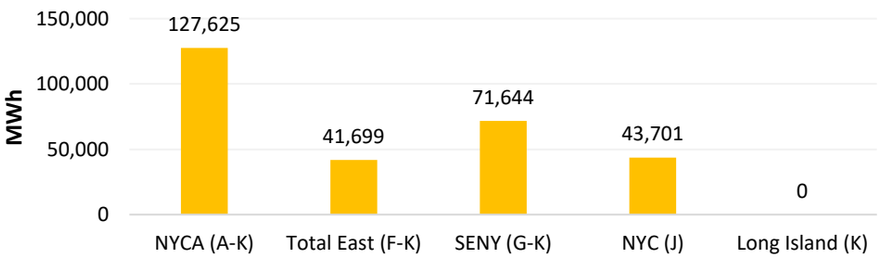
Total MWh SCR/EDRP Deployed



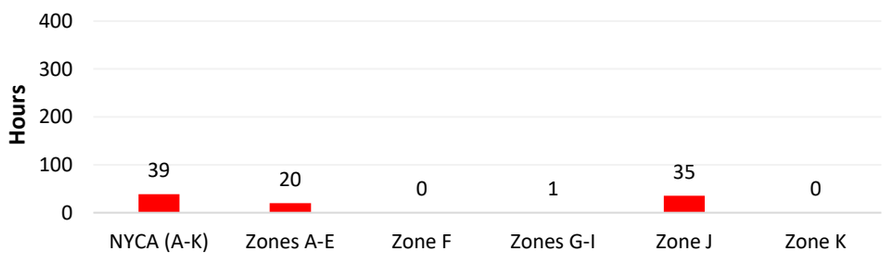
Hours with Reserve Violations



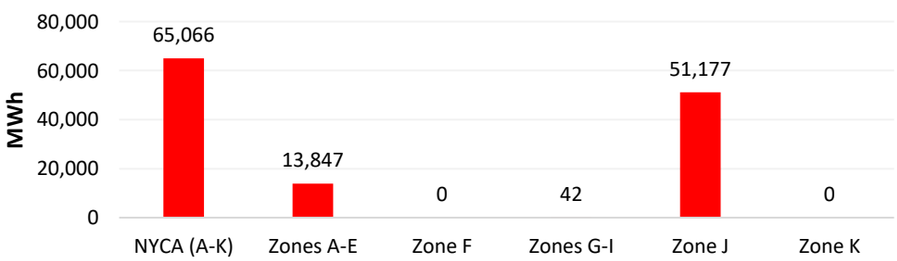
Total MWh of Reserve Violations

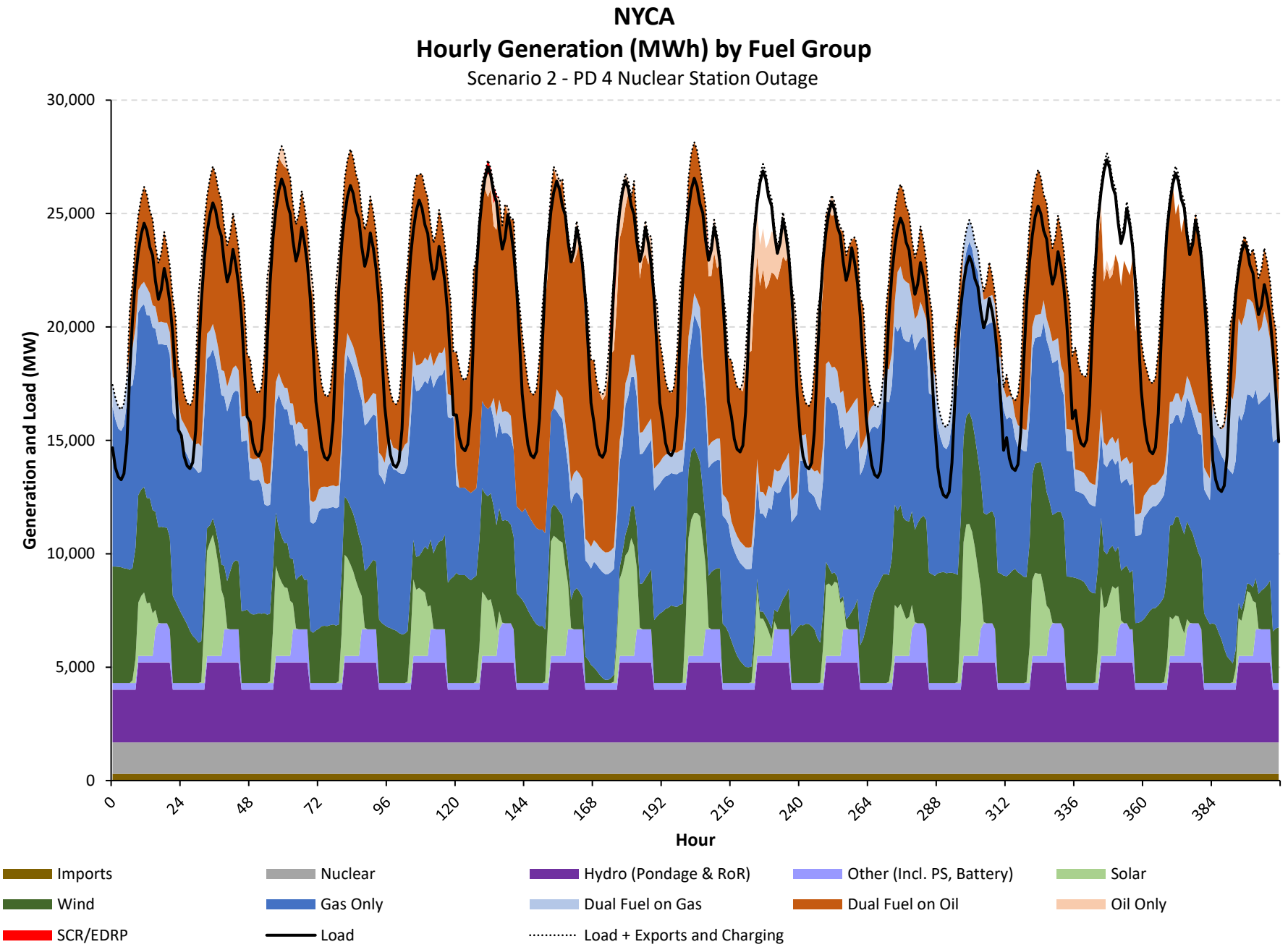


Hours with Loss of Load

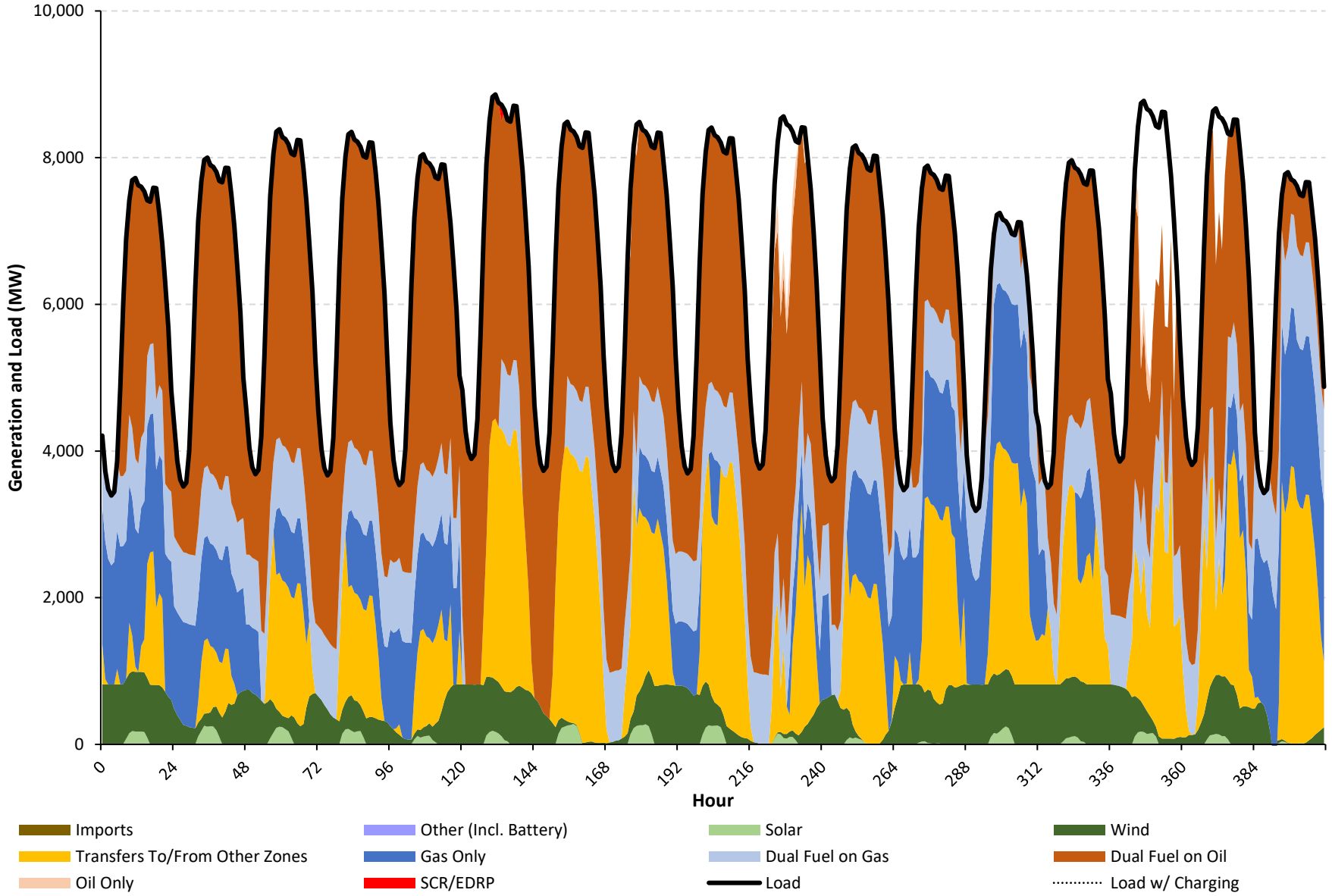


Total MWh of Lost Load

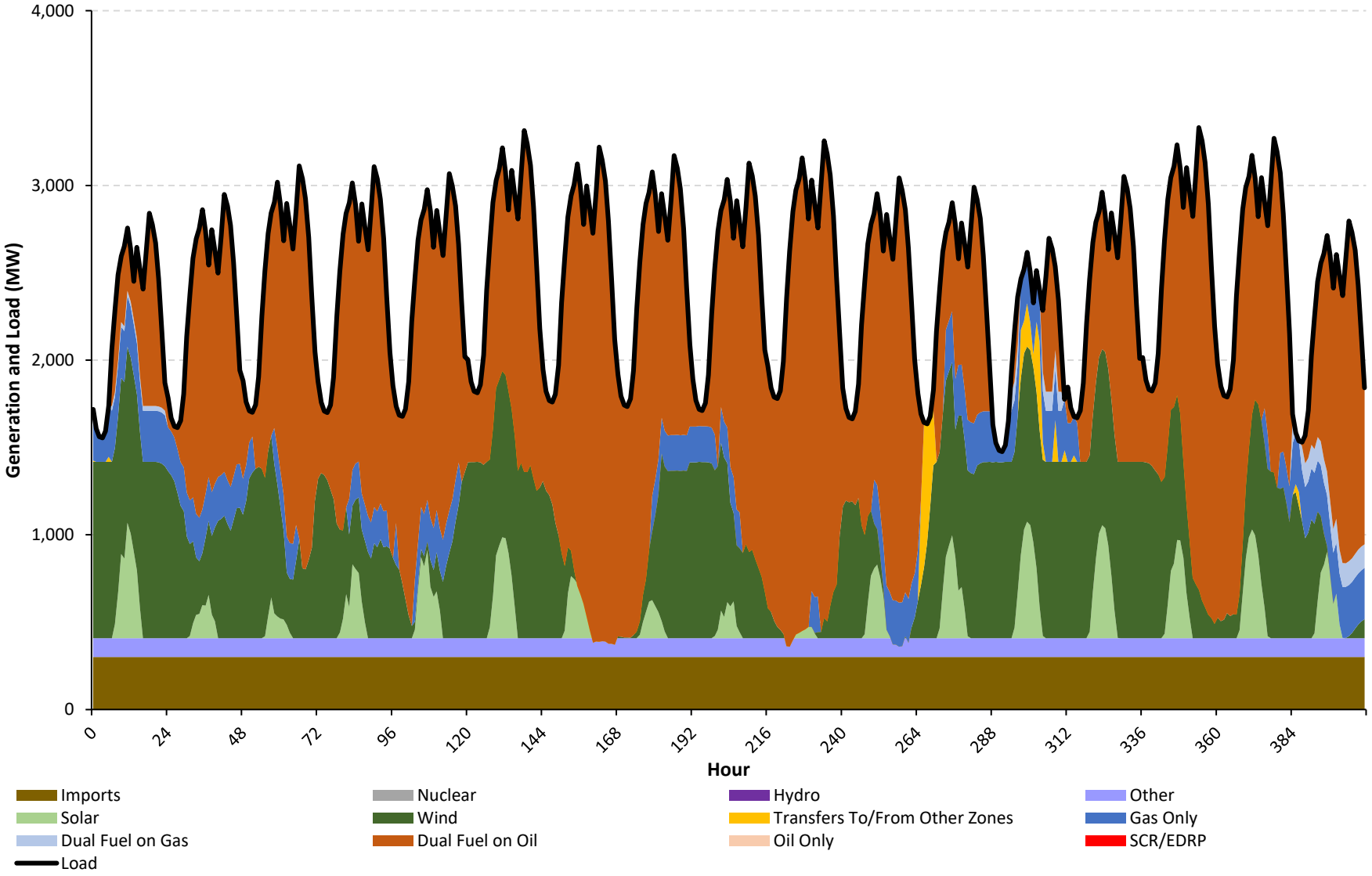



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 2 - PD 4 Nuclear Station Outage
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 4 Nuclear Station Outage



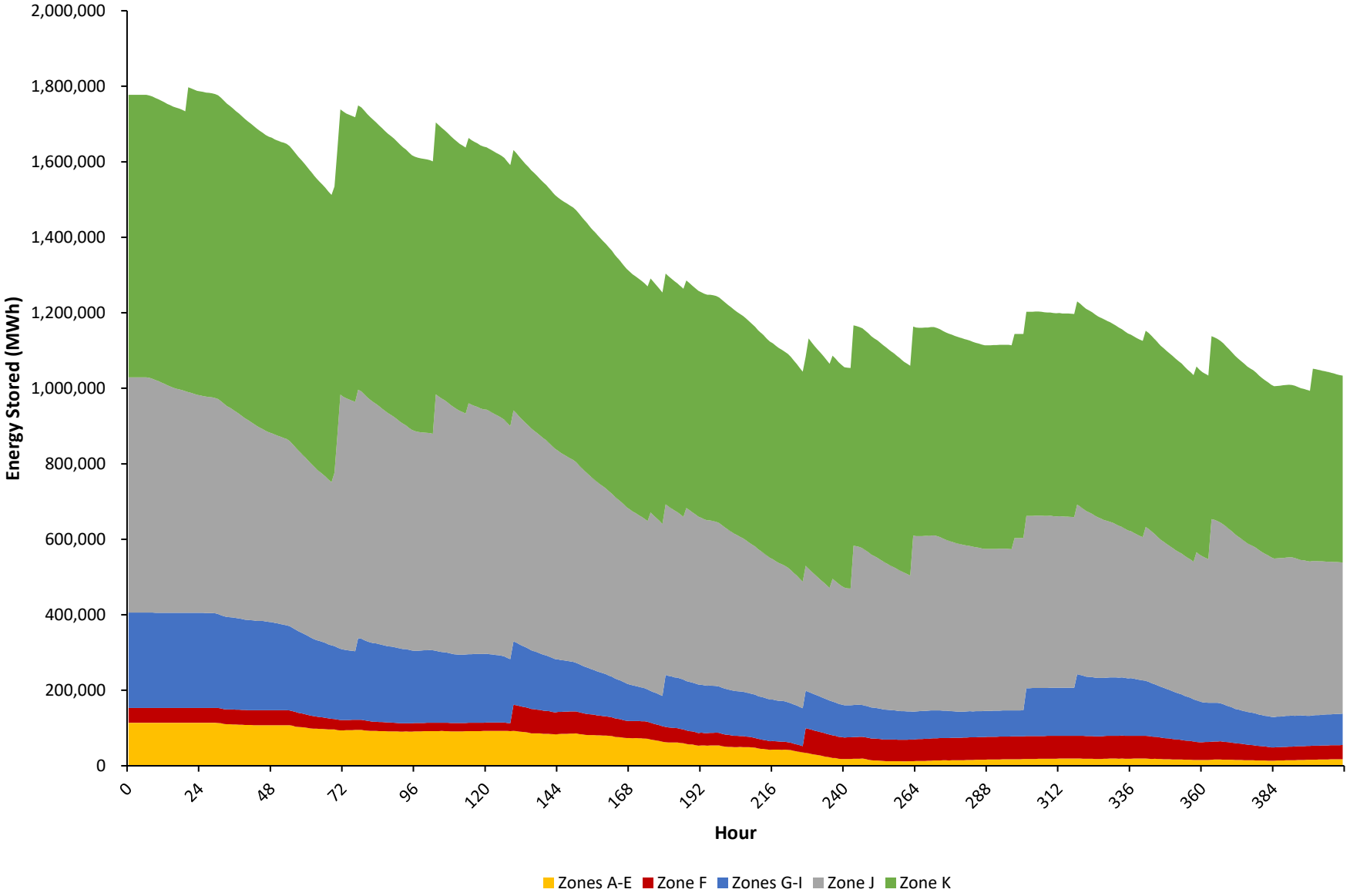
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 4 Nuclear Station Outage

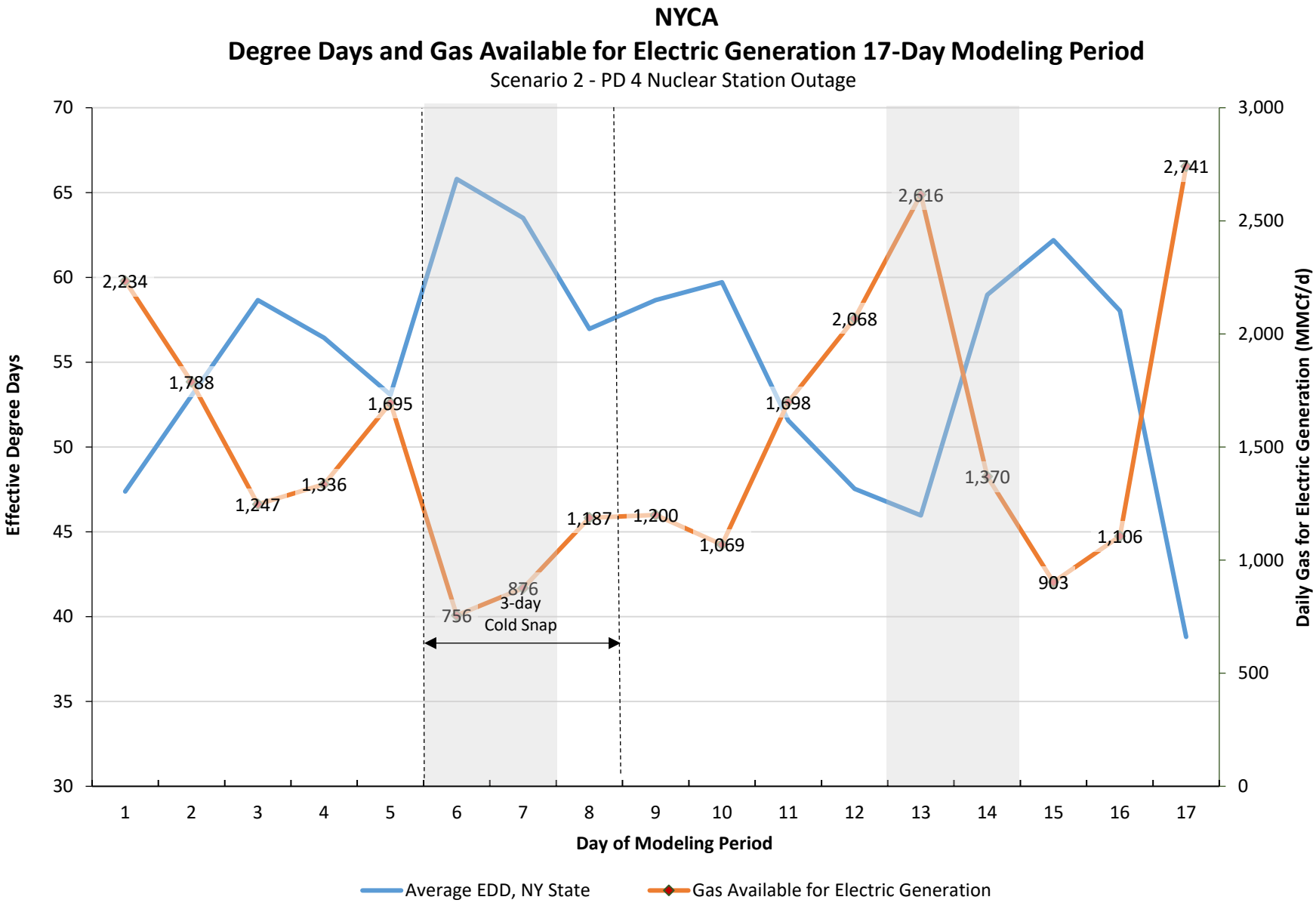


NYCA

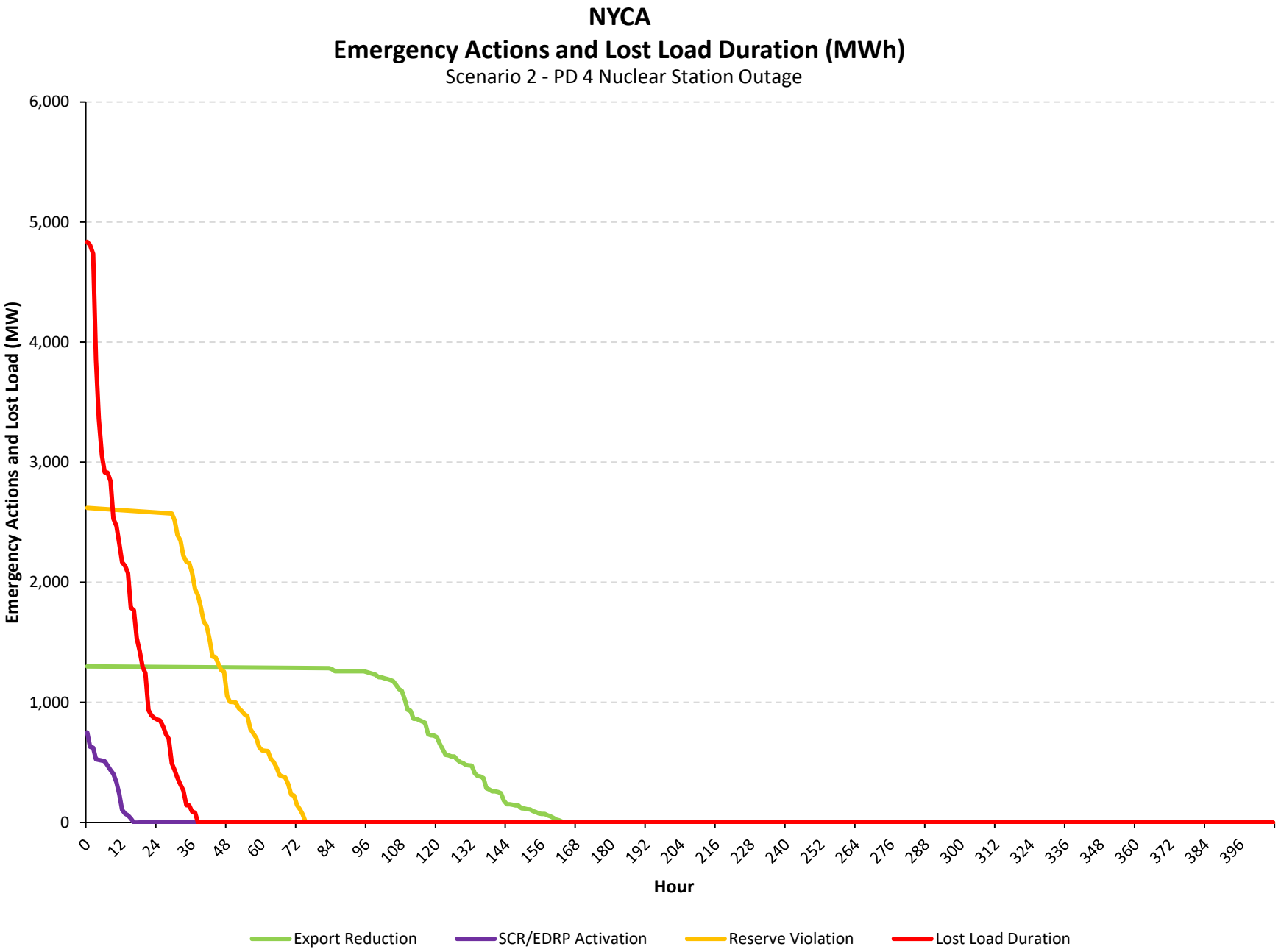
Quantity of Stored Fuel for Oil and Dual Fuel Units

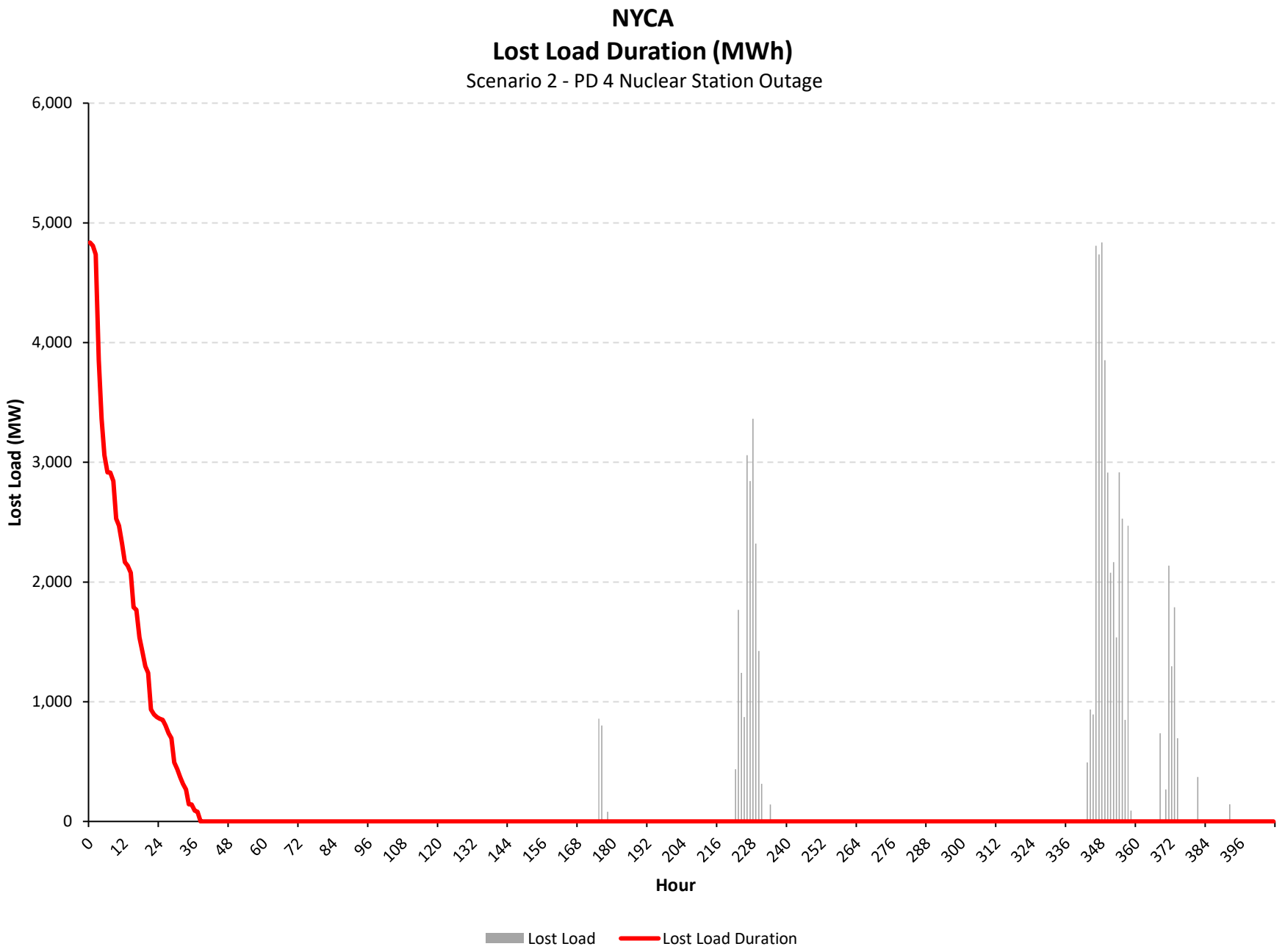
Scenario 2 - PD 4 Nuclear Station Outage





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 2 - PD 4 Nuclear Station Outage
Emergency Actions and Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 2 - PD 4 Nuclear Station Outage
Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

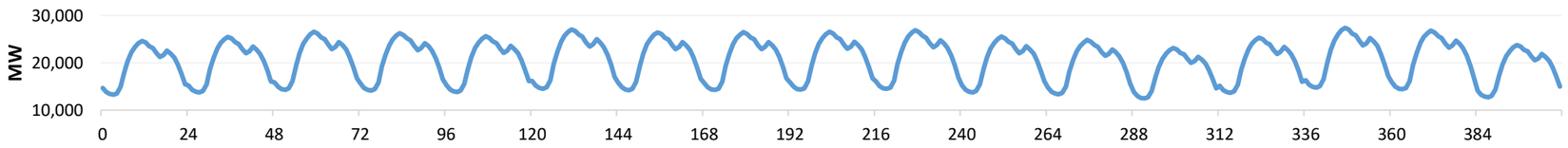
Case: Scenario 2 - PD 5 No Truck Refill (Winter 2026/2027)

Hourly Results Summary

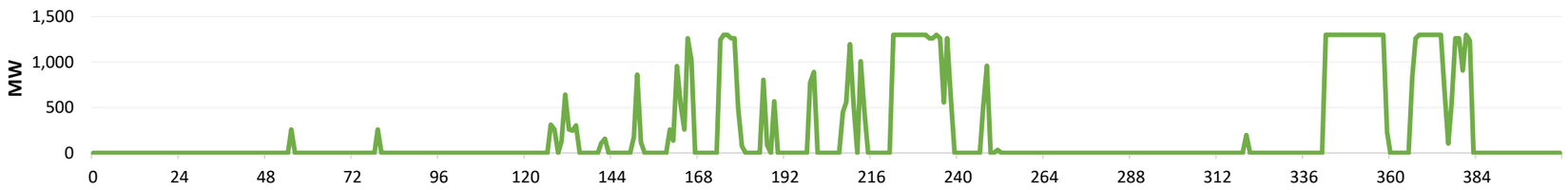
Case Name: Scenario 2 - PD 5 No Truck Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Load During Modeling Period

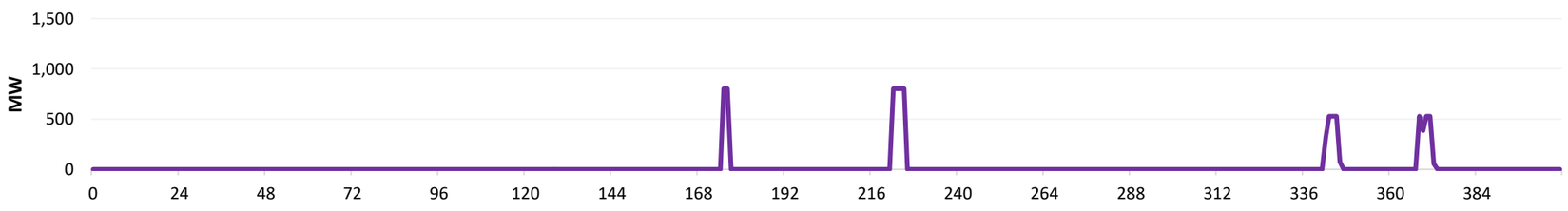


Export to ISO-NE Reduction During Modeling Period



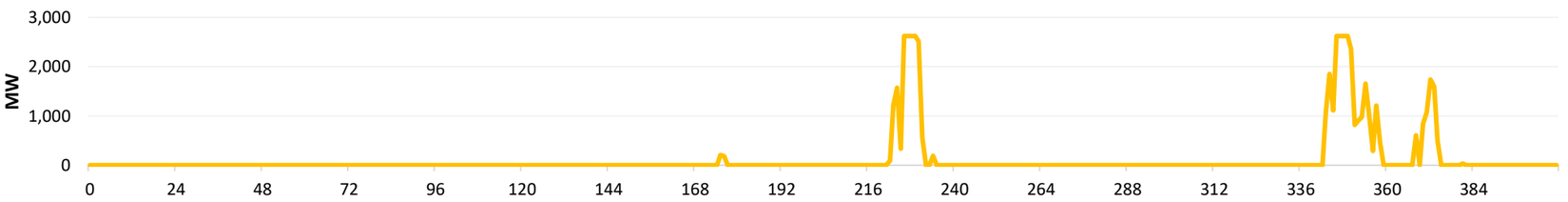
Export Reductions	
Total Hrs.	95
Total MWh	85,767
Avg. MW	210.2

SCR/EDRP Deployed During Modeling Period



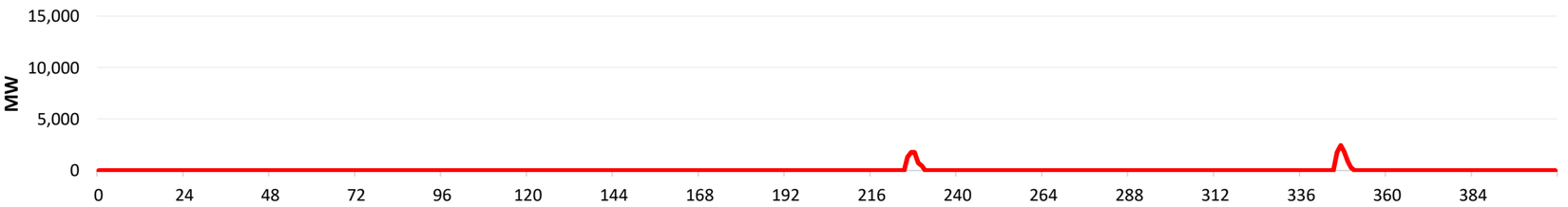
SCR Deployment	
Total Hrs.	16
Total MWh	8,808
Avg. MW	21.6

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	36
Total MWh	47,920
Avg. MW	117.5
First Hour with Viol.	175

Loss of Load During Modeling Period



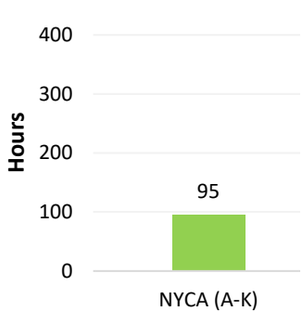
Loss of Load	
Total Hrs.	10
Total MWh	13,178
Avg. MW	32.3
First Hour with Losses	226

Full Period Results Summary

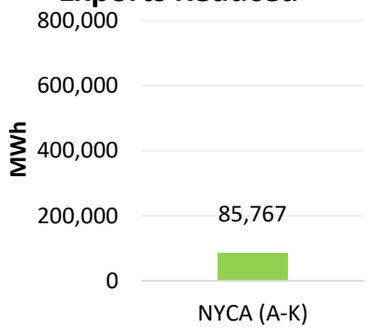
Case Name: Scenario 2 - PD 5 No Truck Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

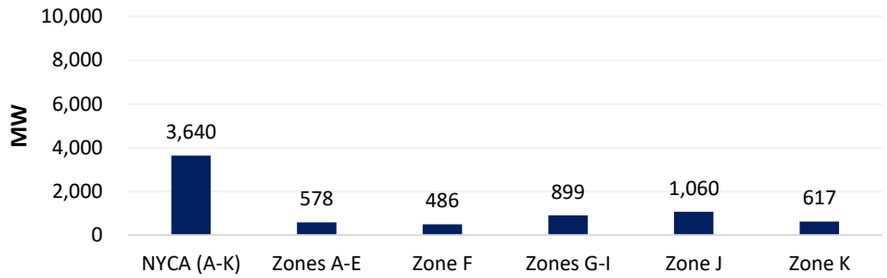
Hours Exports Reduced



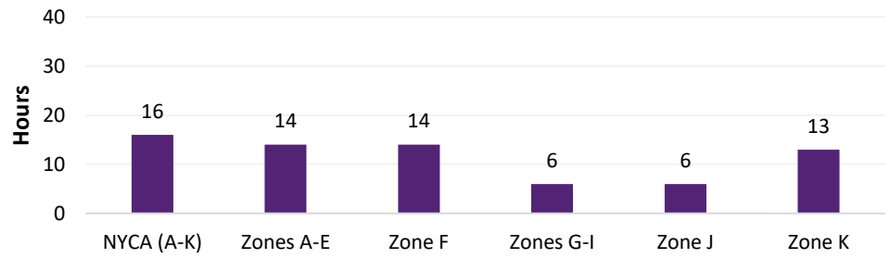
Total MWh of Exports Reduced



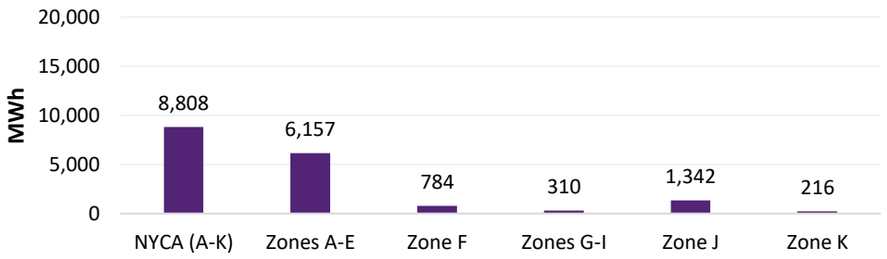
Average Capacity Not Available Due to Exhausted Fuel Inventory



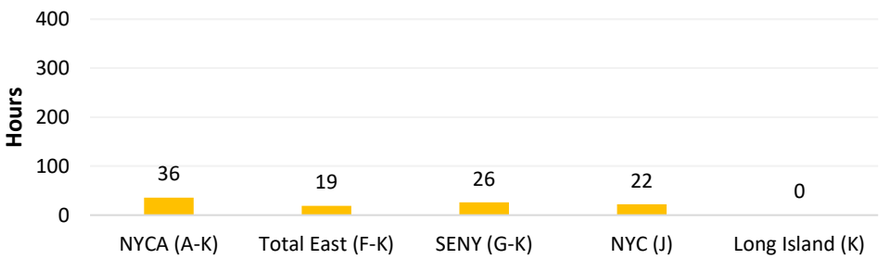
Hours SCR/EDRP Deployed



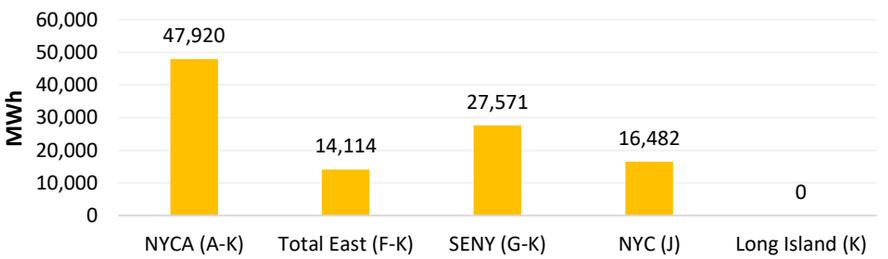
Total MWh SCR/EDRP Deployed



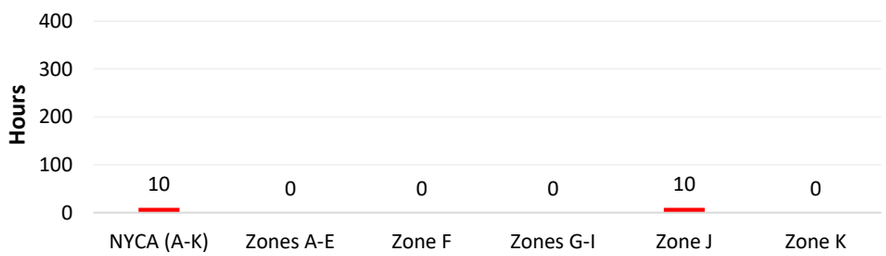
Hours with Reserve Violations



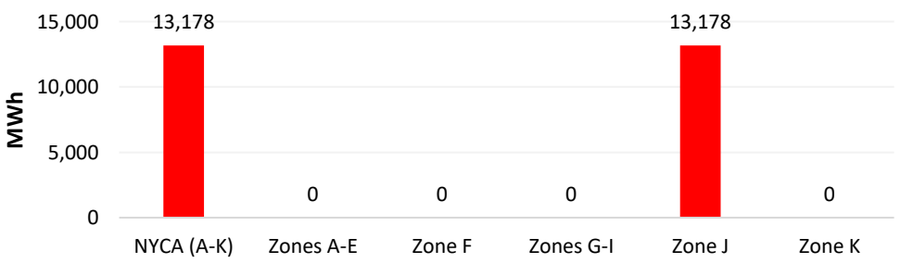
Total MWh of Reserve Violations

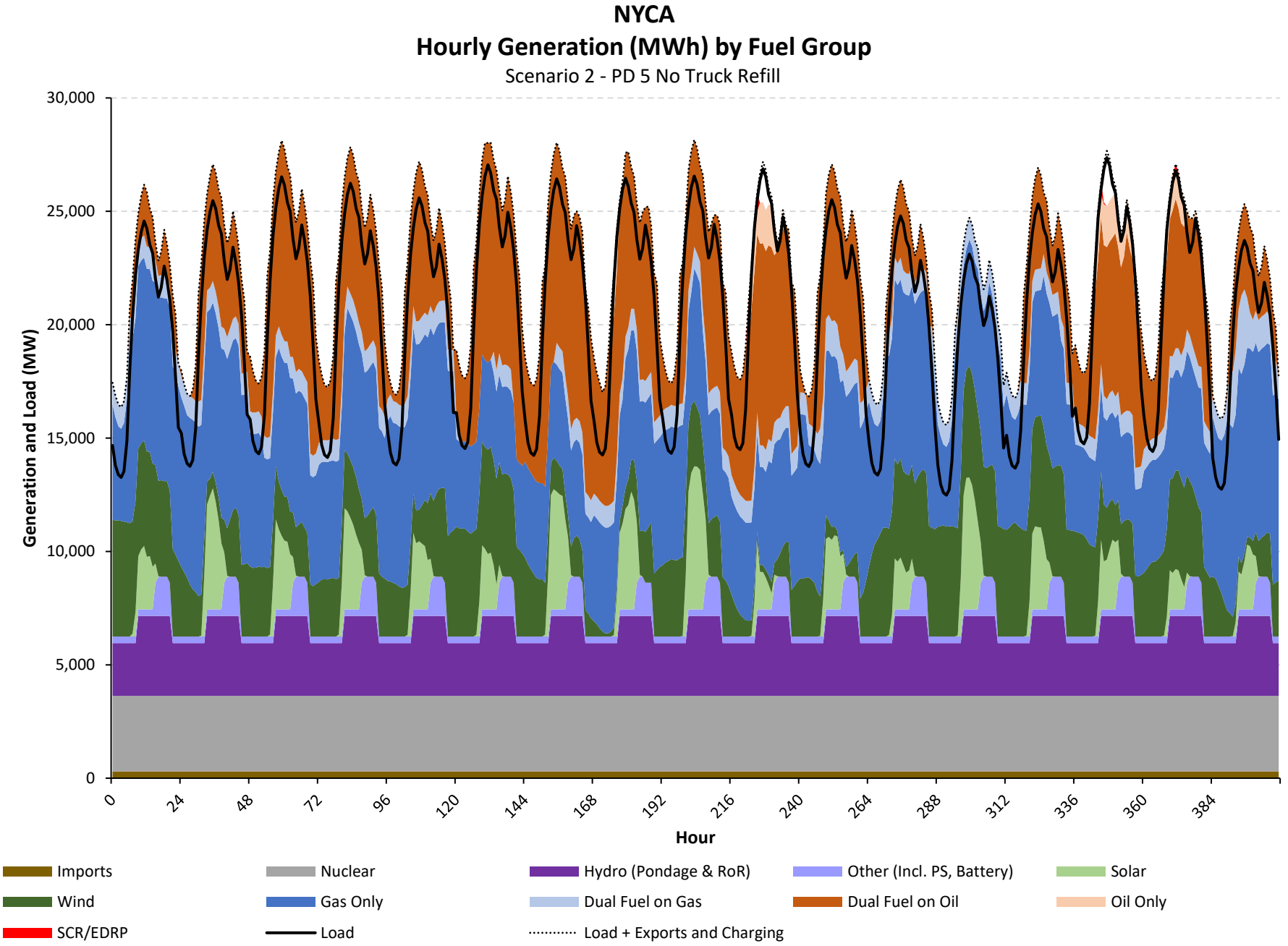


Hours with Loss of Load

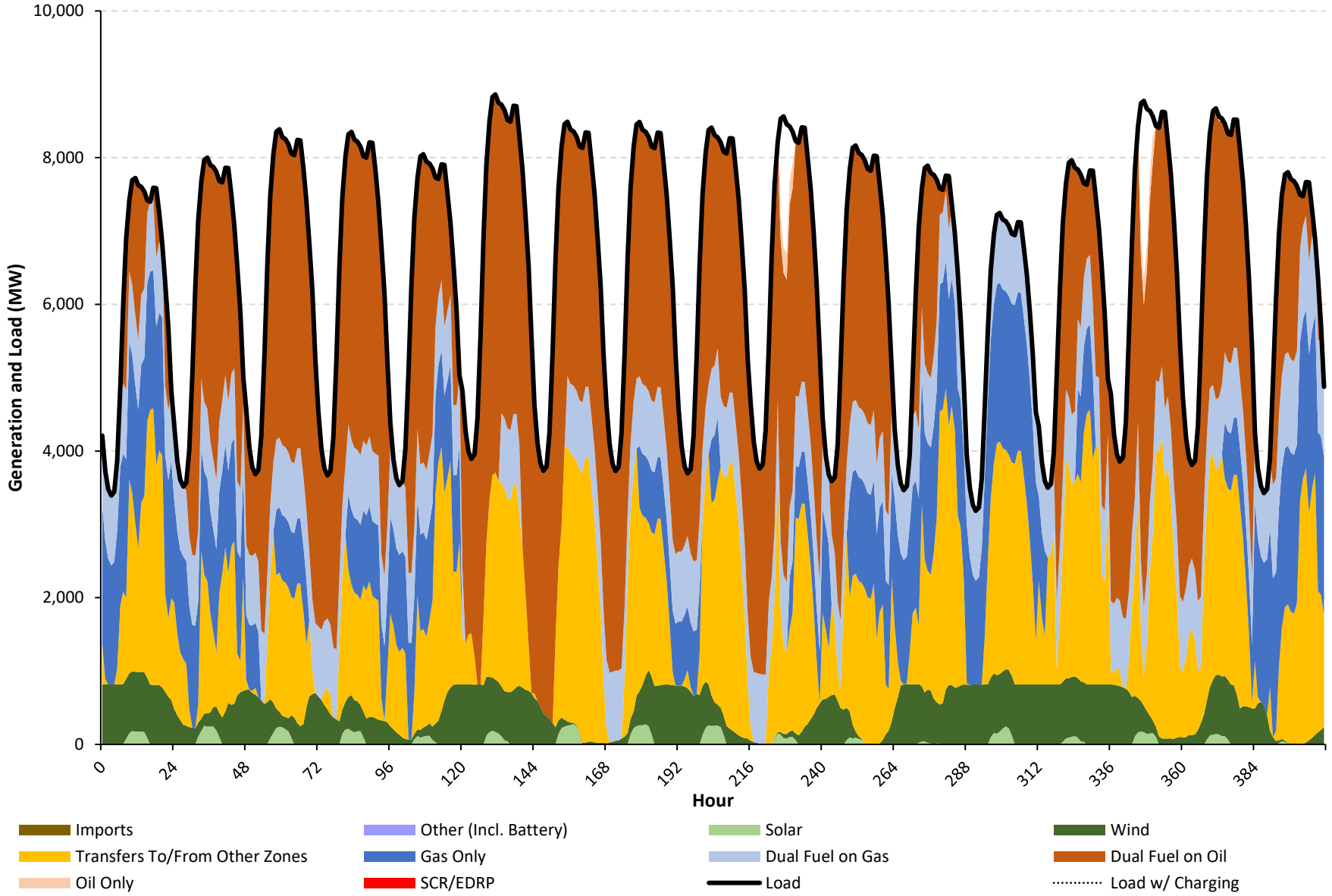


Total MWh of Lost Load

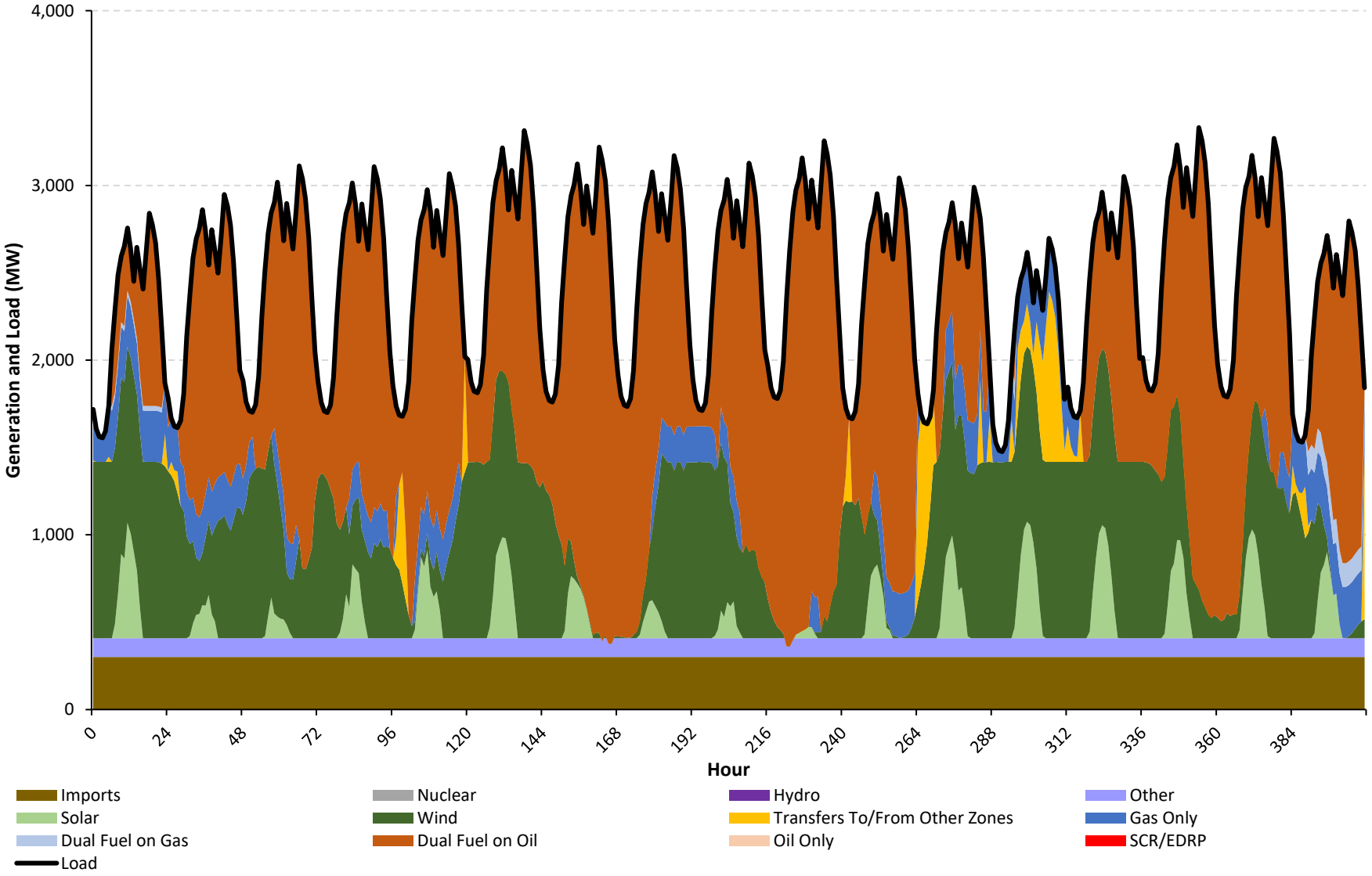



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 2 - PD 5 No Truck Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 5 No Truck Refill



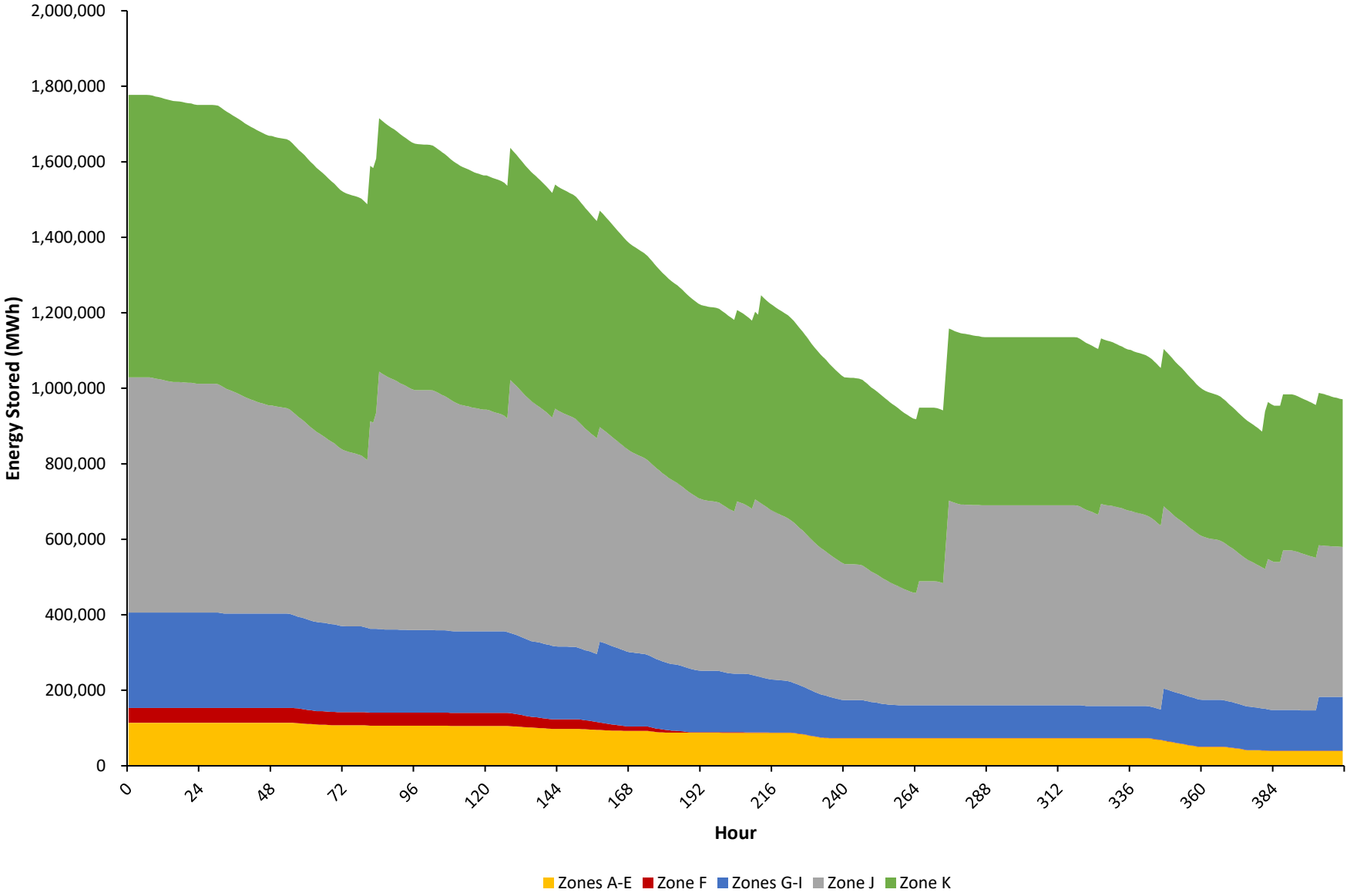
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 5 No Truck Refill

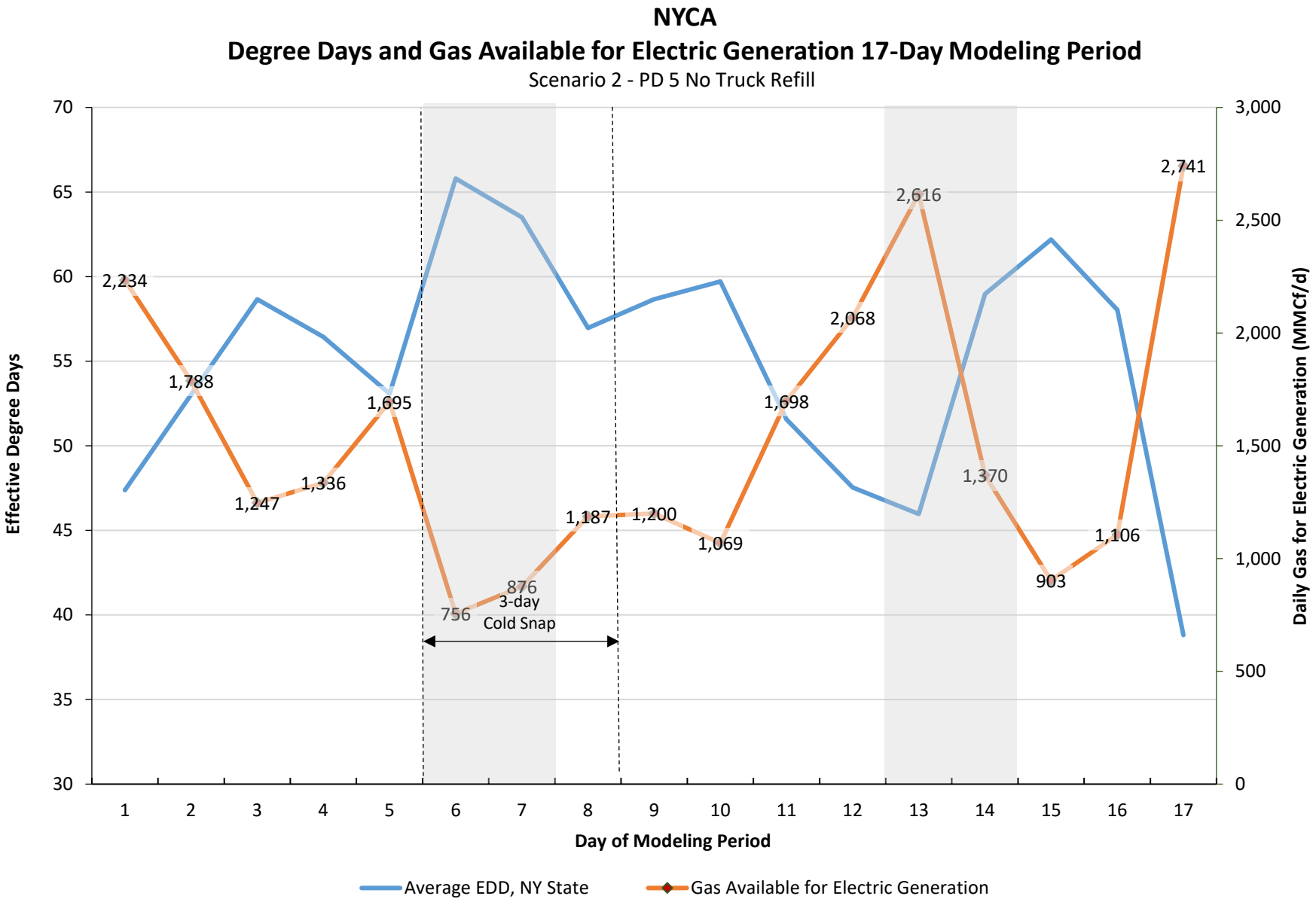


NYCA

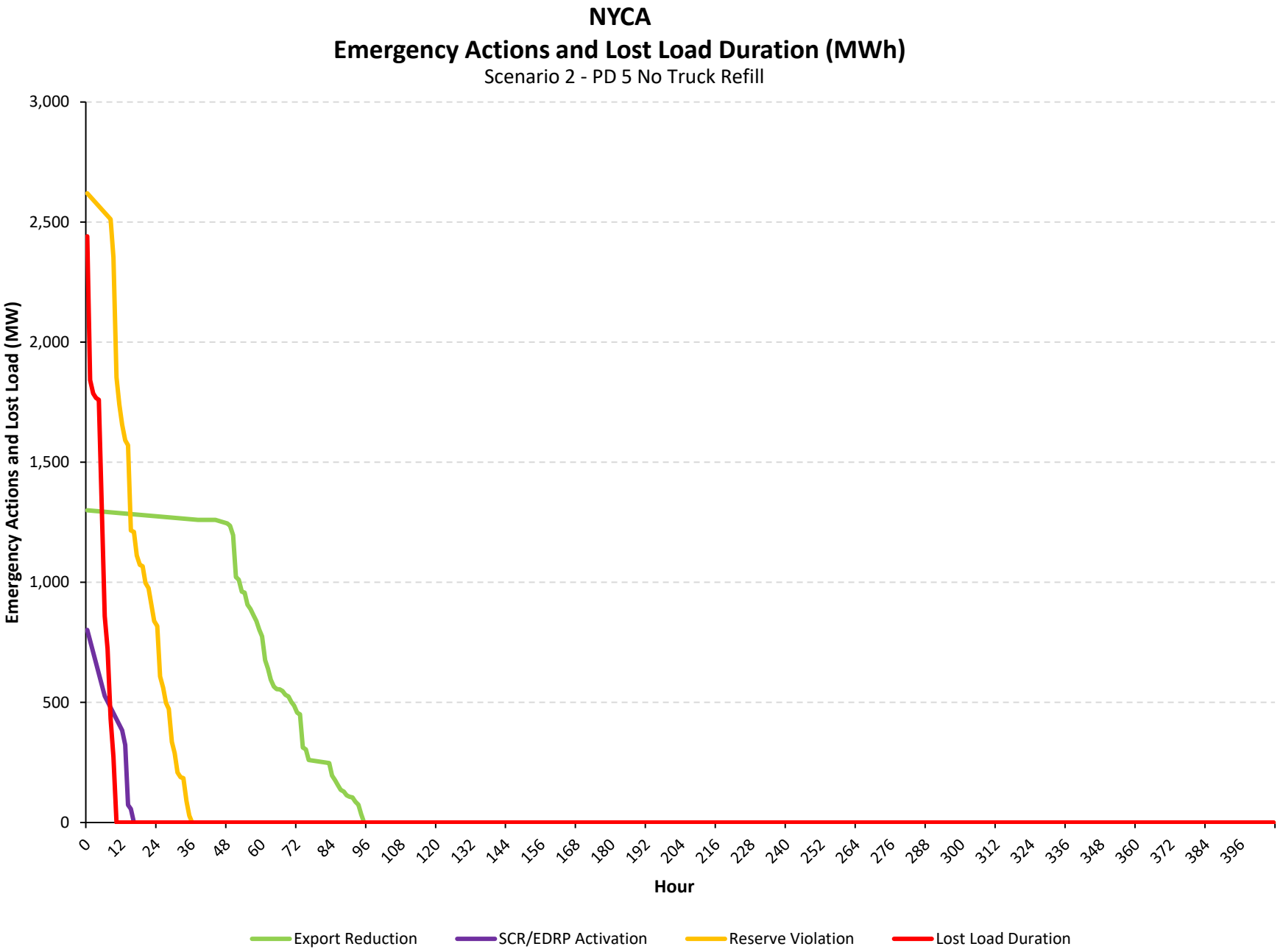
Quantity of Stored Fuel for Oil and Dual Fuel Units

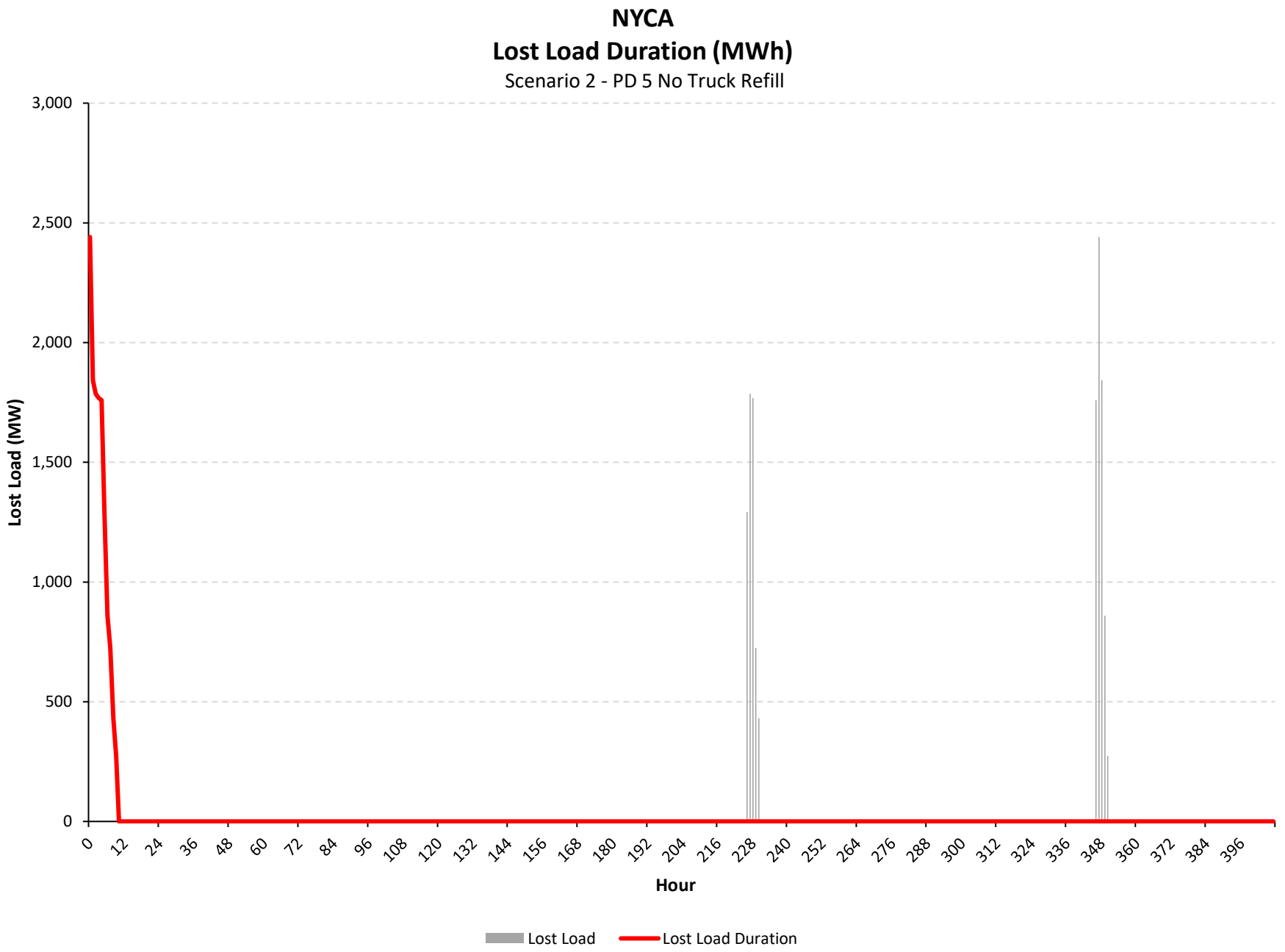
Scenario 2 - PD 5 No Truck Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 2 - PD 5 No Truck Refill
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 2 - PD 5 No Truck Refill
Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

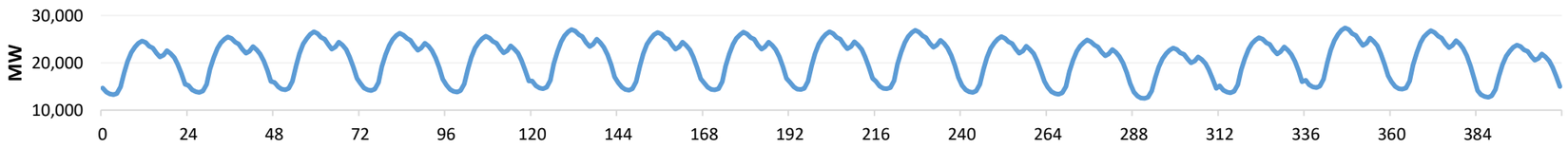
Case: Scenario 2 - PD 6 No Barge Refill (Winter 2026/2027)

Hourly Results Summary

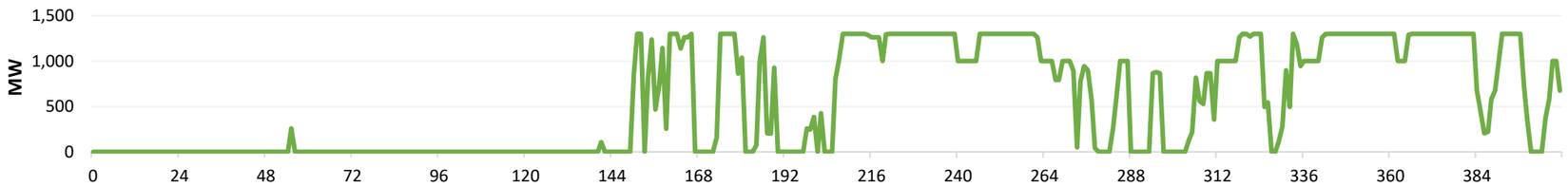
Case Name: Scenario 2 - PD 6 No Barge Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Load During Modeling Period

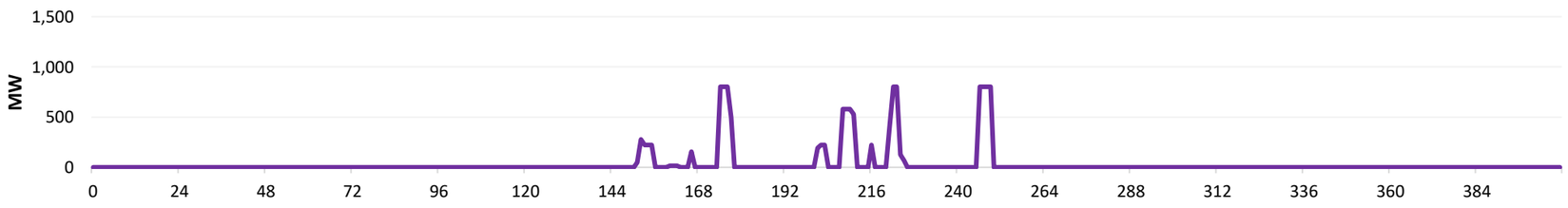


Export to ISO-NE Reduction During Modeling Period



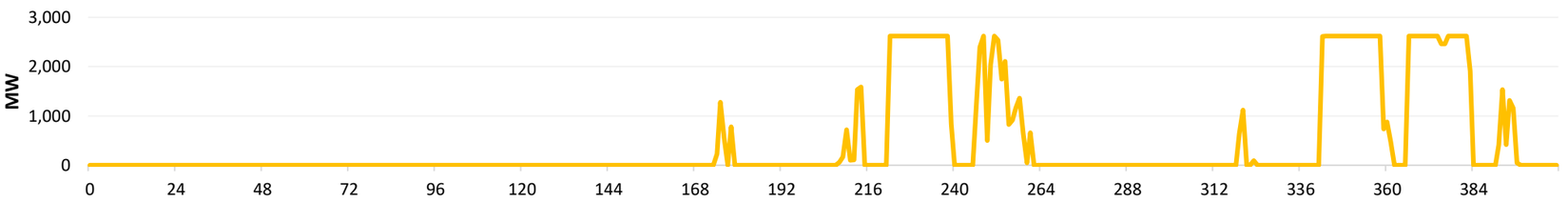
Export Reductions	
Total Hrs.	215
Total MWh	223,090
Avg. MW	546.8

SCR/EDRP Deployed During Modeling Period



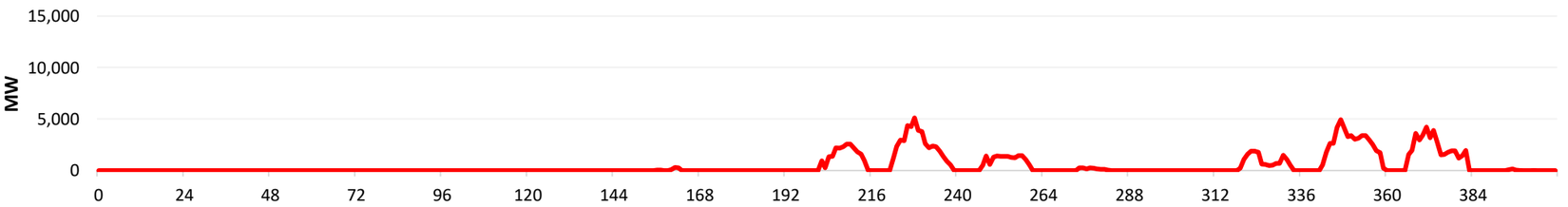
SCR Deployment	
Total Hrs.	30
Total MWh	12,642
Avg. MW	31.0

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	92
Total MWh	175,429
Avg. MW	430.0
First Hour with Viol.	153

Loss of Load During Modeling Period



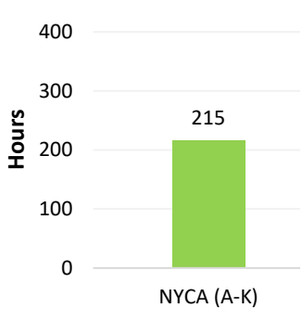
Loss of Load	
Total Hrs.	114
Total MWh	192,360
Avg. MW	471.5
First Hour with Losses	156

Full Period Results Summary

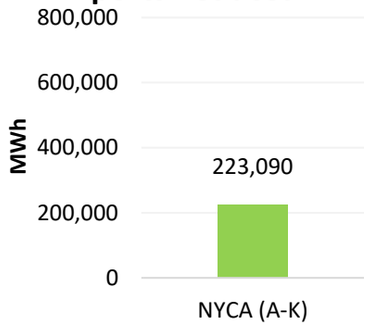
Case Name: Scenario 2 - PD 6 No Barge Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

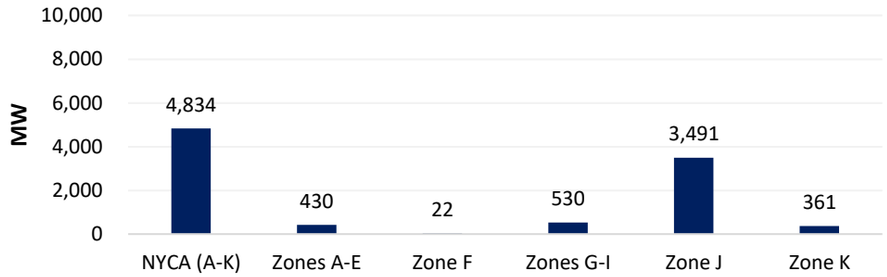
Hours Exports Reduced



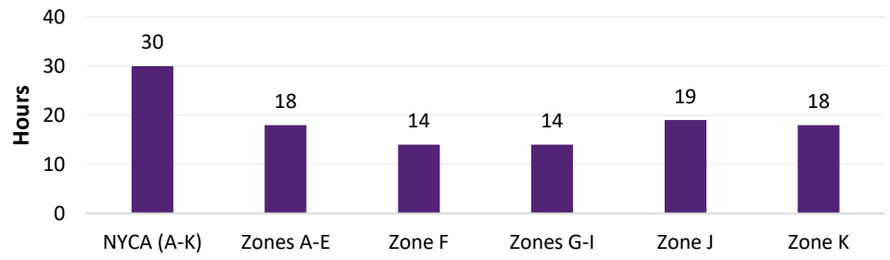
Total MWh of Exports Reduced



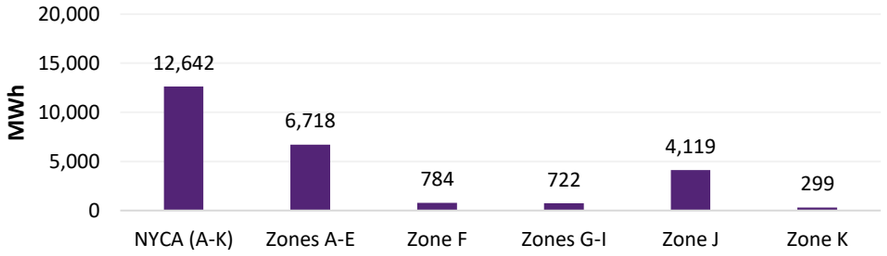
Average Capacity Not Available Due to Exhausted Fuel Inventory



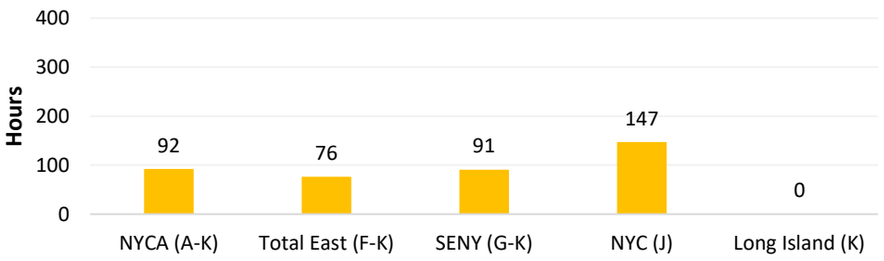
Hours SCR/EDRP Deployed



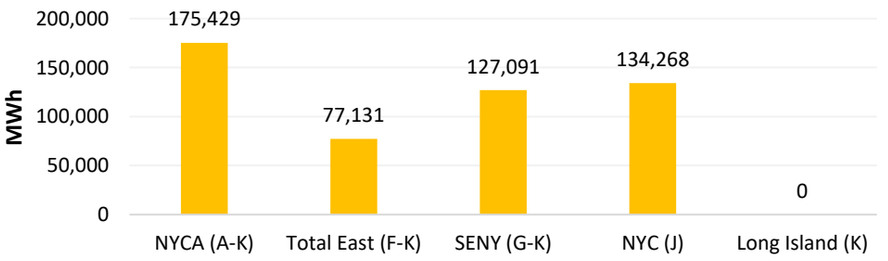
Total MWh SCR/EDRP Deployed



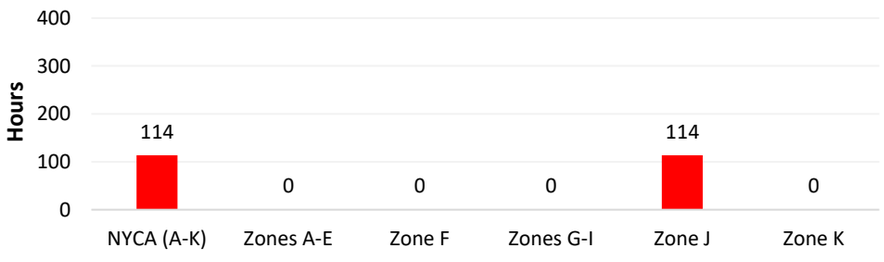
Hours with Reserve Violations



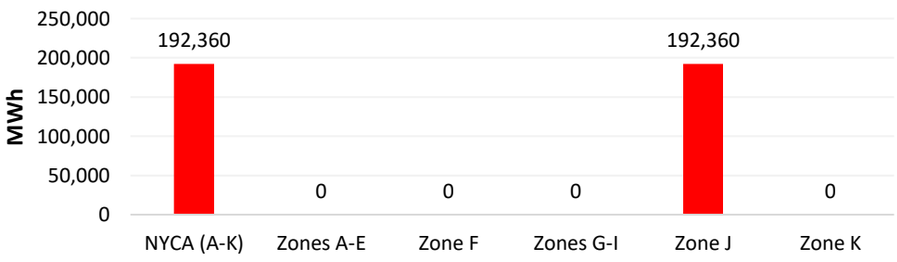
Total MWh of Reserve Violations

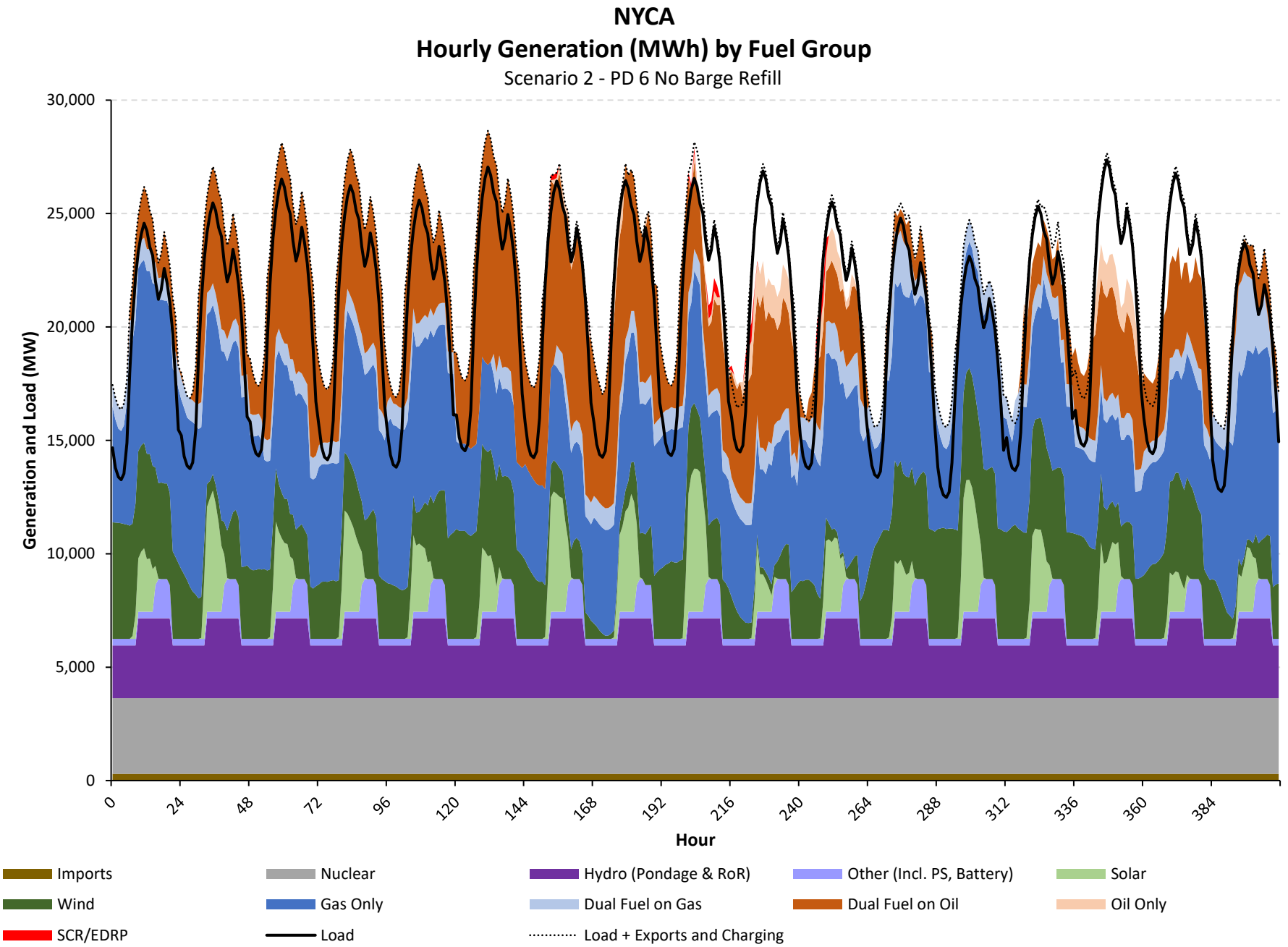


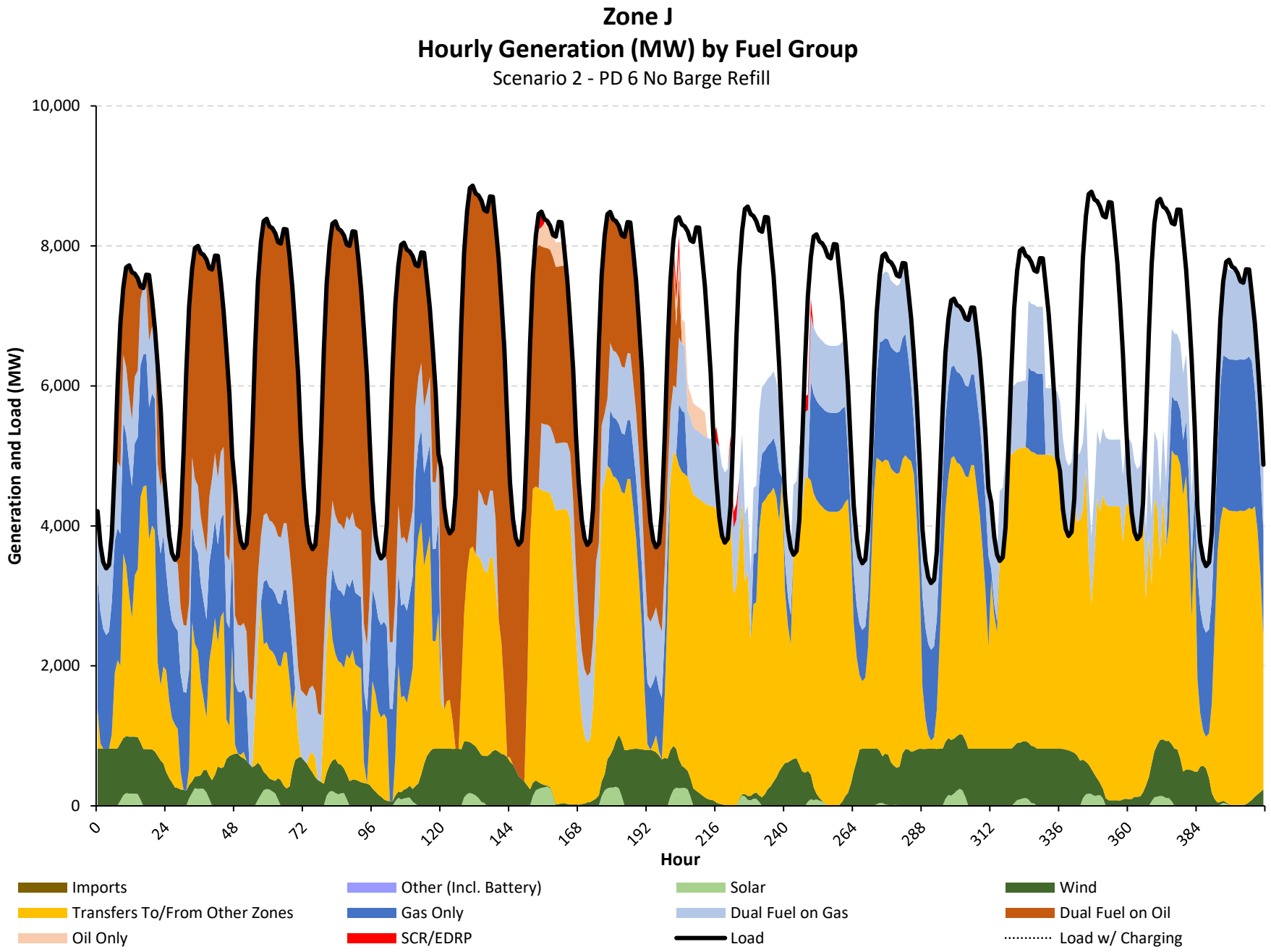
Hours with Loss of Load



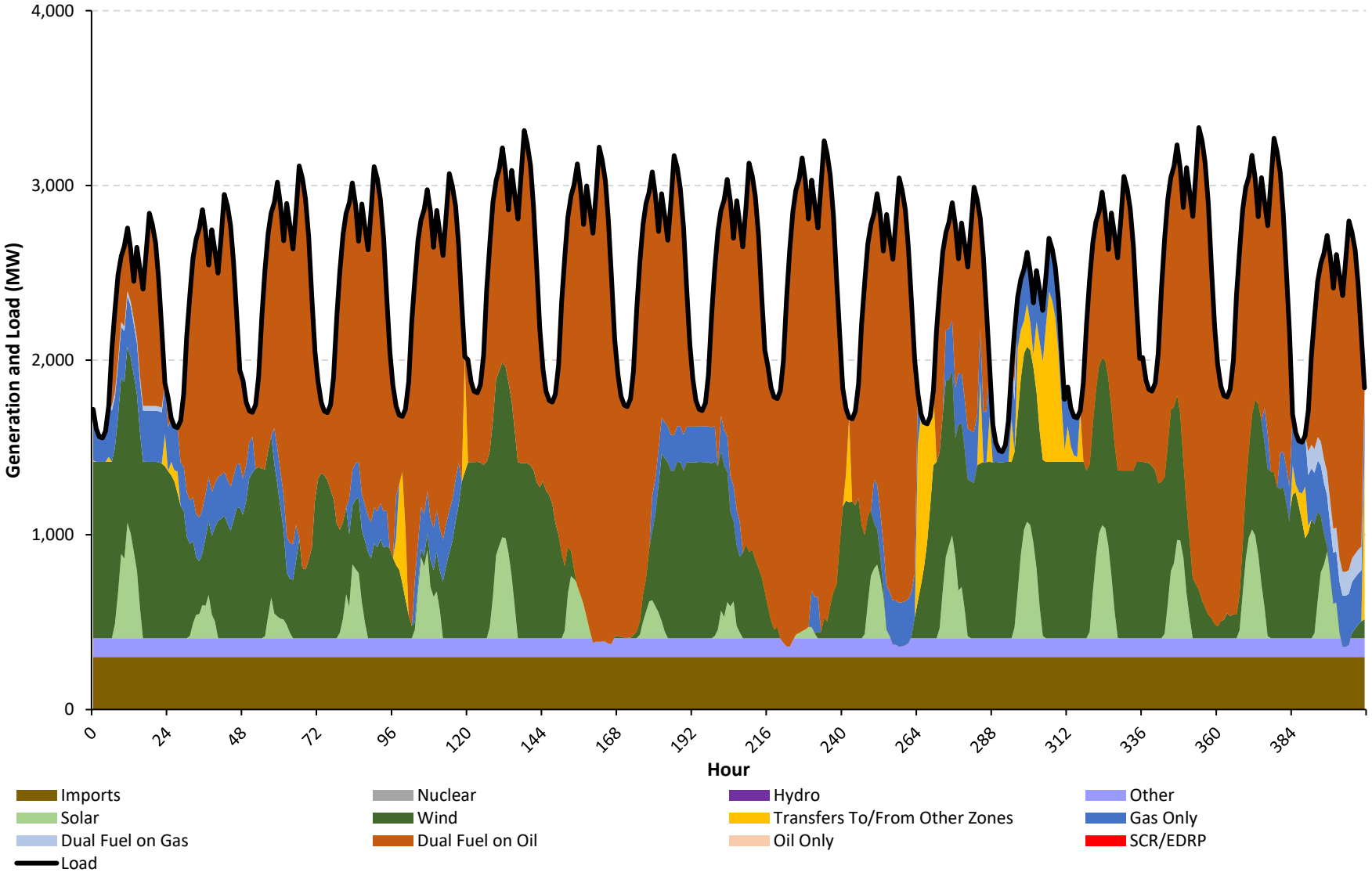
Total MWh of Lost Load




NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 2 - PD 6 No Barge Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging


Zone J
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 6 No Barge Refill
Generation and Load (MW)
10,000
8,000
6,000
4,000
2,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Other (Incl. Battery)
Solar
Wind
Transfers To/From Other Zones
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load w/ Charging

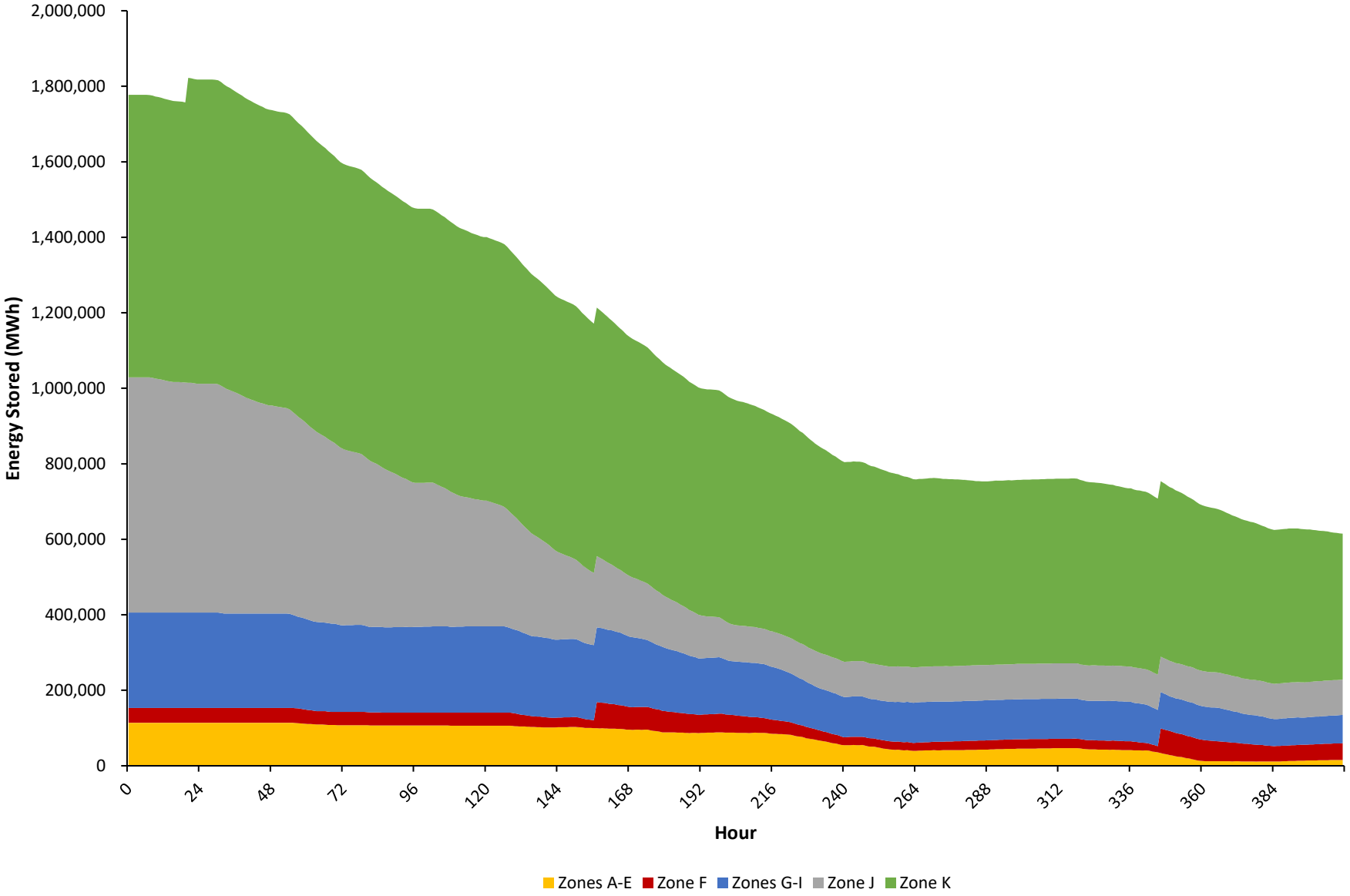
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 6 No Barge Refill

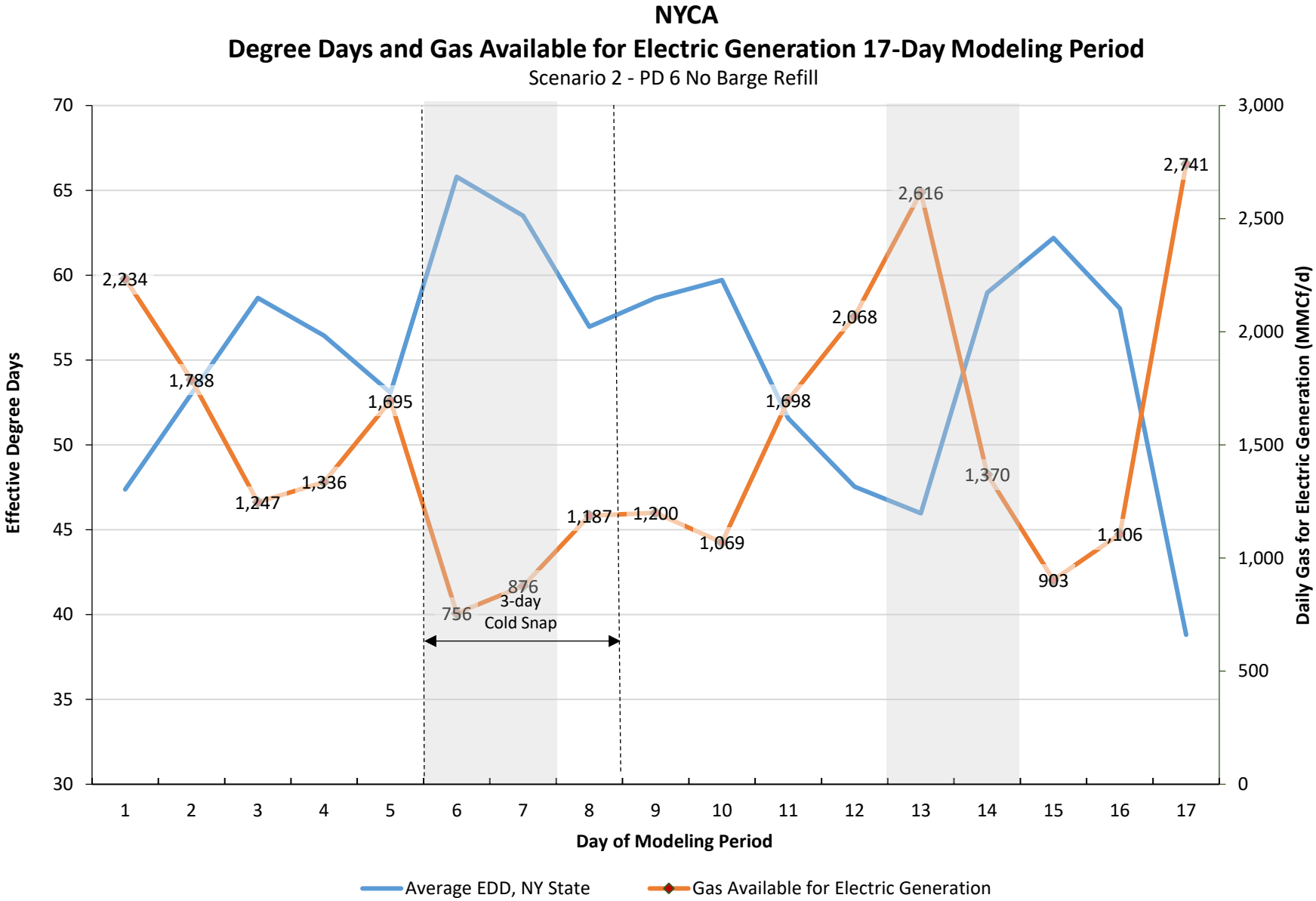


NYCA

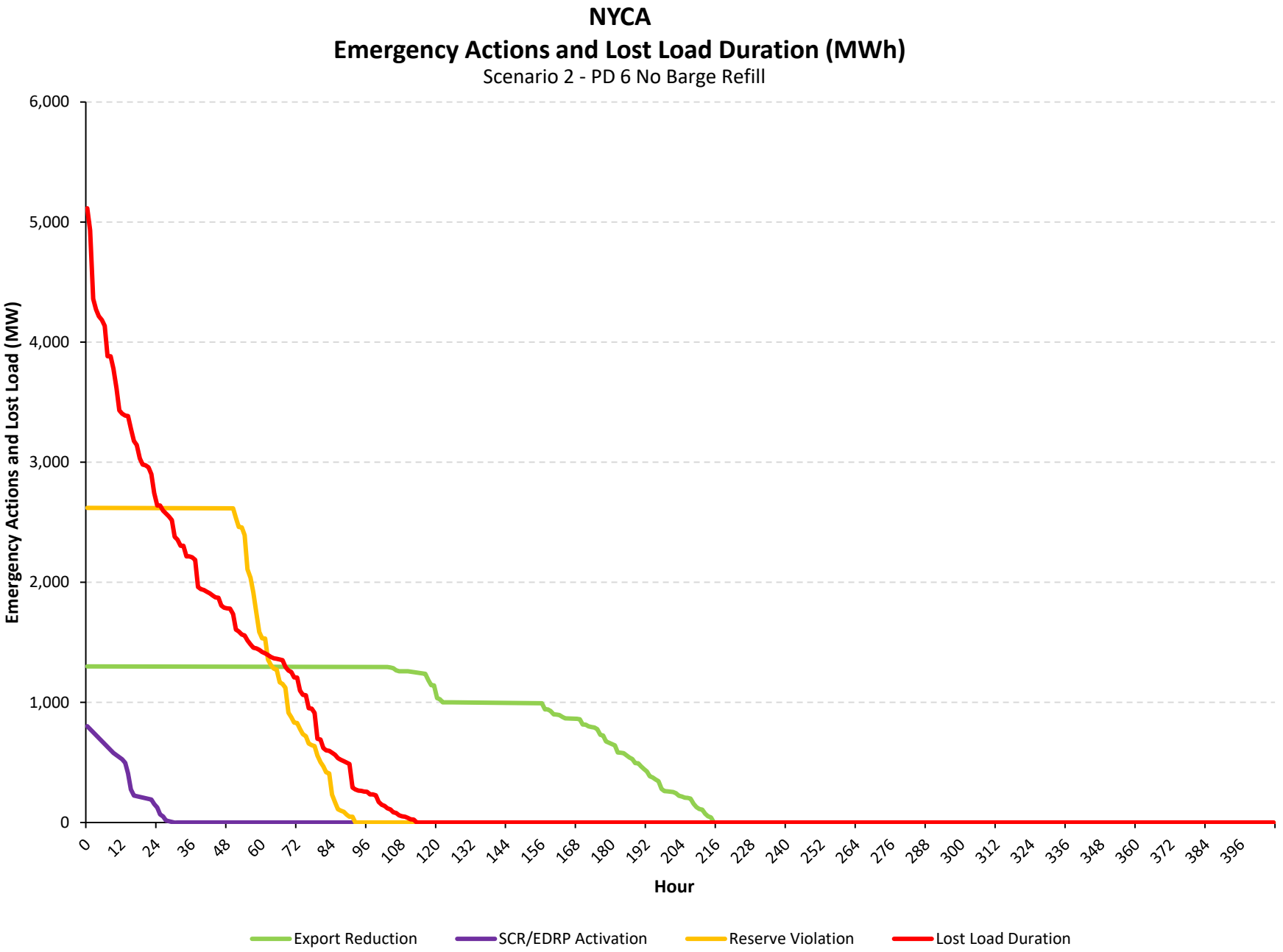
Quantity of Stored Fuel for Oil and Dual Fuel Units

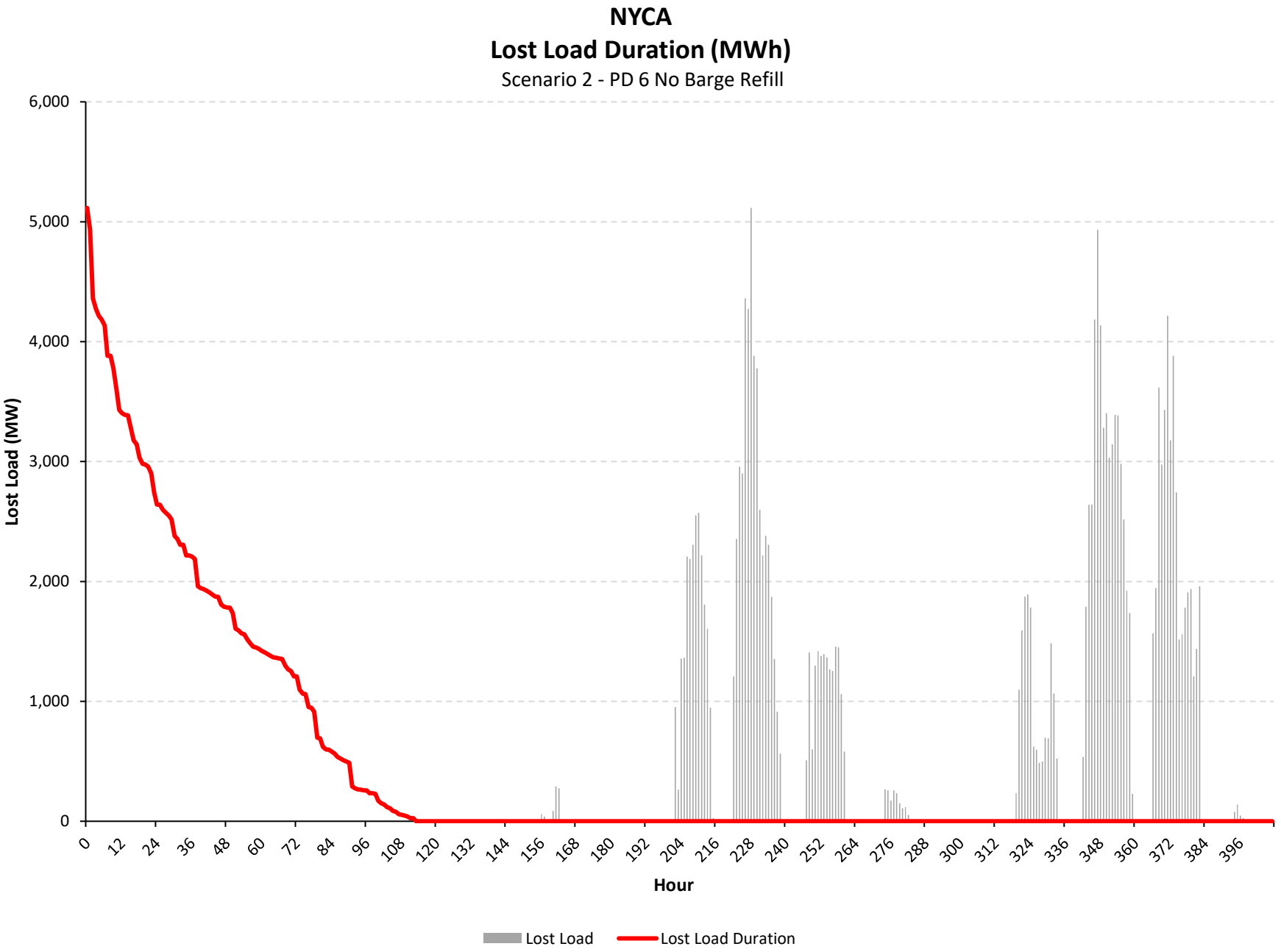
Scenario 2 - PD 6 No Barge Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 2 - PD 6 No Barge Refill
Emergency Actions and Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 2 - PD 6 No Barge Refill
Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

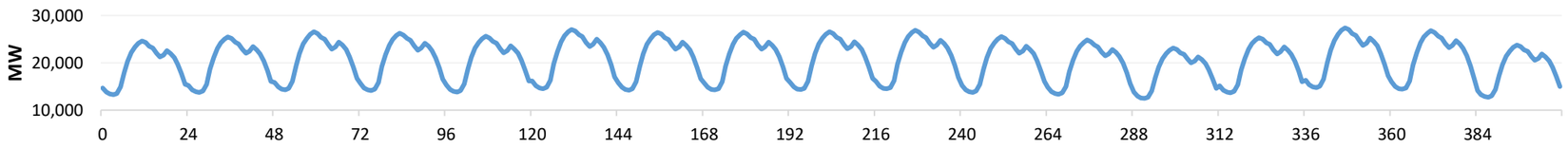
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 7 No Refill (Winter 2026/2027)

Hourly Results Summary

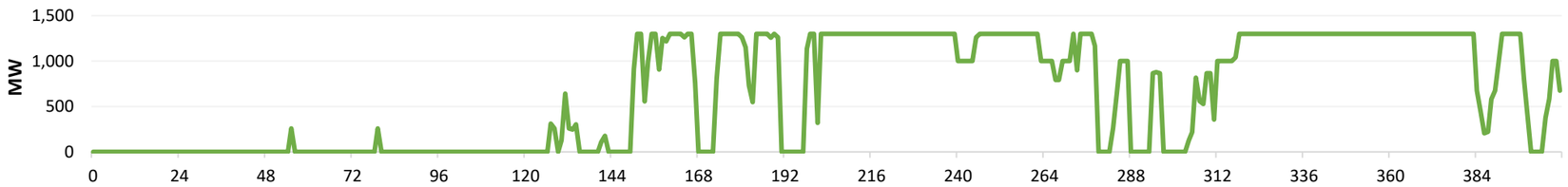
Case Name: Scenario 2 - PD 7 No Refill

Load During Modeling Period



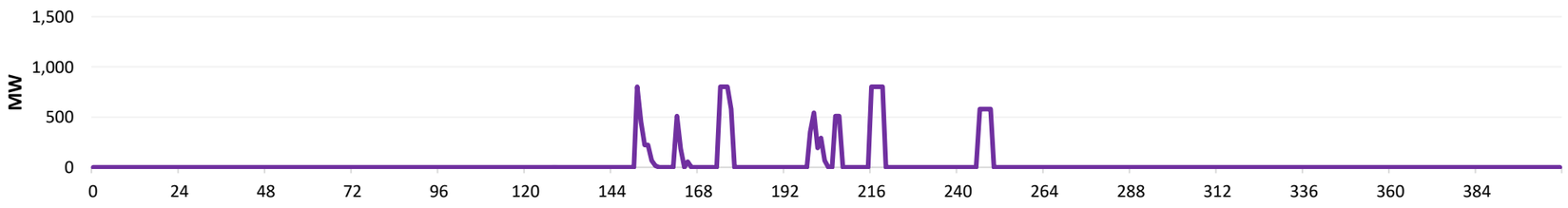
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



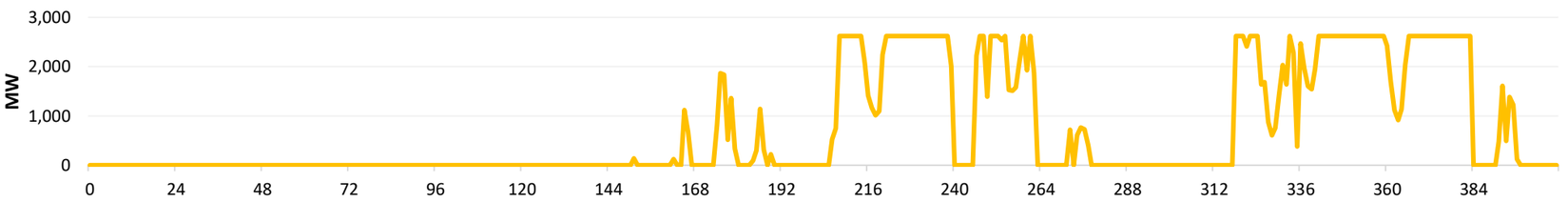
Export Reductions	
Total Hrs.	236
Total MWh	263,250
Avg. MW	645.2

SCR/EDRP Deployed During Modeling Period



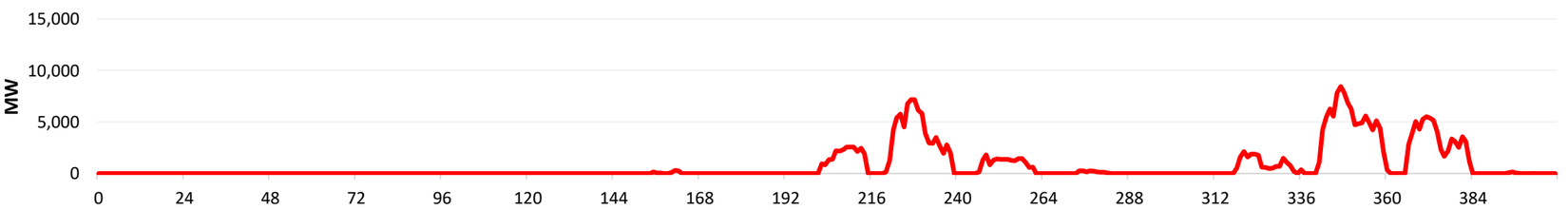
SCR Deployment	
Total Hrs.	28
Total MWh	13,514
Avg. MW	33.1

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	143
Total MWh	284,660
Avg. MW	697.7
First Hour with Viol.	151

Loss of Load During Modeling Period



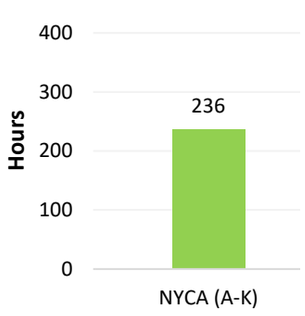
Loss of Load	
Total Hrs.	125
Total MWh	308,351
Avg. MW	755.8
First Hour with Losses	155

Full Period Results Summary

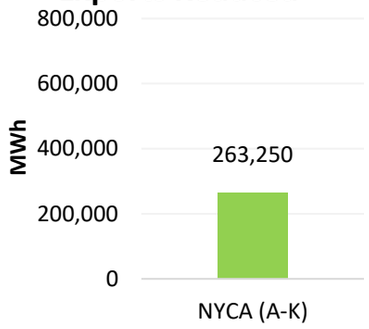
Case Name: Scenario 2 - PD 7 No Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

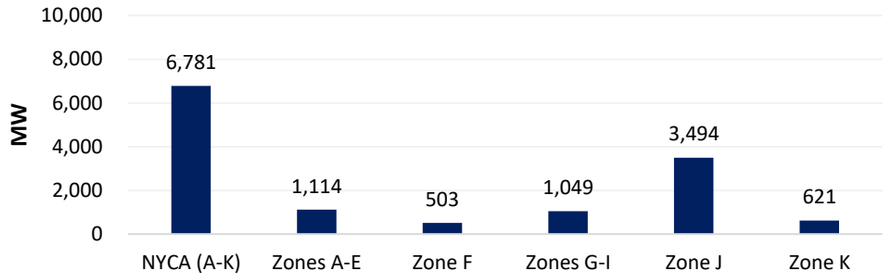
Hours Exports Reduced



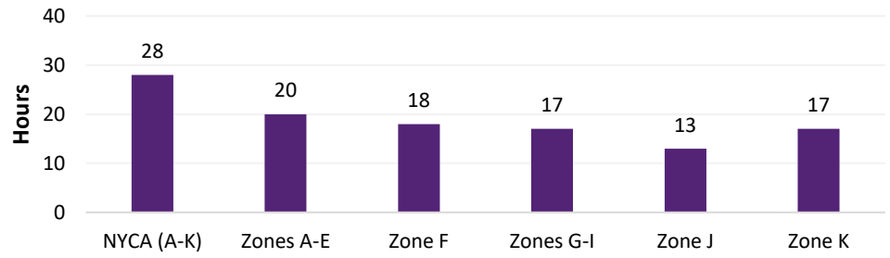
Total MWh of Exports Reduced



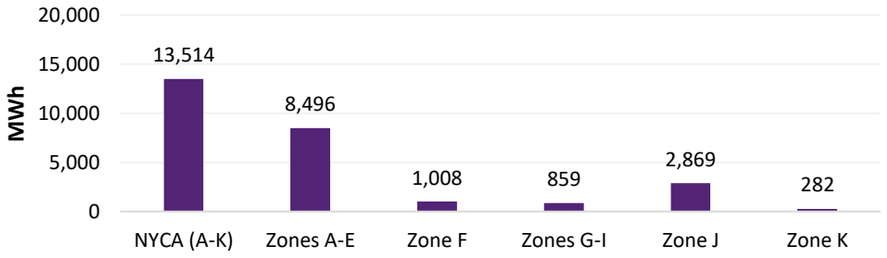
Average Capacity Not Available Due to Exhausted Fuel Inventory



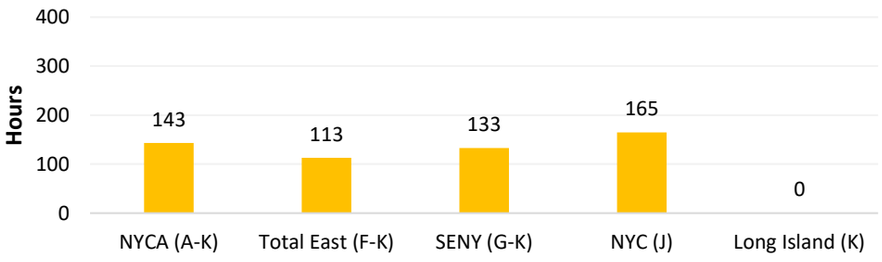
Hours SCR/EDRP Deployed



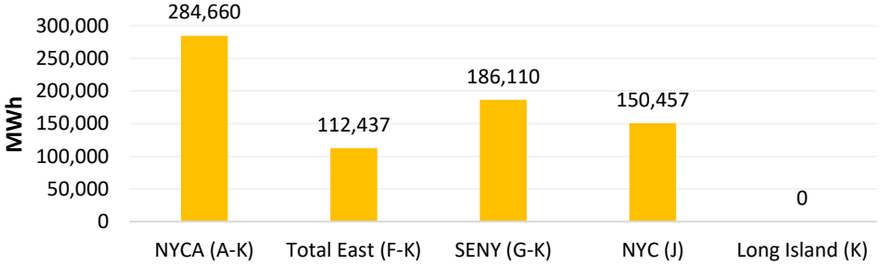
Total MWh SCR/EDRP Deployed



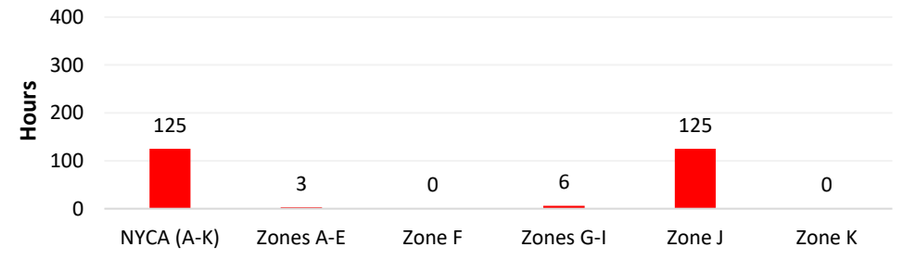
Hours with Reserve Violations



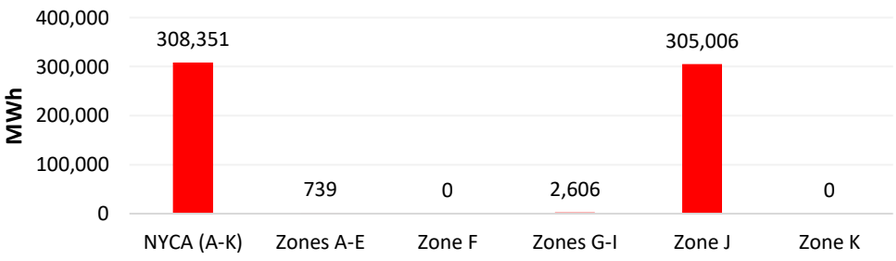
Total MWh of Reserve Violations

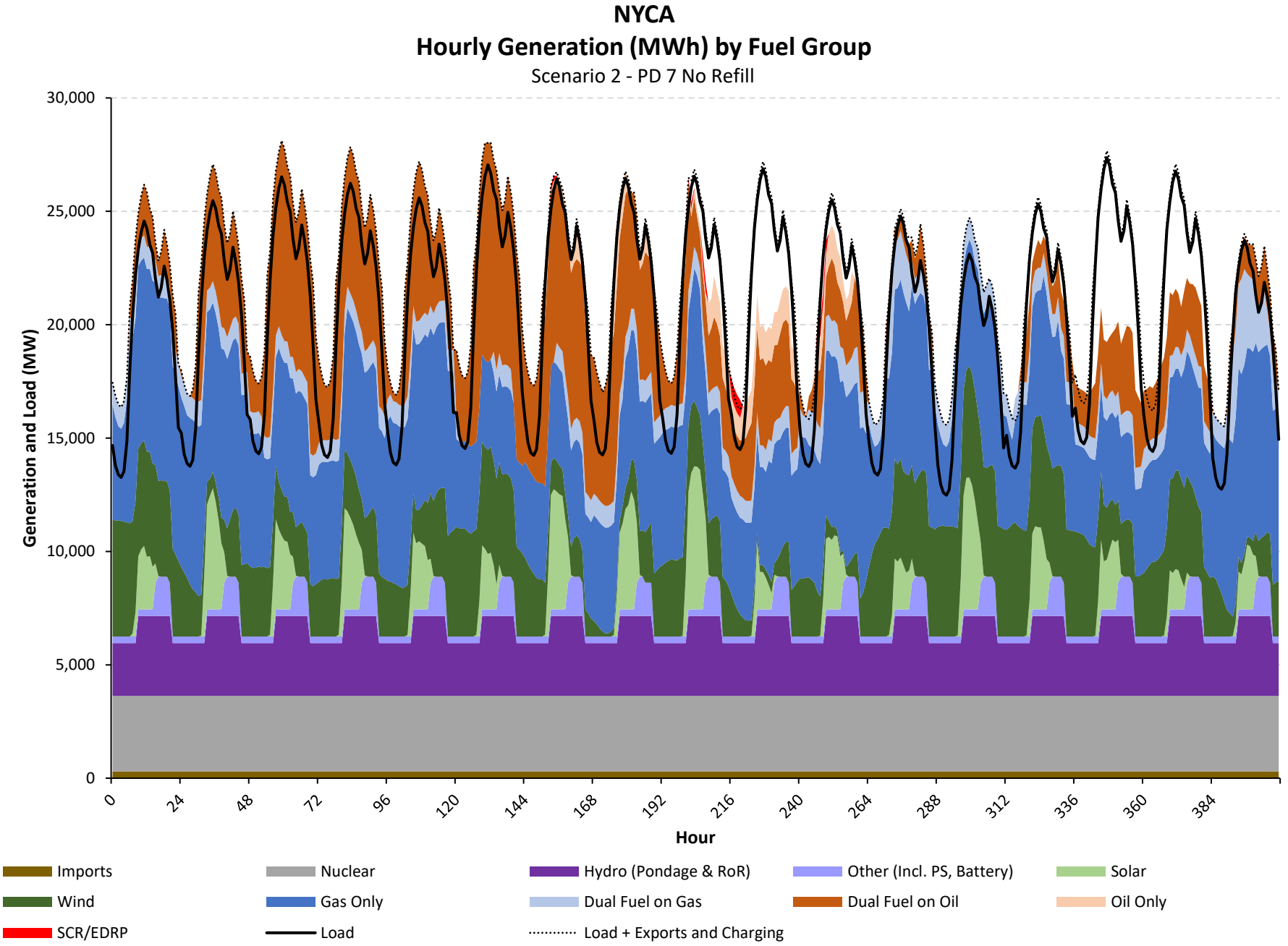


Hours with Loss of Load

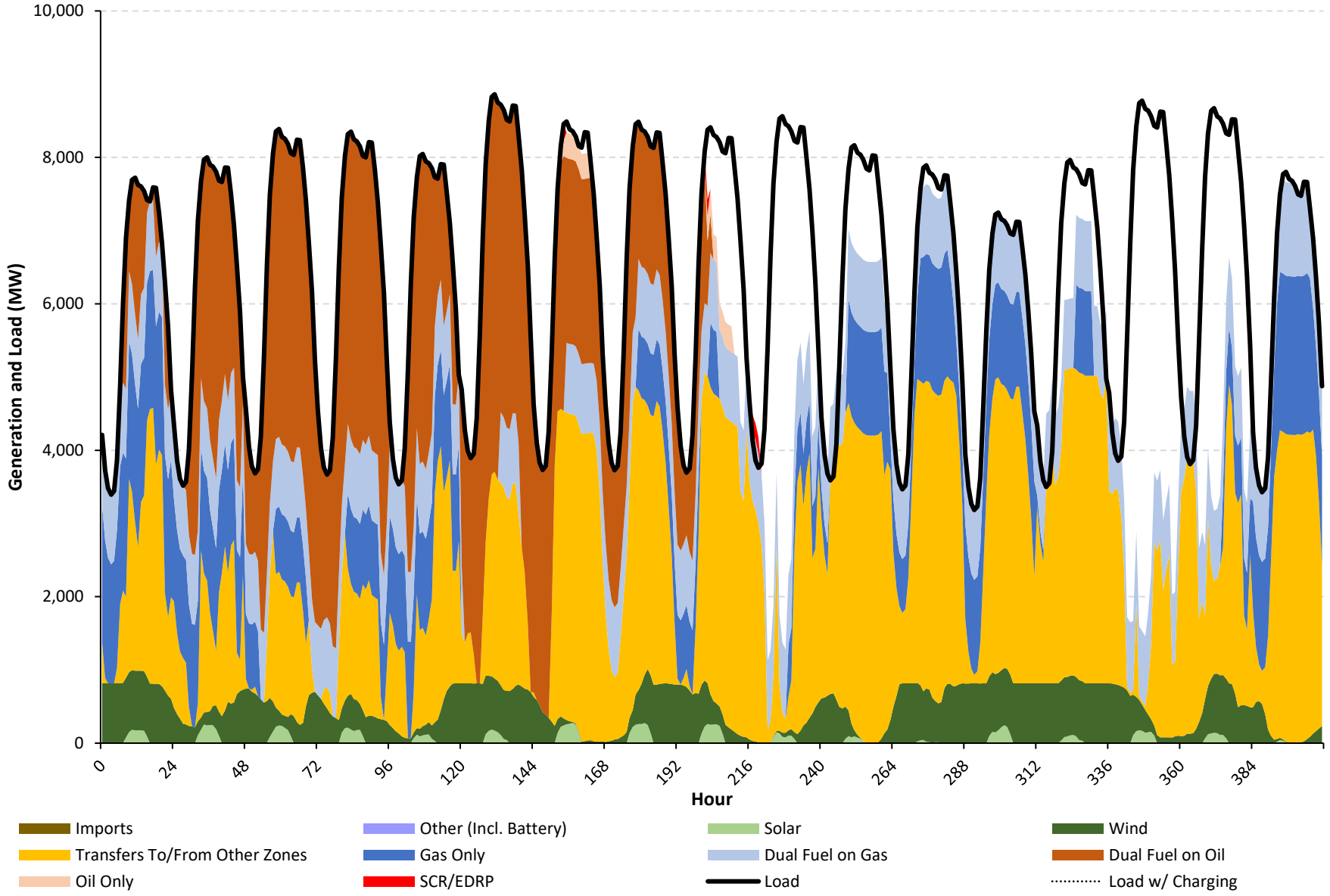


Total MWh of Lost Load

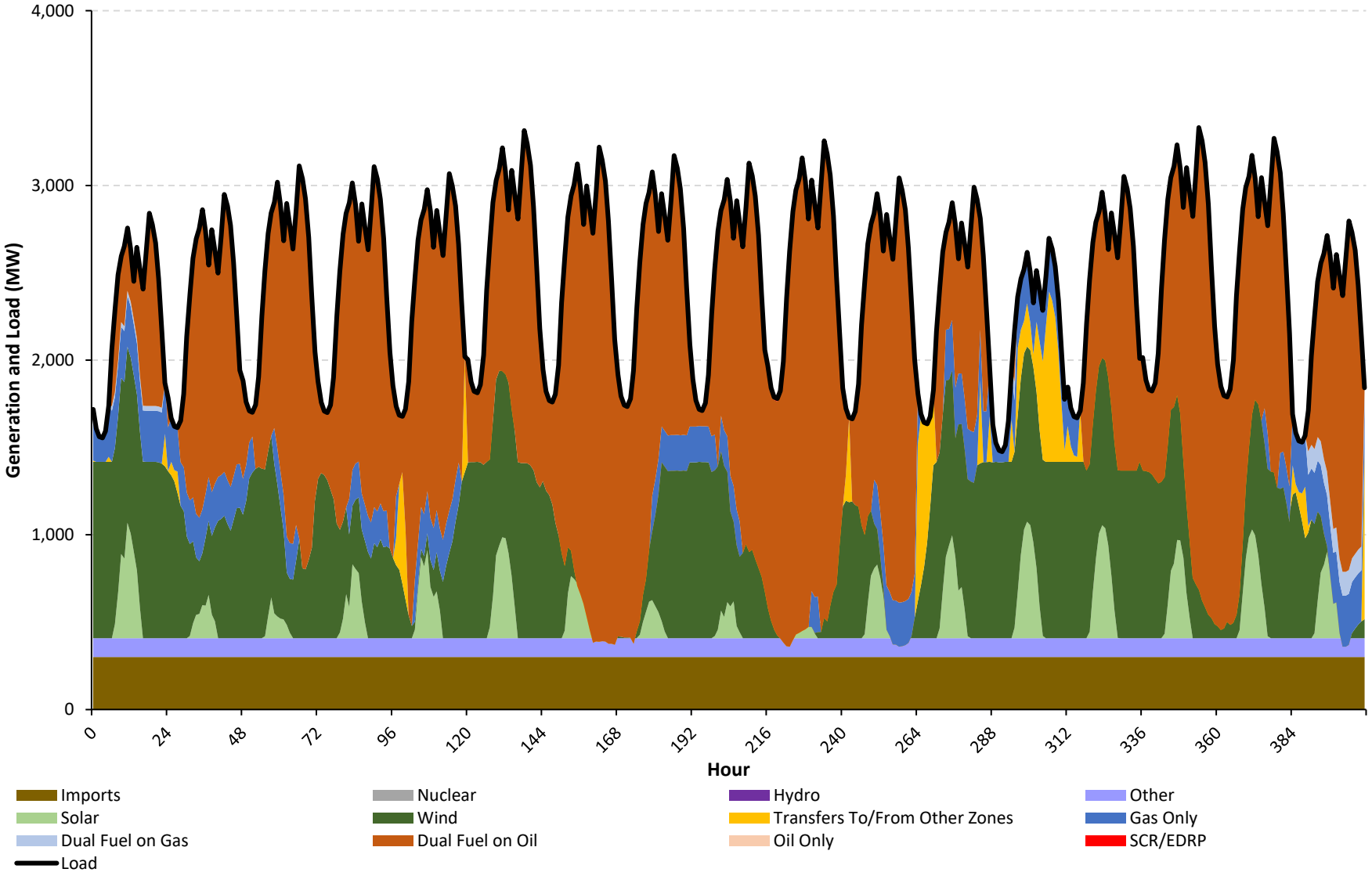



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 2 - PD 7 No Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 7 No Refill



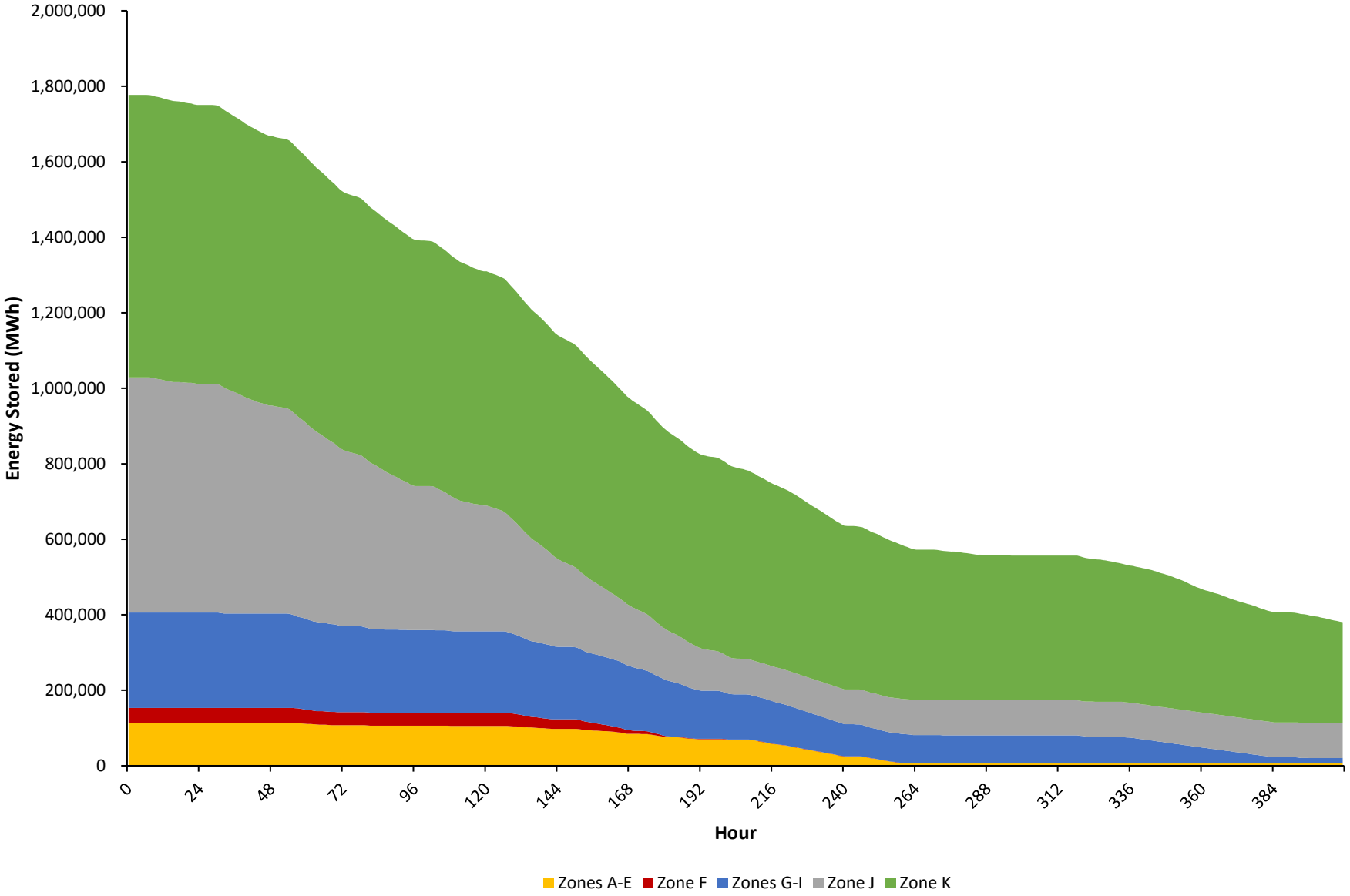
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 7 No Refill

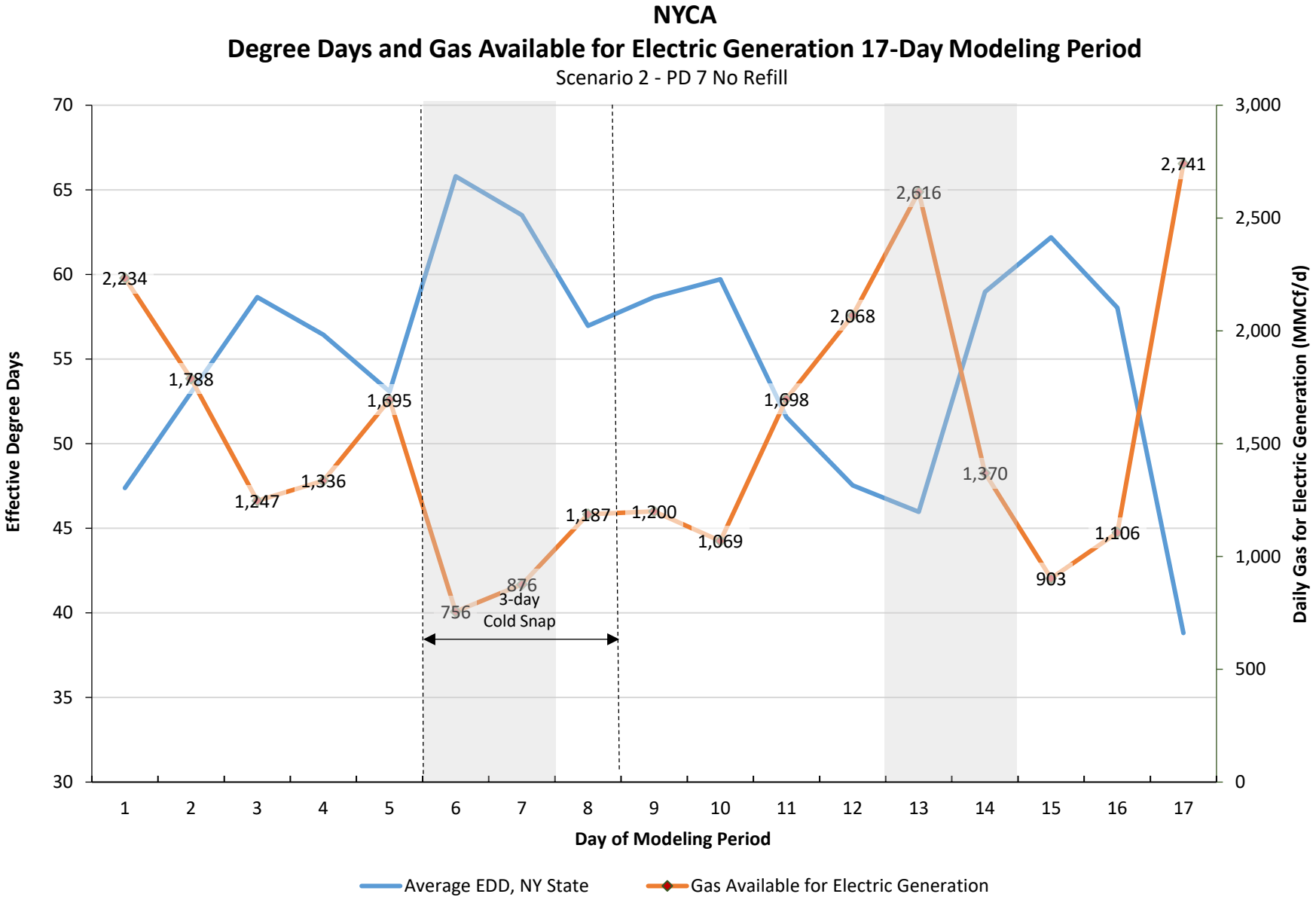


NYCA

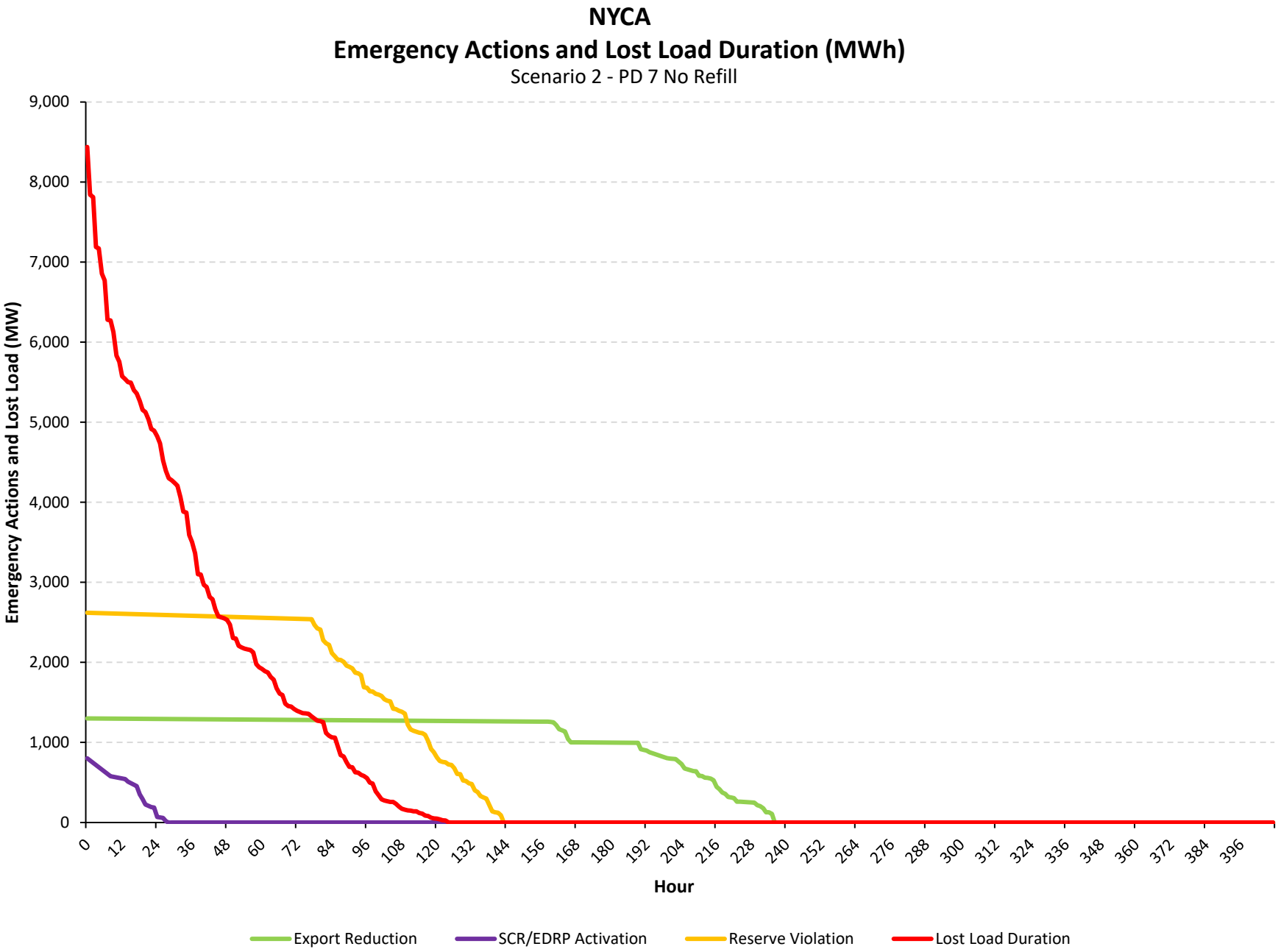
Quantity of Stored Fuel for Oil and Dual Fuel Units

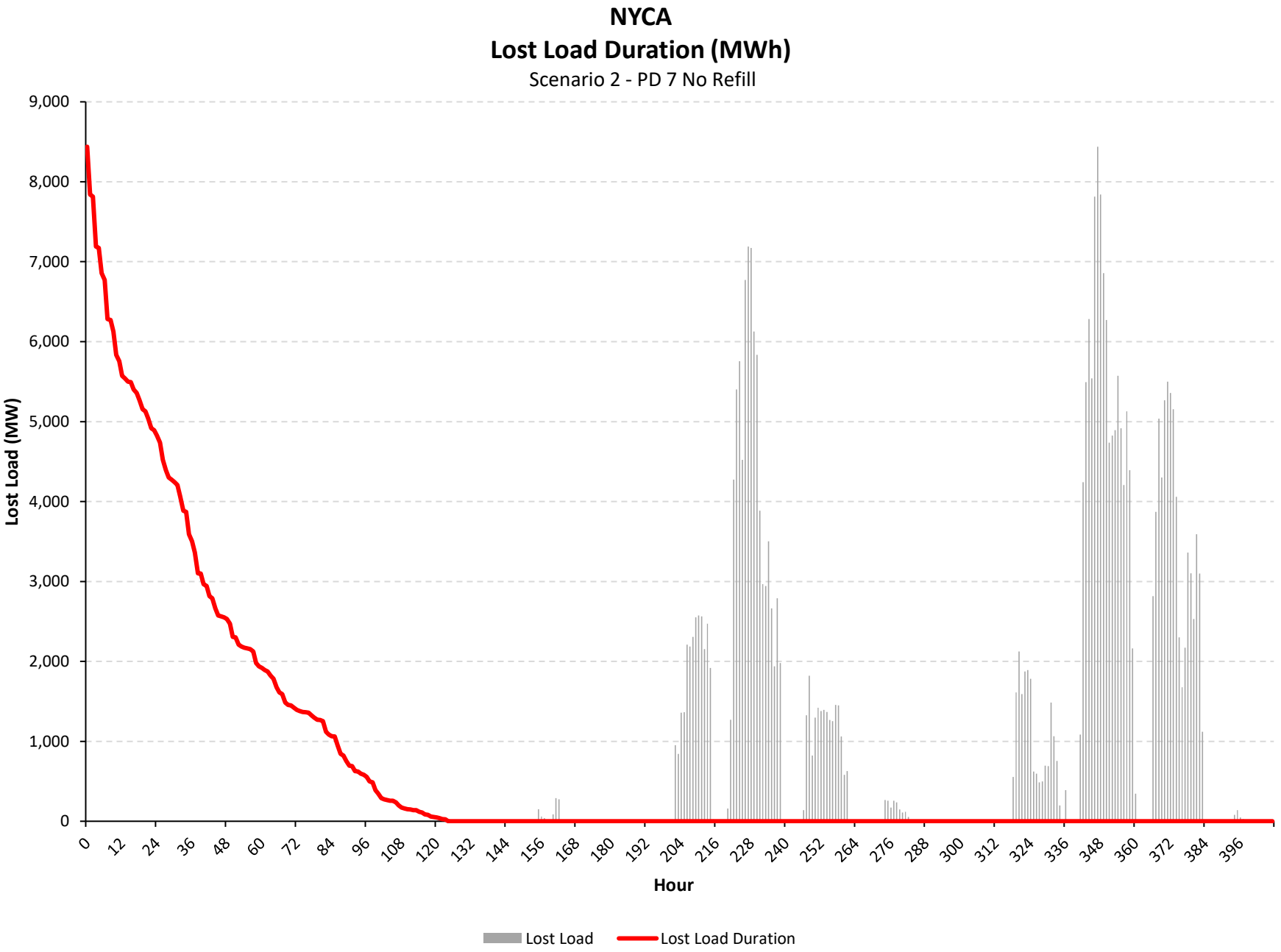
Scenario 2 - PD 7 No Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 2 - PD 7 No Refill
Emergency Actions and Lost Load (MW)
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 2 - PD 7 No Refill
Lost Load (MW)
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

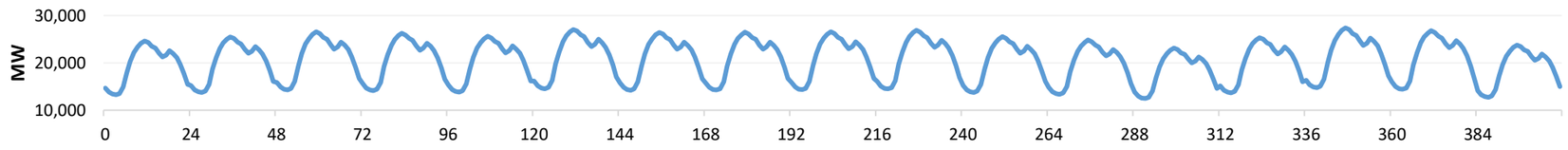
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 8 Non-Firm Gas Unavailable (F-K) (Winter 2026/2027)

Hourly Results Summary

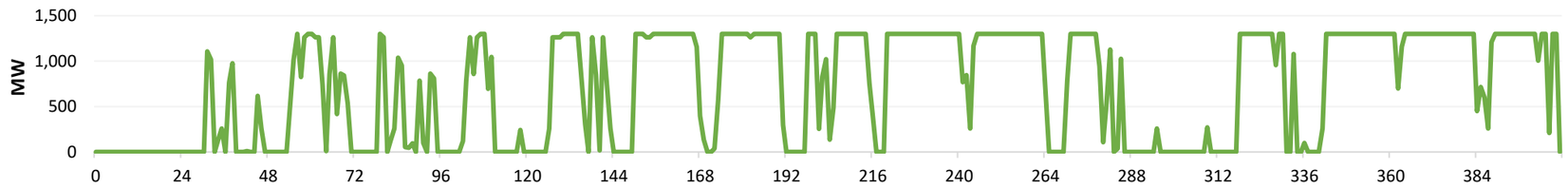
Case Name: Scenario 2 - PD 8 Non-Firm Gas Unavailable (F-K)

Load During Modeling Period



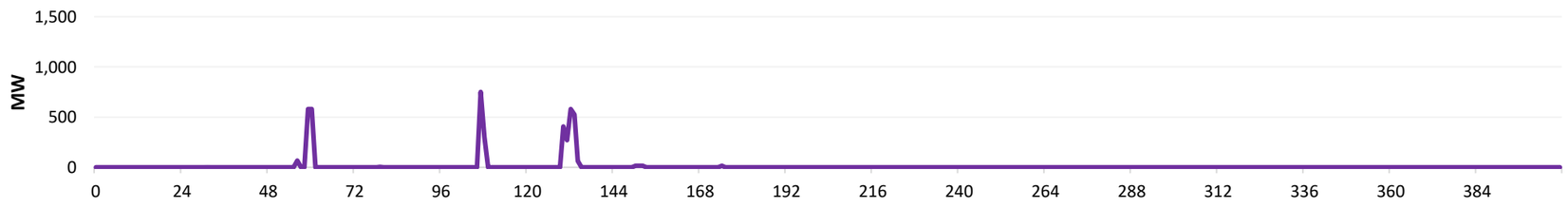
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



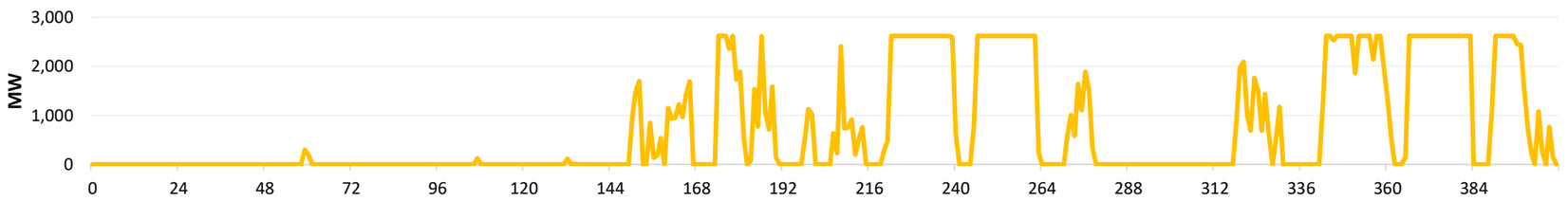
Export Reductions	
Total Hrs.	268
Total MWh	287,824
Avg. MW	705.5

SCR/EDRP Deployed During Modeling Period



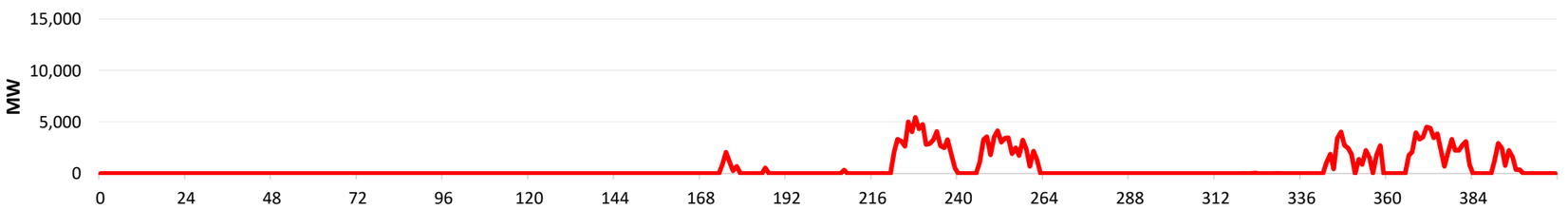
SCR Deployment	
Total Hrs.	15
Total MWh	4,183
Avg. MW	10.3

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	164
Total MWh	286,777
Avg. MW	702.9
First Hour with Viol.	59

Loss of Load During Modeling Period

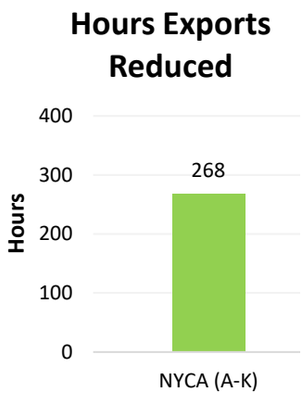


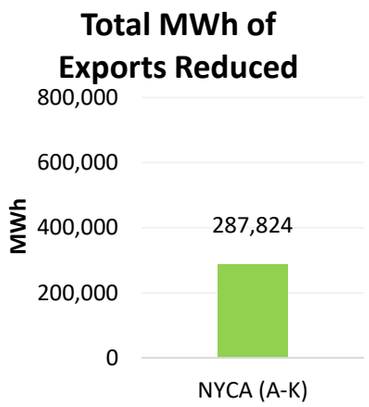
Loss of Load	
Total Hrs.	88
Total MWh	199,247
Avg. MW	488.3
First Hour with Losses	174

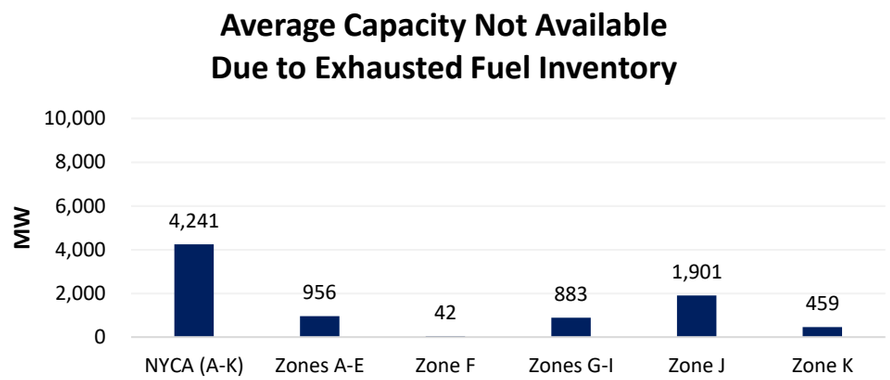
Full Period Results Summary

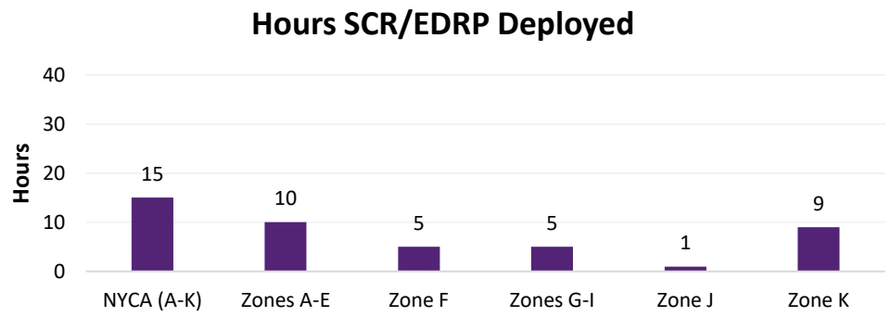
Case Name: Scenario 2 - PD 8 Non-Firm Gas Unavailable (F-K)

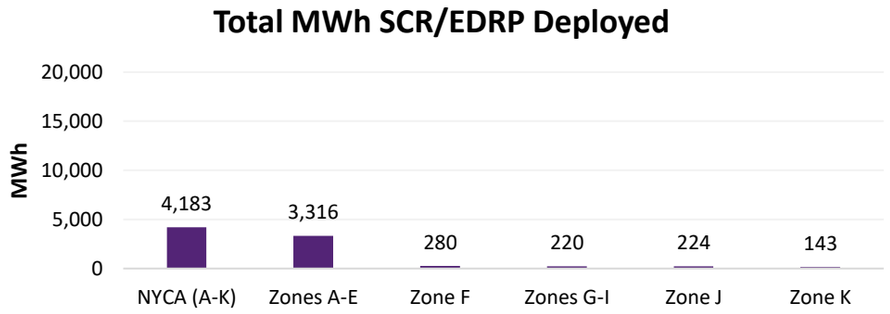
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

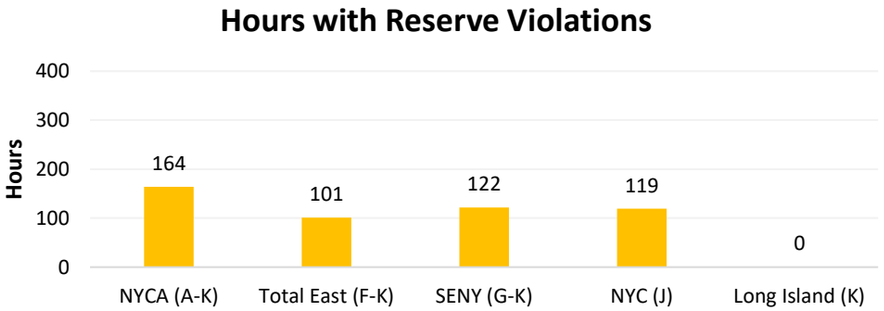


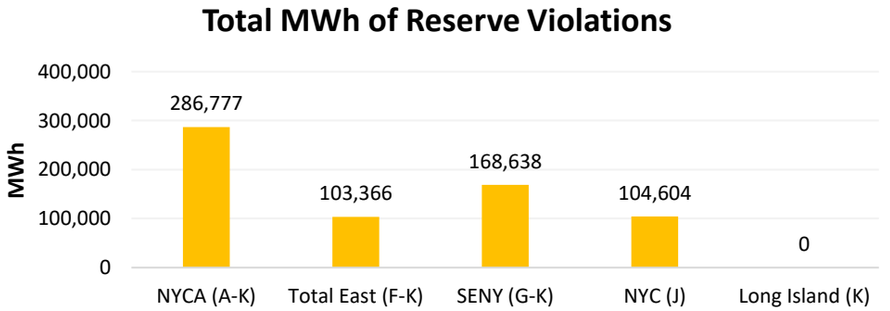


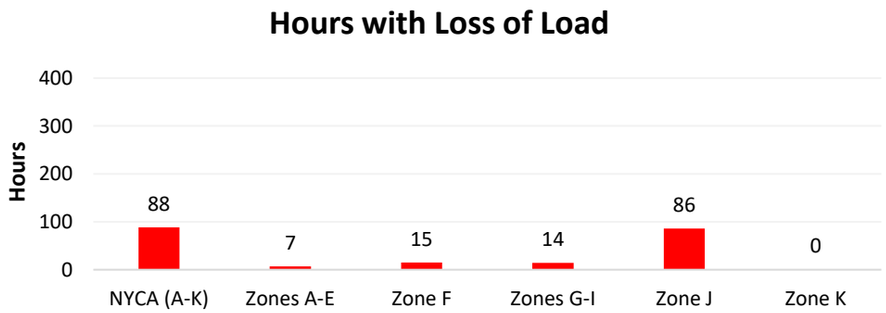


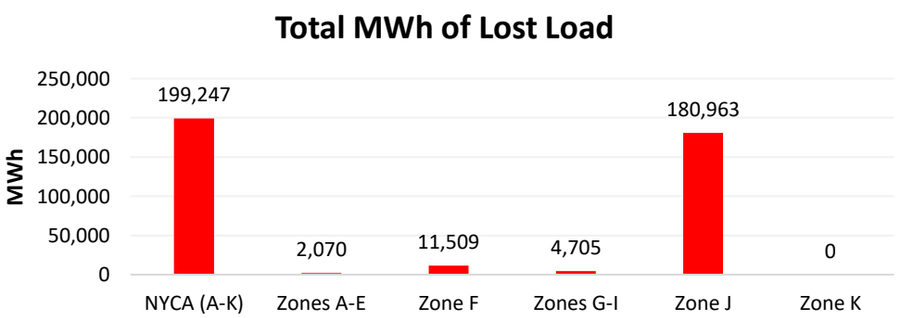


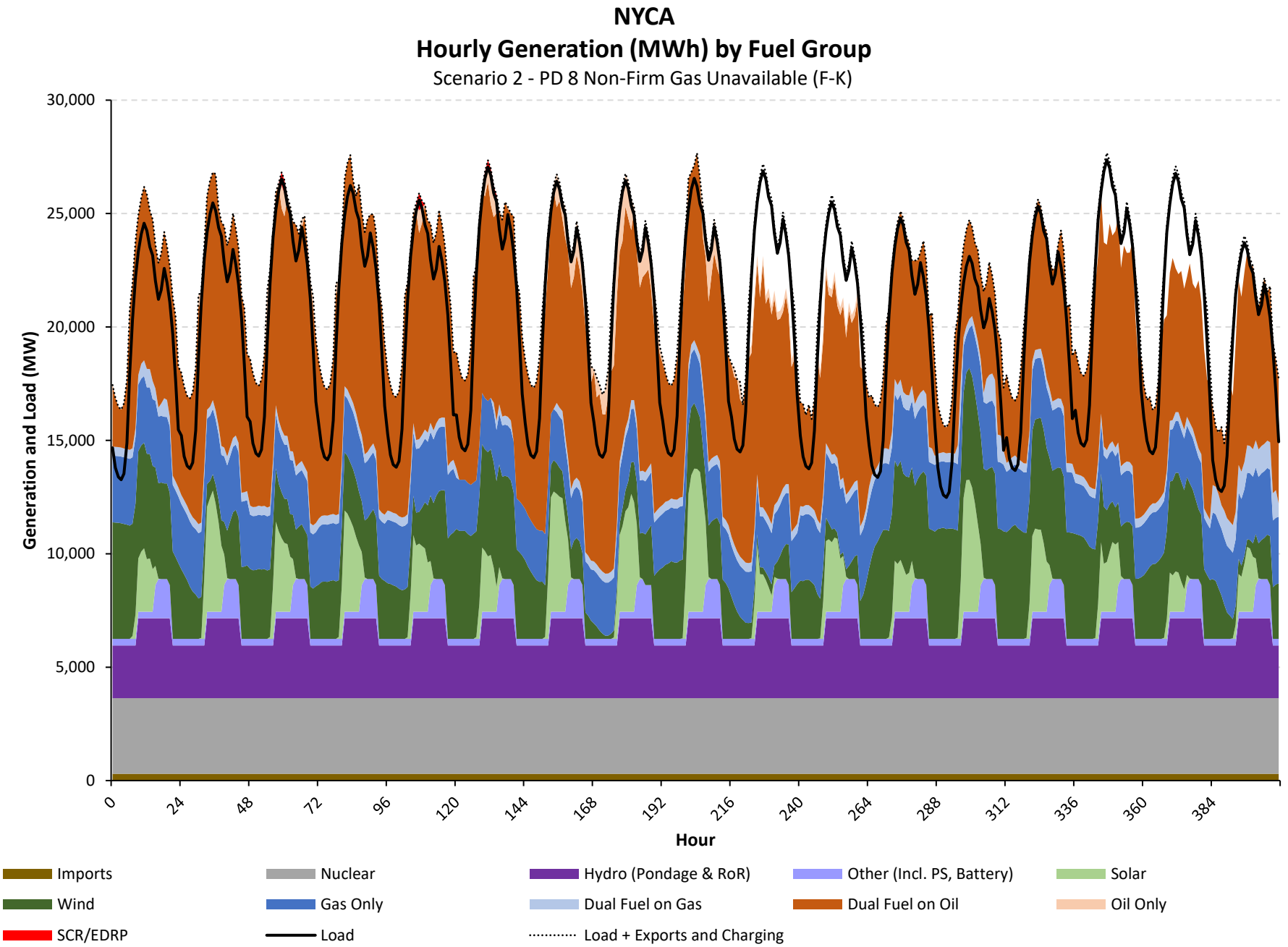




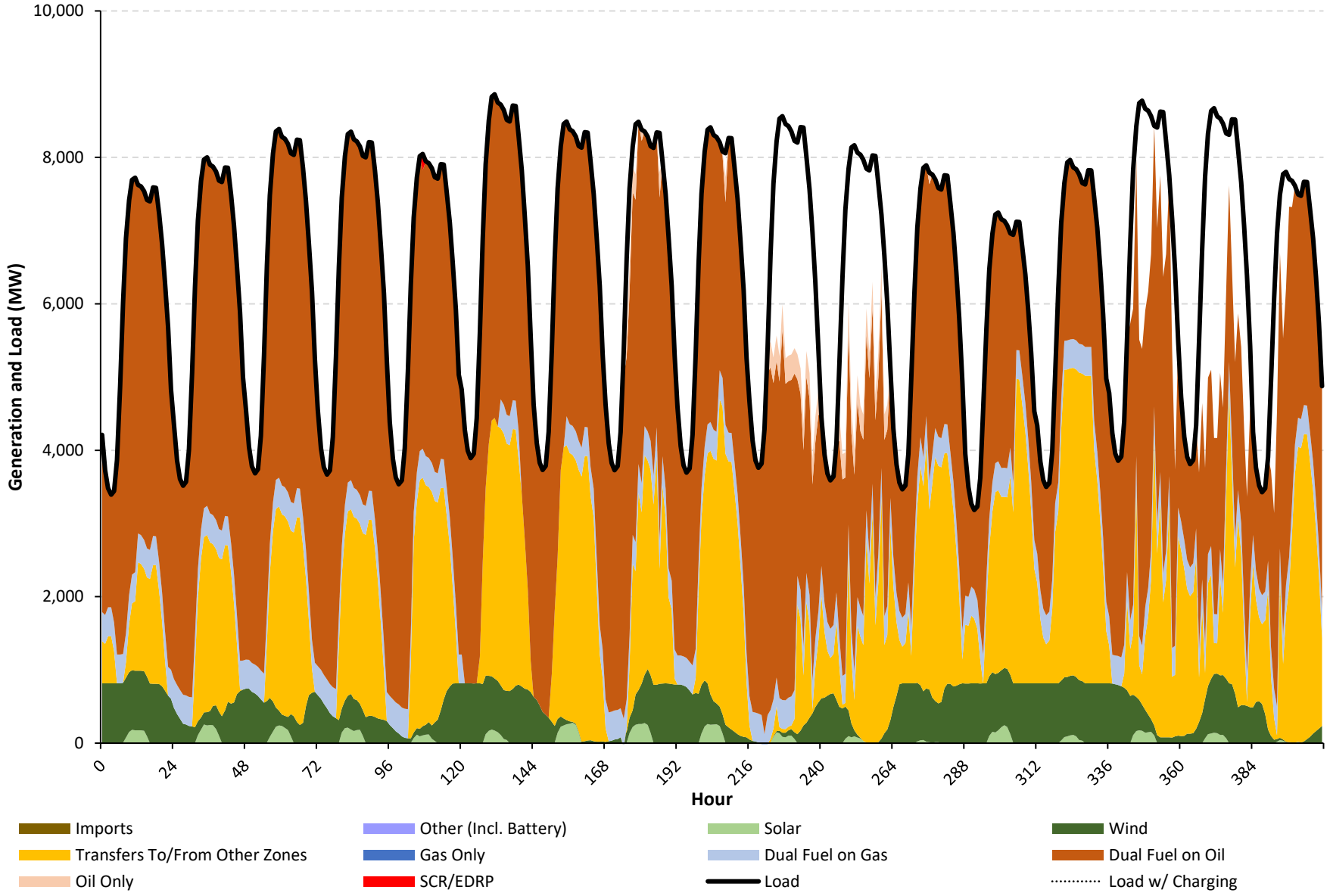




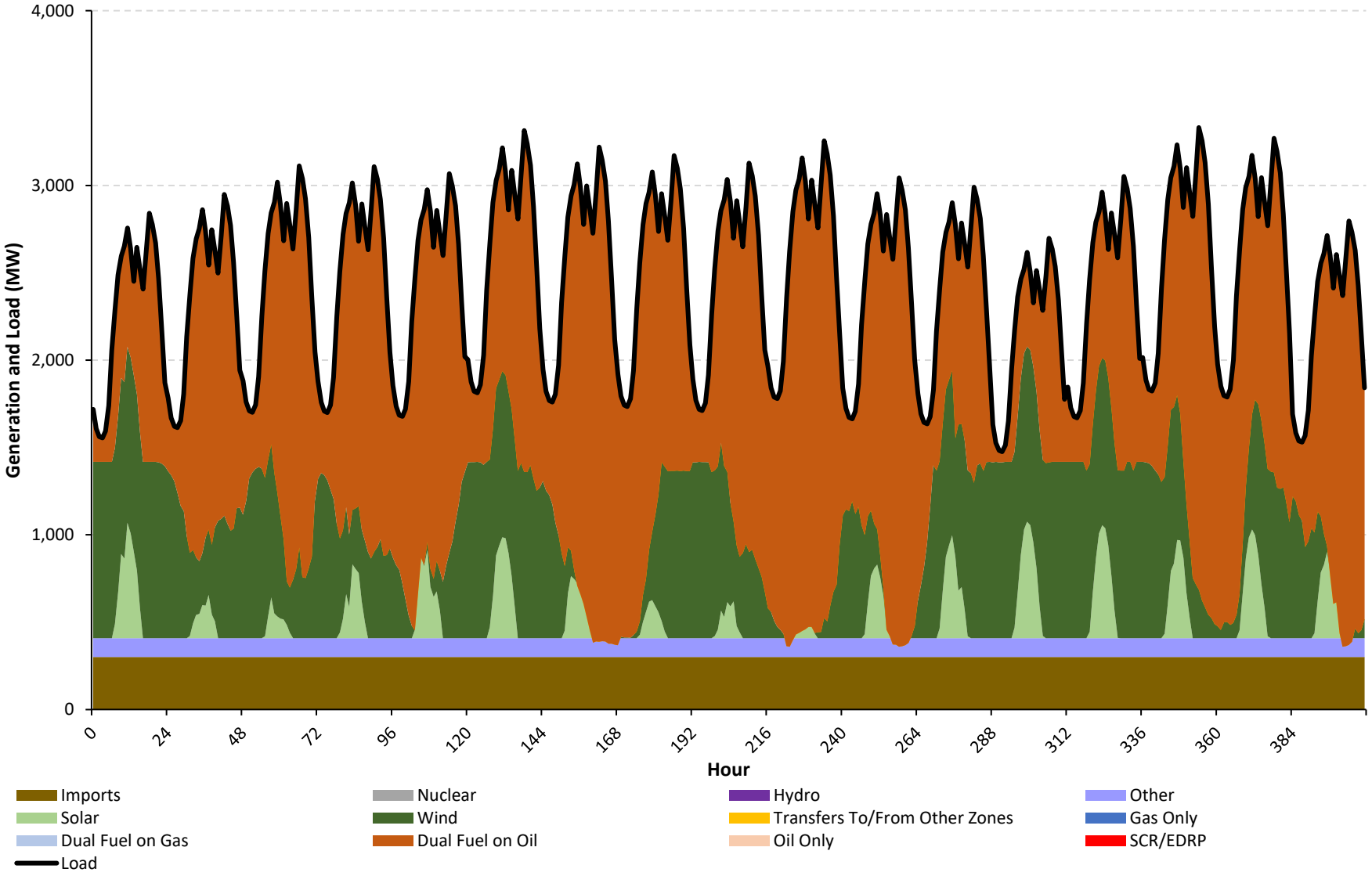



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 2 - PD 8 Non-Firm Gas Unavailable (F-K)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 8 Non-Firm Gas Unavailable (F-K)



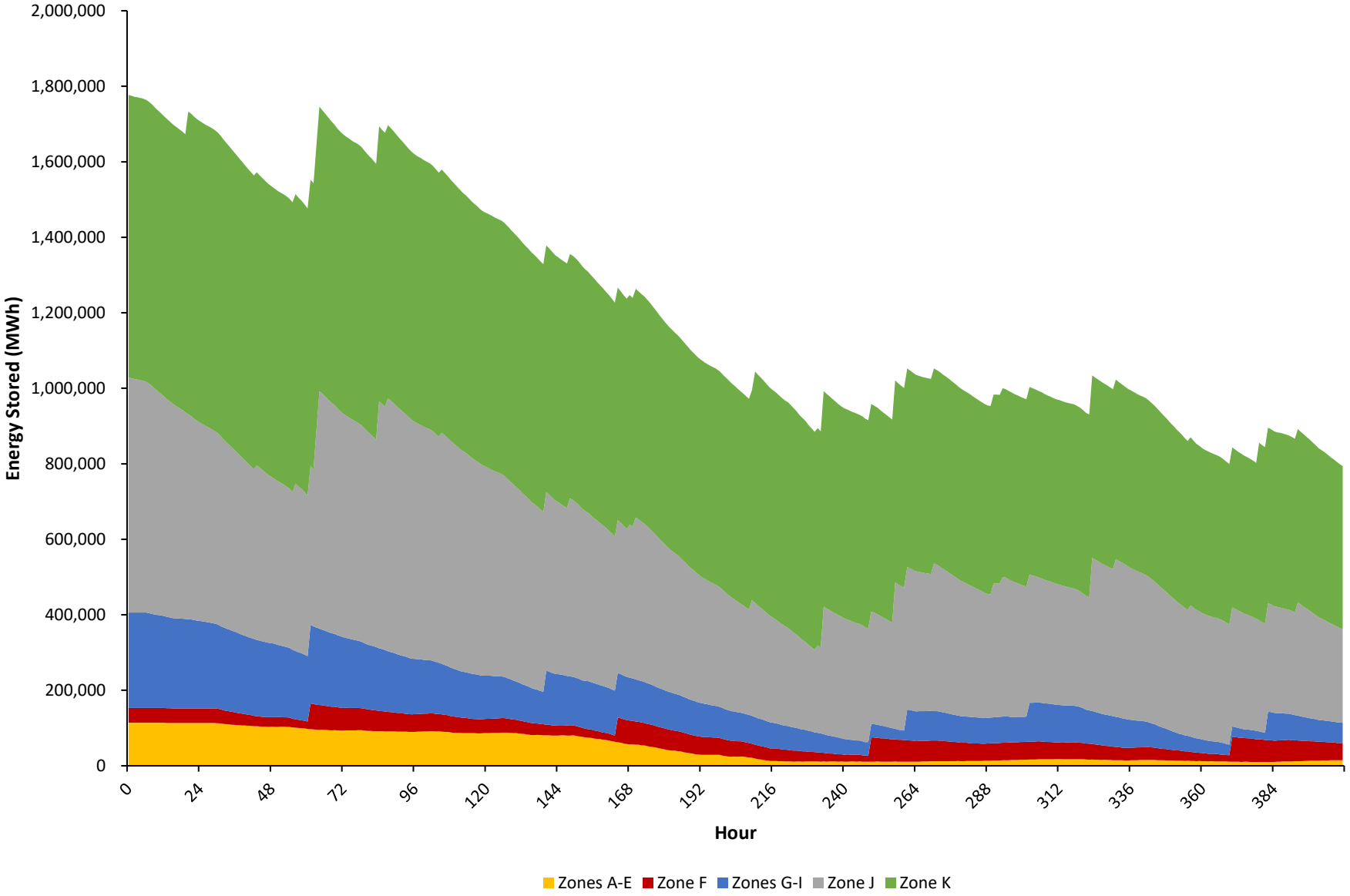
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 8 Non-Firm Gas Unavailable (F-K)

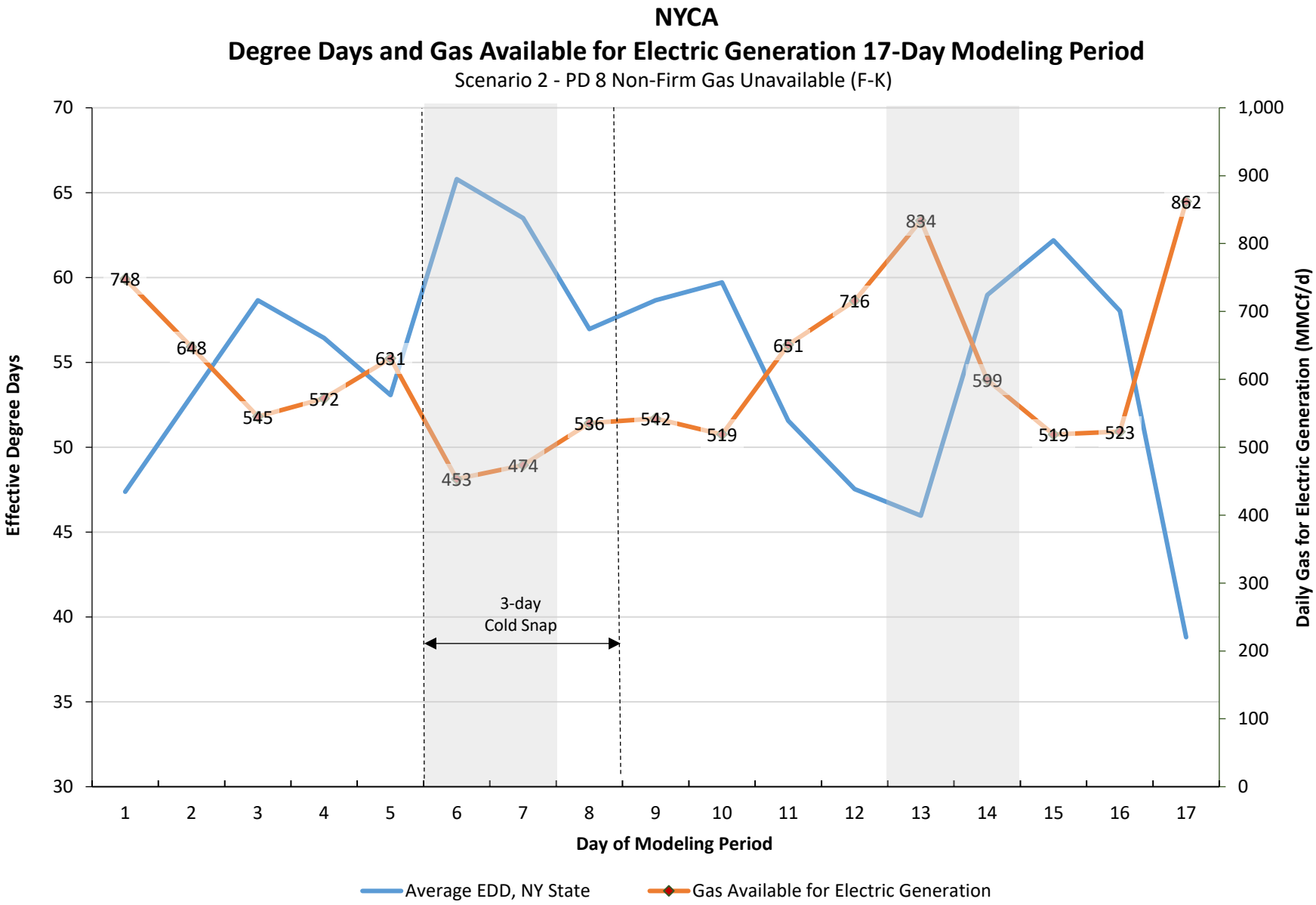


NYCA

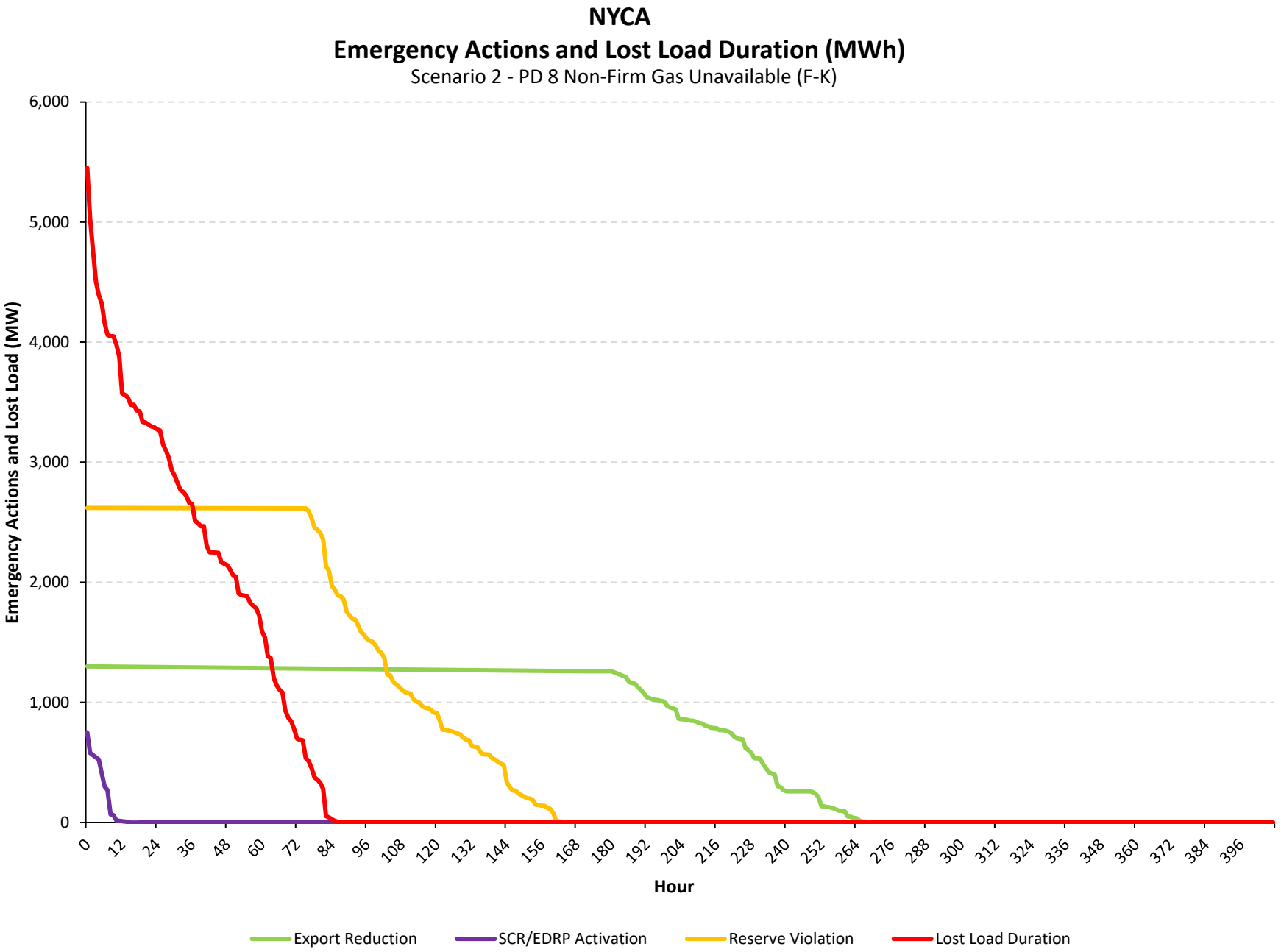
Quantity of Stored Fuel for Oil and Dual Fuel Units

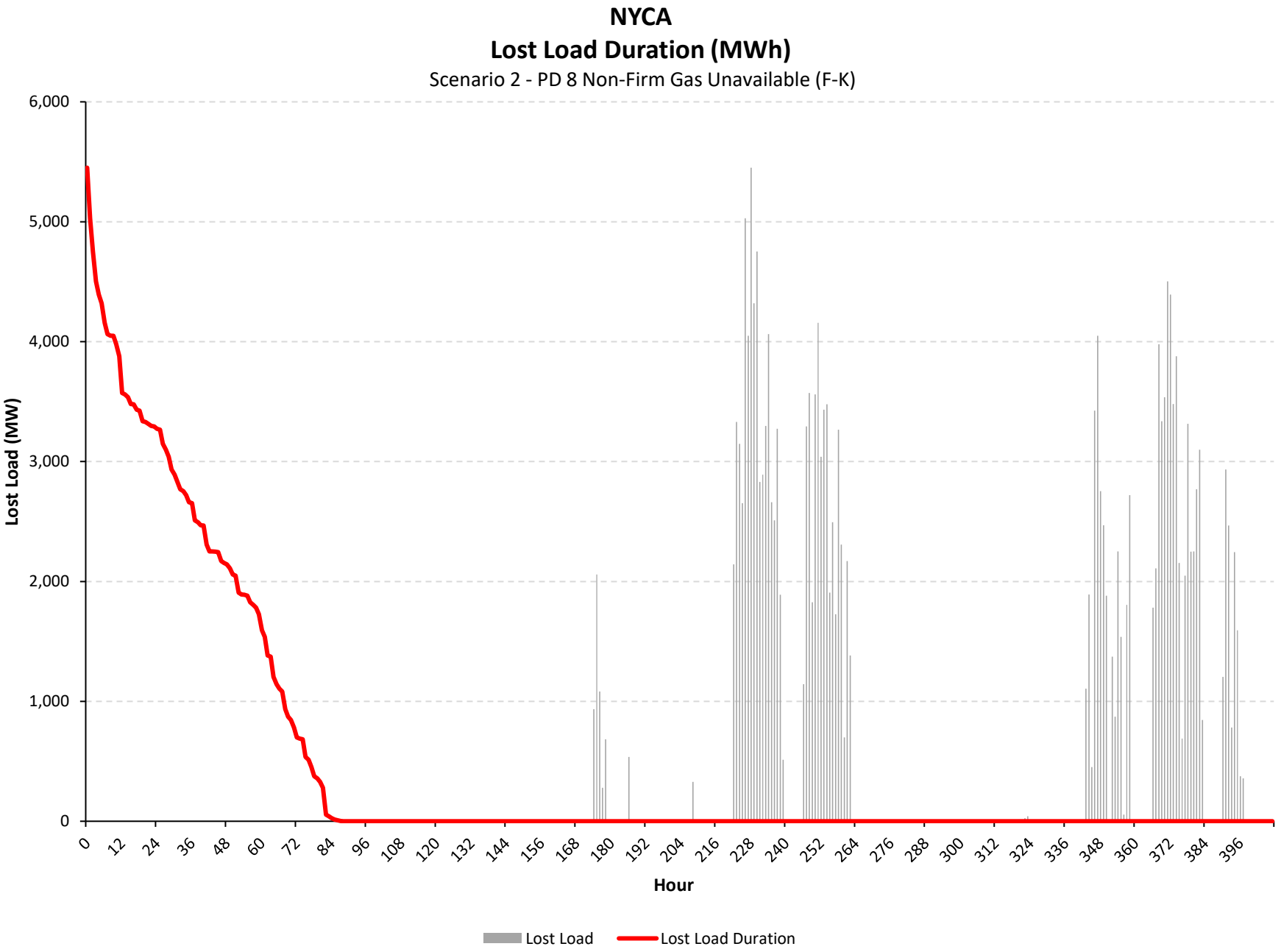
Scenario 2 - PD 8 Non-Firm Gas Unavailable (F-K)





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 2 - PD 8 Non-Firm Gas Unavailable (F-K)
Emergency Actions and Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 2 - PD 8 Non-Firm Gas Unavailable (F-K)
Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

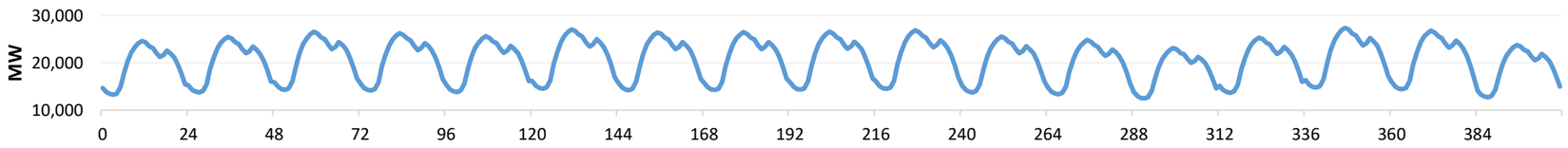
Case: Scenario 2 - PD 9 Non-Firm Gas Unavailable (NYCA) (Winter 2026/2027)

Hourly Results Summary

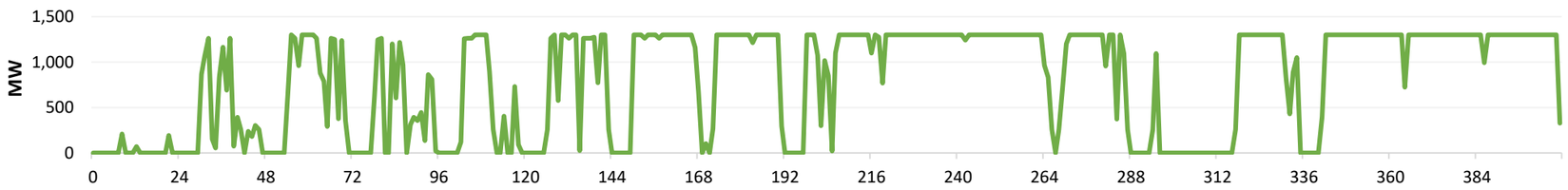
Case Name: Scenario 2 - PD 9 Non-Firm Gas Unavailable (NYCA)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Load During Modeling Period

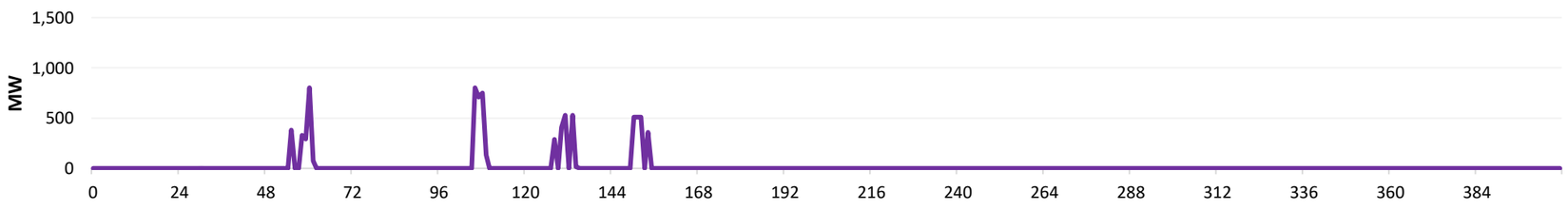


Export to ISO-NE Reduction During Modeling Period



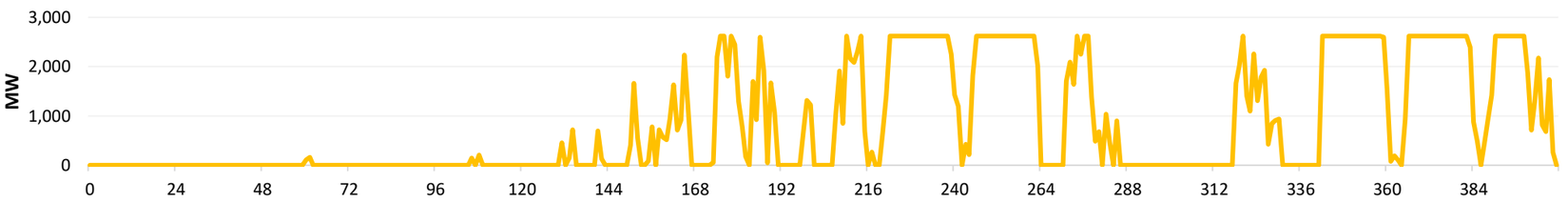
Export Reductions	
Total Hrs.	298
Total MWh	326,348
Avg. MW	799.9

SCR/EDRP Deployed During Modeling Period



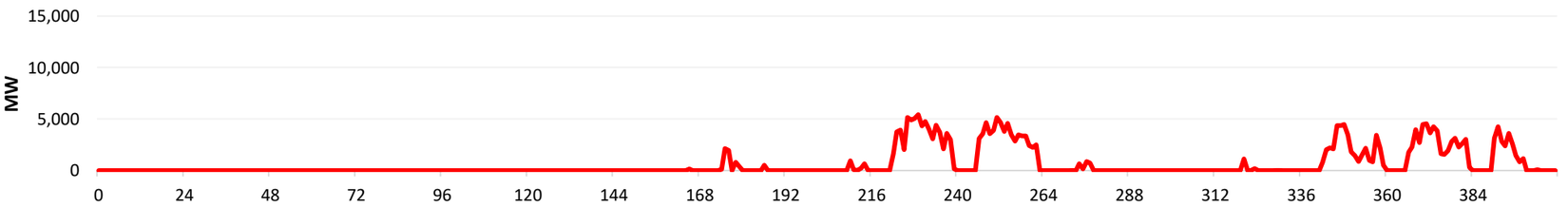
SCR Deployment	
Total Hrs.	18
Total MWh	7,924
Avg. MW	19.4

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	185
Total MWh	336,375
Avg. MW	824.4
First Hour with Viol.	60

Loss of Load During Modeling Period

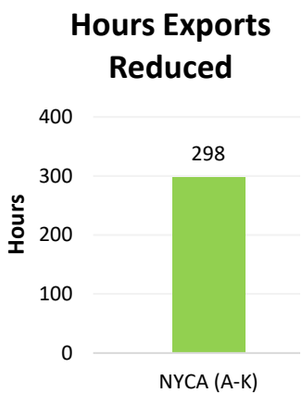


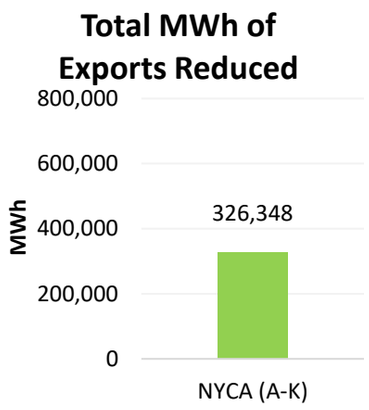
Loss of Load	
Total Hrs.	103
Total MWh	250,324
Avg. MW	613.5
First Hour with Losses	165

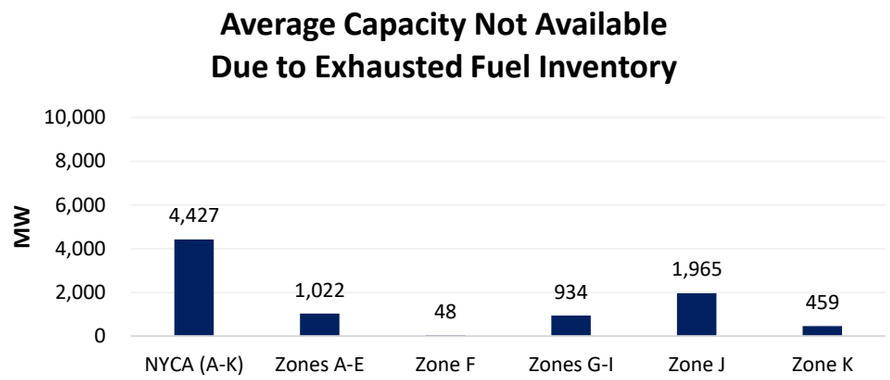
Full Period Results Summary

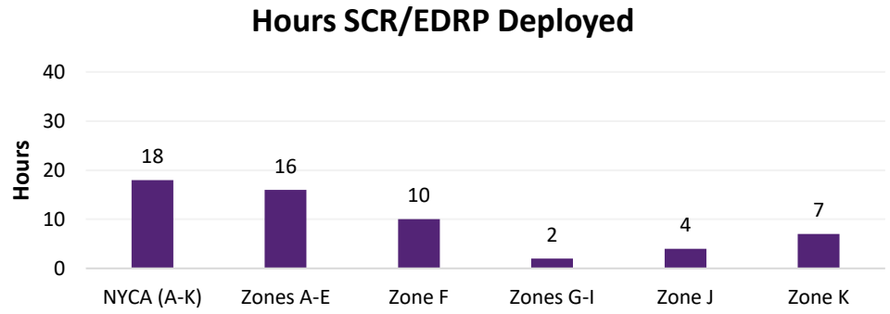
Case Name: Scenario 2 - PD 9 Non-Firm Gas Unavailable (NYCA)

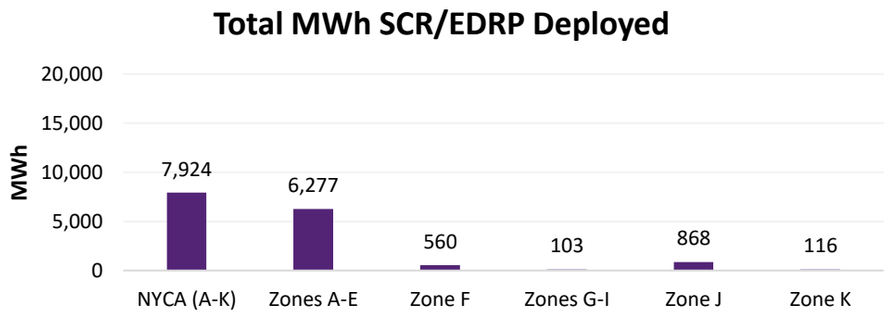
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

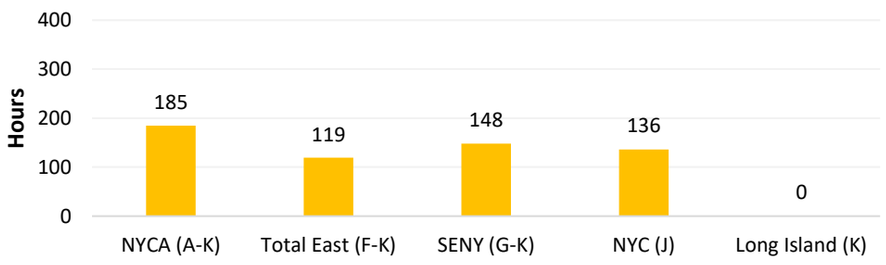


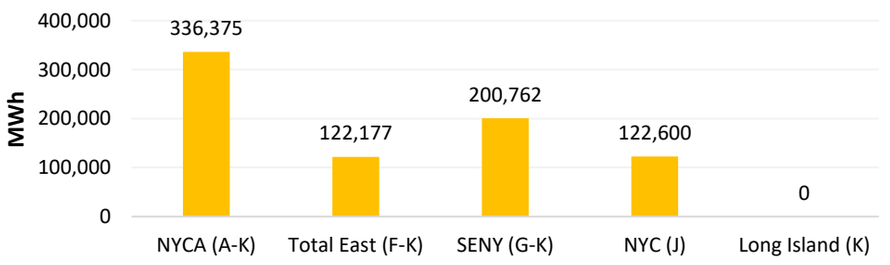


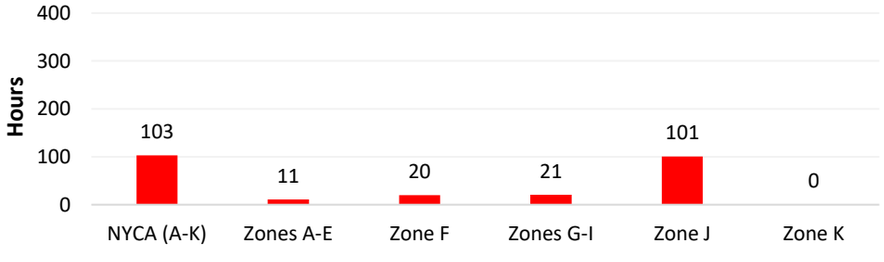


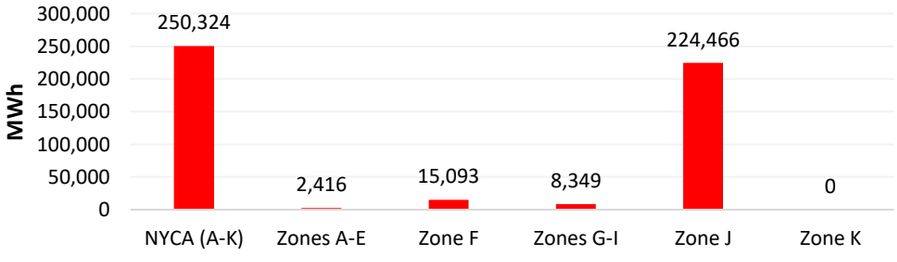


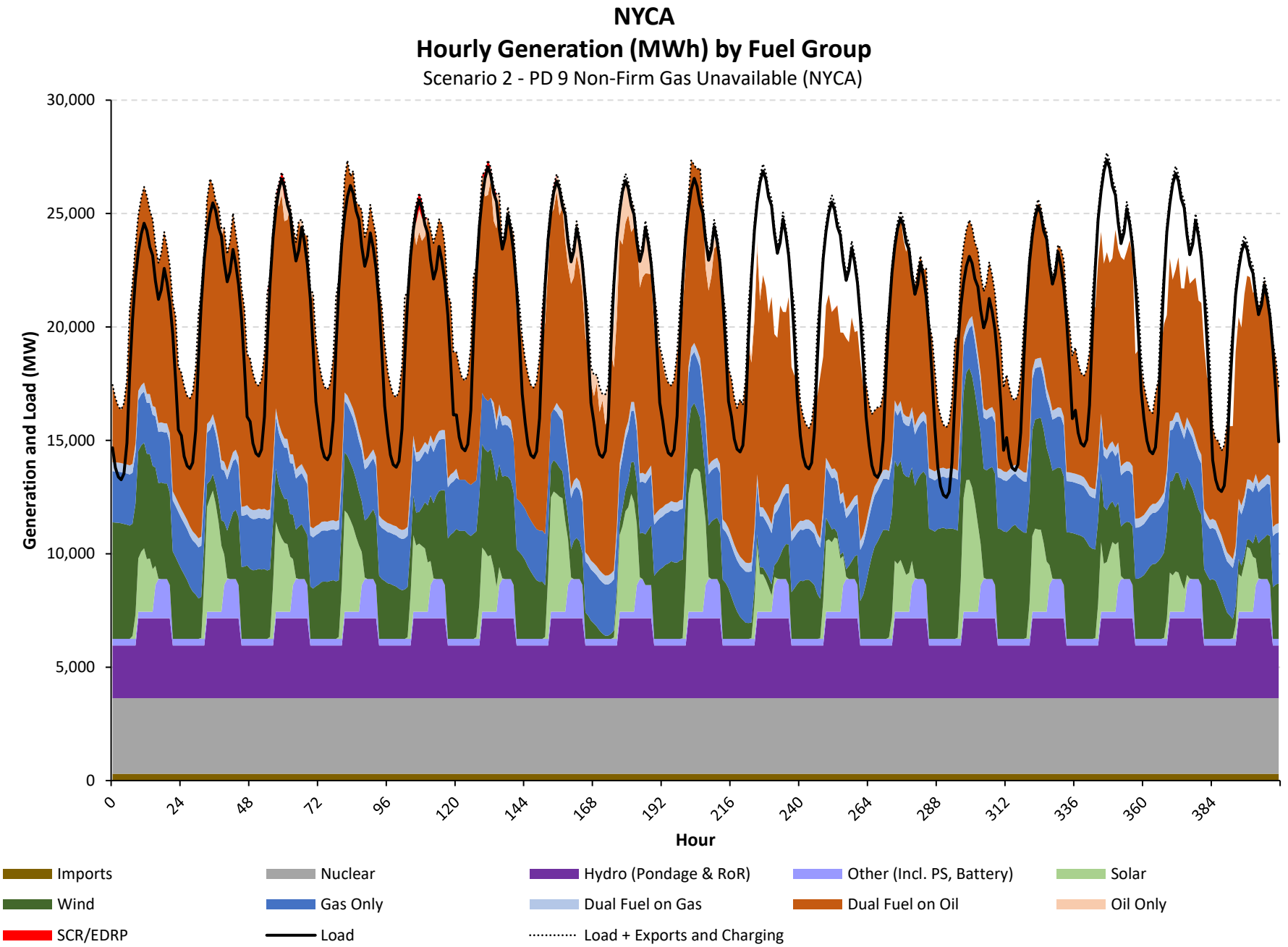




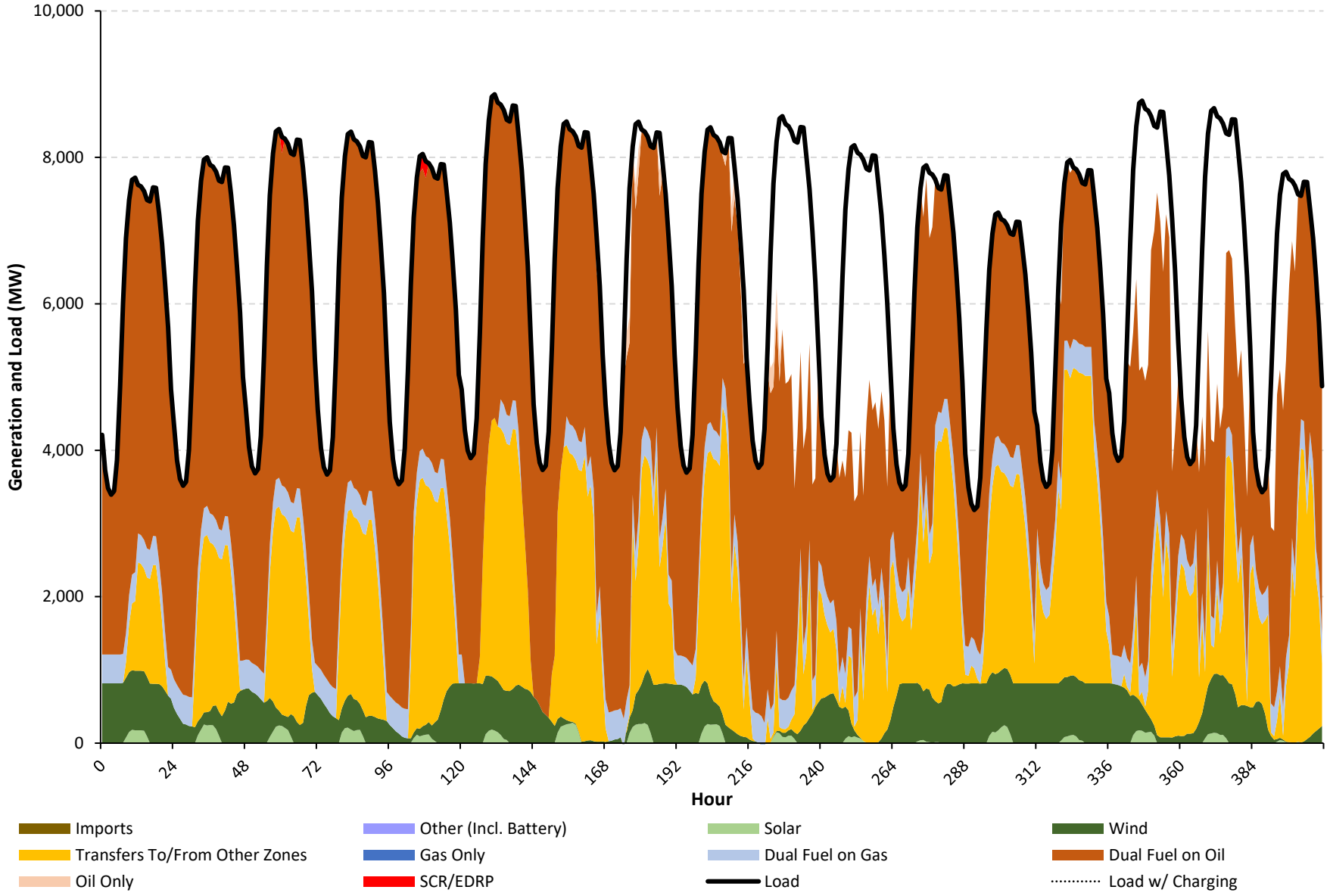




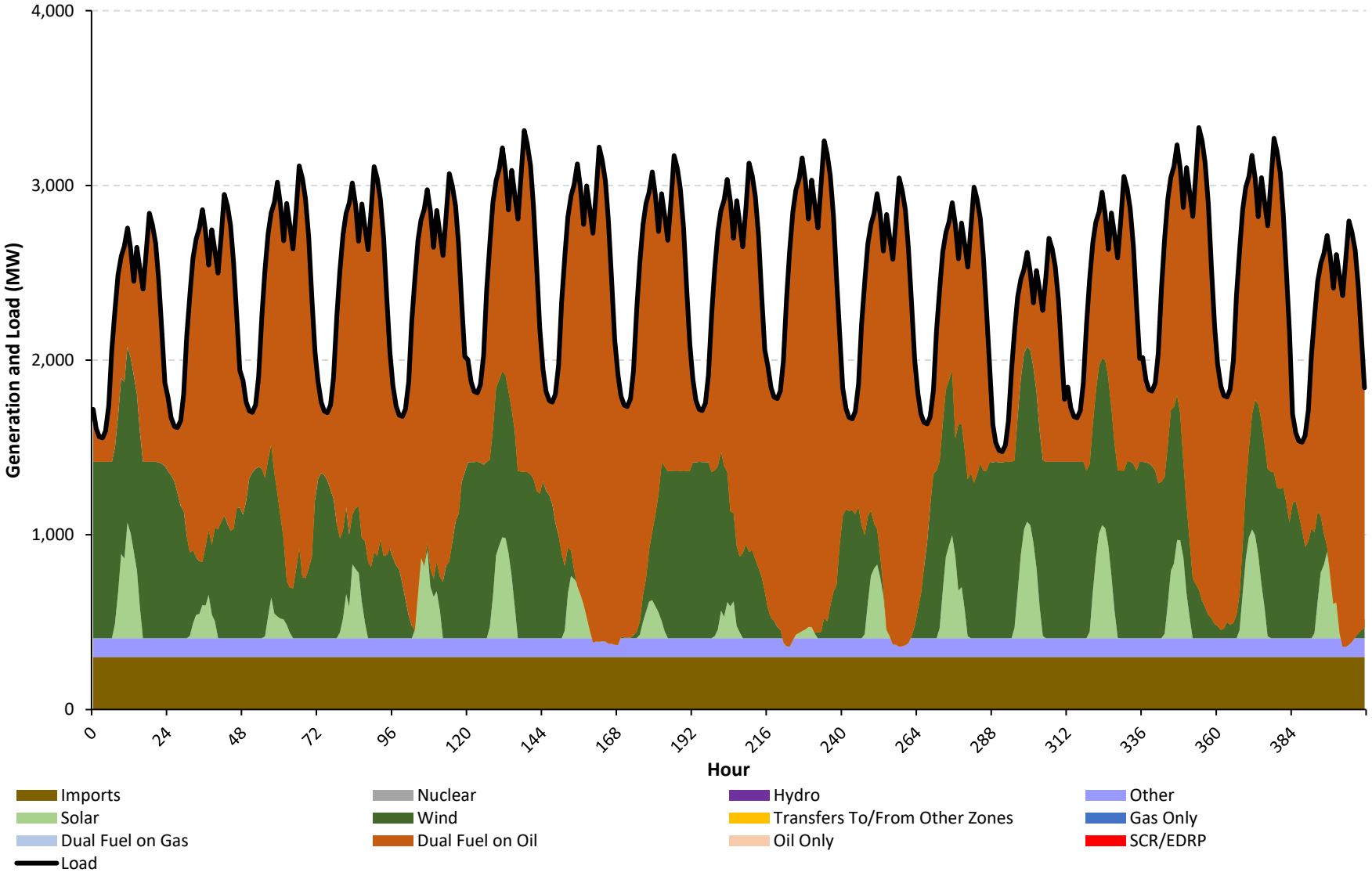



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 2 - PD 9 Non-Firm Gas Unavailable (NYCA)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 9 Non-Firm Gas Unavailable (NYCA)



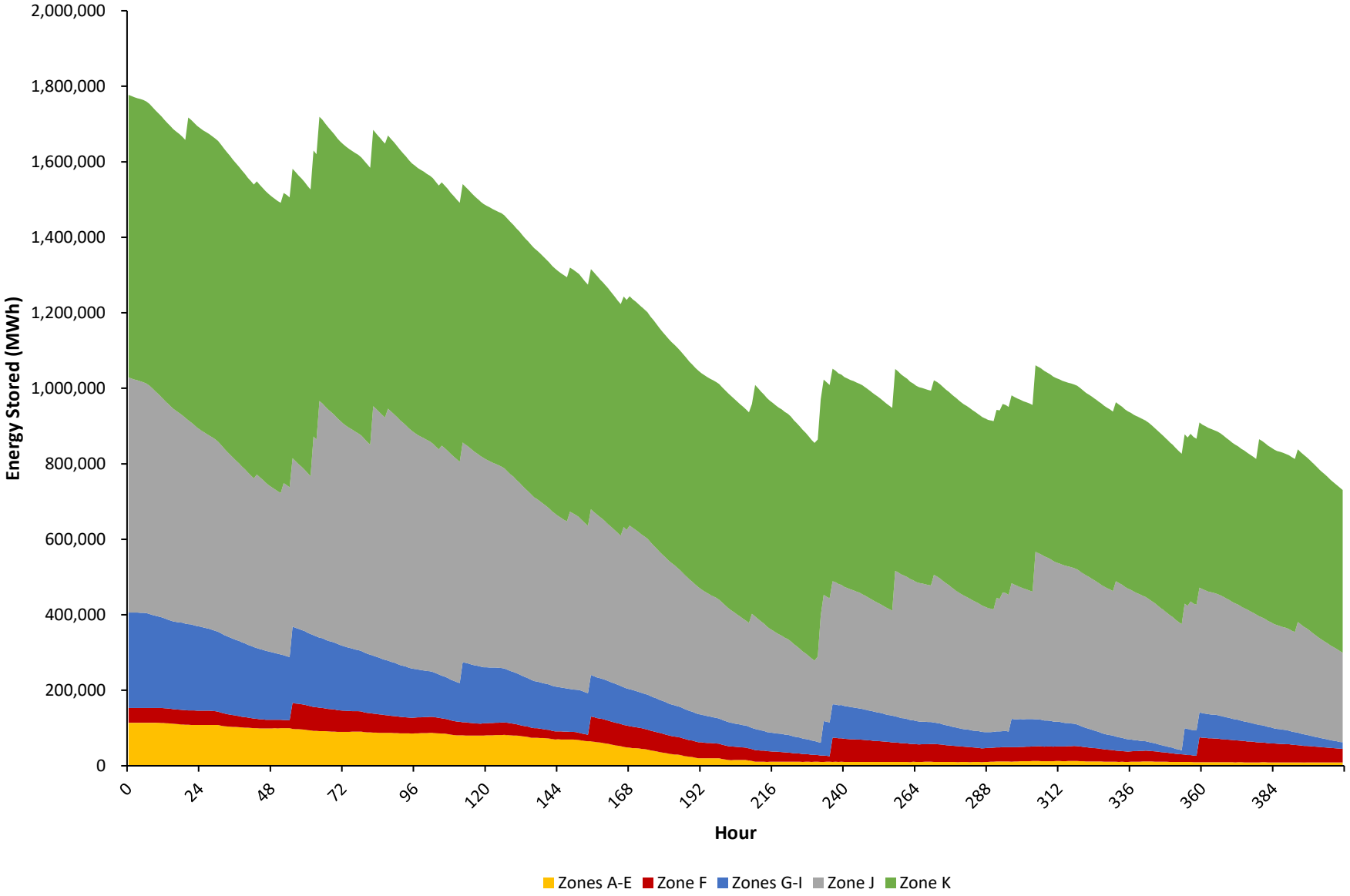
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 9 Non-Firm Gas Unavailable (NYCA)



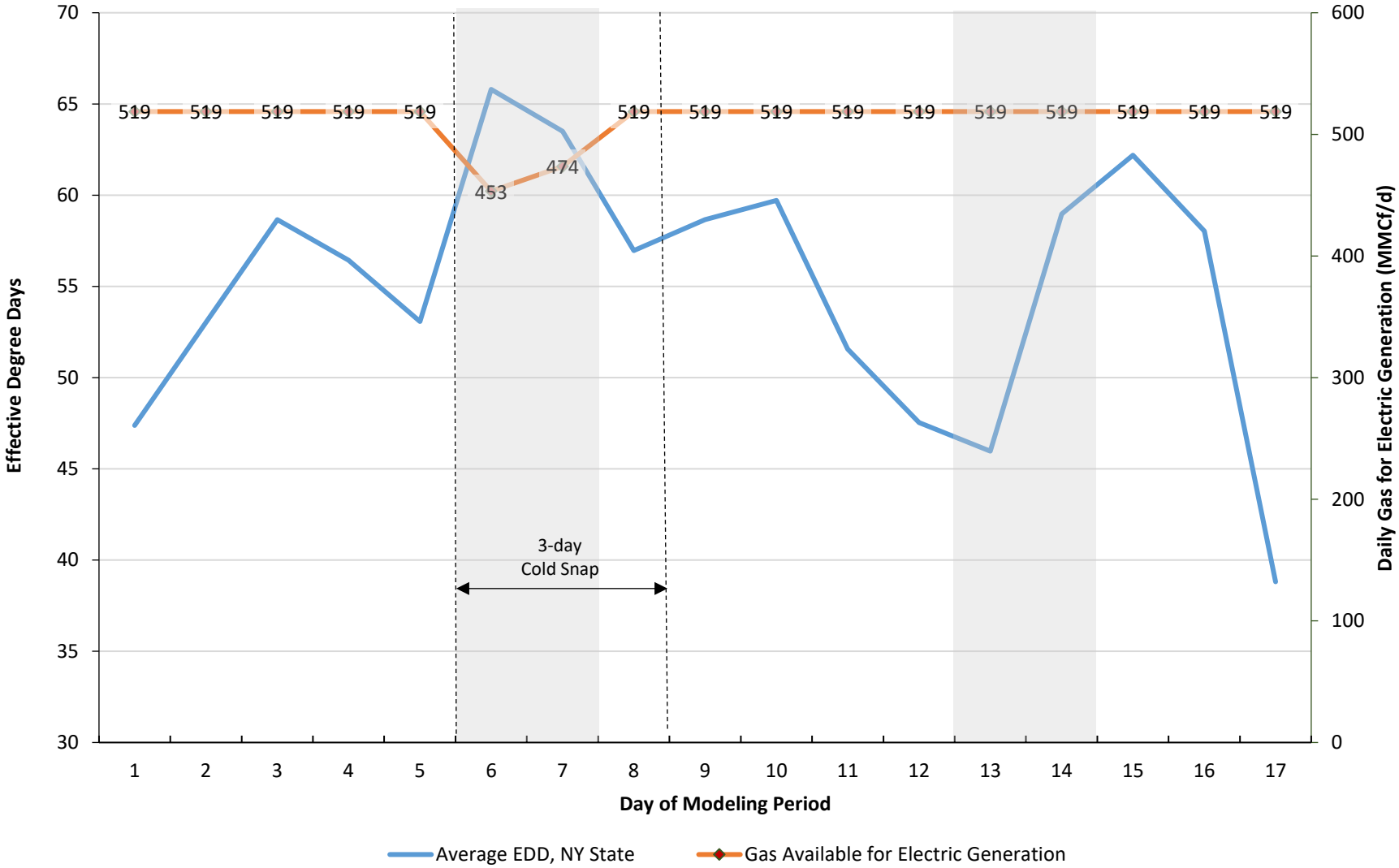
NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

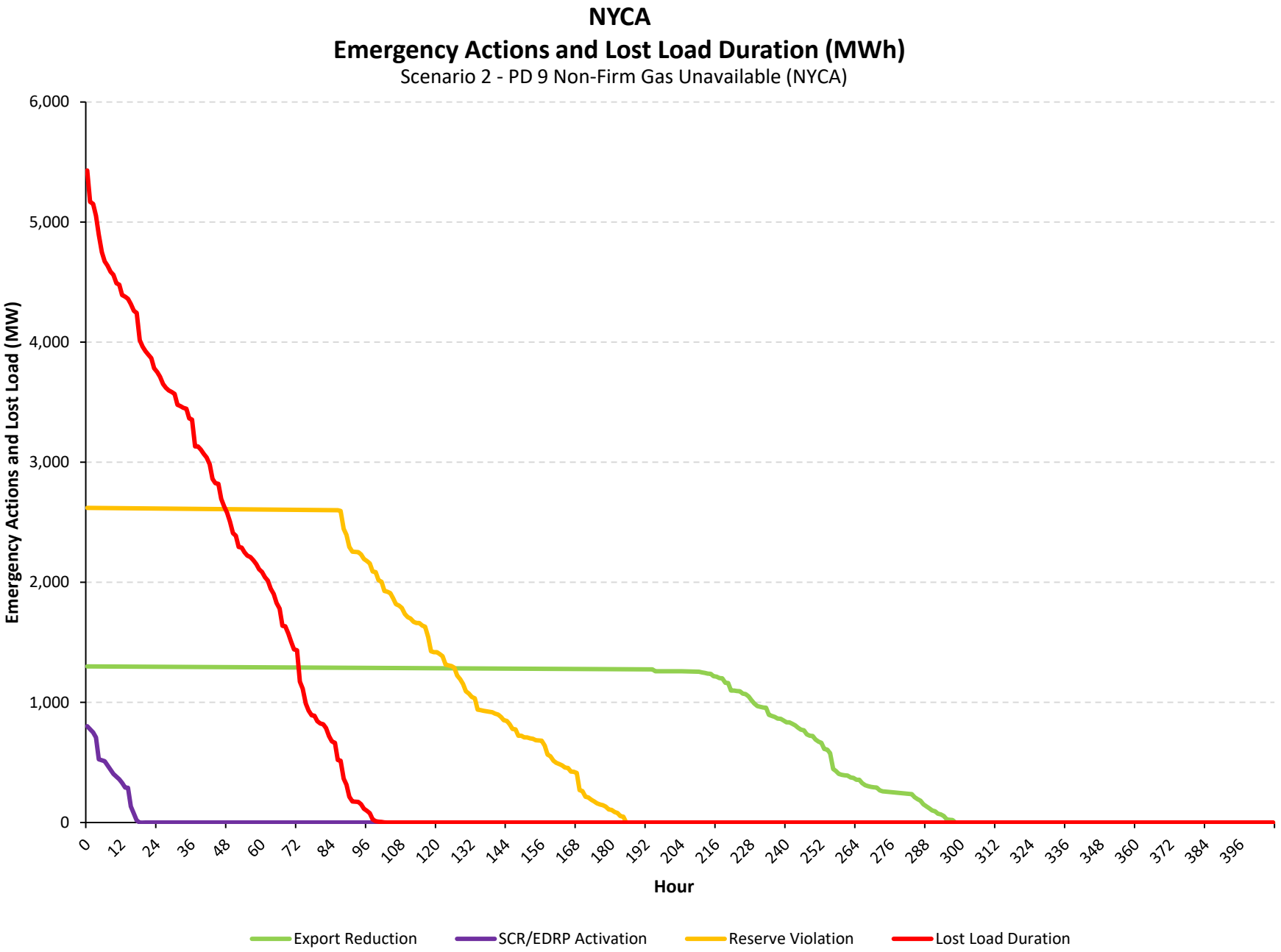
Scenario 2 - PD 9 Non-Firm Gas Unavailable (NYCA)

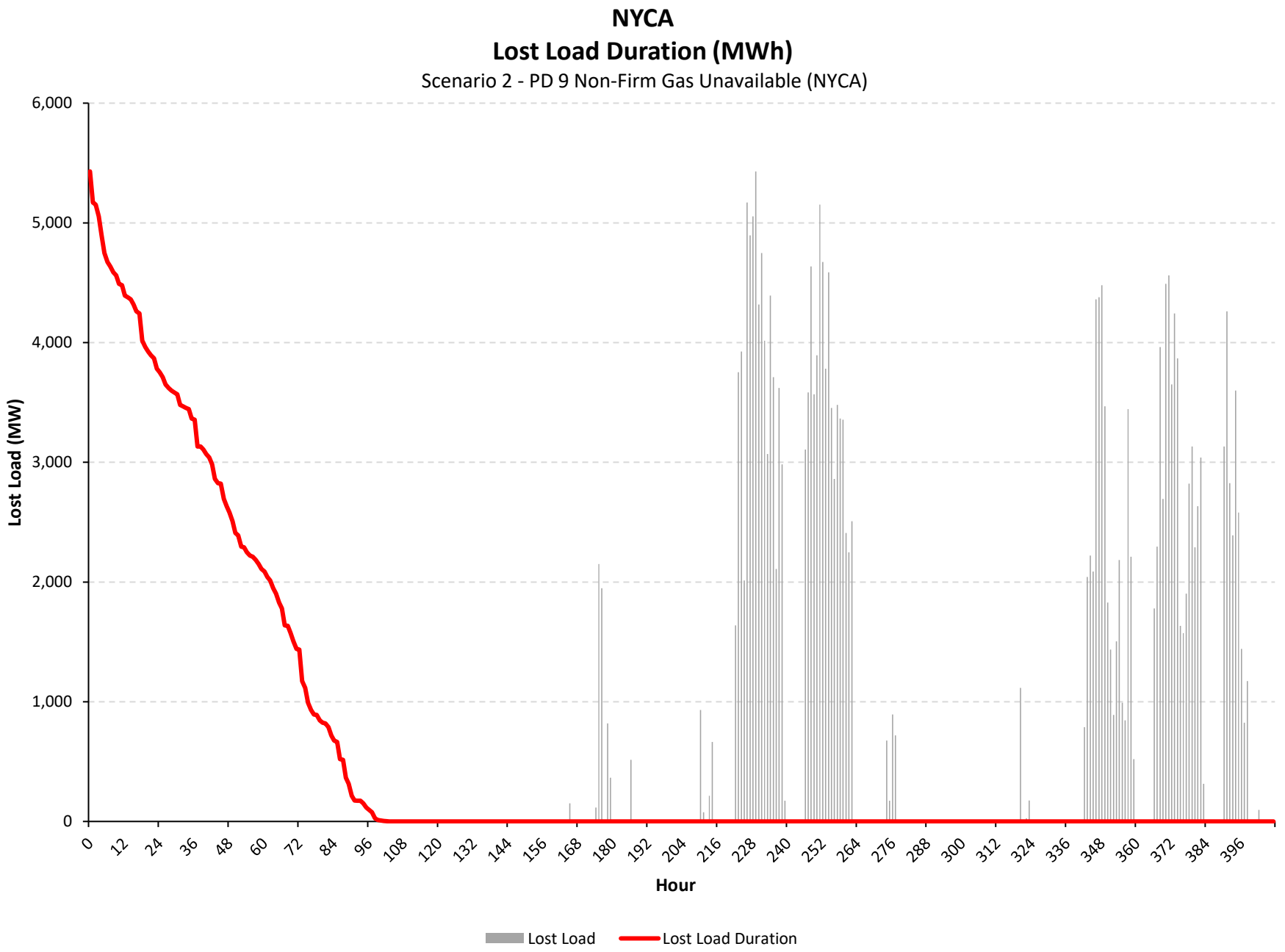


NYCA
Degree Days and Gas Available for Electric Generation 17-Day Modeling Period
Scenario 2 - PD 9 Non-Firm Gas Unavailable (NYCA)



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 2 - PD 9 Non-Firm Gas Unavailable (NYCA)
Emergency Actions and Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 2 - PD 9 Non-Firm Gas Unavailable (NYCA)
Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

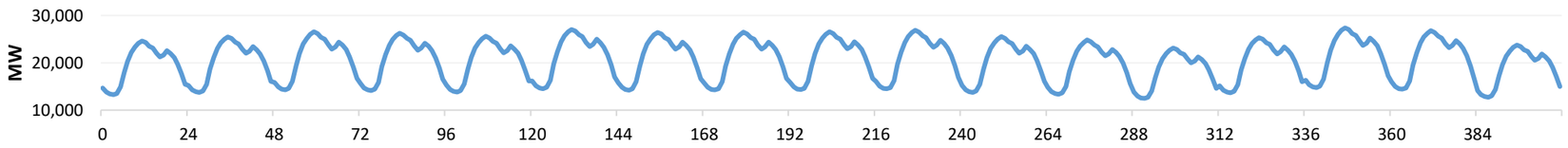
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 10 Non-Firm Gas Unavailable (4 days) (Winter 2026/2027)

Hourly Results Summary

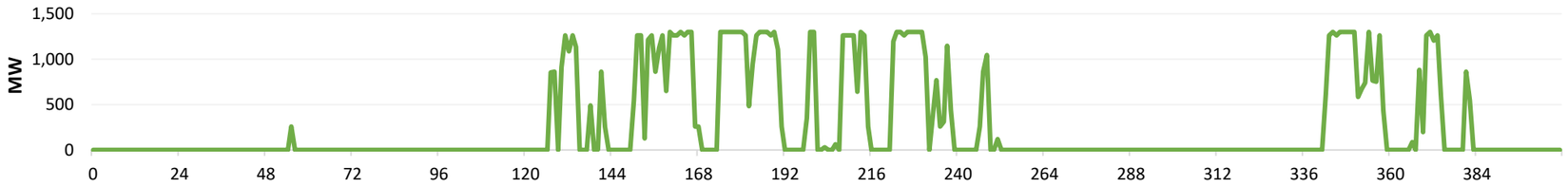
Case Name: Scenario 2 - PD 10 Non-Firm Gas Unavailable (4 days)

Load During Modeling Period



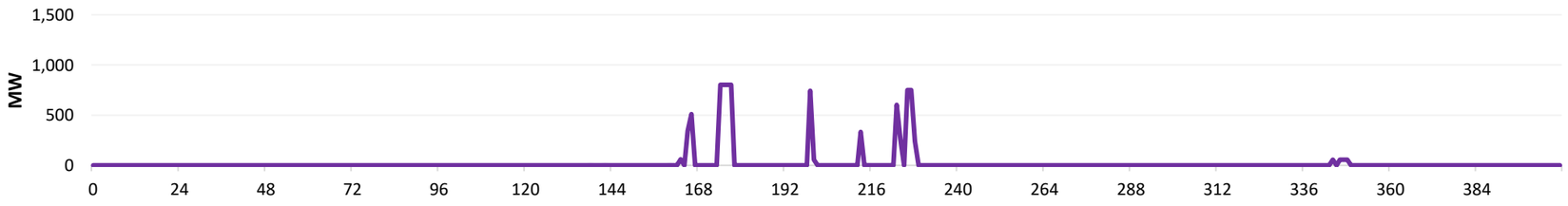
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



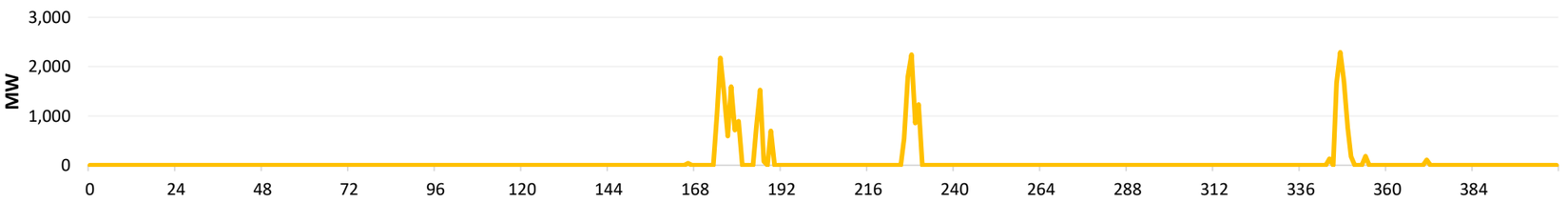
Export Reductions	
Total Hrs.	109
Total MWh	104,555
Avg. MW	256.3

SCR/EDRP Deployed During Modeling Period



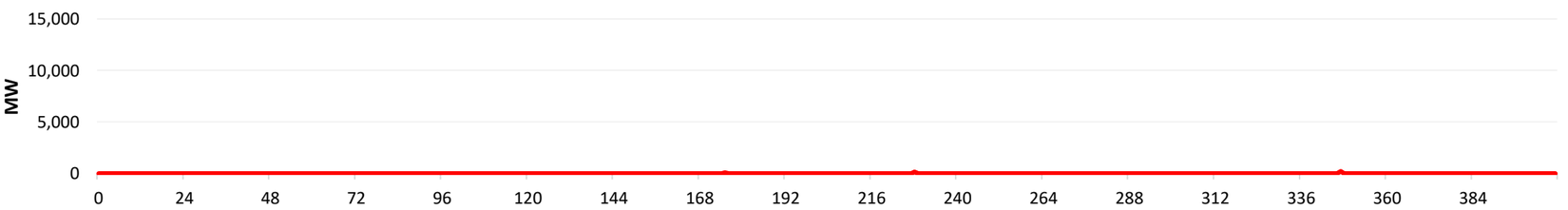
SCR Deployment	
Total Hrs.	20
Total MWh	8,085
Avg. MW	19.8

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	25
Total MWh	25,257
Avg. MW	61.9
First Hour with Viol.	166

Loss of Load During Modeling Period

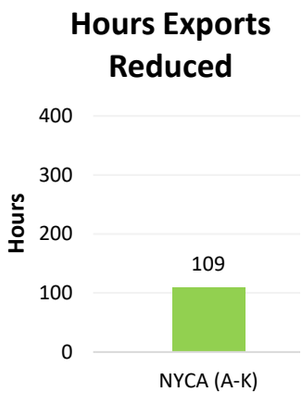


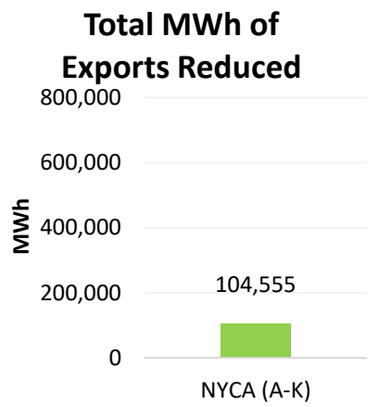
Loss of Load	
Total Hrs.	3
Total MWh	465
Avg. MW	1.1
First Hour with Losses	175

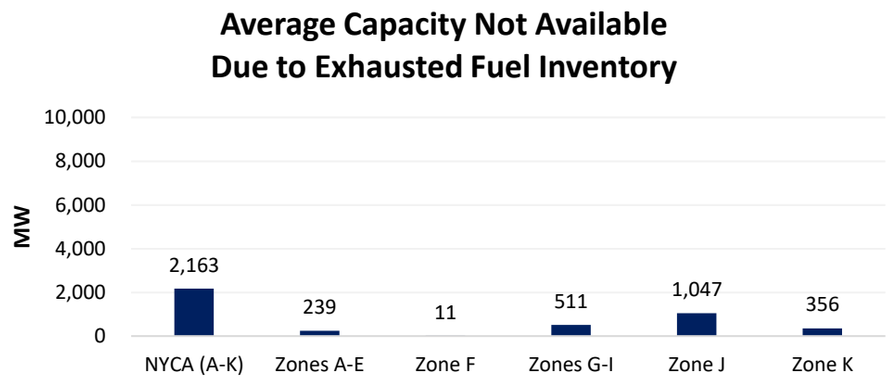
Full Period Results Summary

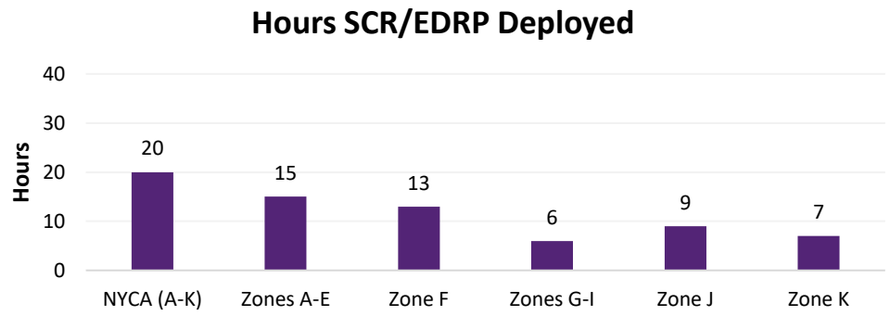
Case Name: Scenario 2 - PD 10 Non-Firm Gas Unavailable (4 days)

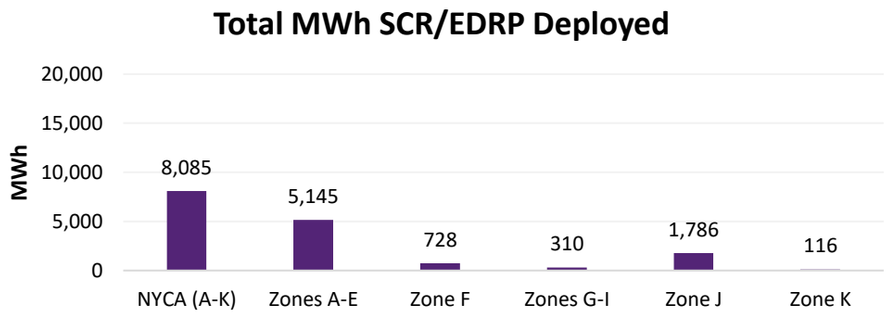
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

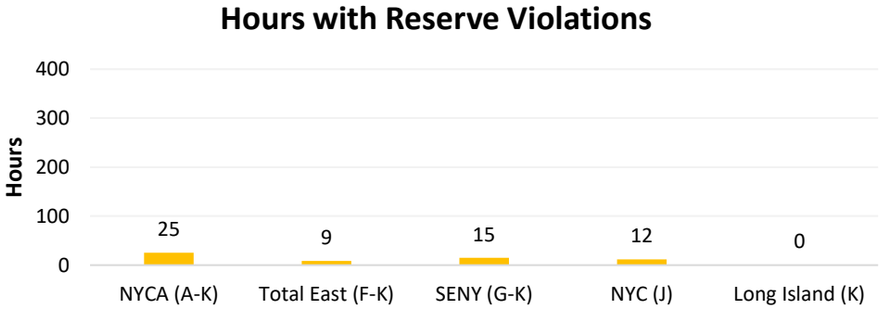


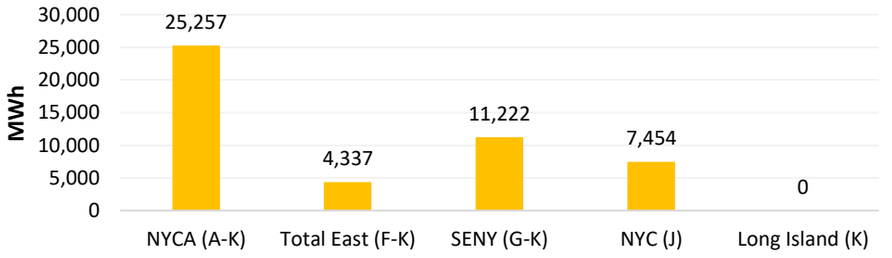


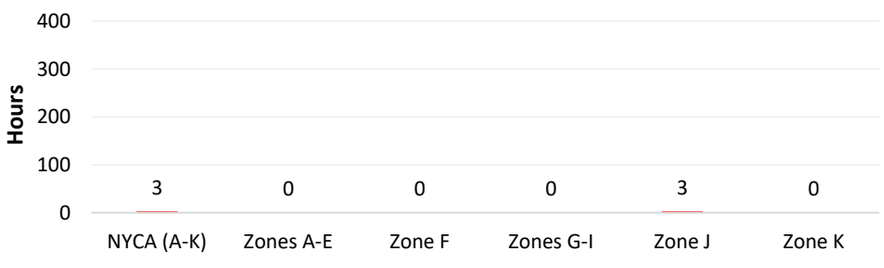


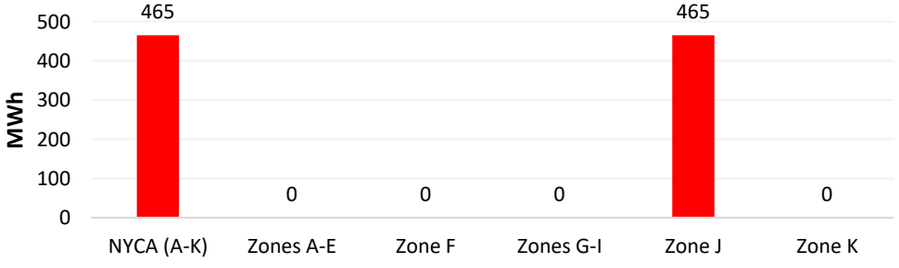


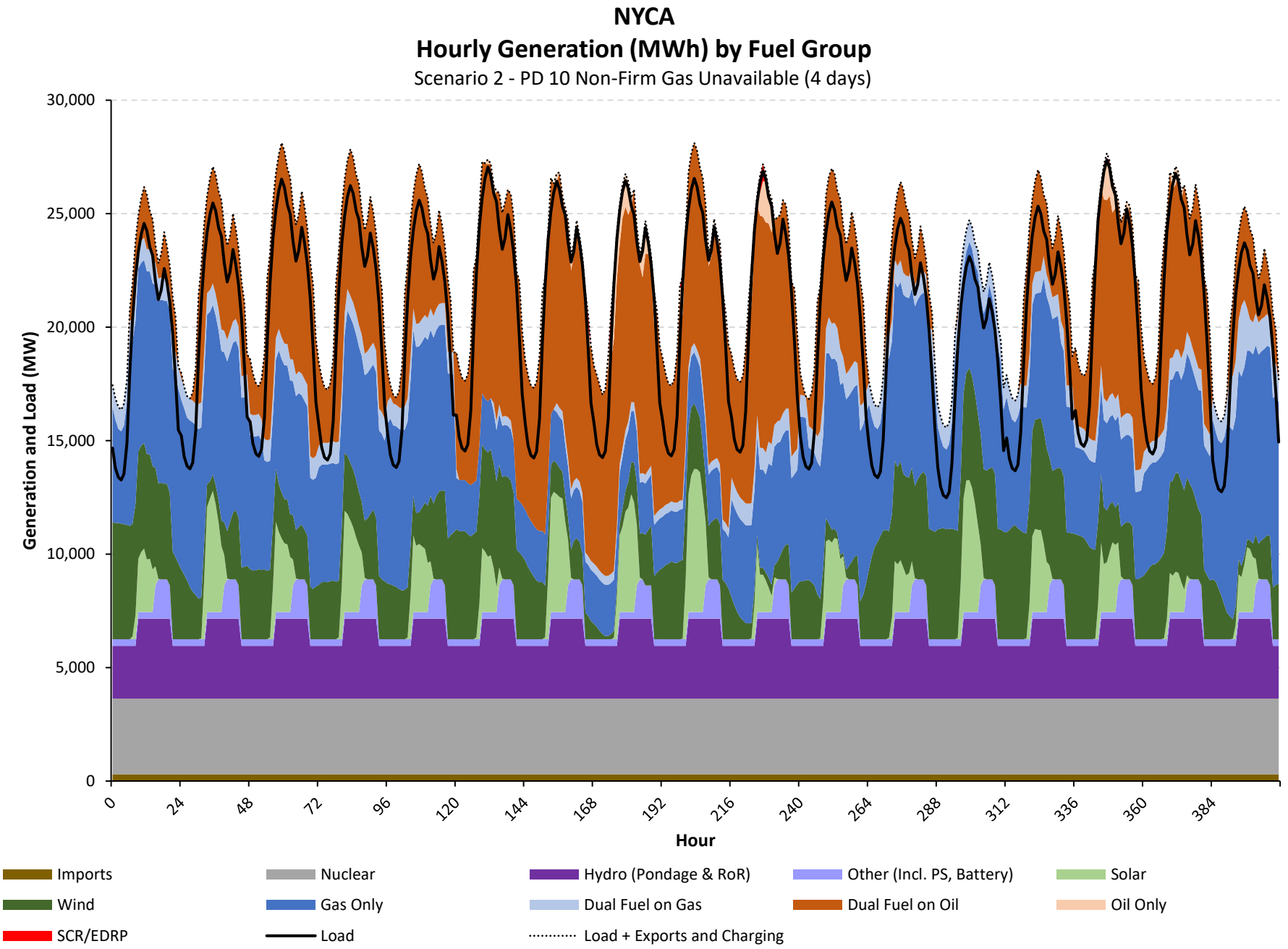




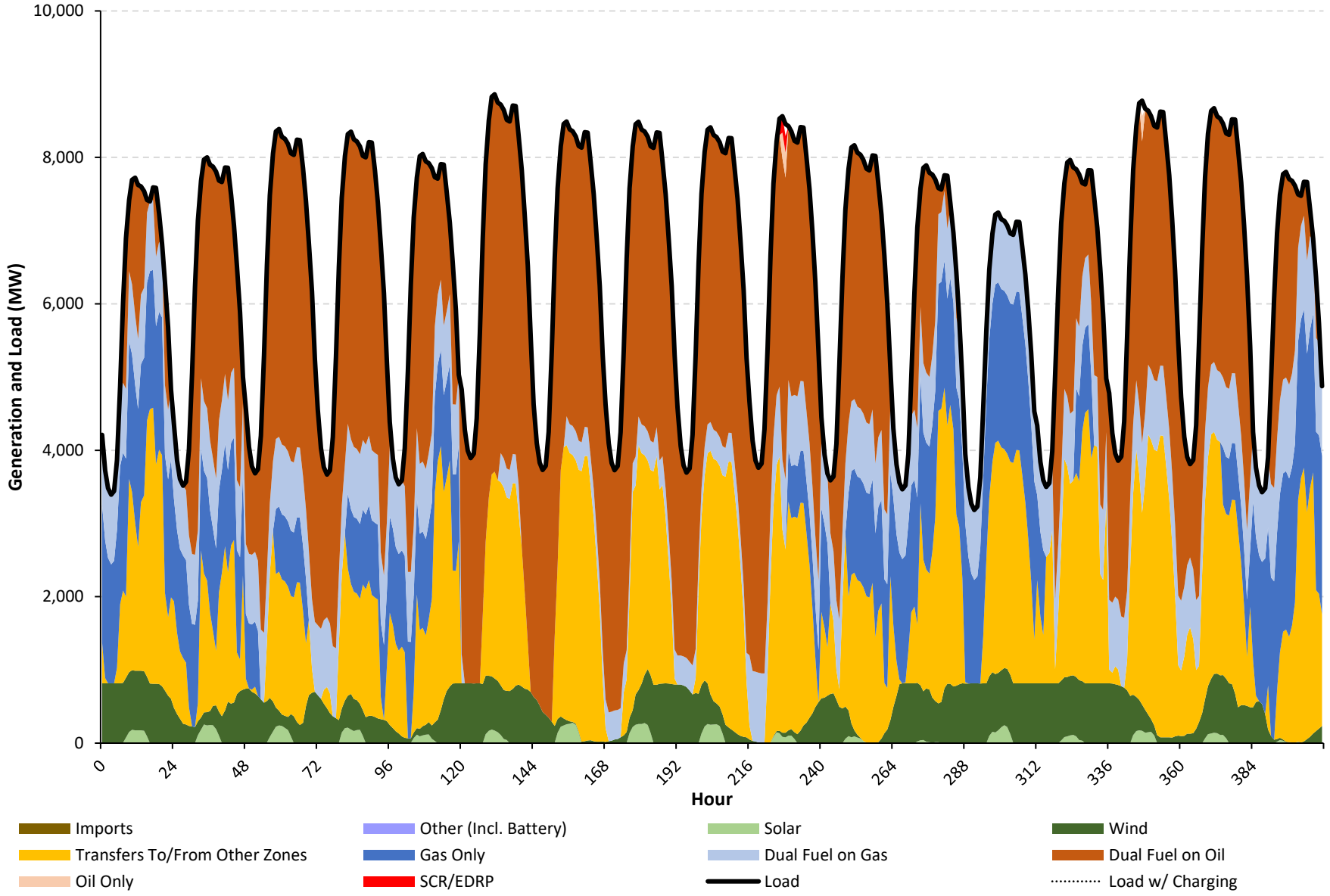




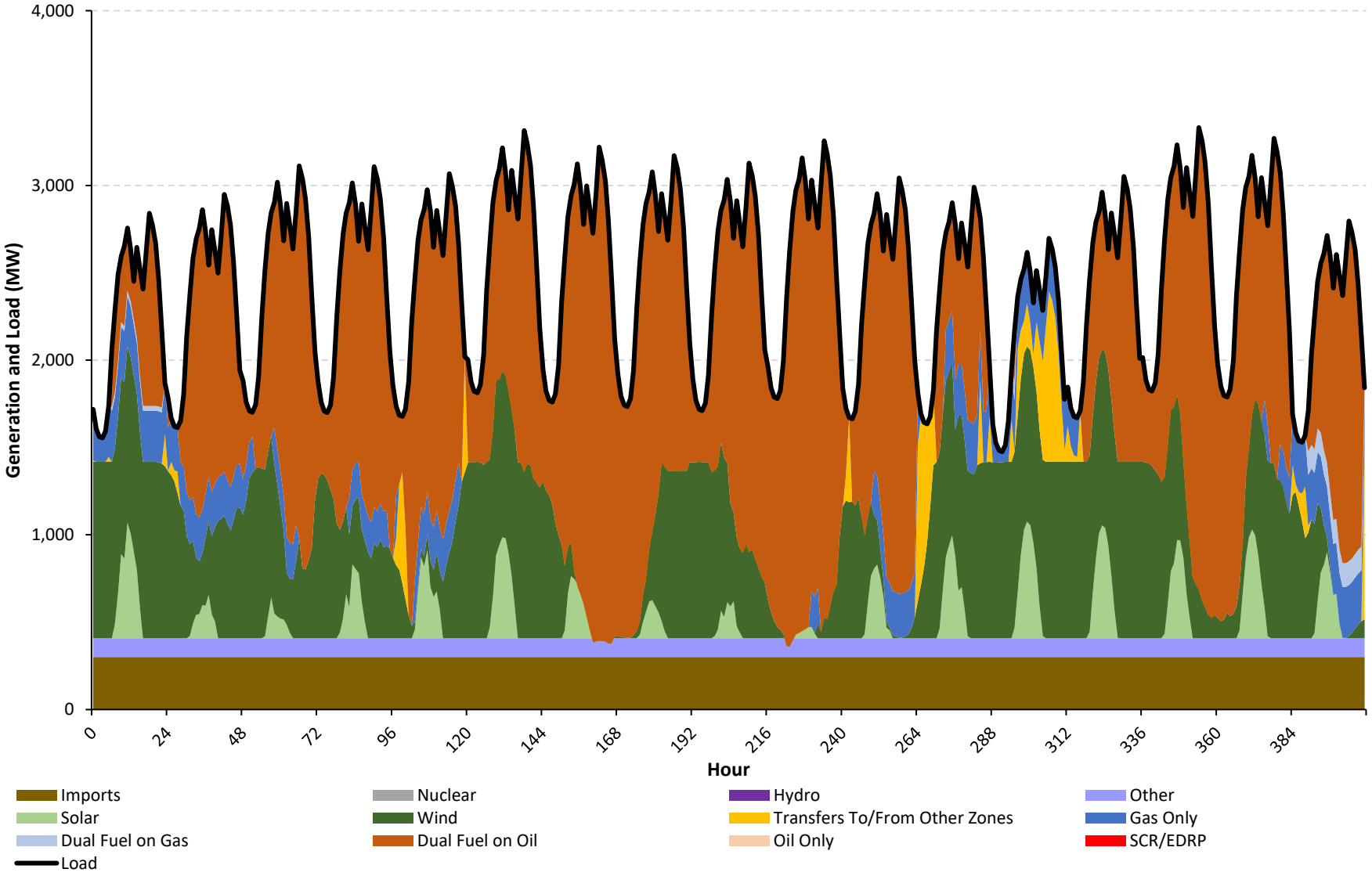



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 2 - PD 10 Non-Firm Gas Unavailable (4 days)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 10 Non-Firm Gas Unavailable (4 days)



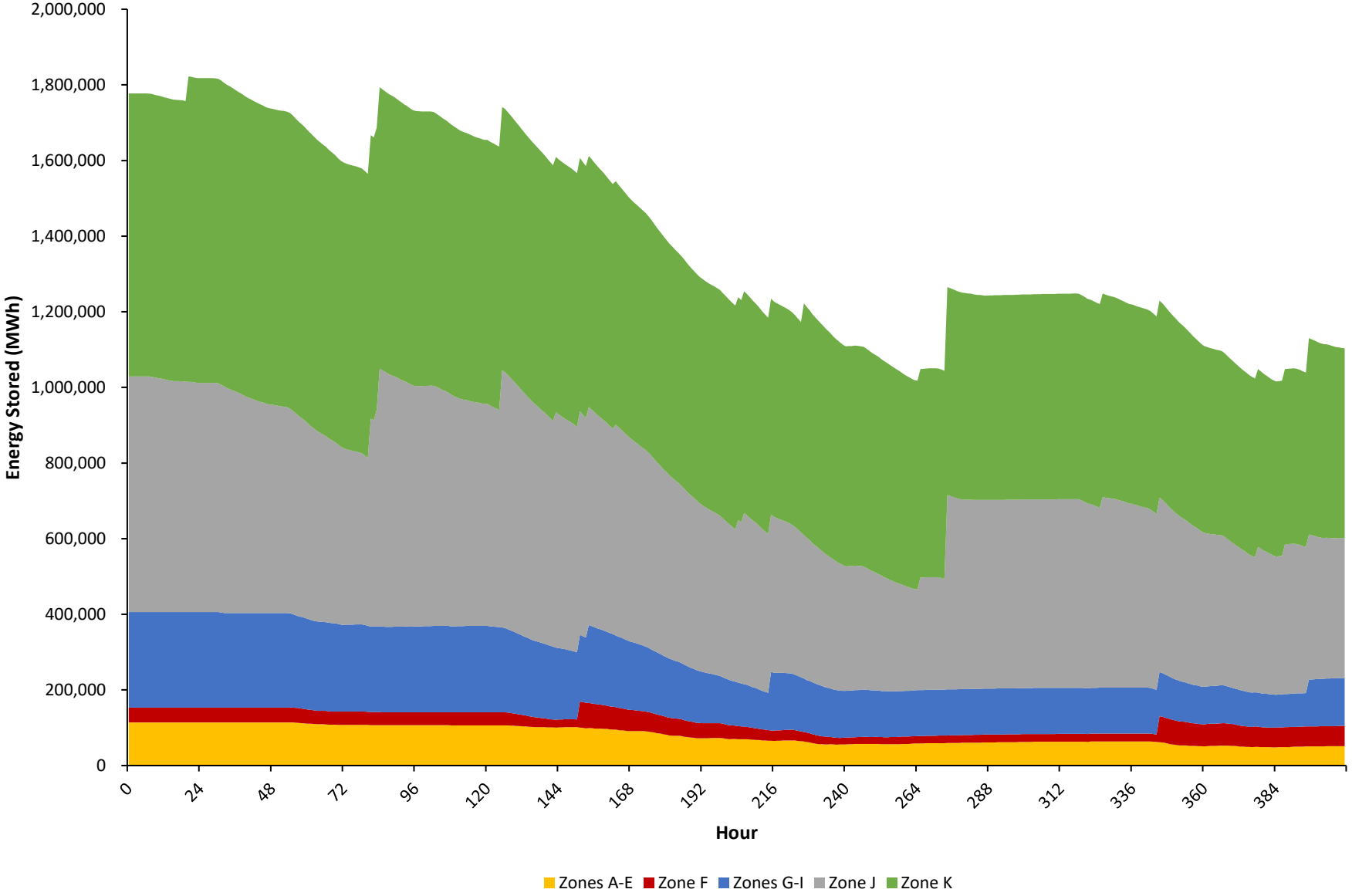
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 10 Non-Firm Gas Unavailable (4 days)

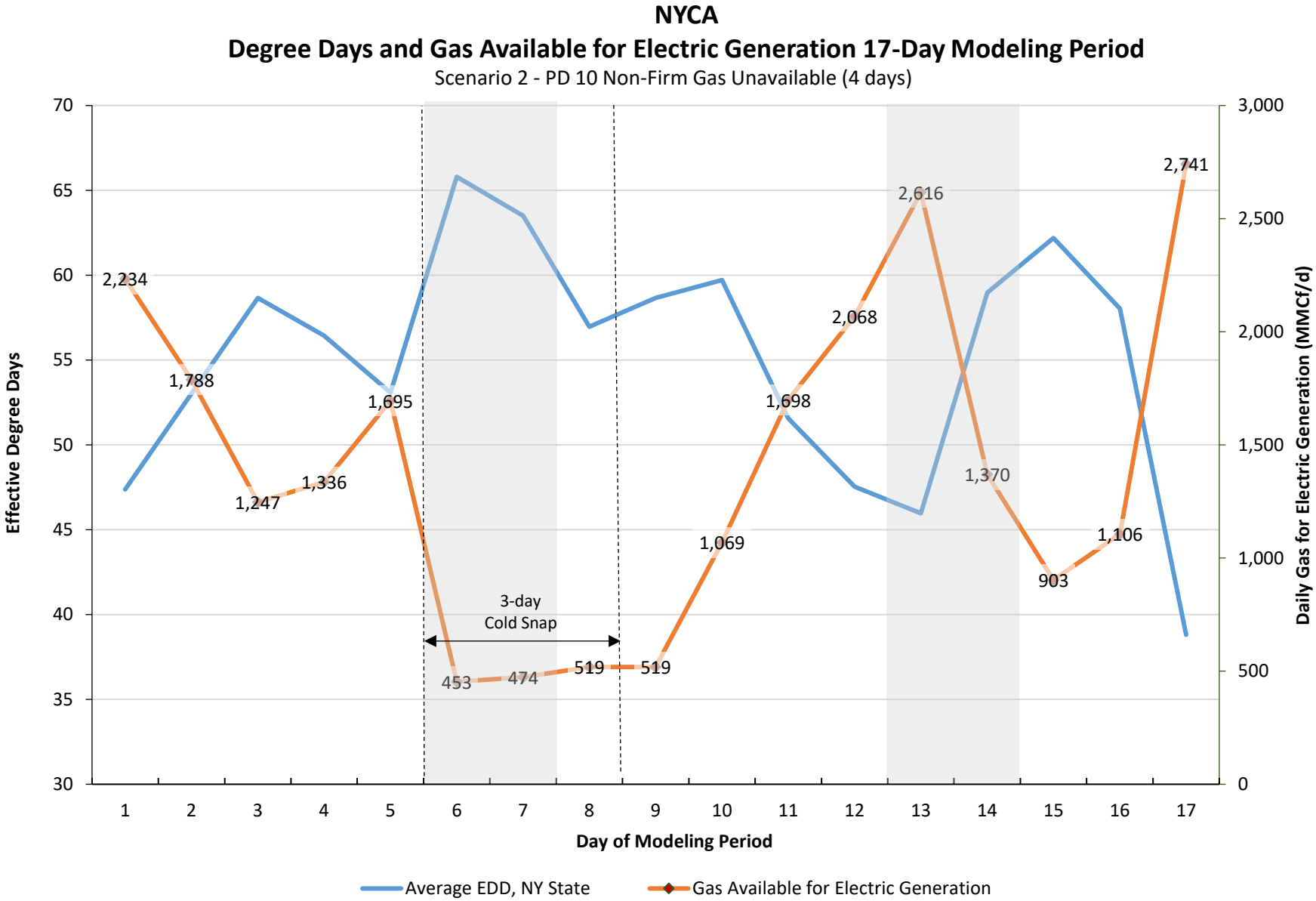


NYCA

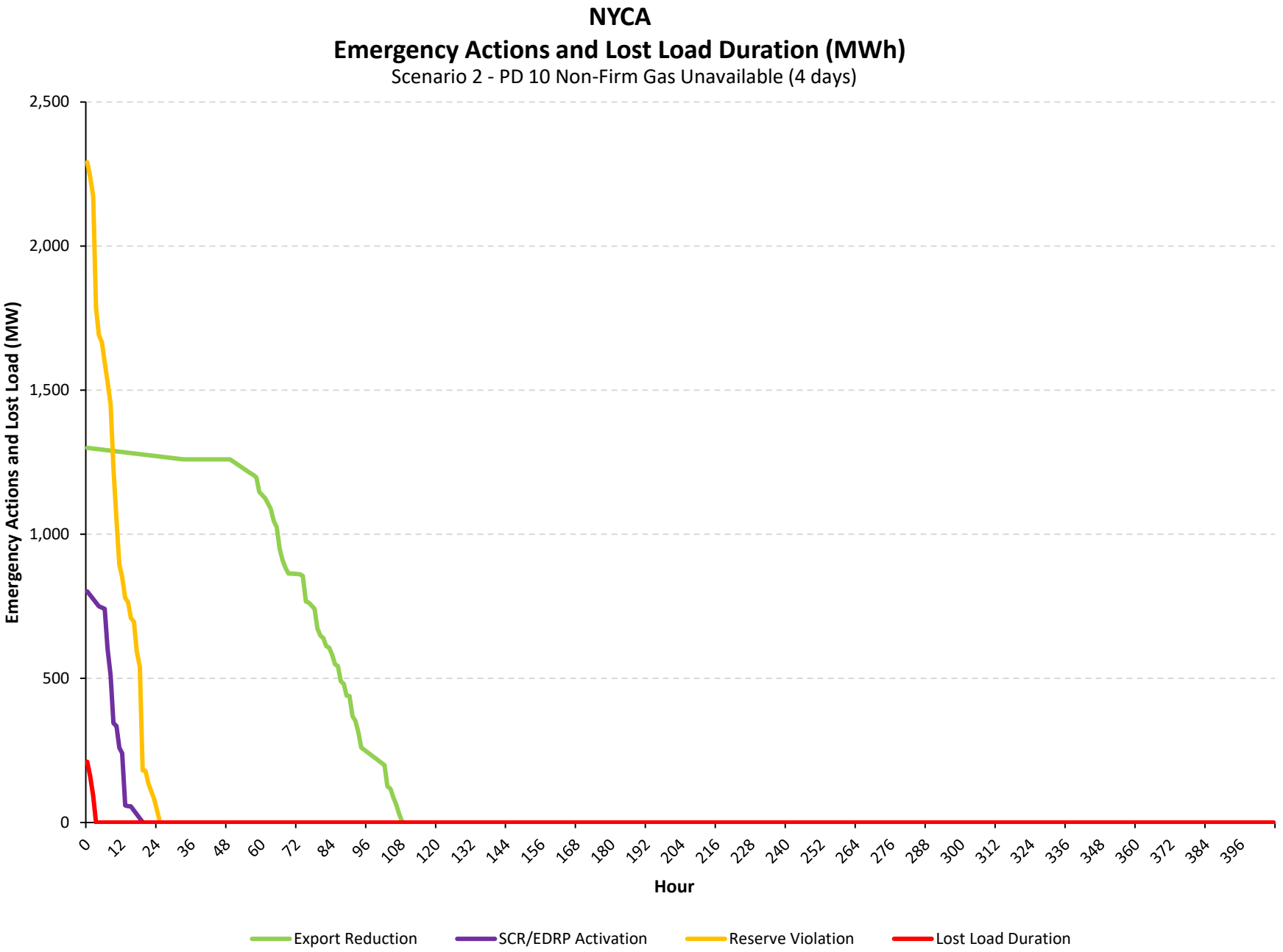
Quantity of Stored Fuel for Oil and Dual Fuel Units

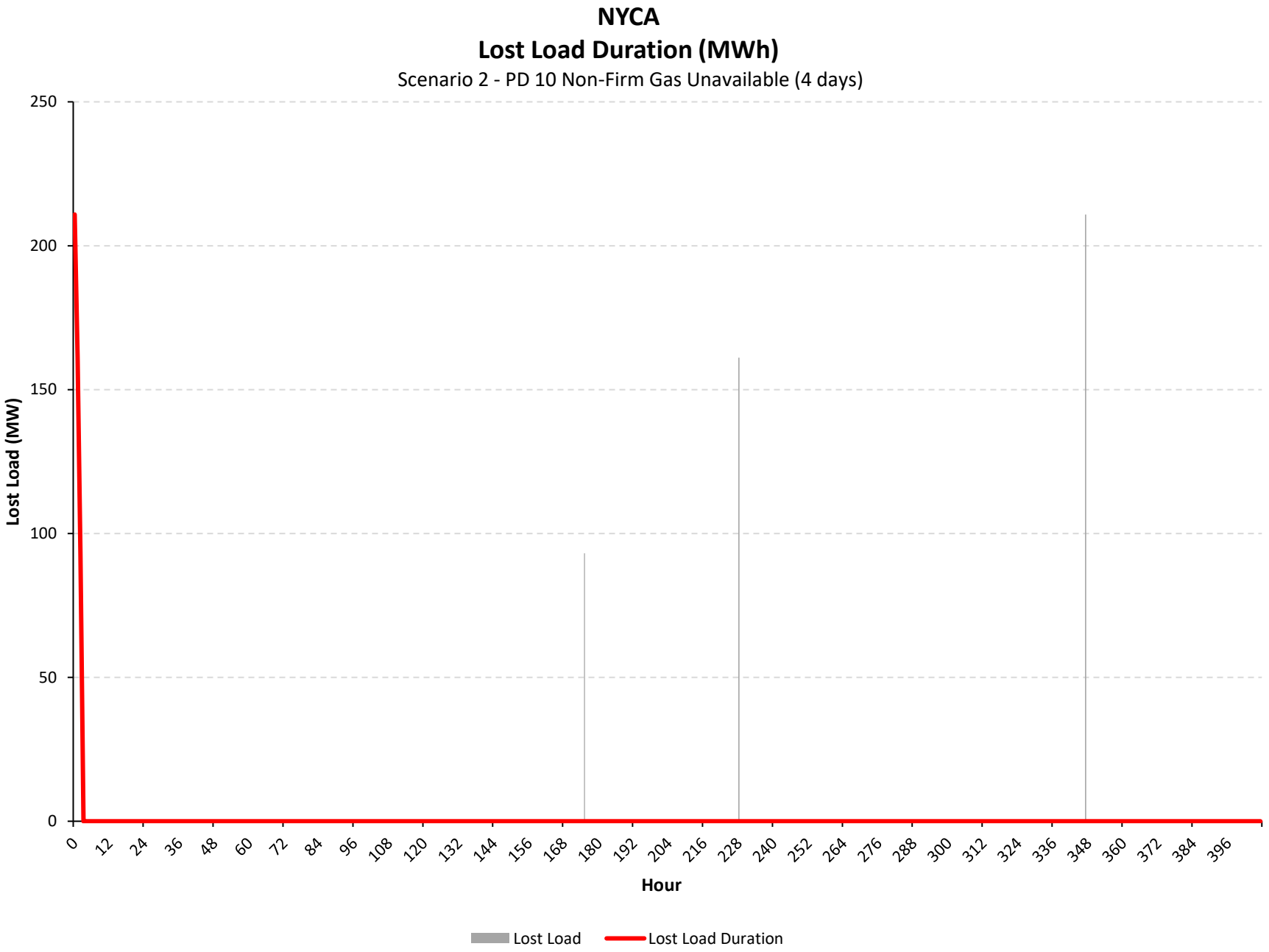
Scenario 2 - PD 10 Non-Firm Gas Unavailable (4 days)





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 2 - PD 10 Non-Firm Gas Unavailable (4 days)
Emergency Actions and Lost Load (MW)
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 2 - PD 10 Non-Firm Gas Unavailable (4 days)
Lost Load (MW)
250
200
150
100
50
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

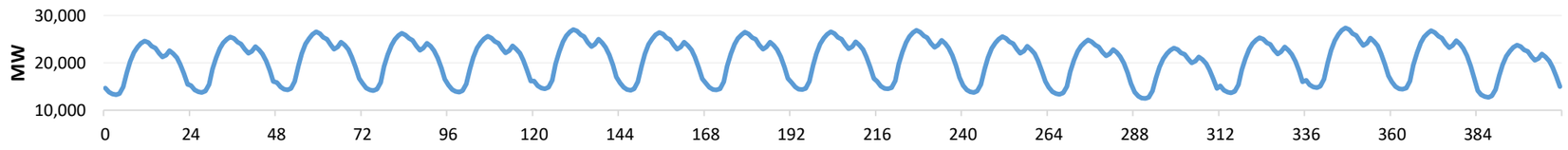
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 11 Combination Disruption (Winter 2026/2027)

Hourly Results Summary

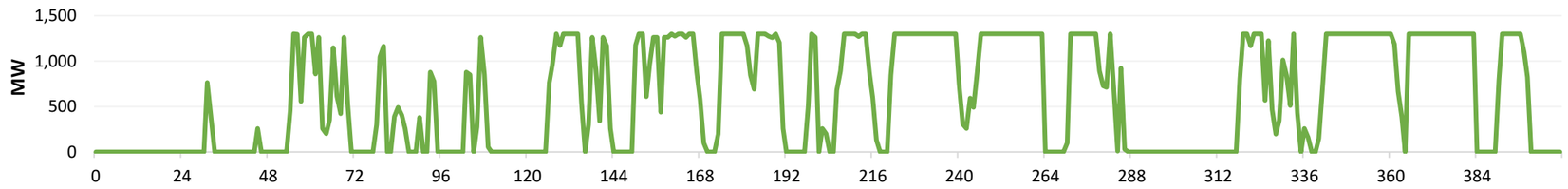
Case Name: Scenario 2 - PD 11 Combination Disruption

Load During Modeling Period



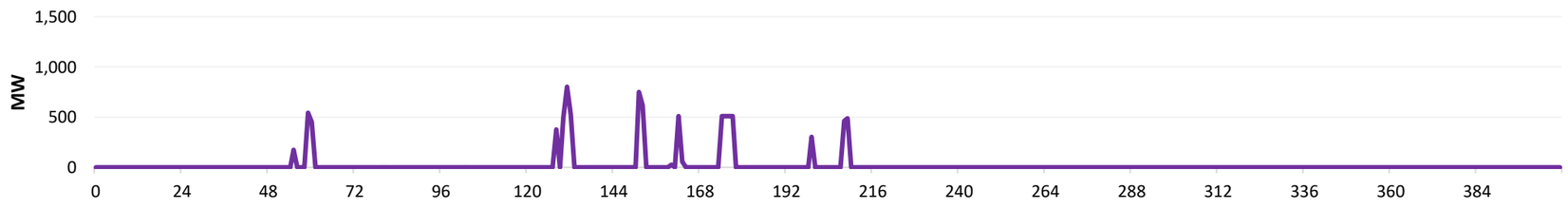
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



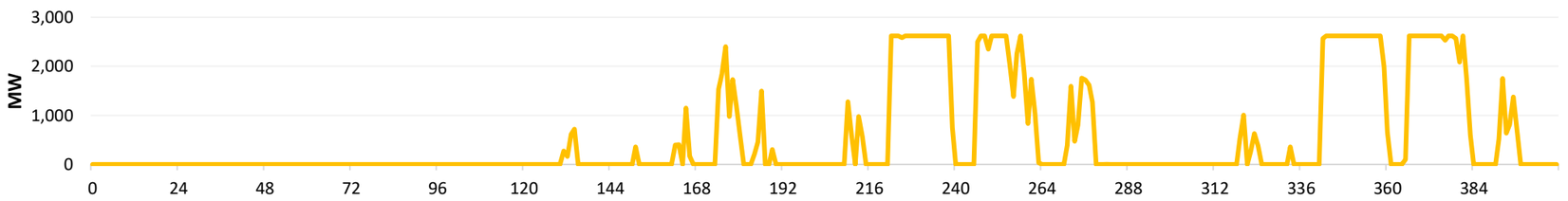
Export Reductions	
Total Hrs.	240
Total MWh	246,640
Avg. MW	604.5

SCR/EDRP Deployed During Modeling Period



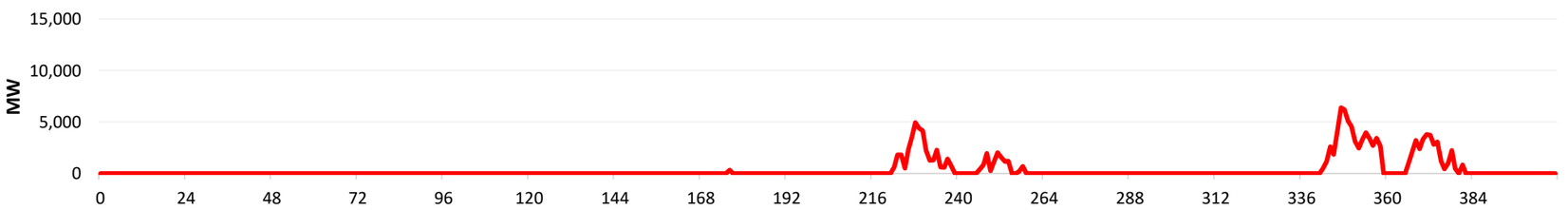
SCR Deployment	
Total Hrs.	19
Total MWh	8,626
Avg. MW	21.1

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	119
Total MWh	212,004
Avg. MW	519.6
First Hour with Viol.	131

Loss of Load During Modeling Period



Loss of Load	
Total Hrs.	62
Total MWh	135,520
Avg. MW	332.2
First Hour with Losses	176

Full Period Results Summary

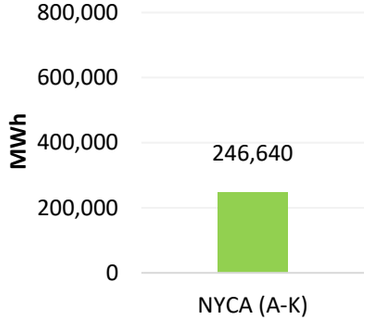
Case Name: Scenario 2 - PD 11 Combination Disruption

Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	Historical
Renewables:	Base Case
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

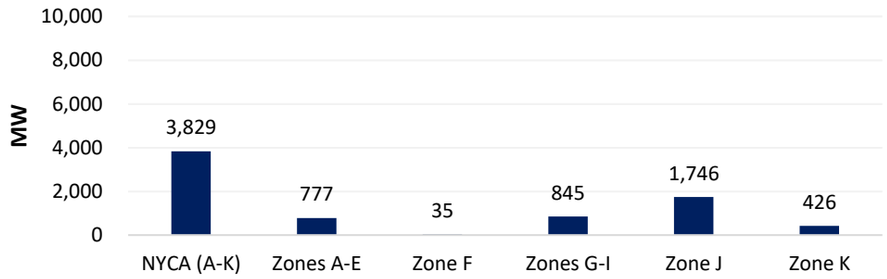
Hours Exports Reduced



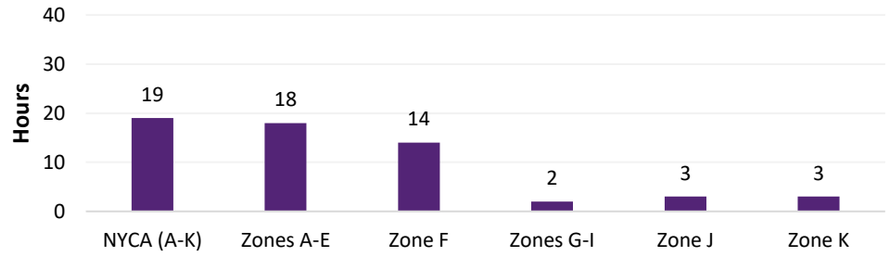
Total MWh of Exports Reduced



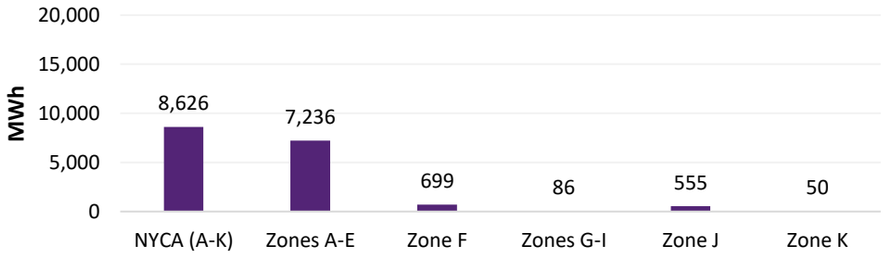
Average Capacity Not Available Due to Exhausted Fuel Inventory



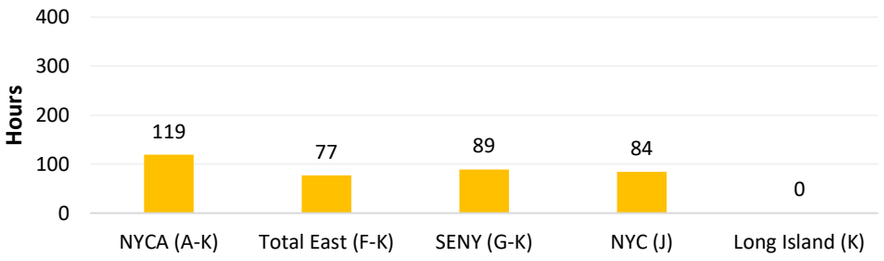
Hours SCR/EDRP Deployed



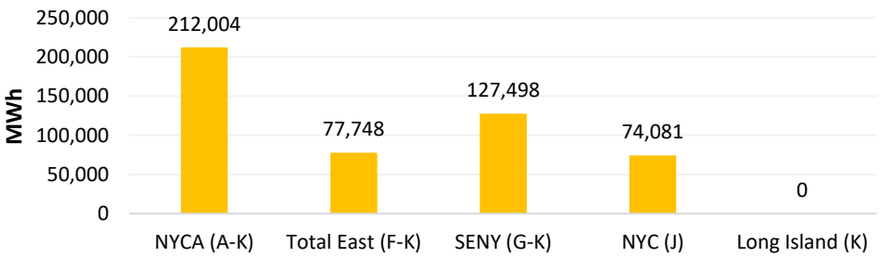
Total MWh SCR/EDRP Deployed



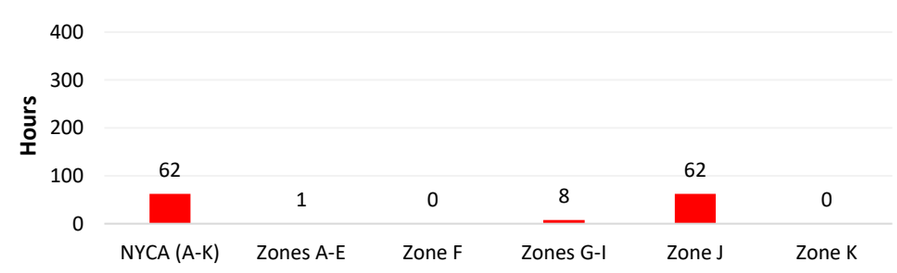
Hours with Reserve Violations



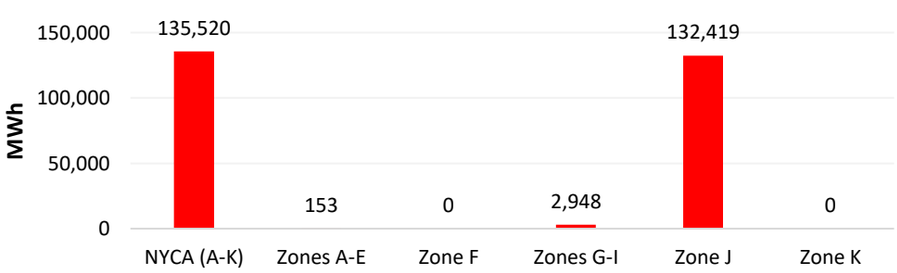
Total MWh of Reserve Violations

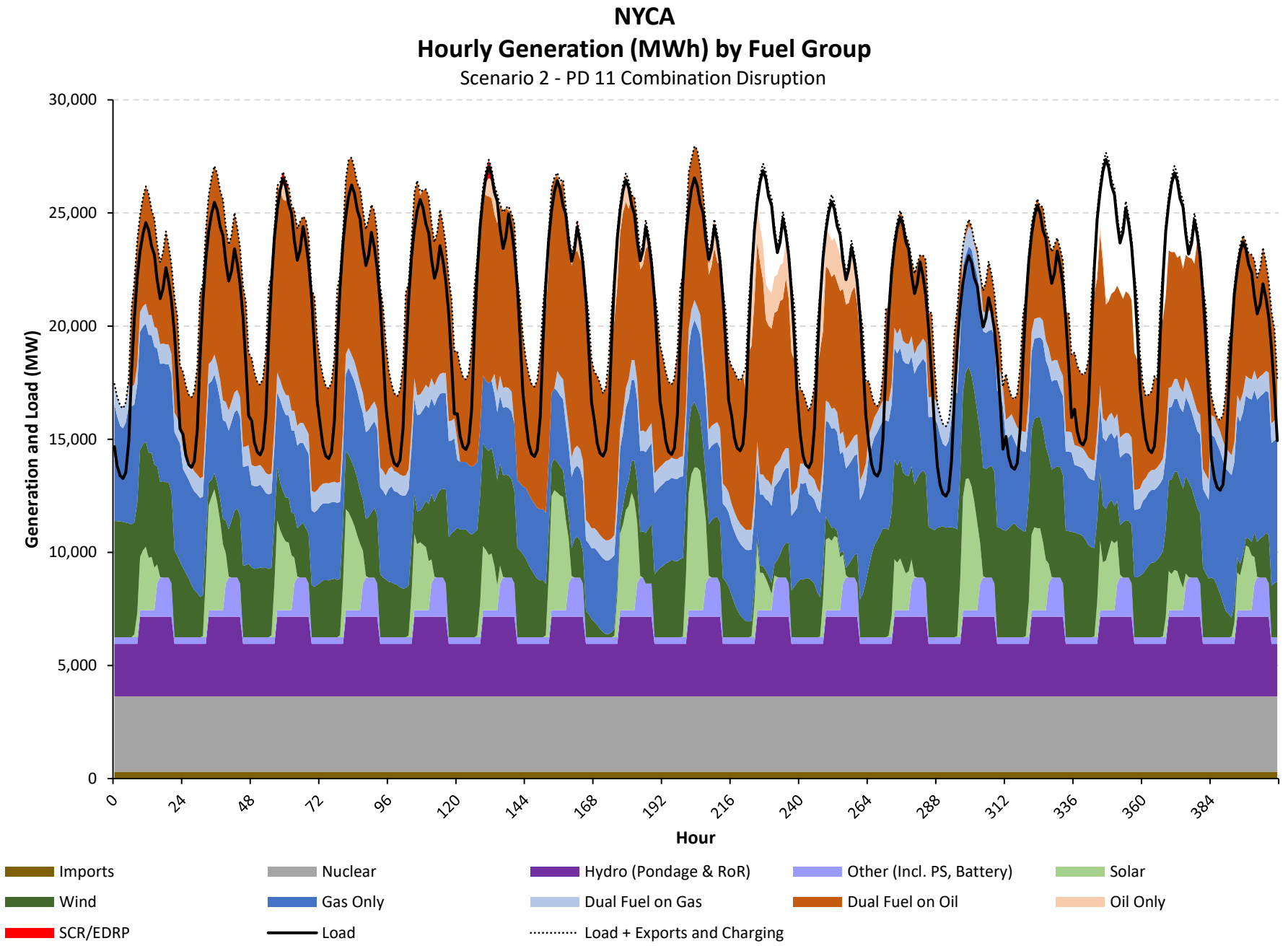


Hours with Loss of Load

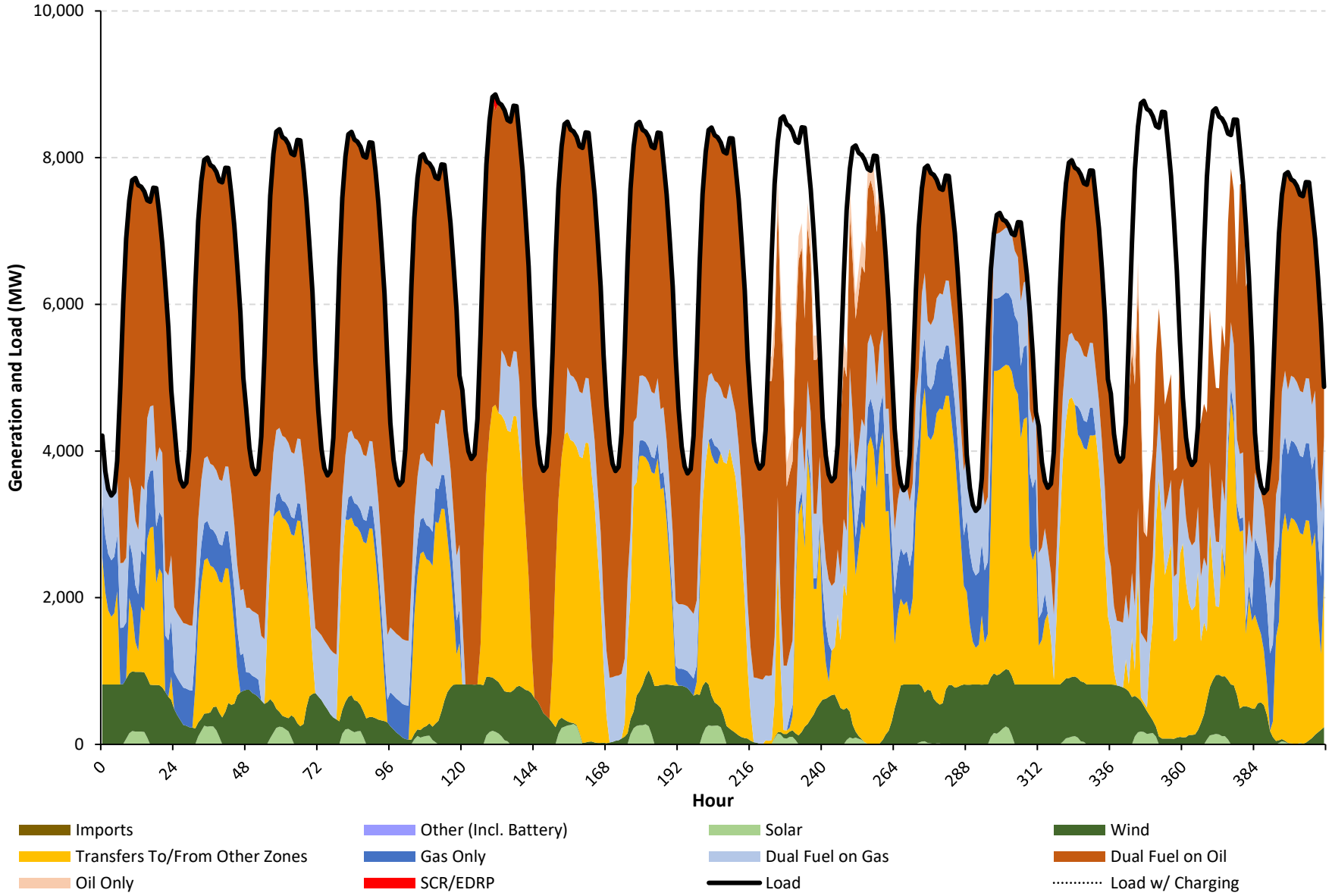


Total MWh of Lost Load

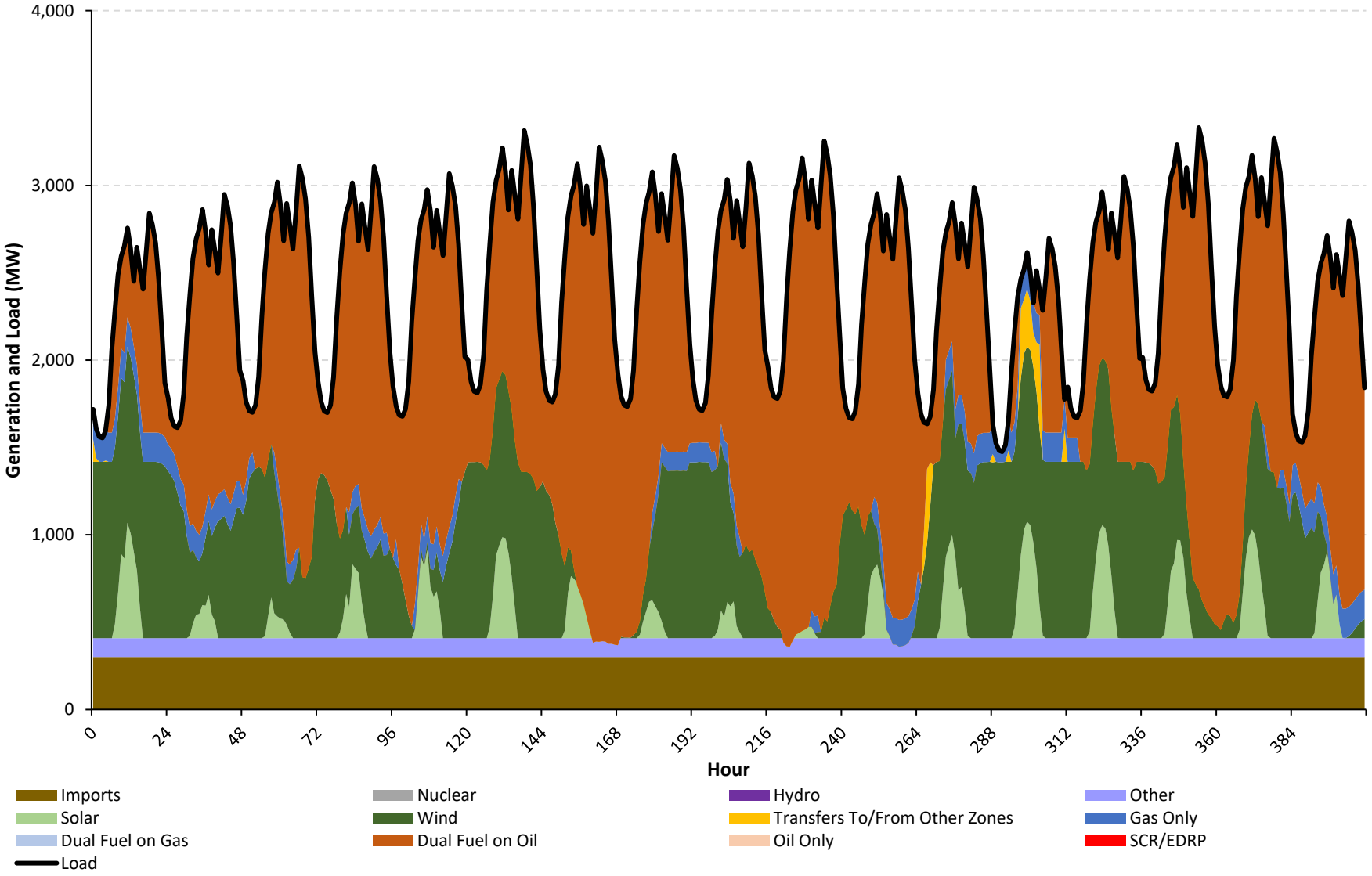



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 2 - PD 11 Combination Disruption
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 11 Combination Disruption



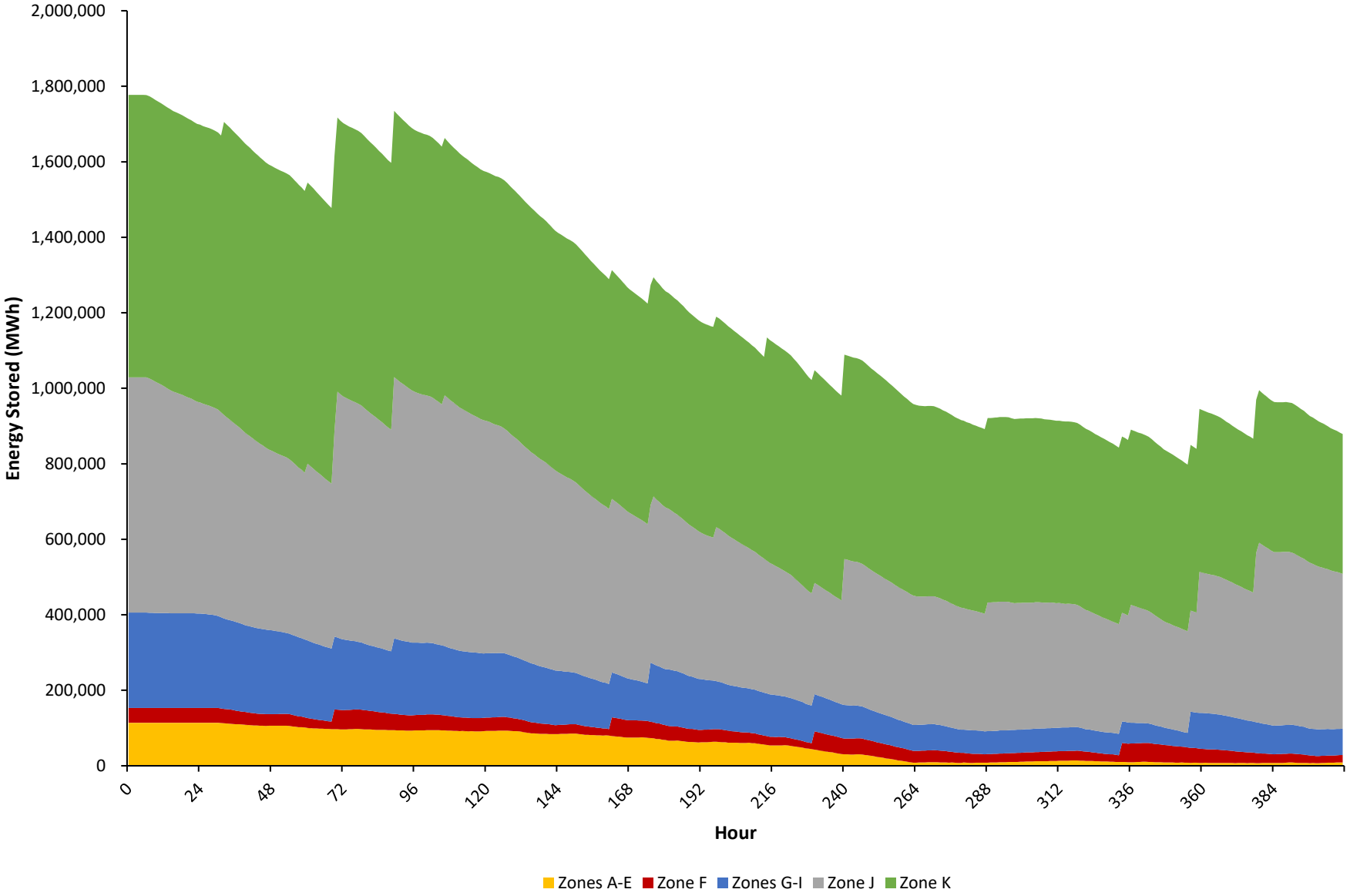
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 11 Combination Disruption

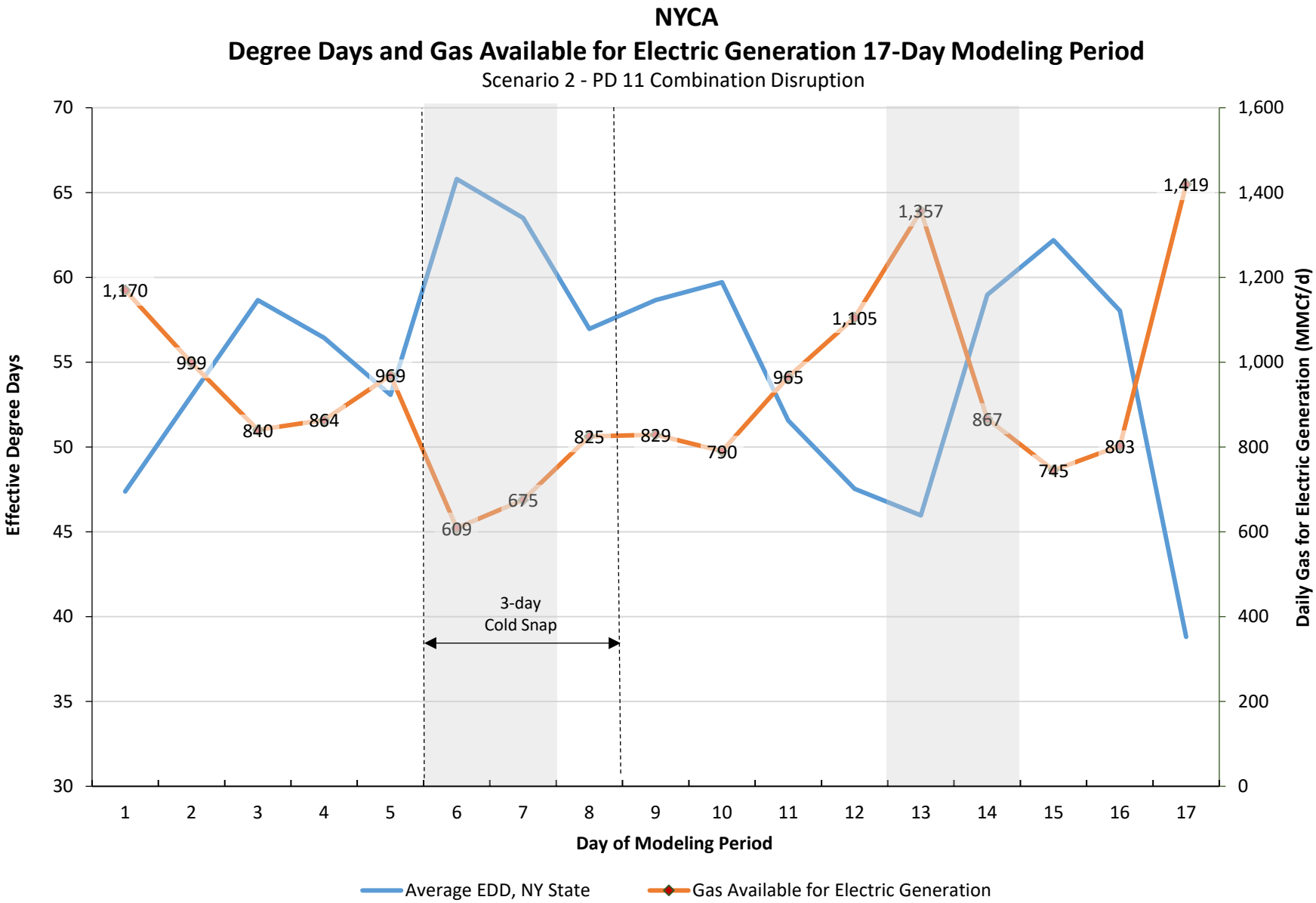


NYCA

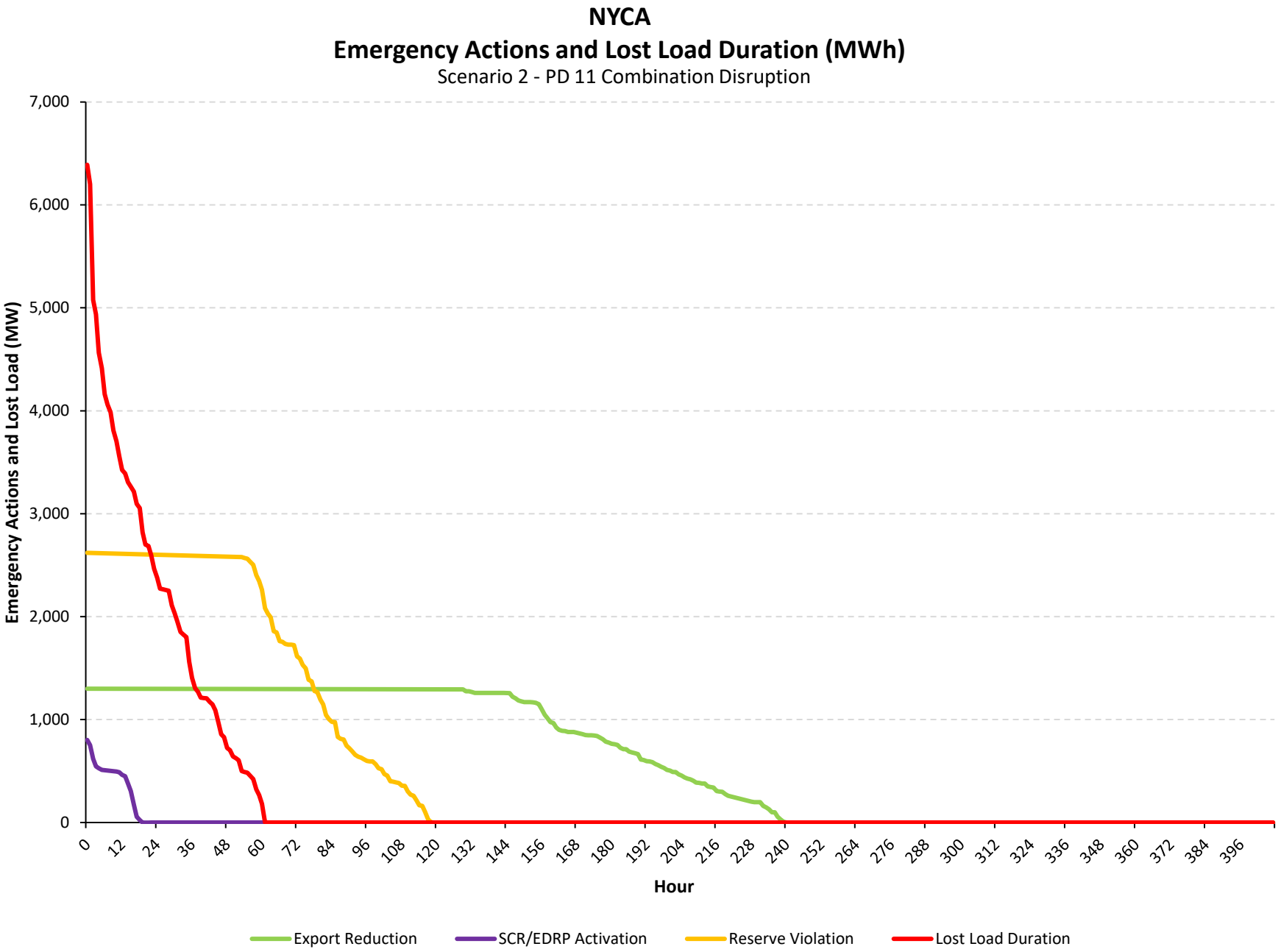
Quantity of Stored Fuel for Oil and Dual Fuel Units

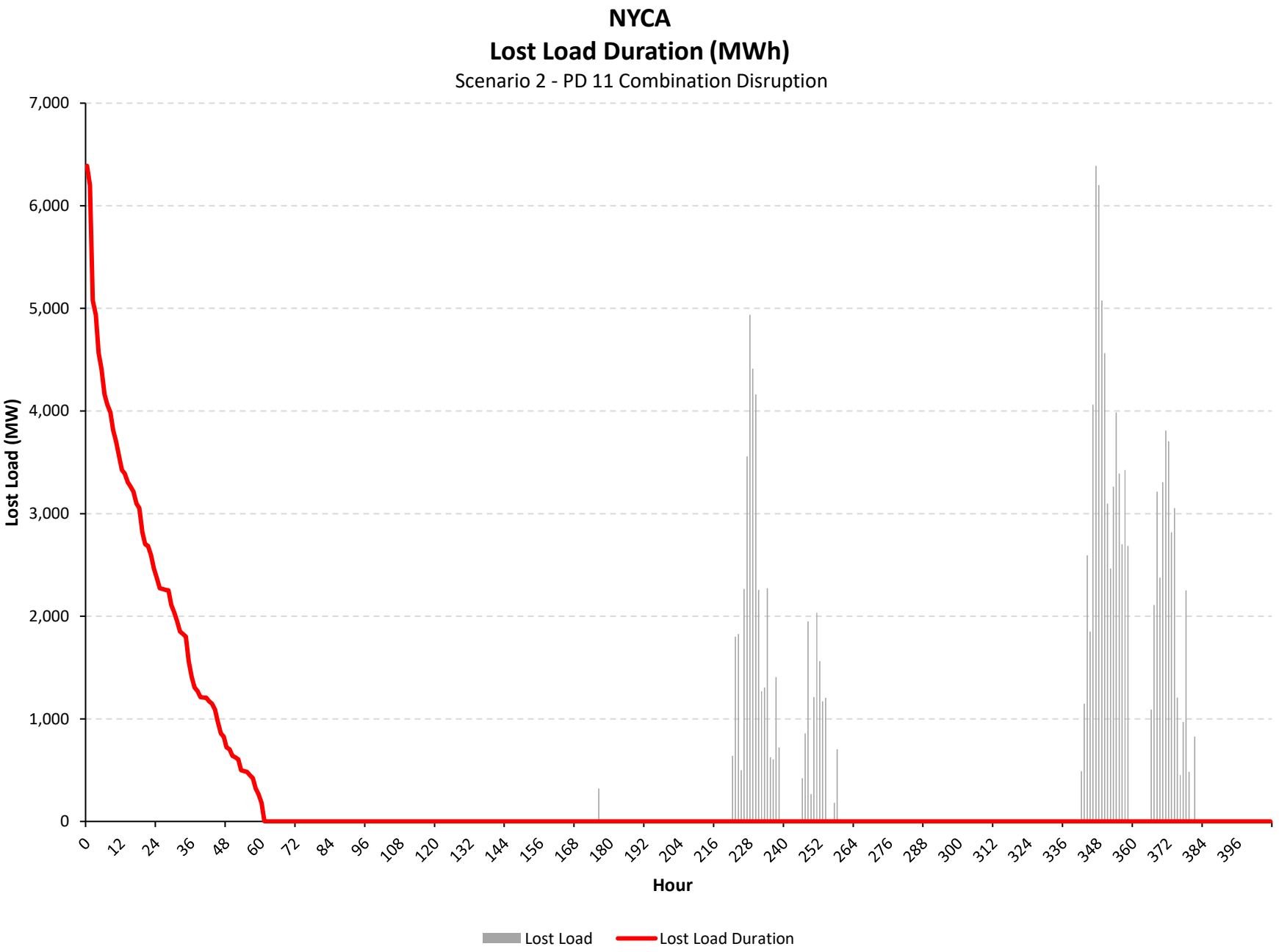
Scenario 2 - PD 11 Combination Disruption





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 2 - PD 11 Combination Disruption
Emergency Actions and Lost Load (MW)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 2 - PD 11 Combination Disruption
Lost Load (MW)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

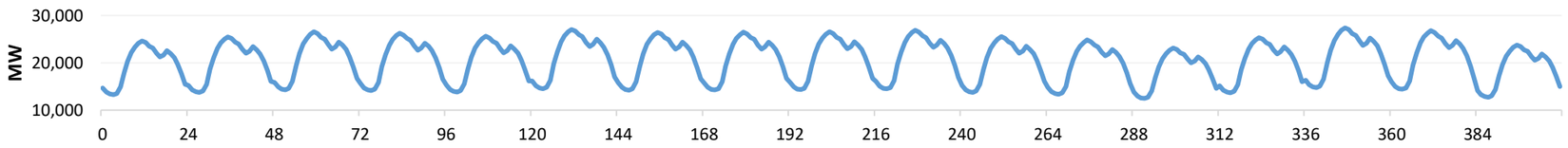
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 1 No Disruptions (Winter 2026/2027)

Hourly Results Summary

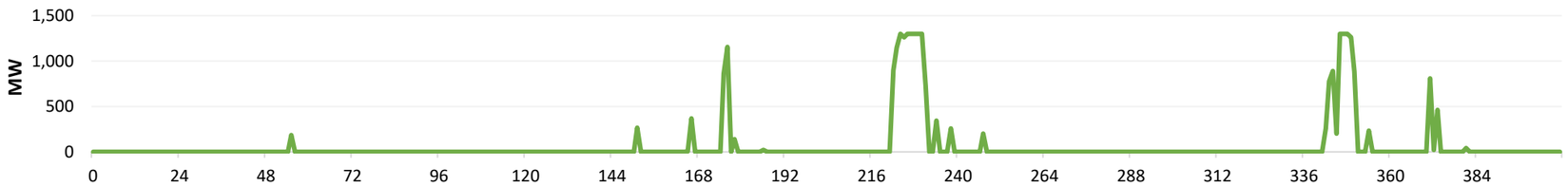
Case Name: Scenario 3 - PD 1 No Disruptions

Load During Modeling Period



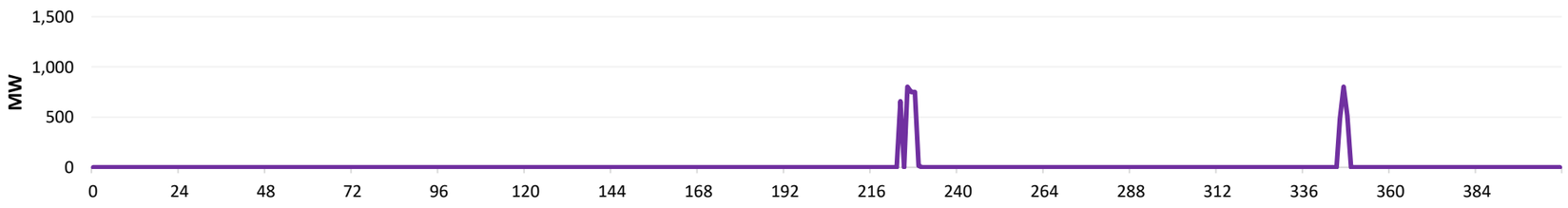
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



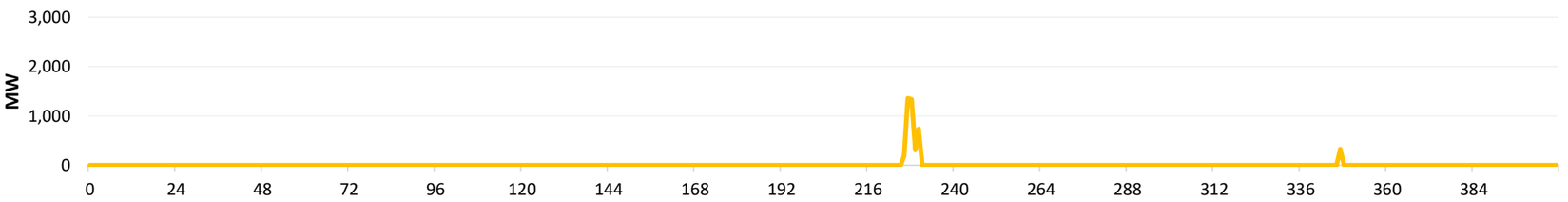
Export Reductions	
Total Hrs.	35
Total MWh	25,388
Avg. MW	62.2

SCR/EDRP Deployed During Modeling Period



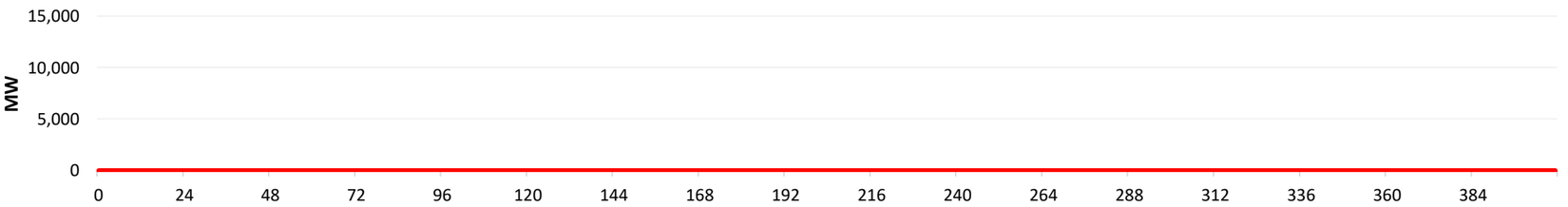
SCR Deployment	
Total Hrs.	8
Total MWh	4,777
Avg. MW	11.7

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	6
Total MWh	4,278
Avg. MW	10.5
First Hour with Viol.	226

Loss of Load During Modeling Period



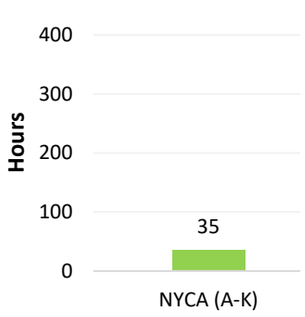
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

Full Period Results Summary

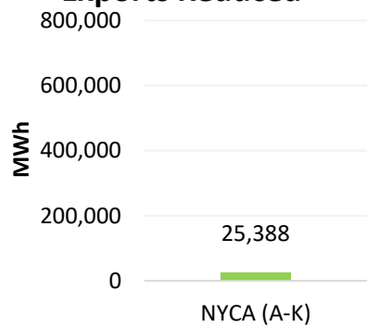
Case Name: Scenario 3 - PD 1 No Disruptions

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

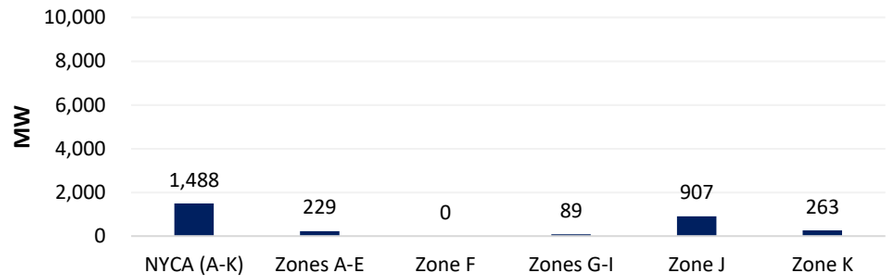
Hours Exports Reduced



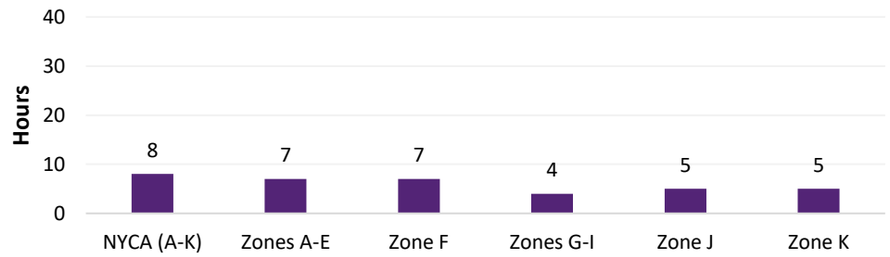
Total MWh of Exports Reduced



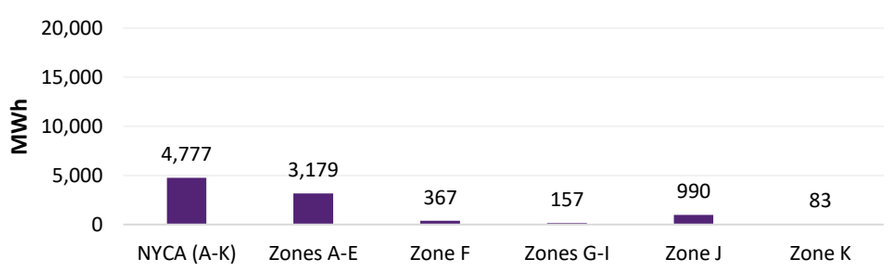
Average Capacity Not Available Due to Exhausted Fuel Inventory



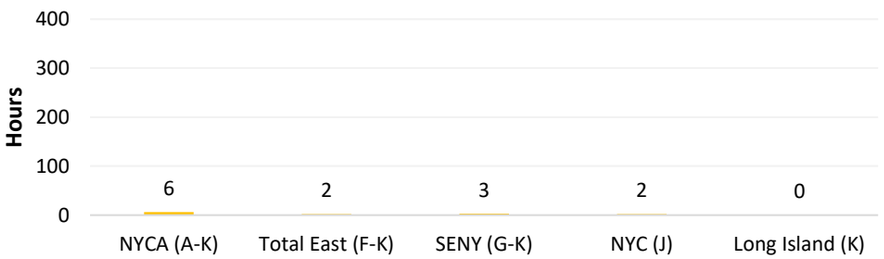
Hours SCR/EDRP Deployed



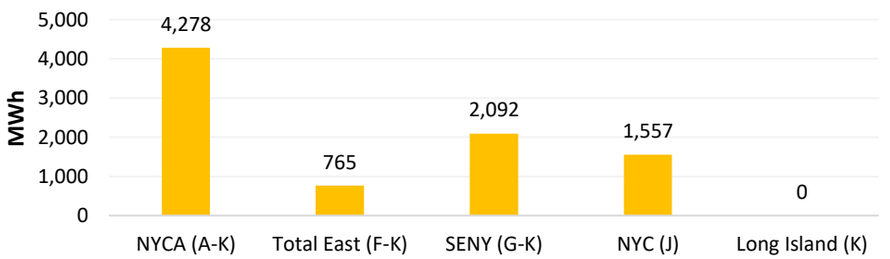
Total MWh SCR/EDRP Deployed



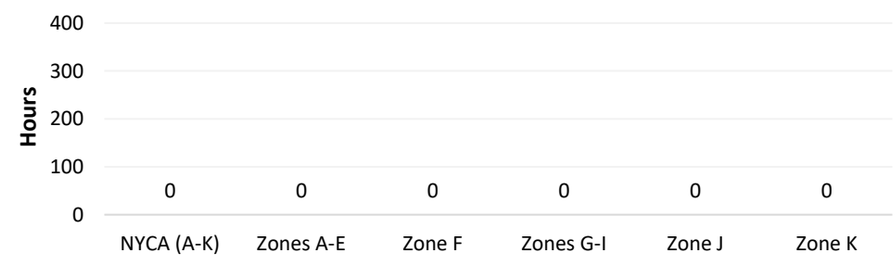
Hours with Reserve Violations



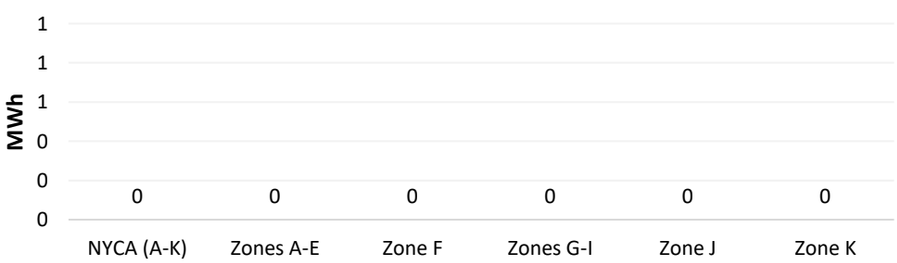
Total MWh of Reserve Violations

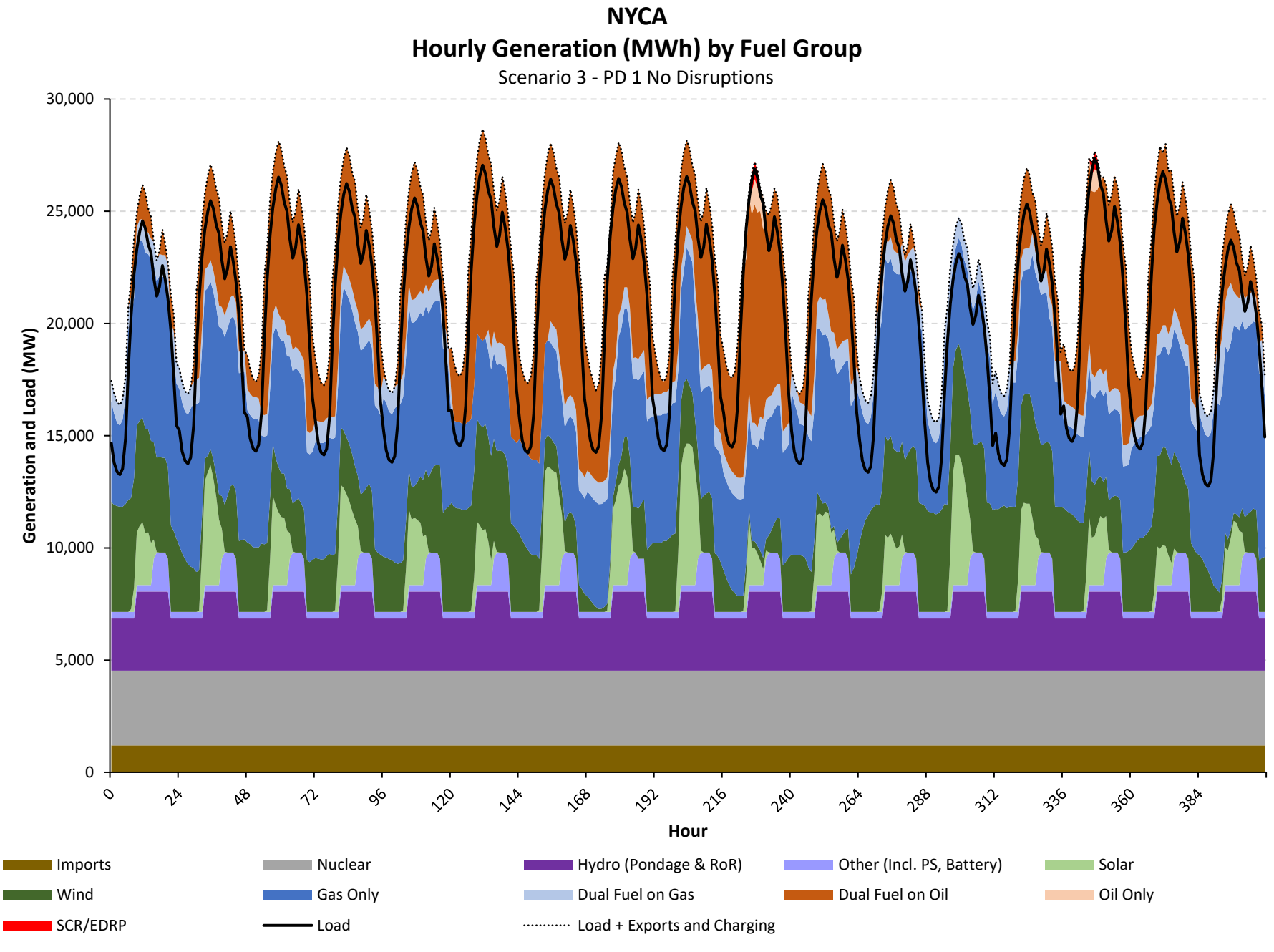


Hours with Loss of Load

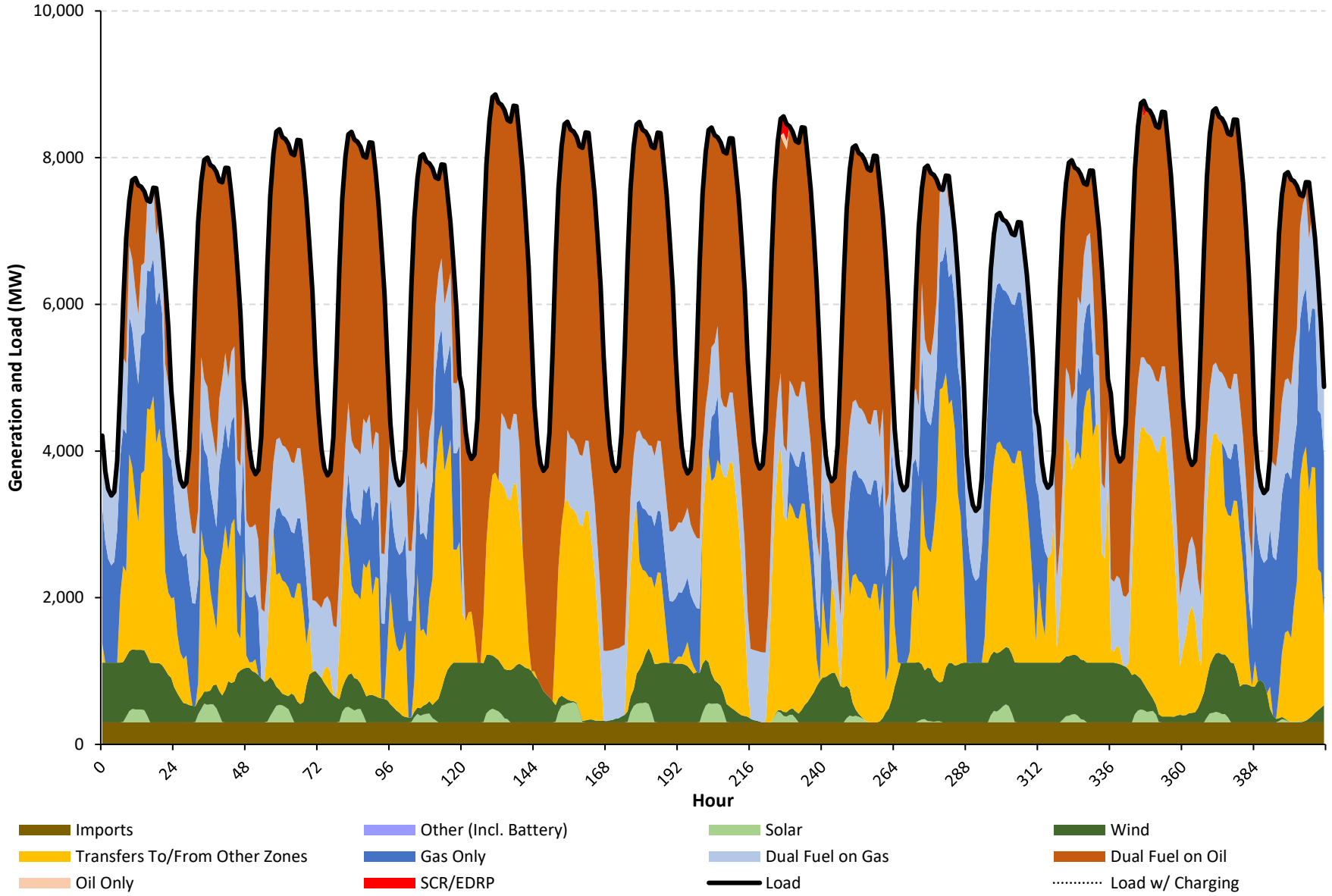


Total MWh of Lost Load

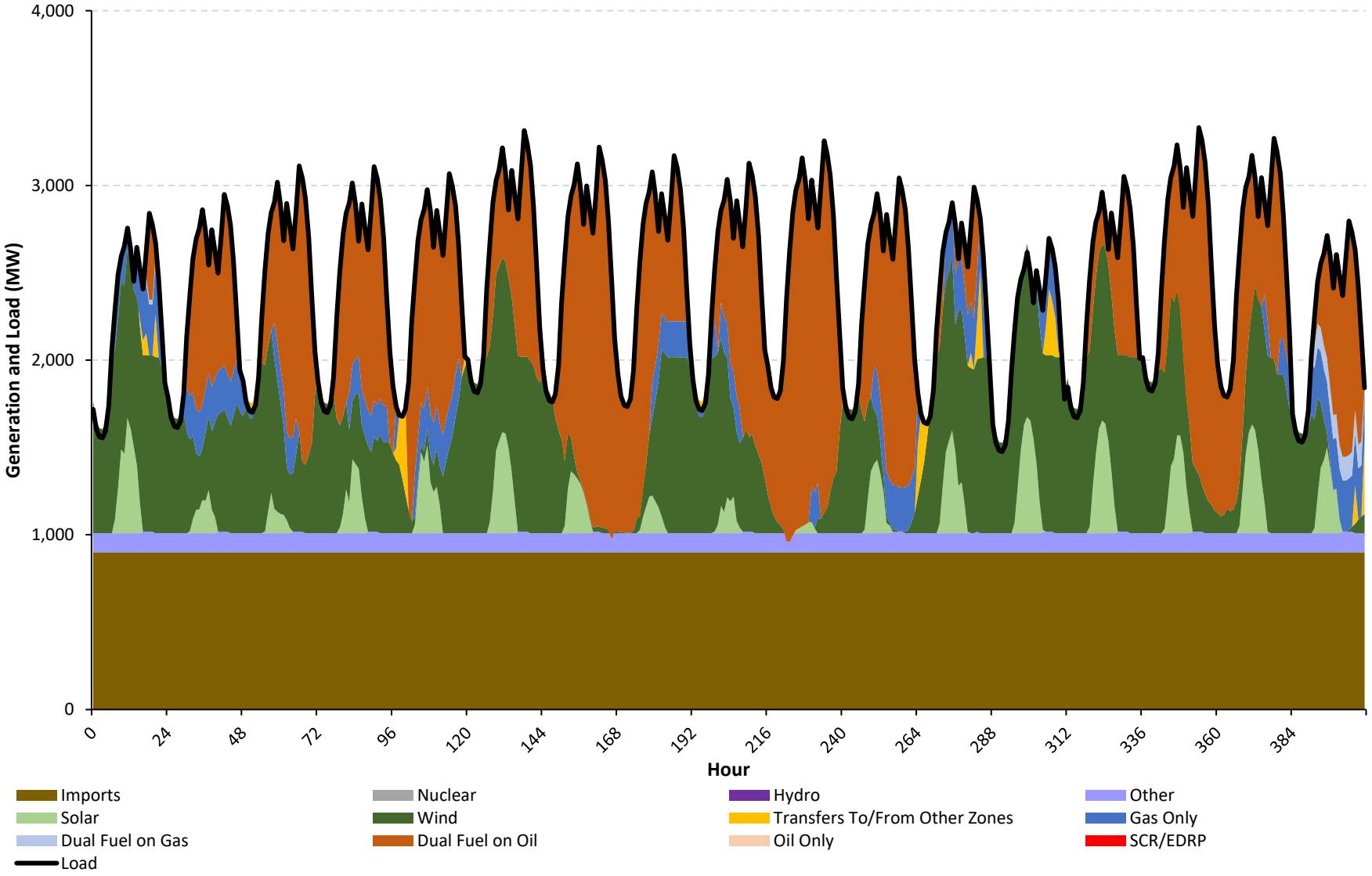


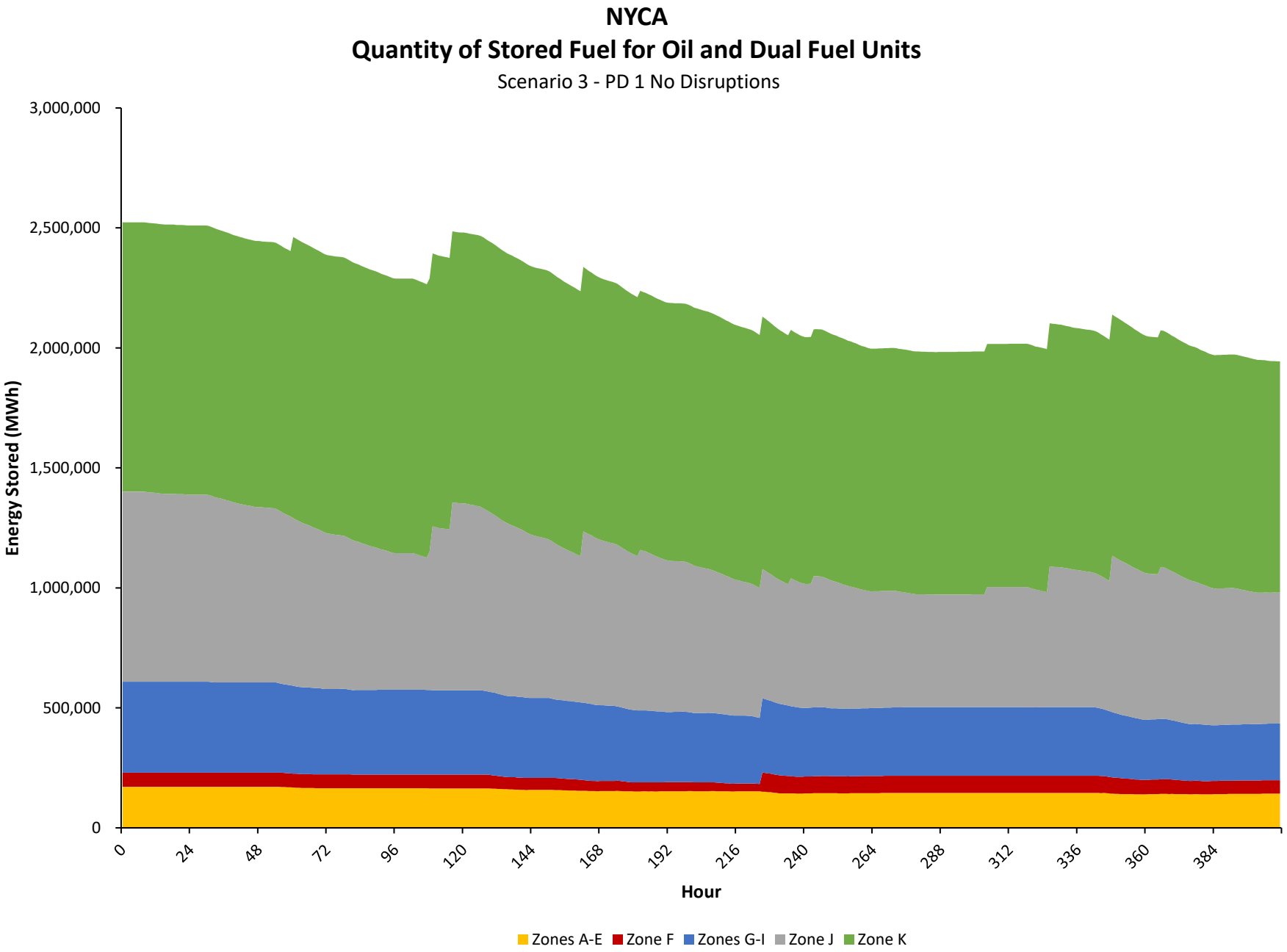

NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 3 - PD 1 No Disruptions
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

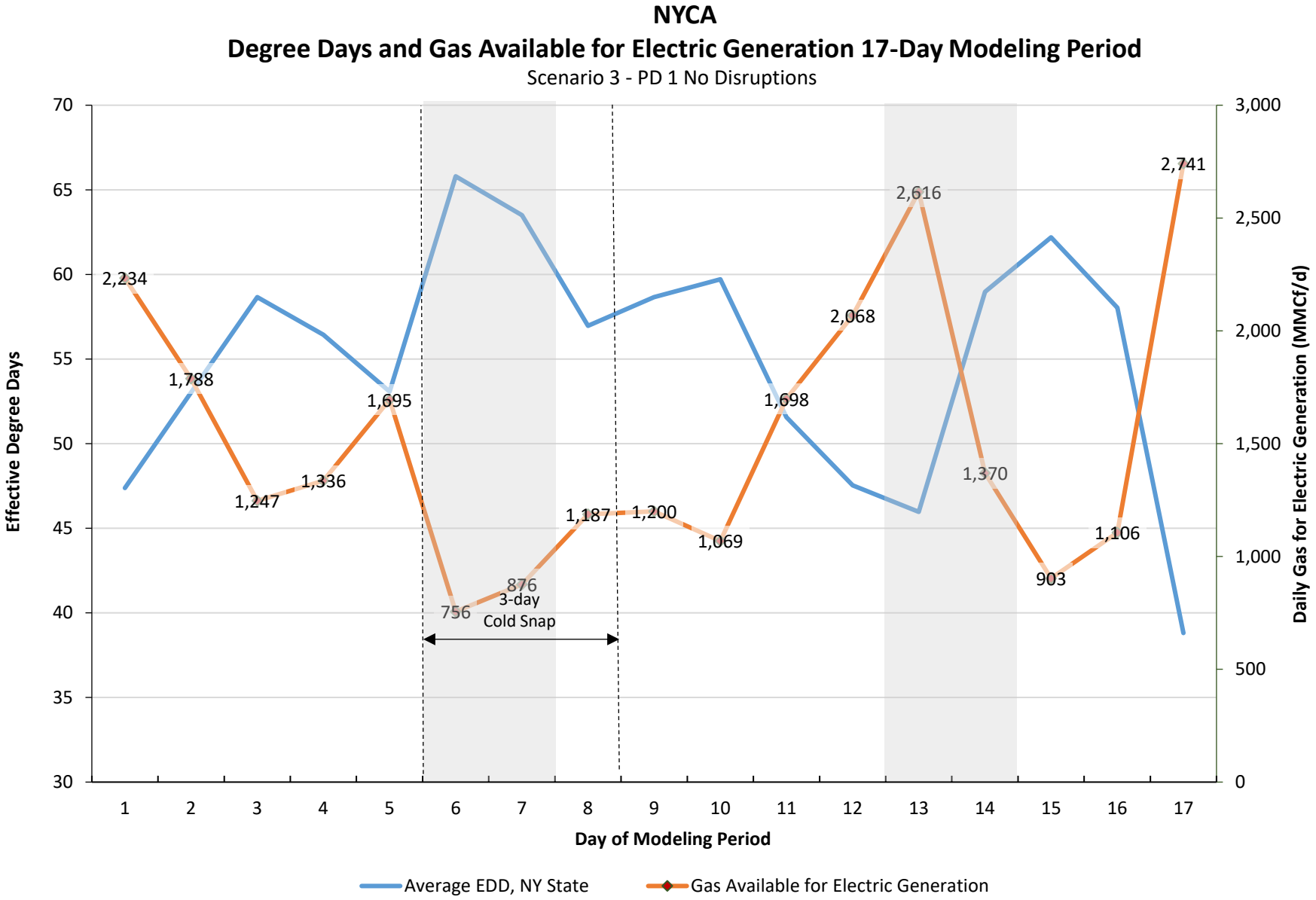
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 1 No Disruptions



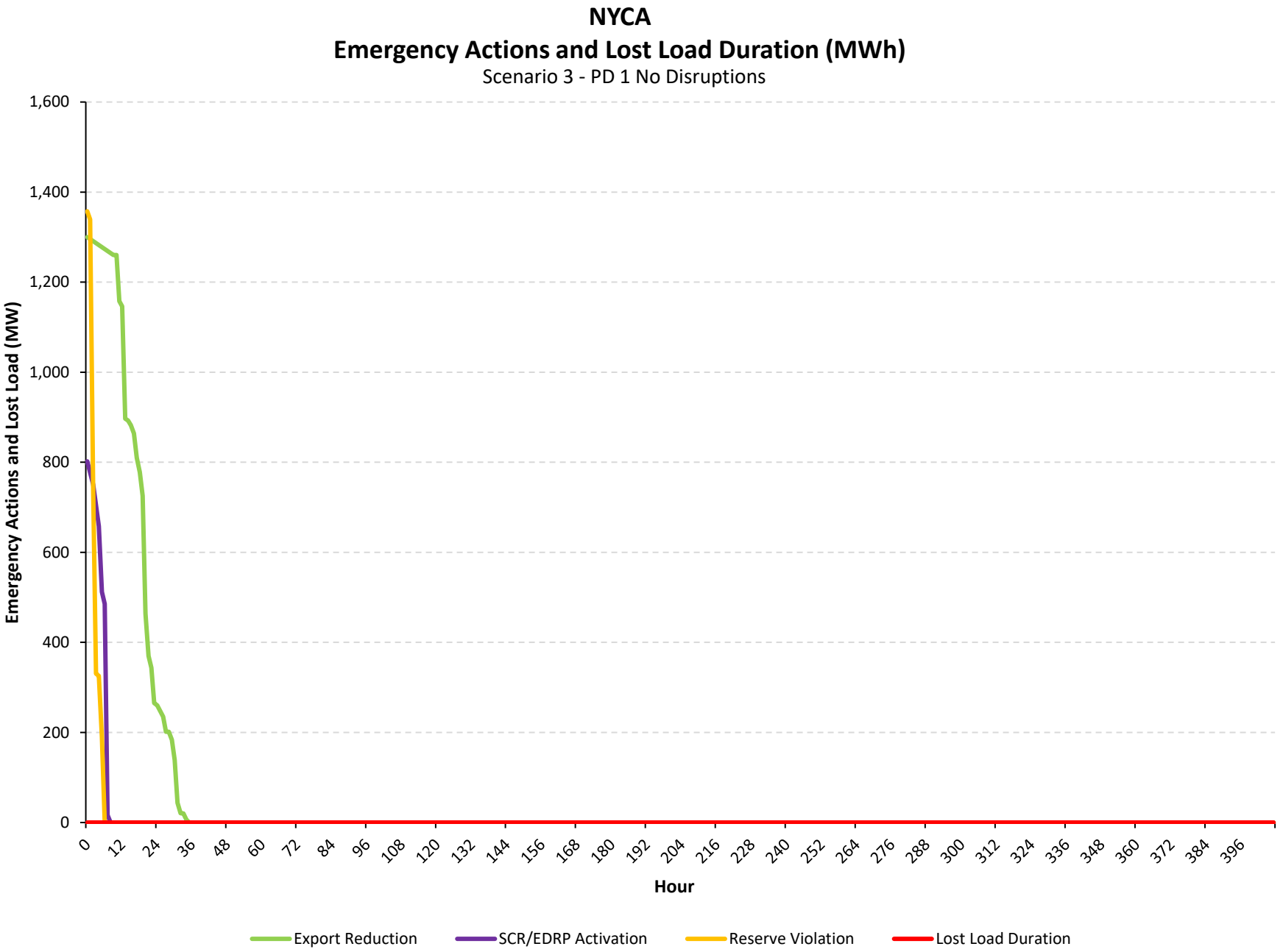
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 1 No Disruptions

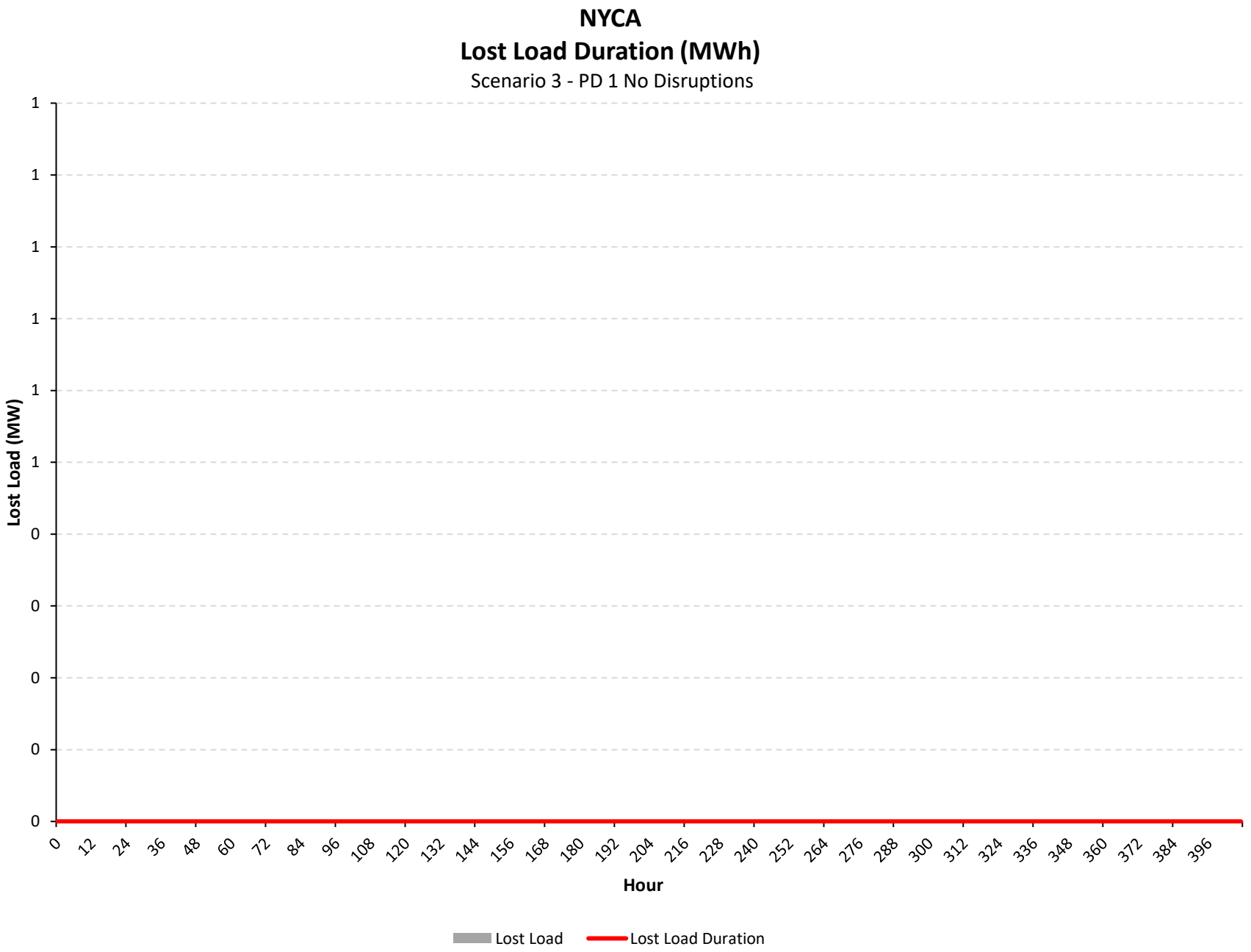



NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 3 - PD 1 No Disruptions
Energy Stored (MWh)
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Zones A-E
Zone F
Zones G-I
Zone J
Zone K



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 3 - PD 1 No Disruptions
Emergency Actions and Lost Load (MW)
1,600
1,400
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 3 - PD 1 No Disruptions
Lost Load (MW)
1
1
1
1
1
1
0
0
0
0
0
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

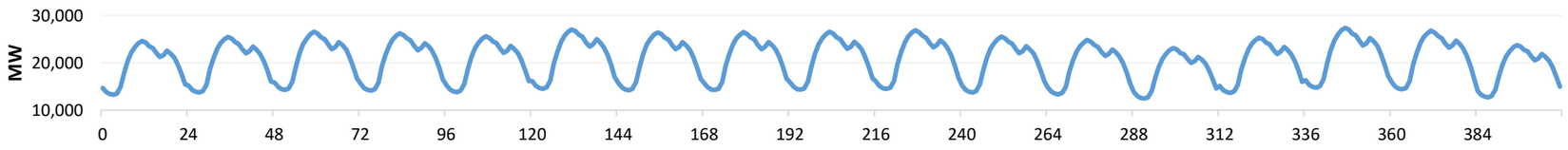
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 2 High Outage (Winter 2026/2027)

Hourly Results Summary

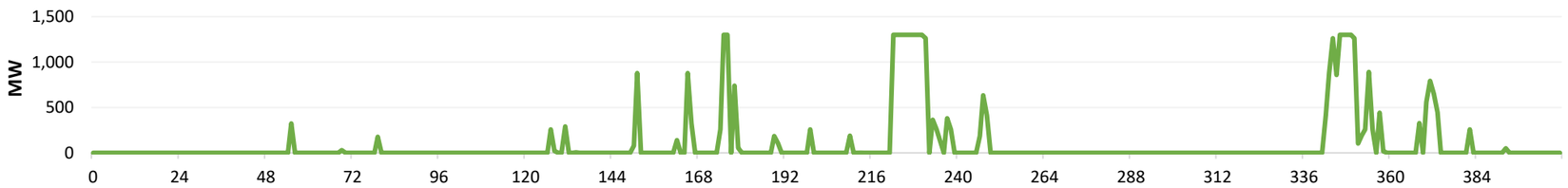
Case Name: Scenario 3 - PD 2 High Outage

Load During Modeling Period



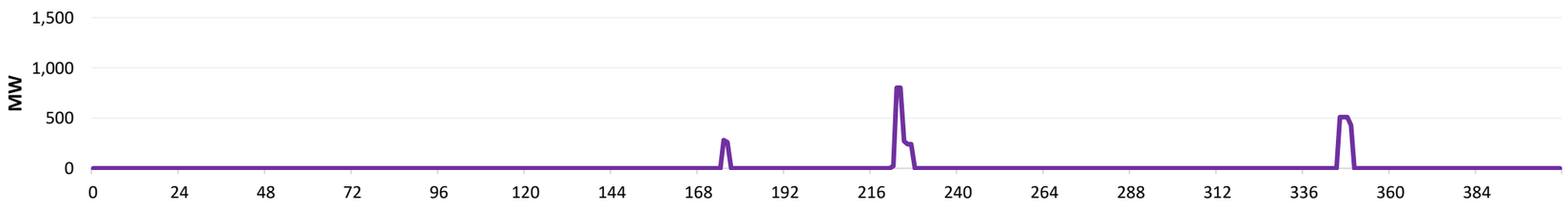
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



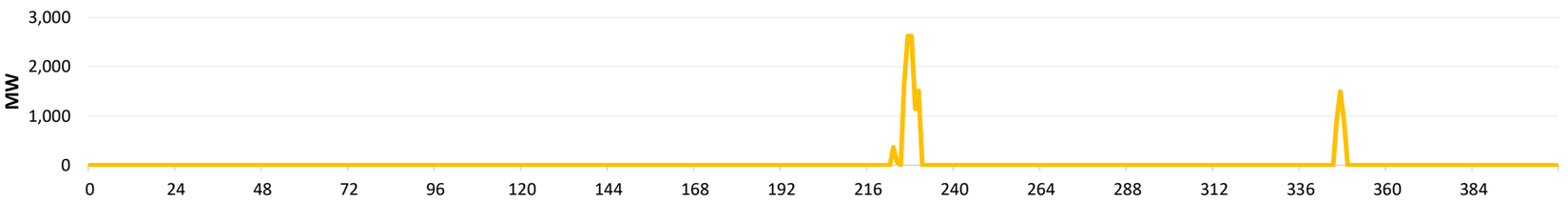
Export Reductions	
Total Hrs.	63
Total MWh	38,513
Avg. MW	94.4

SCR/EDRP Deployed During Modeling Period



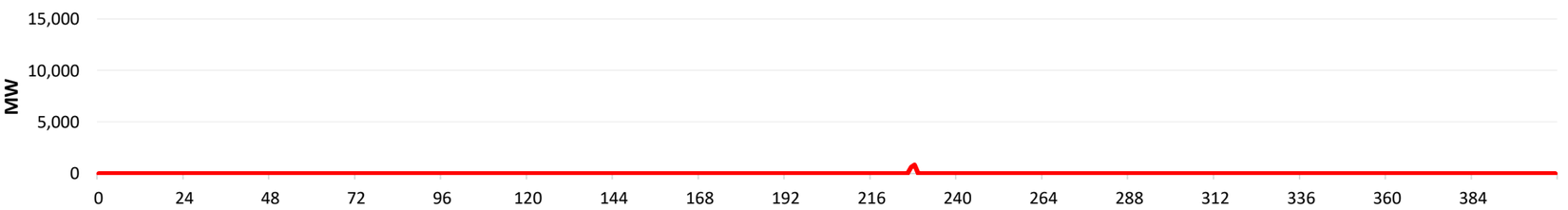
SCR Deployment	
Total Hrs.	12
Total MWh	4,875
Avg. MW	11.9

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	10
Total MWh	13,227
Avg. MW	32.4
First Hour with Viol.	223

Loss of Load During Modeling Period



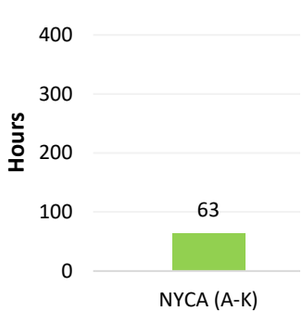
Loss of Load	
Total Hrs.	2
Total MWh	1,473
Avg. MW	3.6
First Hour with Losses	227

Full Period Results Summary

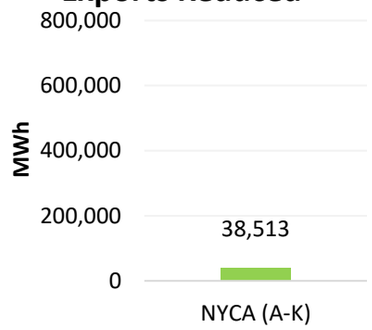
Case Name: Scenario 3 - PD 2 High Outage

Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

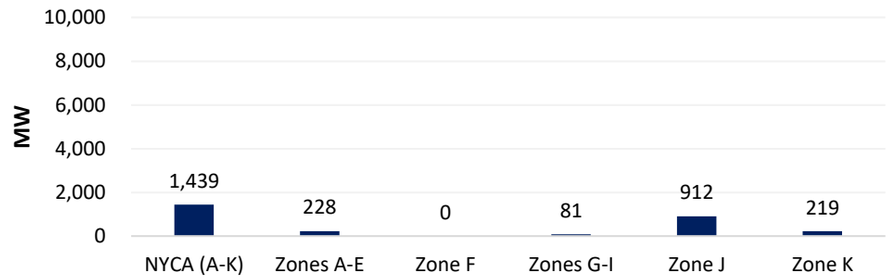
Hours Exports Reduced



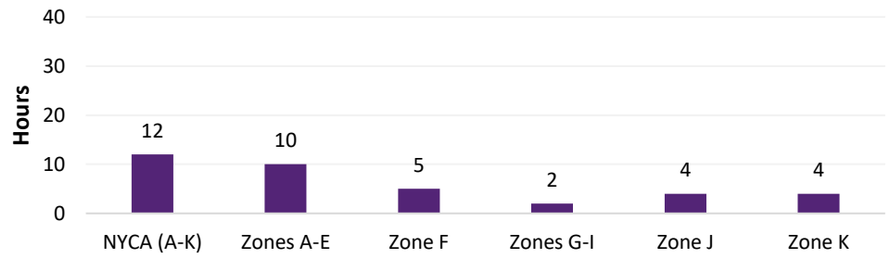
Total MWh of Exports Reduced



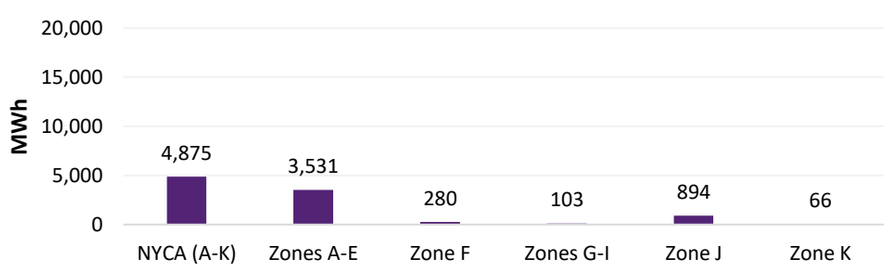
Average Capacity Not Available Due to Exhausted Fuel Inventory



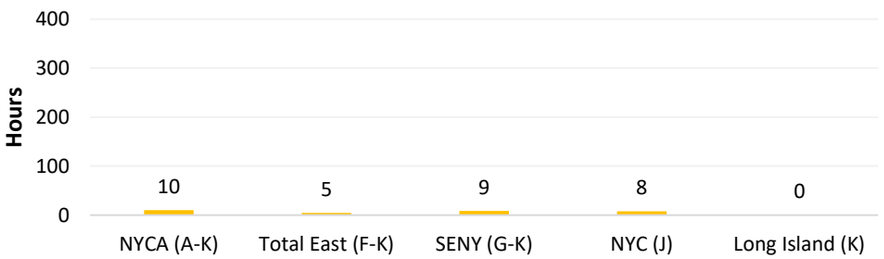
Hours SCR/EDRP Deployed



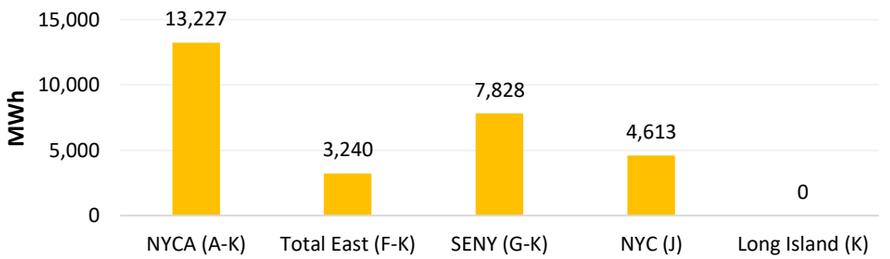
Total MWh SCR/EDRP Deployed



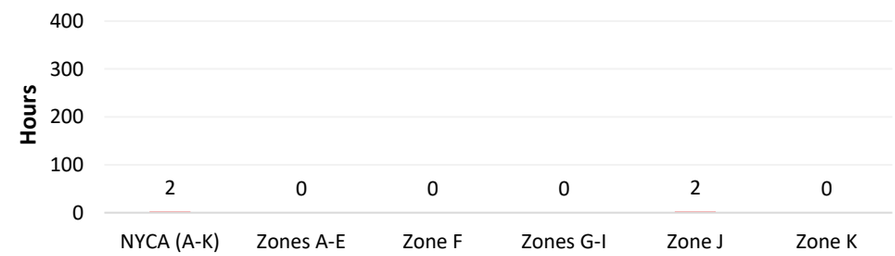
Hours with Reserve Violations



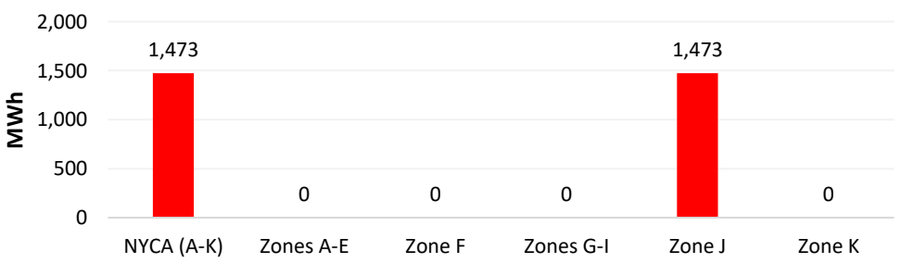
Total MWh of Reserve Violations

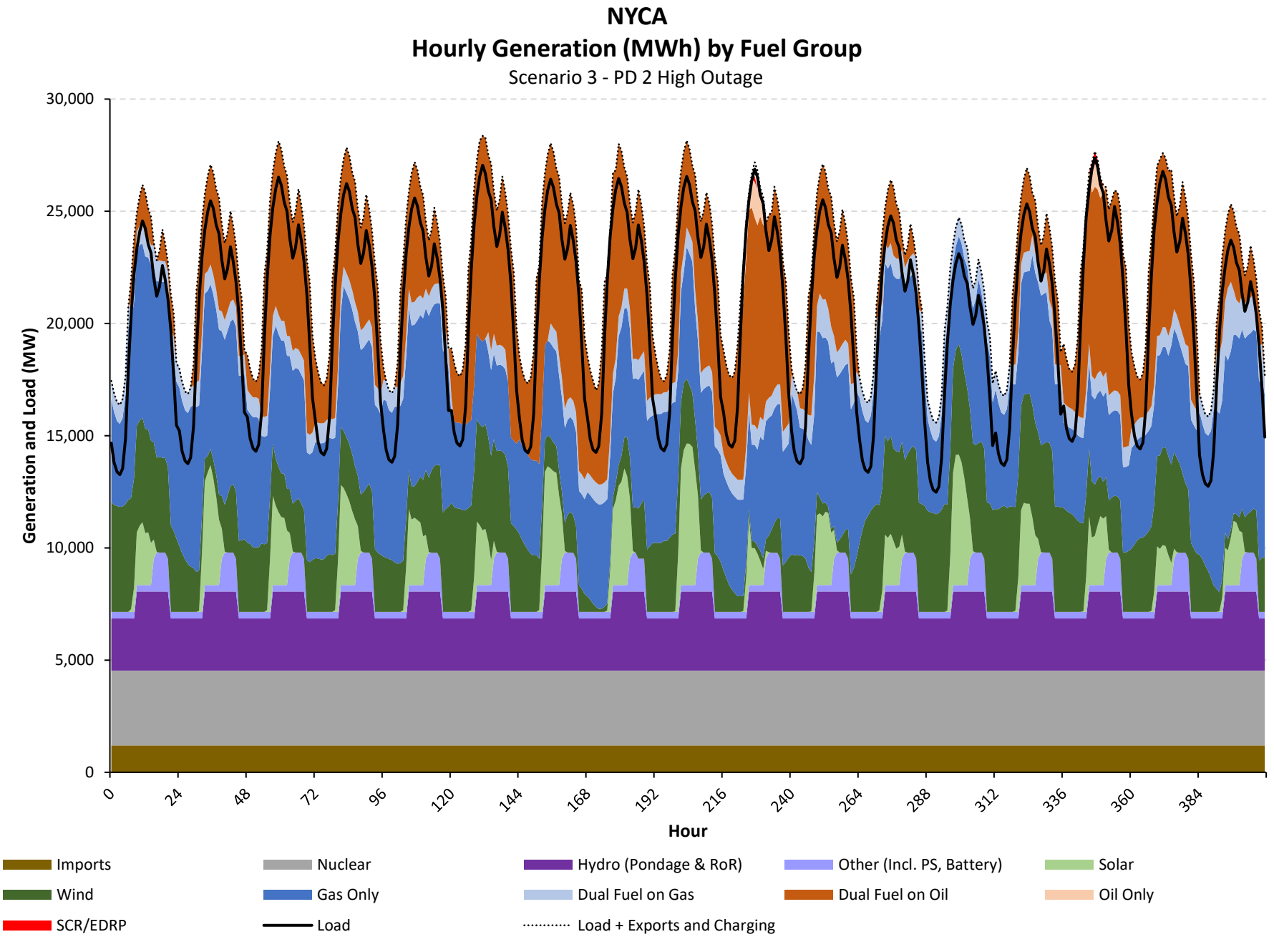


Hours with Loss of Load

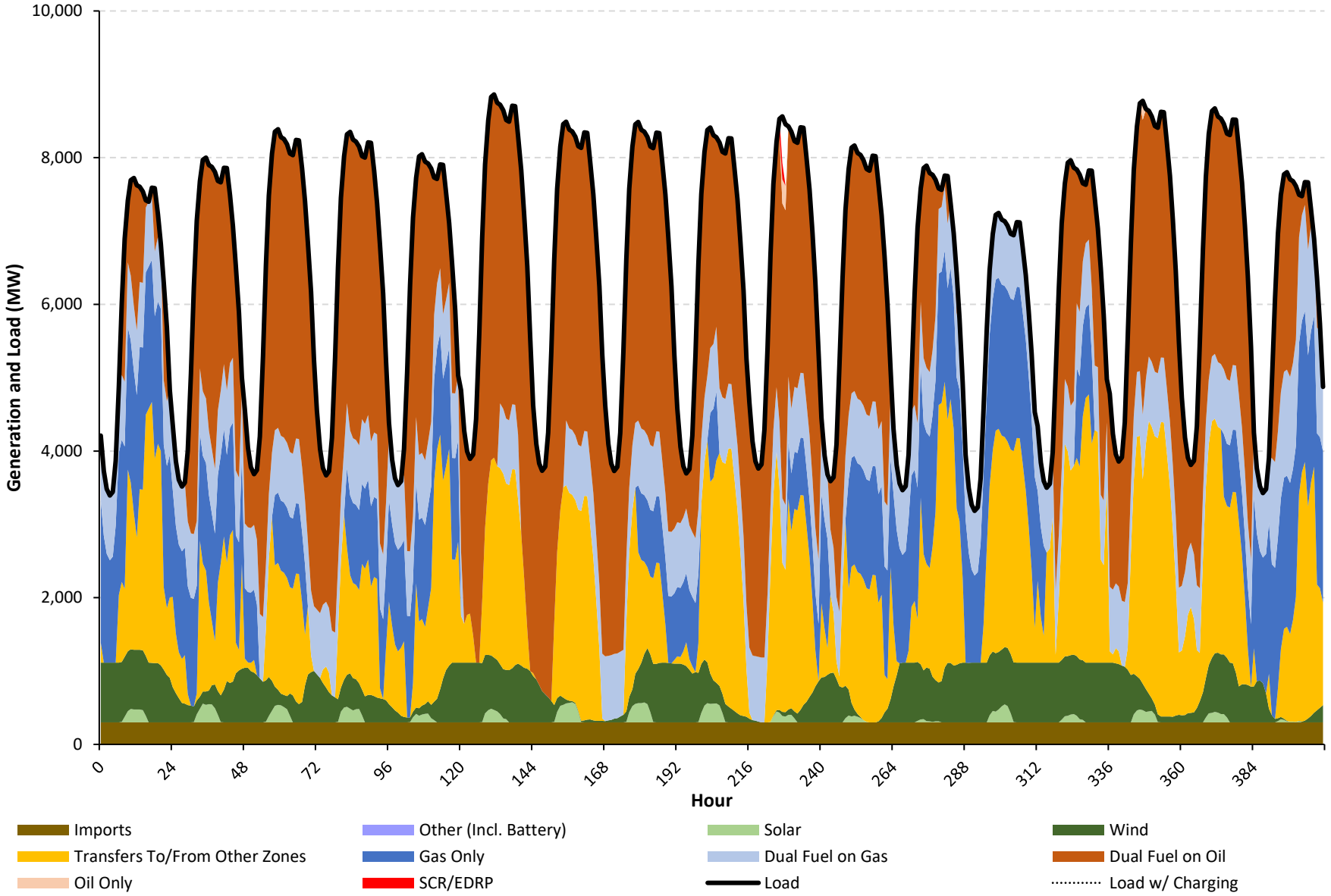


Total MWh of Lost Load

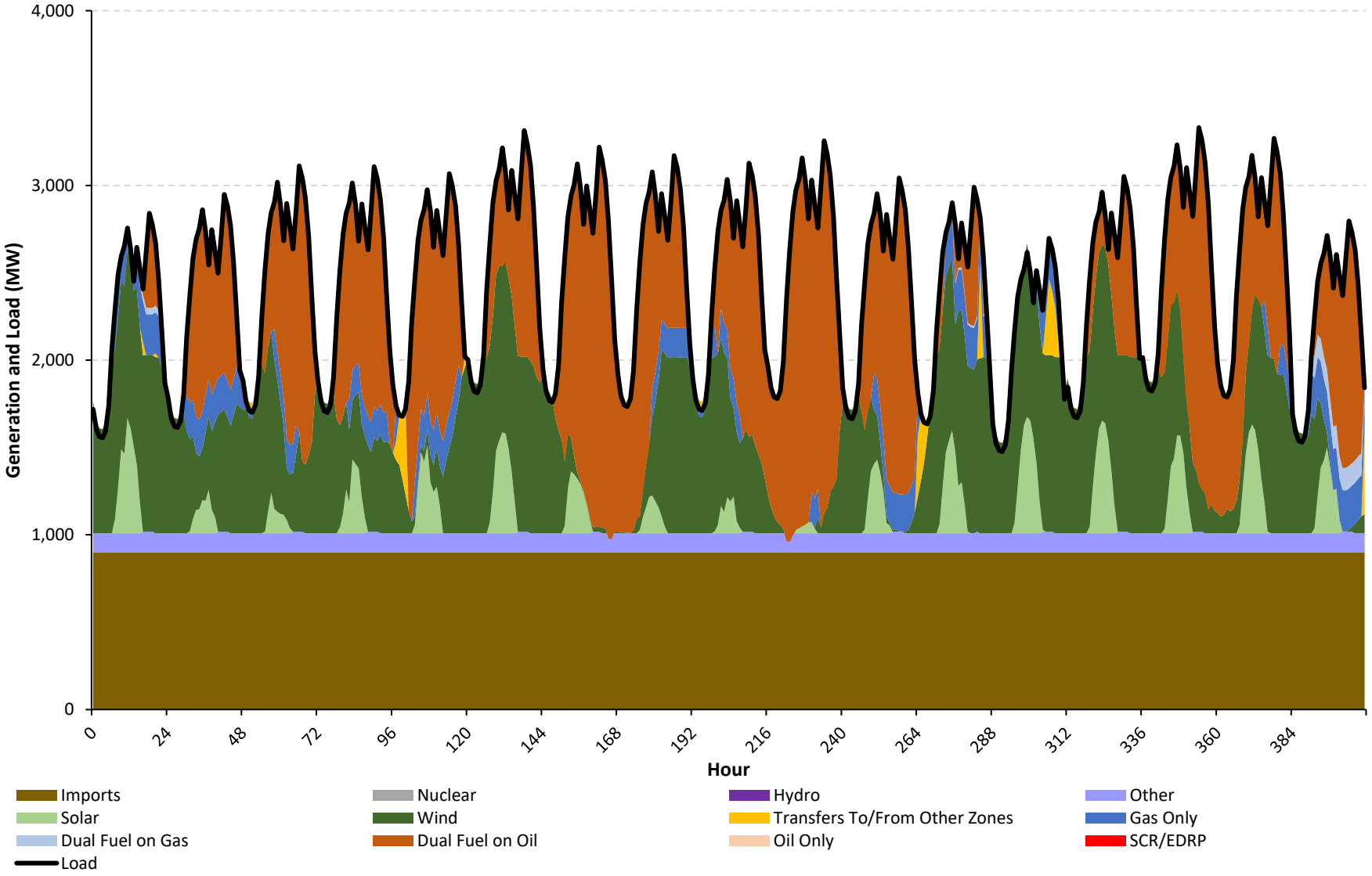



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 3 - PD 2 High Outage
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

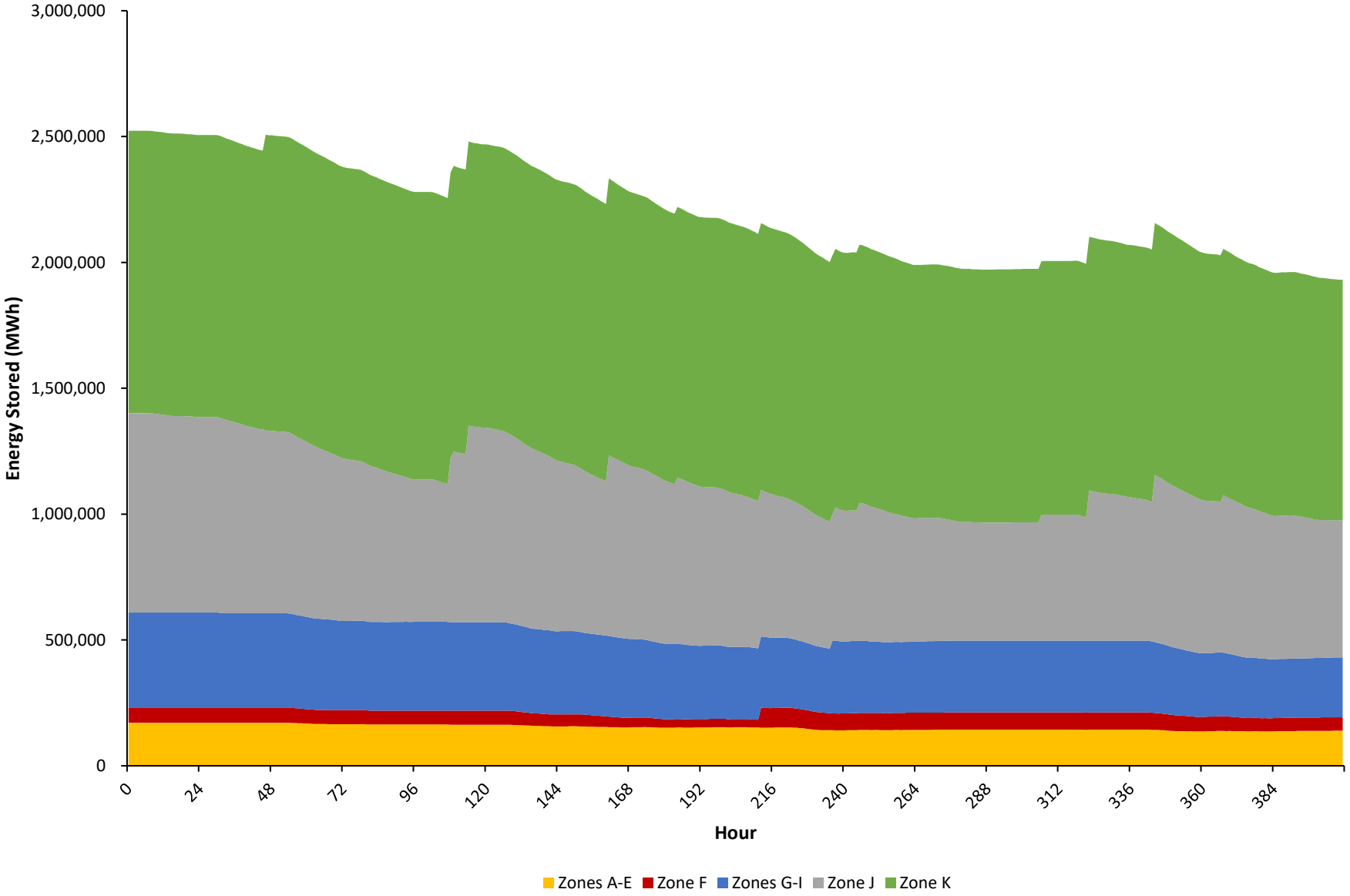
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 2 High Outage

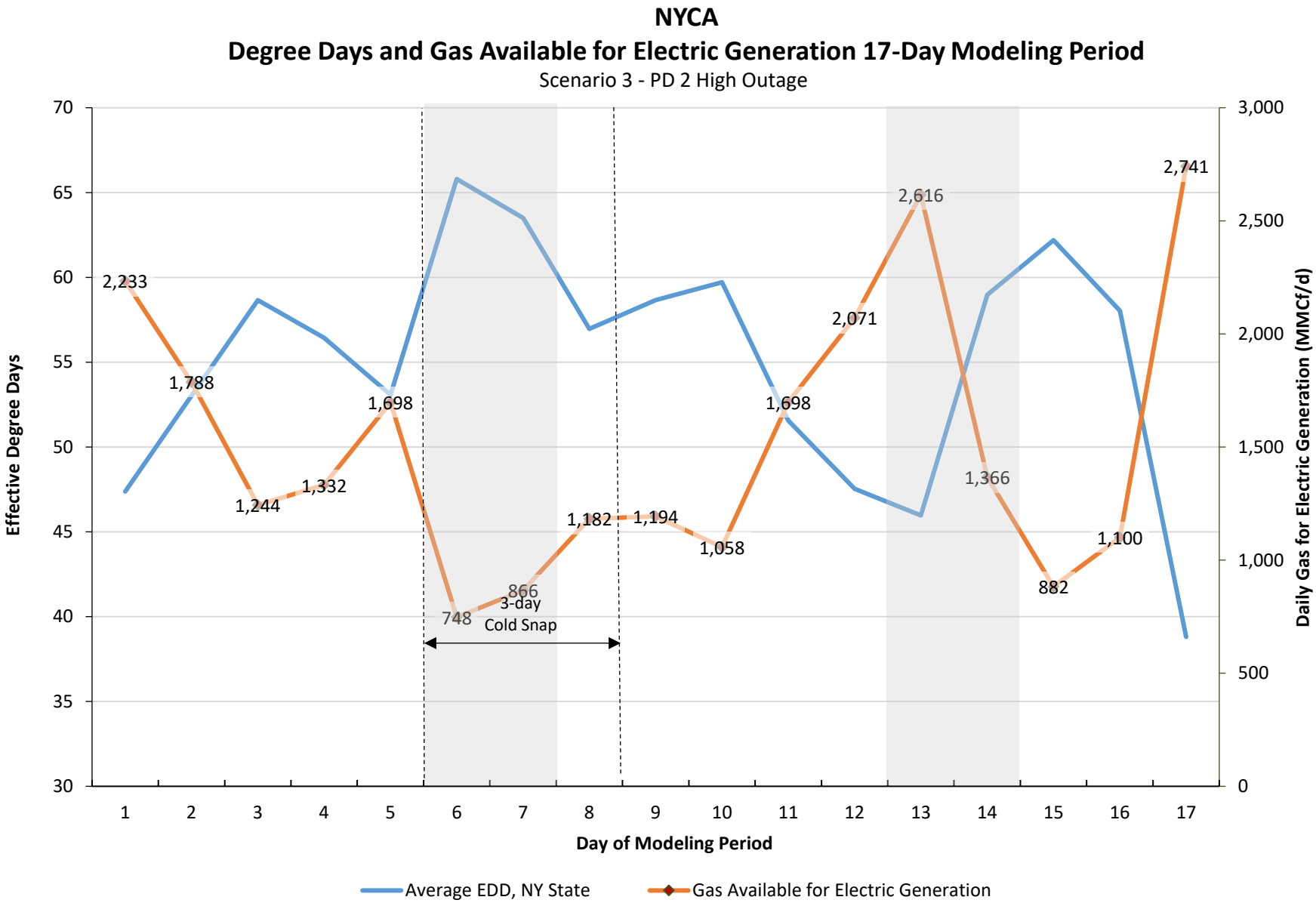


Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 2 High Outage

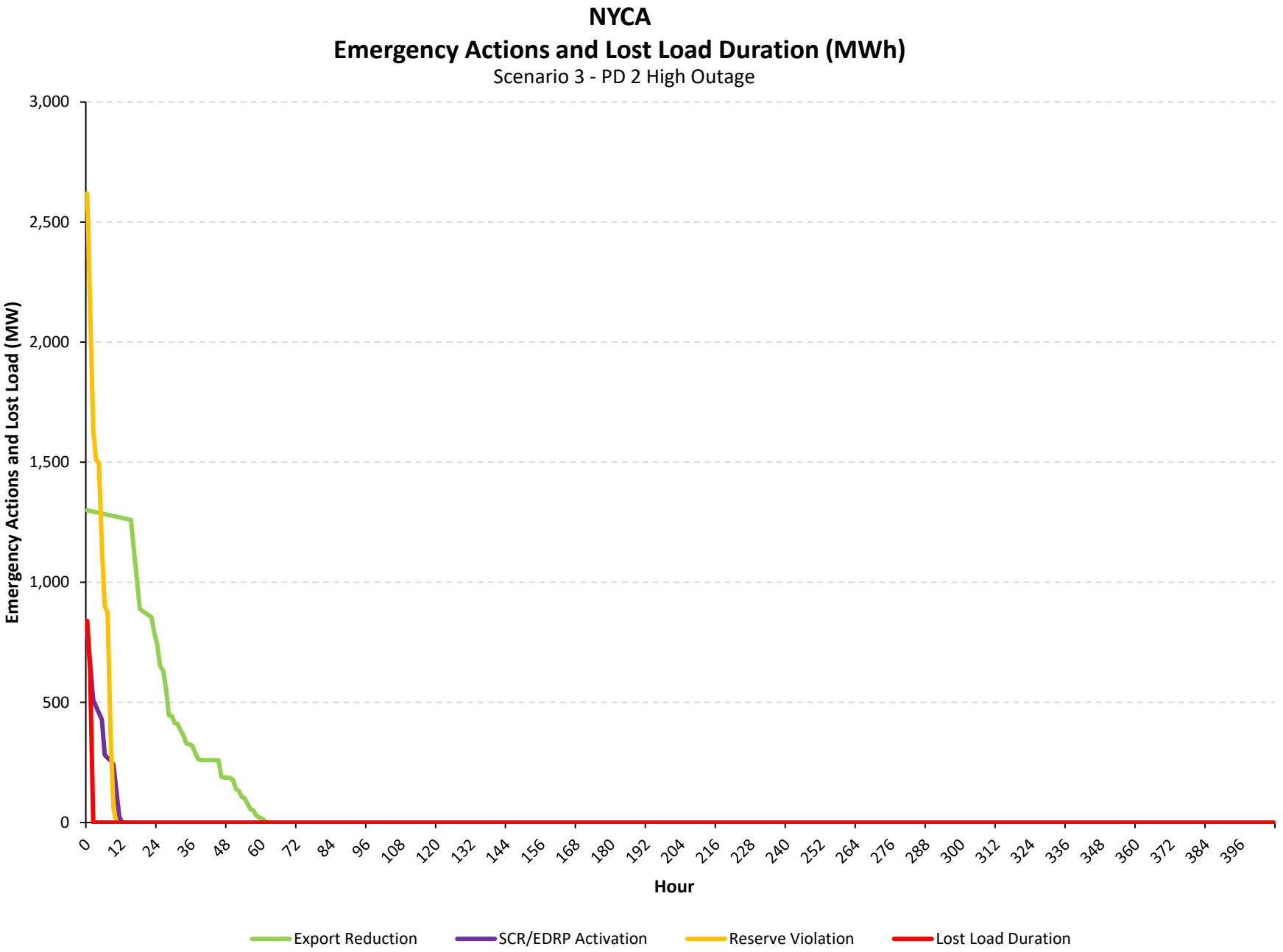


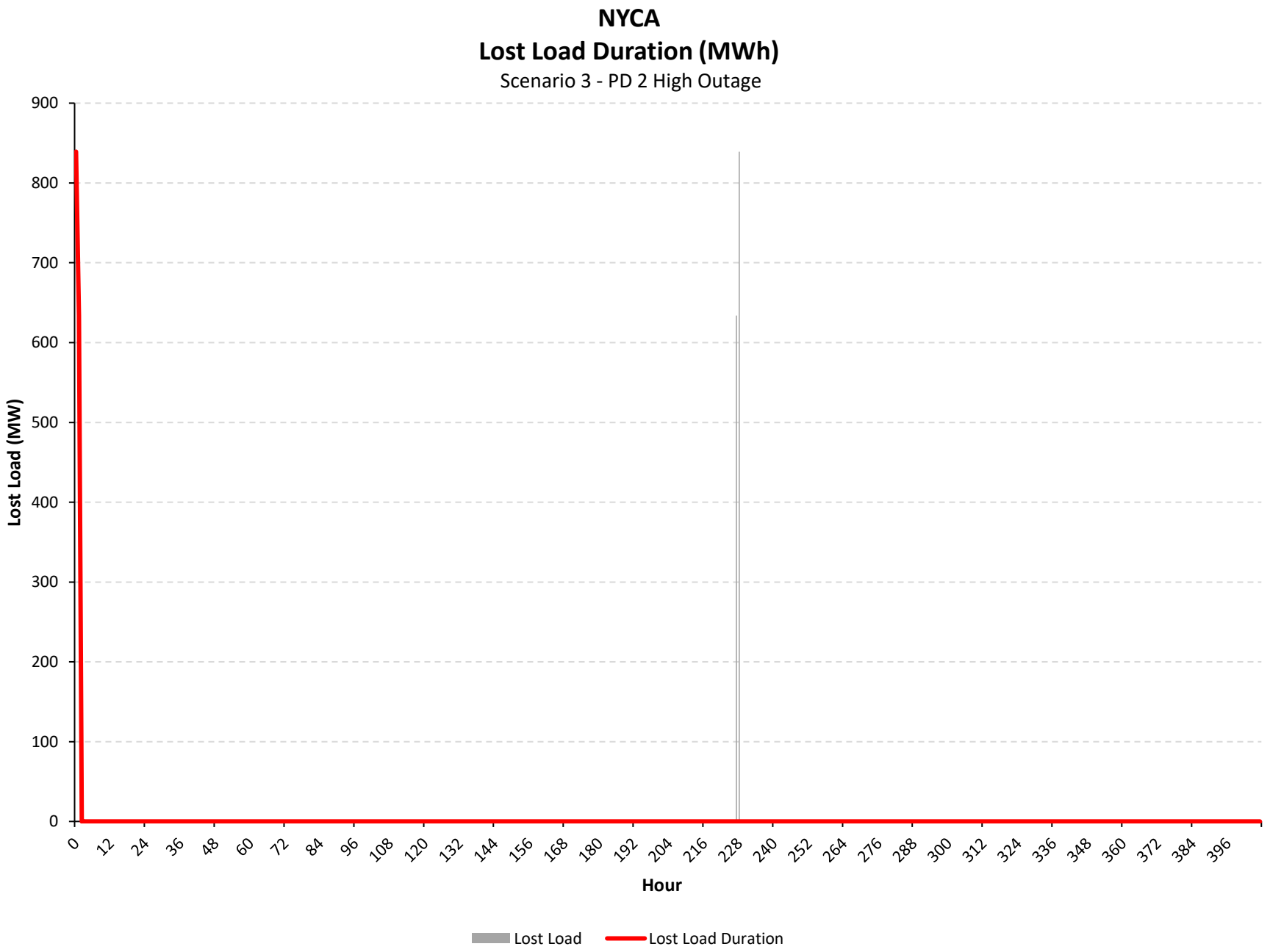
NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 3 - PD 2 High Outage





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 3 - PD 2 High Outage
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0
12
24
36
48
60
72
84
96
108
120
132
144
156
168
180
192
204
216
228
240
252
264
276
288
300
312
324
336
348
360
372
384
396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 3 - PD 2 High Outage
Lost Load (MW)
900
800
700
600
500
400
300
200
100
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

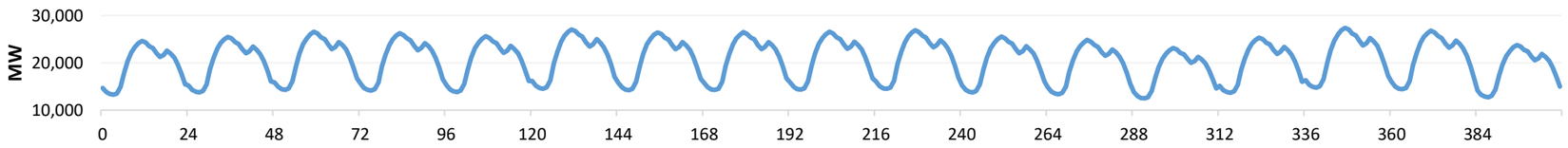
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 3 SENY Deactivation (Winter 2026/2027)

Hourly Results Summary

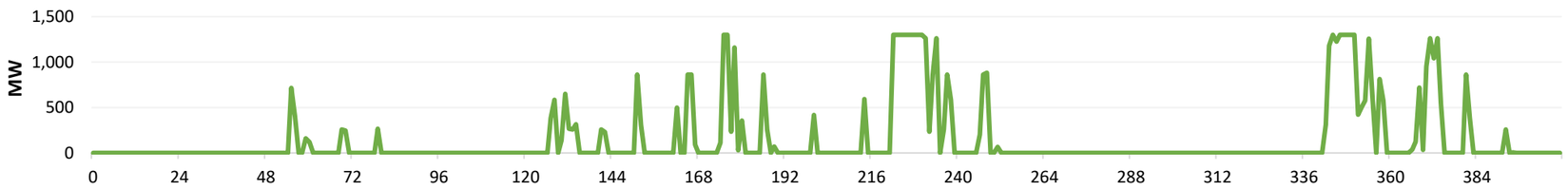
Case Name: Scenario 3 - PD 3 SENY Deactivation

Load During Modeling Period



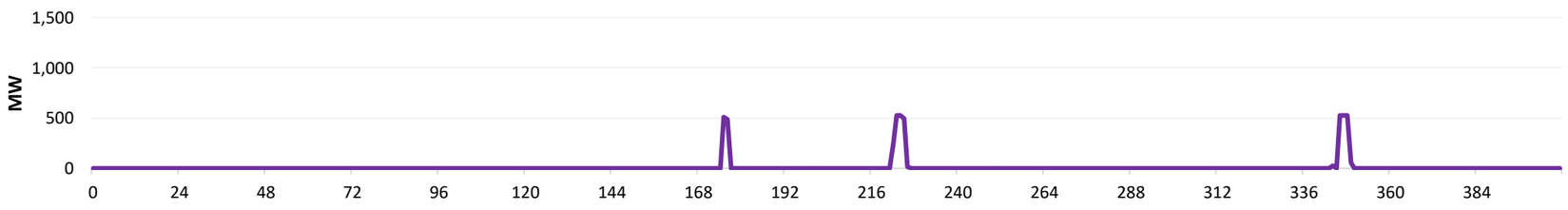
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



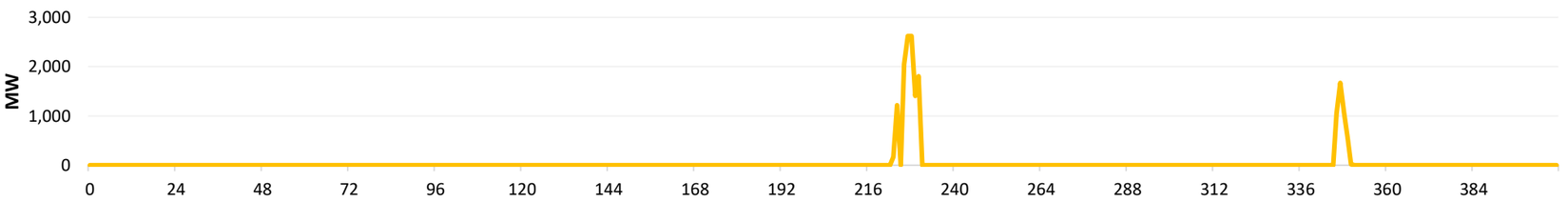
Export Reductions	
Total Hrs.	83
Total MWh	57,237
Avg. MW	140.3

SCR/EDRP Deployed During Modeling Period



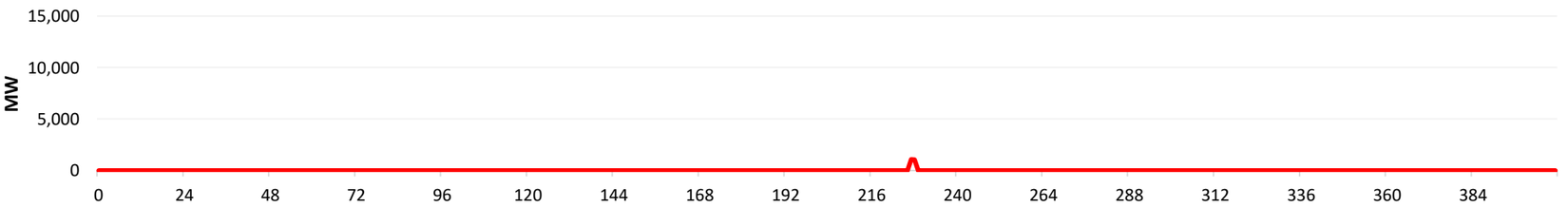
SCR Deployment	
Total Hrs.	12
Total MWh	4,474
Avg. MW	11.0

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	12
Total MWh	16,244
Avg. MW	39.8
First Hour with Viol.	223

Loss of Load During Modeling Period



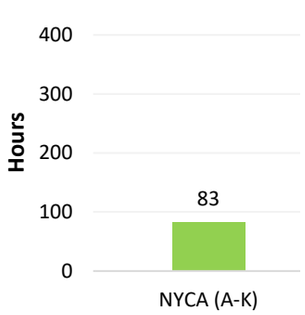
Loss of Load	
Total Hrs.	2
Total MWh	2,149
Avg. MW	5.3
First Hour with Losses	227

Full Period Results Summary

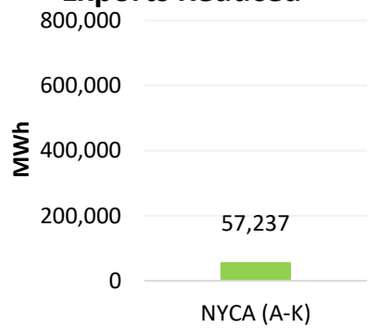
Case Name: Scenario 3 - PD 3 SENY Deactivation

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	All

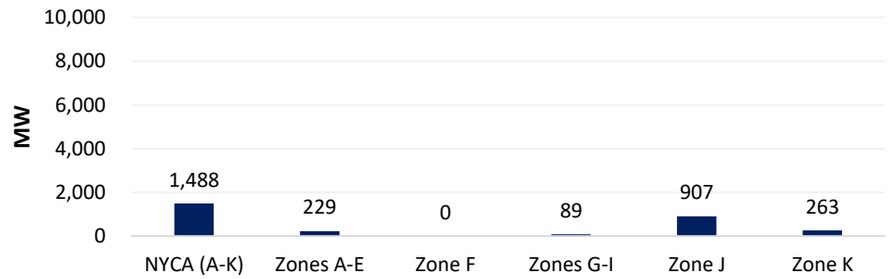
Hours Exports Reduced



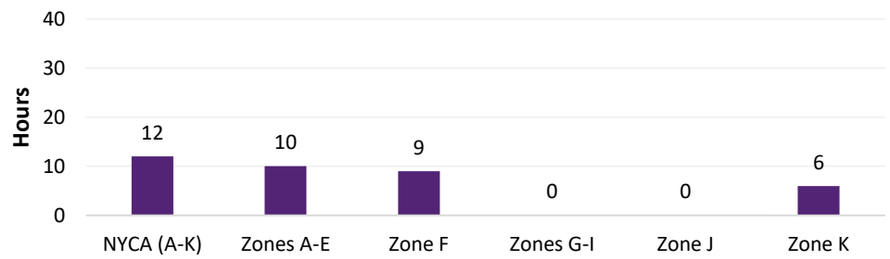
Total MWh of Exports Reduced



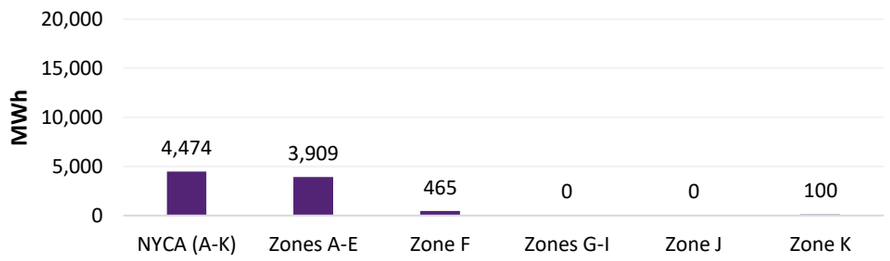
Average Capacity Not Available Due to Exhausted Fuel Inventory



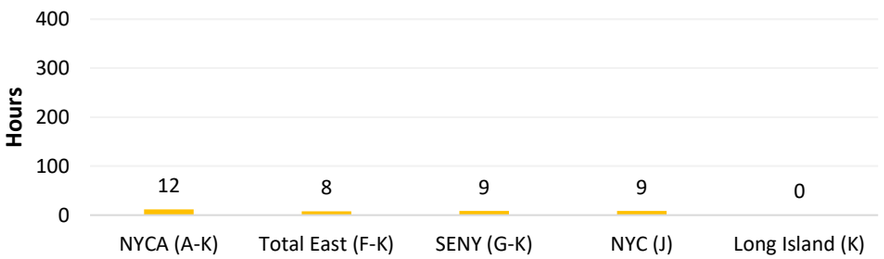
Hours SCR/EDRP Deployed



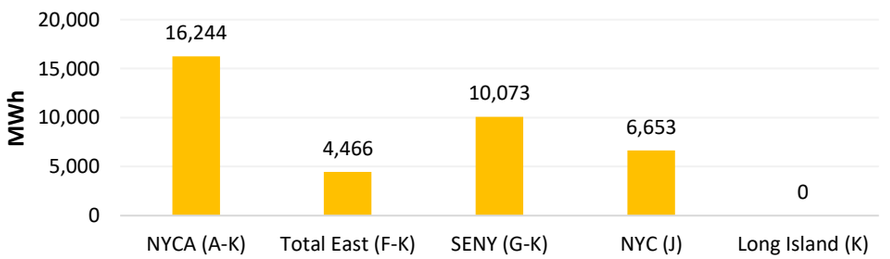
Total MWh SCR/EDRP Deployed



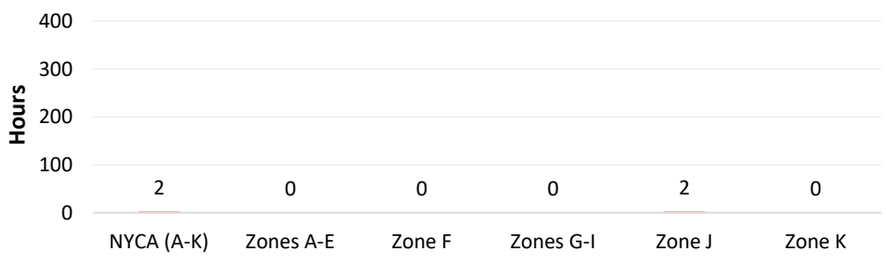
Hours with Reserve Violations



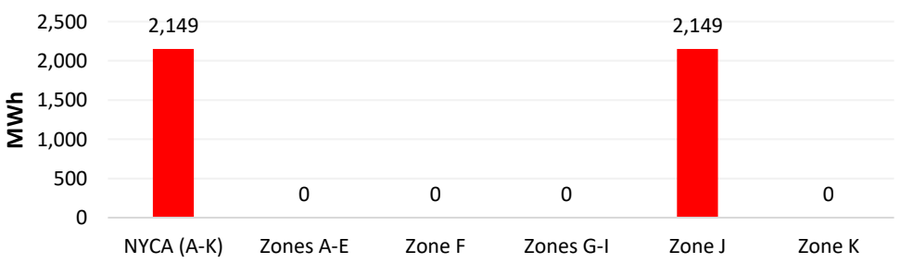
Total MWh of Reserve Violations

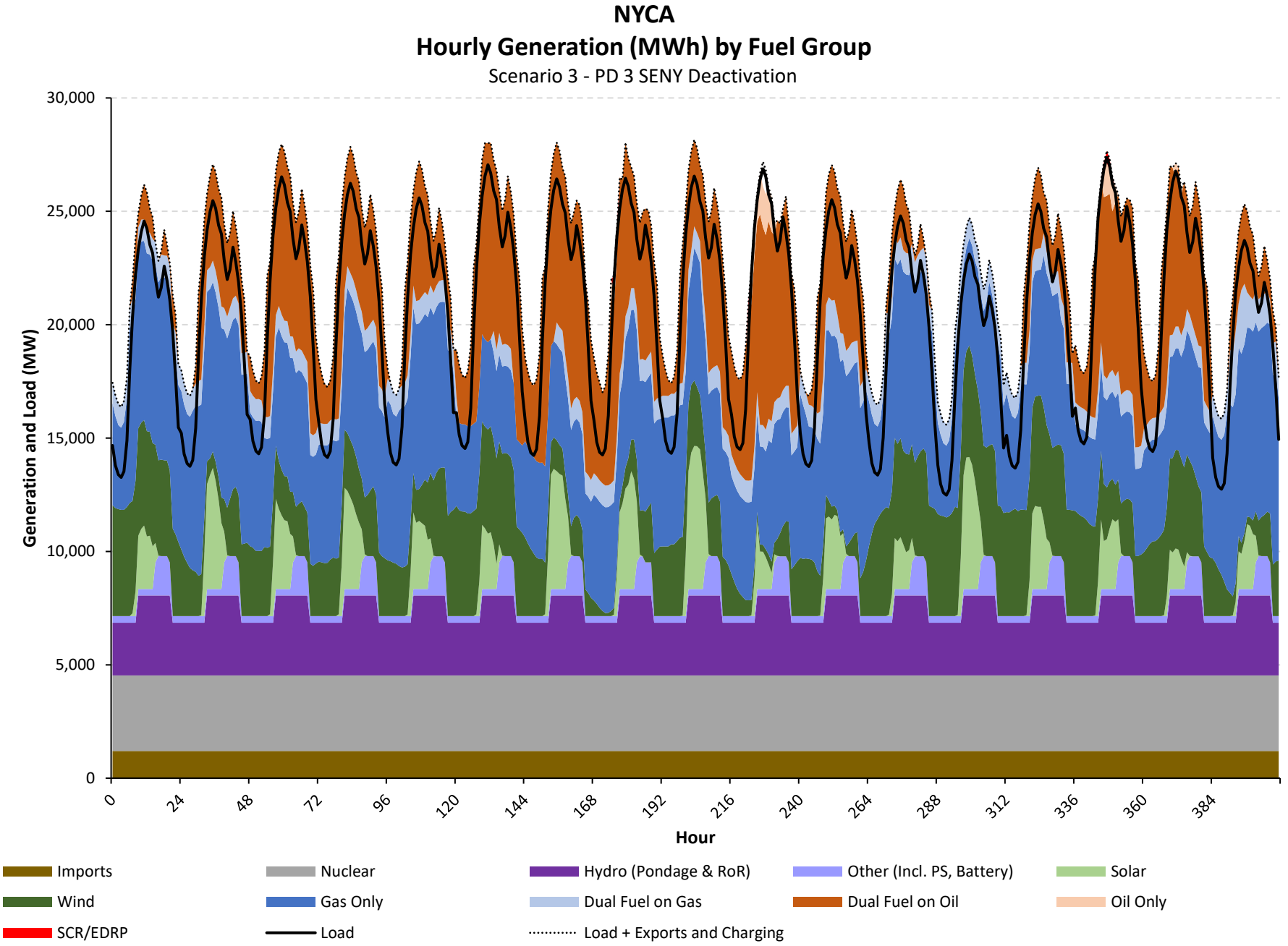


Hours with Loss of Load

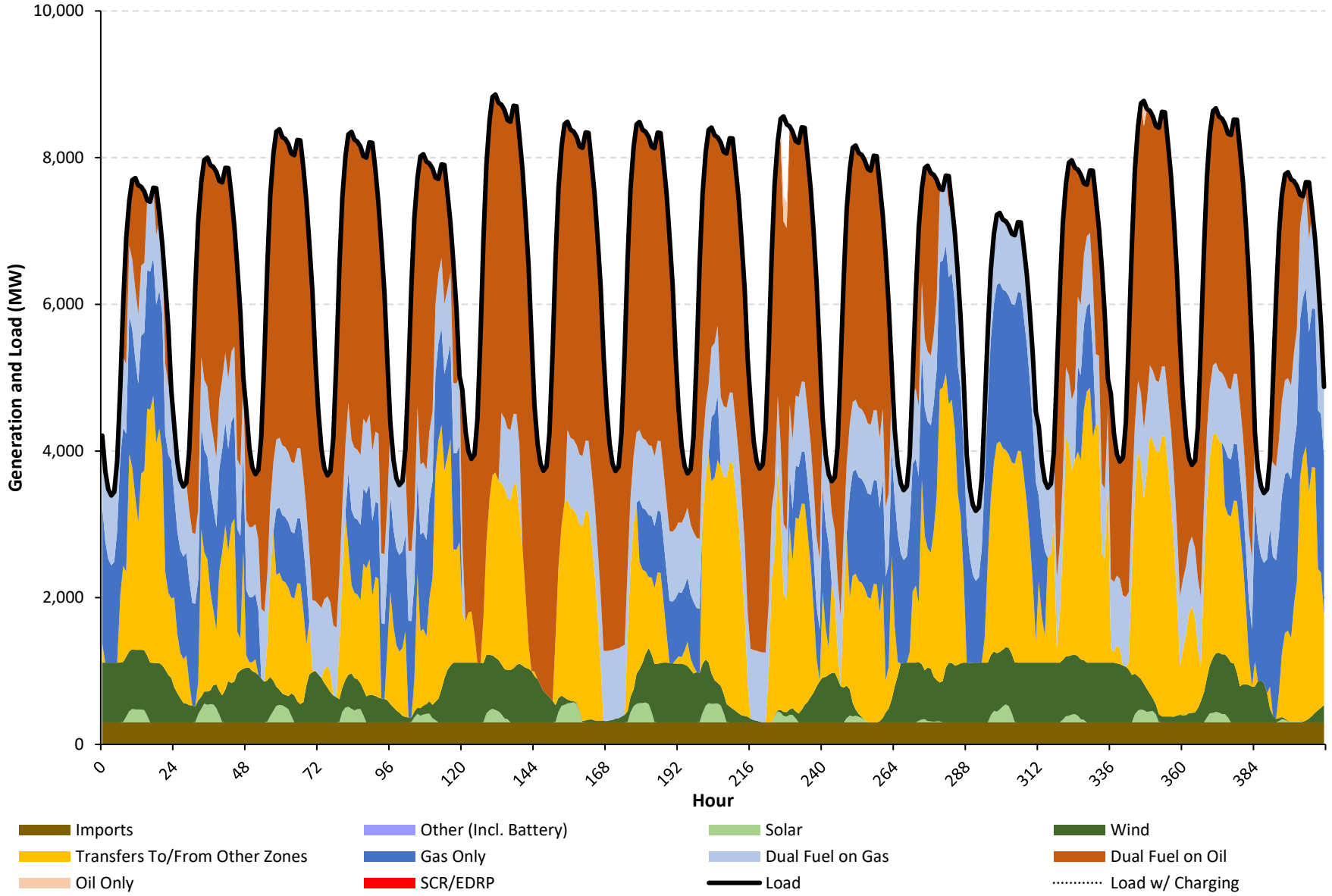


Total MWh of Lost Load

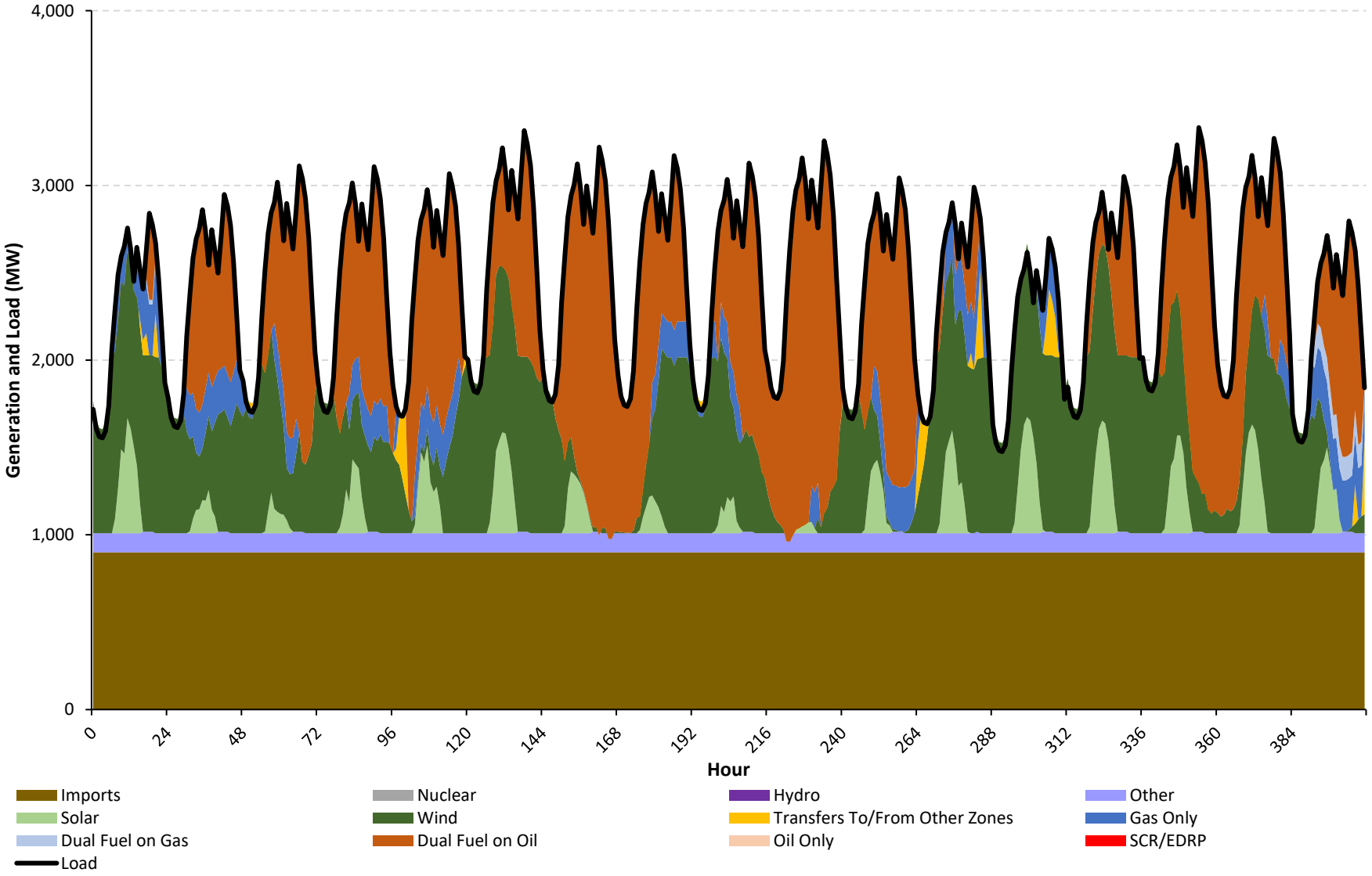



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 3 - PD 3 SENY Deactivation
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 3 SENY Deactivation



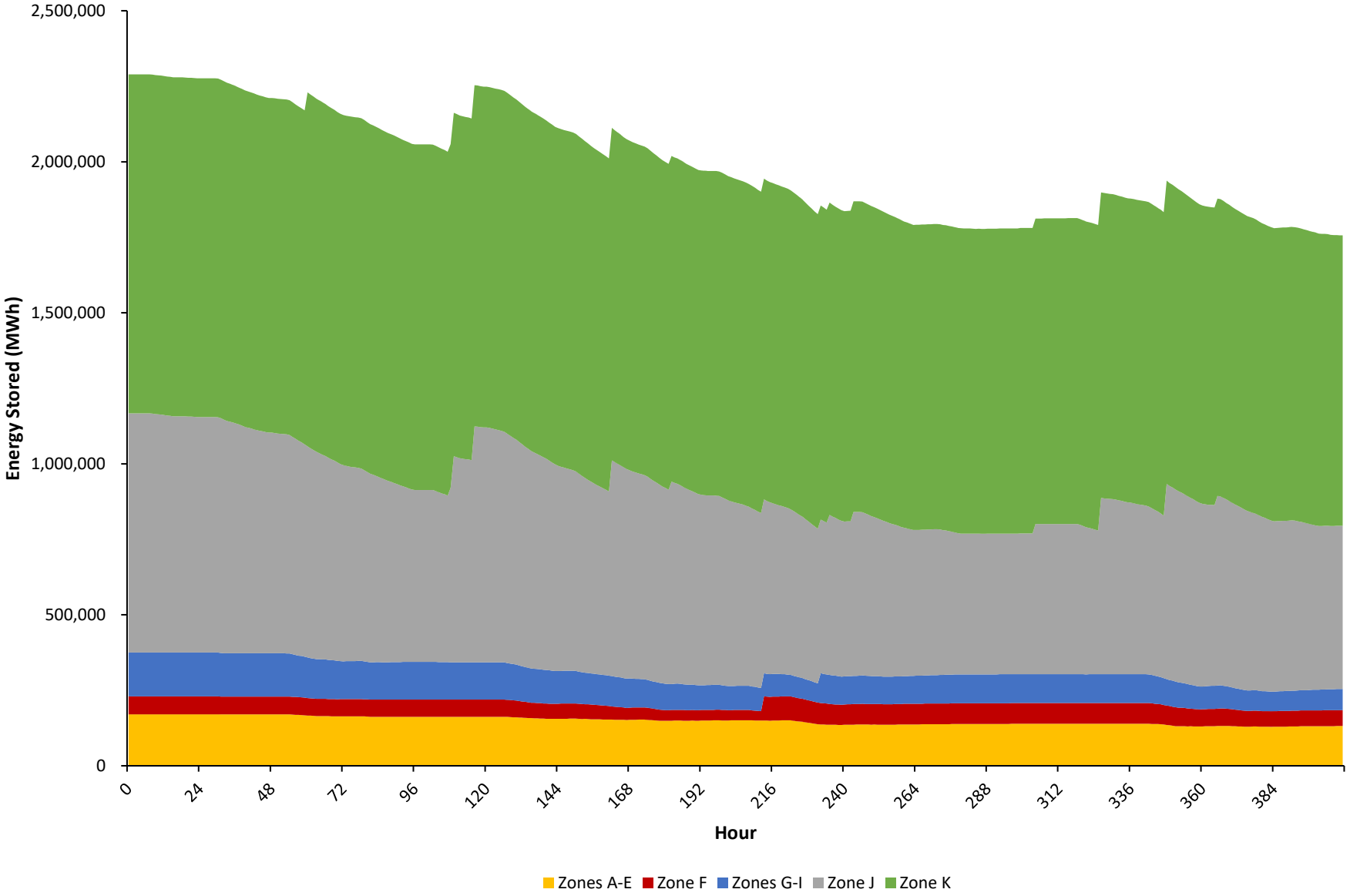
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 3 SENY Deactivation

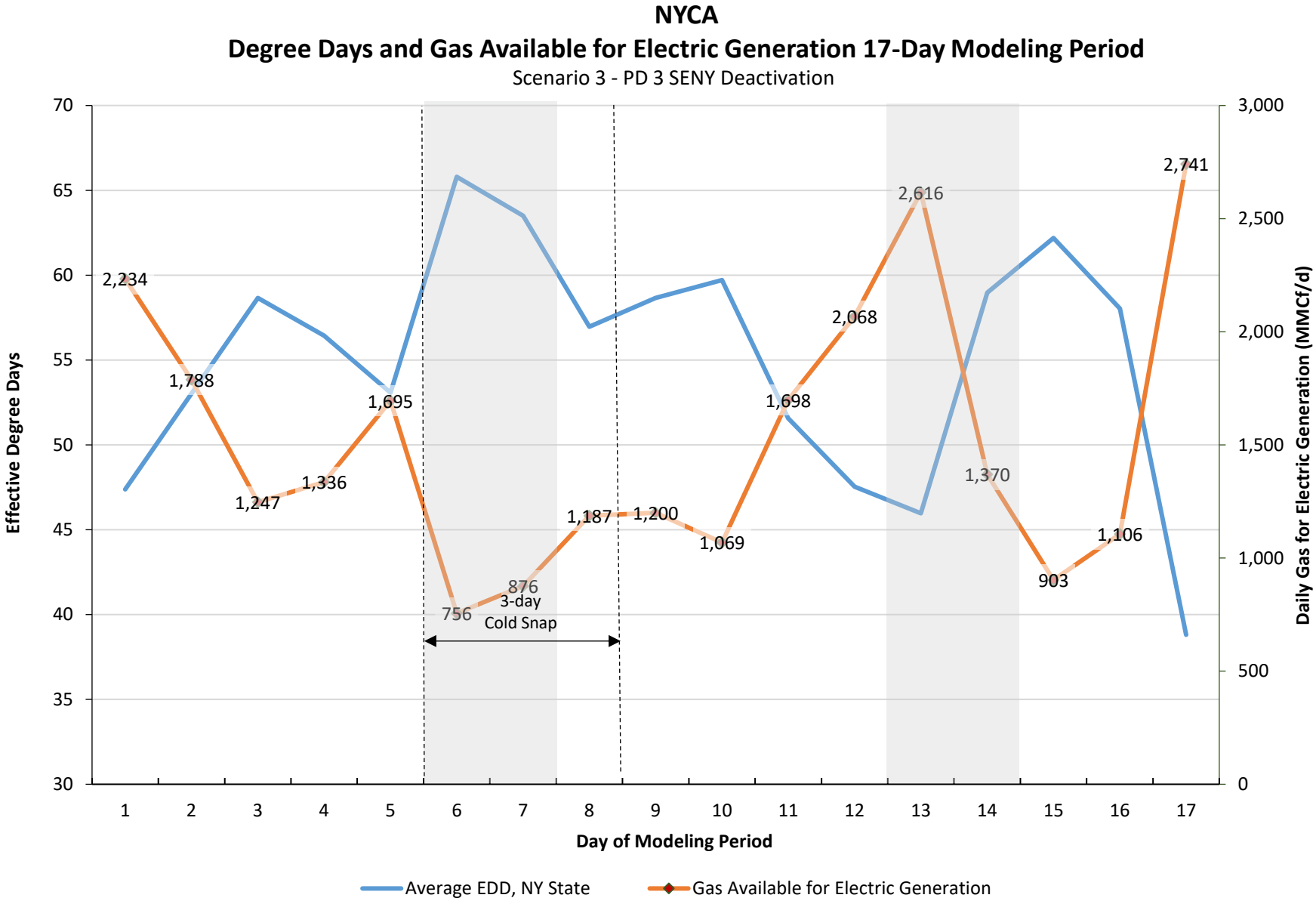


NYCA

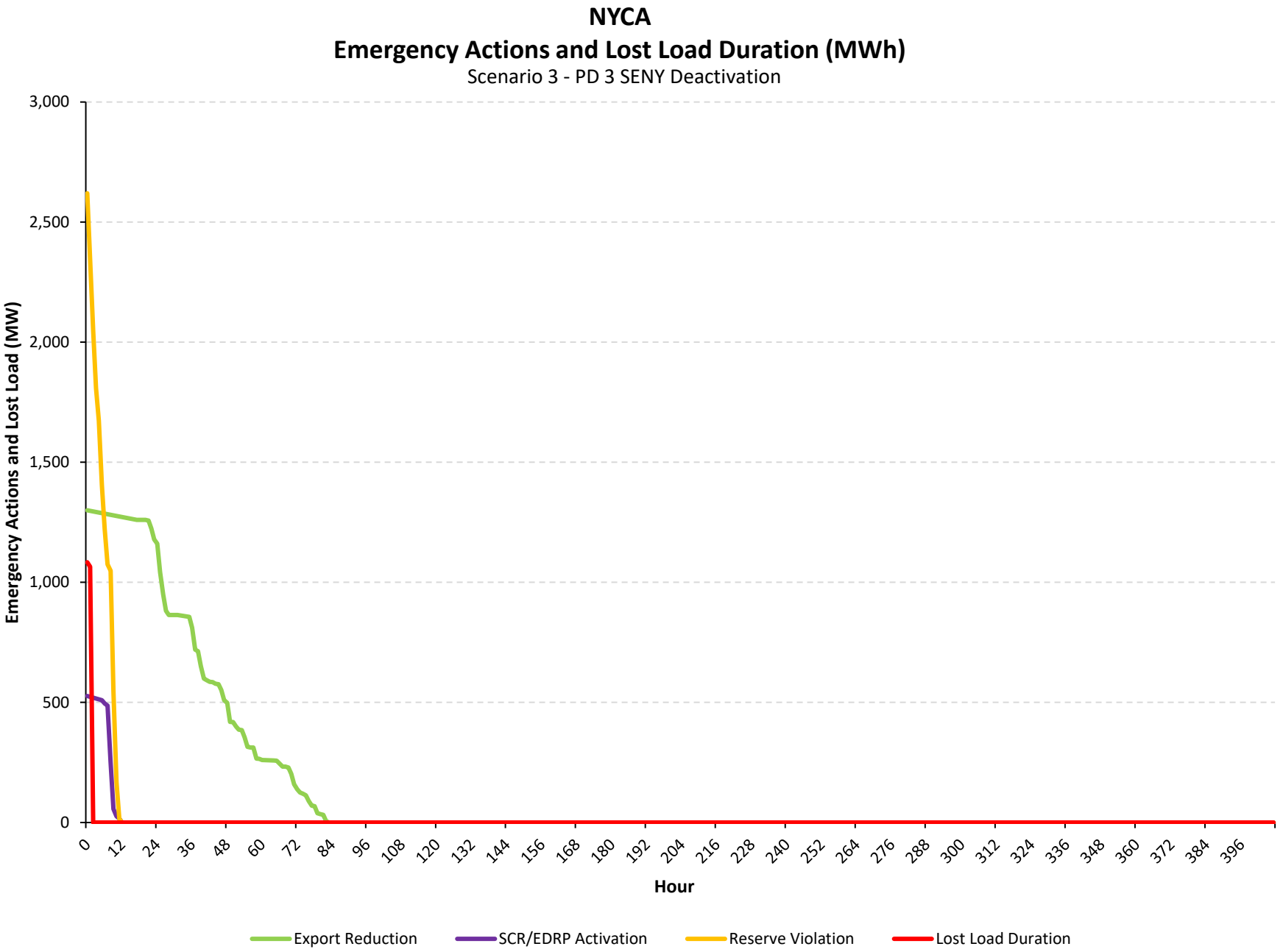
Quantity of Stored Fuel for Oil and Dual Fuel Units

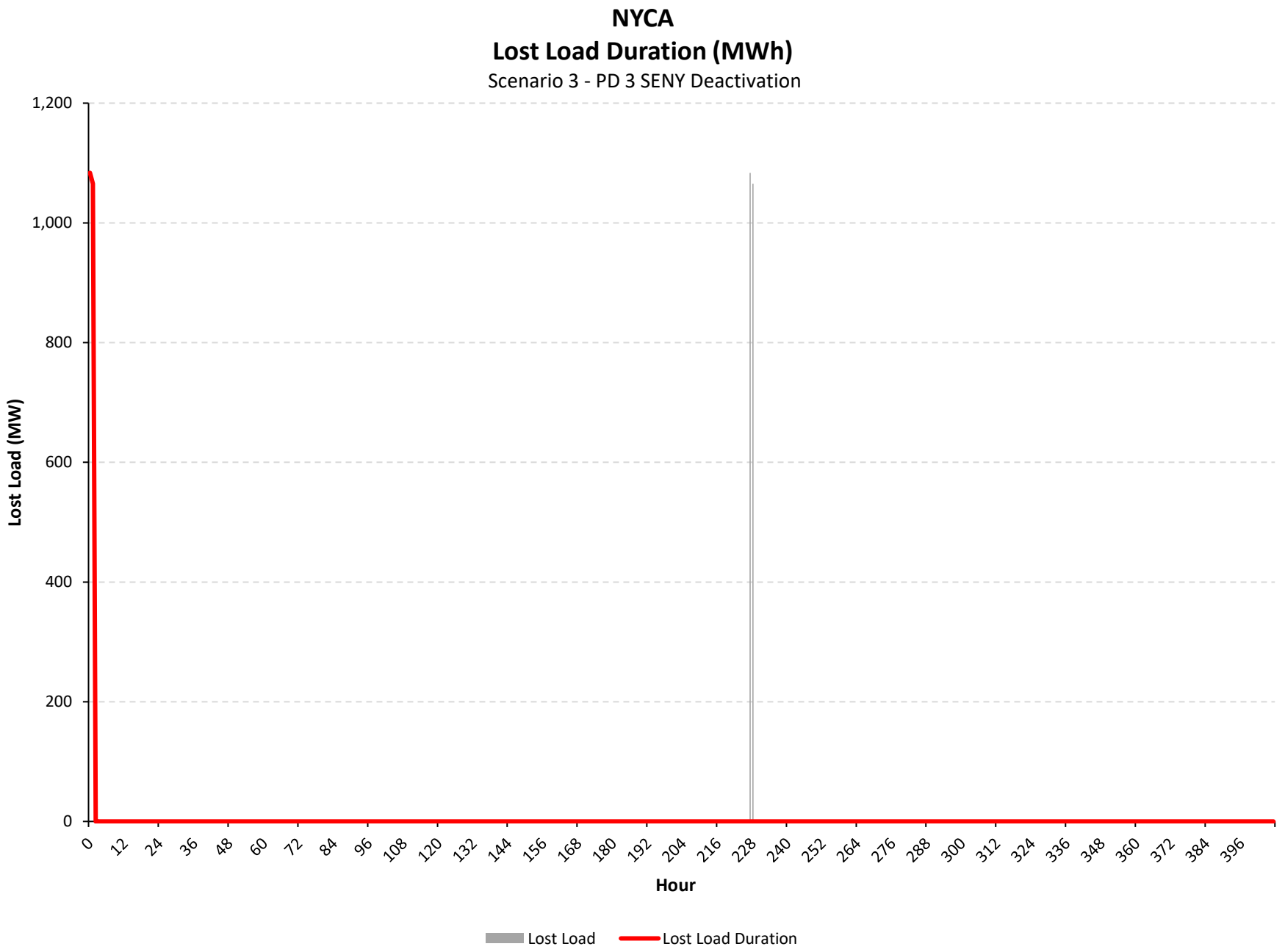
Scenario 3 - PD 3 SENY Deactivation





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 3 - PD 3 SENY Deactivation
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0
12
24
36
48
60
72
84
96
108
120
132
144
156
168
180
192
204
216
228
240
252
264
276
288
300
312
324
336
348
360
372
384
396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 3 - PD 3 SENY Deactivation
1,200
1,000
800
600
400
200
0
Lost Load (MW)
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

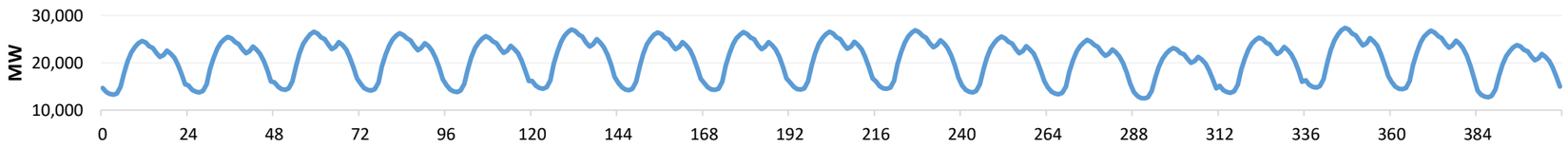
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 4 Nuclear Station Outage (Winter 2026/2027)

Hourly Results Summary

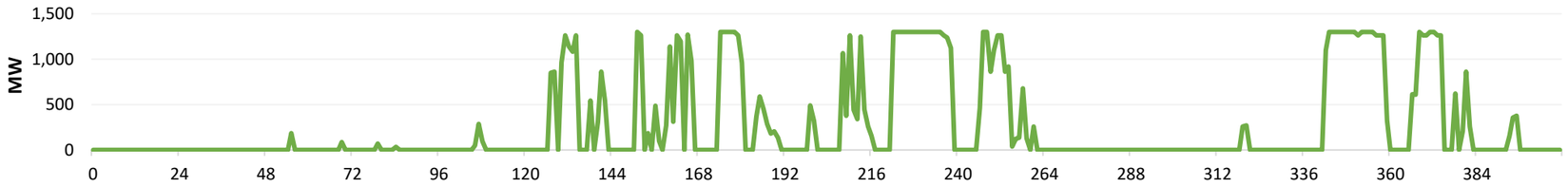
Case Name: Scenario 3 - PD 4 Nuclear Station Outage

Load During Modeling Period



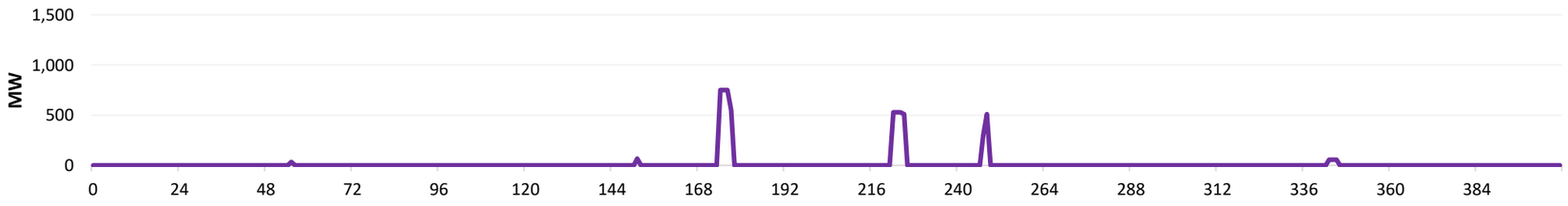
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



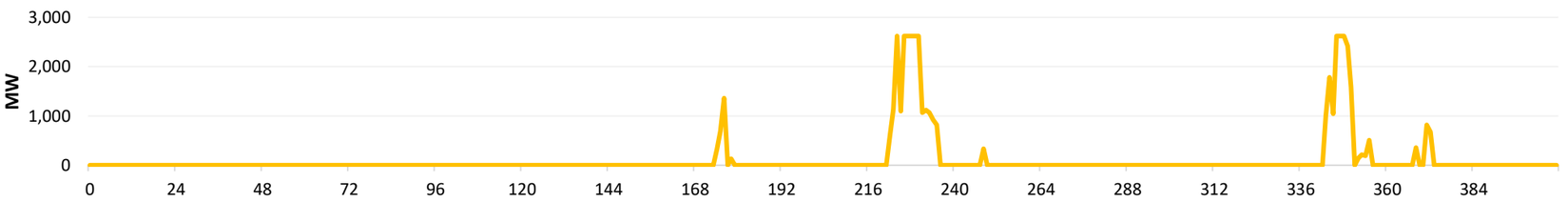
Export Reductions	
Total Hrs.	123
Total MWh	105,694
Avg. MW	259.1

SCR/EDRP Deployed During Modeling Period



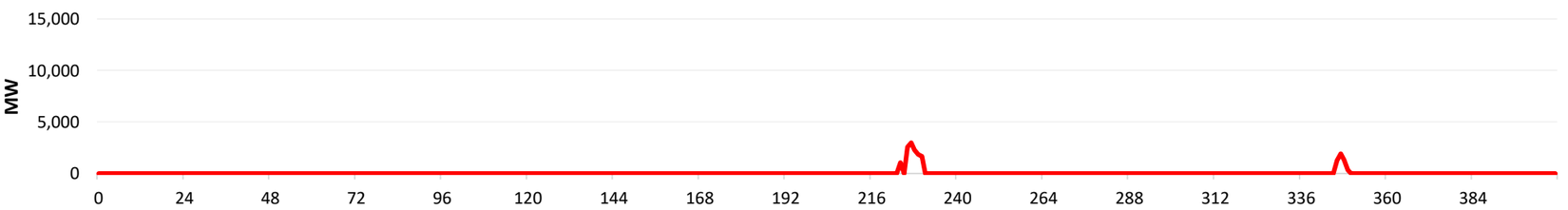
SCR Deployment	
Total Hrs.	15
Total MWh	5,970
Avg. MW	14.6

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	34
Total MWh	44,995
Avg. MW	110.3
First Hour with Viol.	174

Loss of Load During Modeling Period



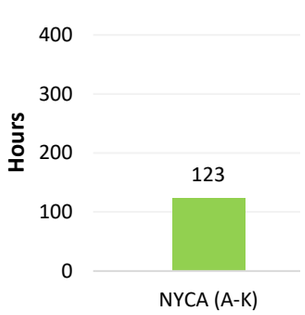
Loss of Load	
Total Hrs.	10
Total MWh	17,221
Avg. MW	42.2
First Hour with Losses	224

Full Period Results Summary

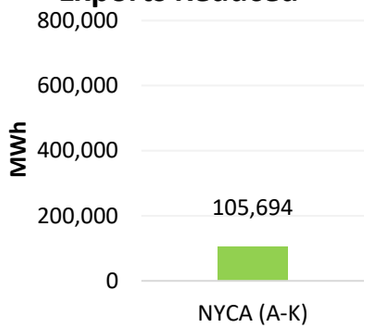
Case Name: Scenario 3 - PD 4 Nuclear Station Outage

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	All

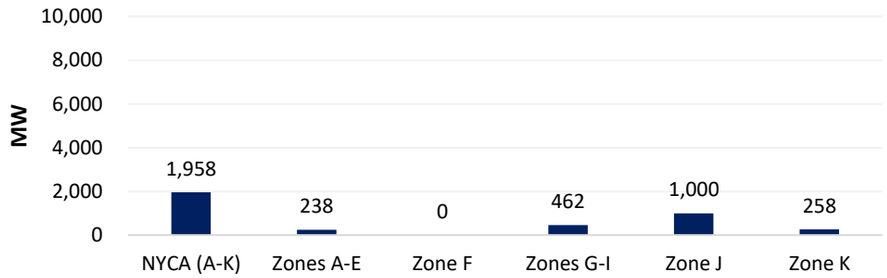
Hours Exports Reduced



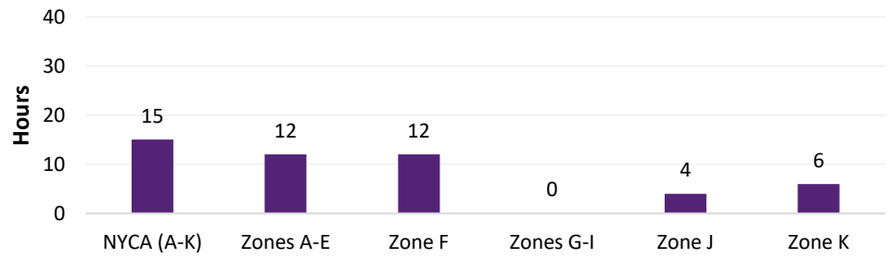
Total MWh of Exports Reduced



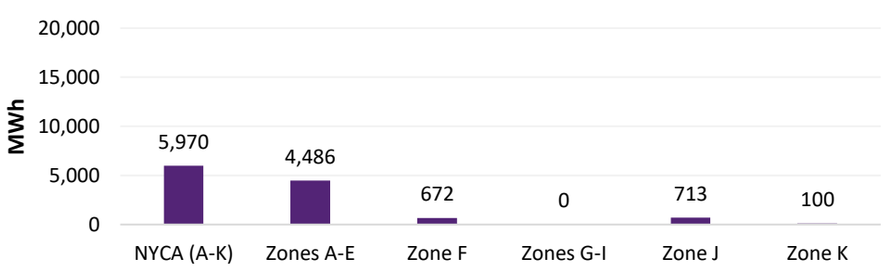
Average Capacity Not Available Due to Exhausted Fuel Inventory



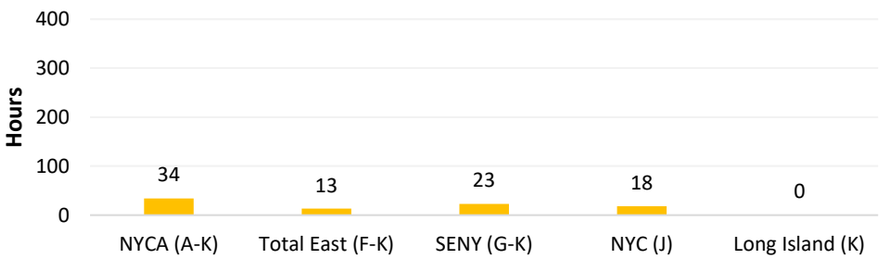
Hours SCR/EDRP Deployed



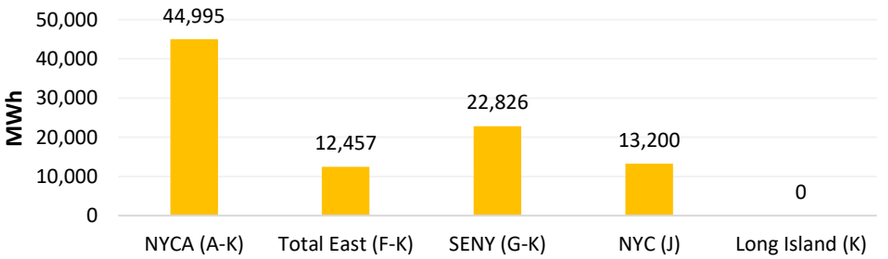
Total MWh SCR/EDRP Deployed



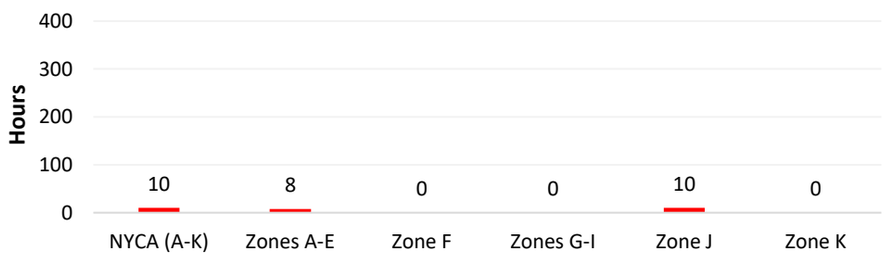
Hours with Reserve Violations



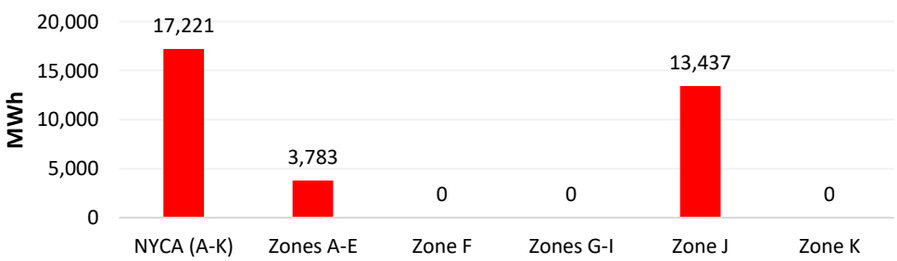
Total MWh of Reserve Violations

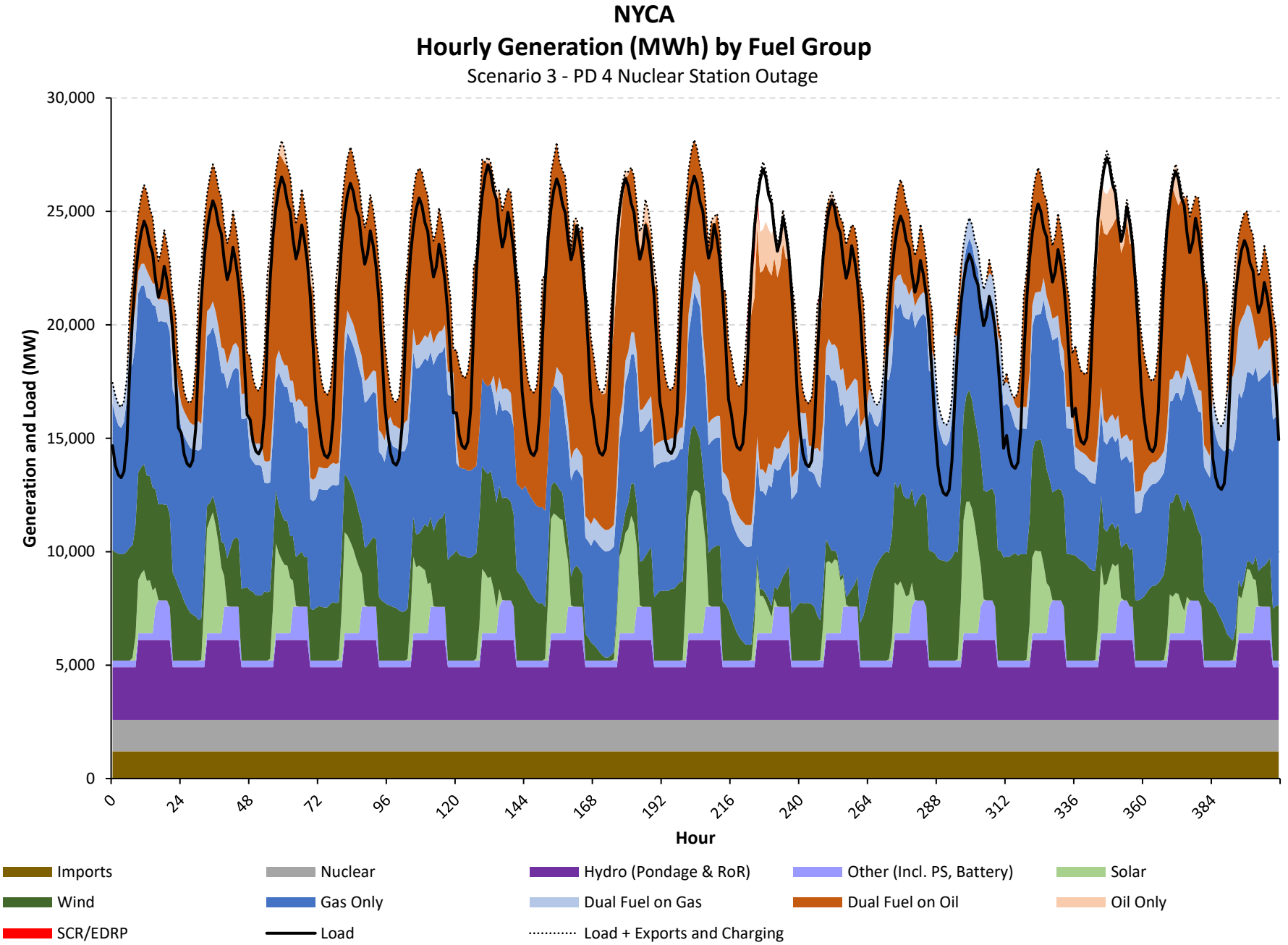


Hours with Loss of Load

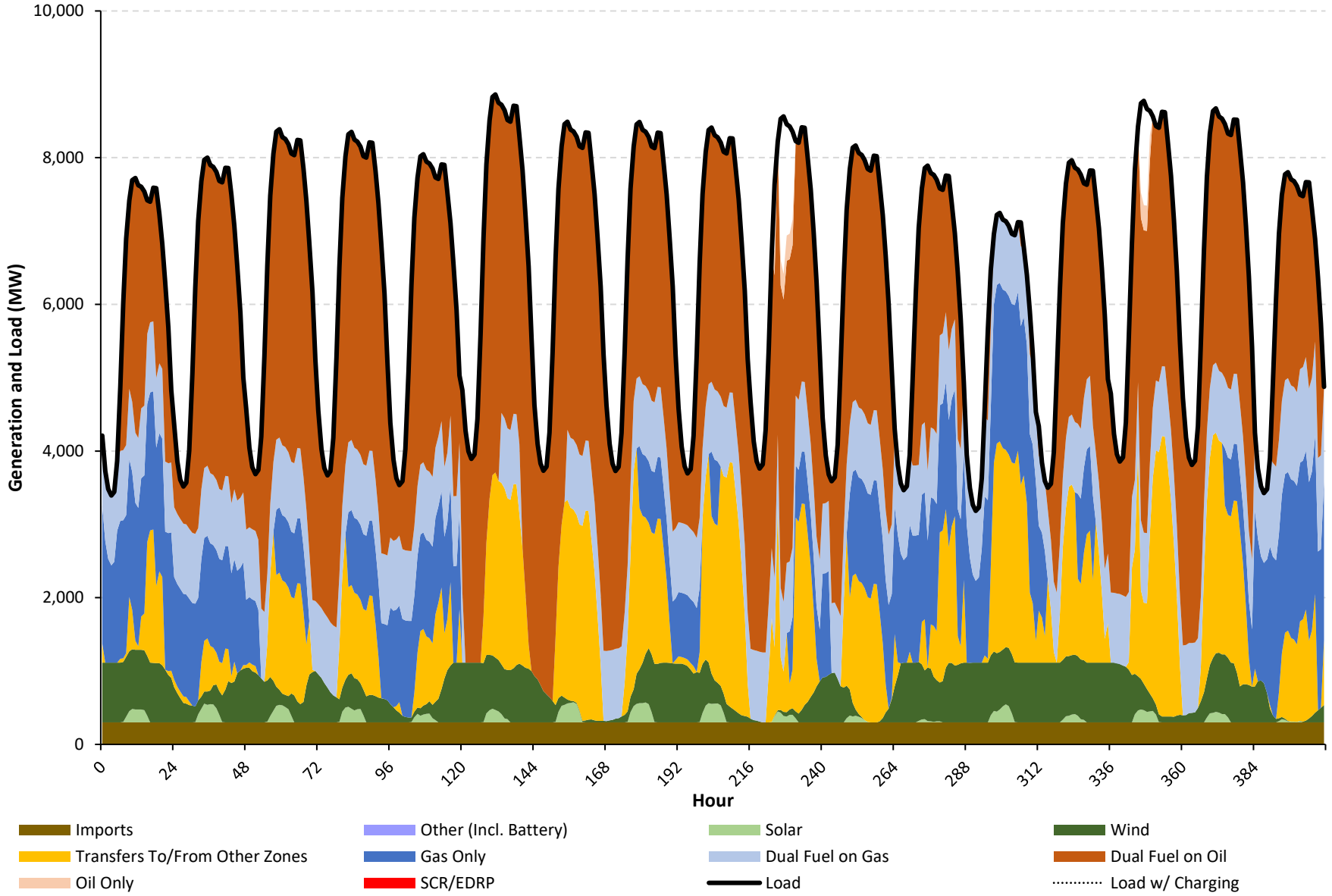


Total MWh of Lost Load

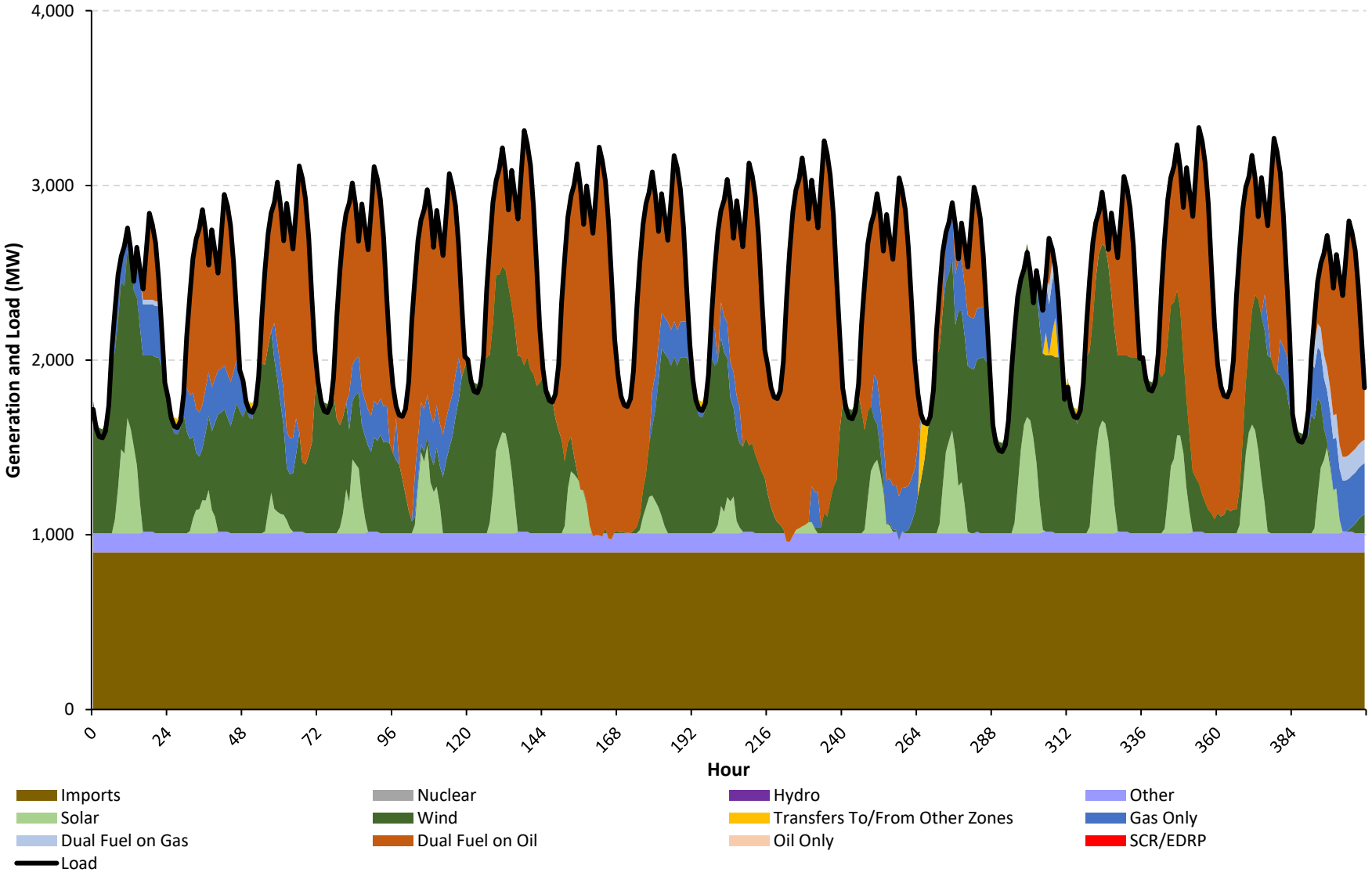



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 3 - PD 4 Nuclear Station Outage
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 4 Nuclear Station Outage



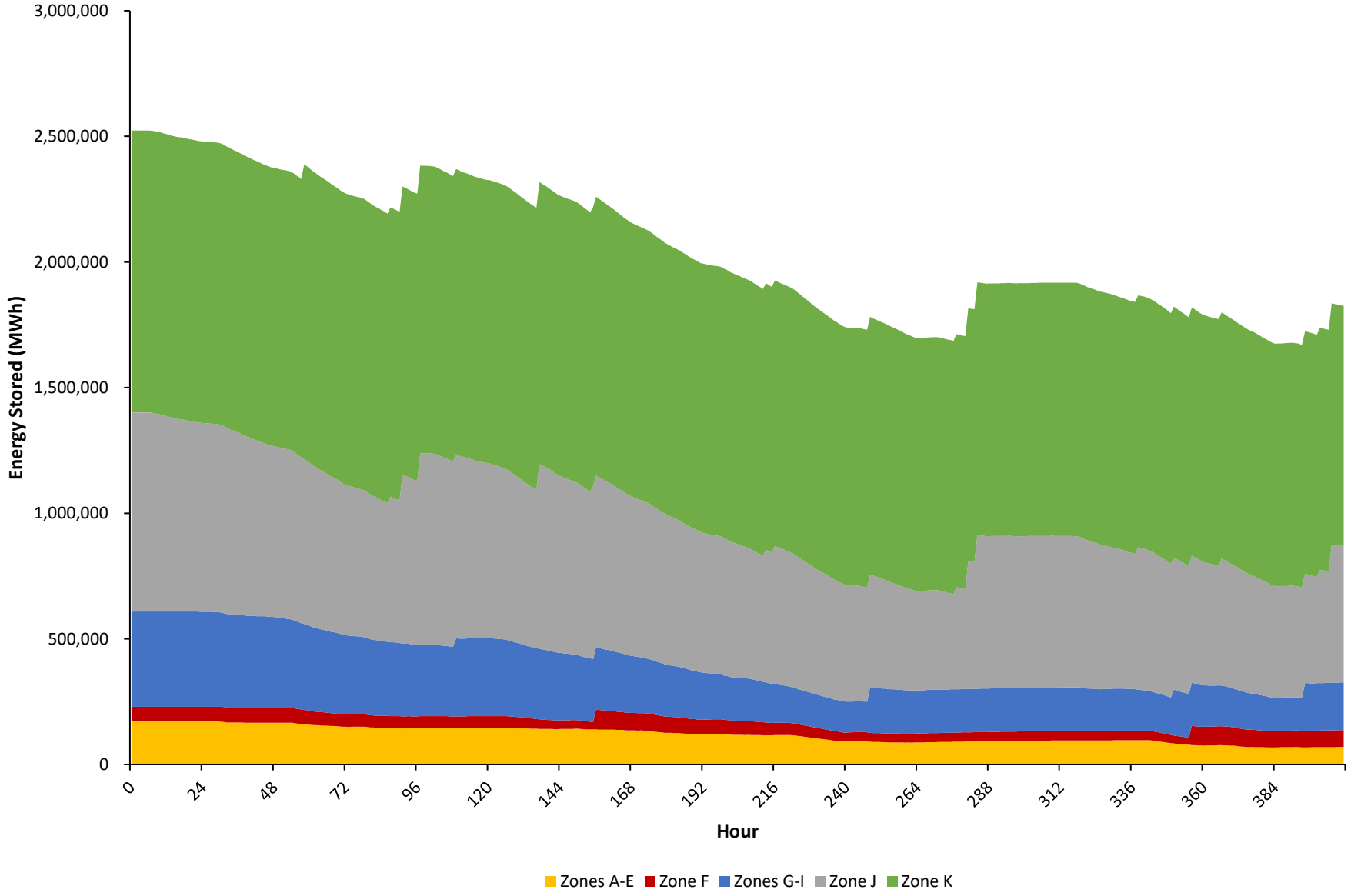
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 4 Nuclear Station Outage

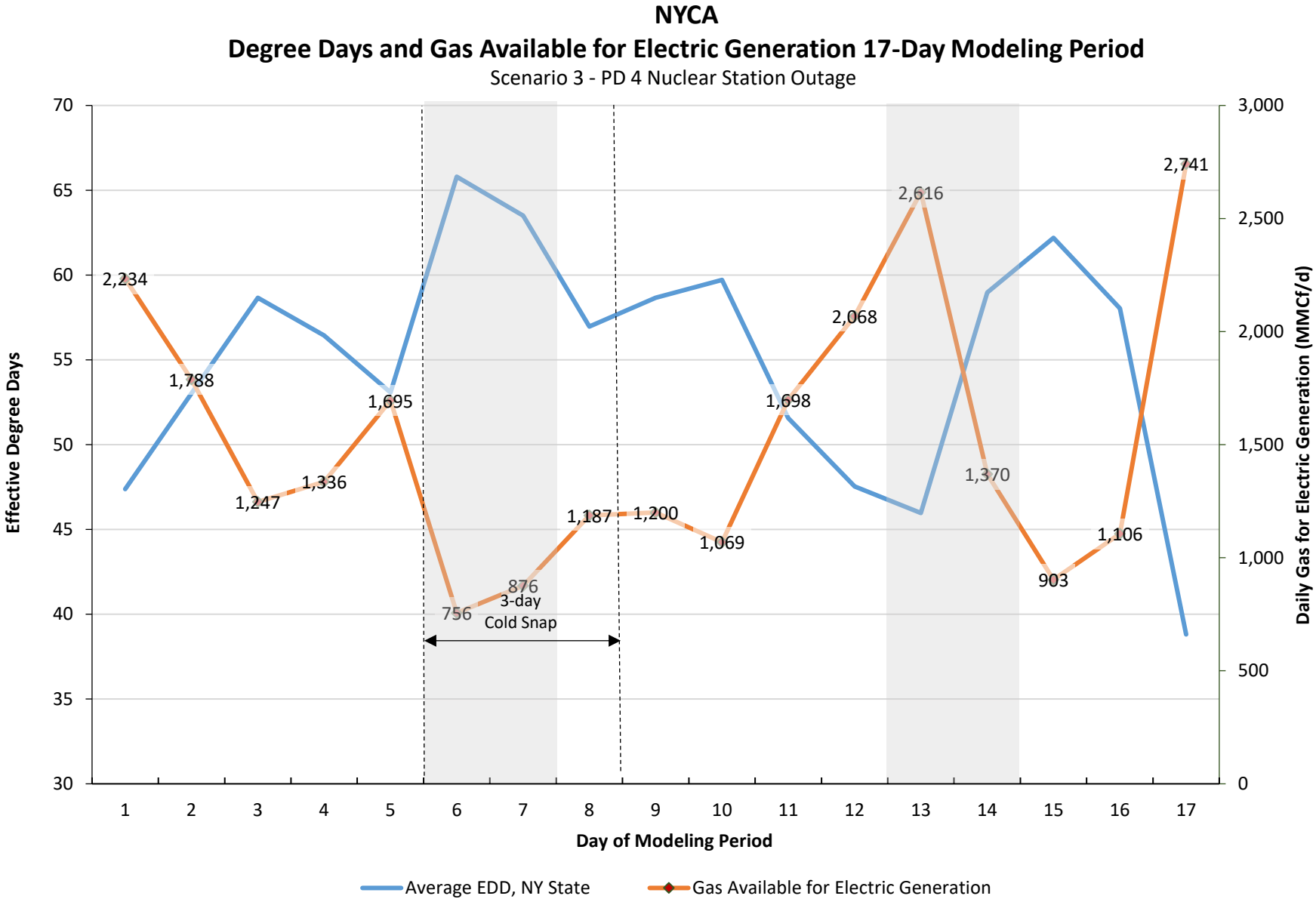


NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

Scenario 3 - PD 4 Nuclear Station Outage



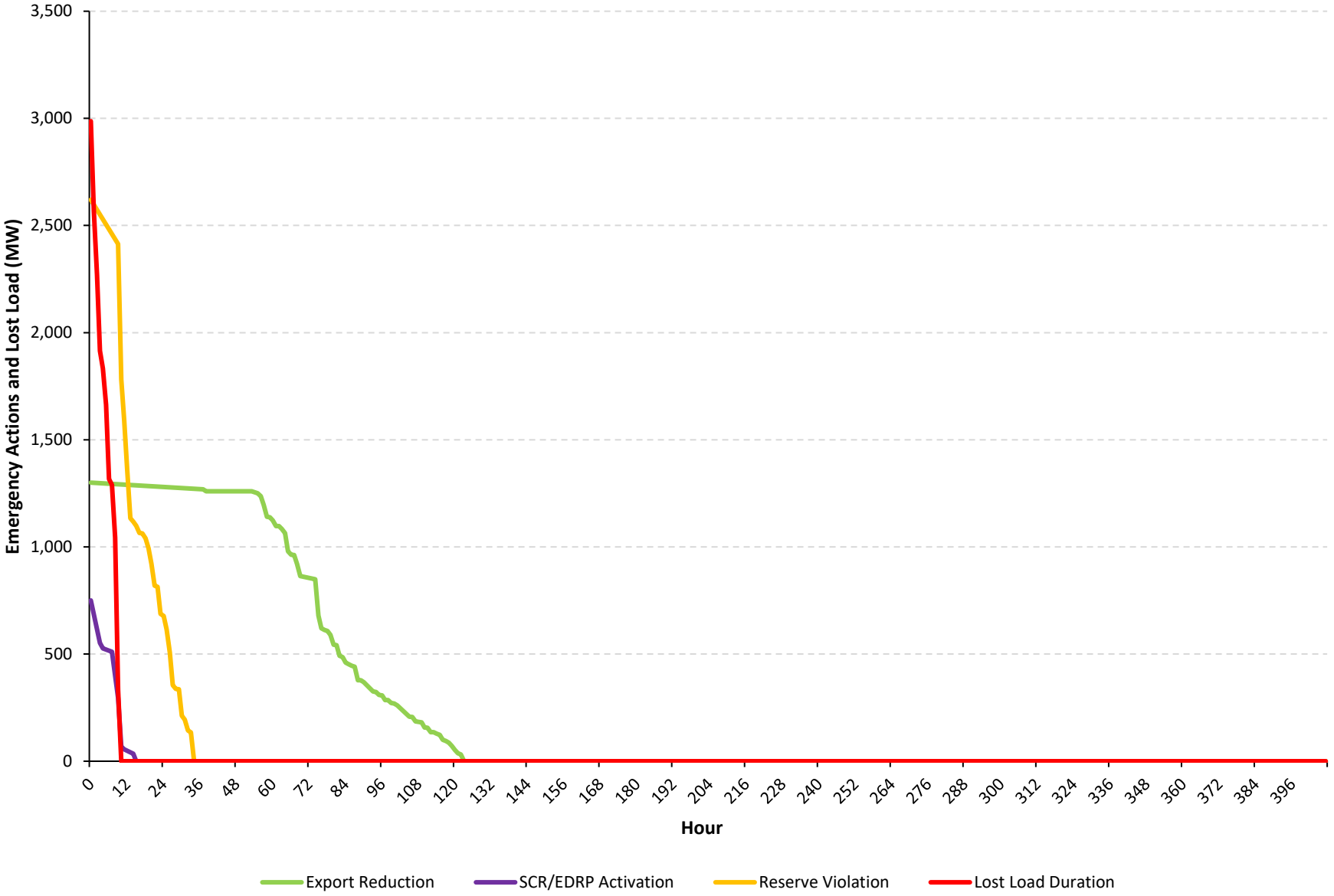


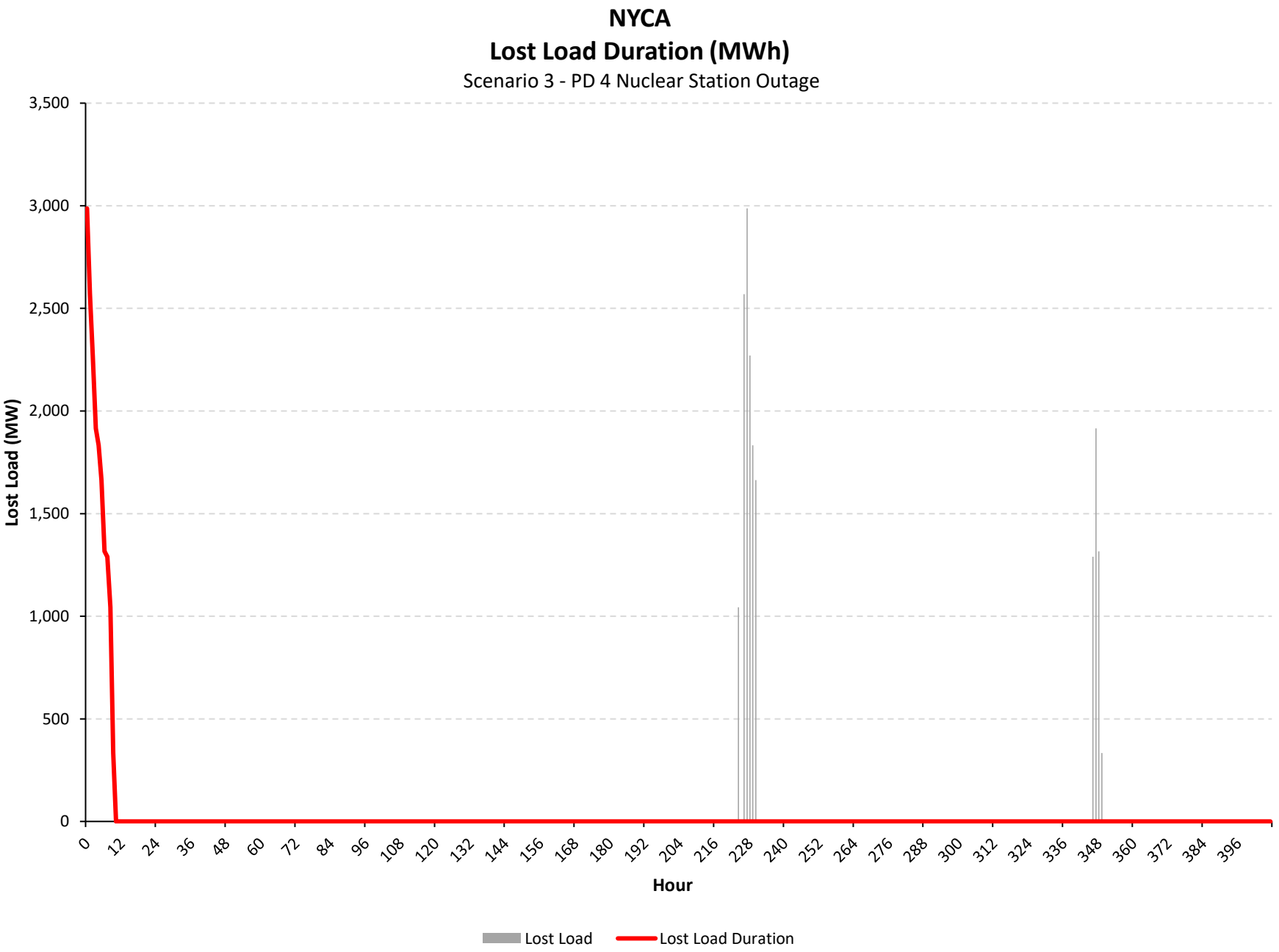
Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.

NYCA

Emergency Actions and Lost Load Duration (MWh)

Scenario 3 - PD 4 Nuclear Station Outage




NYCA
Lost Load Duration (MWh)
Scenario 3 - PD 4 Nuclear Station Outage
Lost Load (MW)
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

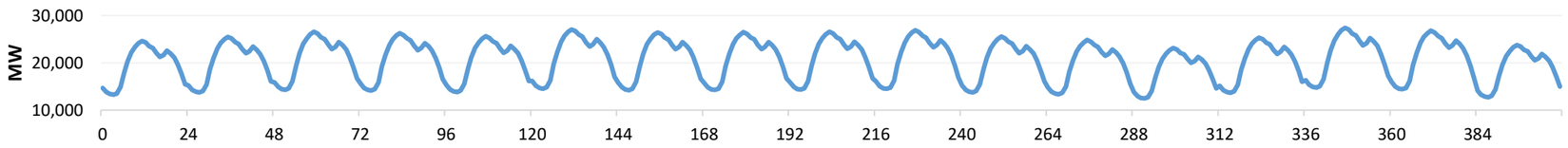
Case: Scenario 3 - PD 5 No Truck Refill (Winter 2026/2027)

Hourly Results Summary

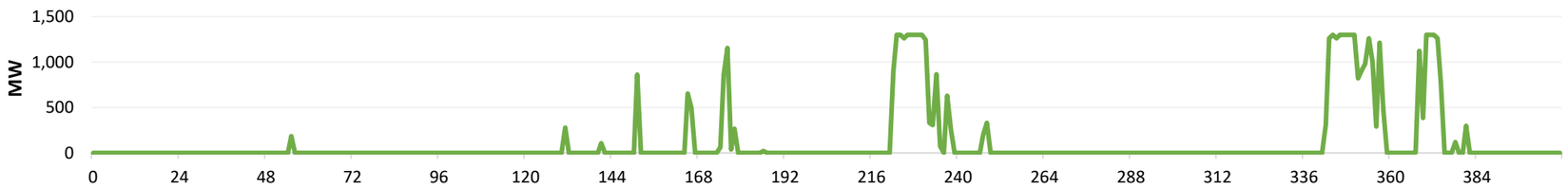
Case Name: Scenario 3 - PD 5 No Truck Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Load During Modeling Period

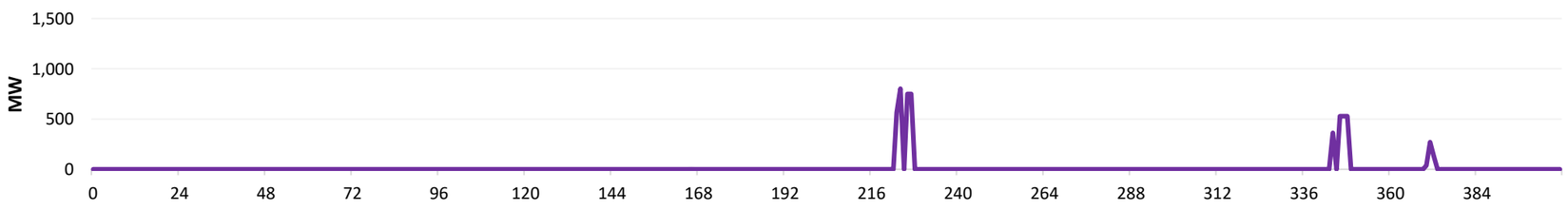


Export to ISO-NE Reduction During Modeling Period



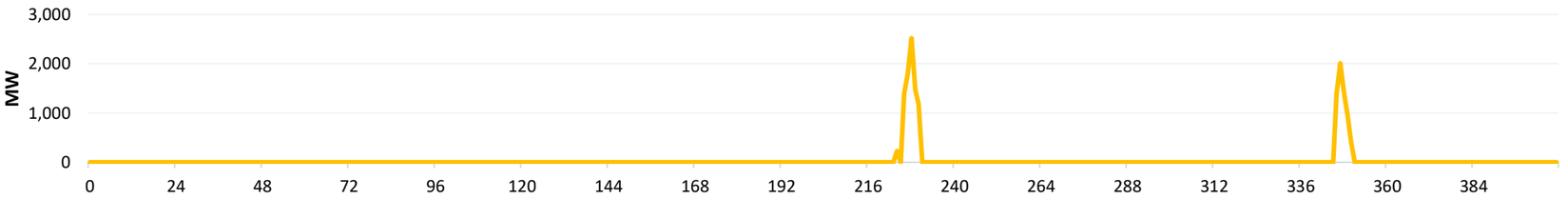
Export Reductions	
Total Hrs.	57
Total MWh	45,937
Avg. MW	112.6

SCR/EDRP Deployed During Modeling Period



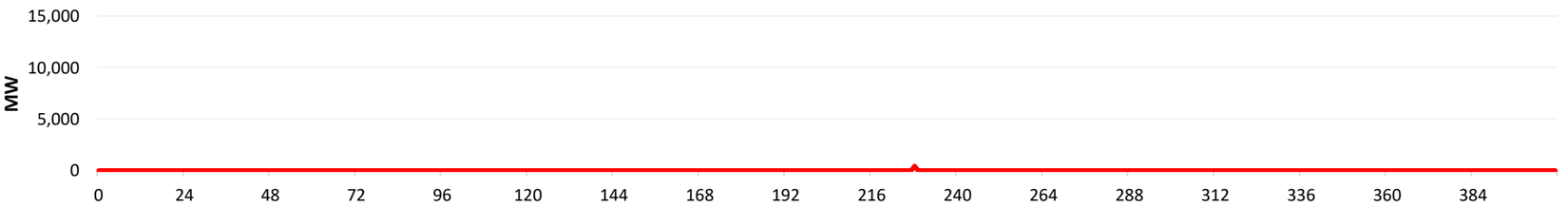
SCR Deployment	
Total Hrs.	11
Total MWh	5,246
Avg. MW	12.9

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	11
Total MWh	14,758
Avg. MW	36.2
First Hour with Viol.	224

Loss of Load During Modeling Period



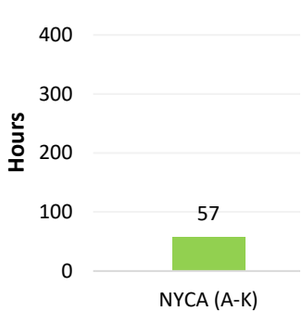
Loss of Load	
Total Hrs.	1
Total MWh	439
Avg. MW	1.1
First Hour with Losses	228

Full Period Results Summary

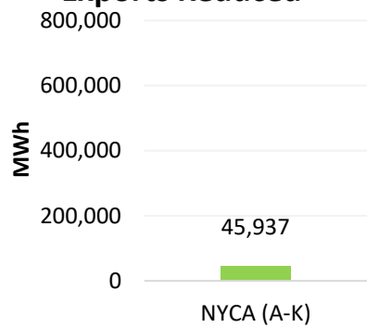
Case Name: Scenario 3 - PD 5 No Truck Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

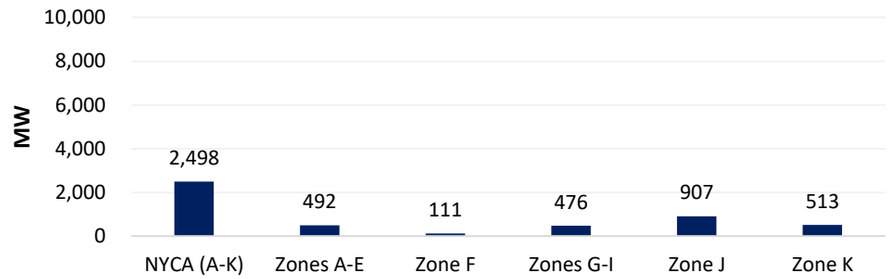
Hours Exports Reduced



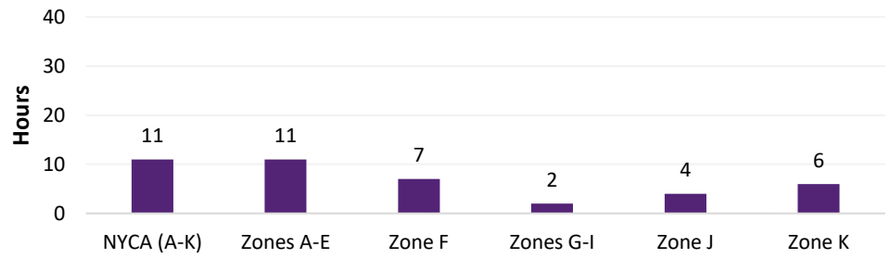
Total MWh of Exports Reduced



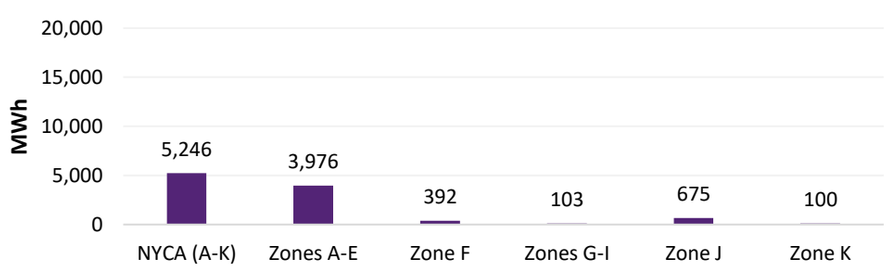
Average Capacity Not Available Due to Exhausted Fuel Inventory



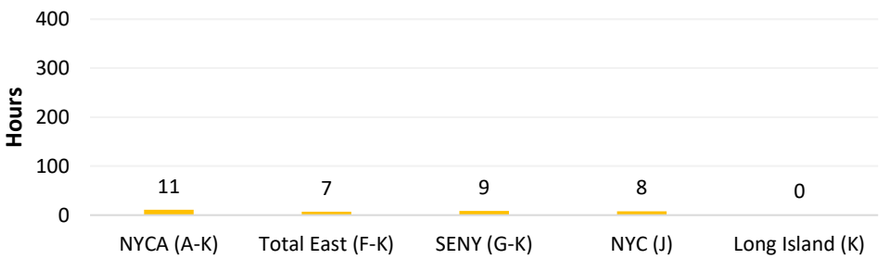
Hours SCR/EDRP Deployed



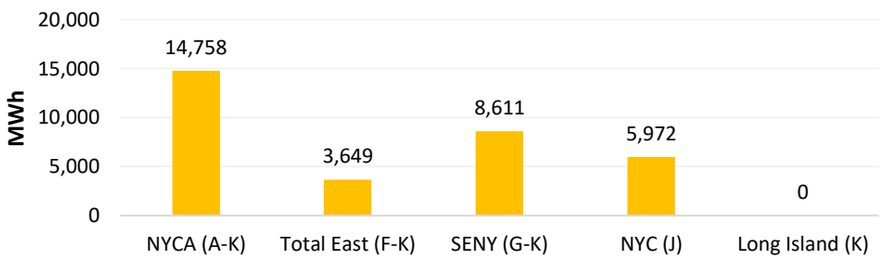
Total MWh SCR/EDRP Deployed



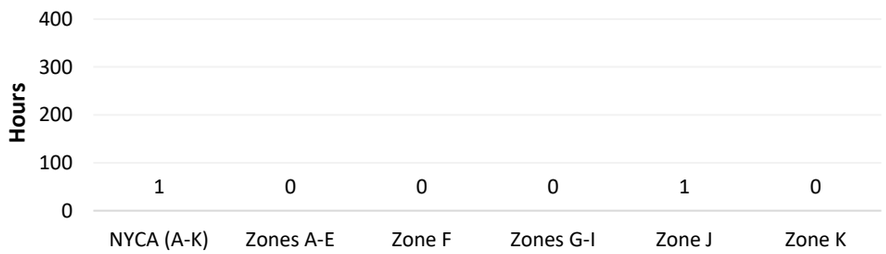
Hours with Reserve Violations



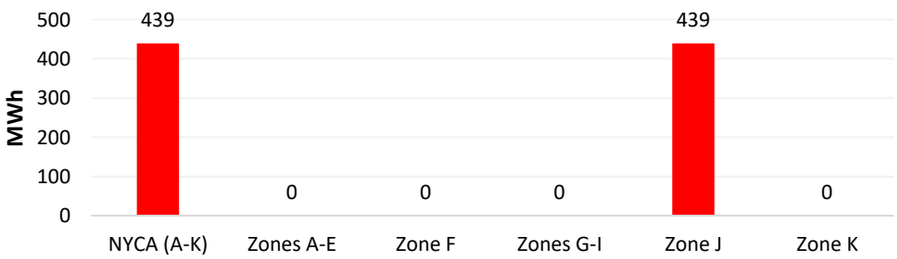
Total MWh of Reserve Violations

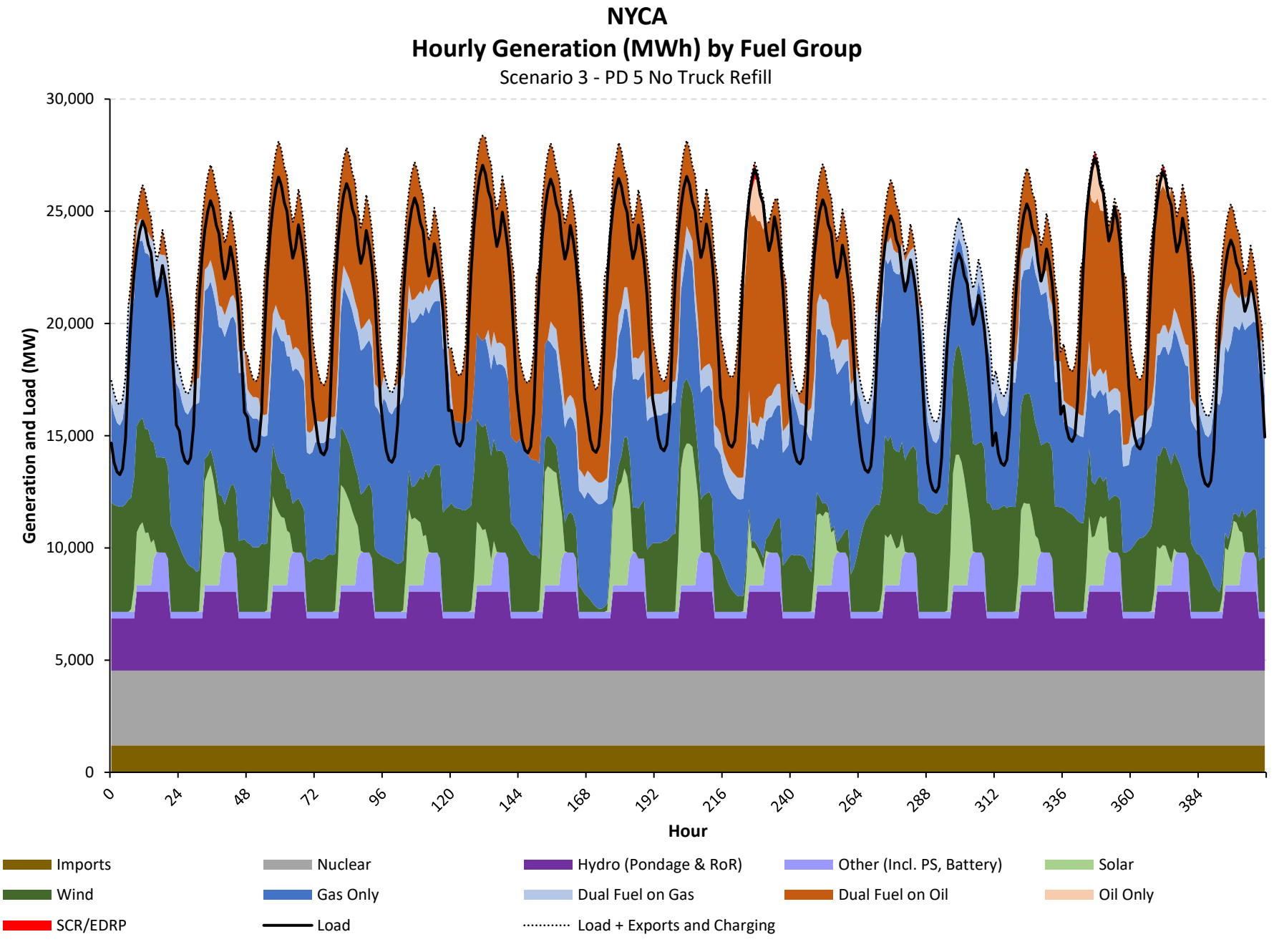


Hours with Loss of Load

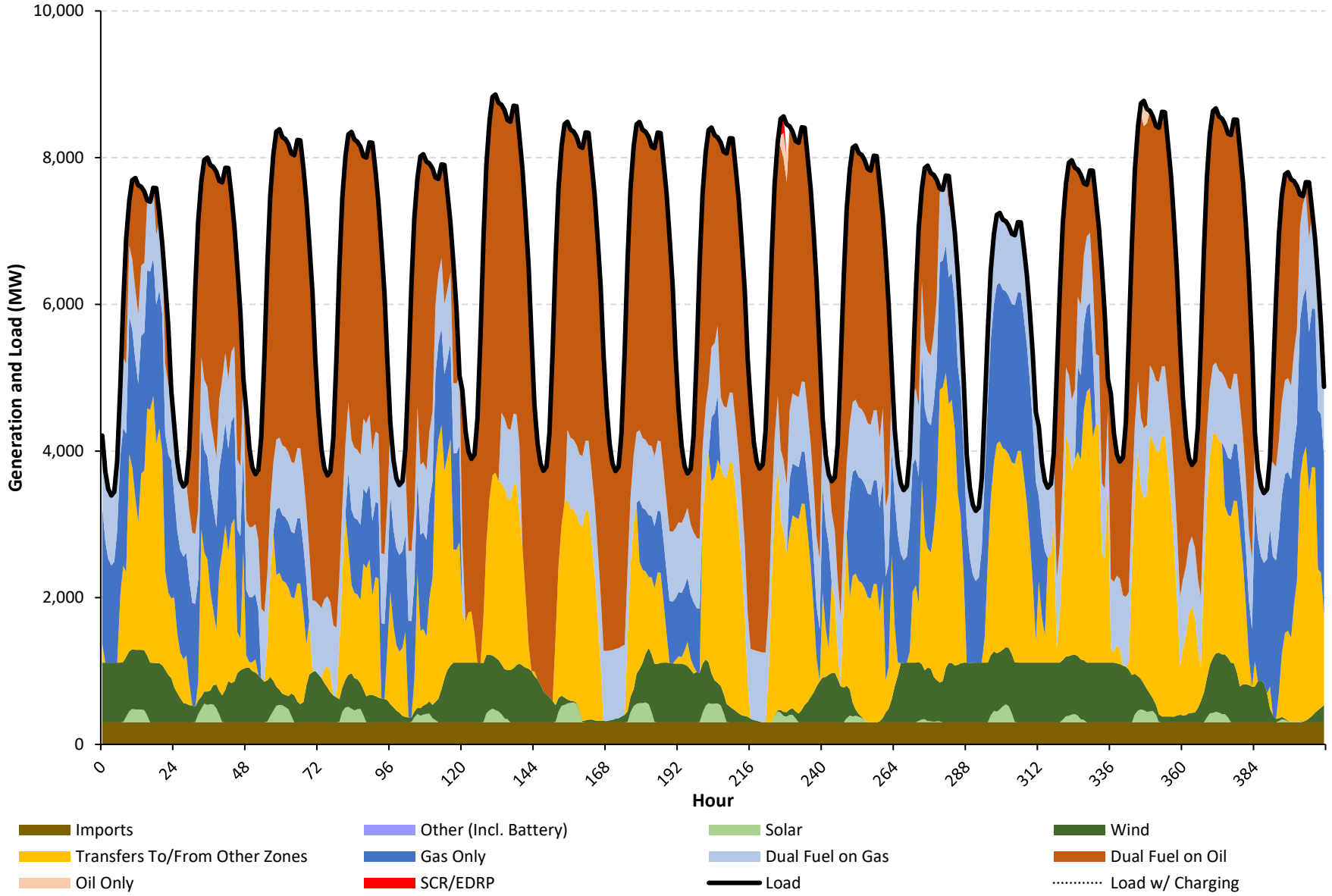


Total MWh of Lost Load

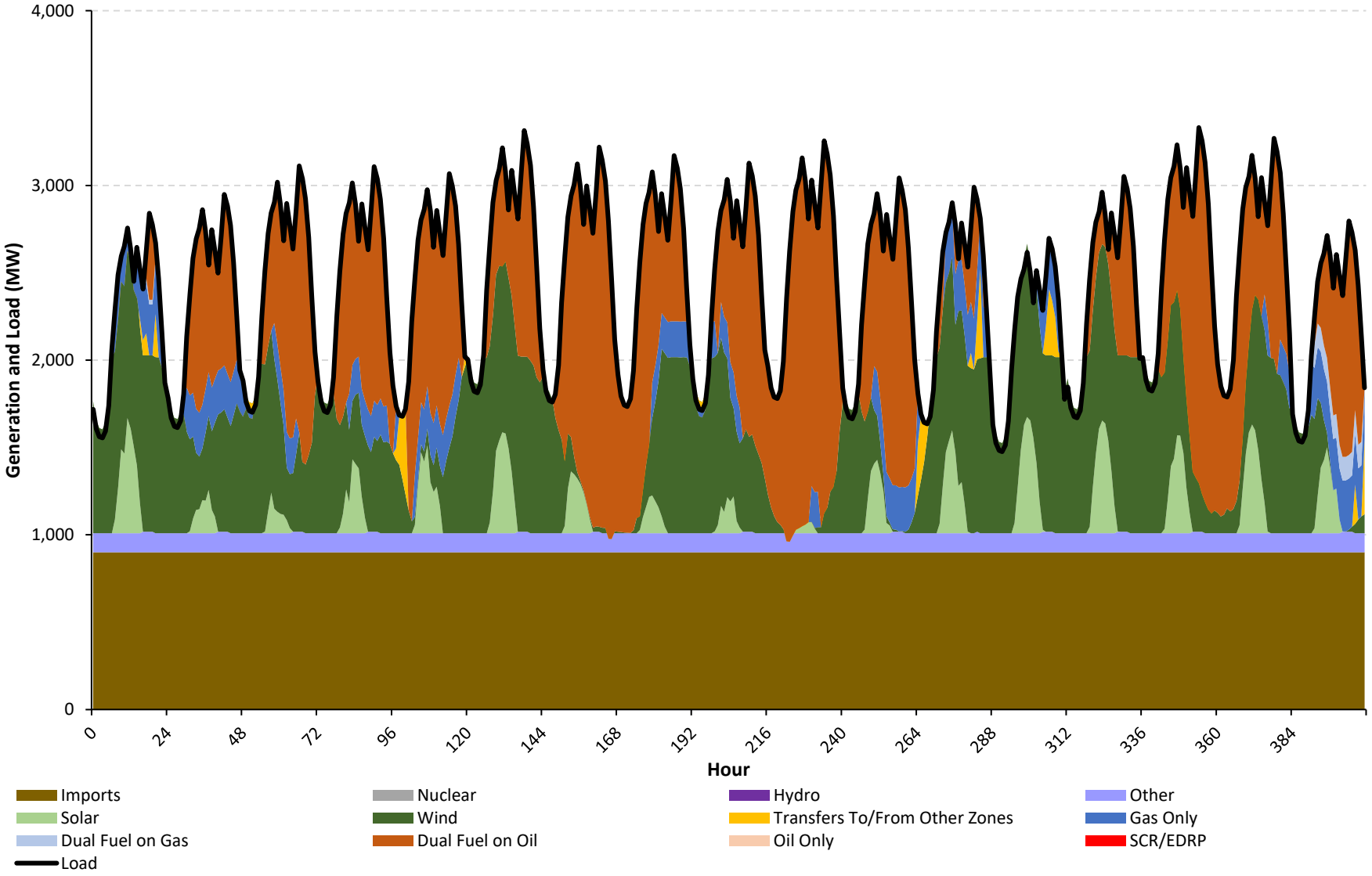


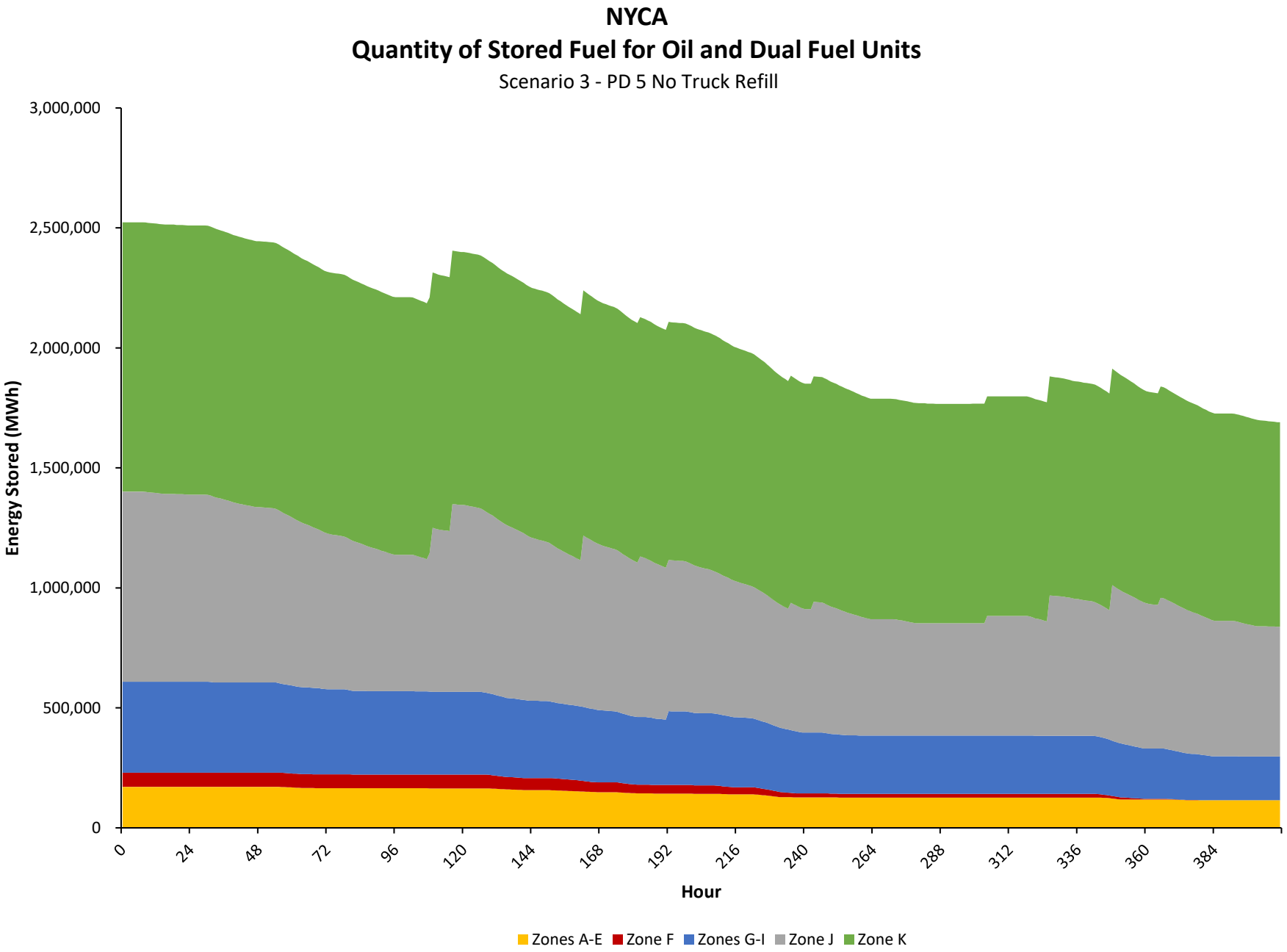

NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 3 - PD 5 No Truck Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

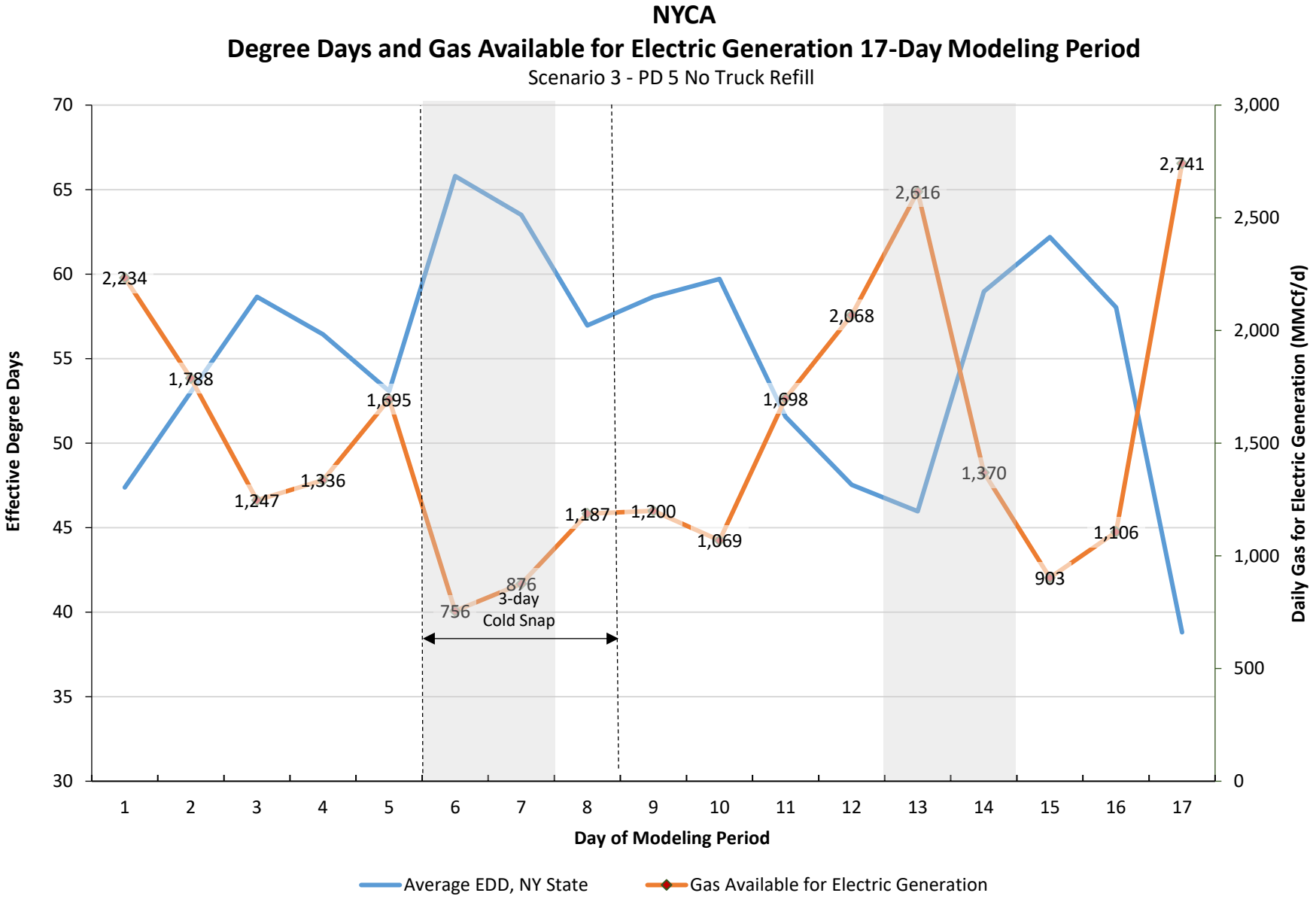
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 5 No Truck Refill



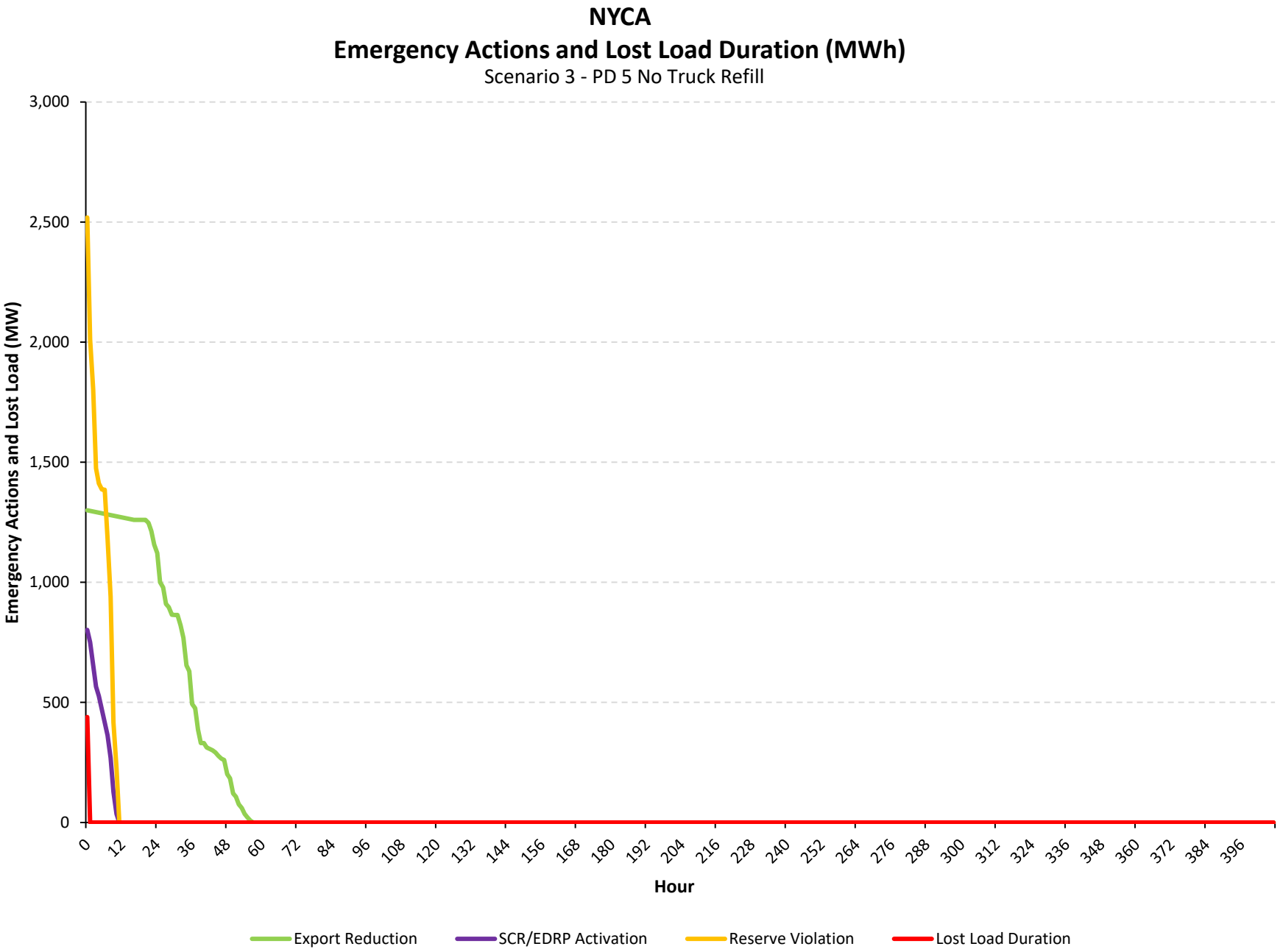
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 5 No Truck Refill

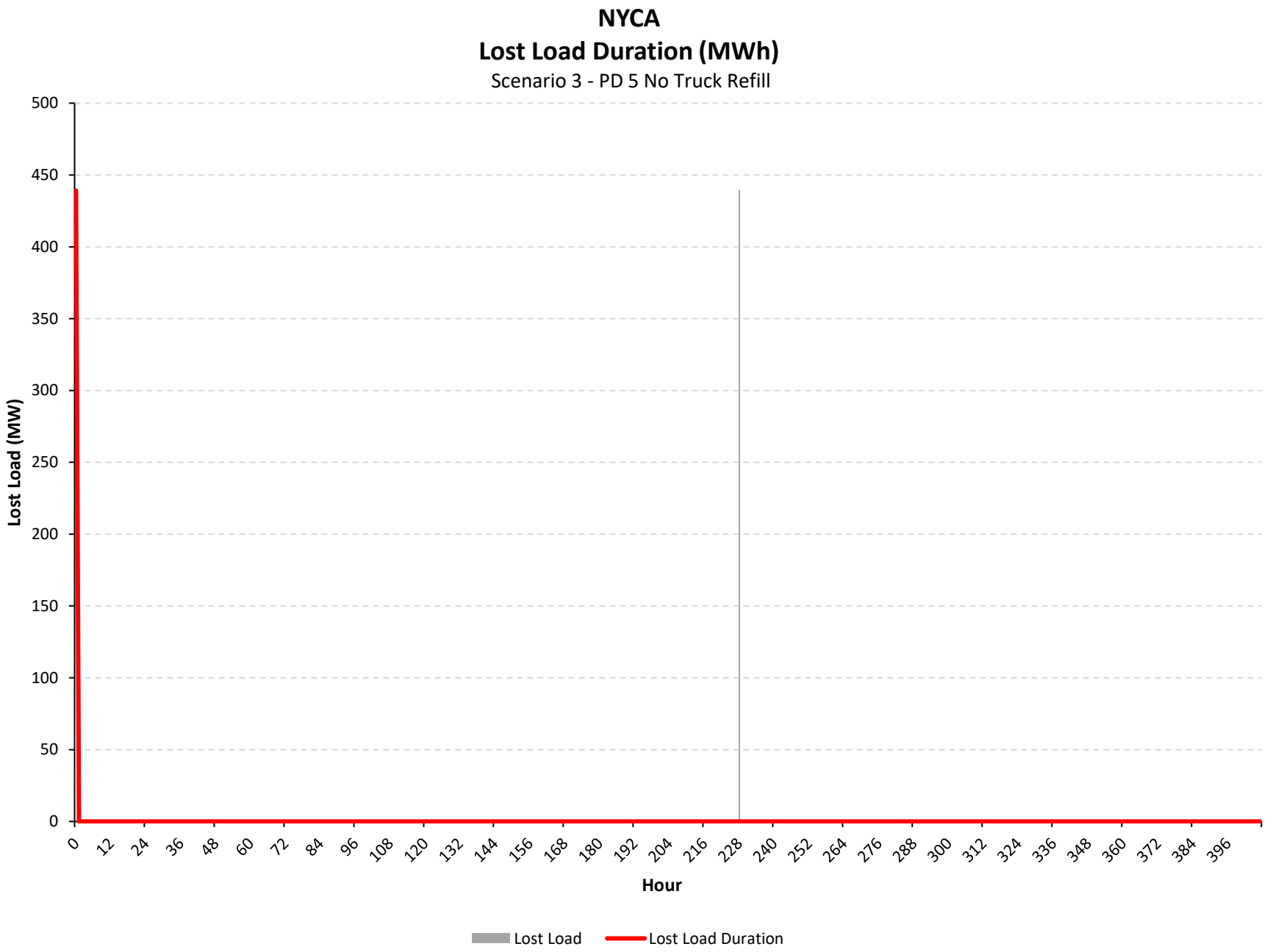



NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 3 - PD 5 No Truck Refill
Energy Stored (MWh)
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Zones A-E
Zone F
Zones G-I
Zone J
Zone K



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 3 - PD 5 No Truck Refill
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 3 - PD 5 No Truck Refill
Lost Load (MW)
500
450
400
350
300
250
200
150
100
50
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

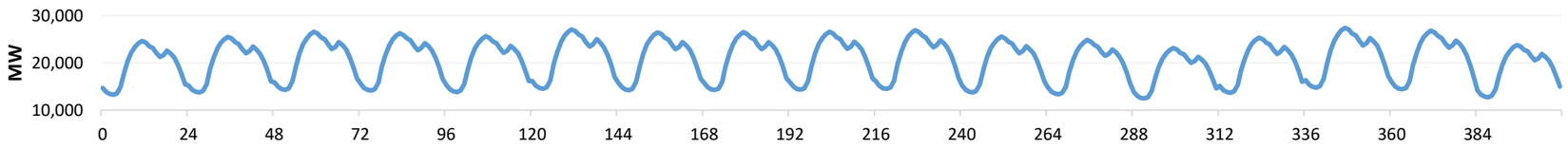
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 6 No Barge Refill (Winter 2026/2027)

Hourly Results Summary

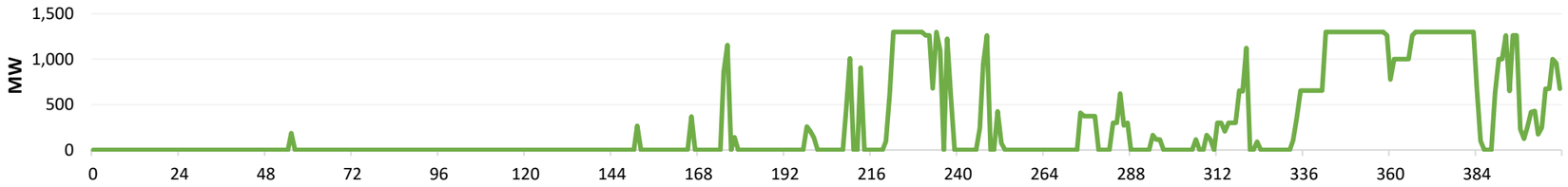
Case Name: Scenario 3 - PD 6 No Barge Refill

Load During Modeling Period



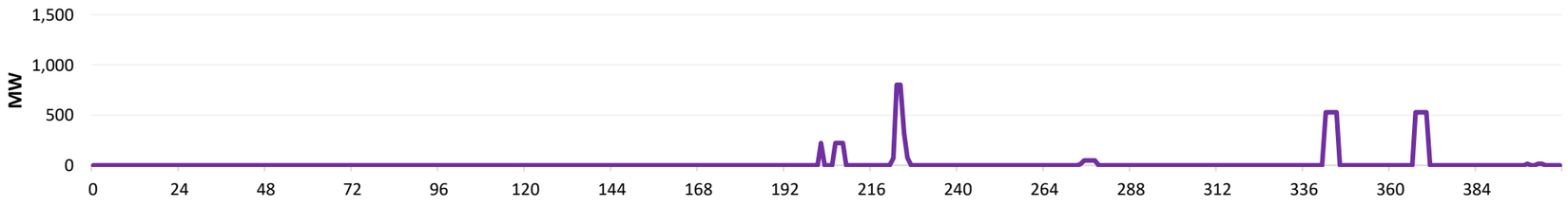
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



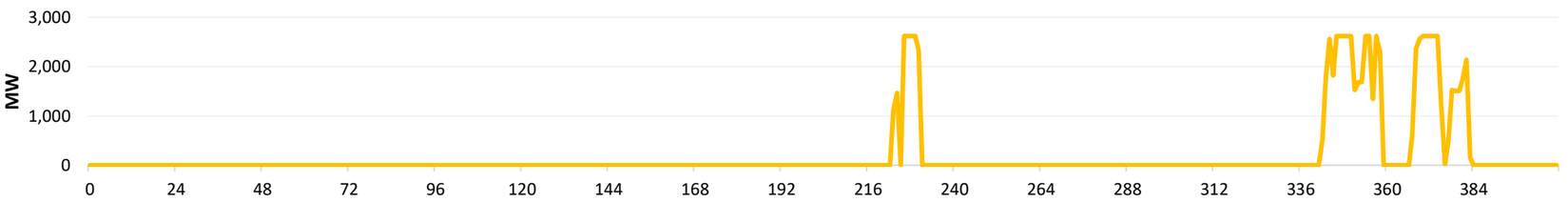
Export Reductions	
Total Hrs.	134
Total MWh	108,619
Avg. MW	266.2

SCR/EDRP Deployed During Modeling Period



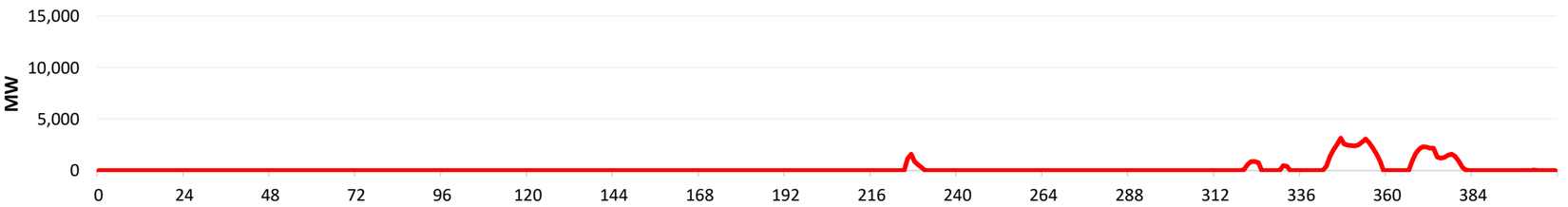
SCR Deployment	
Total Hrs.	25
Total MWh	7,438
Avg. MW	18.2

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	41
Total MWh	80,512
Avg. MW	197.3
First Hour with Viol.	202

Loss of Load During Modeling Period



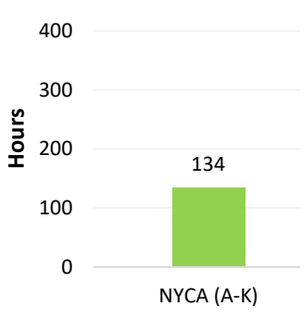
Loss of Load	
Total Hrs.	47
Total MWh	66,739
Avg. MW	163.6
First Hour with Losses	226

Full Period Results Summary

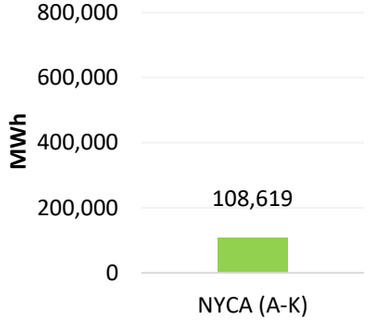
Case Name: Scenario 3 - PD 6 No Barge Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

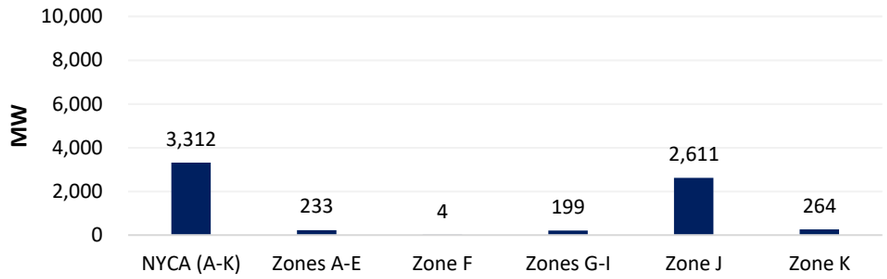
Hours Exports Reduced



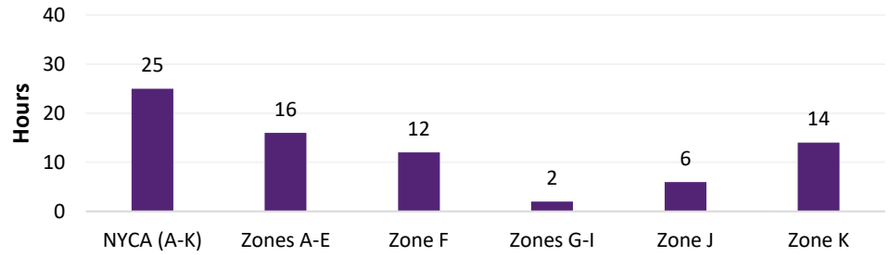
Total MWh of Exports Reduced



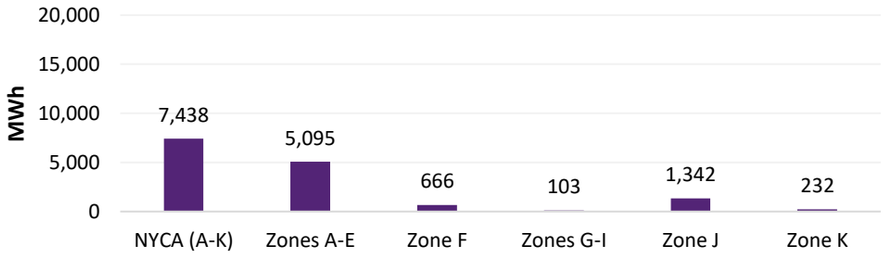
Average Capacity Not Available Due to Exhausted Fuel Inventory



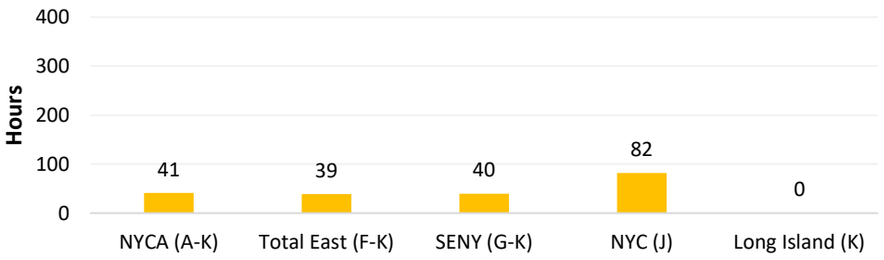
Hours SCR/EDRP Deployed



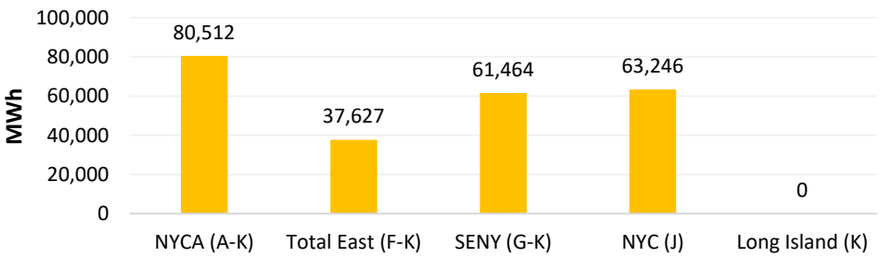
Total MWh SCR/EDRP Deployed



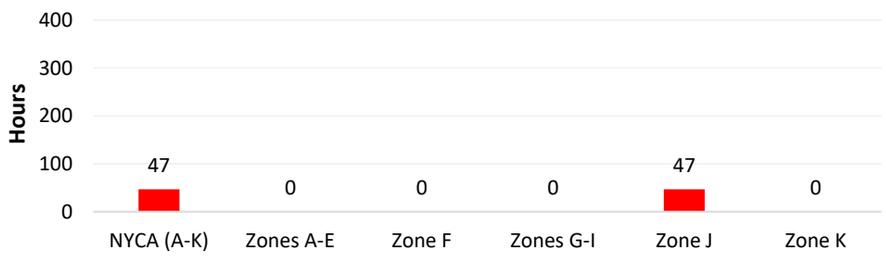
Hours with Reserve Violations



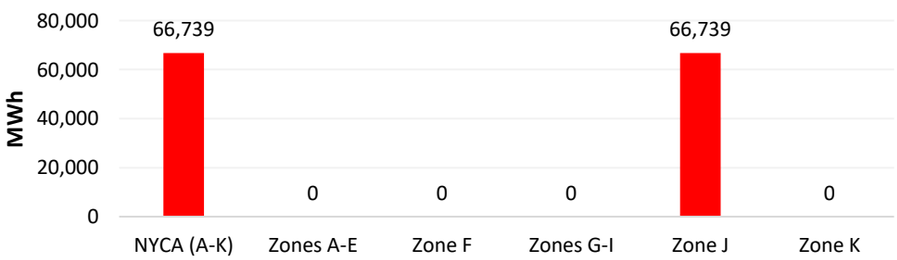
Total MWh of Reserve Violations

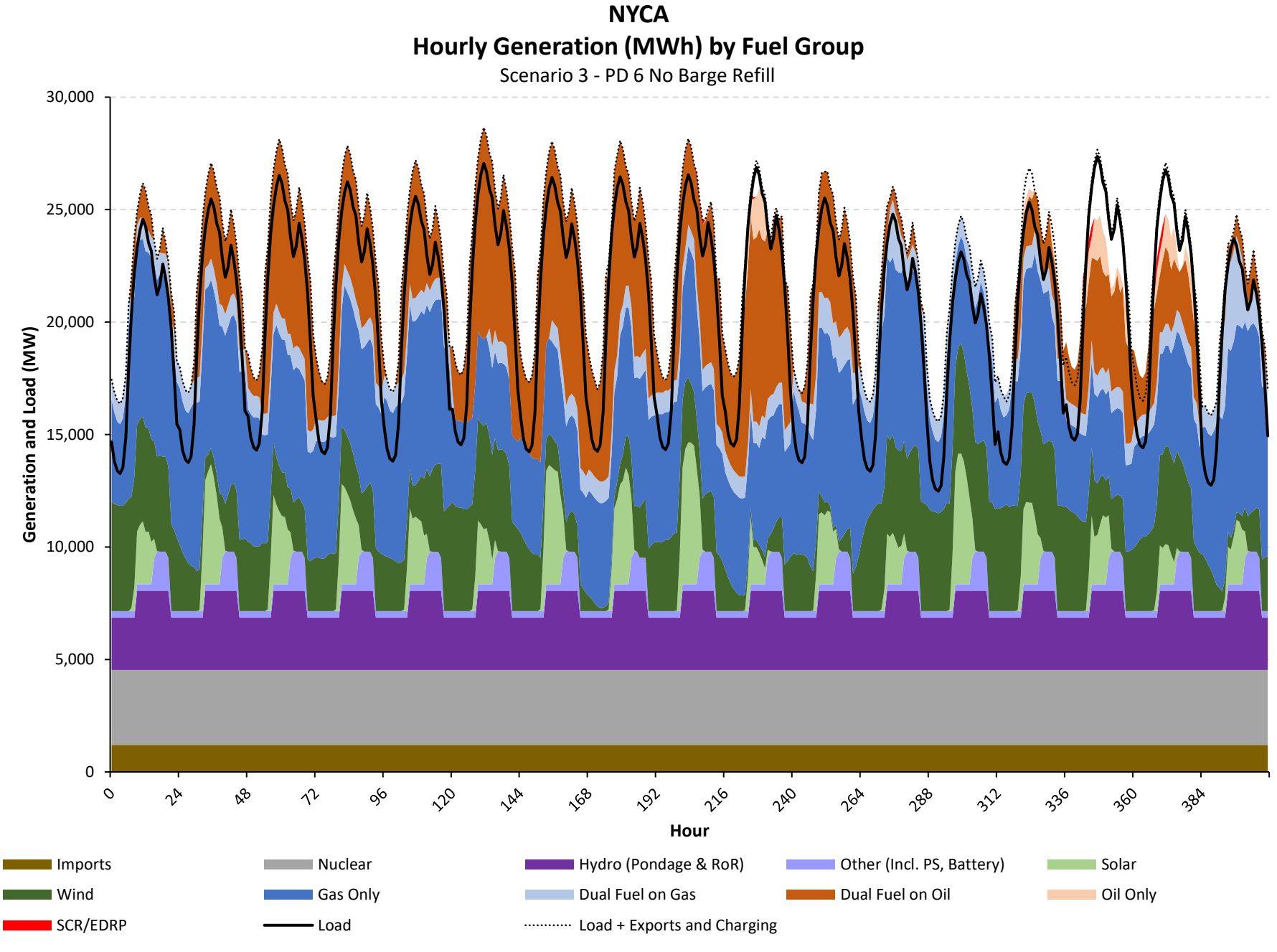


Hours with Loss of Load

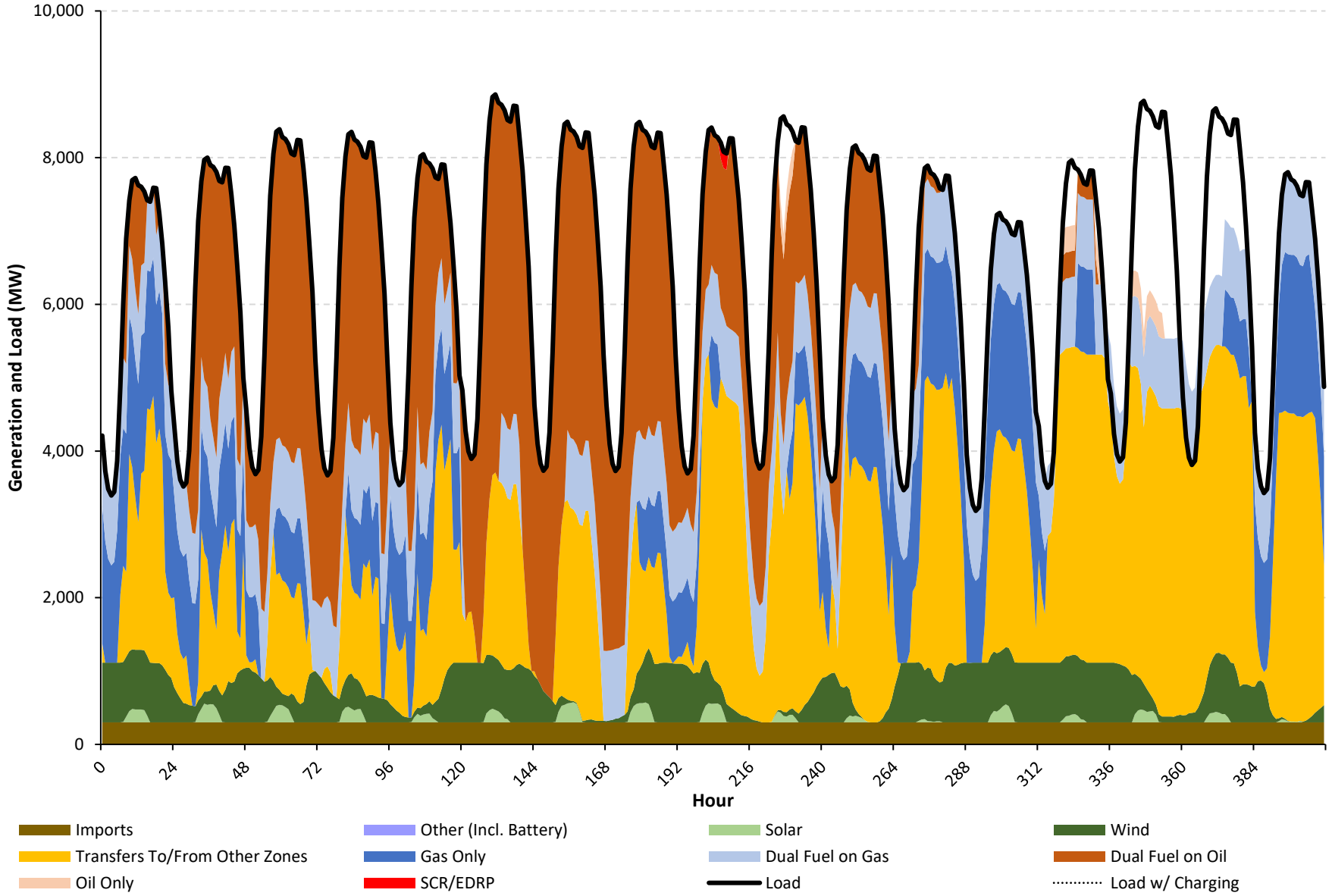


Total MWh of Lost Load

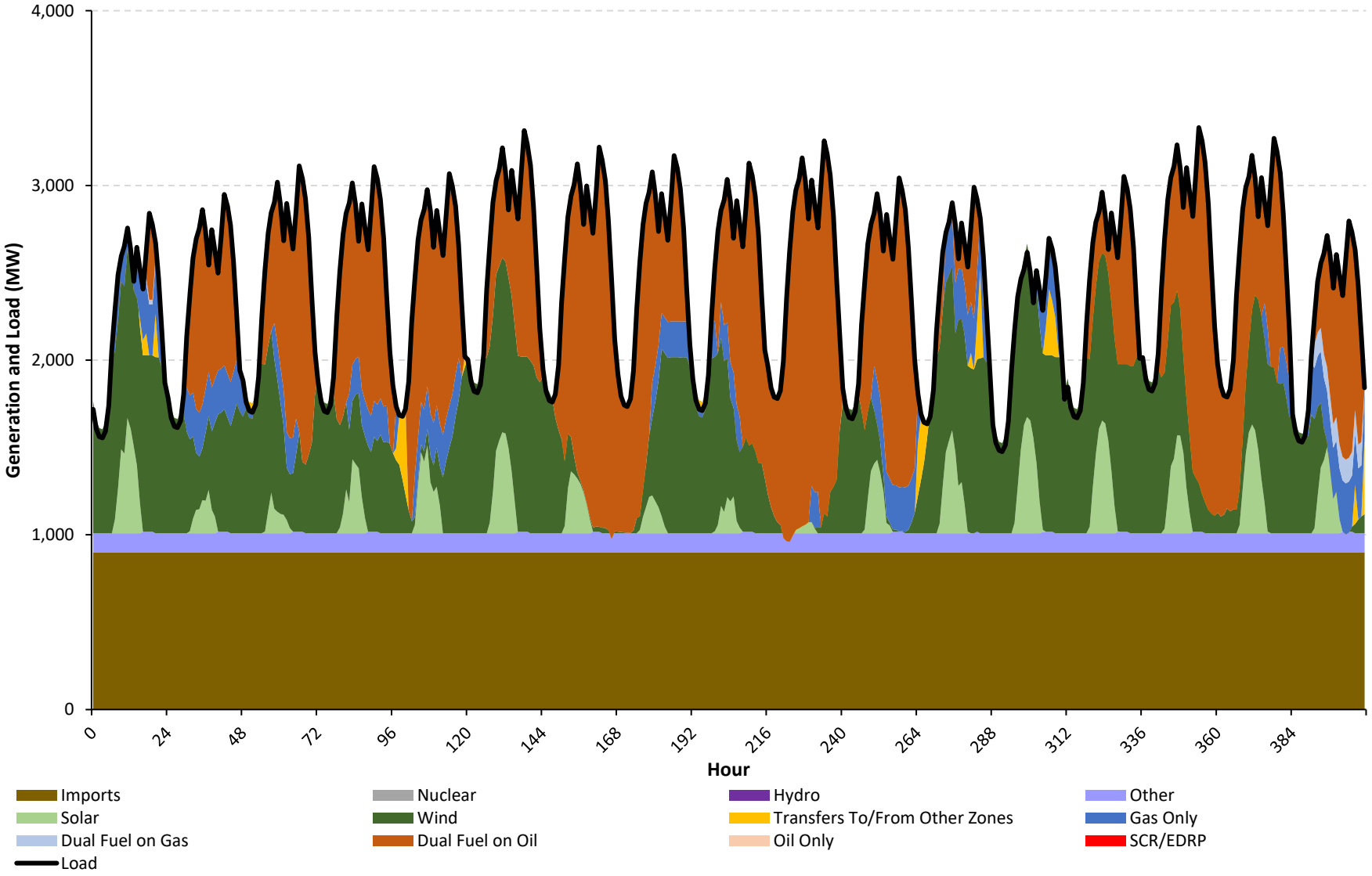



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 3 - PD 6 No Barge Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 6 No Barge Refill



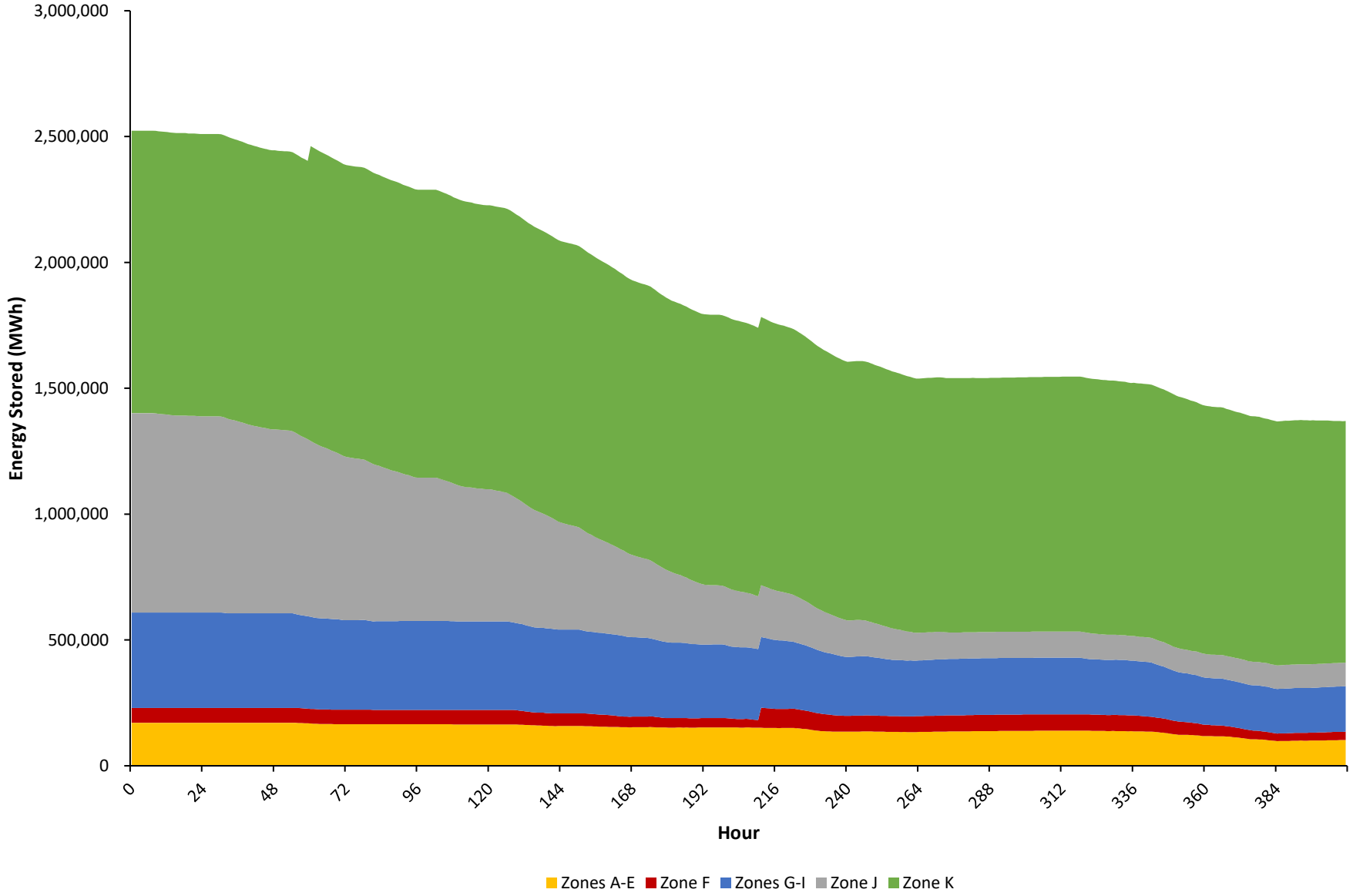
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 6 No Barge Refill

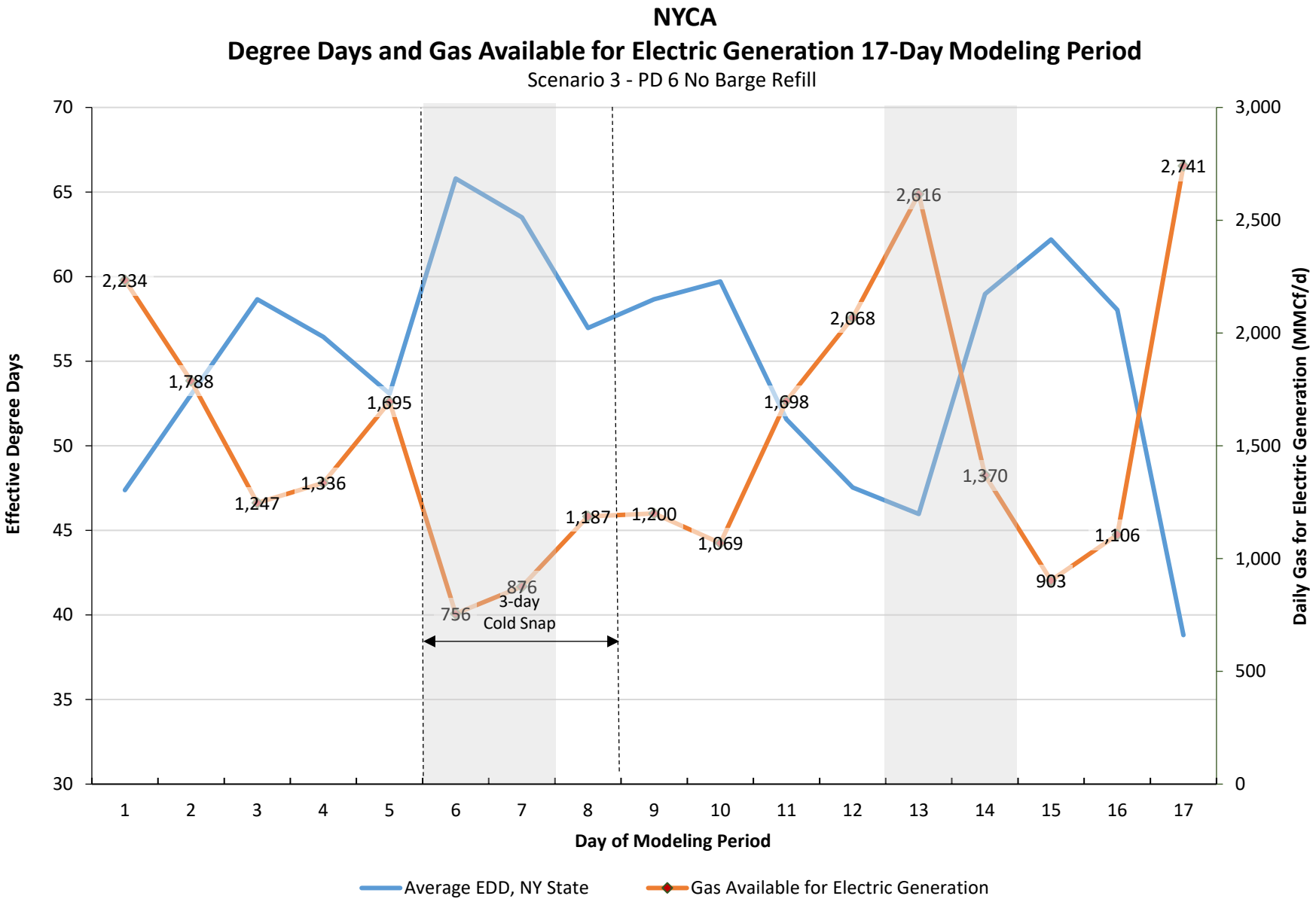


NYCA

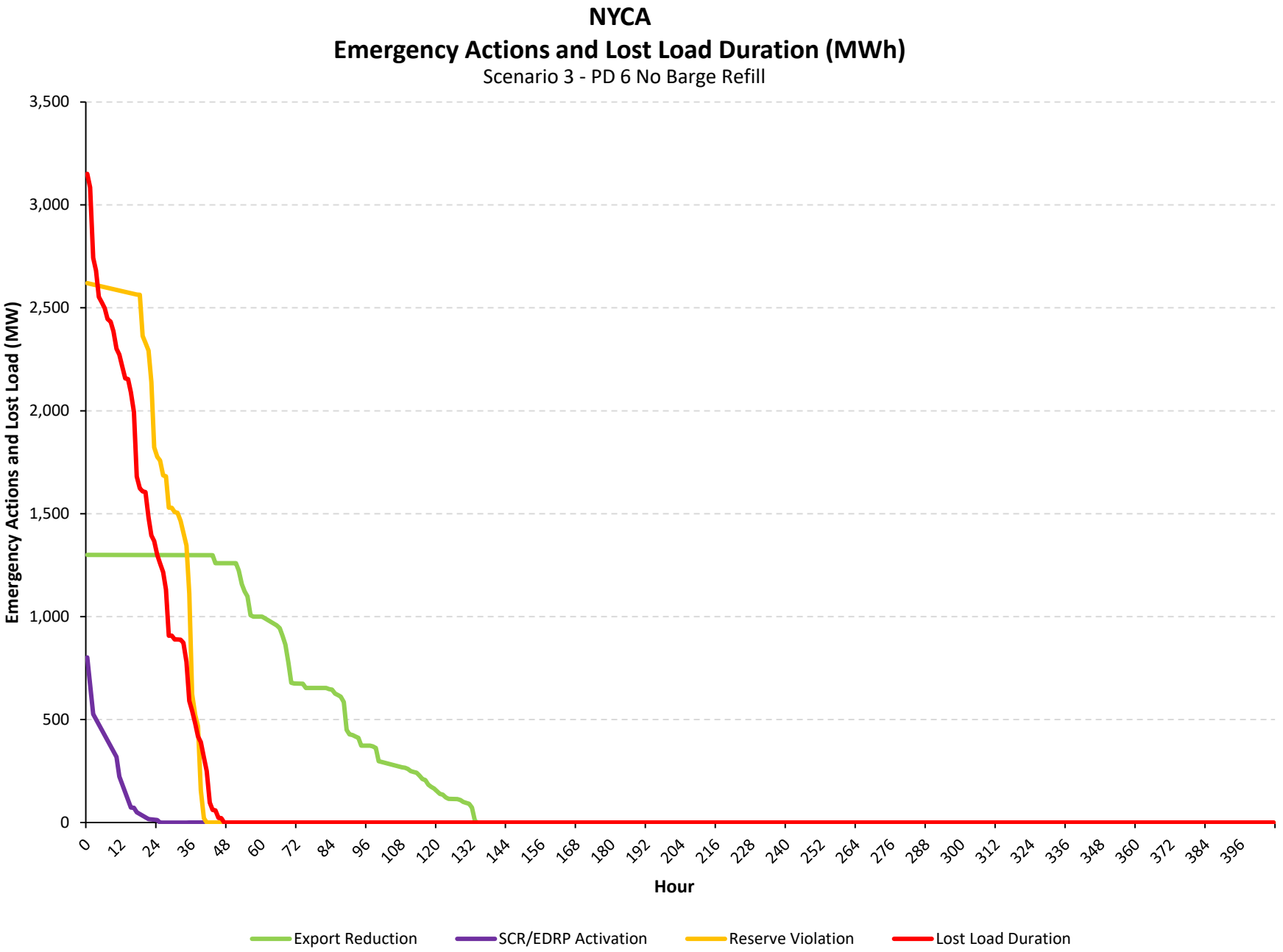
Quantity of Stored Fuel for Oil and Dual Fuel Units

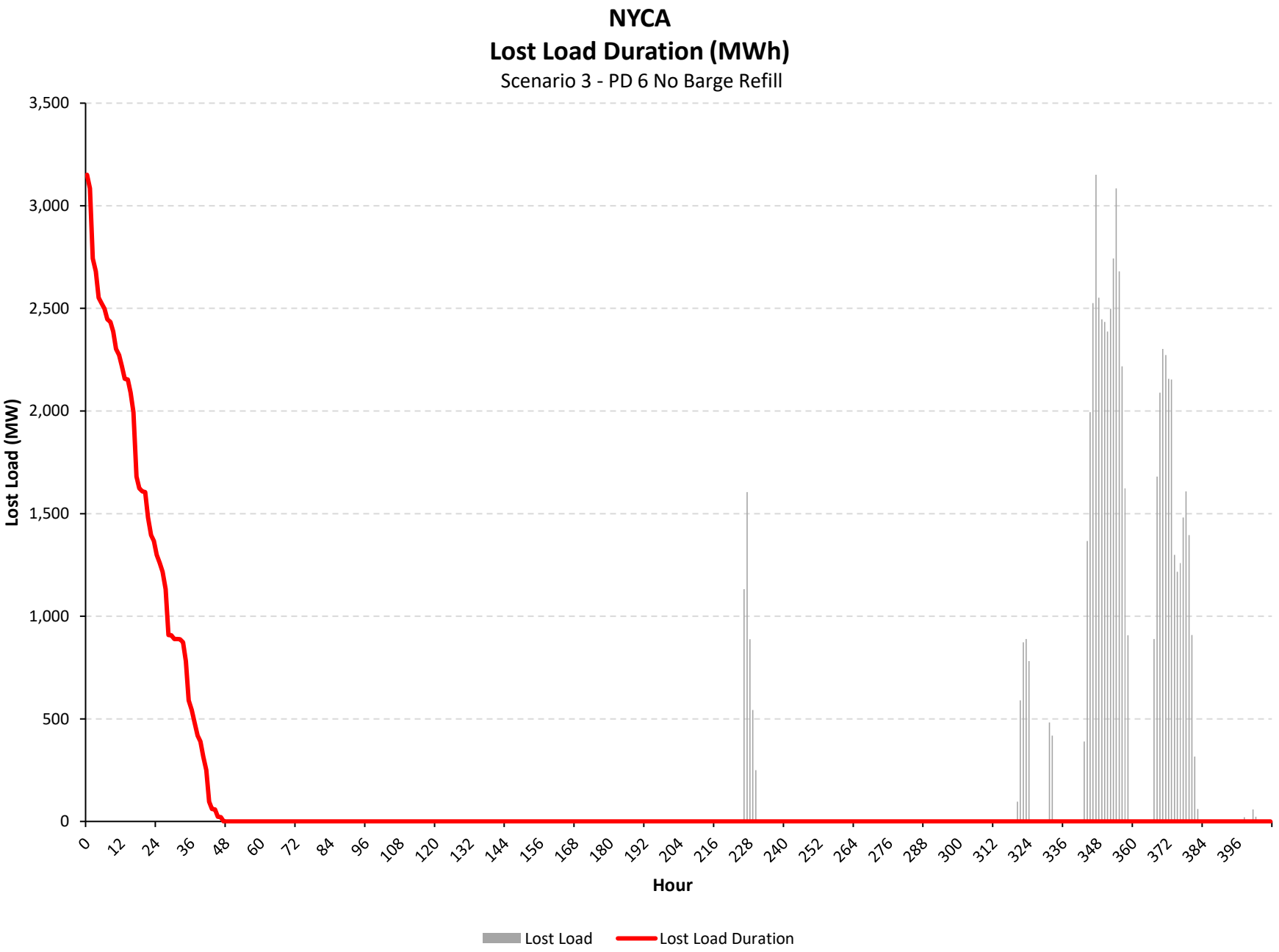
Scenario 3 - PD 6 No Barge Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 3 - PD 6 No Barge Refill
Emergency Actions and Lost Load (MW)
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 3 - PD 6 No Barge Refill
Lost Load (MW)
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

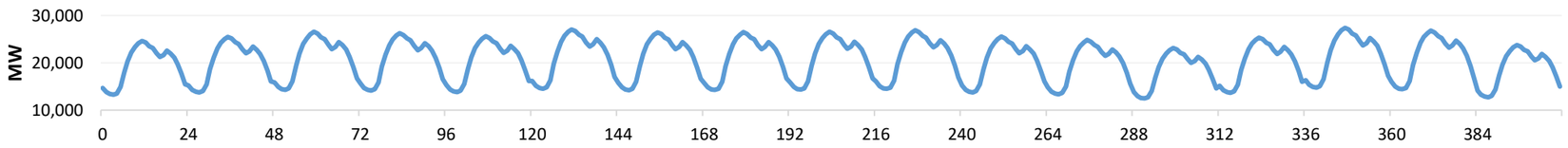
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 7 No Refill (Winter 2026/2027)

Hourly Results Summary

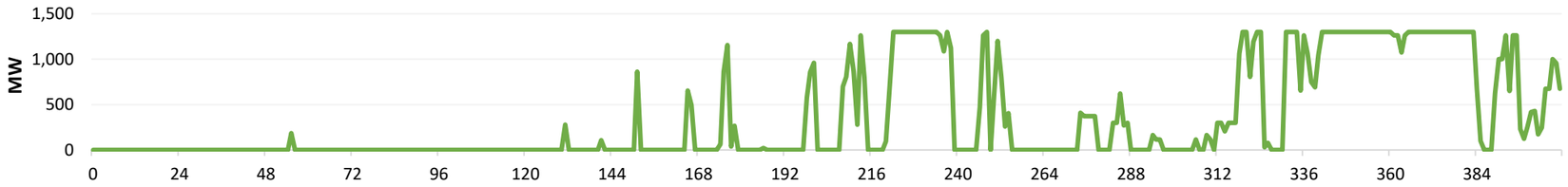
Case Name: Scenario 3 - PD 7 No Refill

Load During Modeling Period



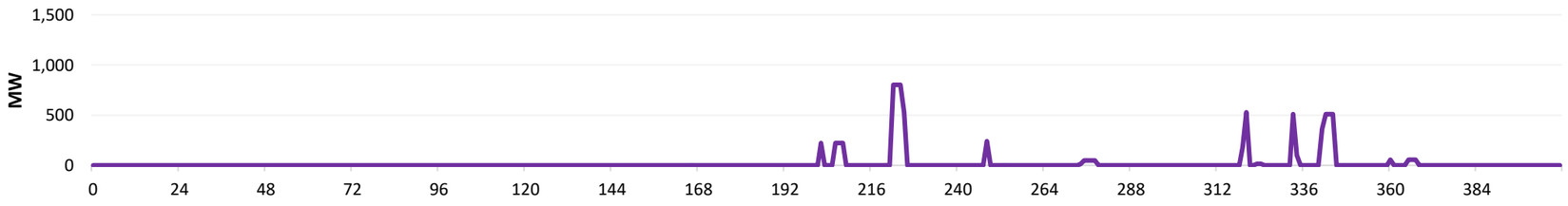
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



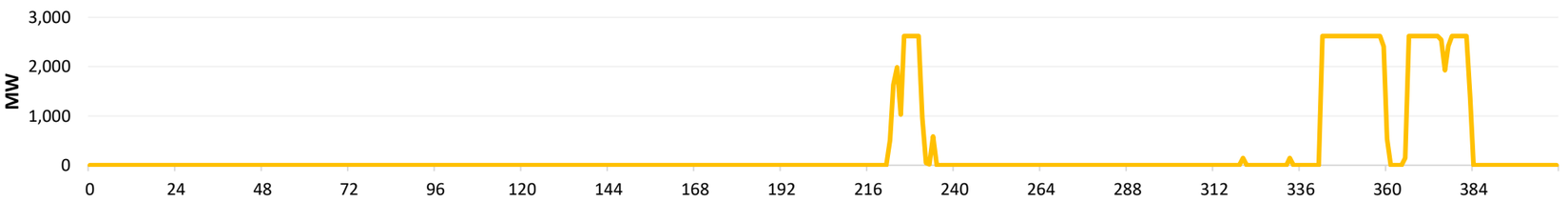
Export Reductions	
Total Hrs.	154
Total MWh	136,422
Avg. MW	334.4

SCR/EDRP Deployed During Modeling Period



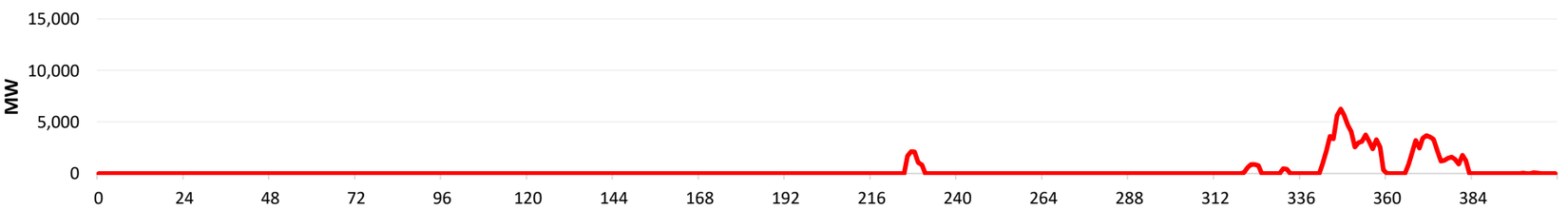
SCR Deployment	
Total Hrs.	28
Total MWh	7,748
Avg. MW	19.0

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	53
Total MWh	112,735
Avg. MW	276.3
First Hour with Viol.	202

Loss of Load During Modeling Period



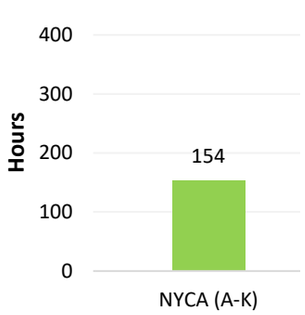
Loss of Load	
Total Hrs.	50
Total MWh	108,227
Avg. MW	265.3
First Hour with Losses	226

Full Period Results Summary

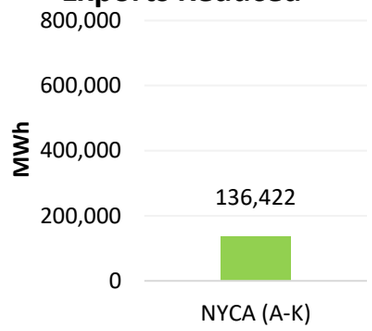
Case Name: Scenario 3 - PD 7 No Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

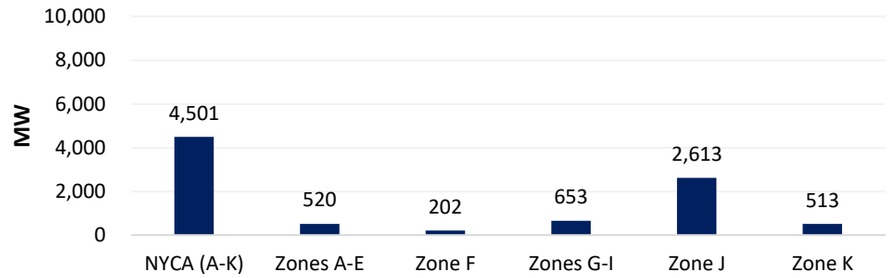
Hours Exports Reduced



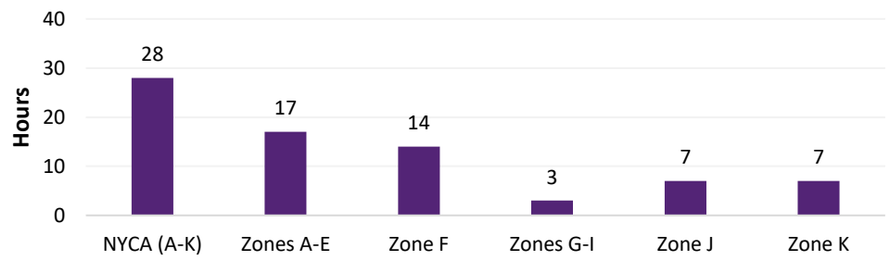
Total MWh of Exports Reduced



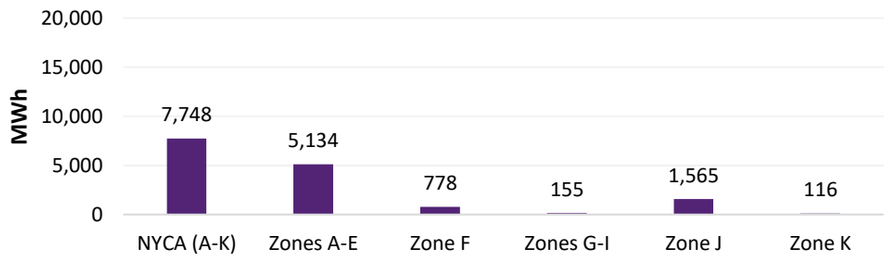
Average Capacity Not Available Due to Exhausted Fuel Inventory



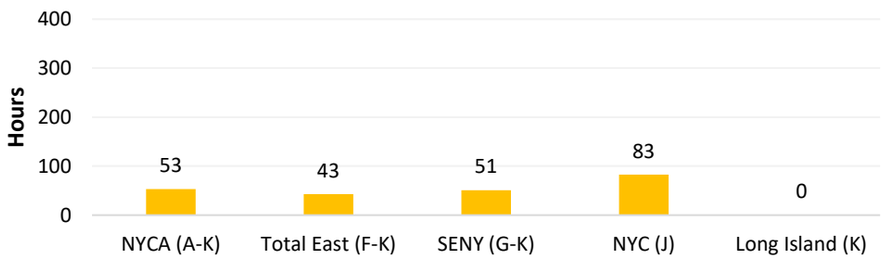
Hours SCR/EDRP Deployed



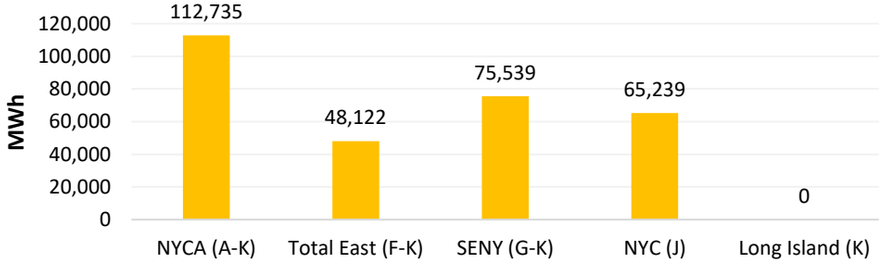
Total MWh SCR/EDRP Deployed



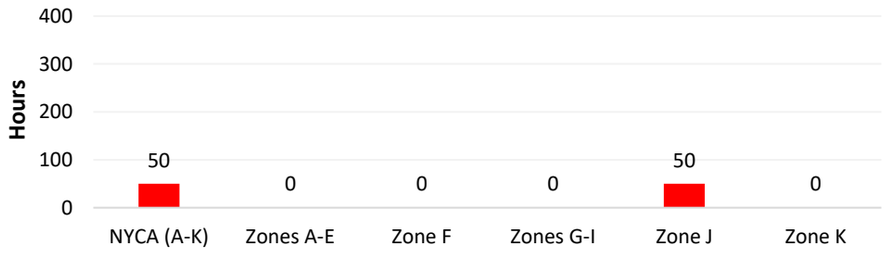
Hours with Reserve Violations



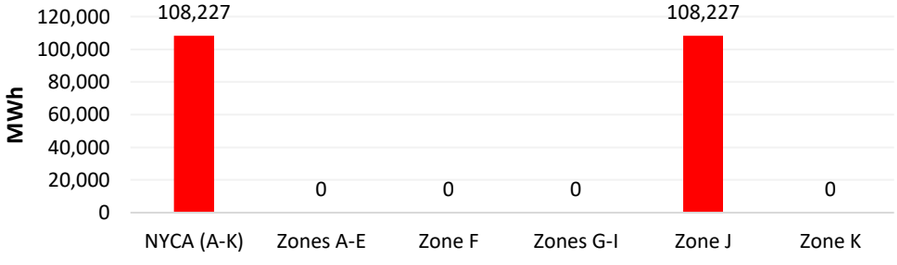
Total MWh of Reserve Violations

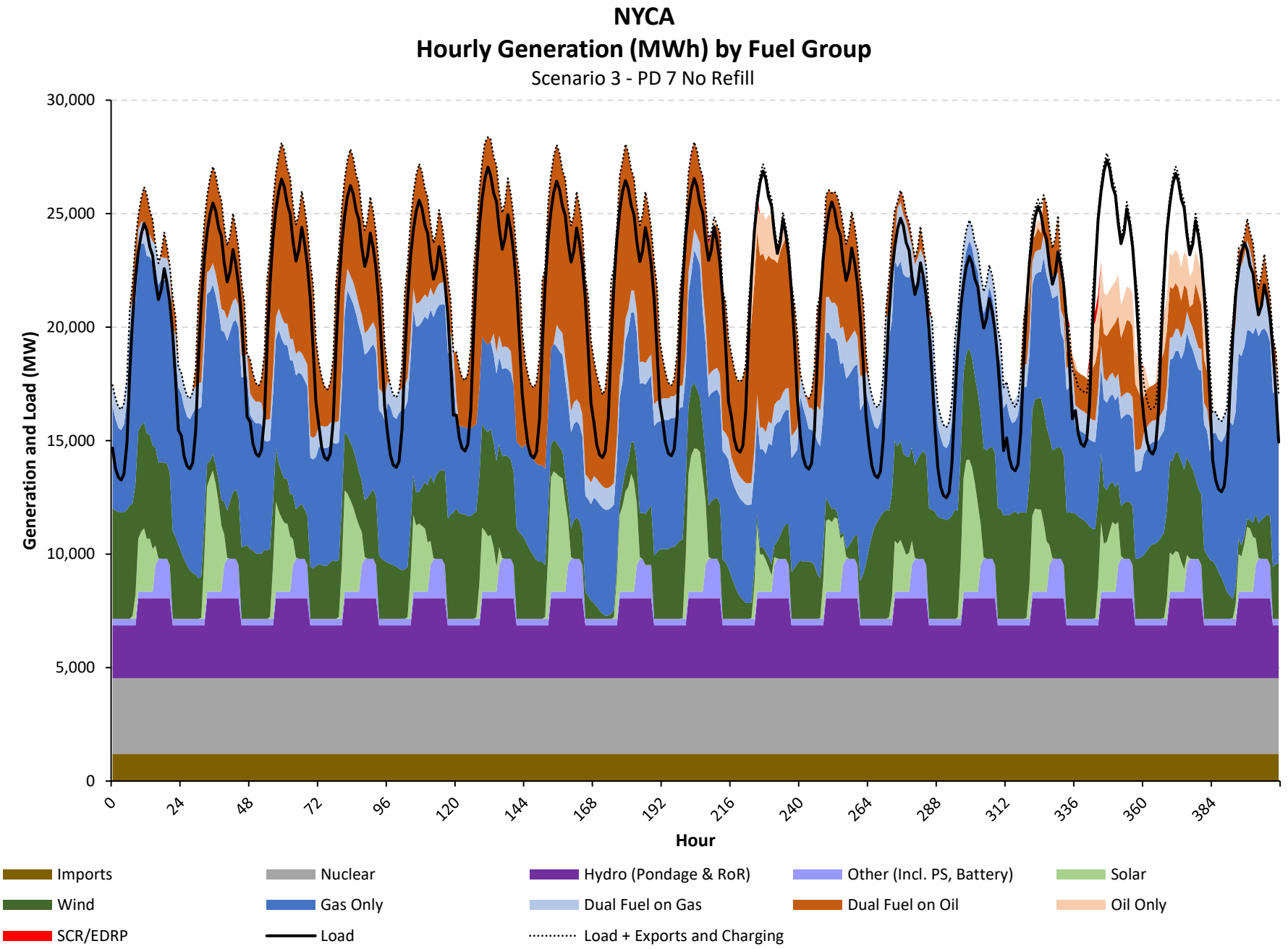


Hours with Loss of Load

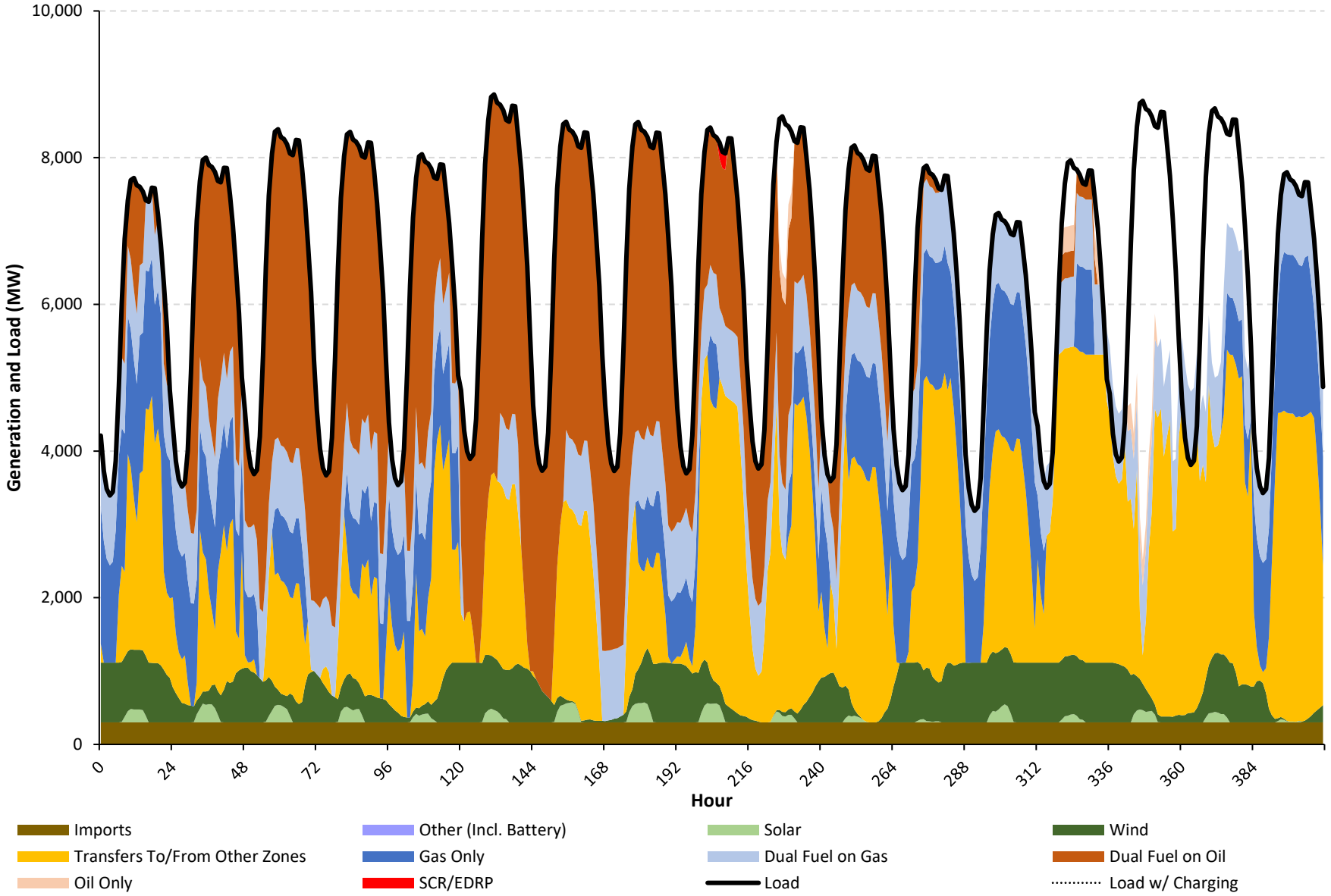


Total MWh of Lost Load

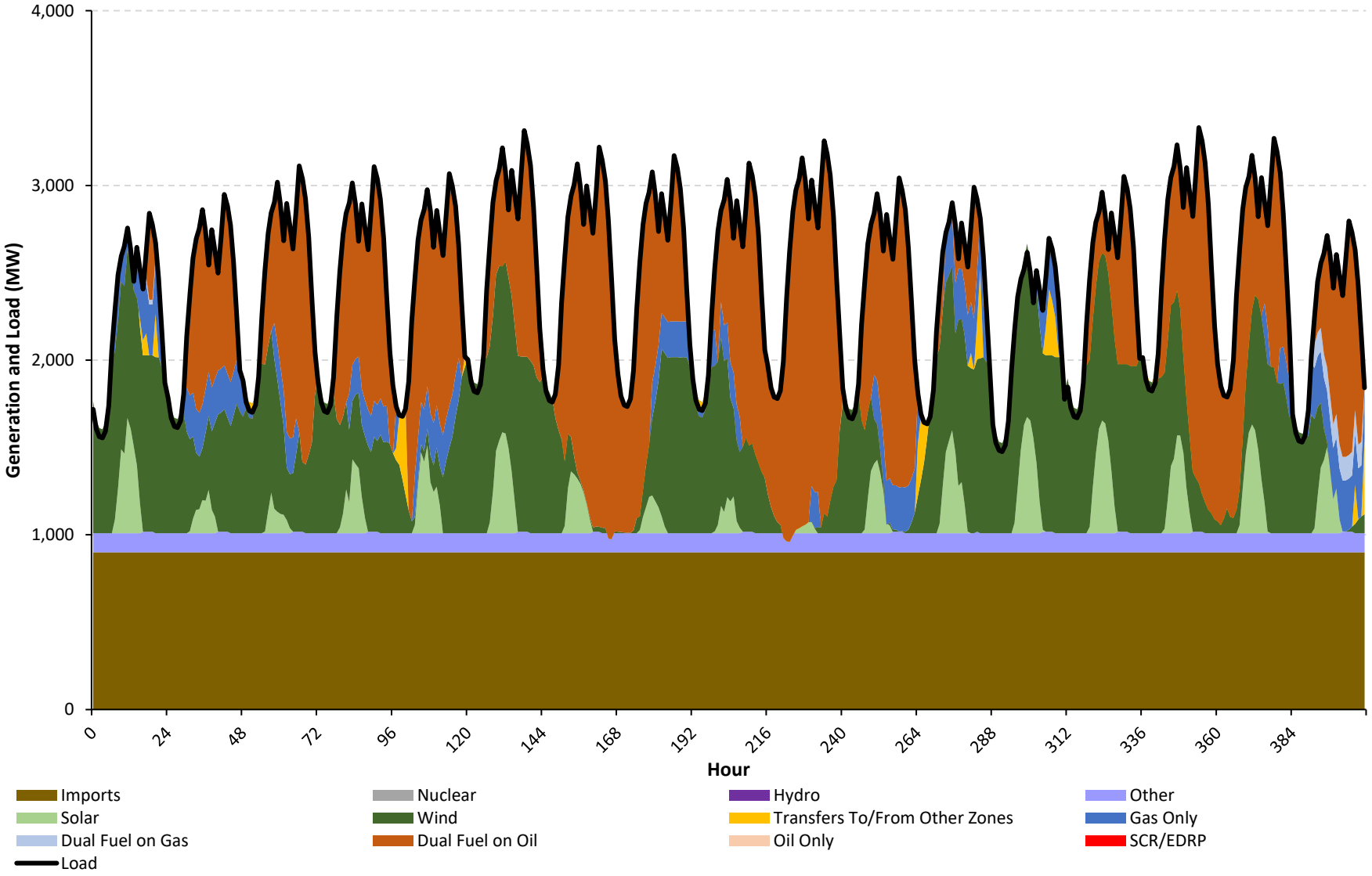



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 3 - PD 7 No Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

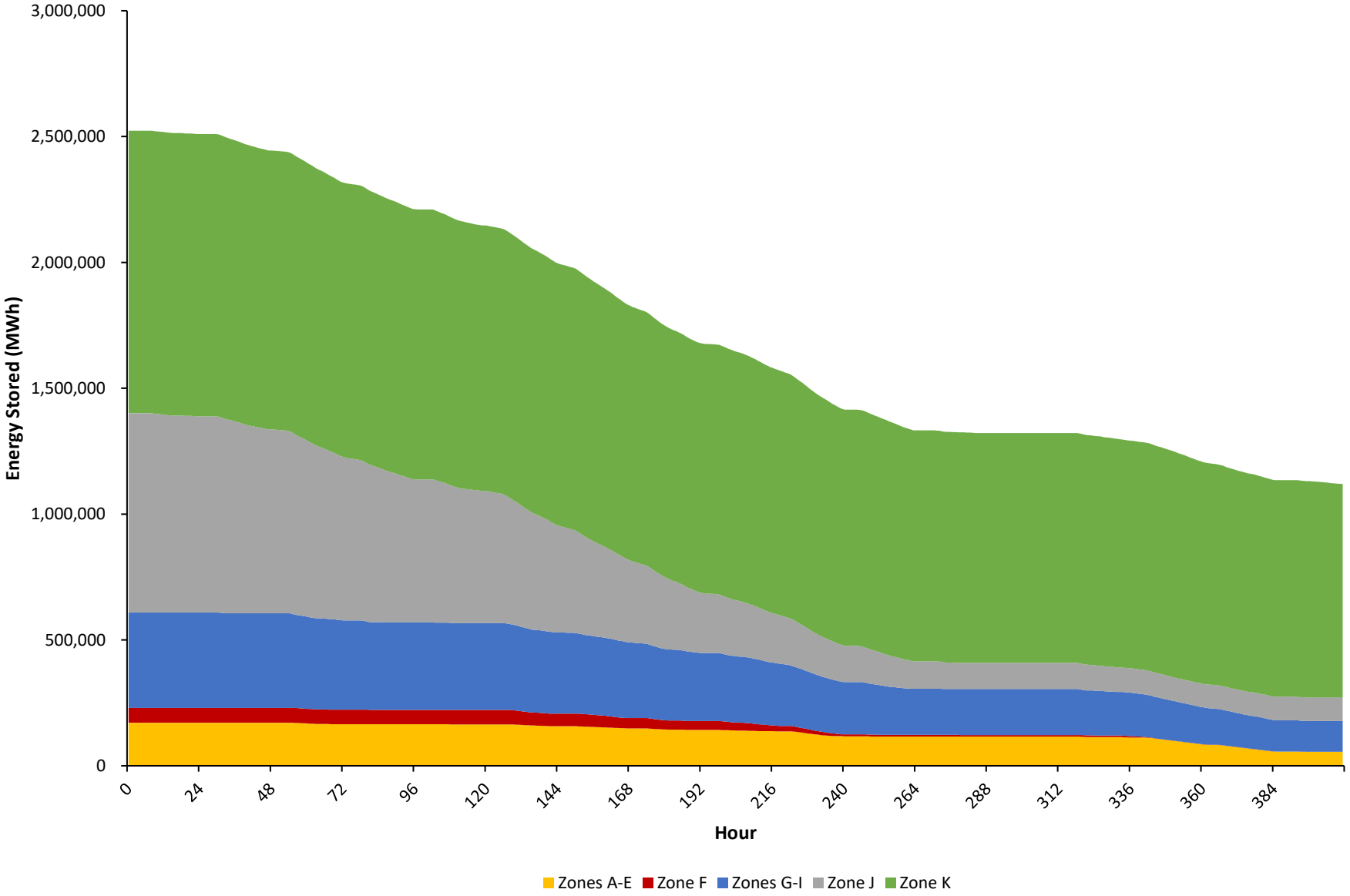
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 7 No Refill

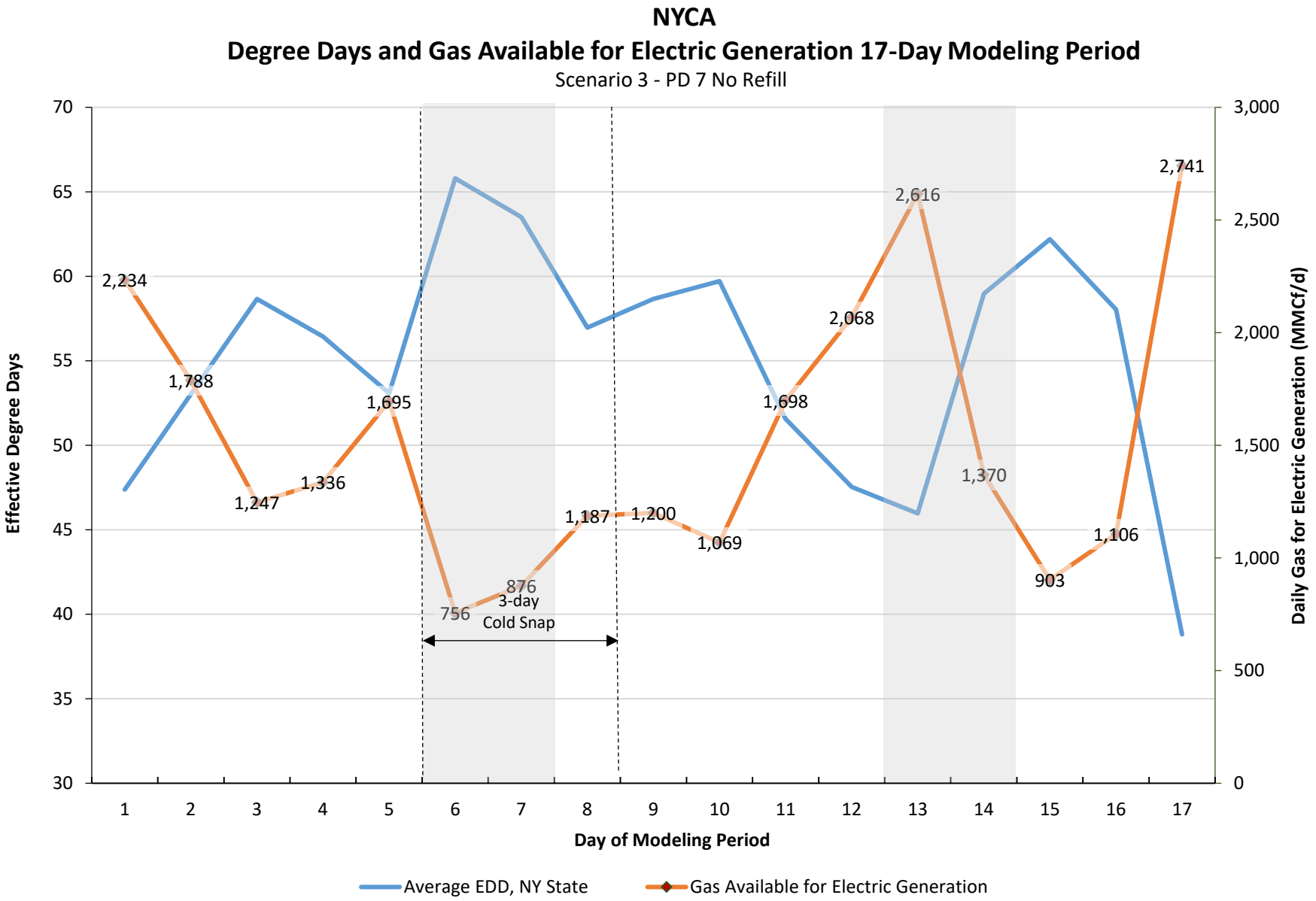


Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 7 No Refill

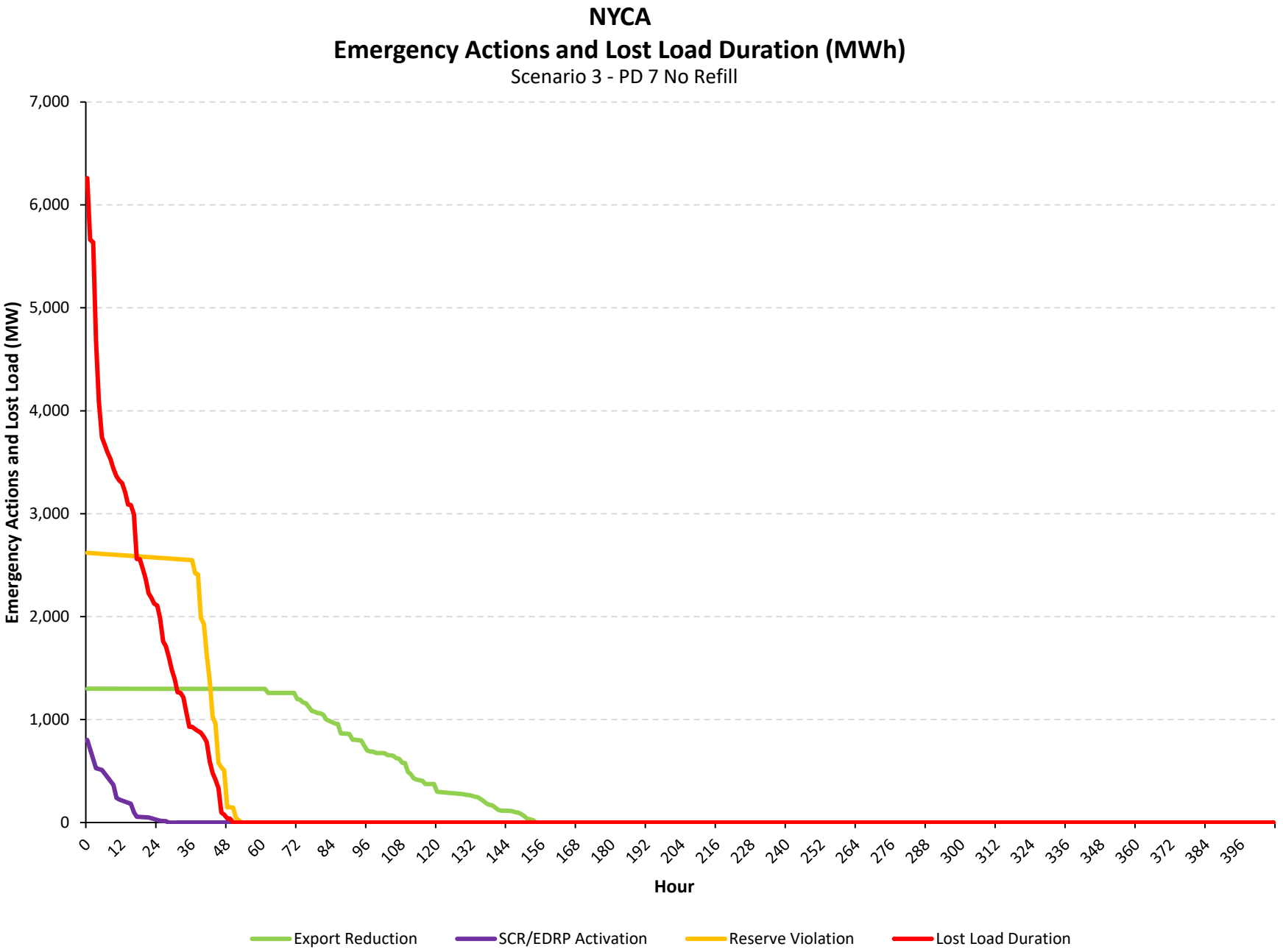


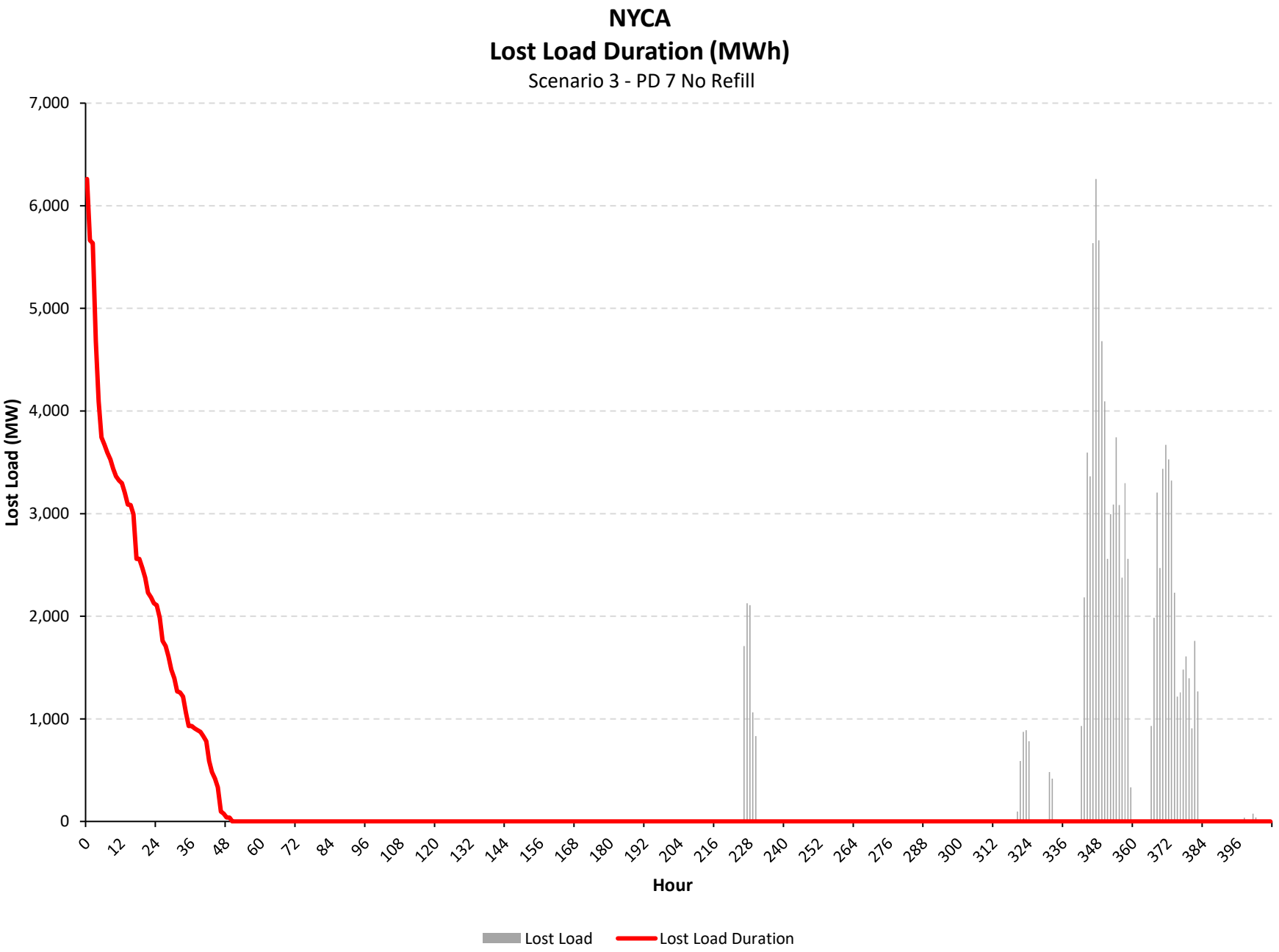
NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 3 - PD 7 No Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 3 - PD 7 No Refill
Emergency Actions and Lost Load (MW)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 3 - PD 7 No Refill
Lost Load (MW)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

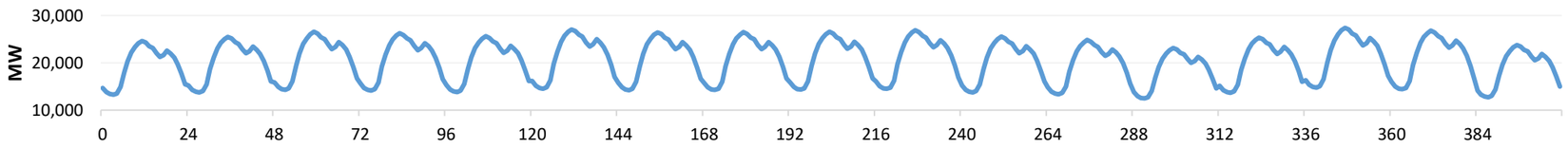
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 8 Non-Firm Gas Unavailable (F-K) (Winter 2026/2027)

Hourly Results Summary

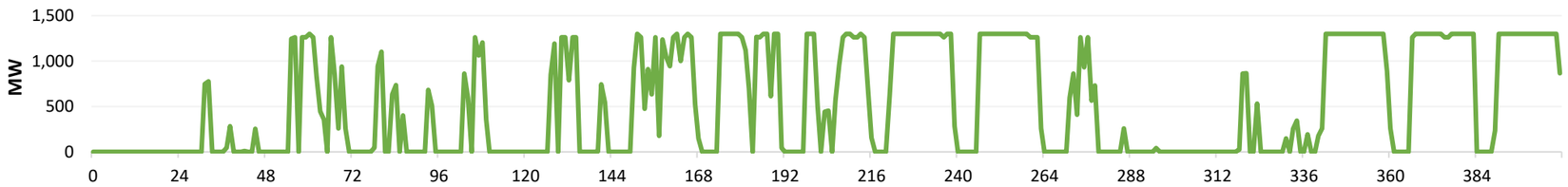
Case Name: Scenario 3 - PD 8 Non-Firm Gas Unavailable (F-K)

Load During Modeling Period



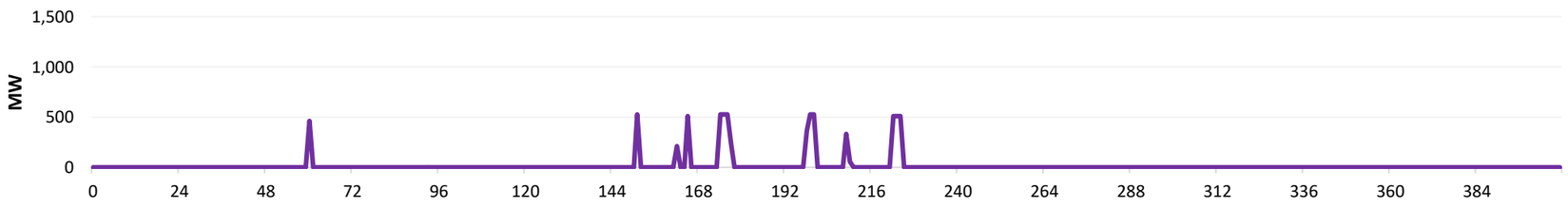
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



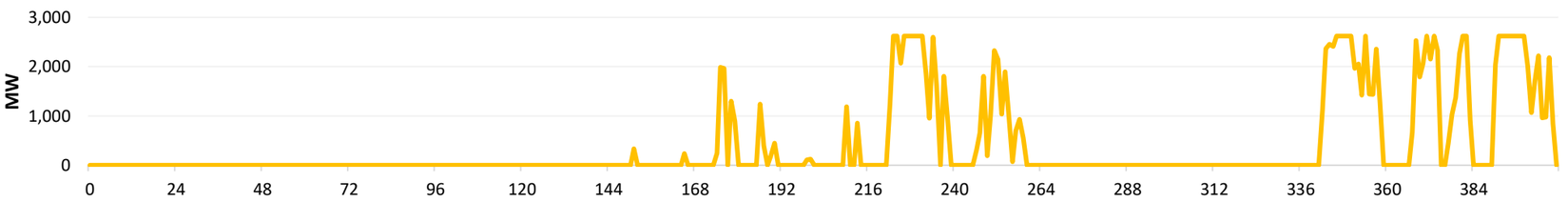
Export Reductions	
Total Hrs.	211
Total MWh	214,027
Avg. MW	524.6

SCR/EDRP Deployed During Modeling Period



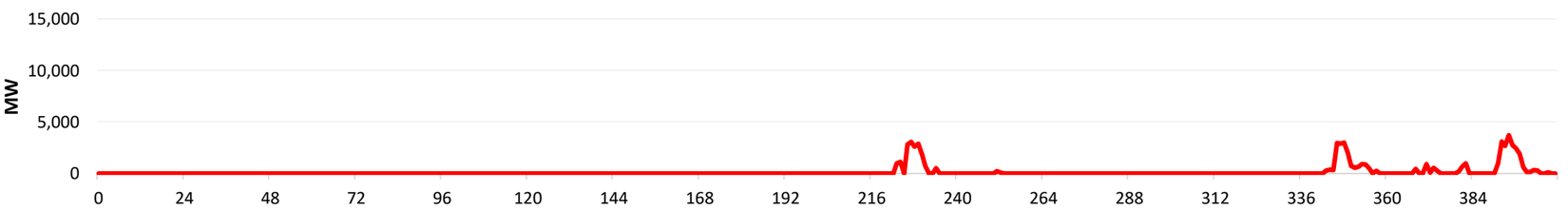
SCR Deployment	
Total Hrs.	16
Total MWh	6,854
Avg. MW	16.8

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	94
Total MWh	159,084
Avg. MW	389.9
First Hour with Viol.	151

Loss of Load During Modeling Period

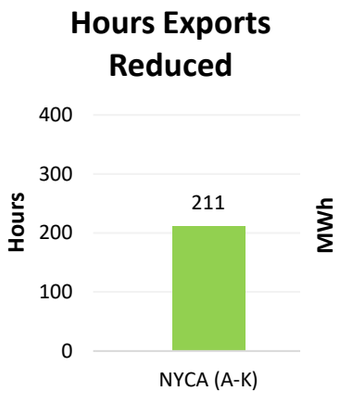


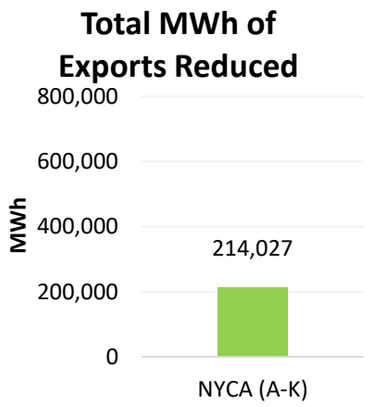
Loss of Load	
Total Hrs.	47
Total MWh	56,676
Avg. MW	138.9
First Hour with Losses	223

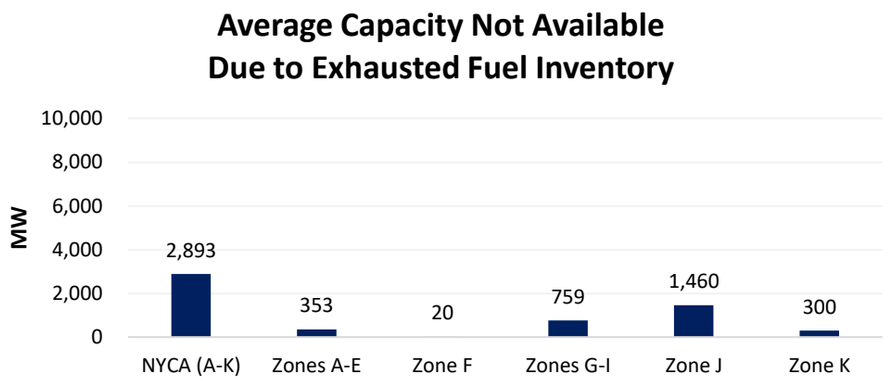
Full Period Results Summary

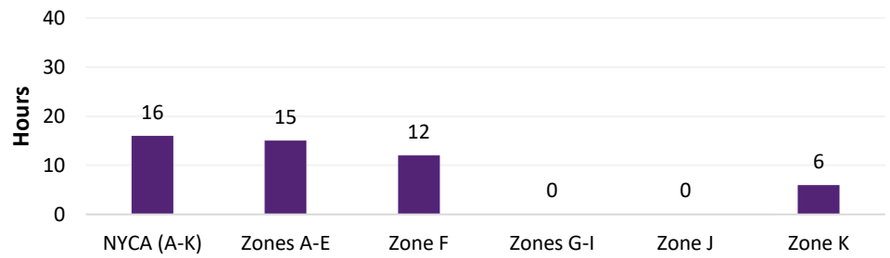
Case Name: Scenario 3 - PD 8 Non-Firm Gas Unavailable (F-K)

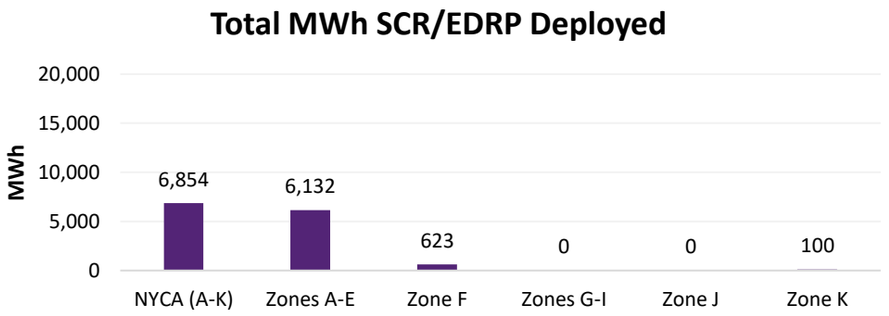
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

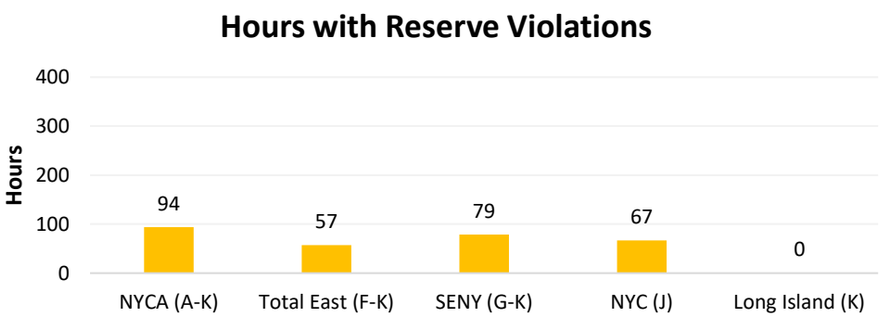


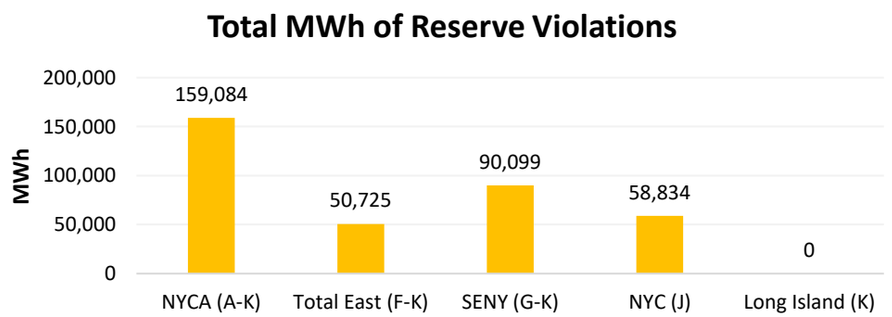


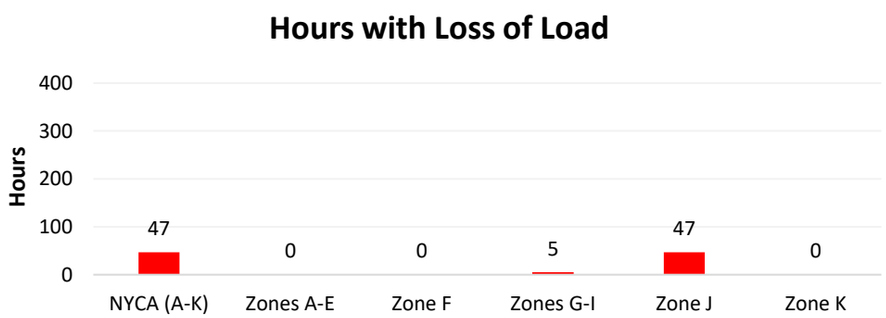


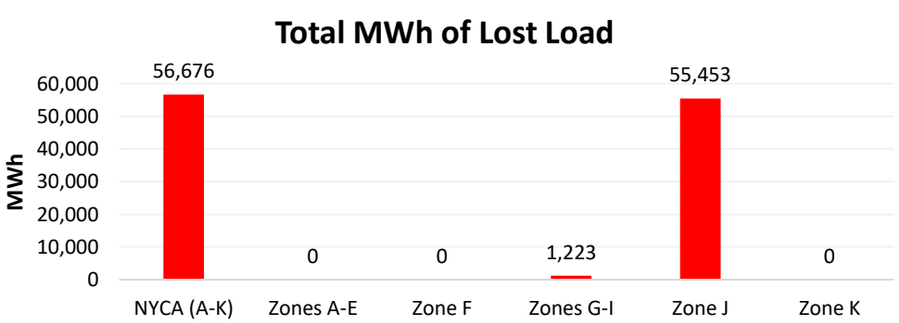


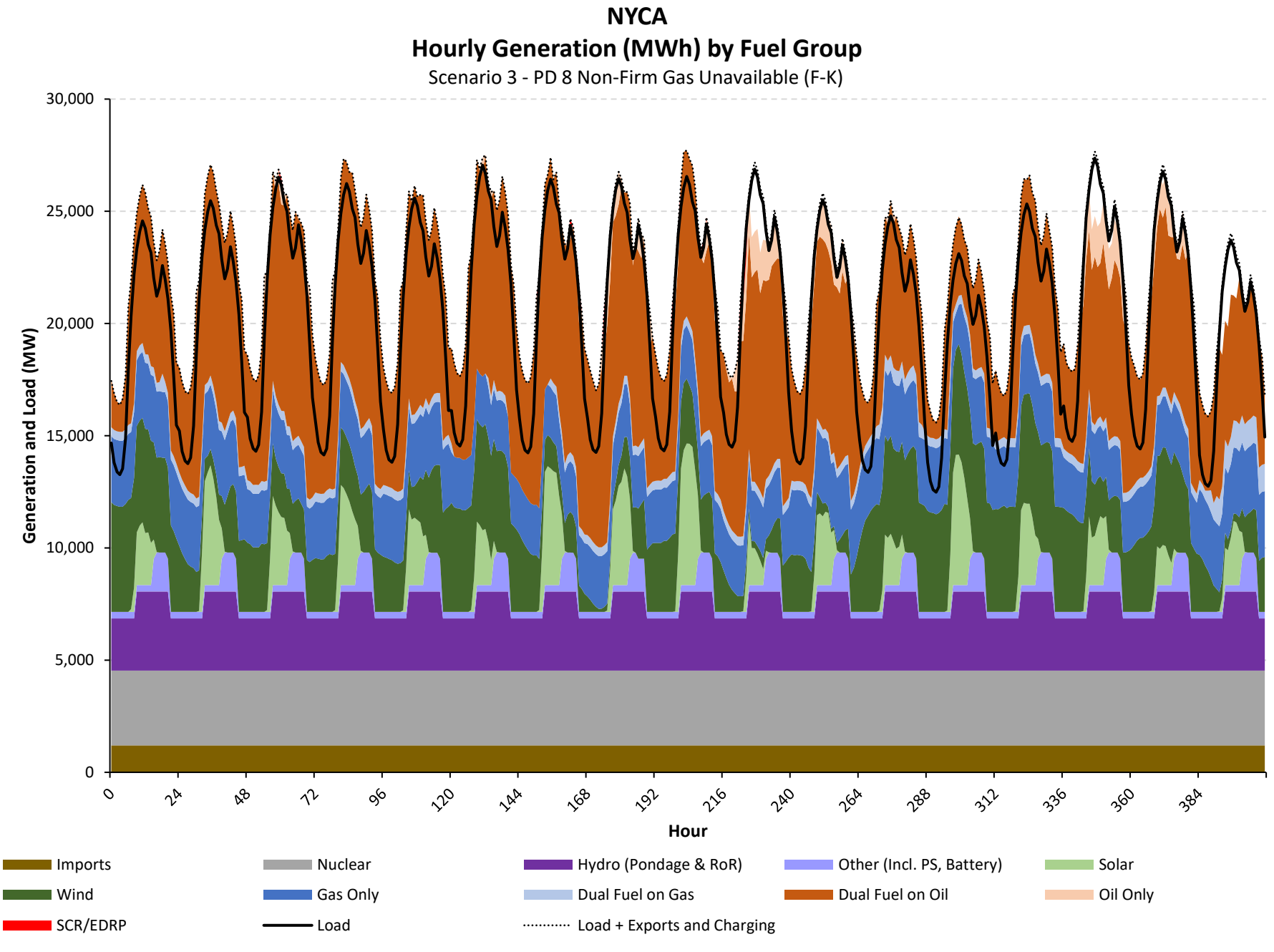




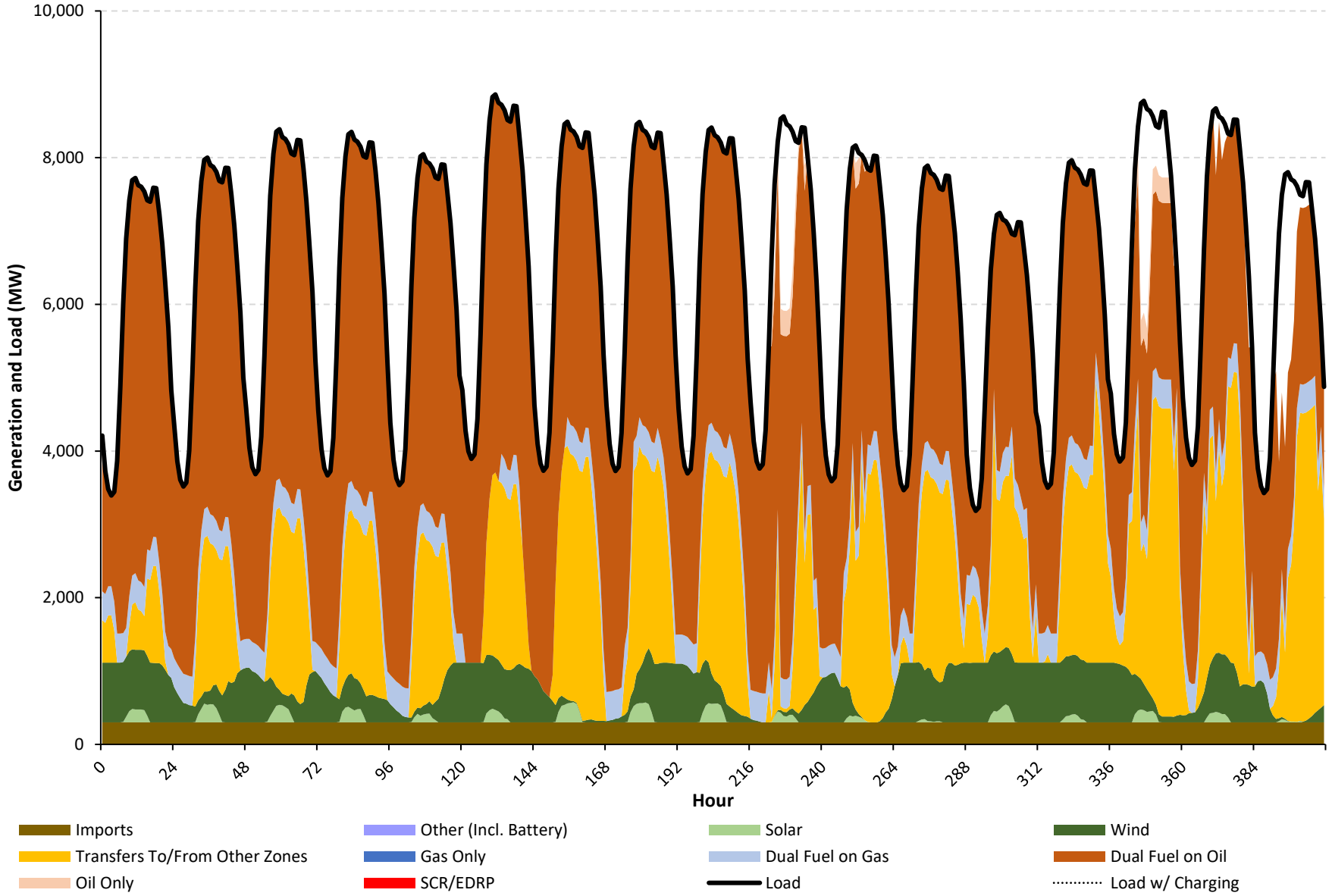




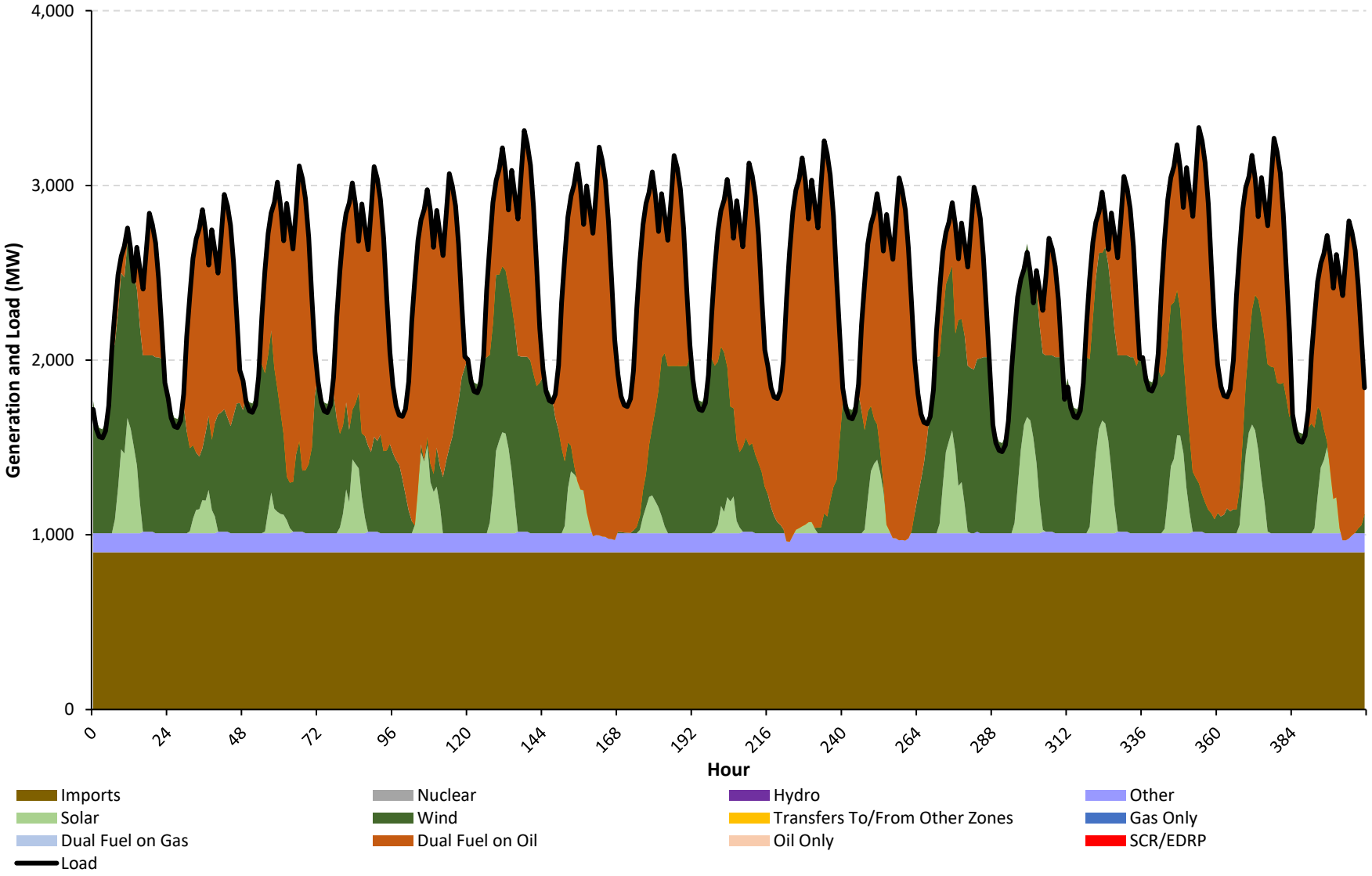



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 3 - PD 8 Non-Firm Gas Unavailable (F-K)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 8 Non-Firm Gas Unavailable (F-K)



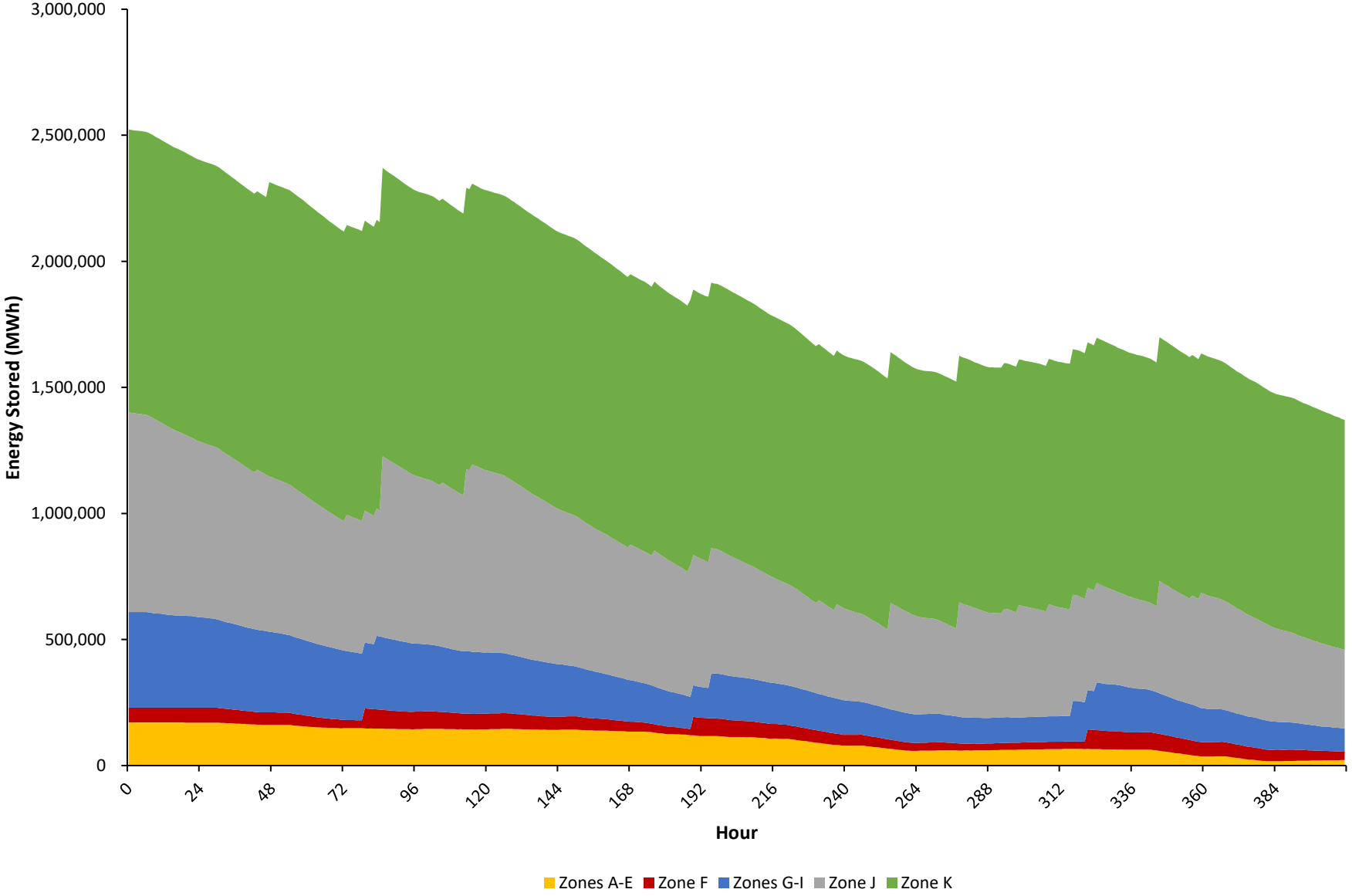
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 8 Non-Firm Gas Unavailable (F-K)

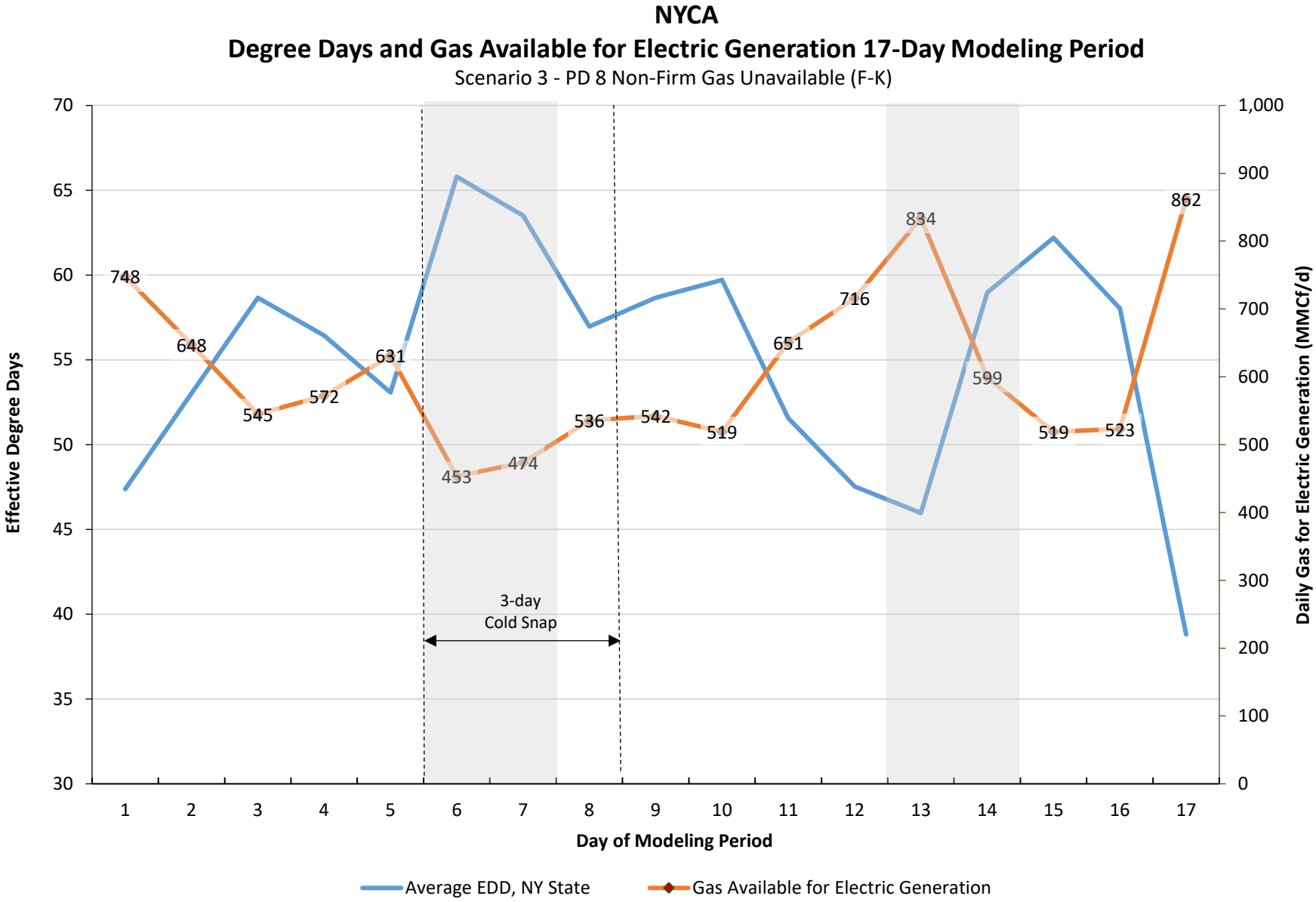


NYCA

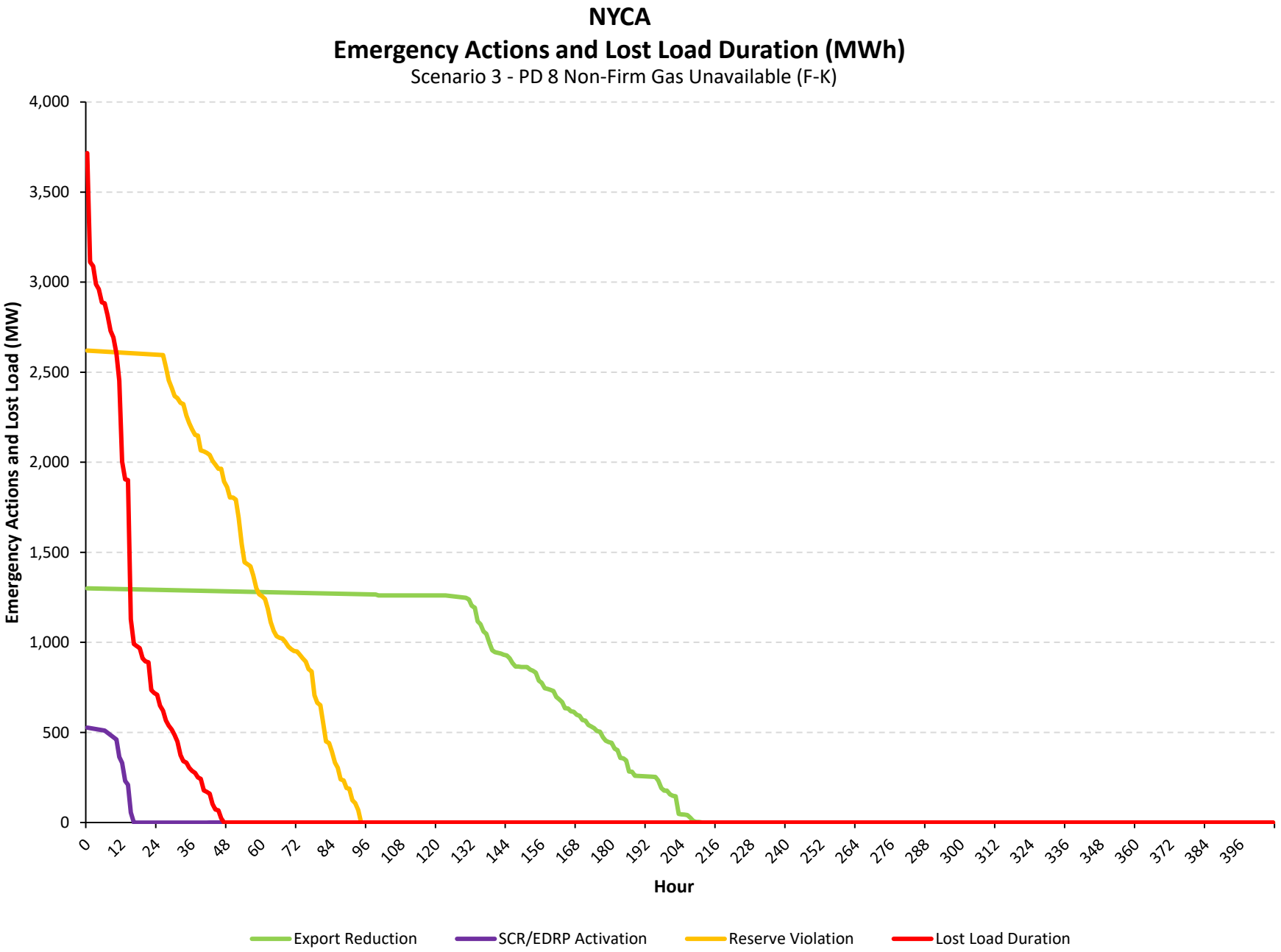
Quantity of Stored Fuel for Oil and Dual Fuel Units

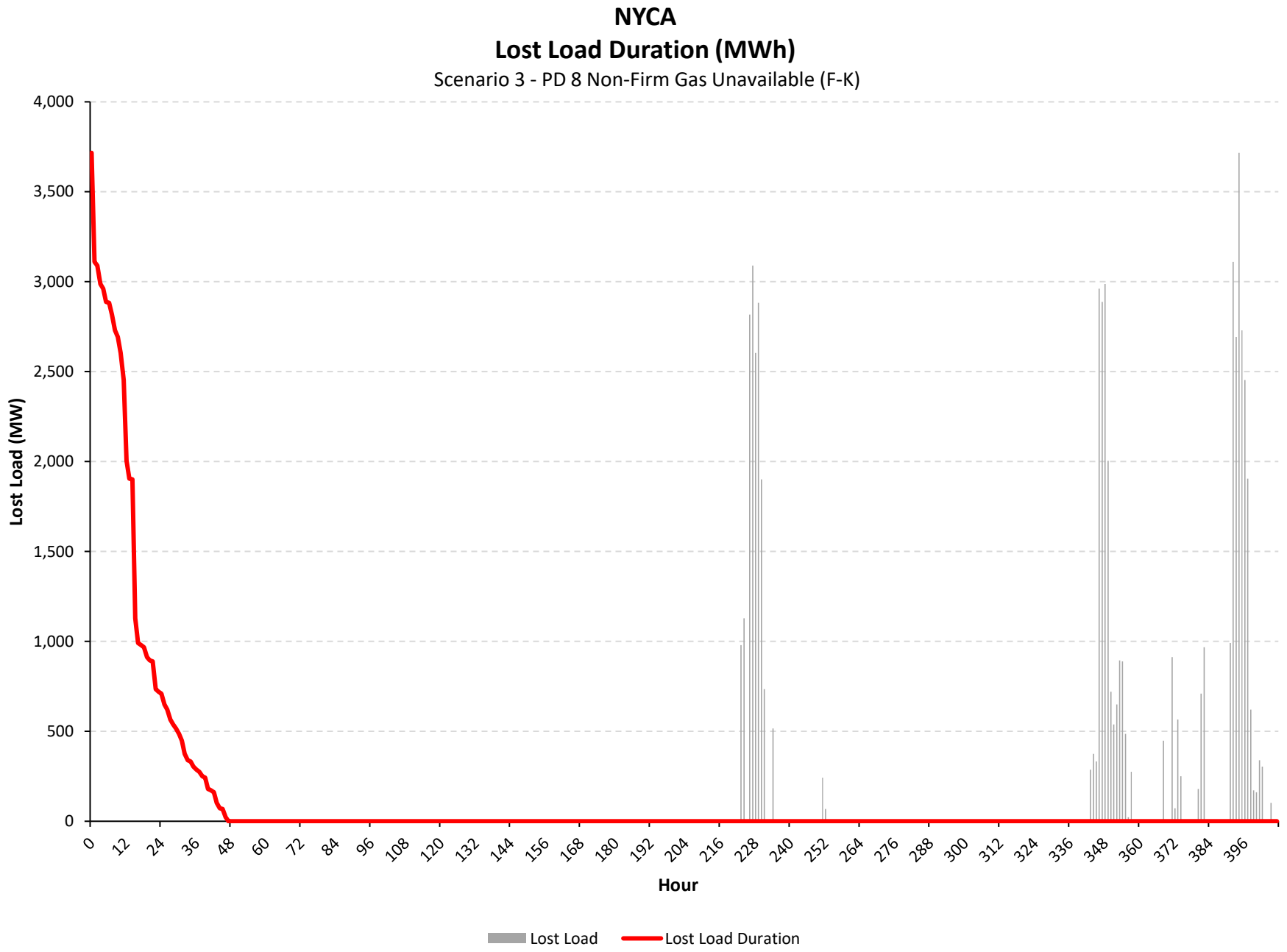
Scenario 3 - PD 8 Non-Firm Gas Unavailable (F-K)





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 3 - PD 8 Non-Firm Gas Unavailable (F-K)
Emergency Actions and Lost Load (MW)
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 3 - PD 8 Non-Firm Gas Unavailable (F-K)
Lost Load (MW)
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

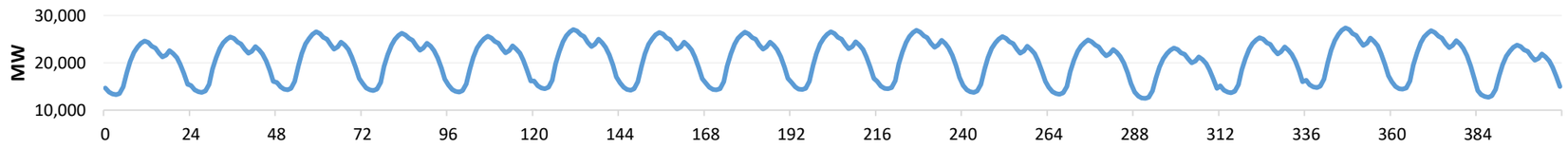
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 9 Non-Firm Gas Unavailable (NYCA) (Winter 2026/2027)

Hourly Results Summary

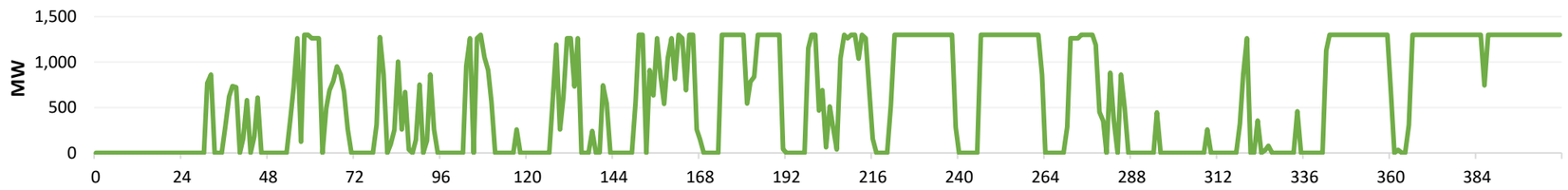
Case Name: Scenario 3 - PD 9 Non-Firm Gas Unavailable (NYCA)

Load During Modeling Period



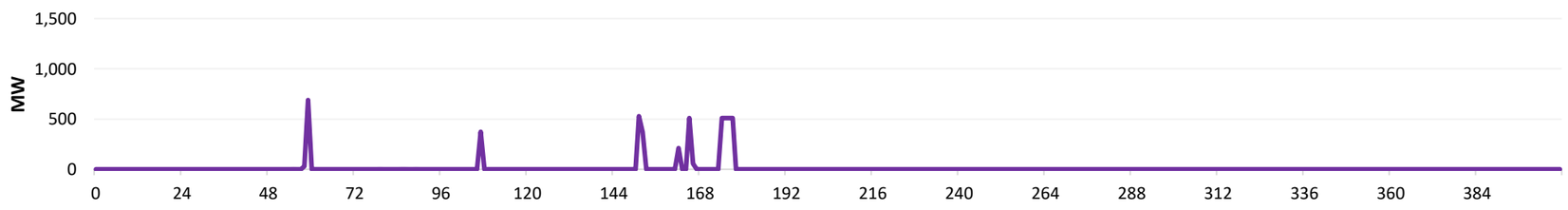
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



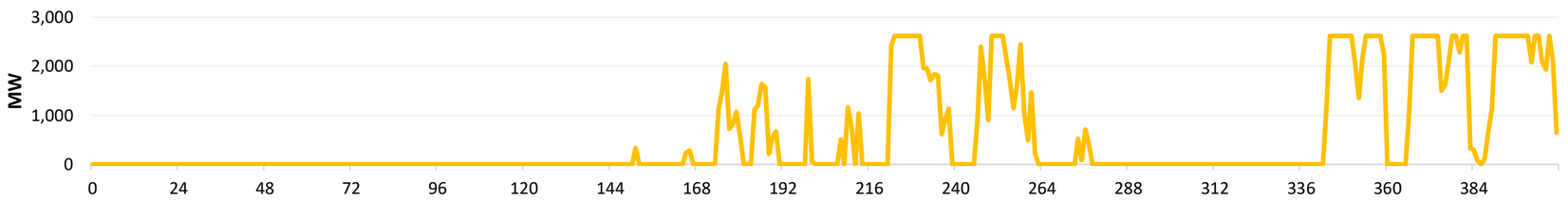
Export Reductions	
Total Hrs.	239
Total MWh	237,874
Avg. MW	583.0

SCR/EDRP Deployed During Modeling Period



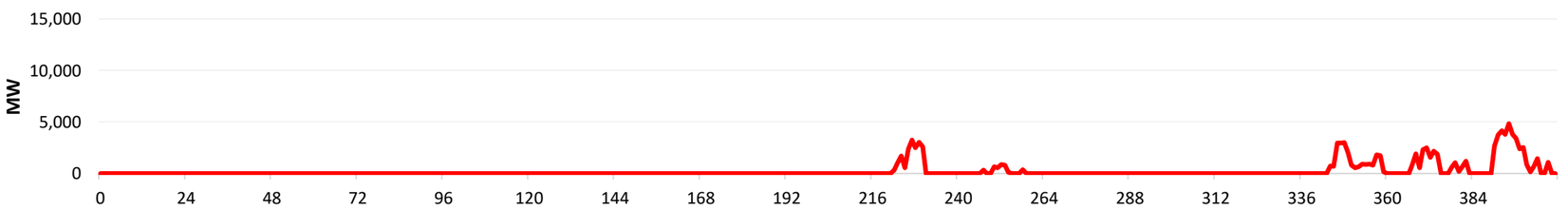
SCR Deployment	
Total Hrs.	12
Total MWh	4,804
Avg. MW	11.8

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	119
Total MWh	212,487
Avg. MW	520.8
First Hour with Viol.	151

Loss of Load During Modeling Period

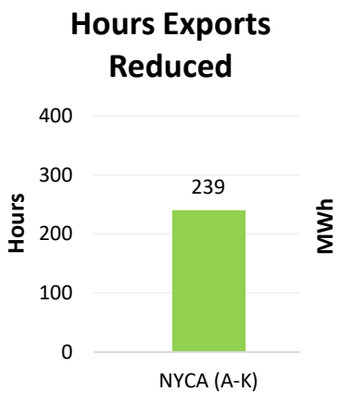


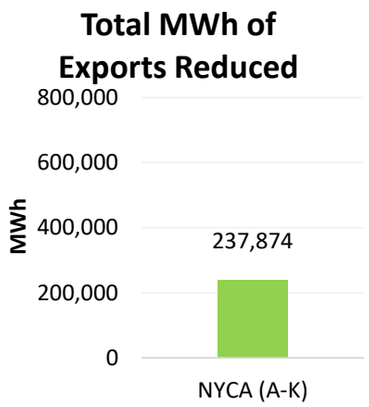
Loss of Load	
Total Hrs.	61
Total MWh	95,646
Avg. MW	234.4
First Hour with Losses	222

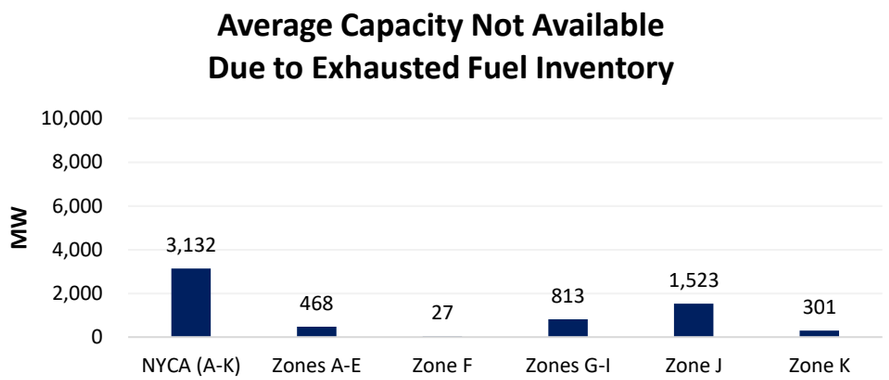
Full Period Results Summary

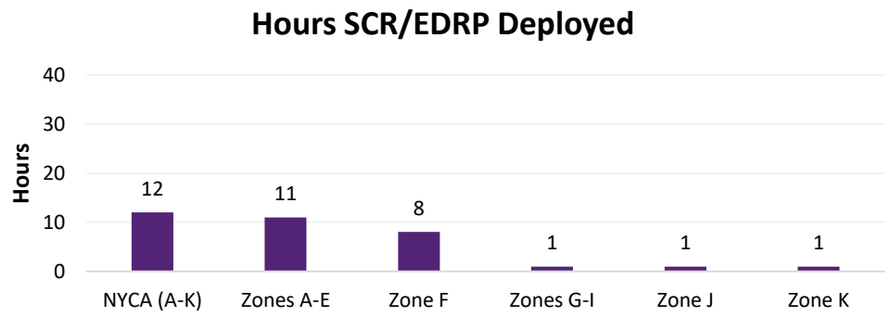
Case Name: Scenario 3 - PD 9 Non-Firm Gas Unavailable (NYCA)

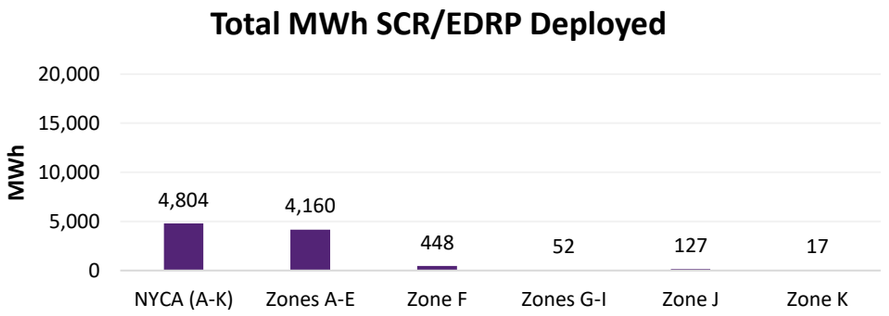
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

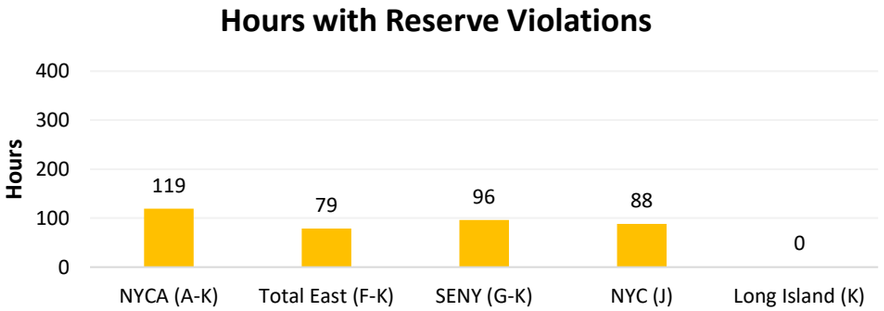


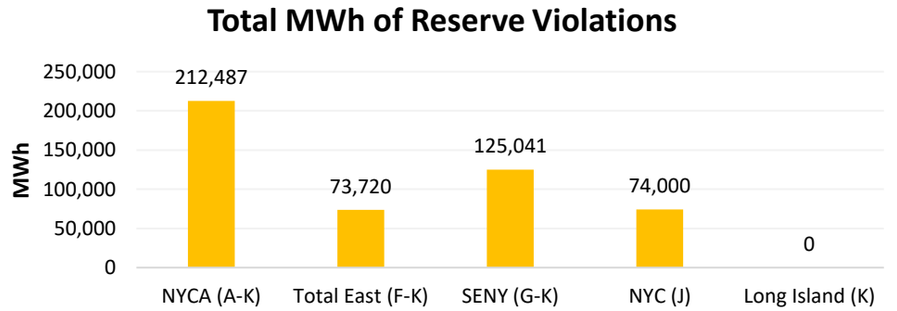


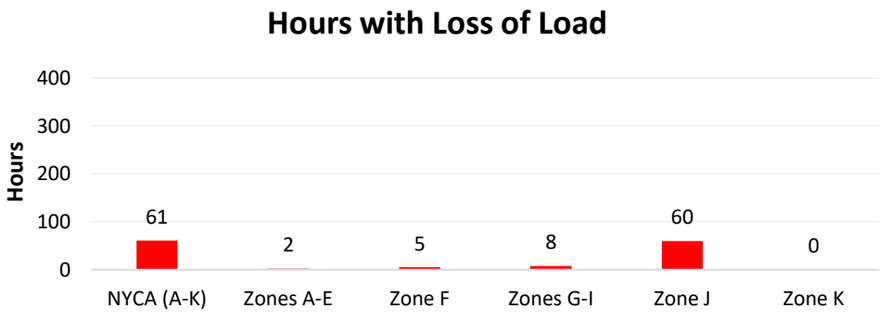


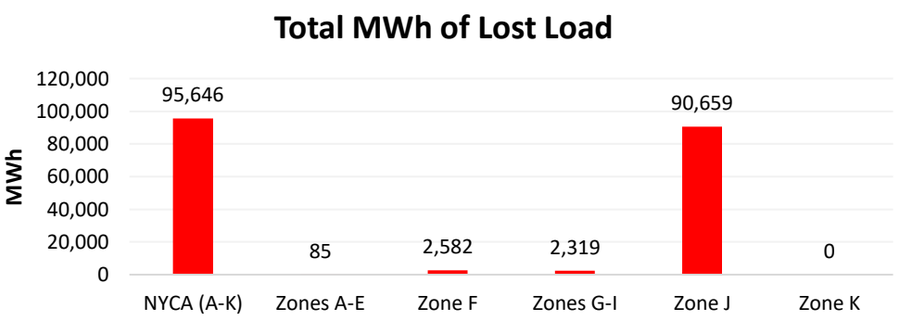


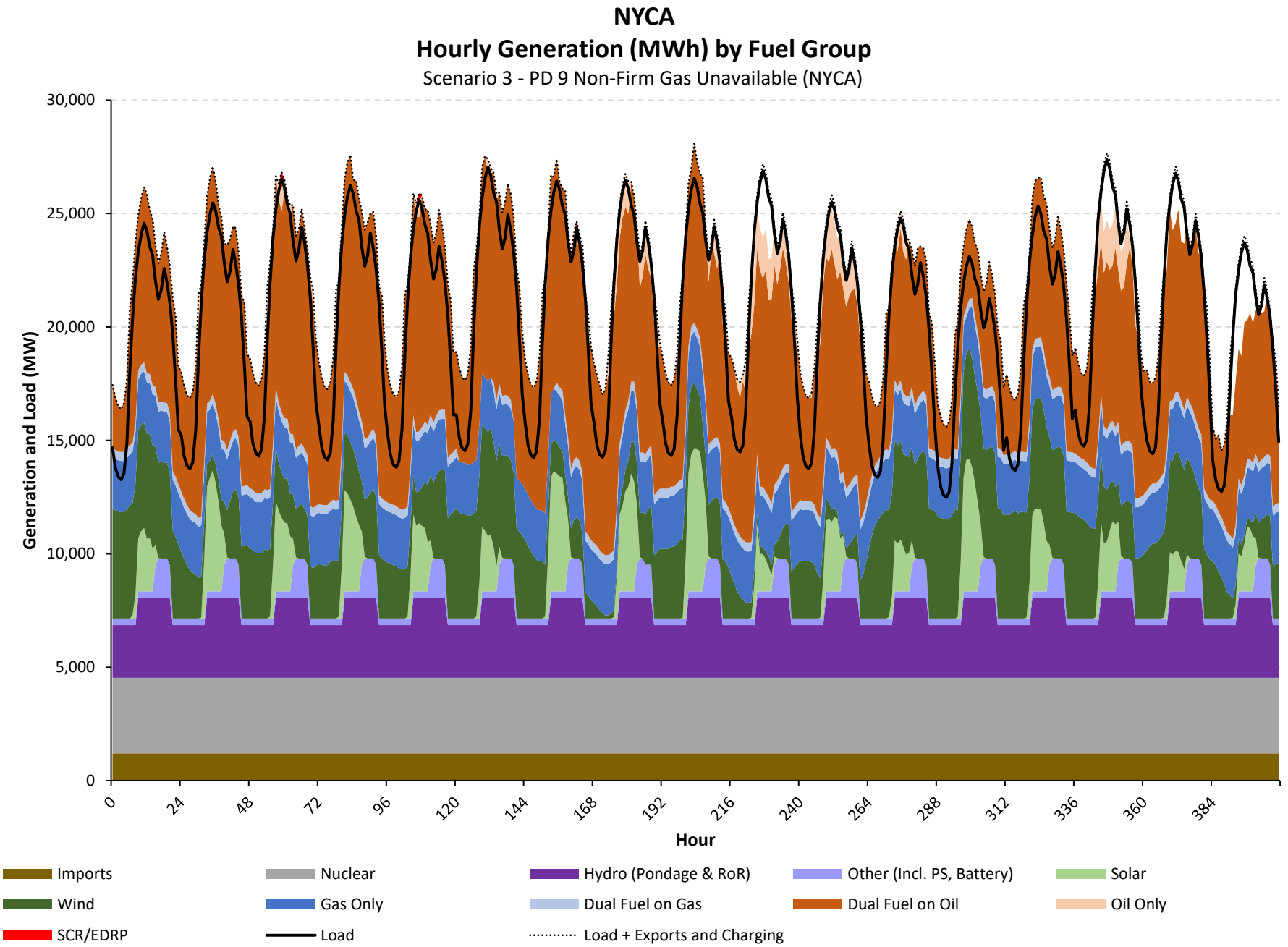




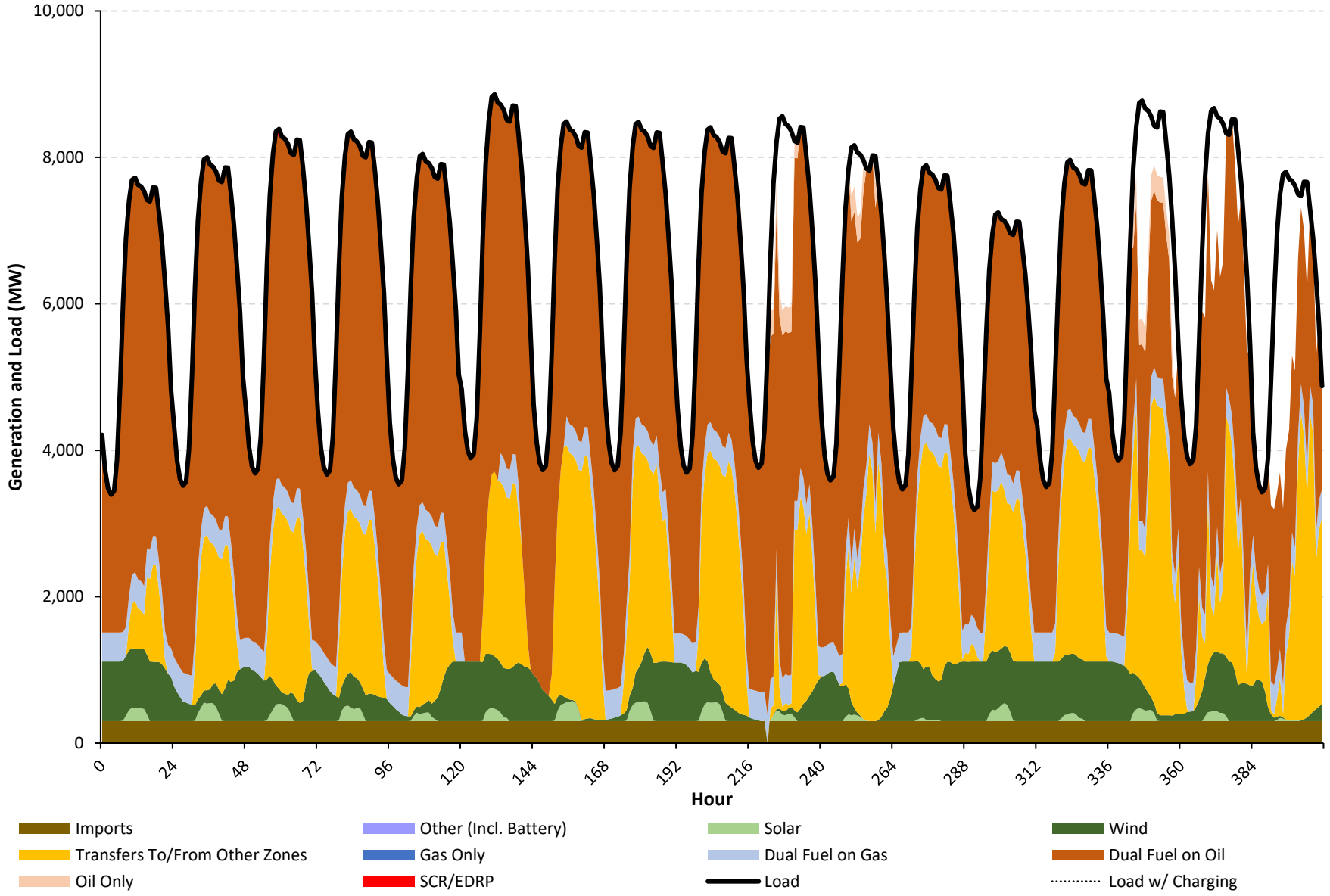




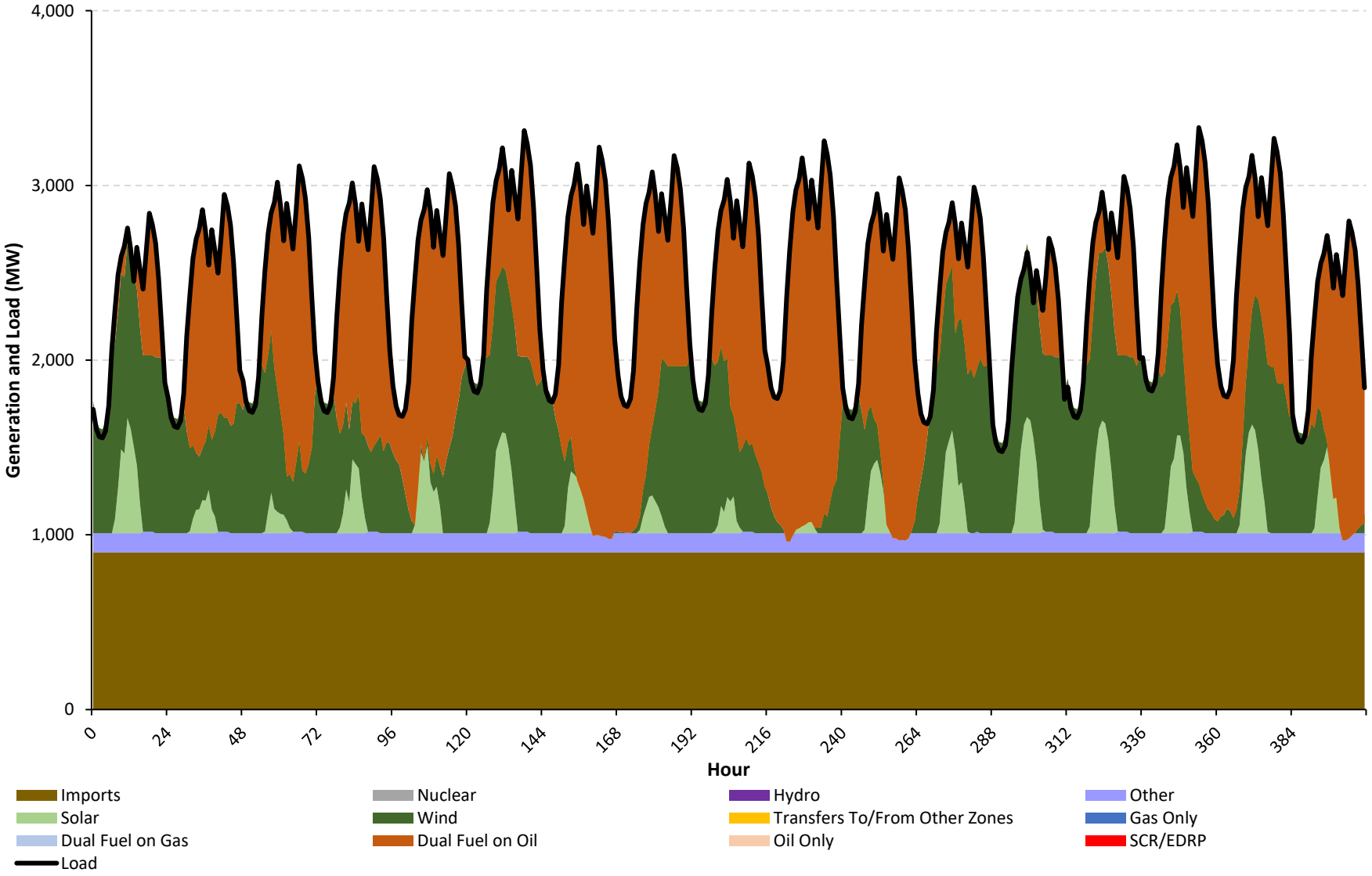



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 3 - PD 9 Non-Firm Gas Unavailable (NYCA)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 9 Non-Firm Gas Unavailable (NYCA)



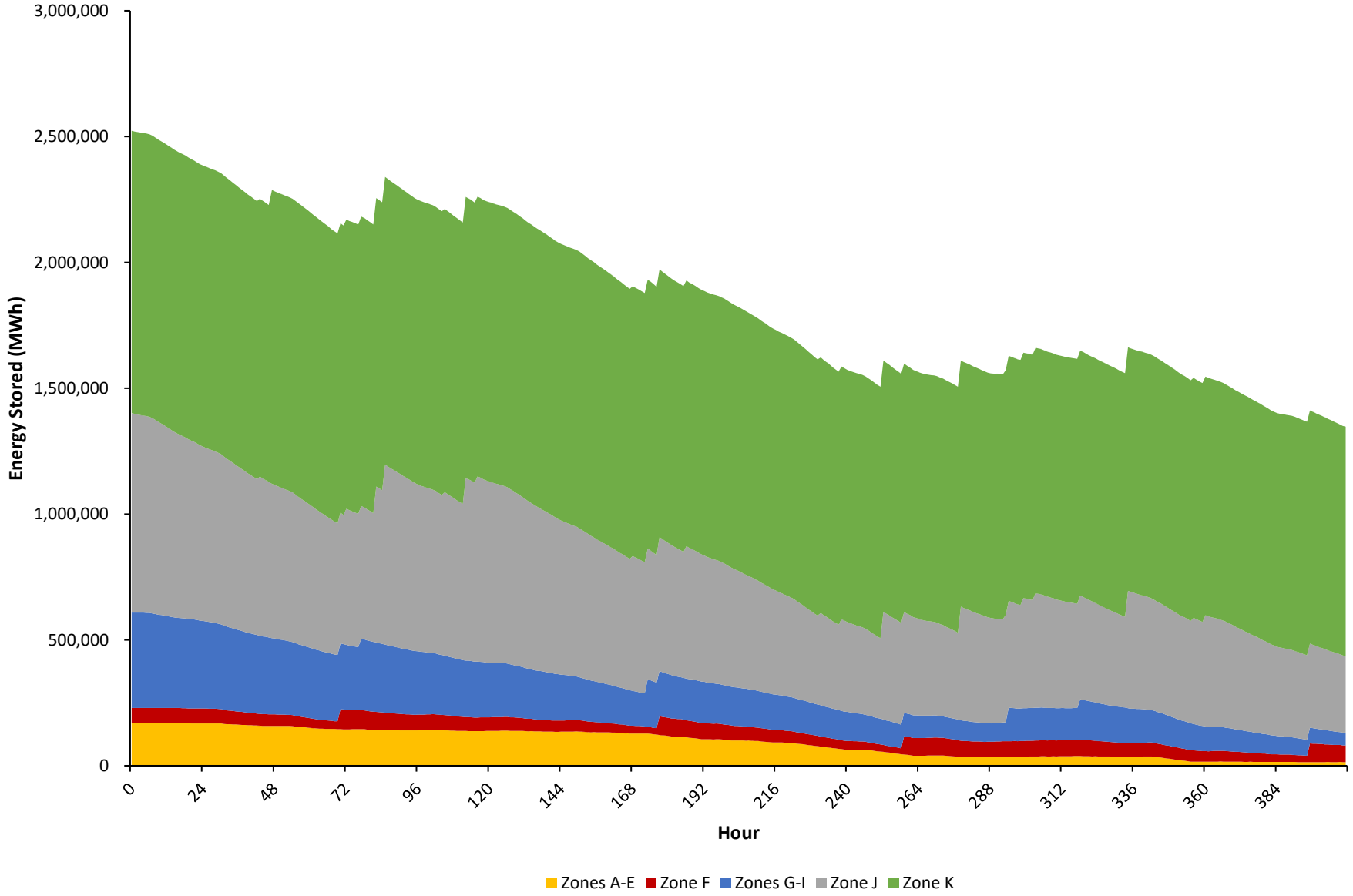
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 9 Non-Firm Gas Unavailable (NYCA)



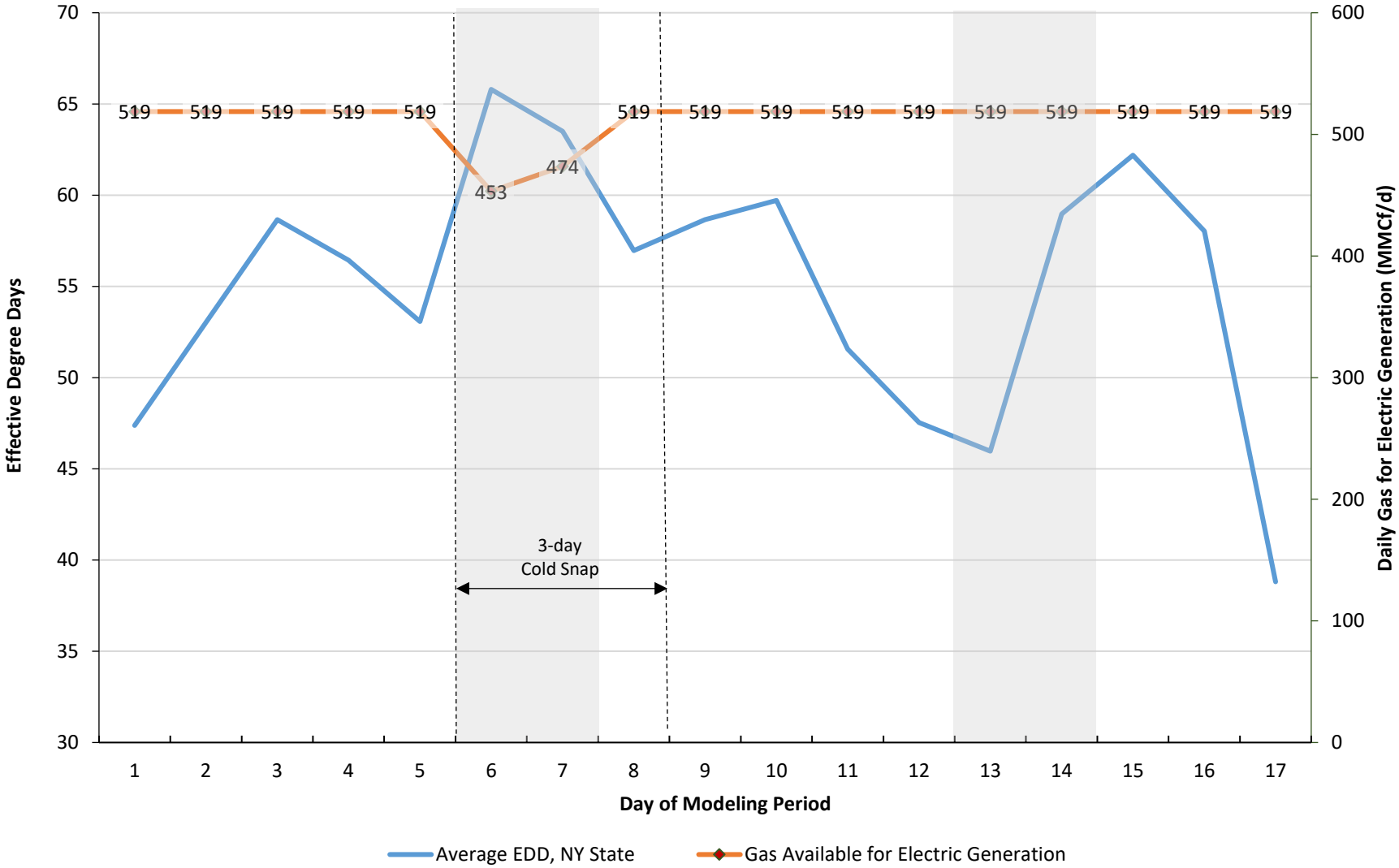
NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

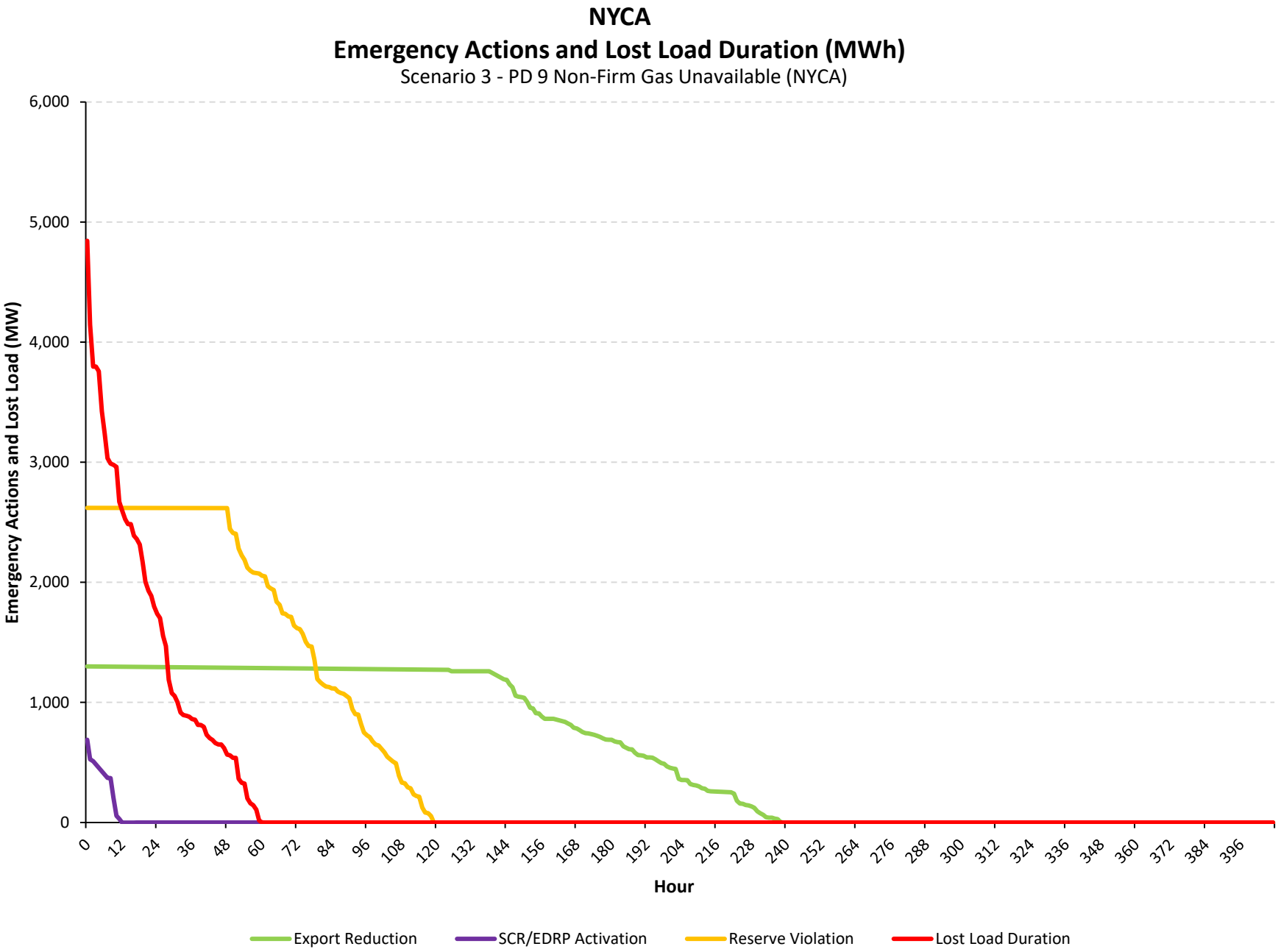
Scenario 3 - PD 9 Non-Firm Gas Unavailable (NYCA)

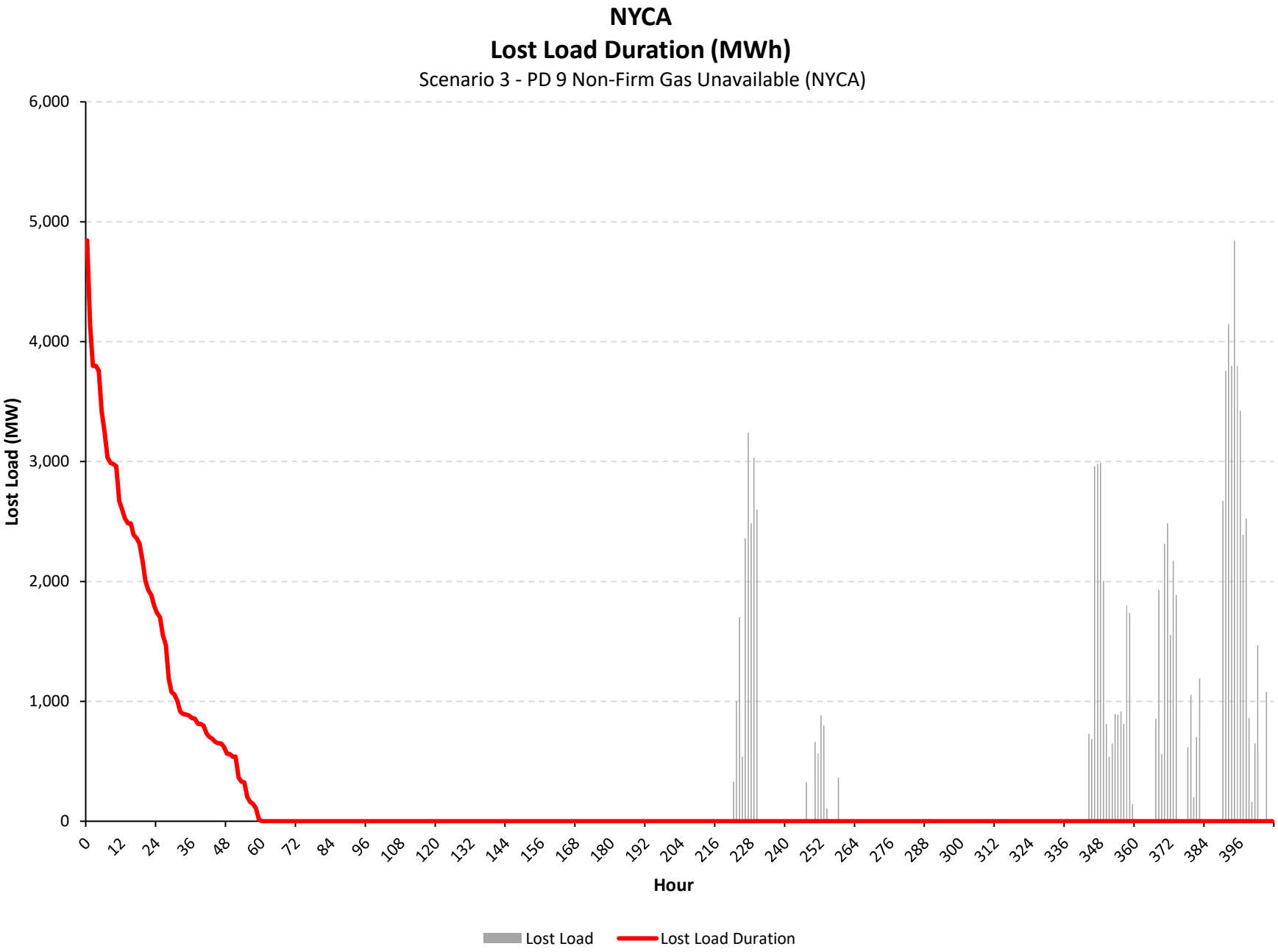


NYCA
Degree Days and Gas Available for Electric Generation 17-Day Modeling Period
Scenario 3 - PD 9 Non-Firm Gas Unavailable (NYCA)



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 3 - PD 9 Non-Firm Gas Unavailable (NYCA)
Emergency Actions and Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 3 - PD 9 Non-Firm Gas Unavailable (NYCA)
Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

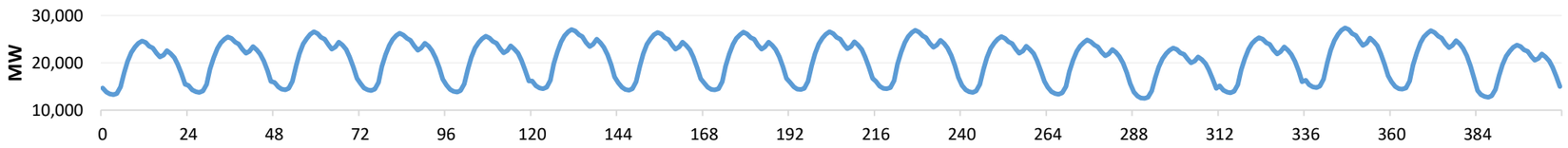
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 10 Non-Firm Gas Unavailable (4 days) (Winter 2026/2027)

Hourly Results Summary

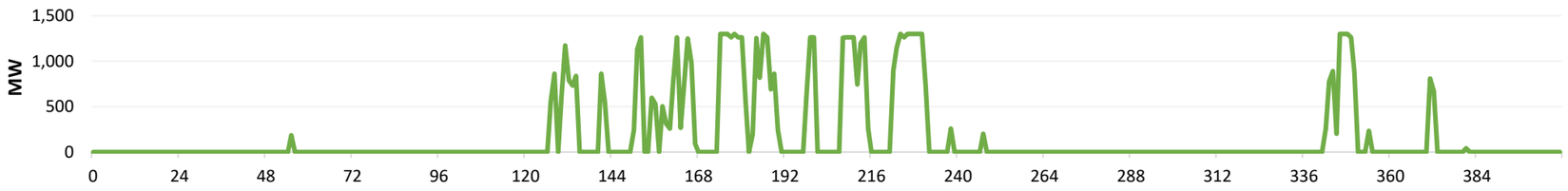
Case Name: Scenario 3 - PD 10 Non-Firm Gas Unavailable (4 days)

Load During Modeling Period



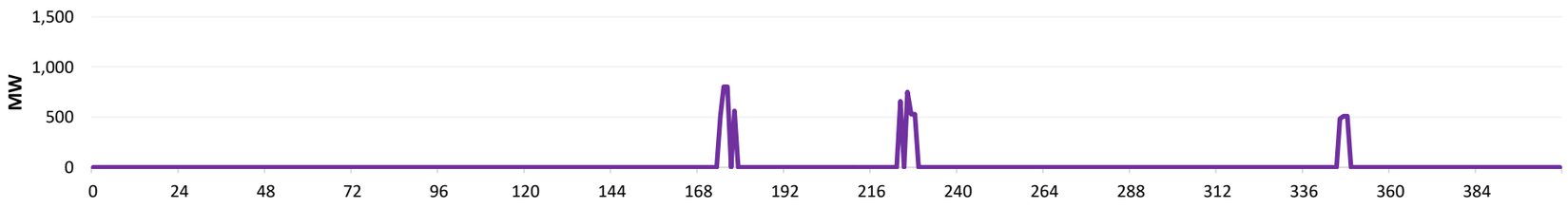
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



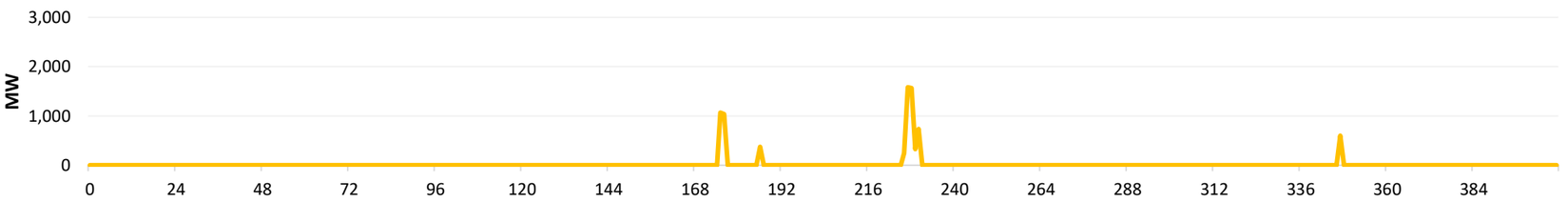
Export Reductions	
Total Hrs.	77
Total MWh	67,462
Avg. MW	165.3

SCR/EDRP Deployed During Modeling Period



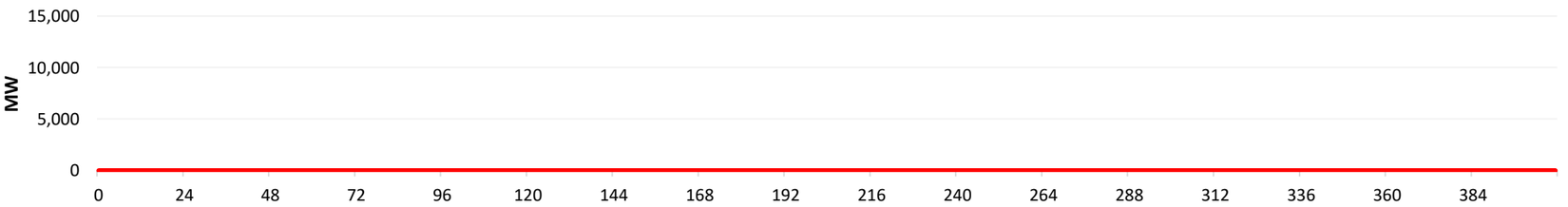
SCR Deployment	
Total Hrs.	11
Total MWh	6,643
Avg. MW	16.3

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	10
Total MWh	7,527
Avg. MW	18.4
First Hour with Viol.	175

Loss of Load During Modeling Period

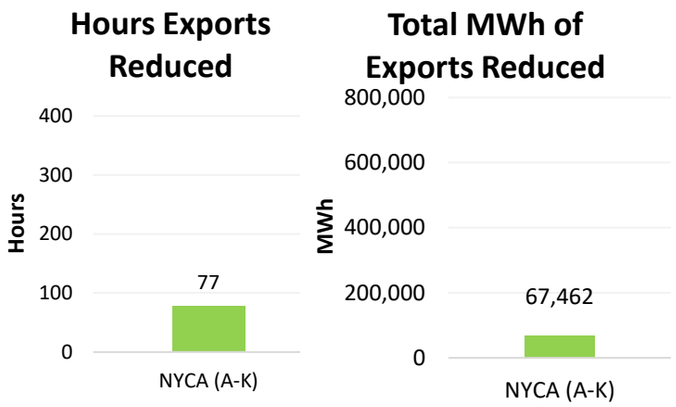


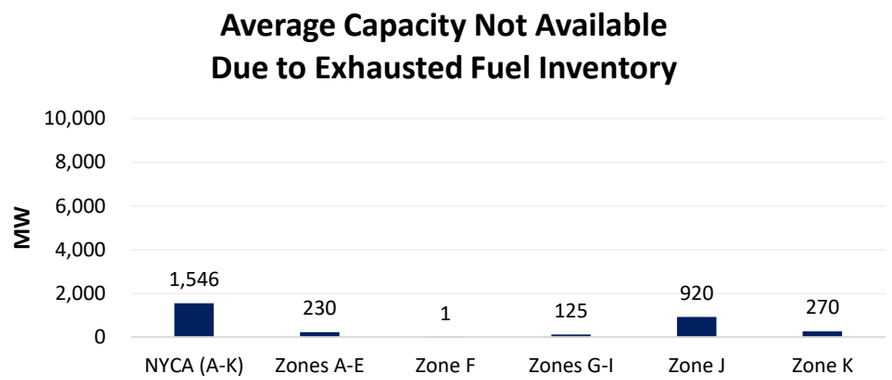
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

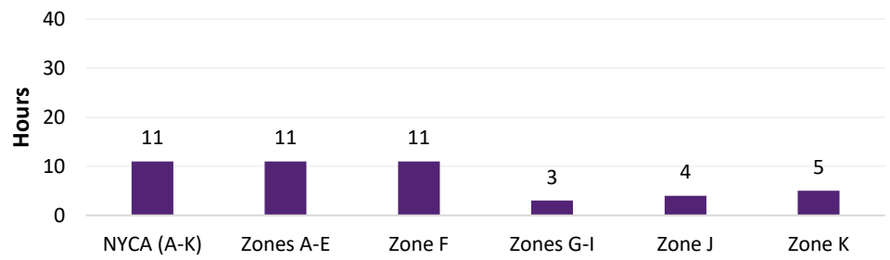
Full Period Results Summary

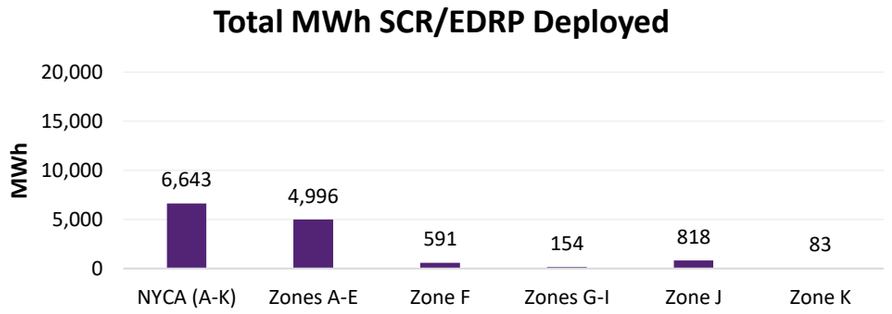
Case Name: Scenario 3 - PD 10 Non-Firm Gas Unavailable (4 days)

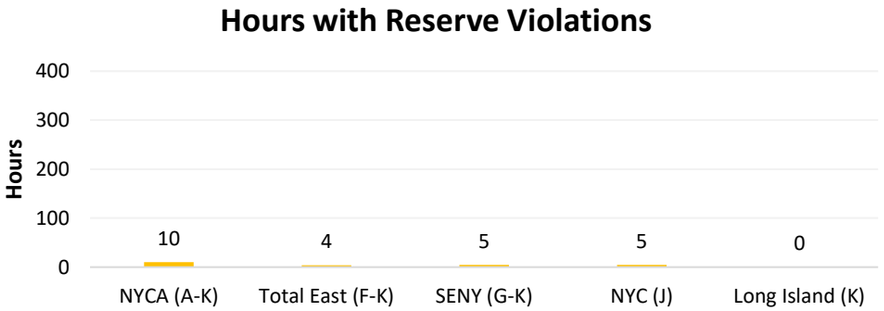
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

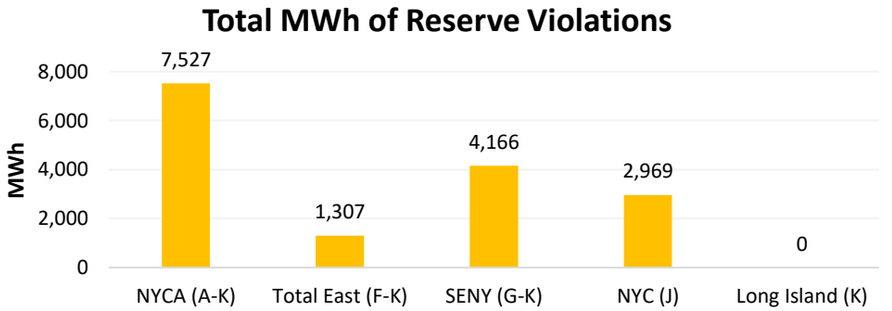


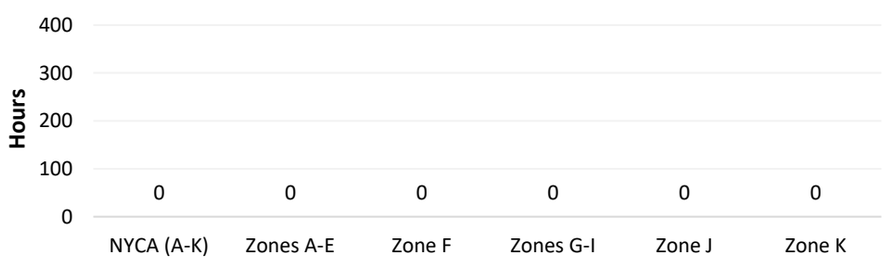


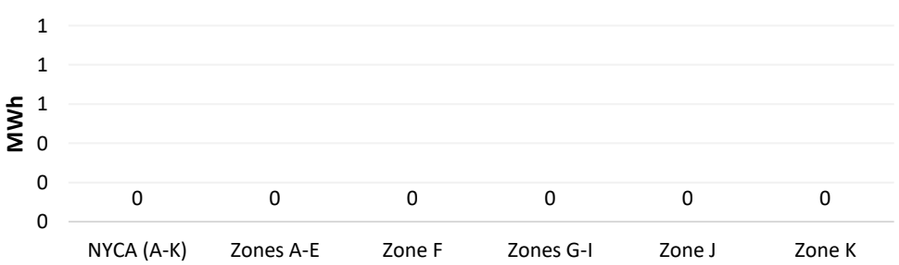


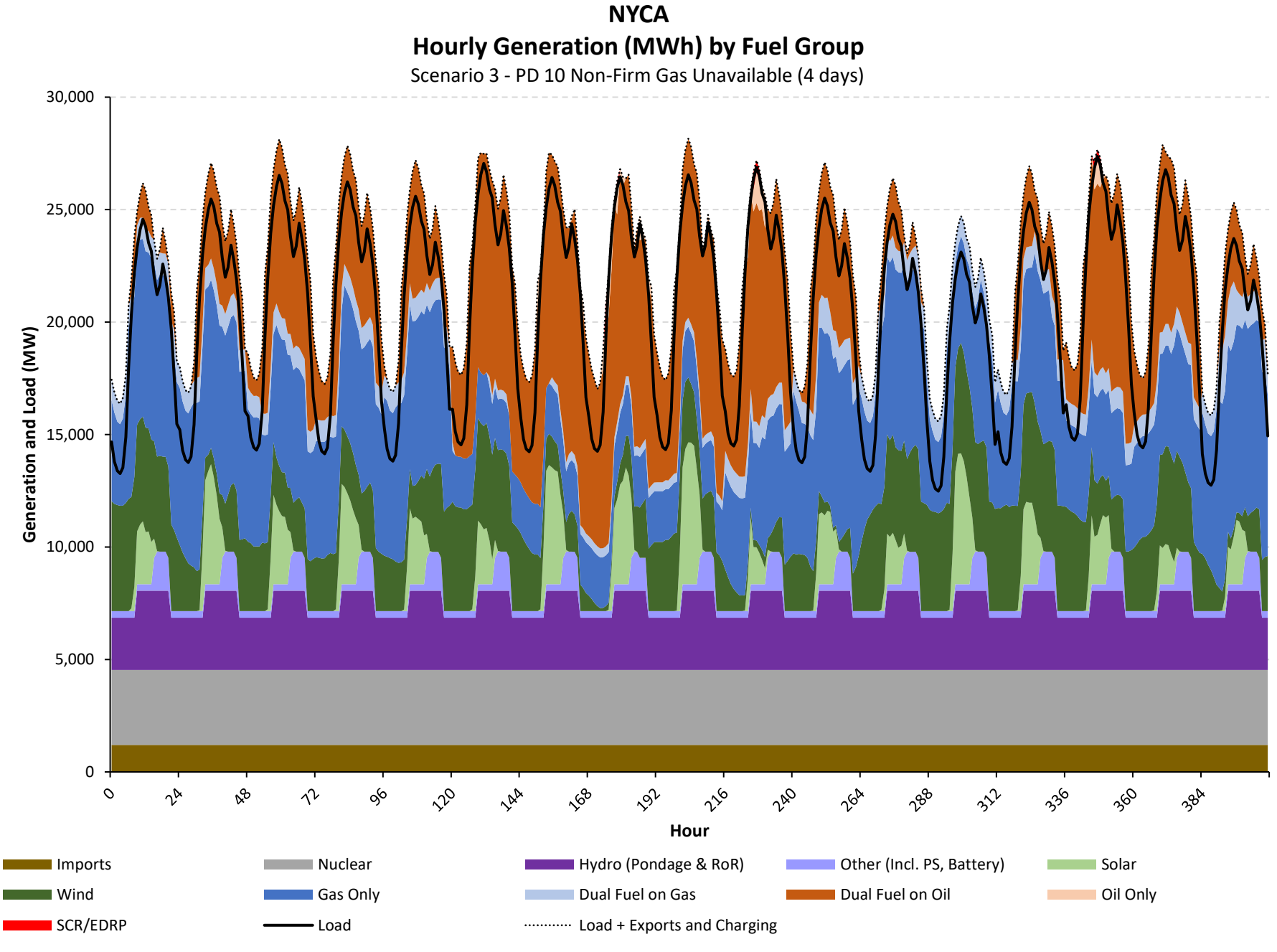




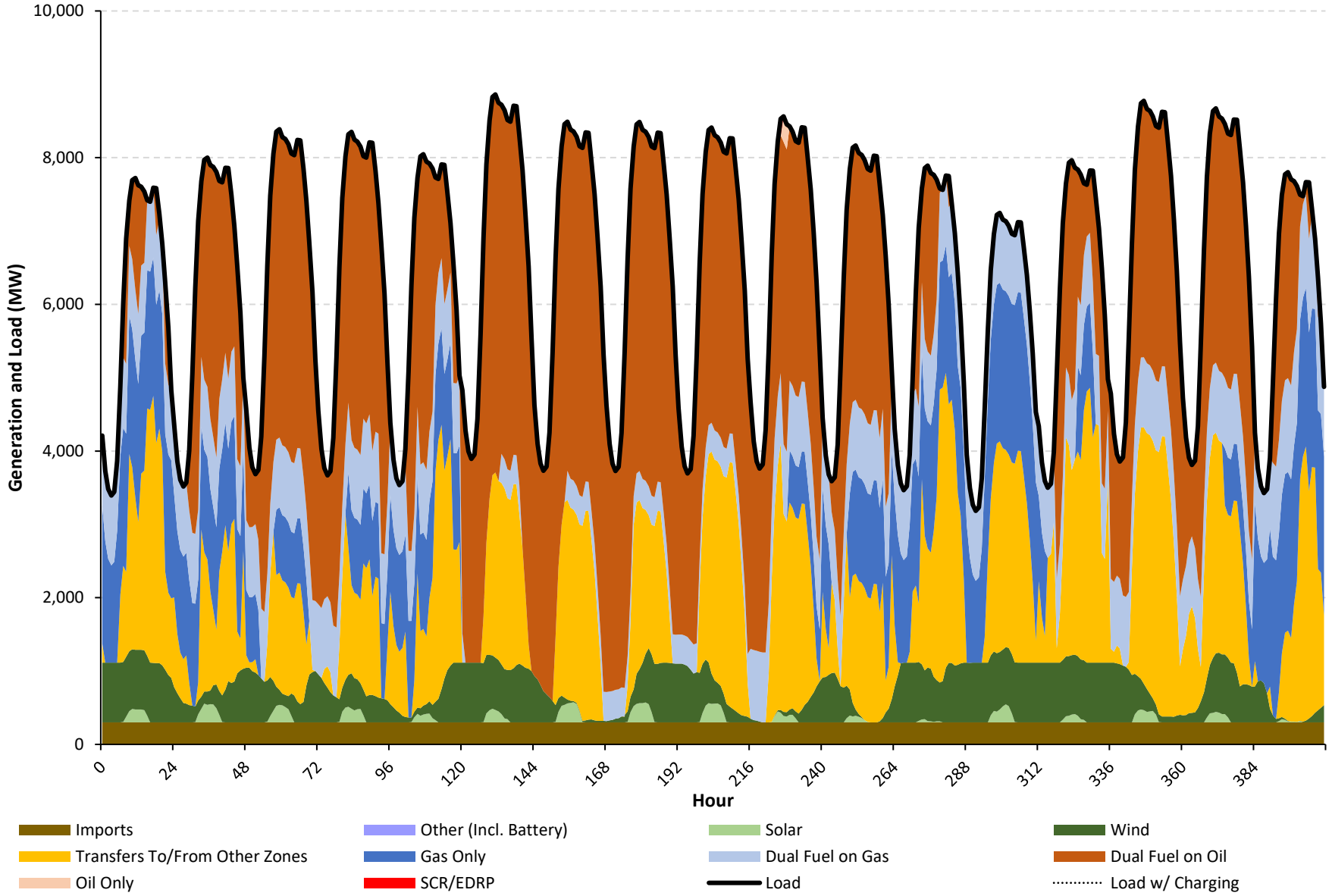




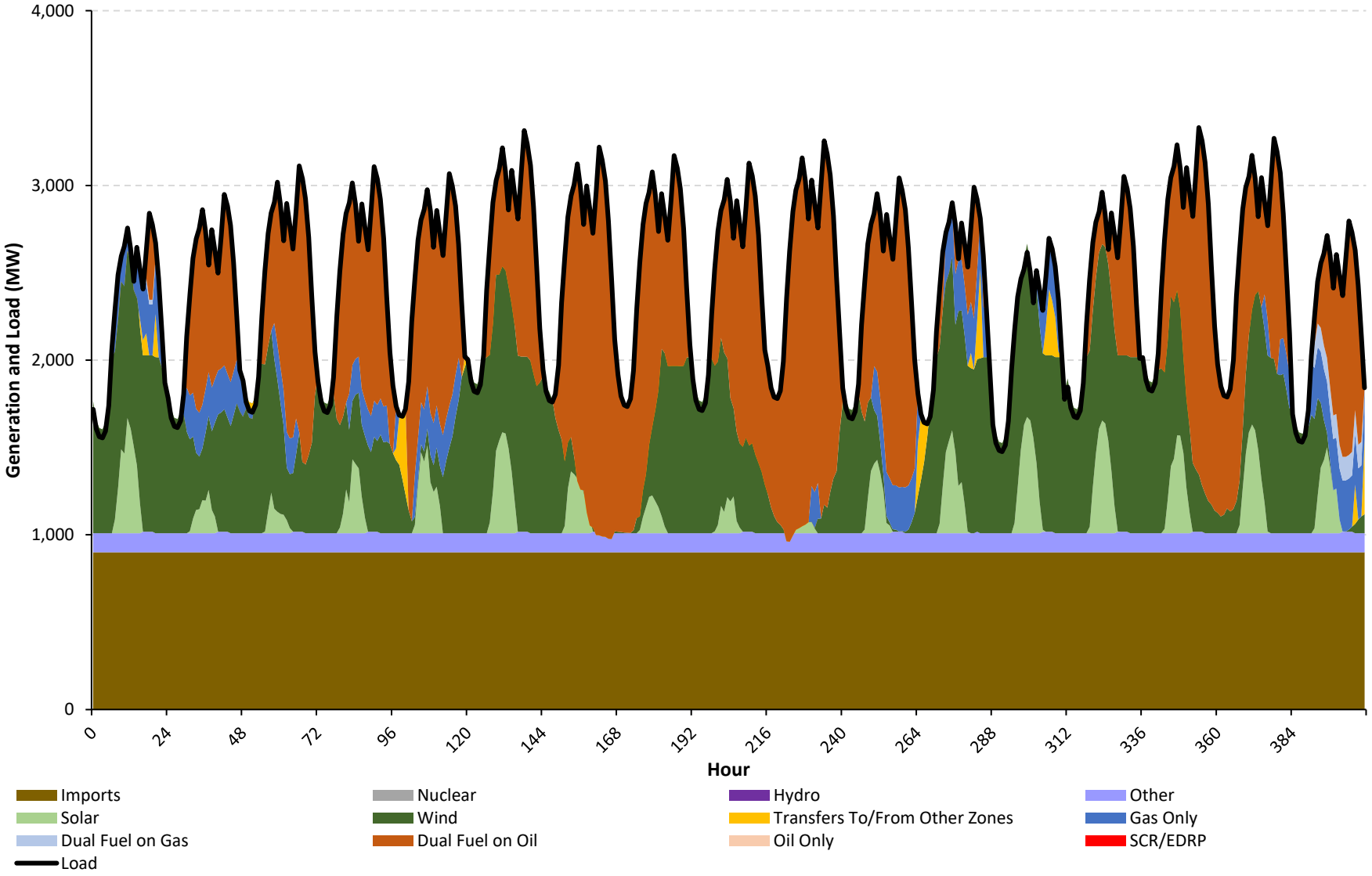



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 3 - PD 10 Non-Firm Gas Unavailable (4 days)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 10 Non-Firm Gas Unavailable (4 days)



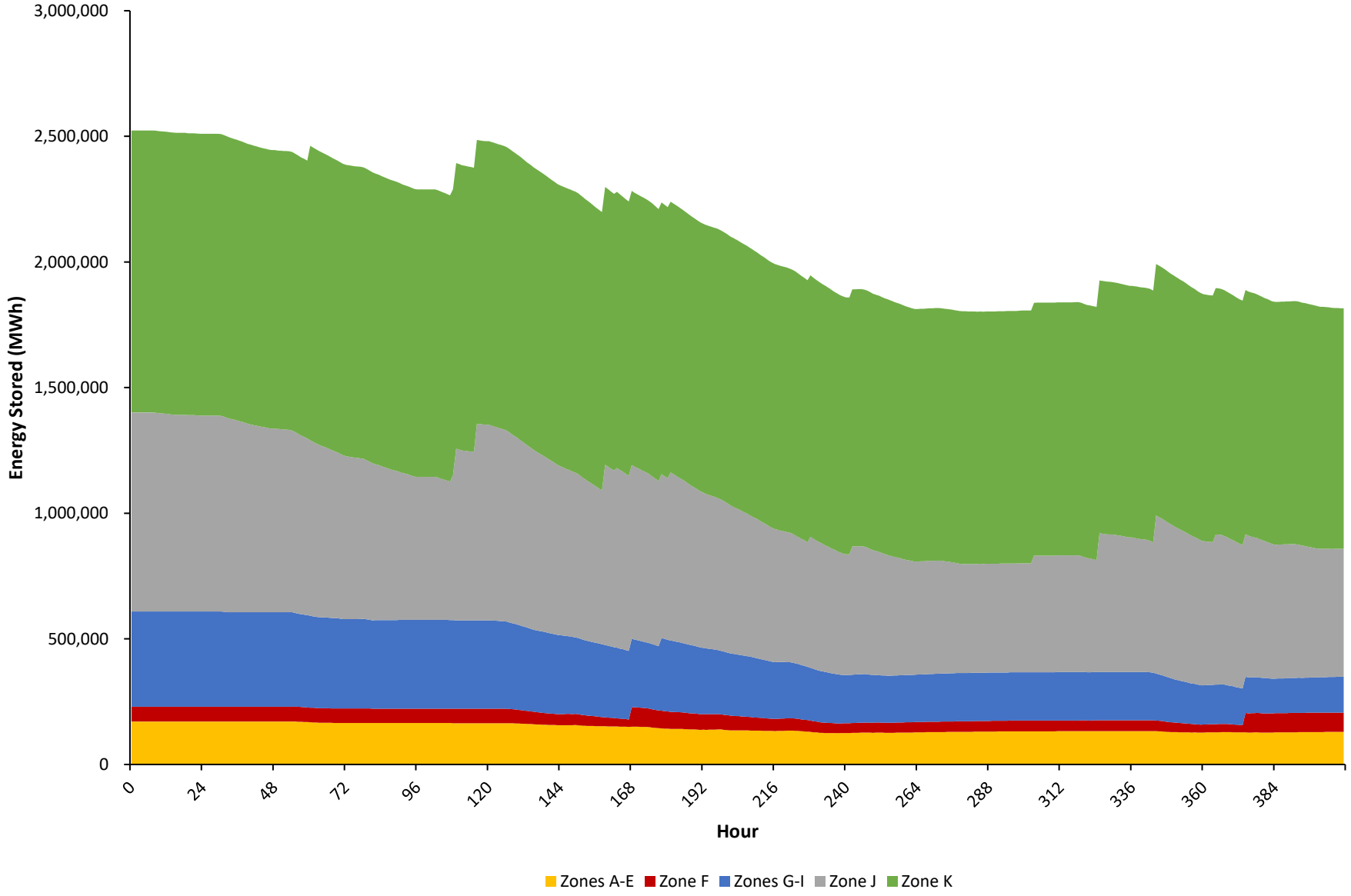
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 10 Non-Firm Gas Unavailable (4 days)

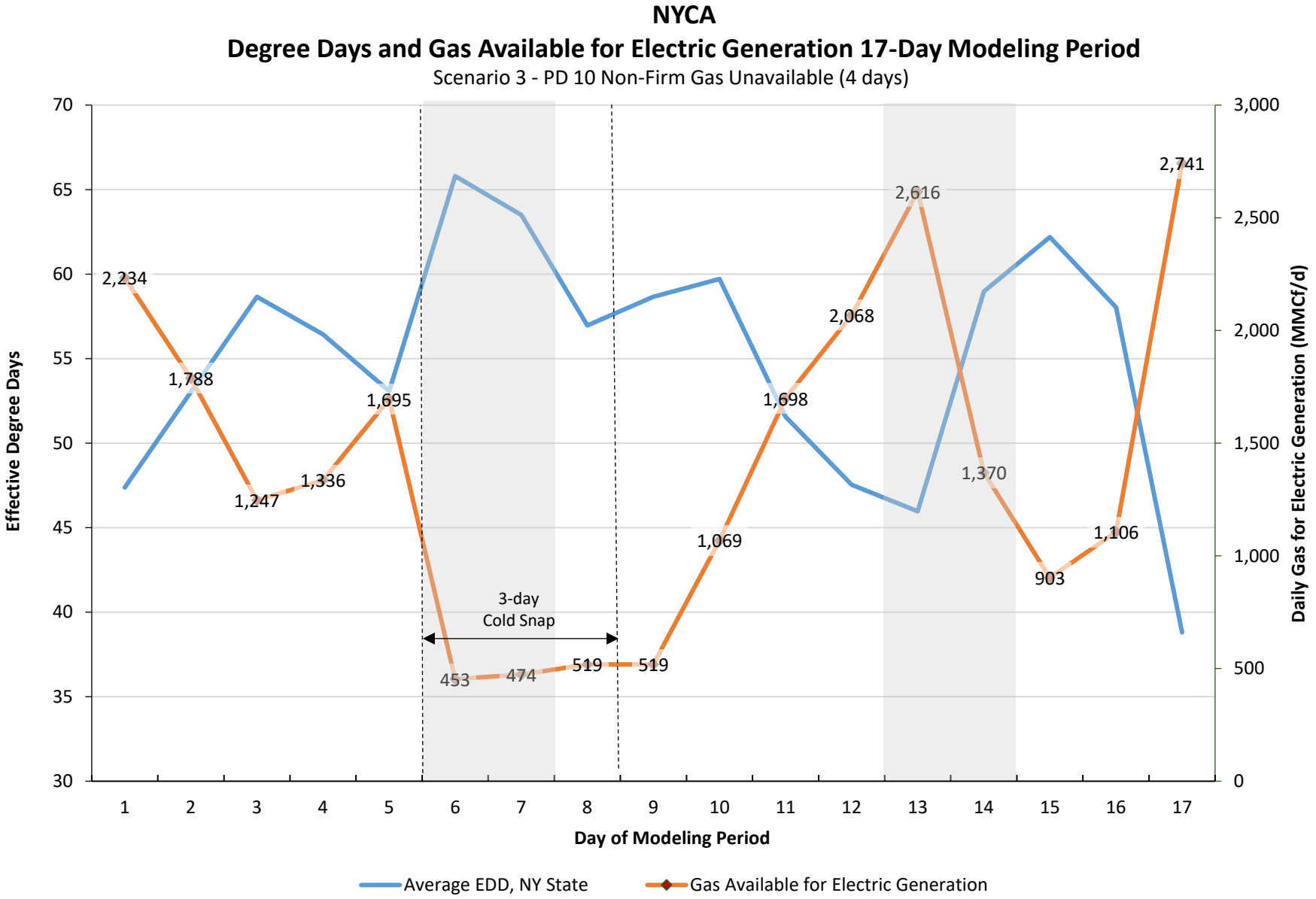


NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

Scenario 3 - PD 10 Non-Firm Gas Unavailable (4 days)



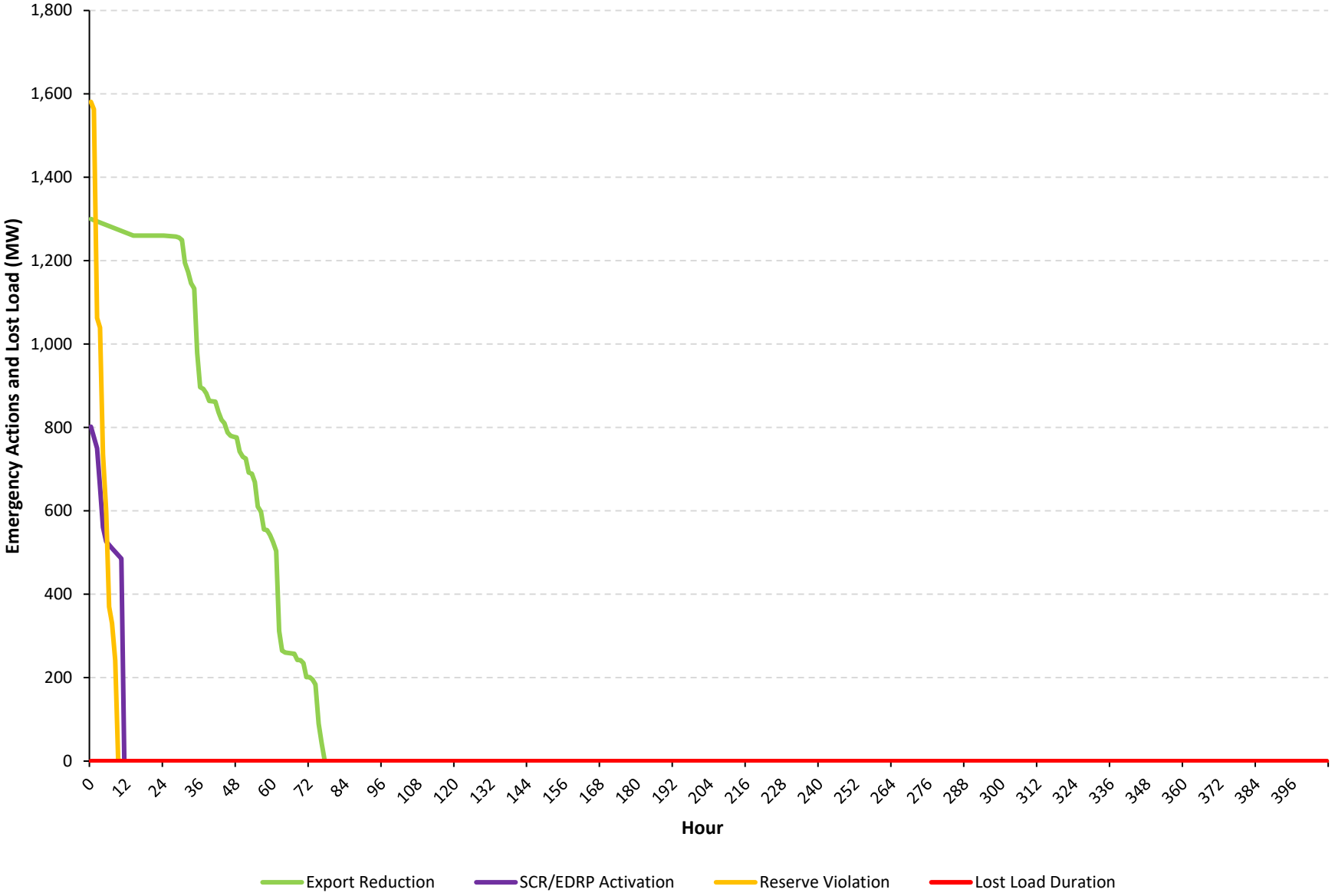


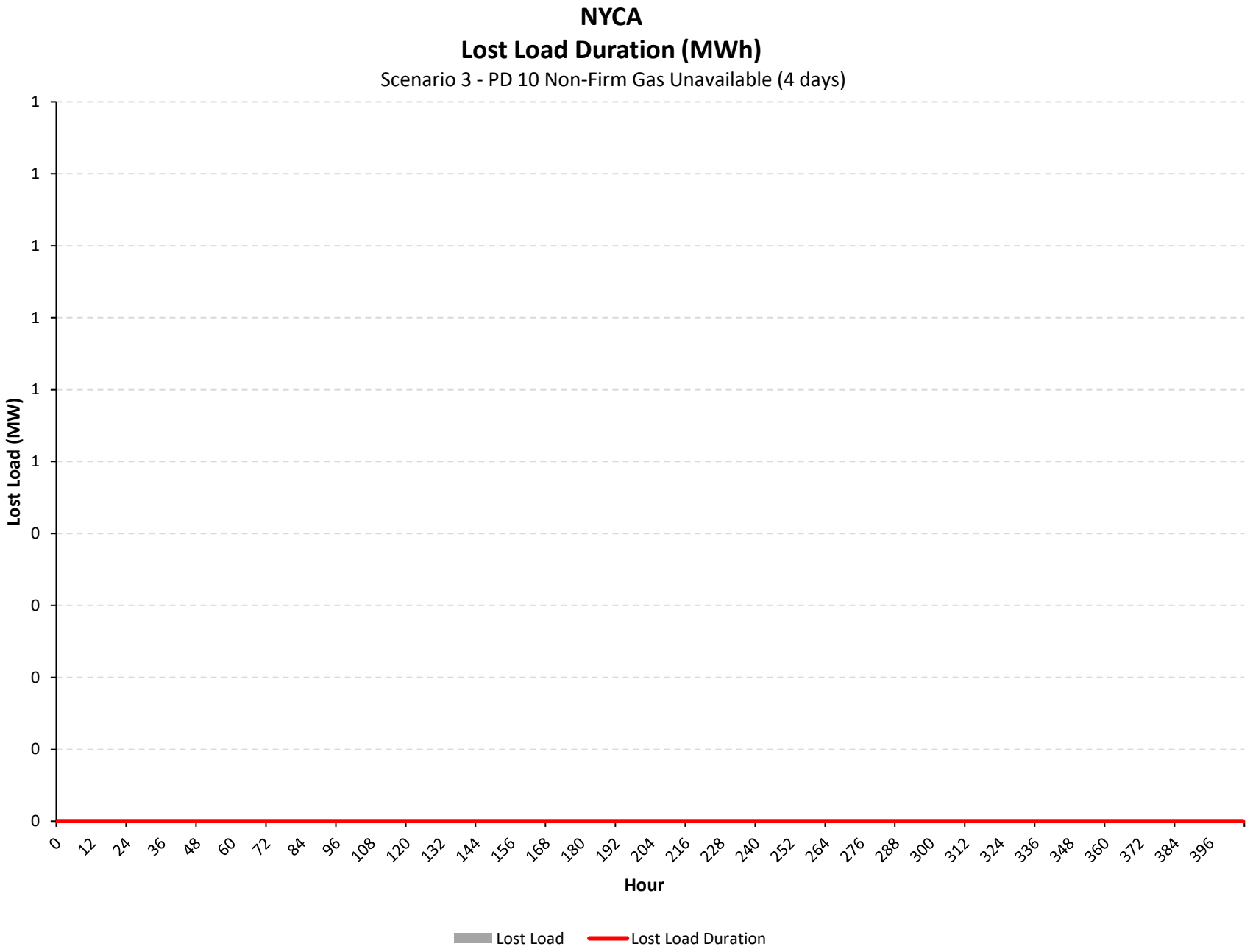
Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.

NYCA

Emergency Actions and Lost Load Duration (MWh)

Scenario 3 - PD 10 Non-Firm Gas Unavailable (4 days)




NYCA
Lost Load Duration (MWh)
Scenario 3 - PD 10 Non-Firm Gas Unavailable (4 days)
Lost Load (MW)
1
1
1
1
1
1
0
0
0
0
0
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

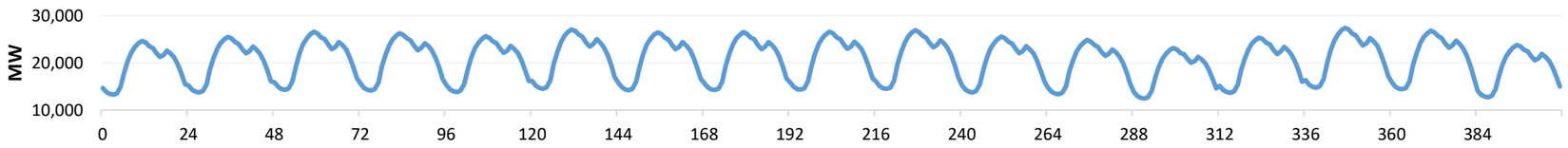
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 11 Combination Disruption (Winter 2026/2027)

Hourly Results Summary

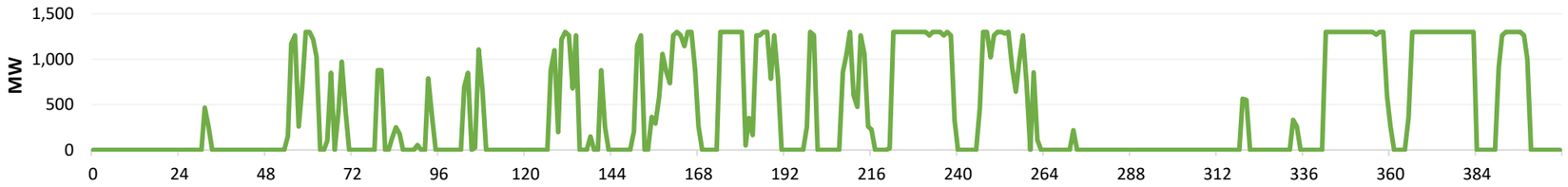
Case Name: Scenario 3 - PD 11 Combination Disruption

Load During Modeling Period



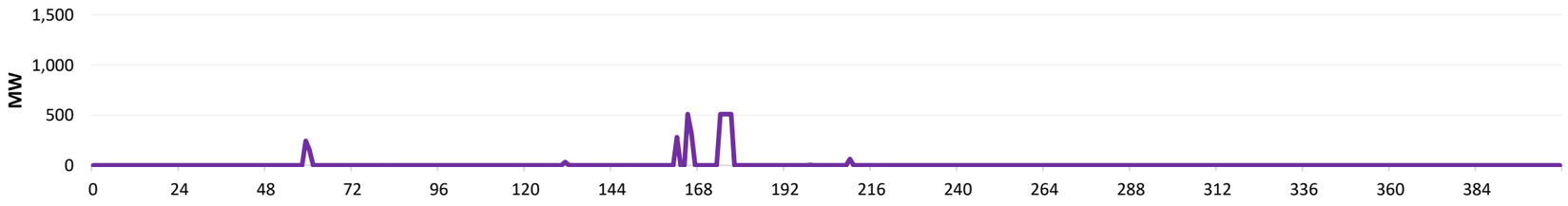
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



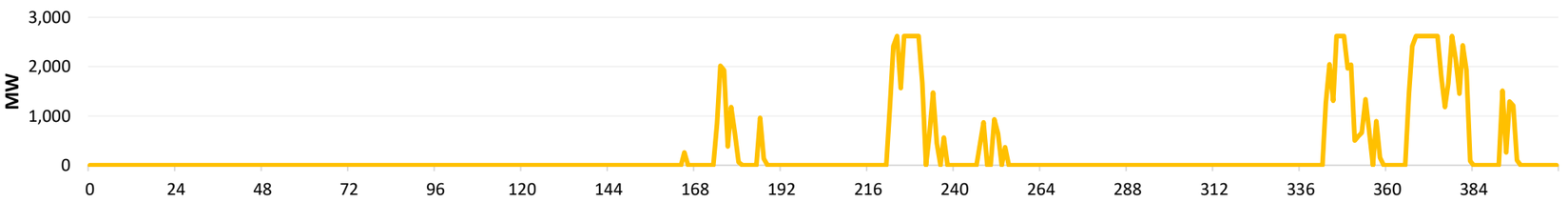
Export Reductions	
Total Hrs.	173
Total MWh	168,515
Avg. MW	413.0

SCR/EDRP Deployed During Modeling Period



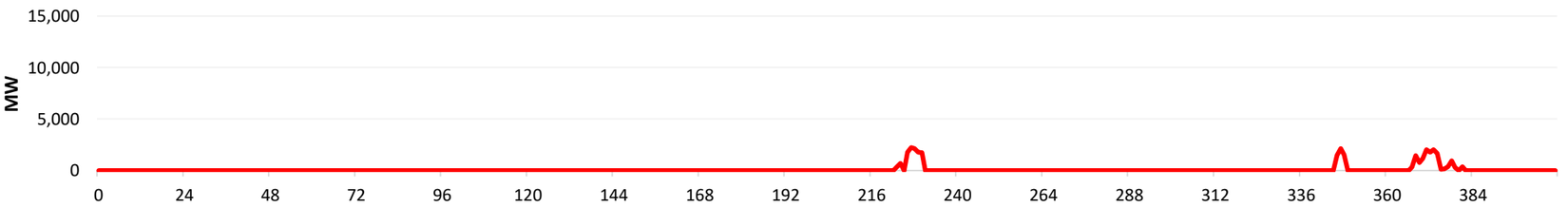
SCR Deployment	
Total Hrs.	12
Total MWh	3,645
Avg. MW	8.9

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	68
Total MWh	100,468
Avg. MW	246.2
First Hour with Viol.	165

Loss of Load During Modeling Period



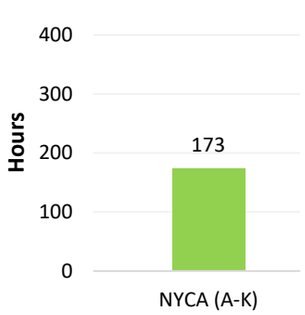
Loss of Load	
Total Hrs.	24
Total MWh	29,331
Avg. MW	71.9
First Hour with Losses	223

Full Period Results Summary

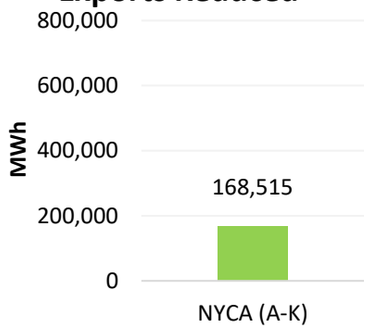
Case Name: Scenario 3 - PD 11 Combination Disruption

Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

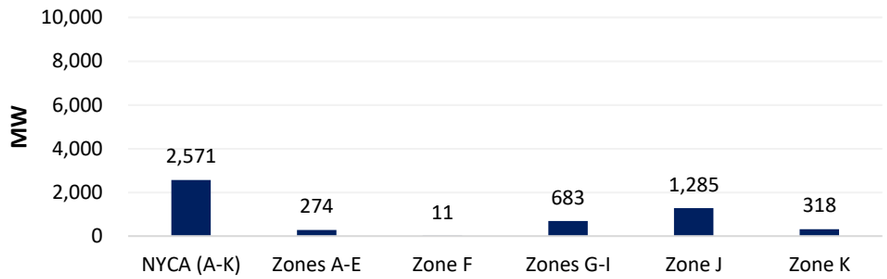
Hours Exports Reduced



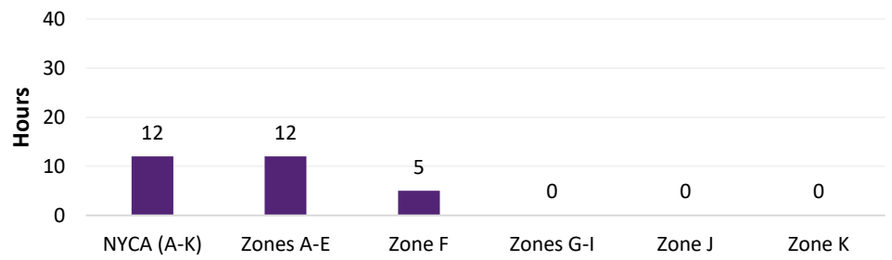
Total MWh of Exports Reduced



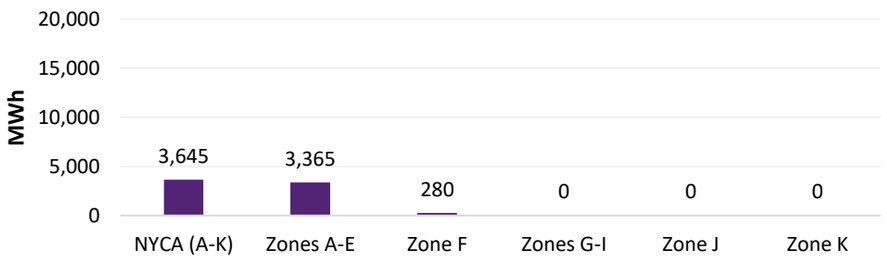
Average Capacity Not Available Due to Exhausted Fuel Inventory



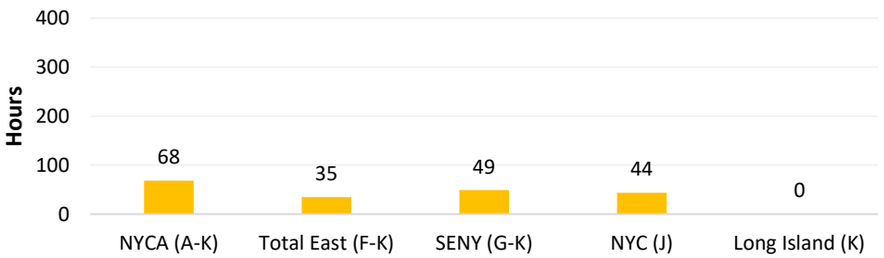
Hours SCR/EDRP Deployed



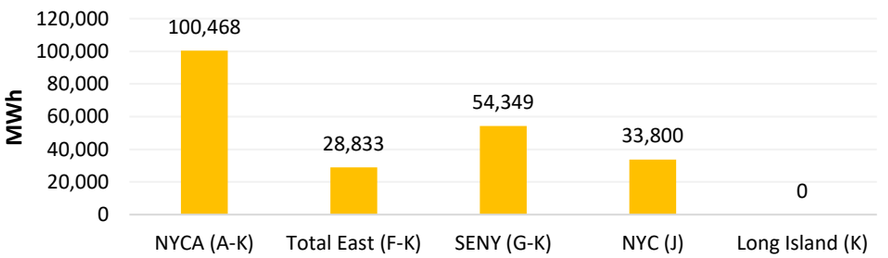
Total MWh SCR/EDRP Deployed



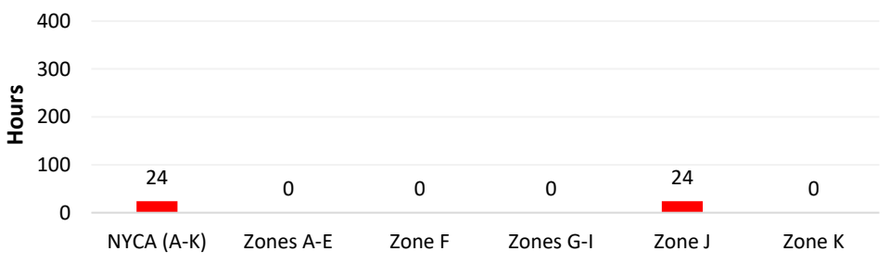
Hours with Reserve Violations



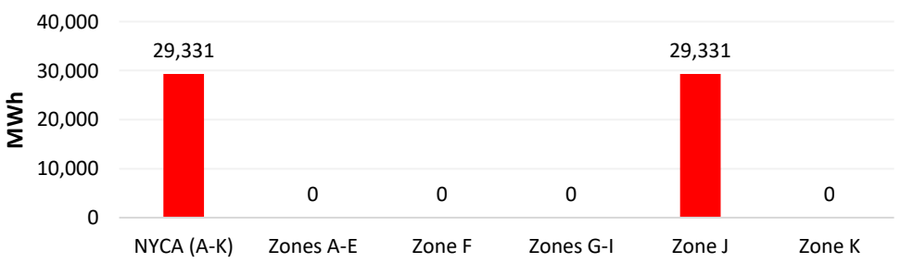
Total MWh of Reserve Violations

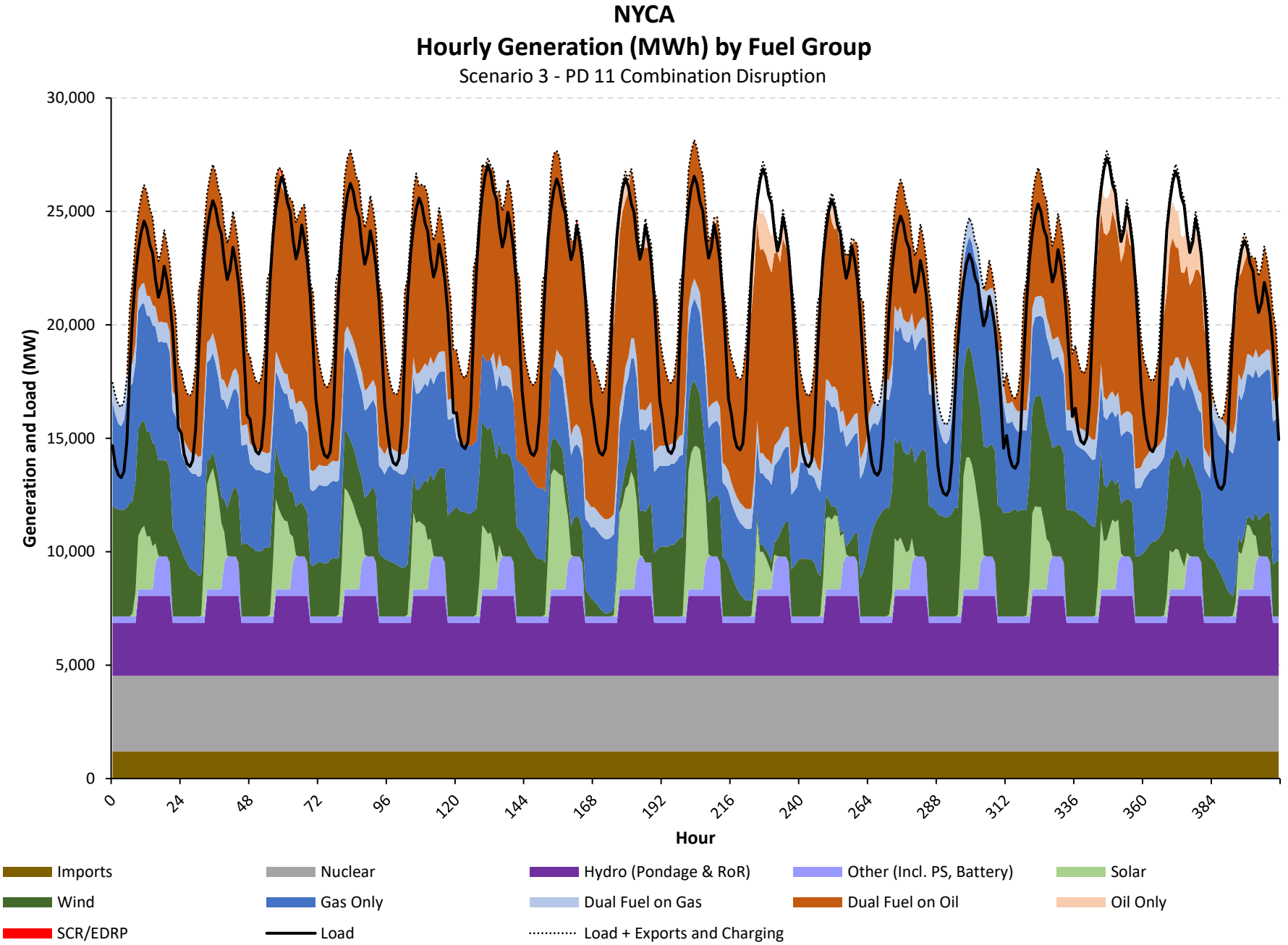


Hours with Loss of Load

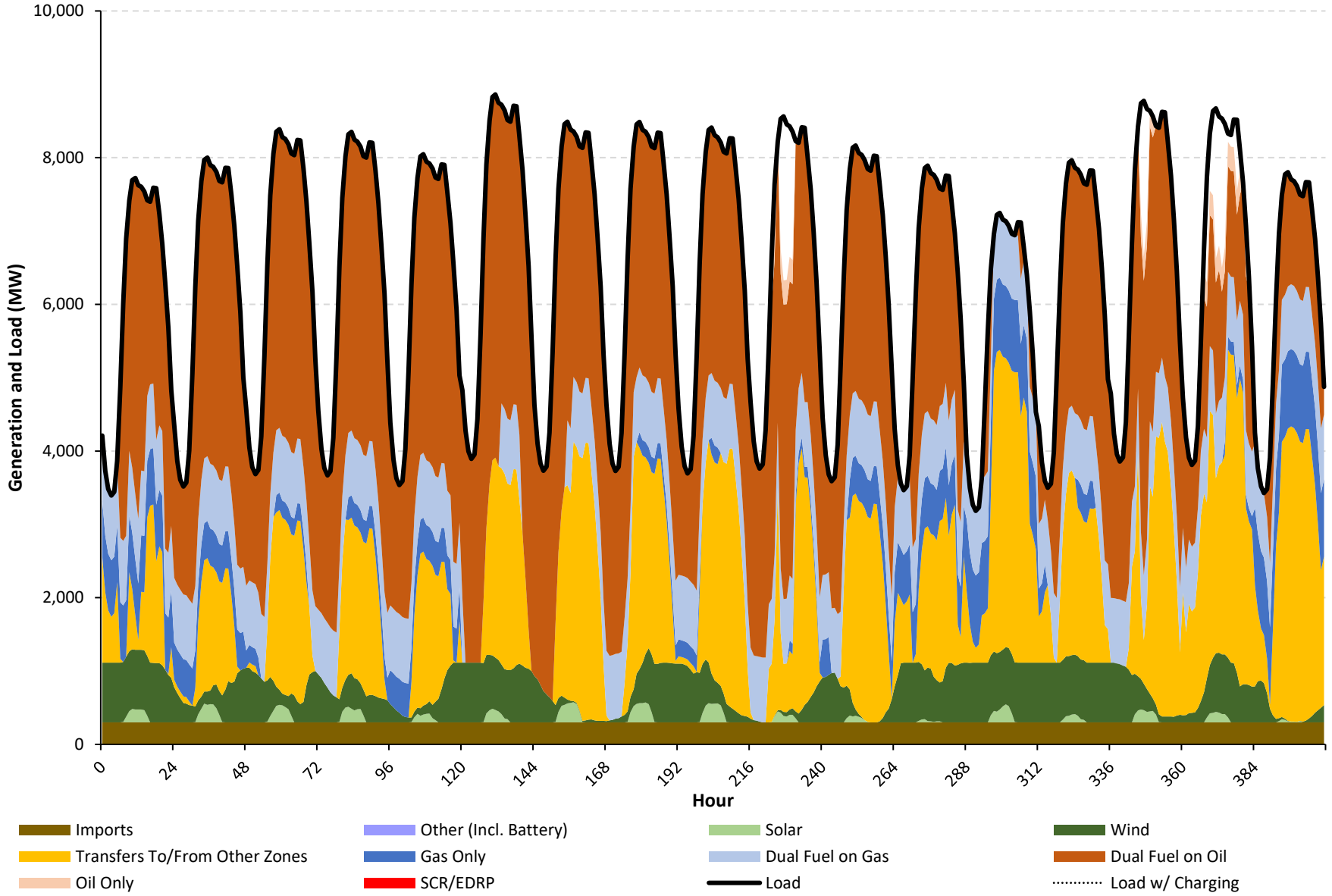


Total MWh of Lost Load

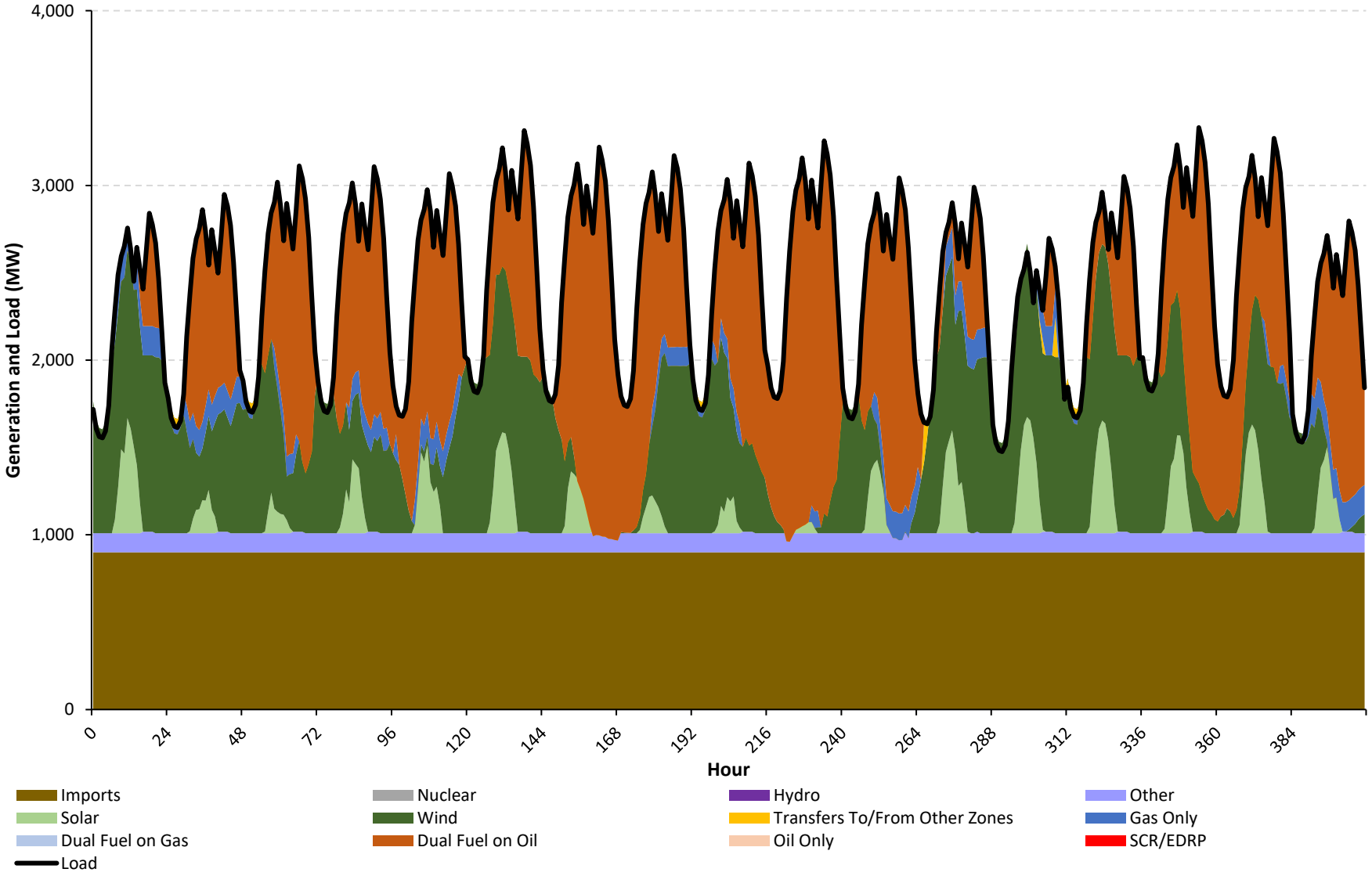


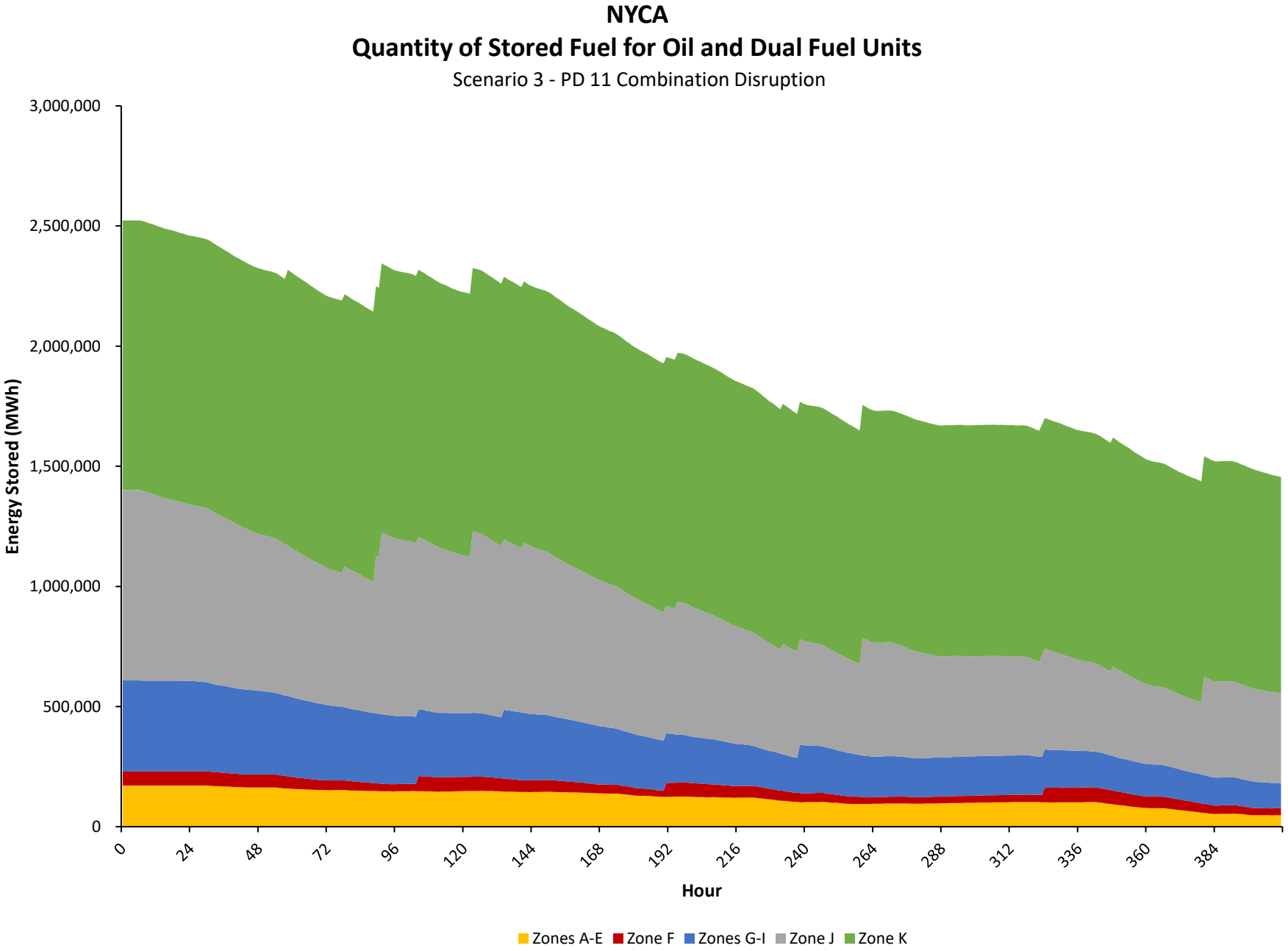

NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 3 - PD 11 Combination Disruption
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

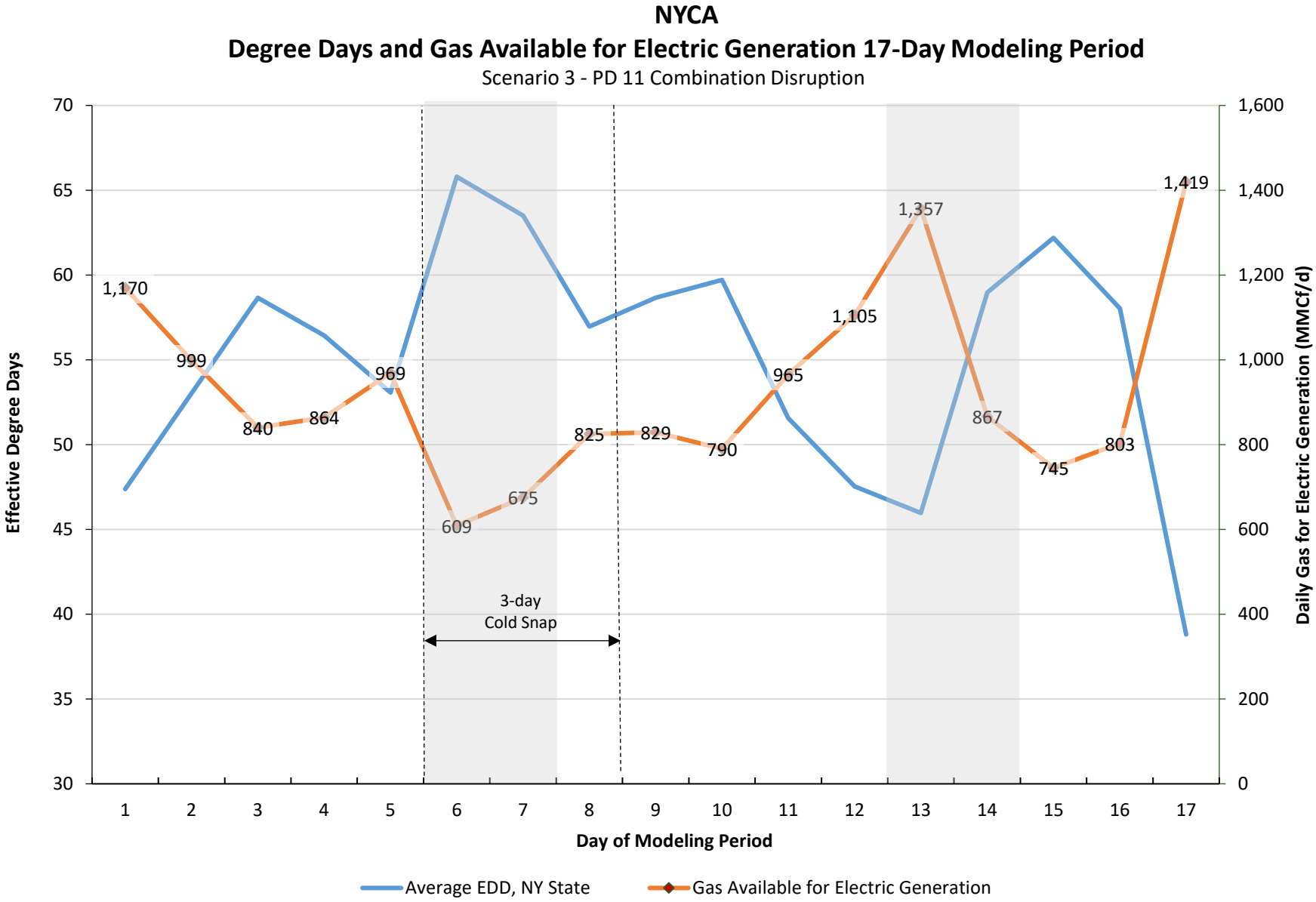
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 11 Combination Disruption



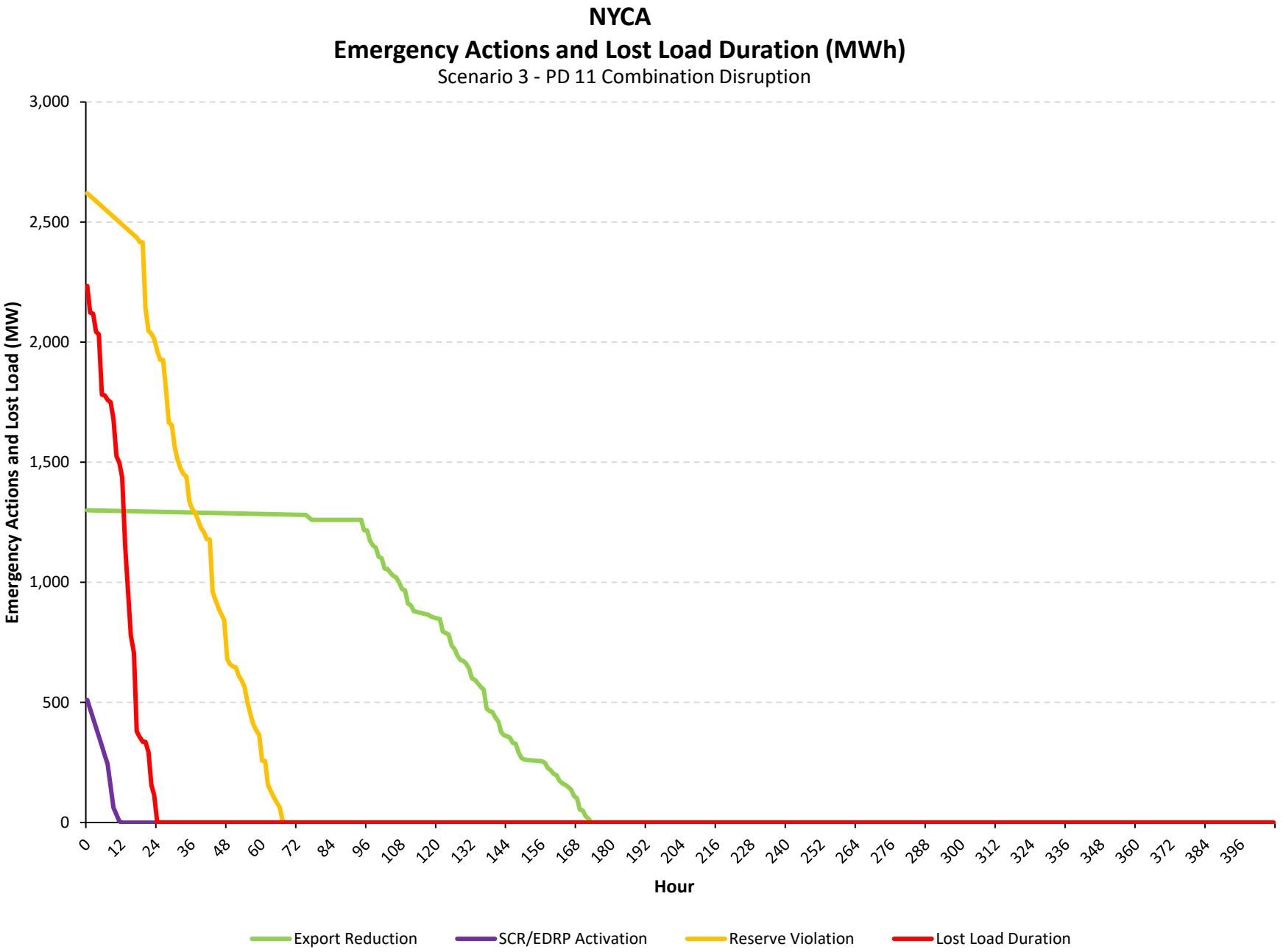
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 11 Combination Disruption

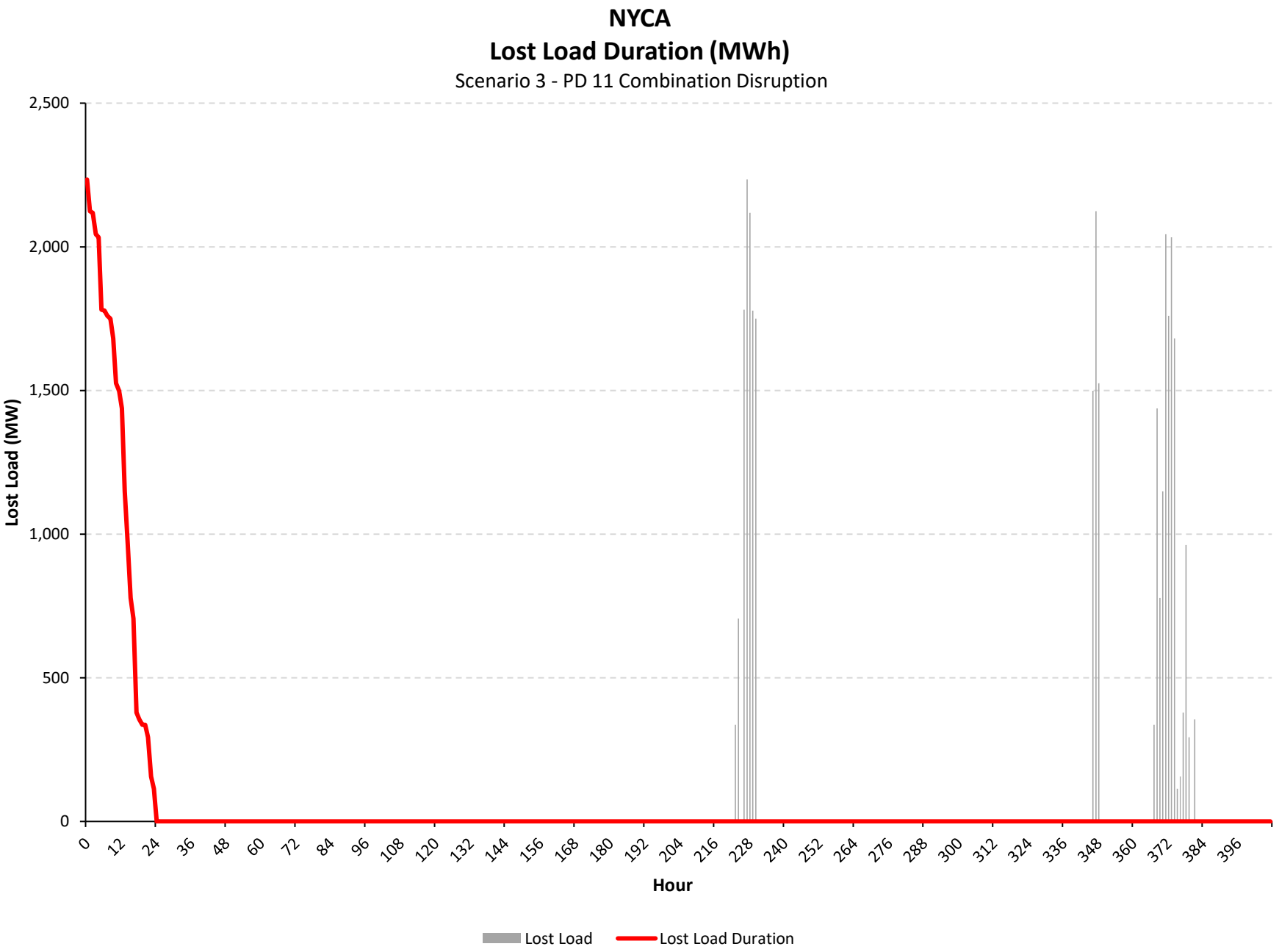



NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 3 - PD 11 Combination Disruption
Energy Stored (MWh)
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Zones A-E
Zone F
Zones G-I
Zone J
Zone K



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 3 - PD 11 Combination Disruption
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 3 - PD 11 Combination Disruption
Lost Load (MW)
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

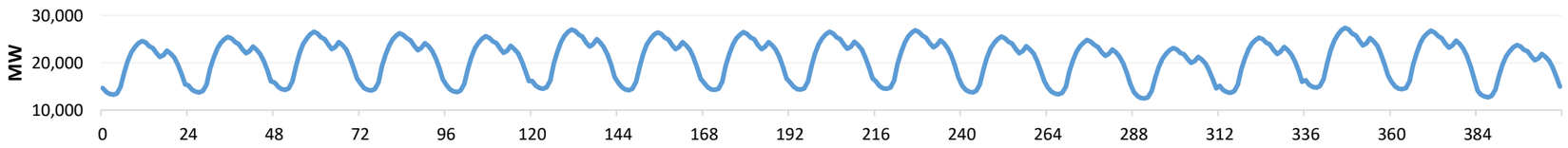
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 1 No Disruptions (Winter 2026/2027)

Hourly Results Summary

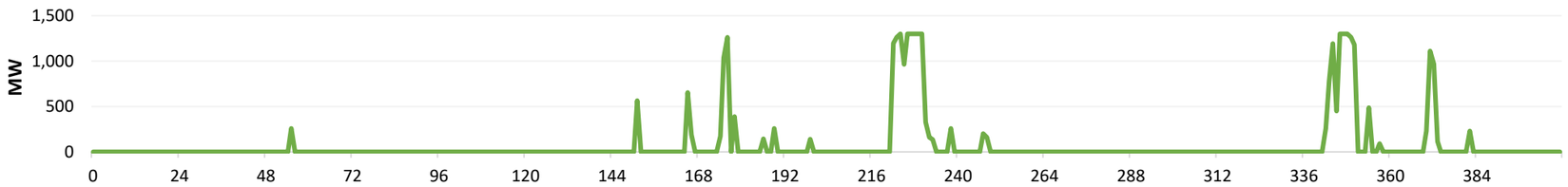
Case Name: Scenario 4 - PD 1 No Disruptions

Load During Modeling Period



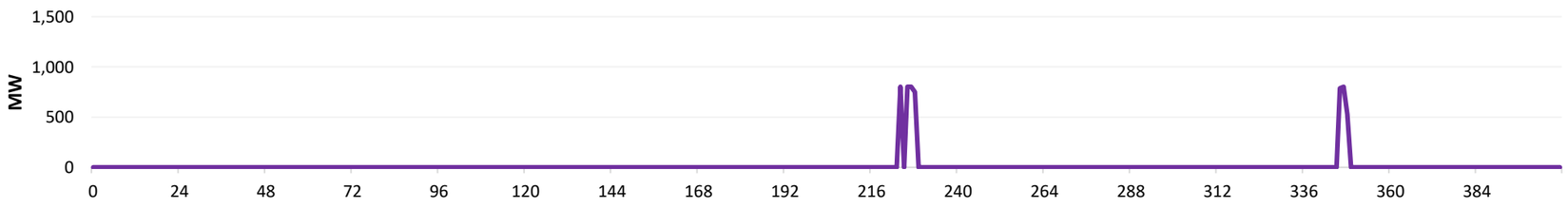
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



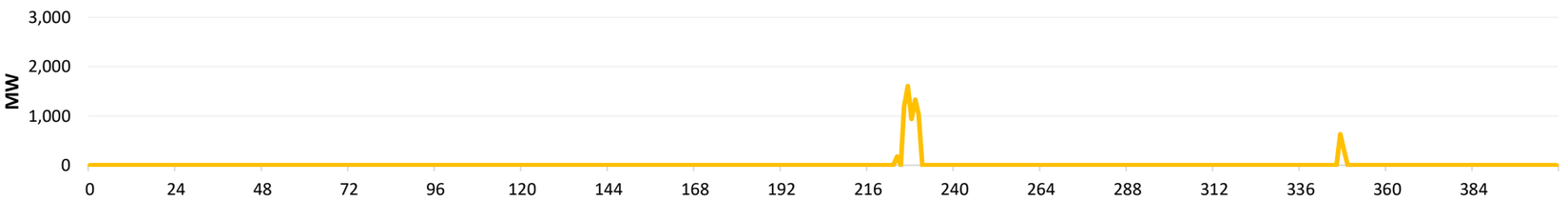
Export Reductions	
Total Hrs.	42
Total MWh	29,781
Avg. MW	73.0

SCR/EDRP Deployed During Modeling Period



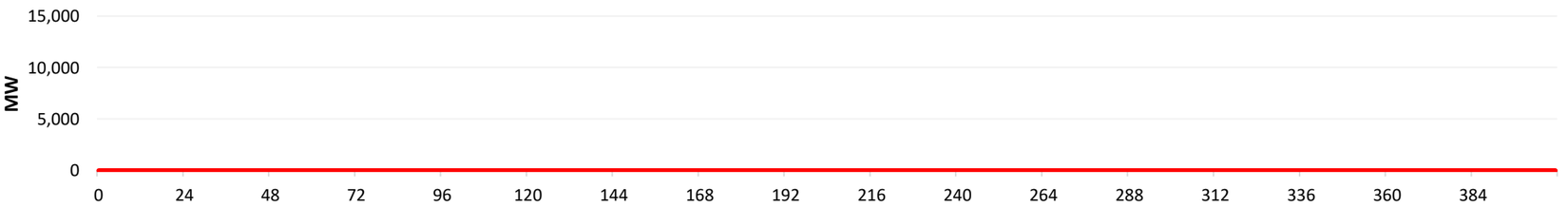
SCR Deployment	
Total Hrs.	7
Total MWh	5,271
Avg. MW	12.9

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	9
Total MWh	7,200
Avg. MW	17.6
First Hour with Viol.	224

Loss of Load During Modeling Period



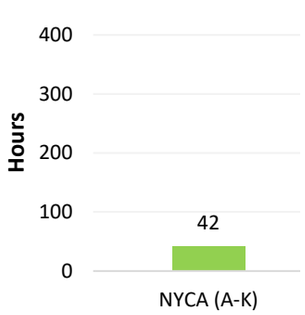
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

Full Period Results Summary

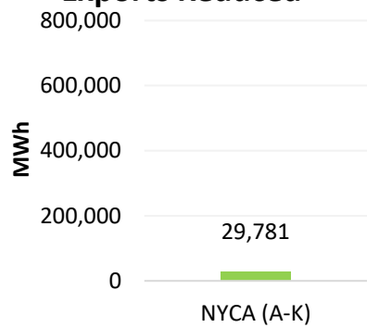
Case Name: Scenario 4 - PD 1 No Disruptions

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

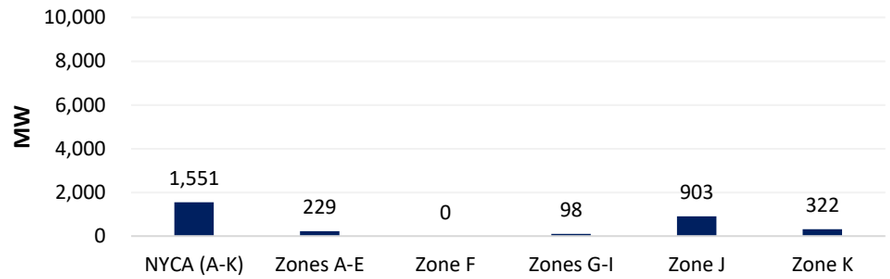
Hours Exports Reduced



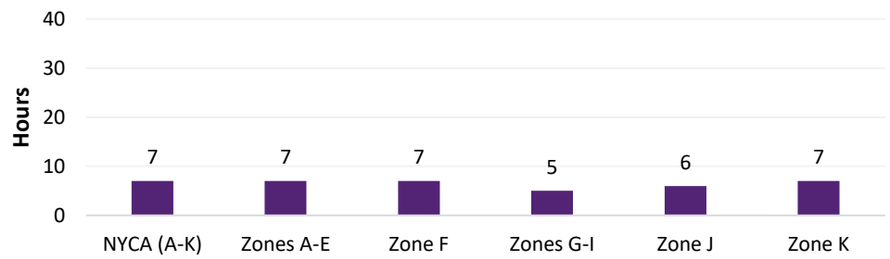
Total MWh of Exports Reduced



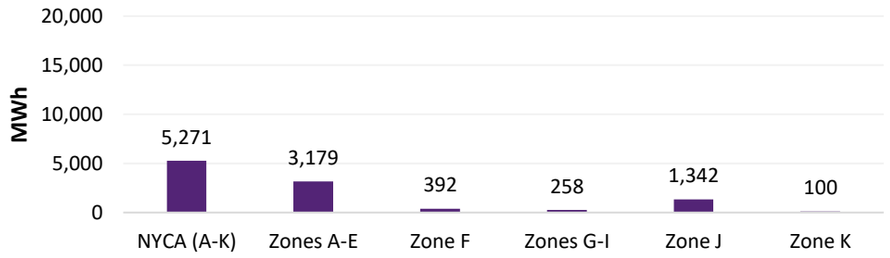
Average Capacity Not Available Due to Exhausted Fuel Inventory



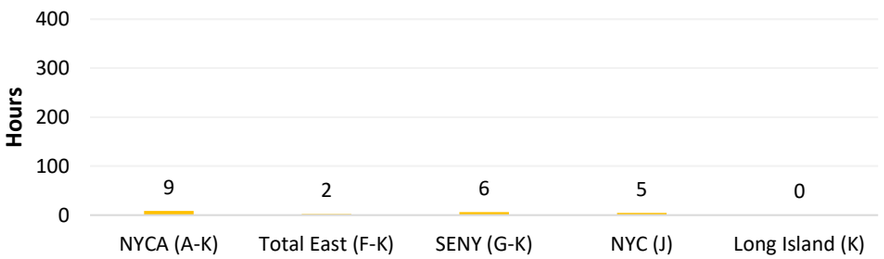
Hours SCR/EDRP Deployed



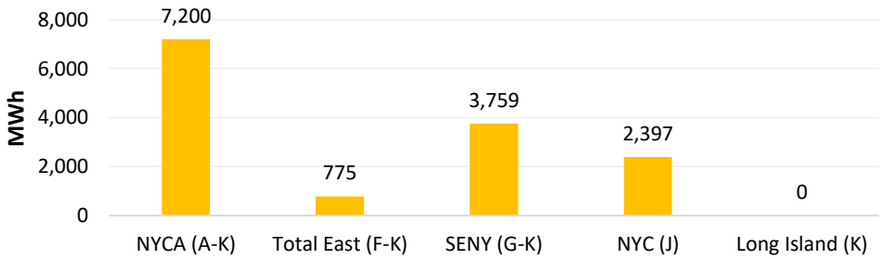
Total MWh SCR/EDRP Deployed



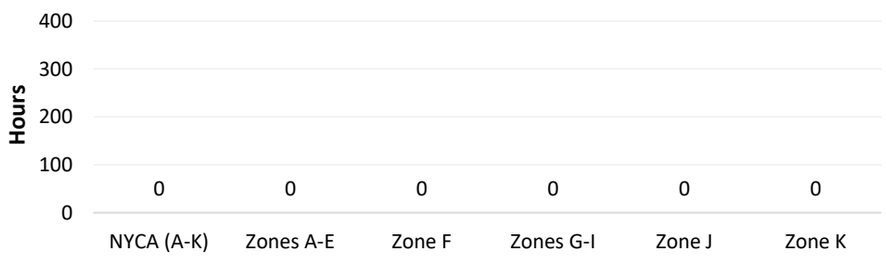
Hours with Reserve Violations



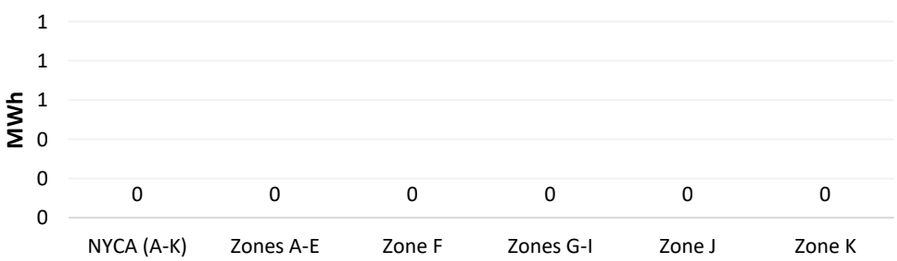
Total MWh of Reserve Violations

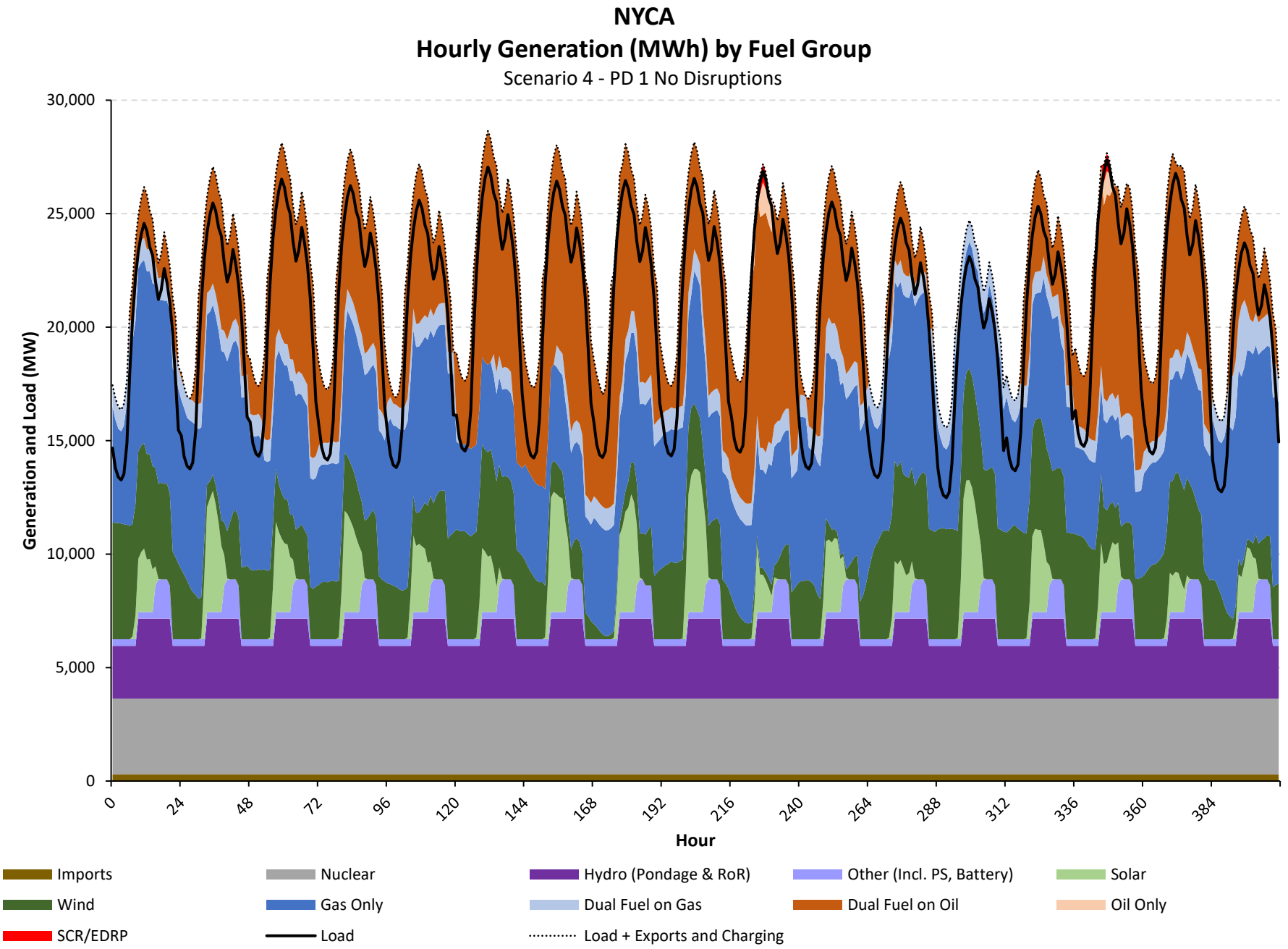


Hours with Loss of Load

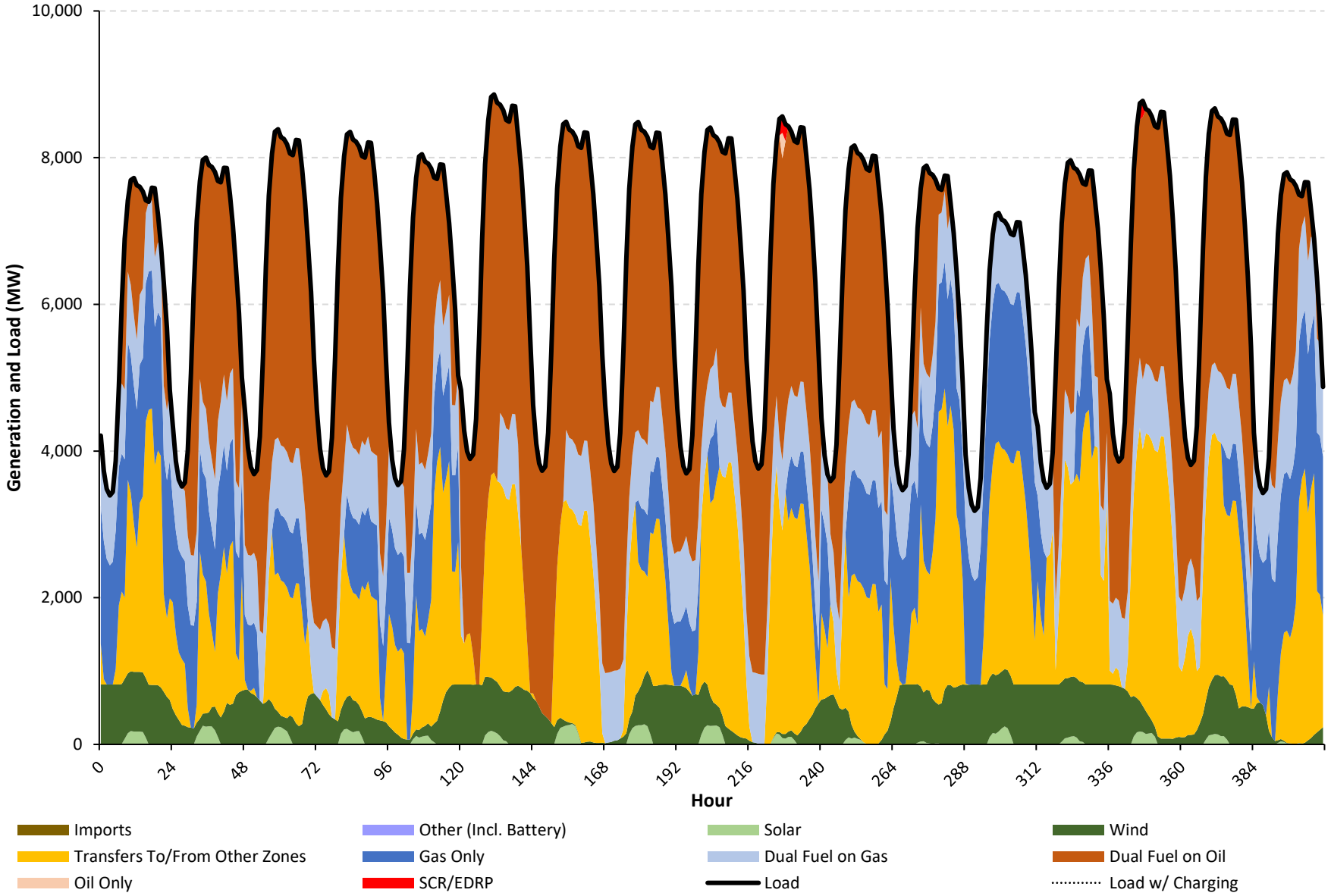


Total MWh of Lost Load

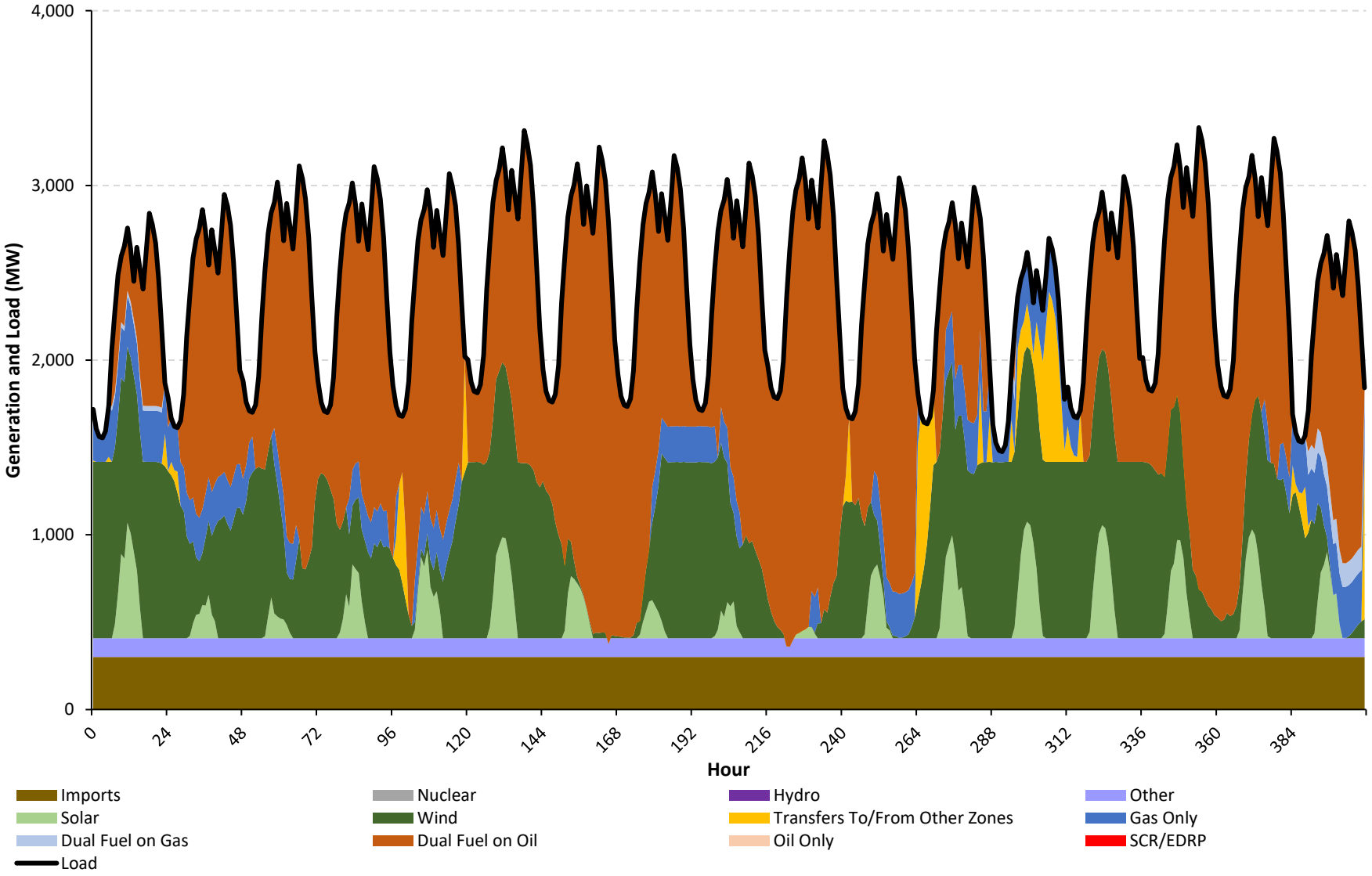



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 4 - PD 1 No Disruptions
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

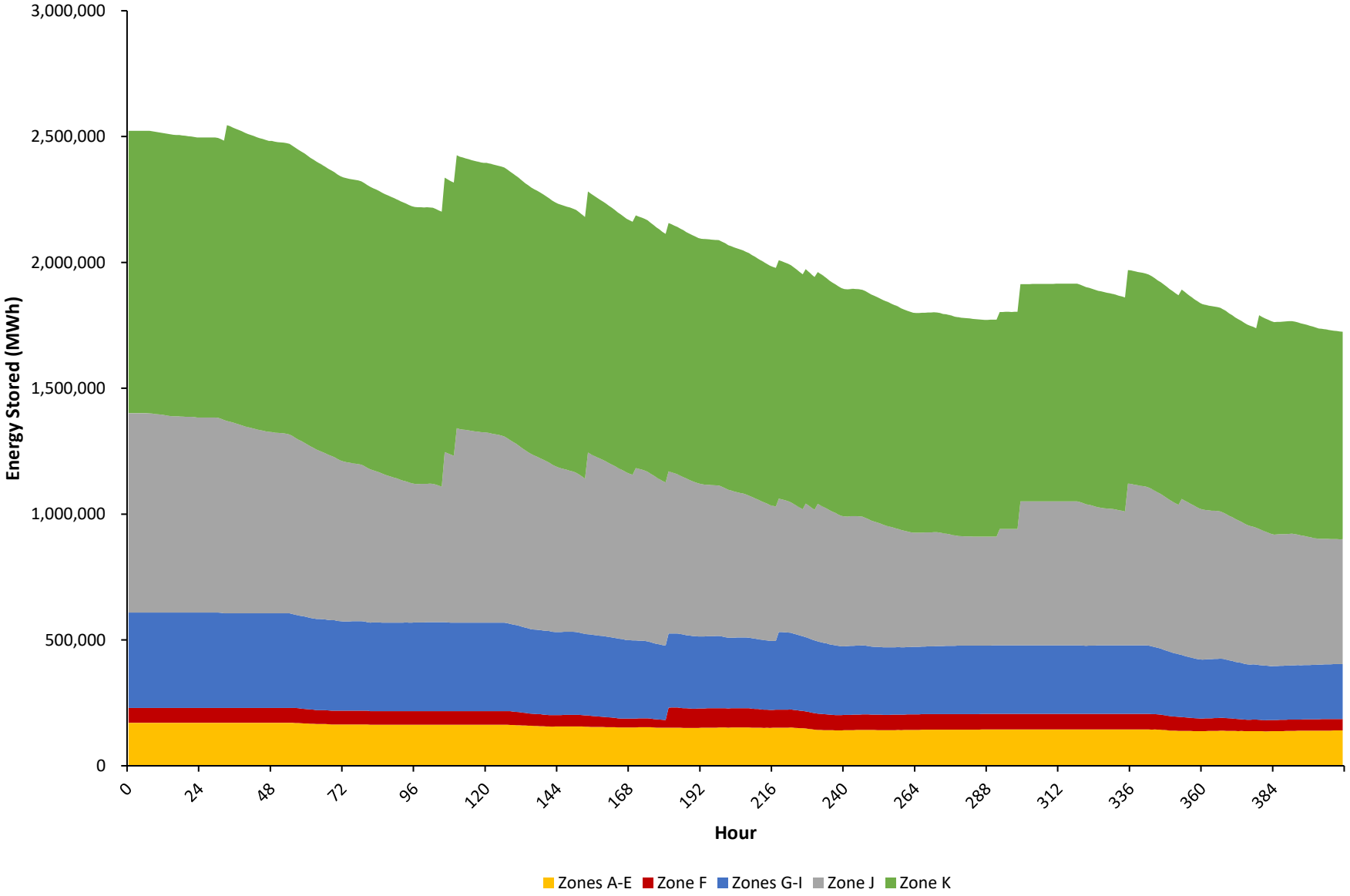
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 1 No Disruptions

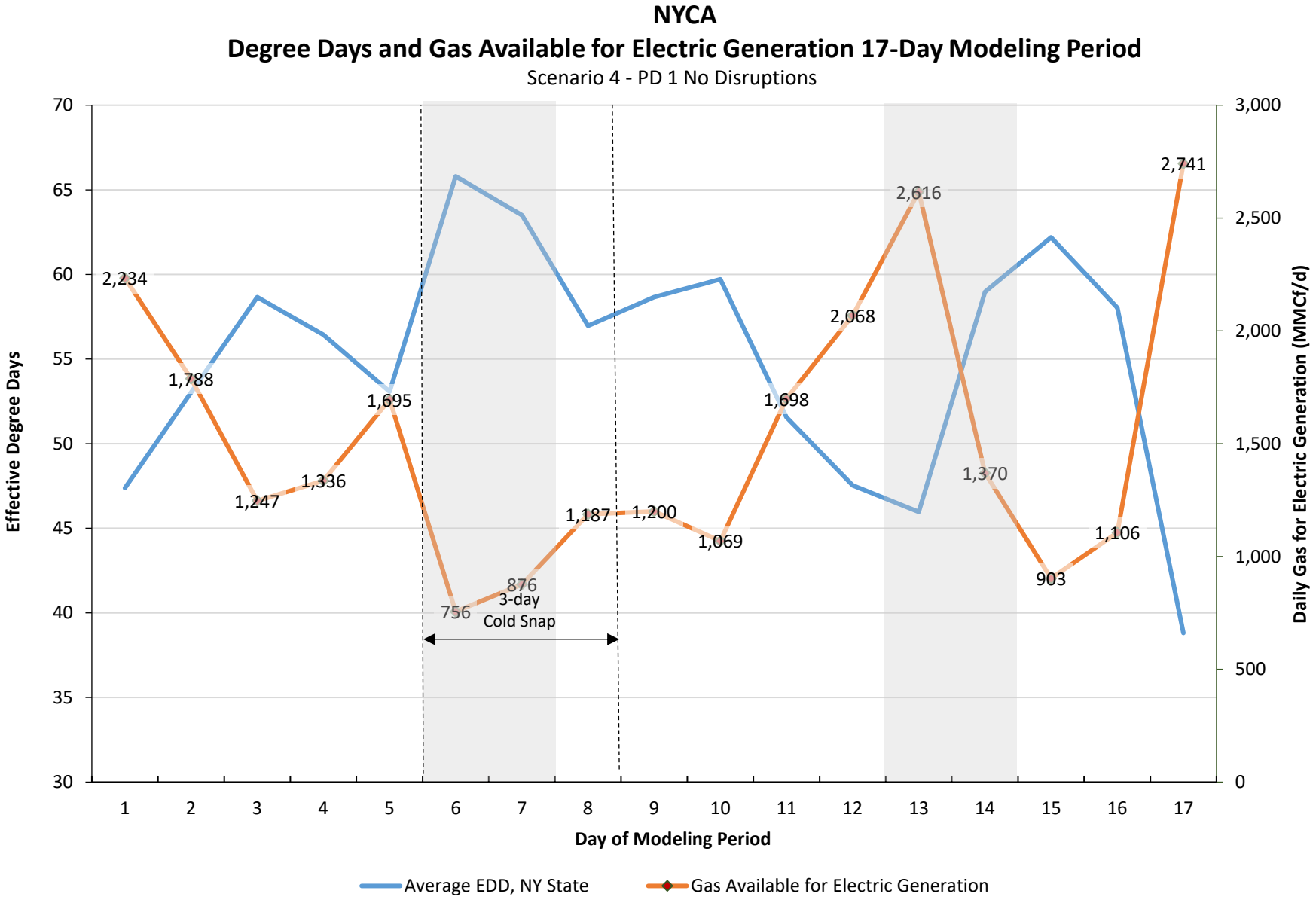


Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 1 No Disruptions

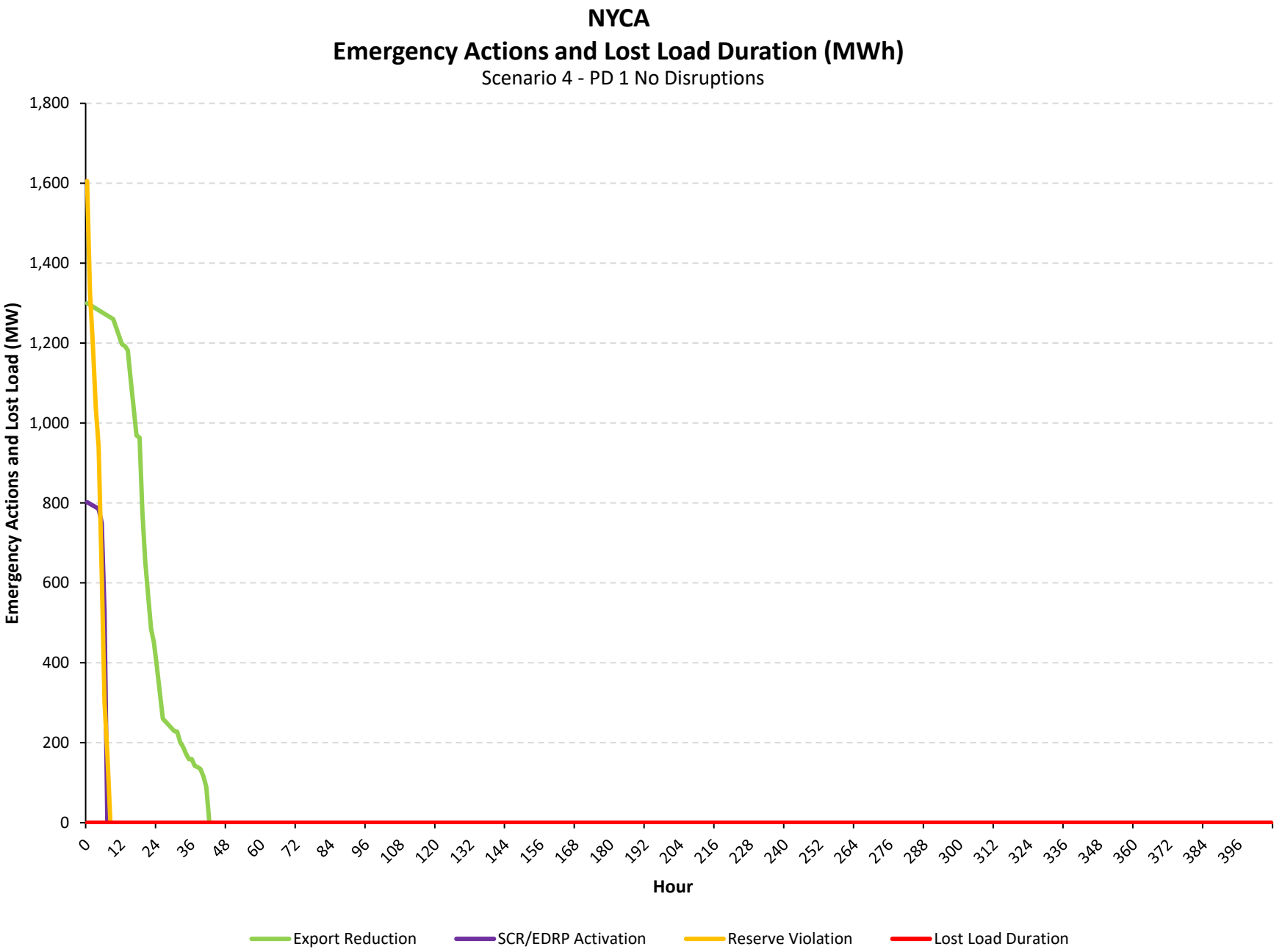


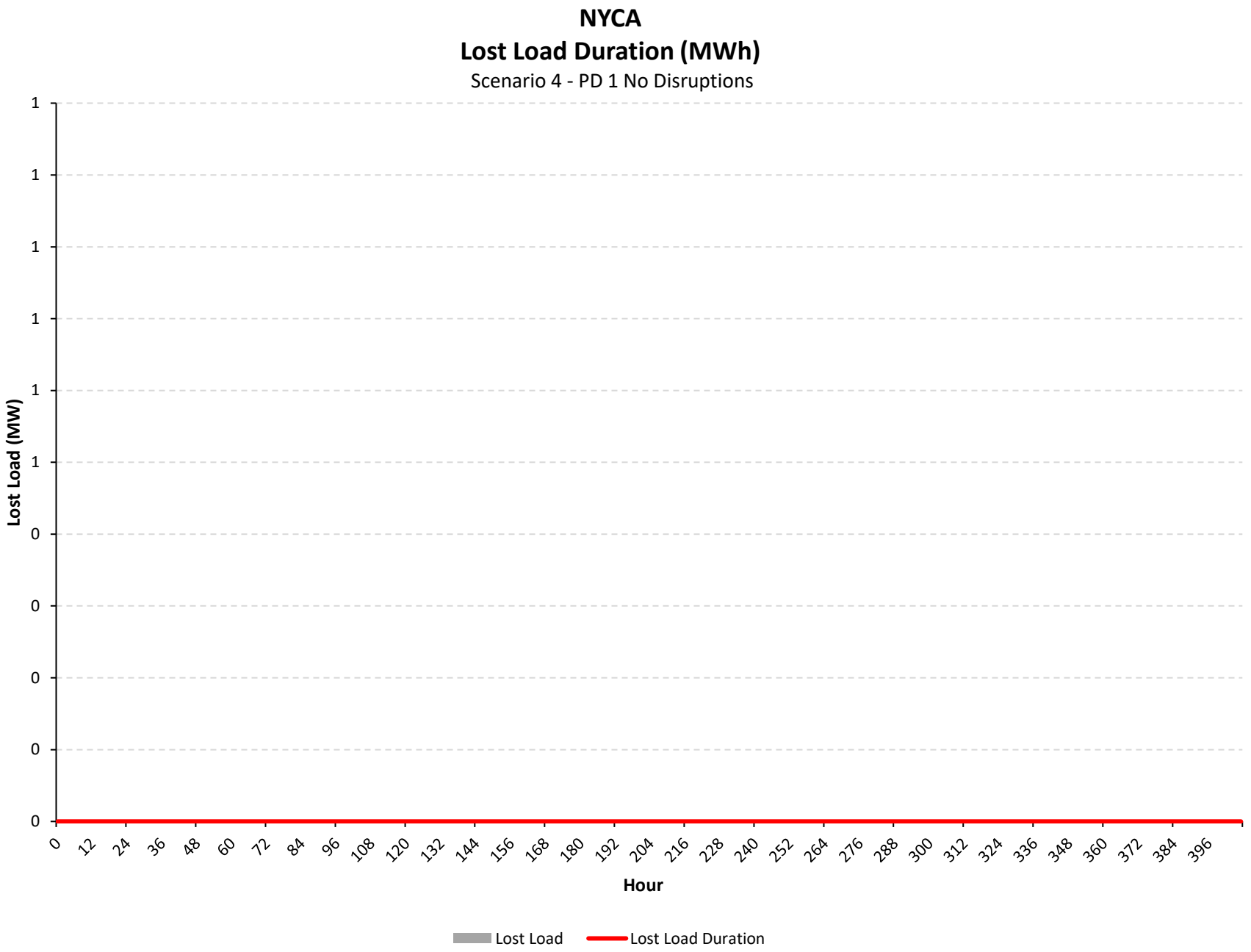
NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 4 - PD 1 No Disruptions





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 4 - PD 1 No Disruptions
Emergency Actions and Lost Load (MW)
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 4 - PD 1 No Disruptions
Lost Load (MW)
1
1
1
1
1
1
0
0
0
0
0
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

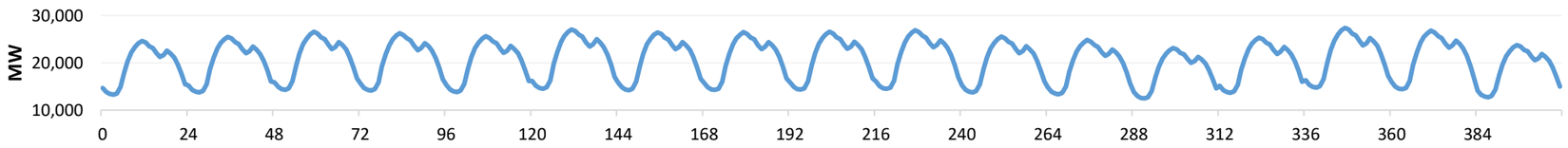
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 2 High Outage (Winter 2026/2027)

Hourly Results Summary

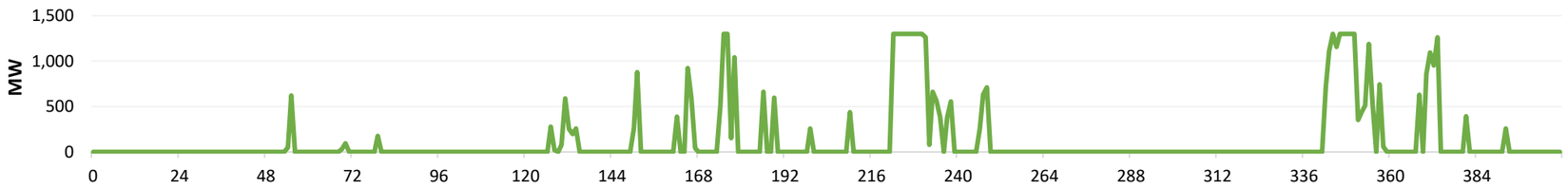
Case Name: Scenario 4 - PD 2 High Outage

Load During Modeling Period



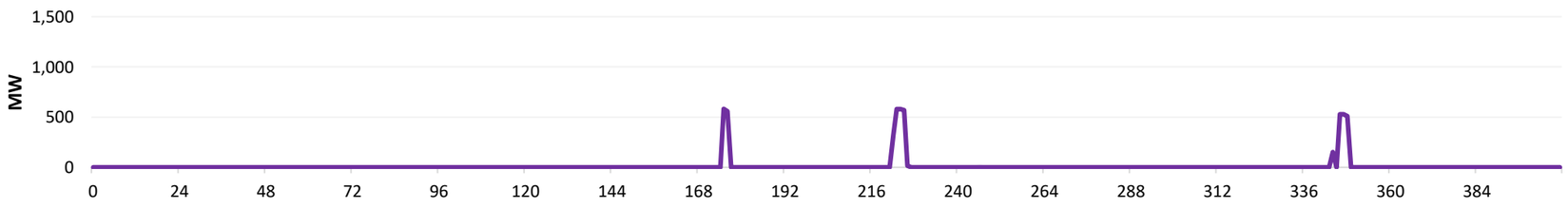
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



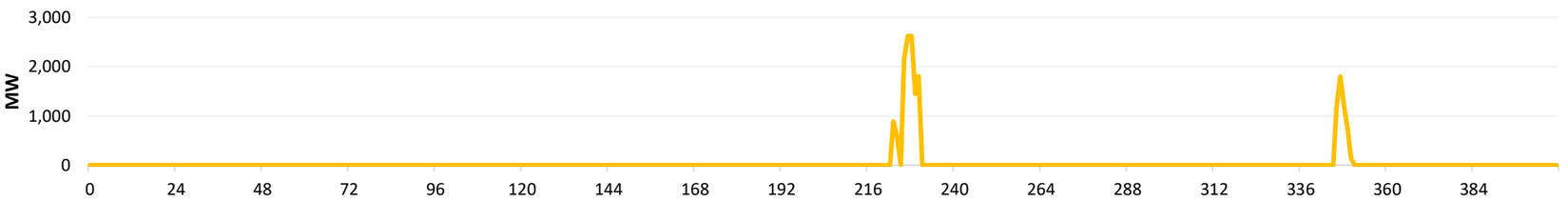
Export Reductions	
Total Hrs.	69
Total MWh	49,232
Avg. MW	120.7

SCR/EDRP Deployed During Modeling Period



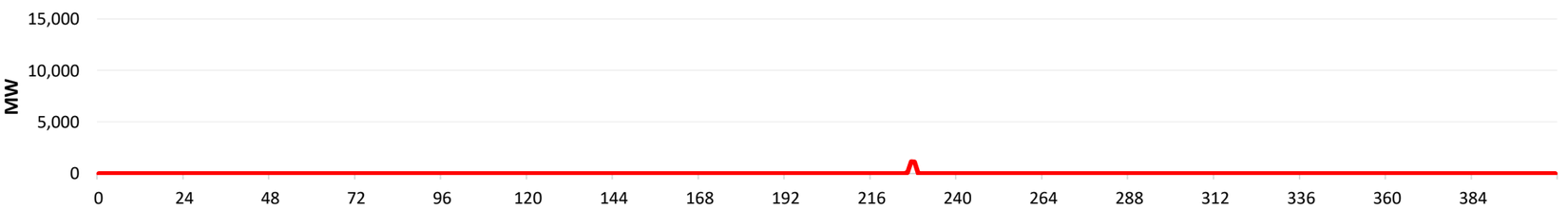
SCR Deployment	
Total Hrs.	11
Total MWh	4,922
Avg. MW	12.1

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	13
Total MWh	17,175
Avg. MW	42.1
First Hour with Viol.	223

Loss of Load During Modeling Period



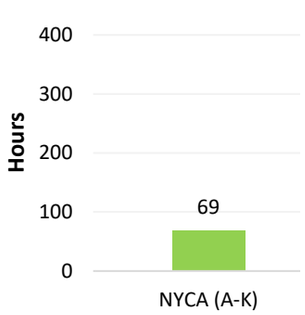
Loss of Load	
Total Hrs.	3
Total MWh	2,378
Avg. MW	5.8
First Hour with Losses	226

Full Period Results Summary

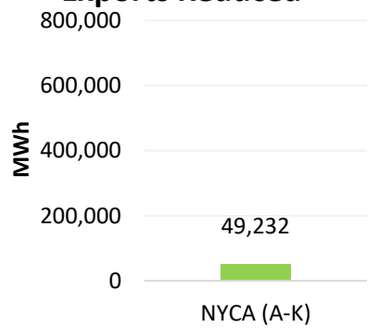
Case Name: Scenario 4 - PD 2 High Outage

Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

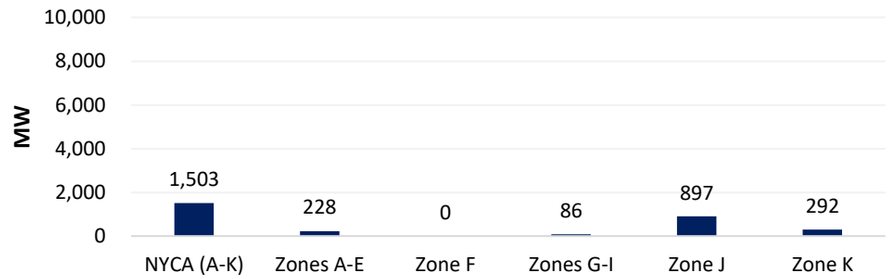
Hours Exports Reduced



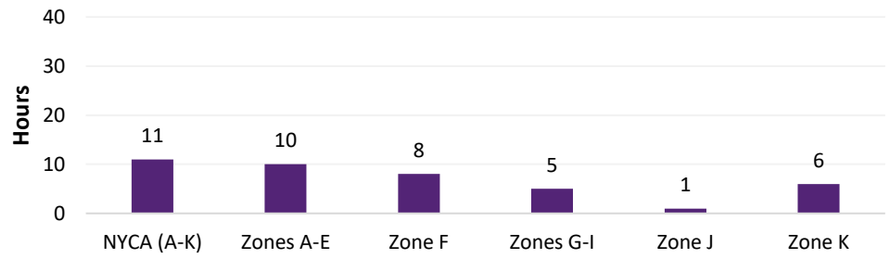
Total MWh of Exports Reduced



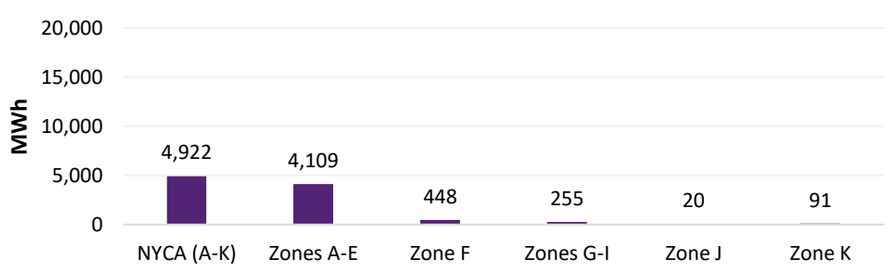
Average Capacity Not Available Due to Exhausted Fuel Inventory



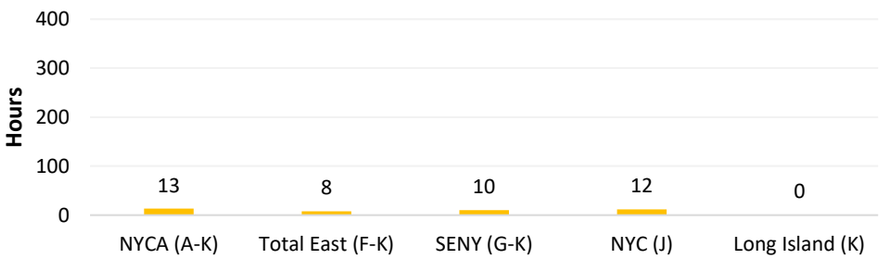
Hours SCR/EDRP Deployed



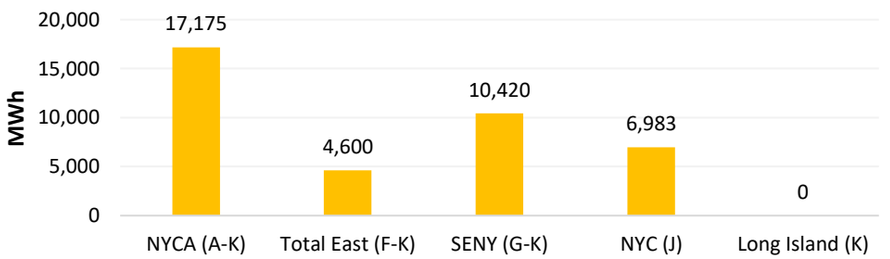
Total MWh SCR/EDRP Deployed



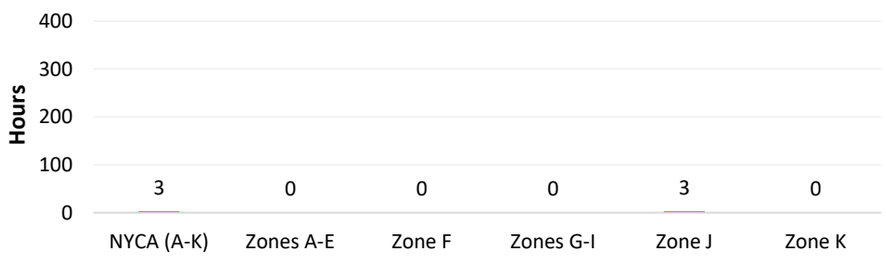
Hours with Reserve Violations



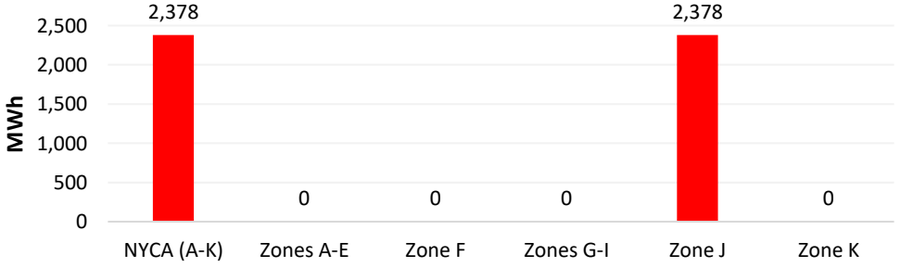
Total MWh of Reserve Violations

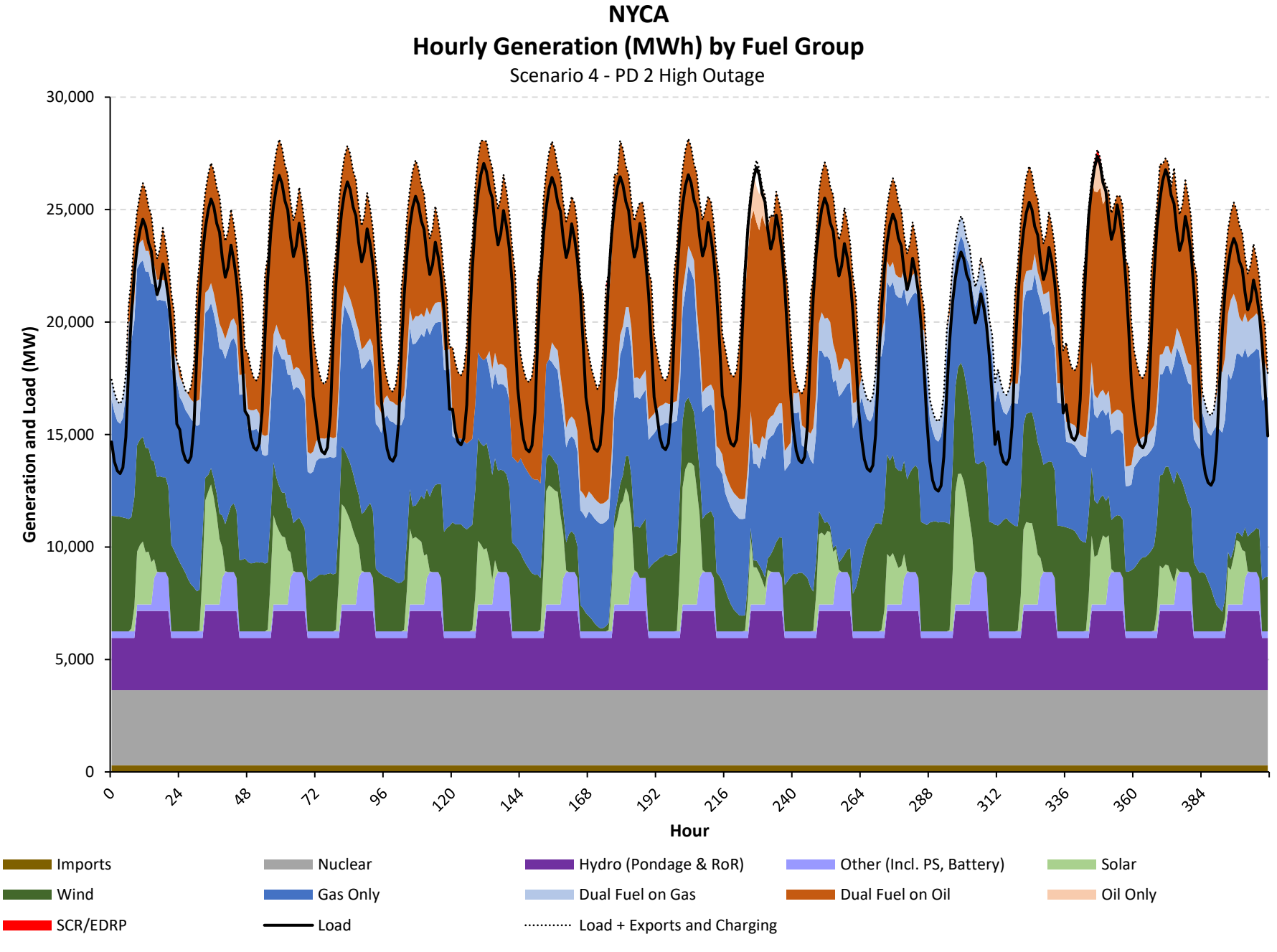


Hours with Loss of Load

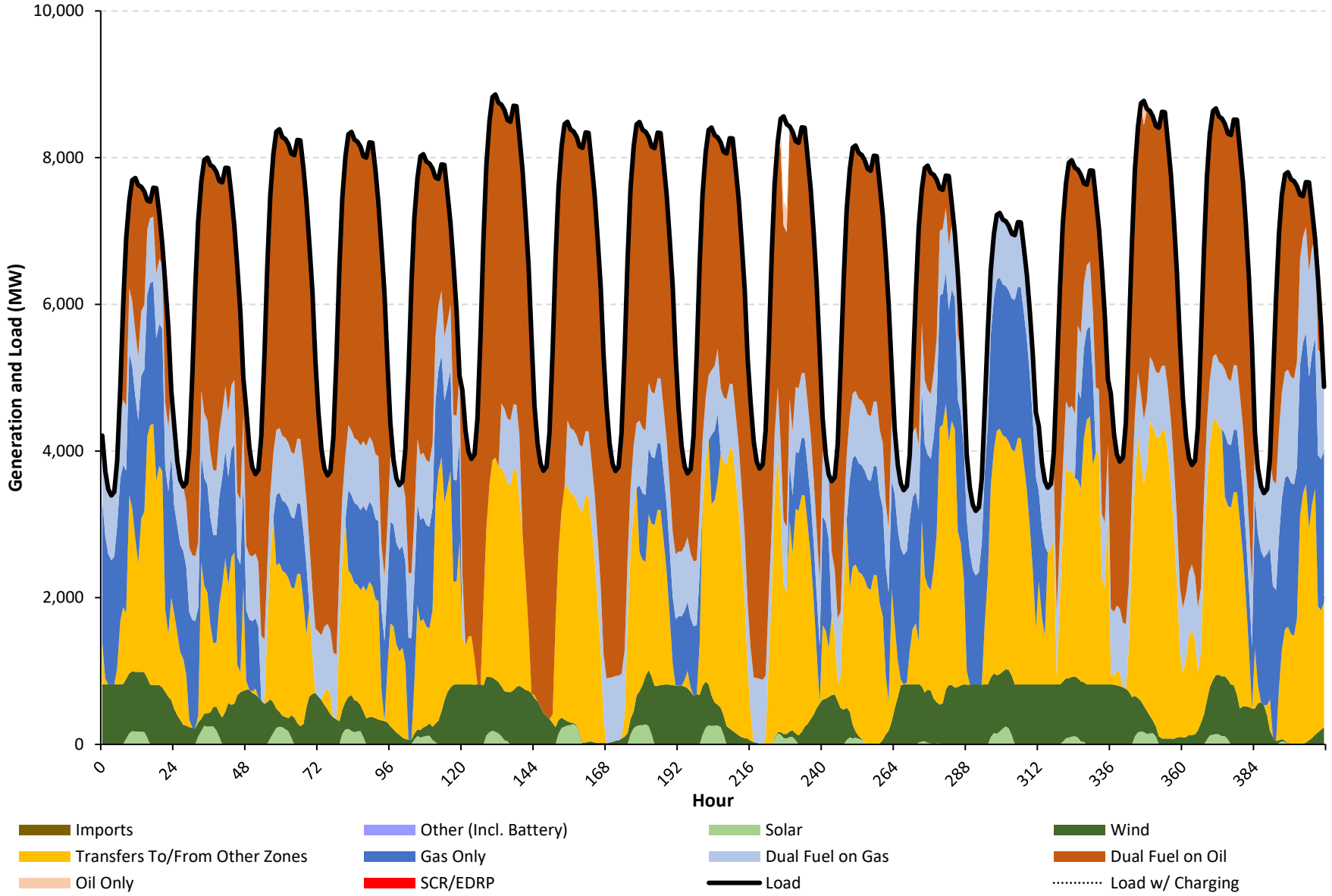


Total MWh of Lost Load

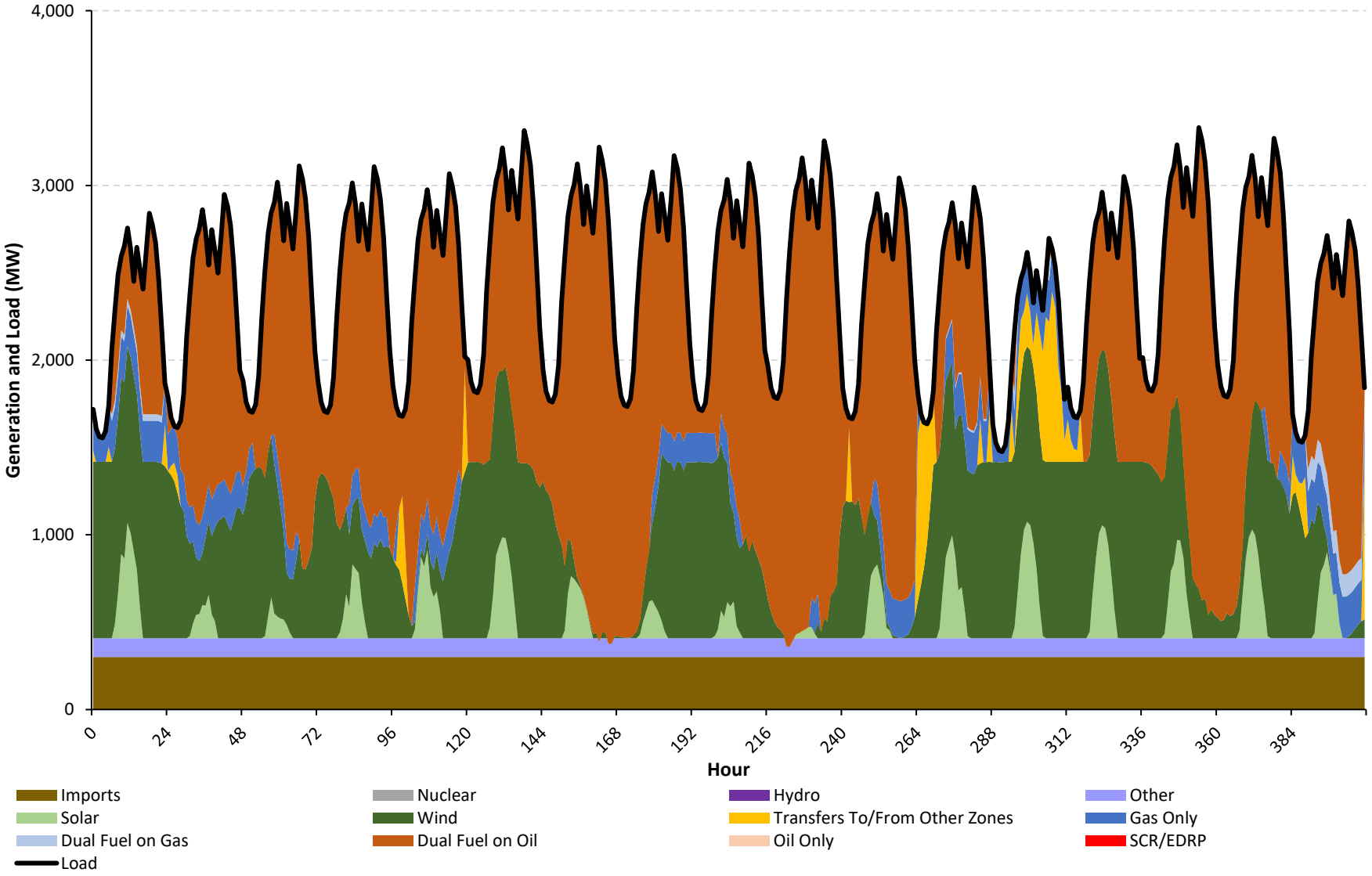



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 4 - PD 2 High Outage
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 2 High Outage



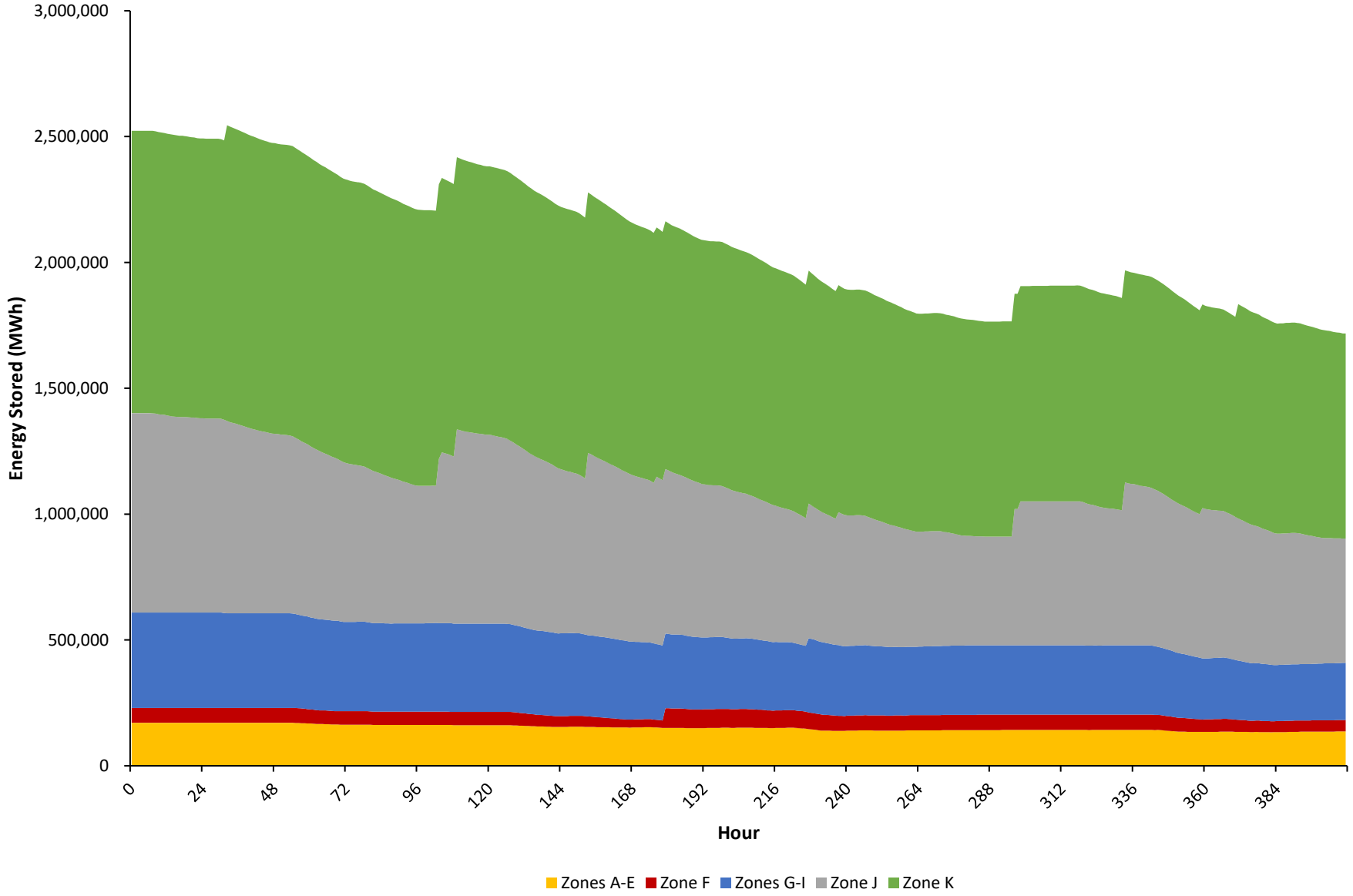
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 2 High Outage

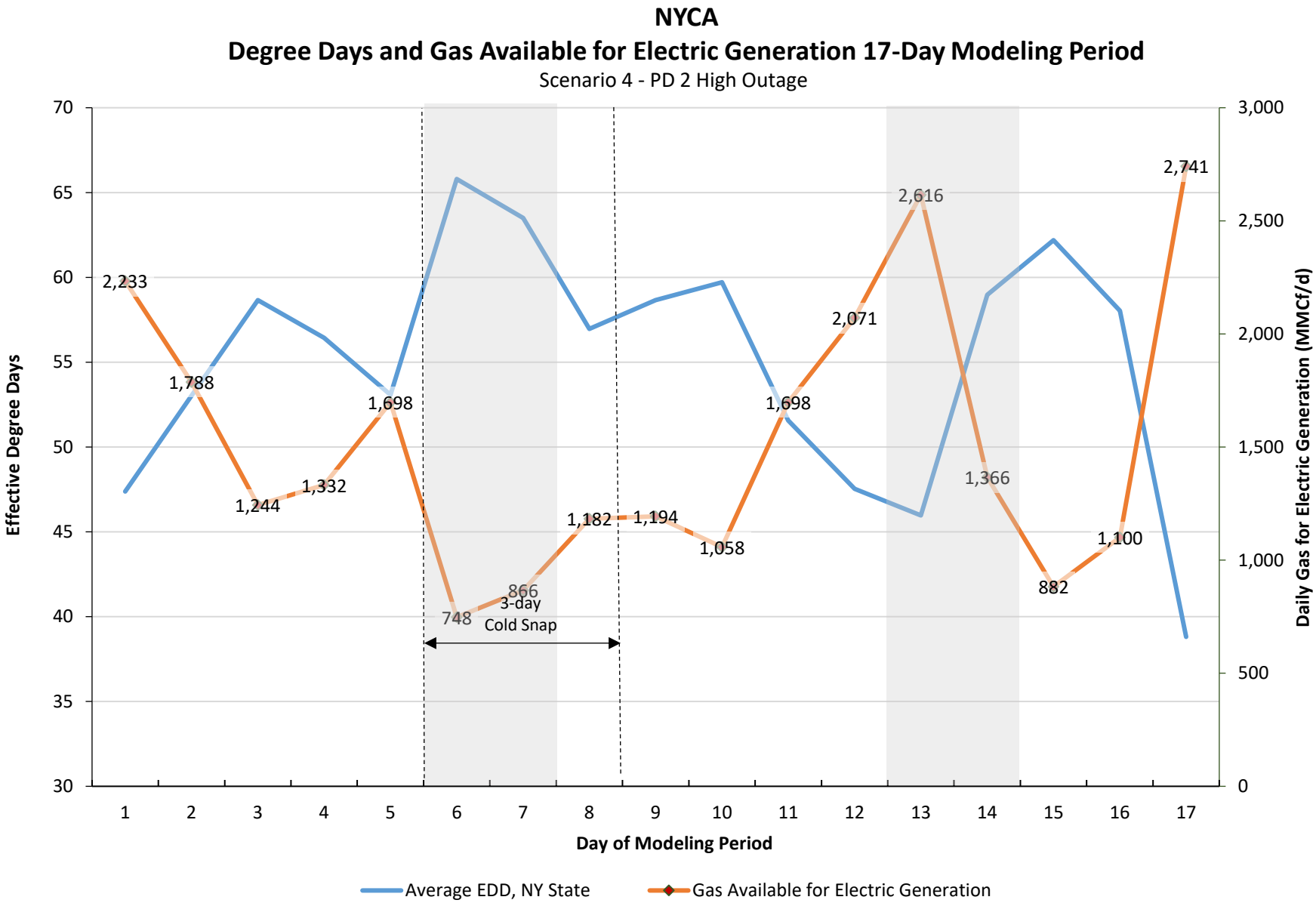


NYCA

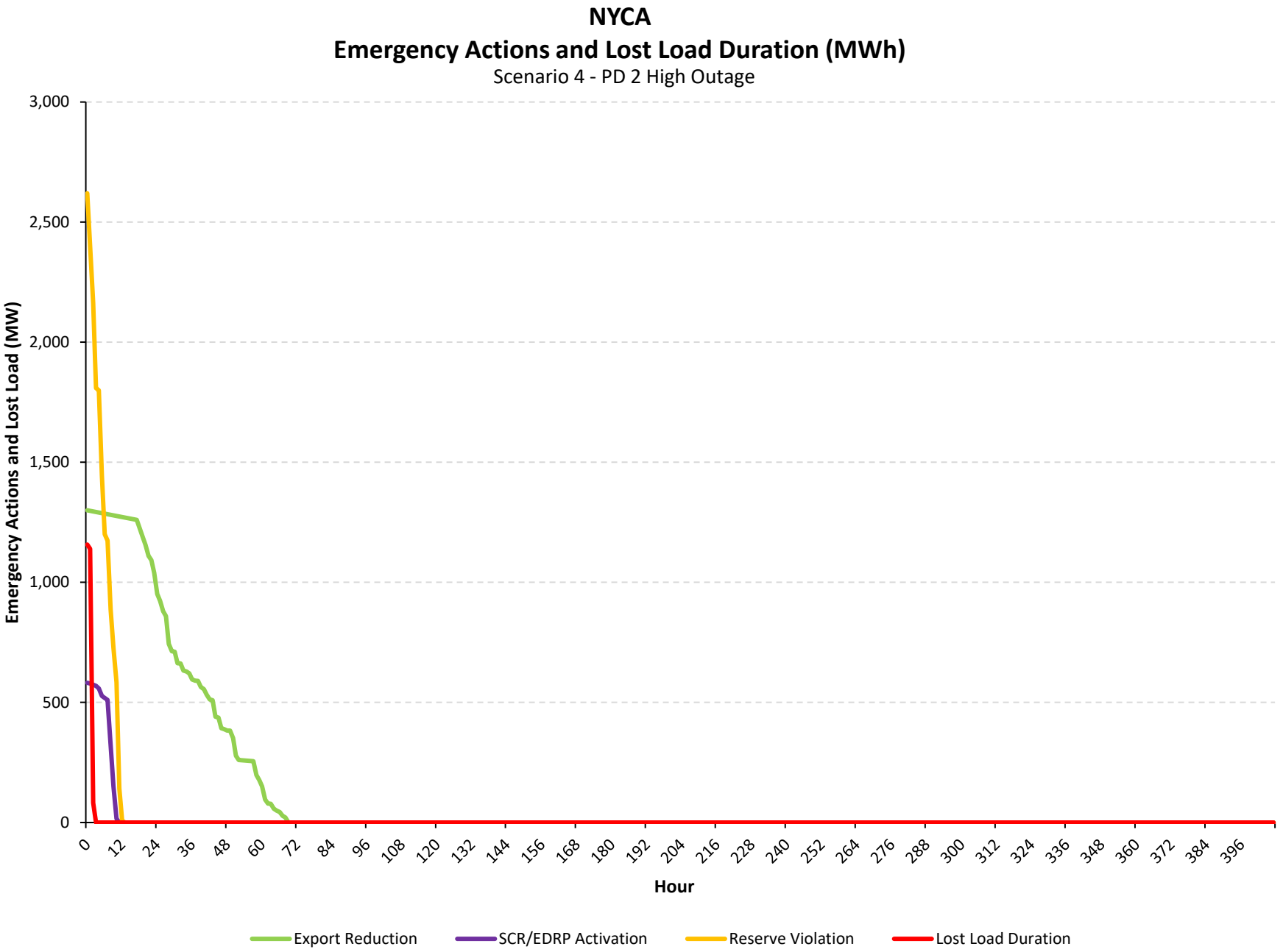
Quantity of Stored Fuel for Oil and Dual Fuel Units

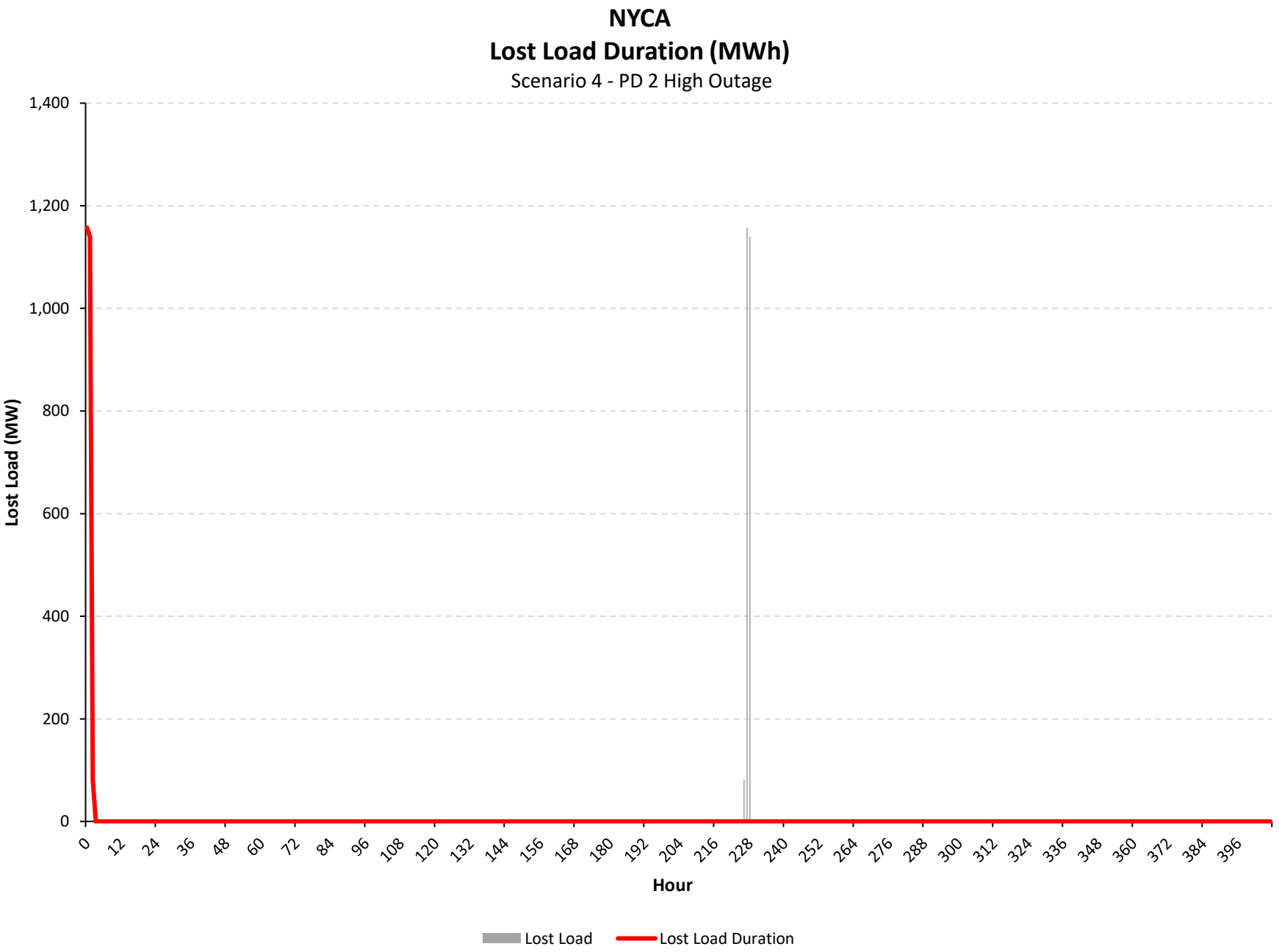
Scenario 4 - PD 2 High Outage





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 4 - PD 2 High Outage
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 4 - PD 2 High Outage
Lost Load (MW)
1,400
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

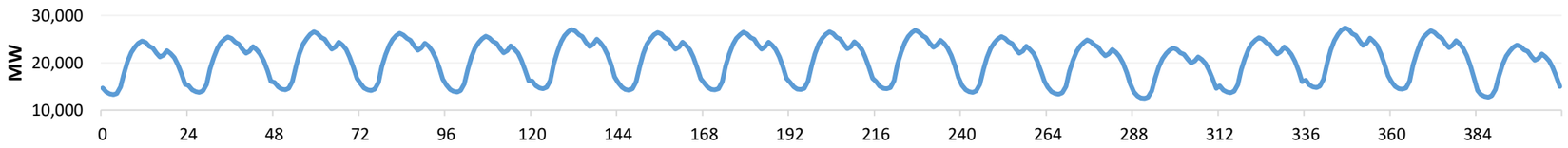
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 3 SENY Deactivation (Winter 2026/2027)

Hourly Results Summary

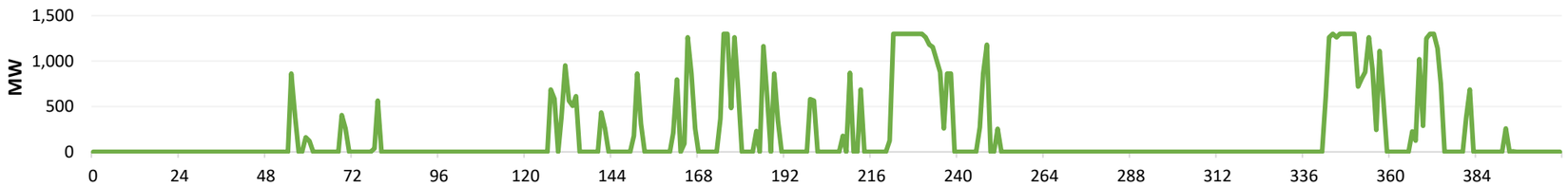
Case Name: Scenario 4 - PD 3 SENY Deactivation

Load During Modeling Period



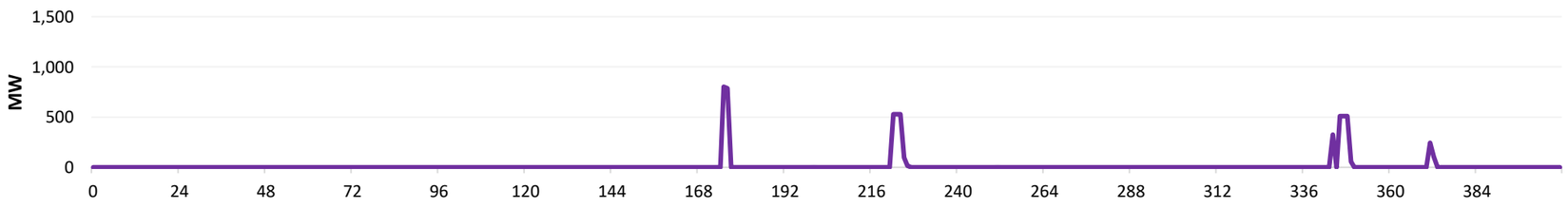
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



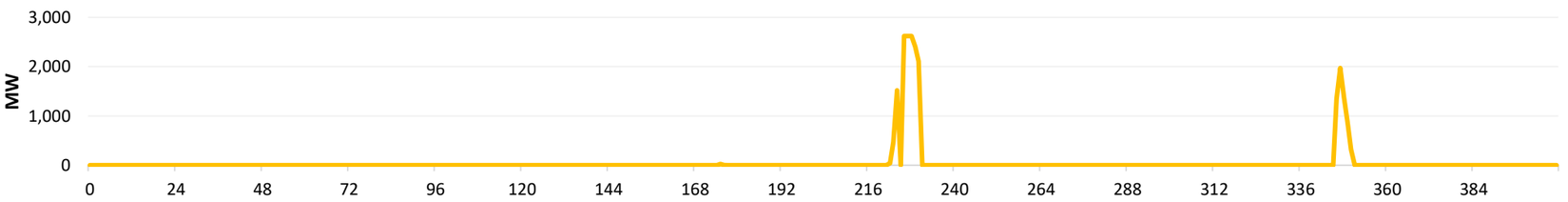
Export Reductions	
Total Hrs.	94
Total MWh	72,106
Avg. MW	176.7

SCR/EDRP Deployed During Modeling Period



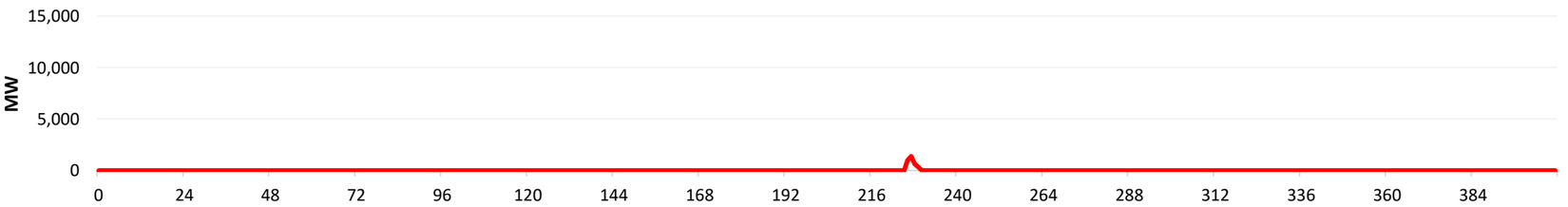
SCR Deployment	
Total Hrs.	14
Total MWh	5,541
Avg. MW	13.6

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	15
Total MWh	20,279
Avg. MW	49.7
First Hour with Viol.	175

Loss of Load During Modeling Period



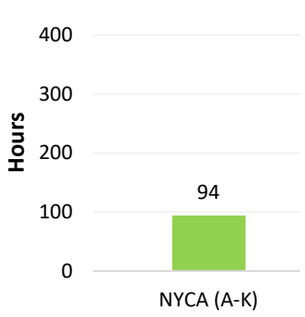
Loss of Load	
Total Hrs.	5
Total MWh	3,367
Avg. MW	8.3
First Hour with Losses	226

Full Period Results Summary

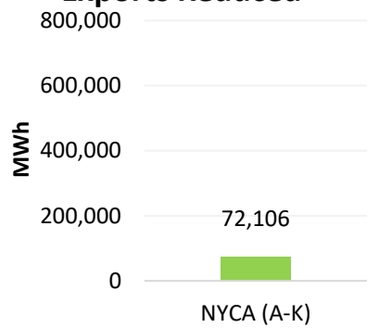
Case Name: Scenario 4 - PD 3 SENY Deactivation

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	Net Zero

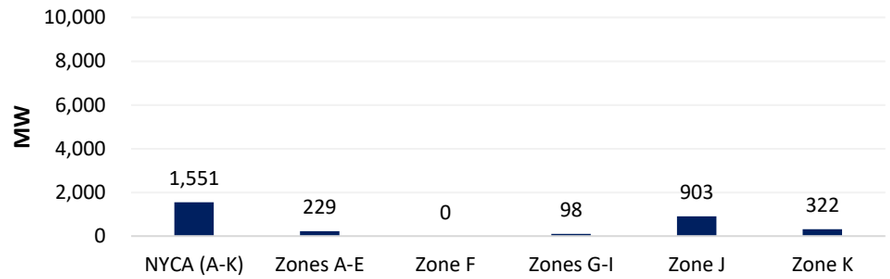
Hours Exports Reduced



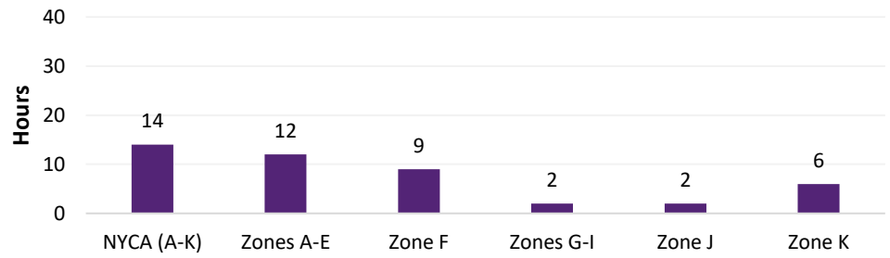
Total MWh of Exports Reduced



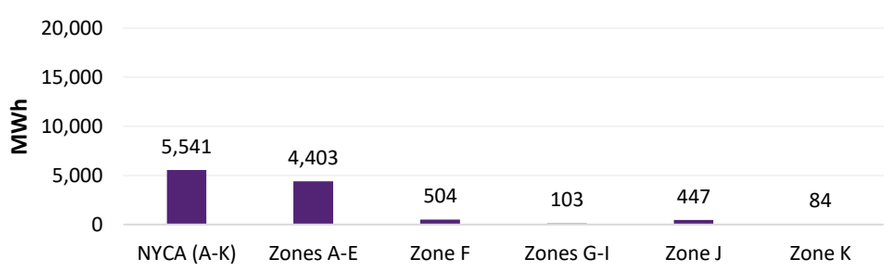
Average Capacity Not Available Due to Exhausted Fuel Inventory



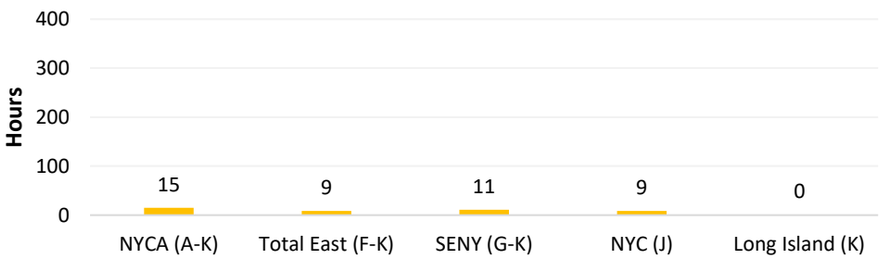
Hours SCR/EDRP Deployed



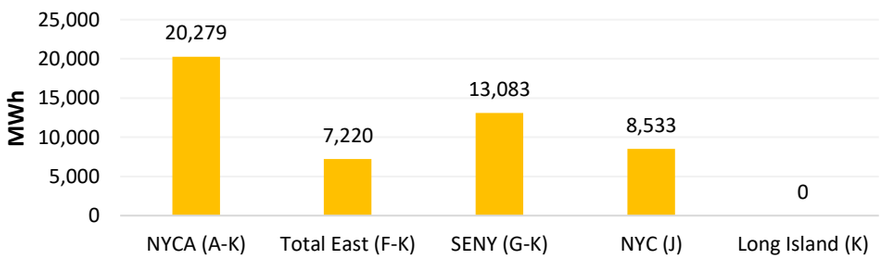
Total MWh SCR/EDRP Deployed



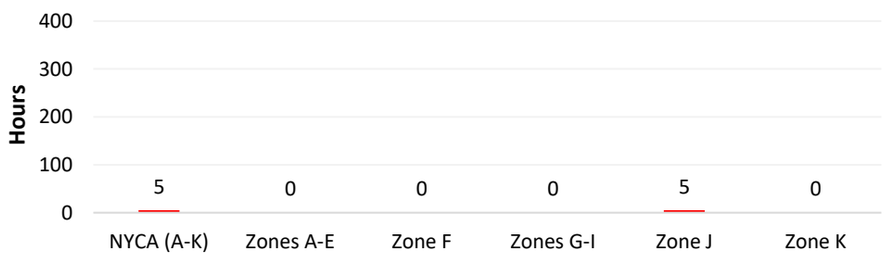
Hours with Reserve Violations



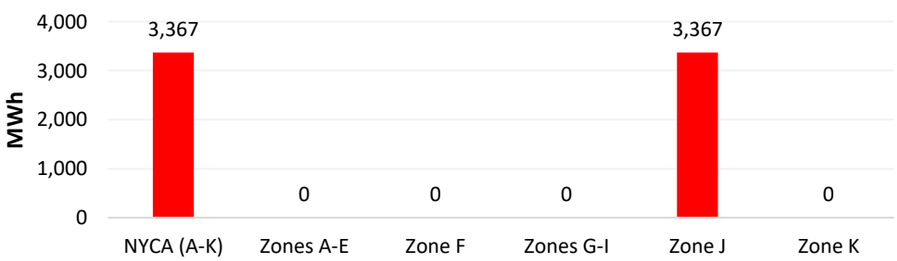
Total MWh of Reserve Violations

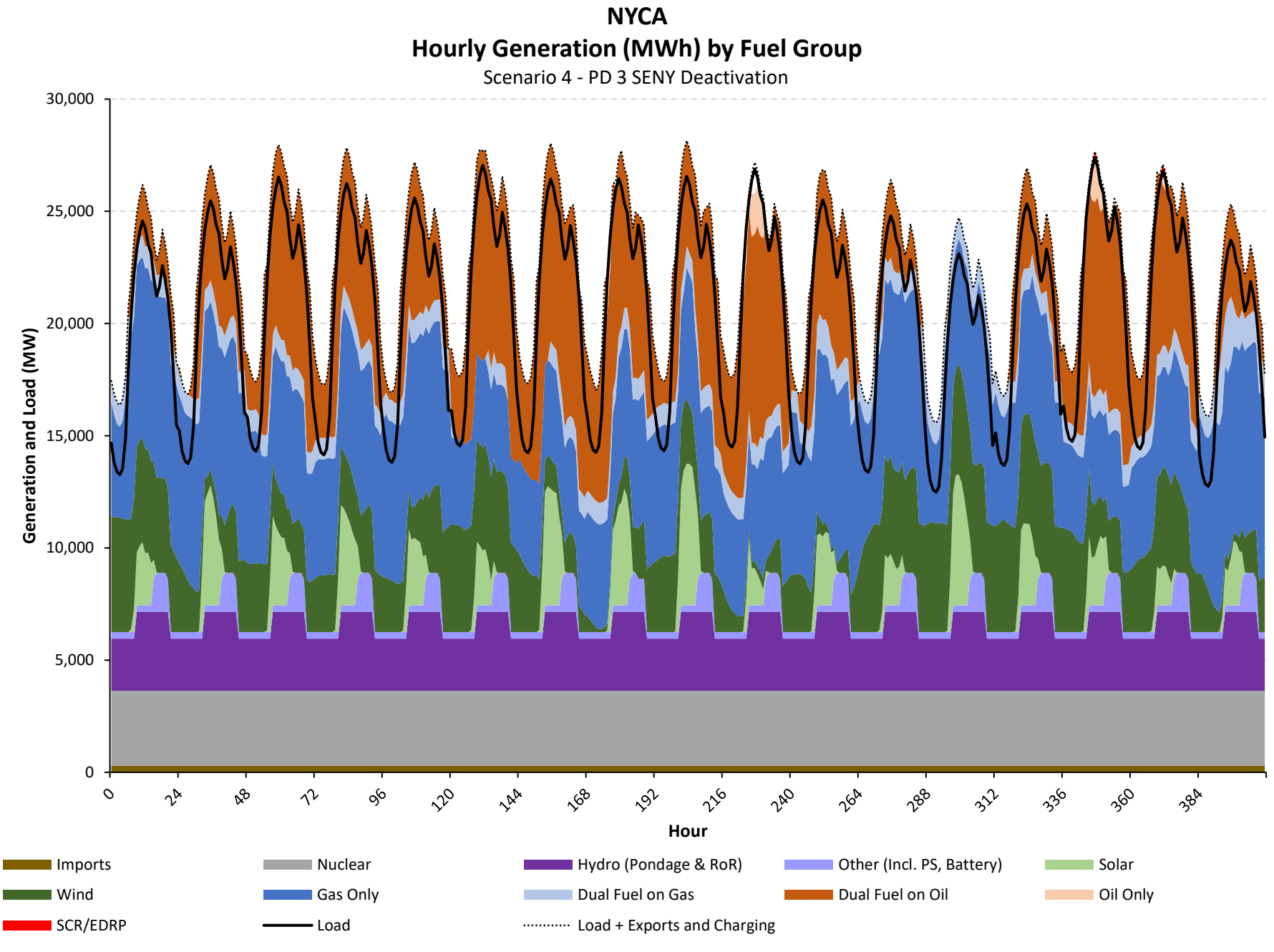


Hours with Loss of Load

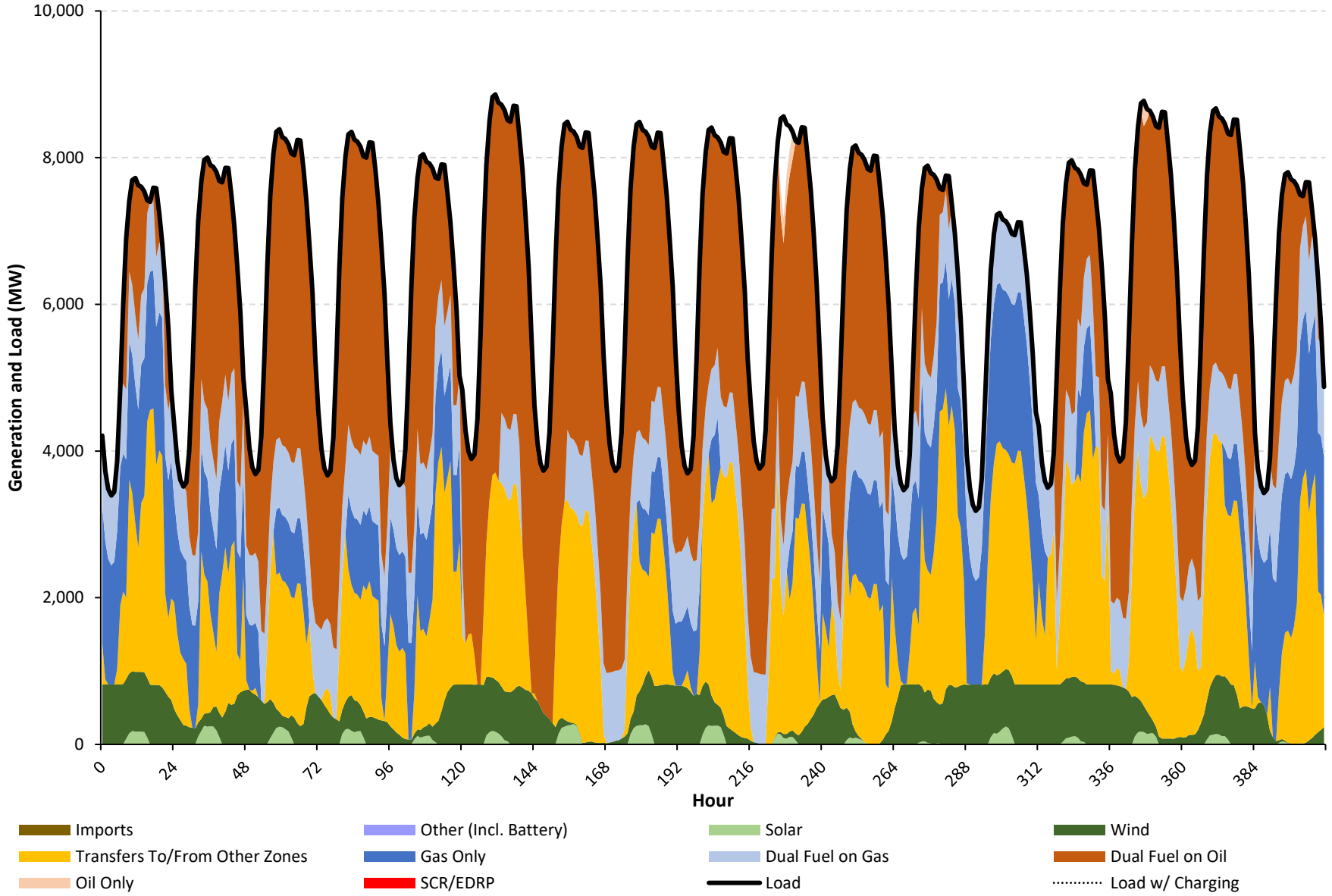


Total MWh of Lost Load

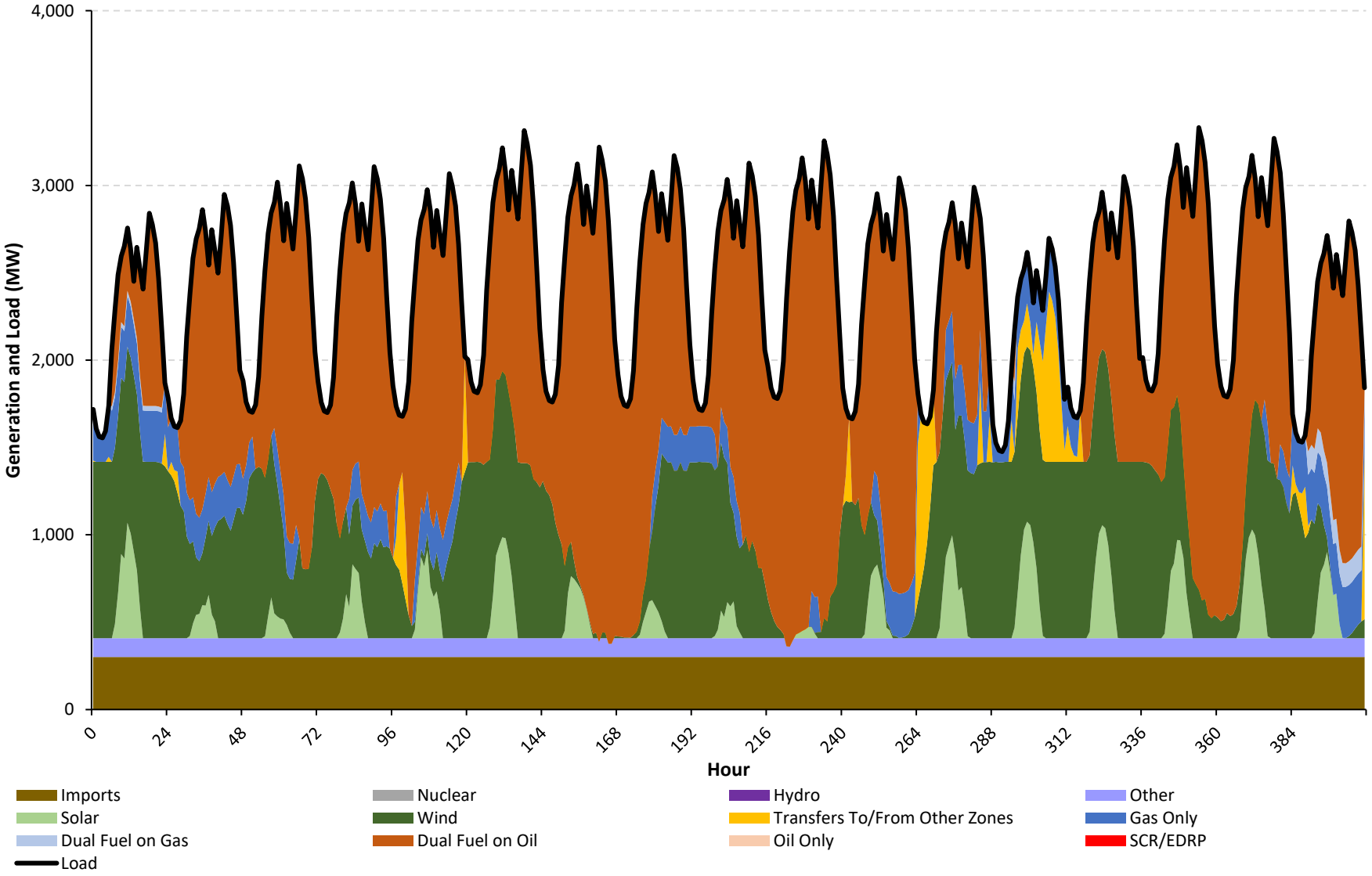



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 4 - PD 3 SENY Deactivation
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 3 SENY Deactivation



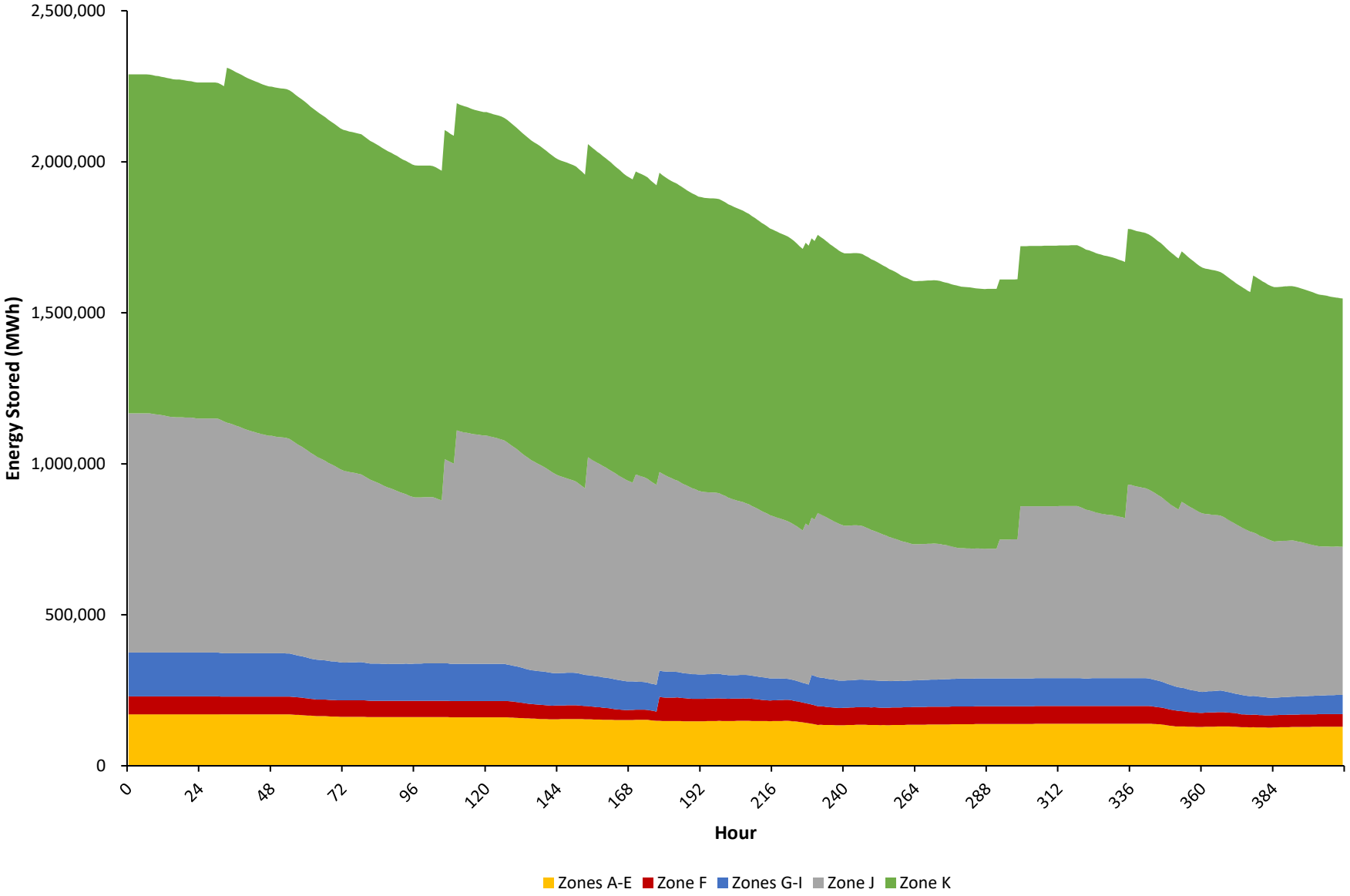
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 3 SENY Deactivation

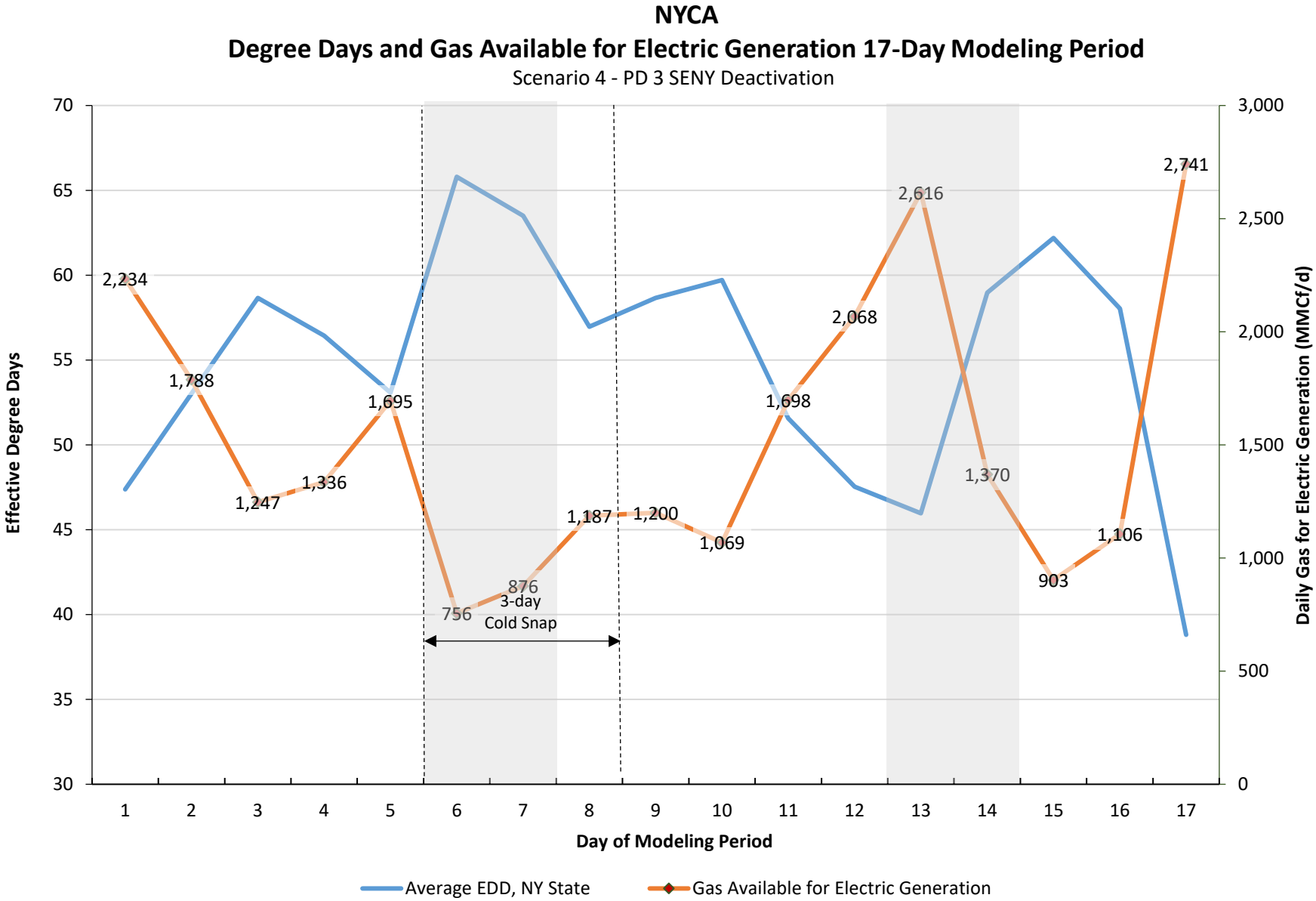


NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

Scenario 4 - PD 3 SENY Deactivation



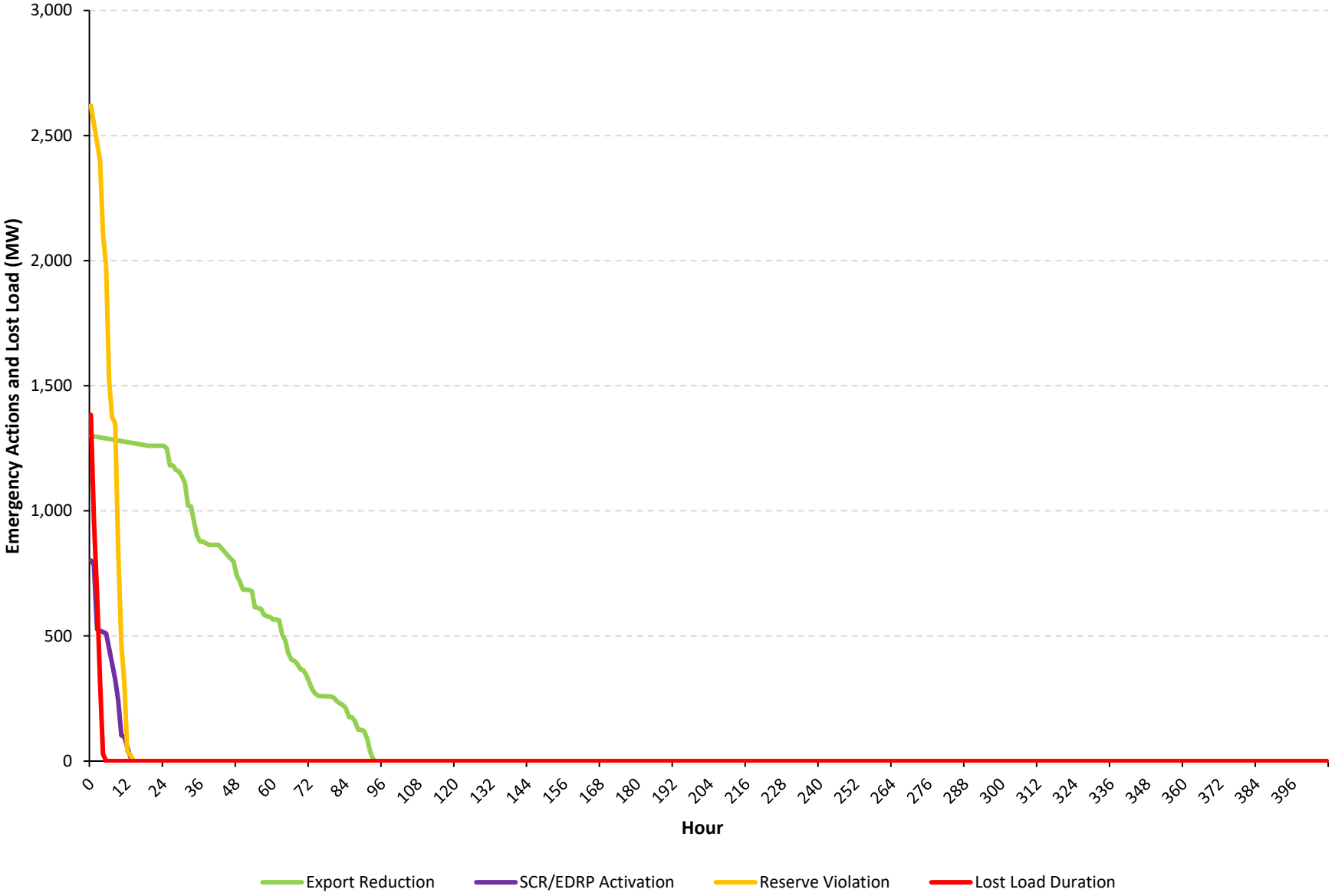


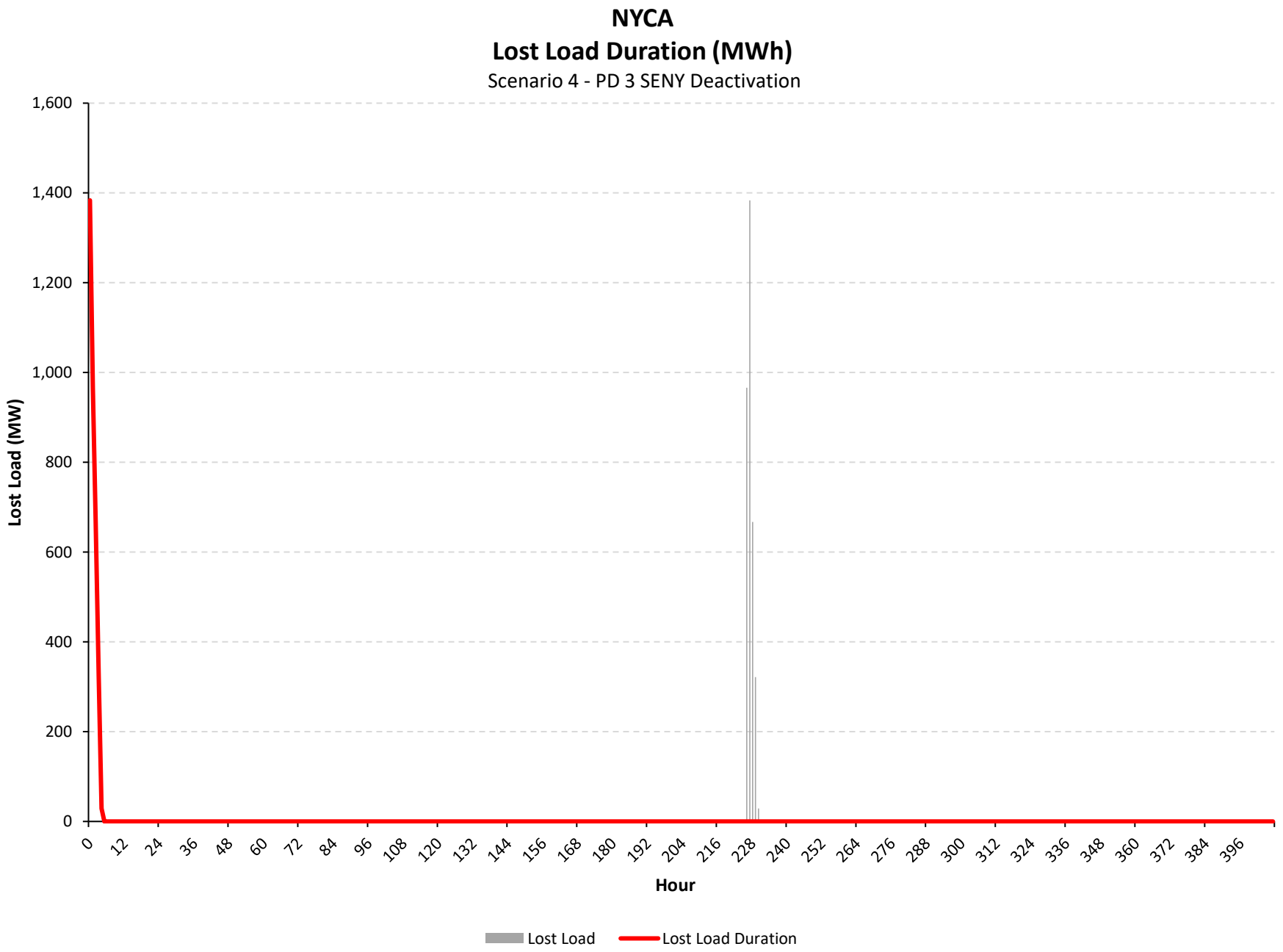
Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.

NYCA

Emergency Actions and Lost Load Duration (MWh)

Scenario 4 - PD 3 SENY Deactivation




NYCA
Lost Load Duration (MWh)
Scenario 4 - PD 3 SENY Deactivation
Lost Load (MW)
1,600
1,400
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

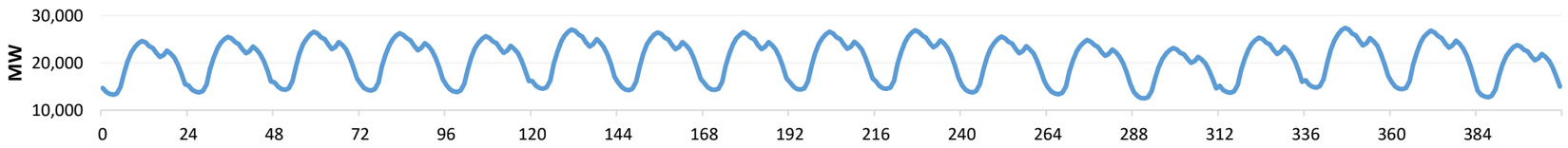
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 4 Nuclear Station Outage (Winter 2026/2027)

Hourly Results Summary

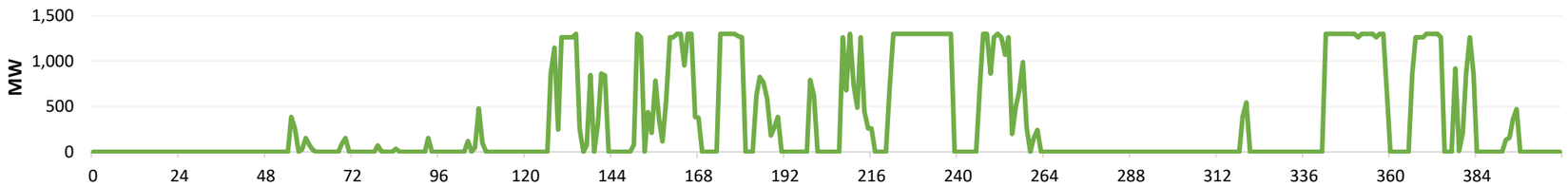
Case Name: Scenario 4 - PD 4 Nuclear Station Outage

Load During Modeling Period



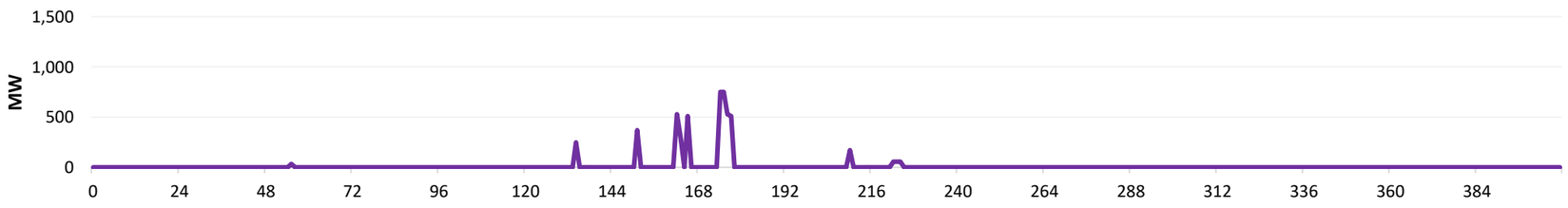
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



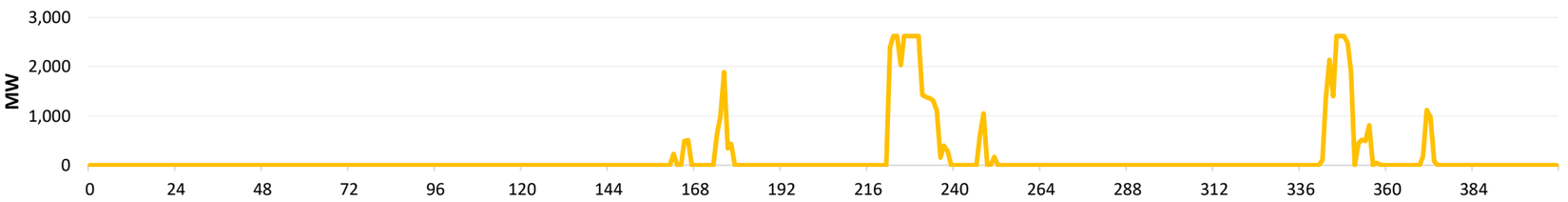
Export Reductions	
Total Hrs.	147
Total MWh	125,311
Avg. MW	307.1

SCR/EDRP Deployed During Modeling Period



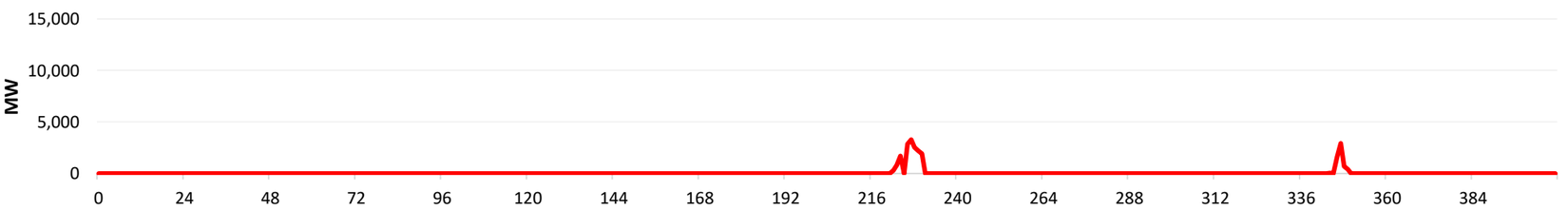
SCR Deployment	
Total Hrs.	14
Total MWh	4,858
Avg. MW	11.9

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	47
Total MWh	59,424
Avg. MW	145.6
First Hour with Viol.	162

Loss of Load During Modeling Period



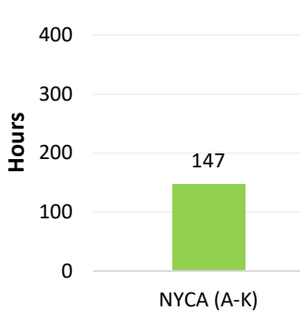
Loss of Load	
Total Hrs.	13
Total MWh	21,283
Avg. MW	52.2
First Hour with Losses	222

Full Period Results Summary

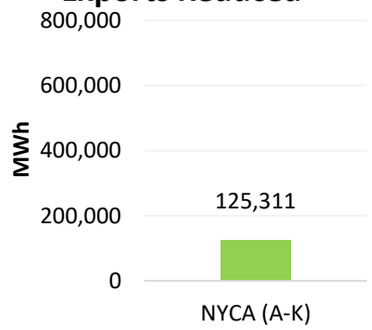
Case Name: Scenario 4 - PD 4 Nuclear Station Outage

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	Net Zero

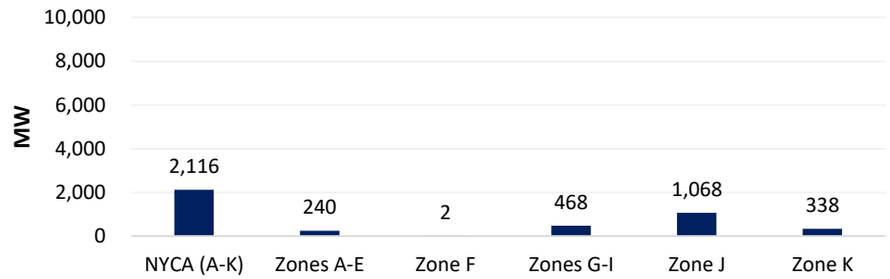
Hours Exports Reduced



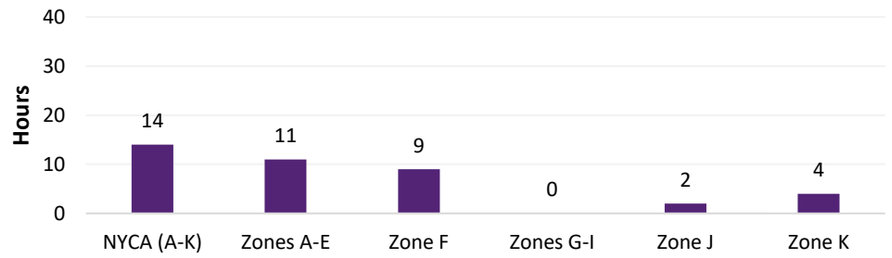
Total MWh of Exports Reduced



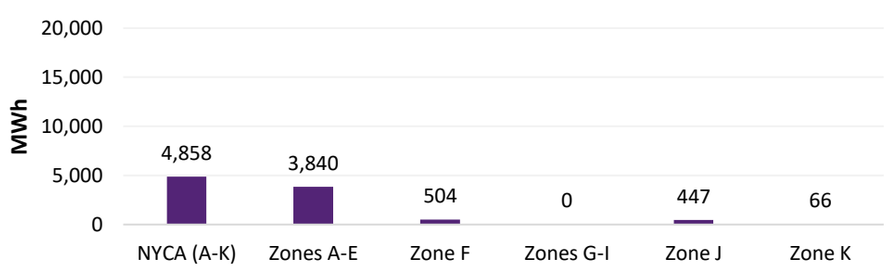
Average Capacity Not Available Due to Exhausted Fuel Inventory



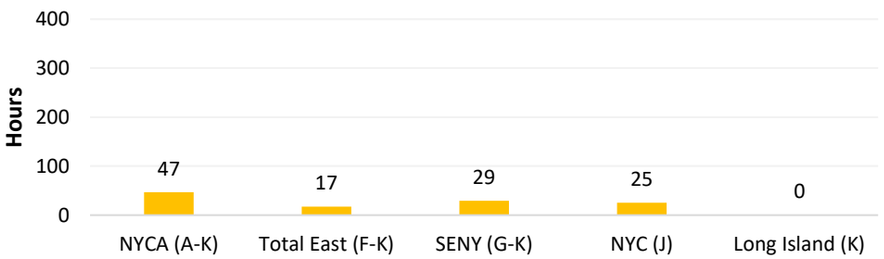
Hours SCR/EDRP Deployed



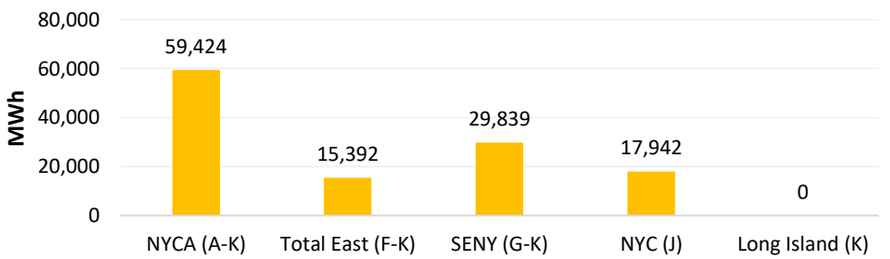
Total MWh SCR/EDRP Deployed



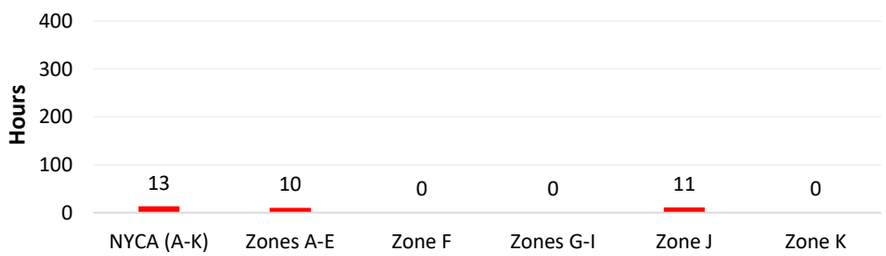
Hours with Reserve Violations



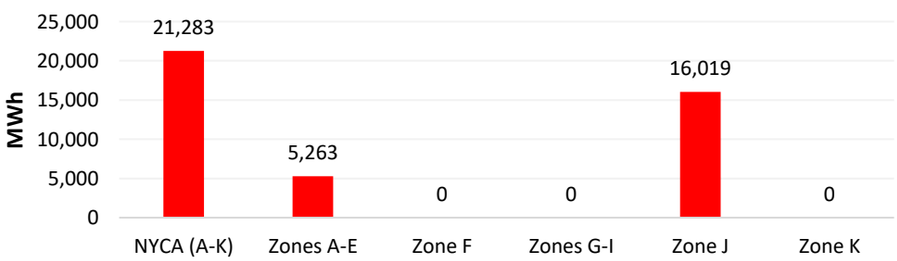
Total MWh of Reserve Violations

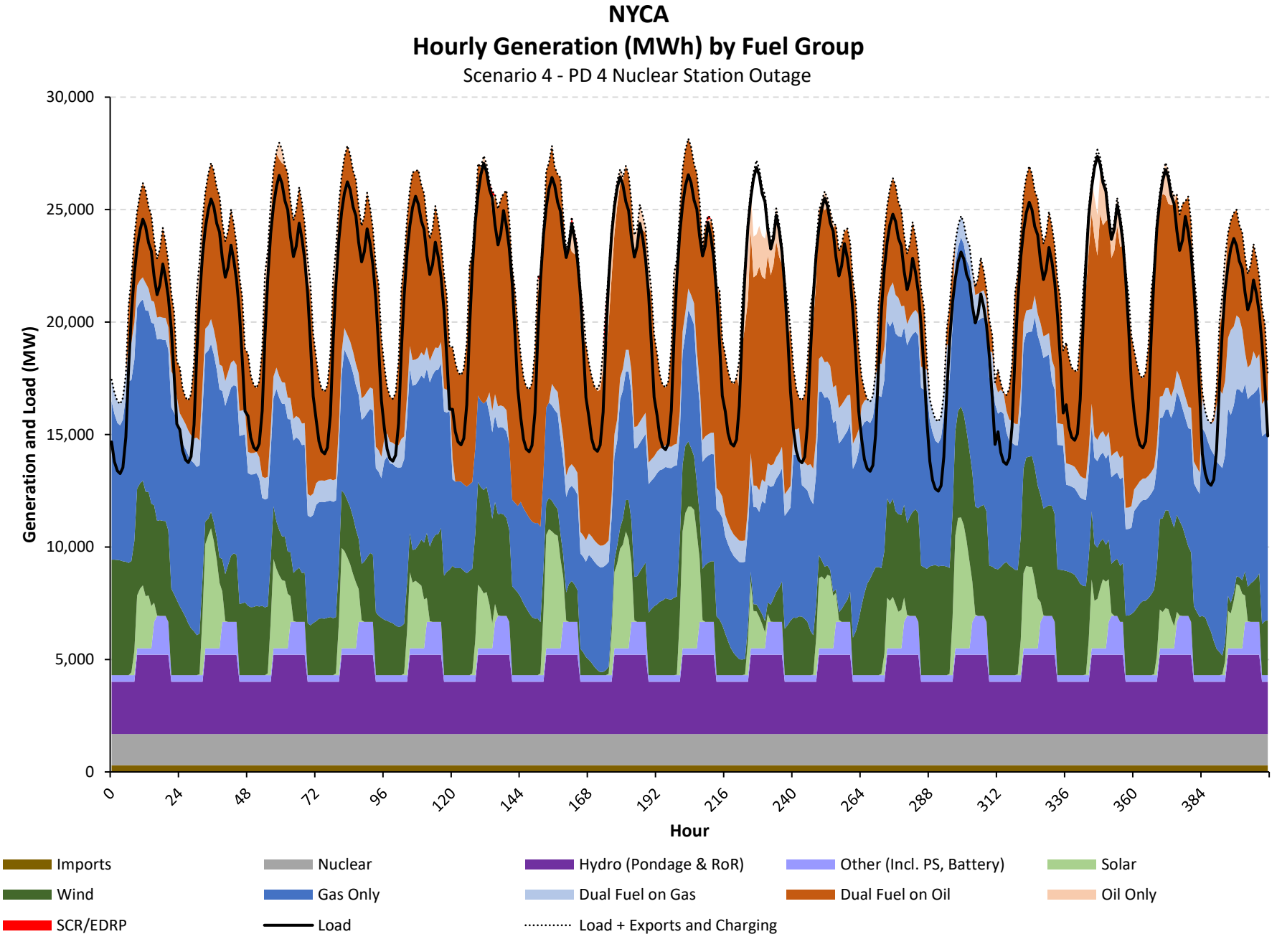


Hours with Loss of Load

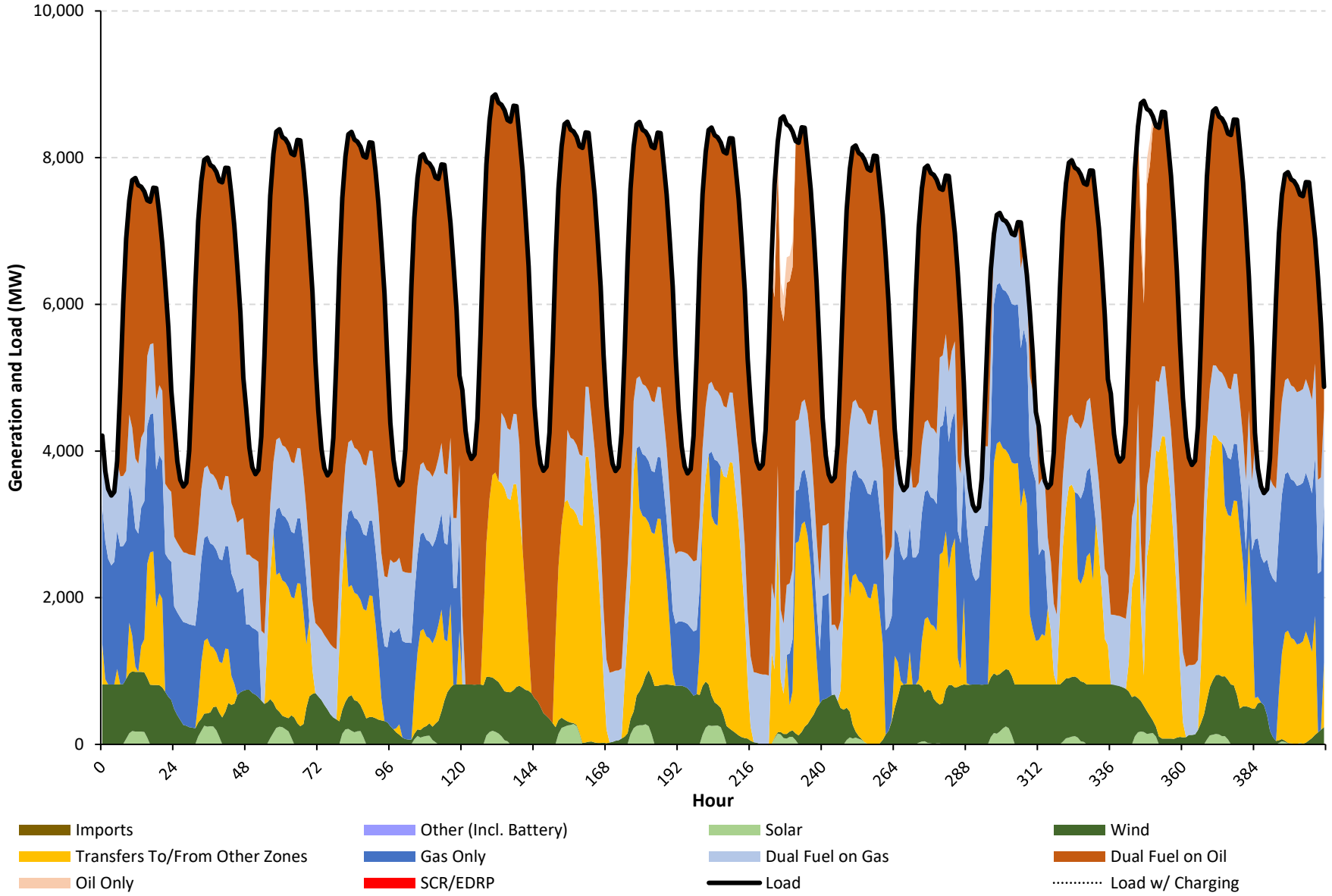


Total MWh of Lost Load

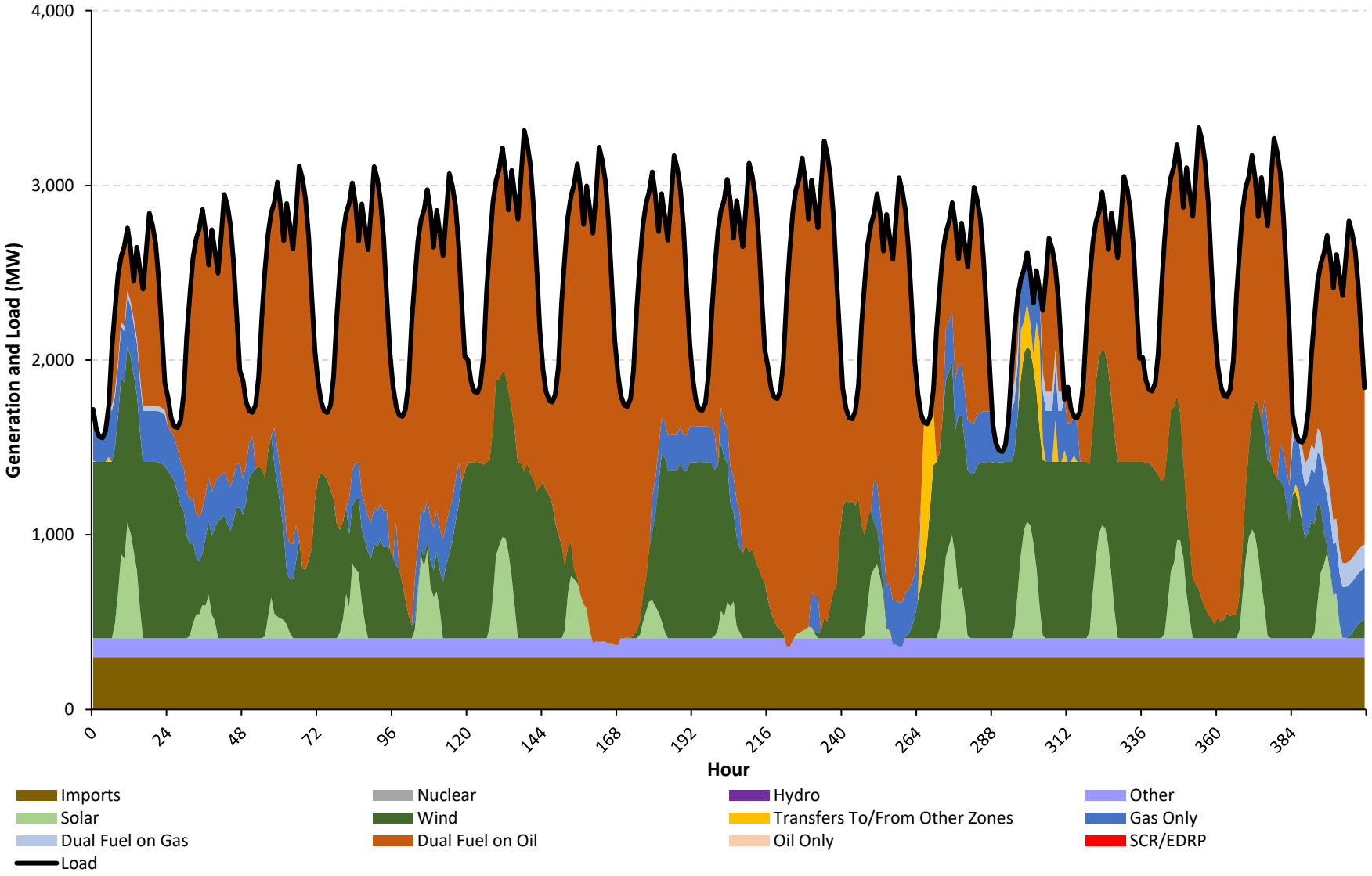


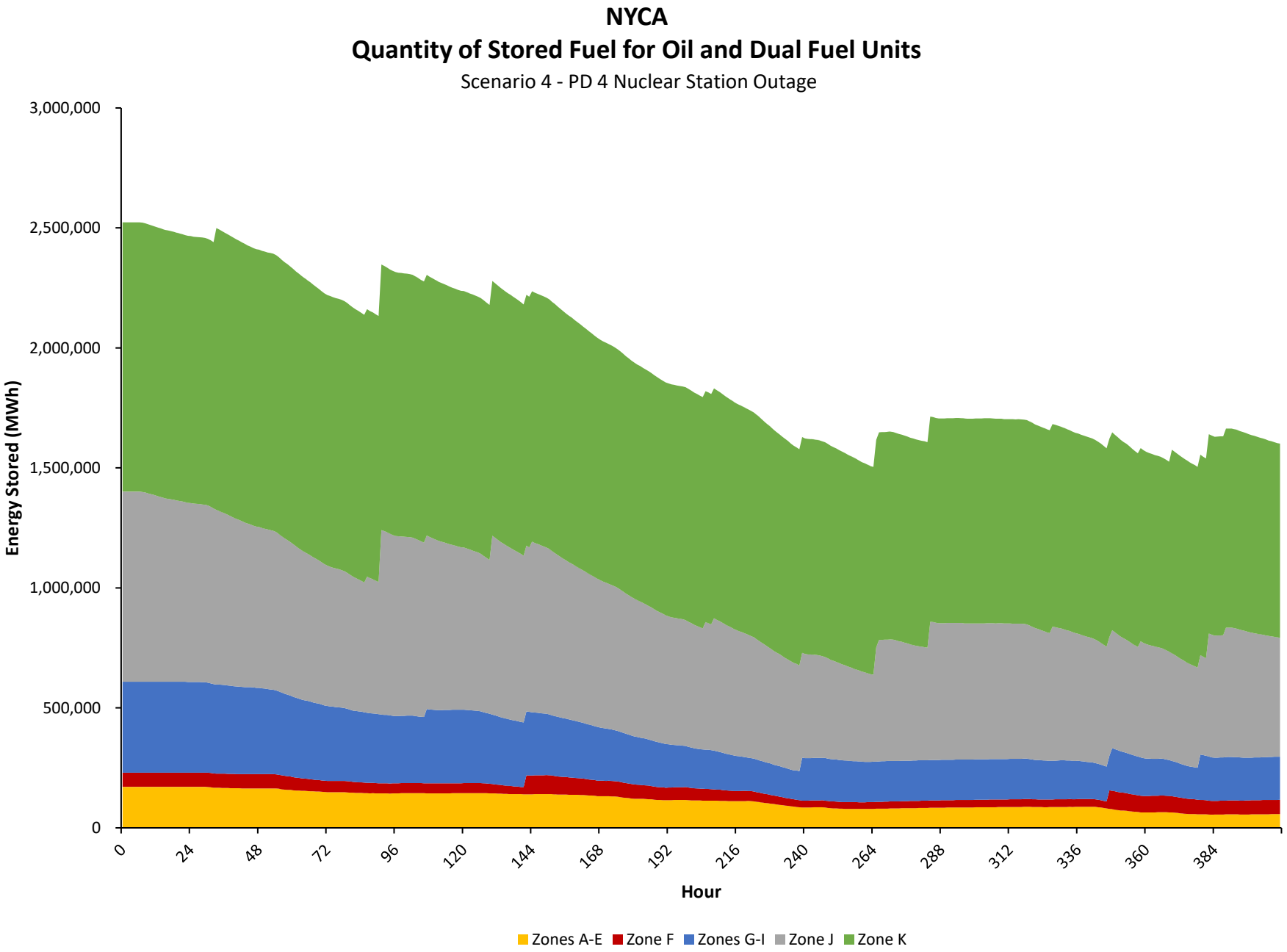

NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 4 - PD 4 Nuclear Station Outage
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

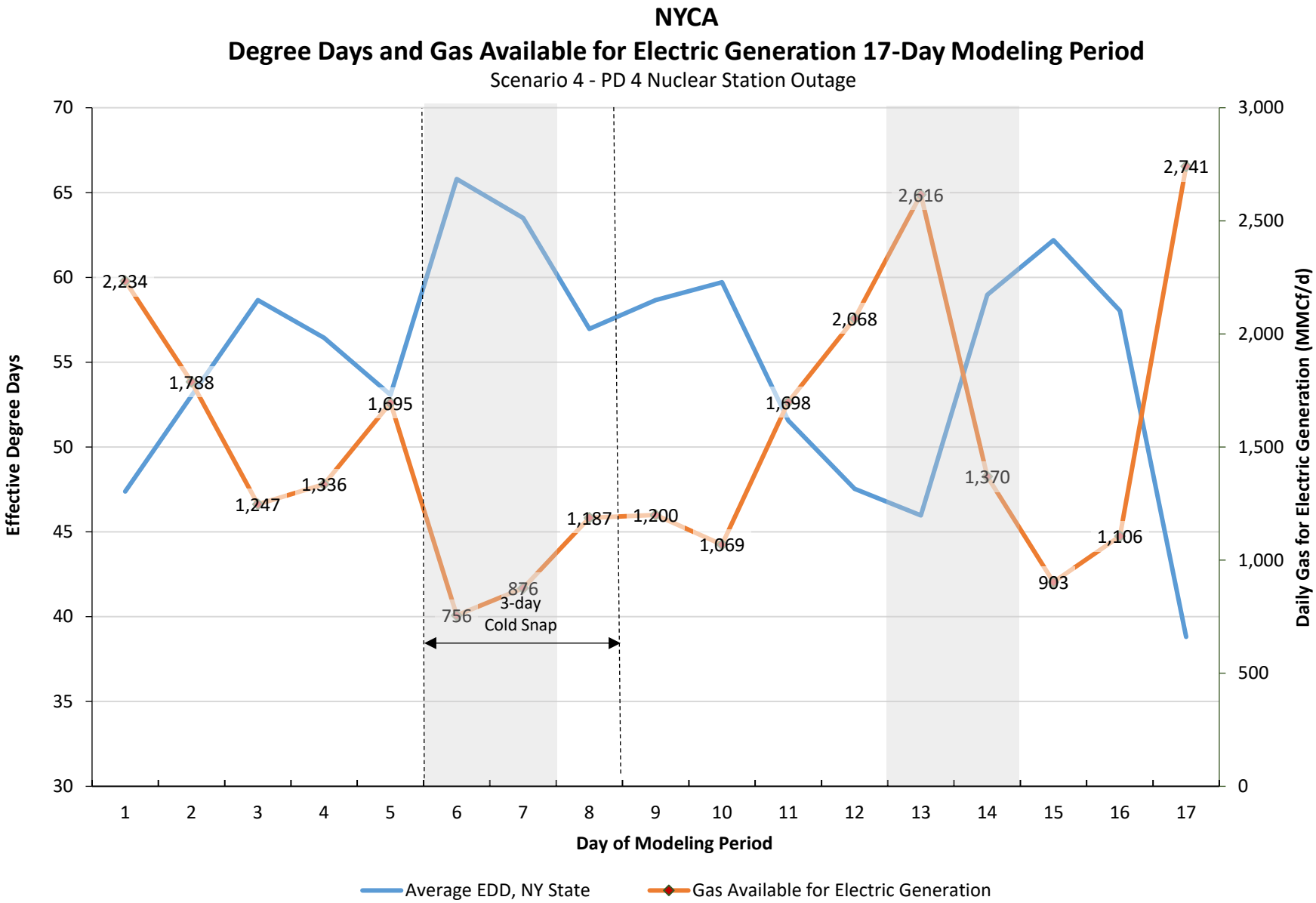
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 4 Nuclear Station Outage



Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 4 Nuclear Station Outage




NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 4 - PD 4 Nuclear Station Outage
Energy Stored (MWh)
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Zones A-E
Zone F
Zones G-I
Zone J
Zone K

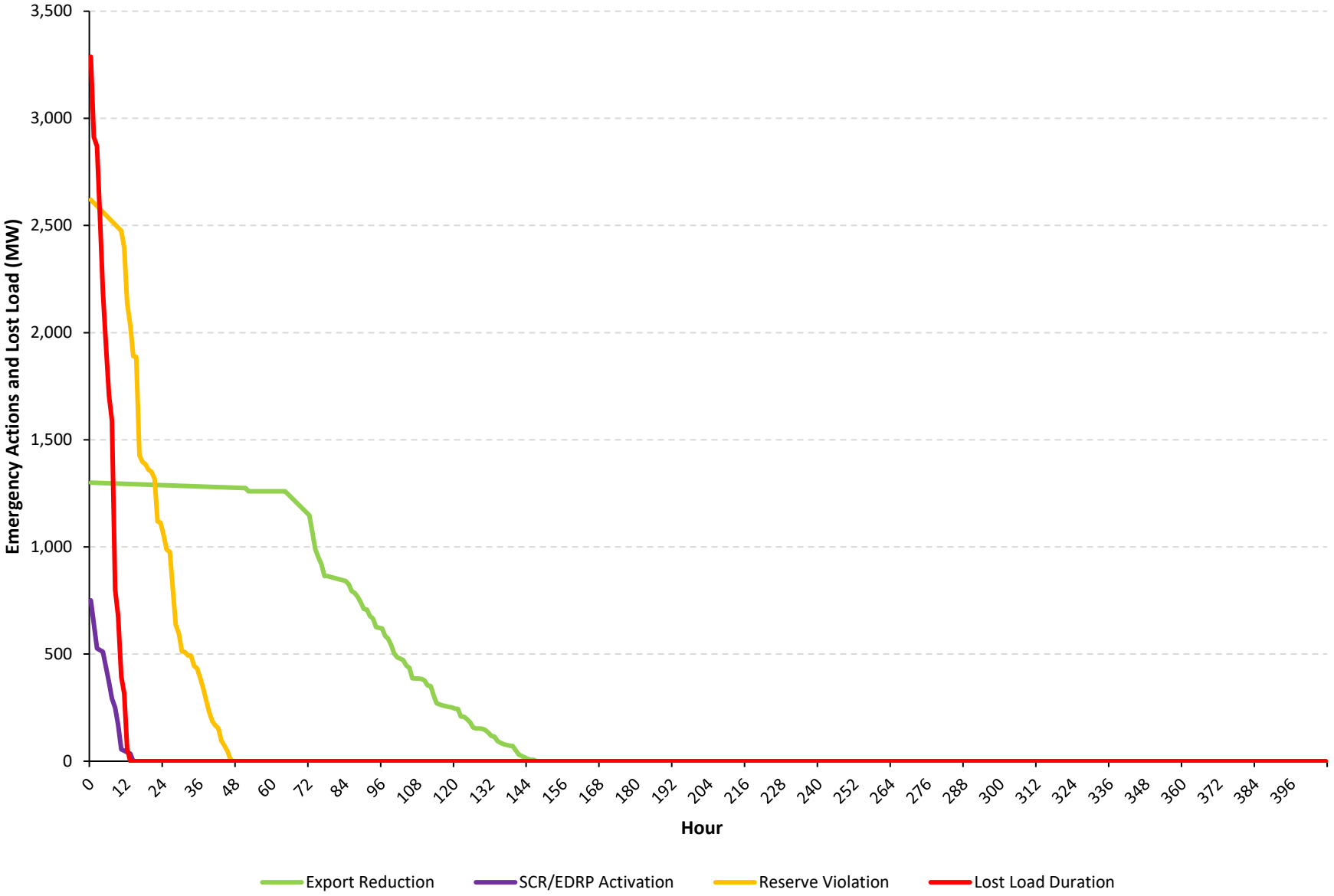


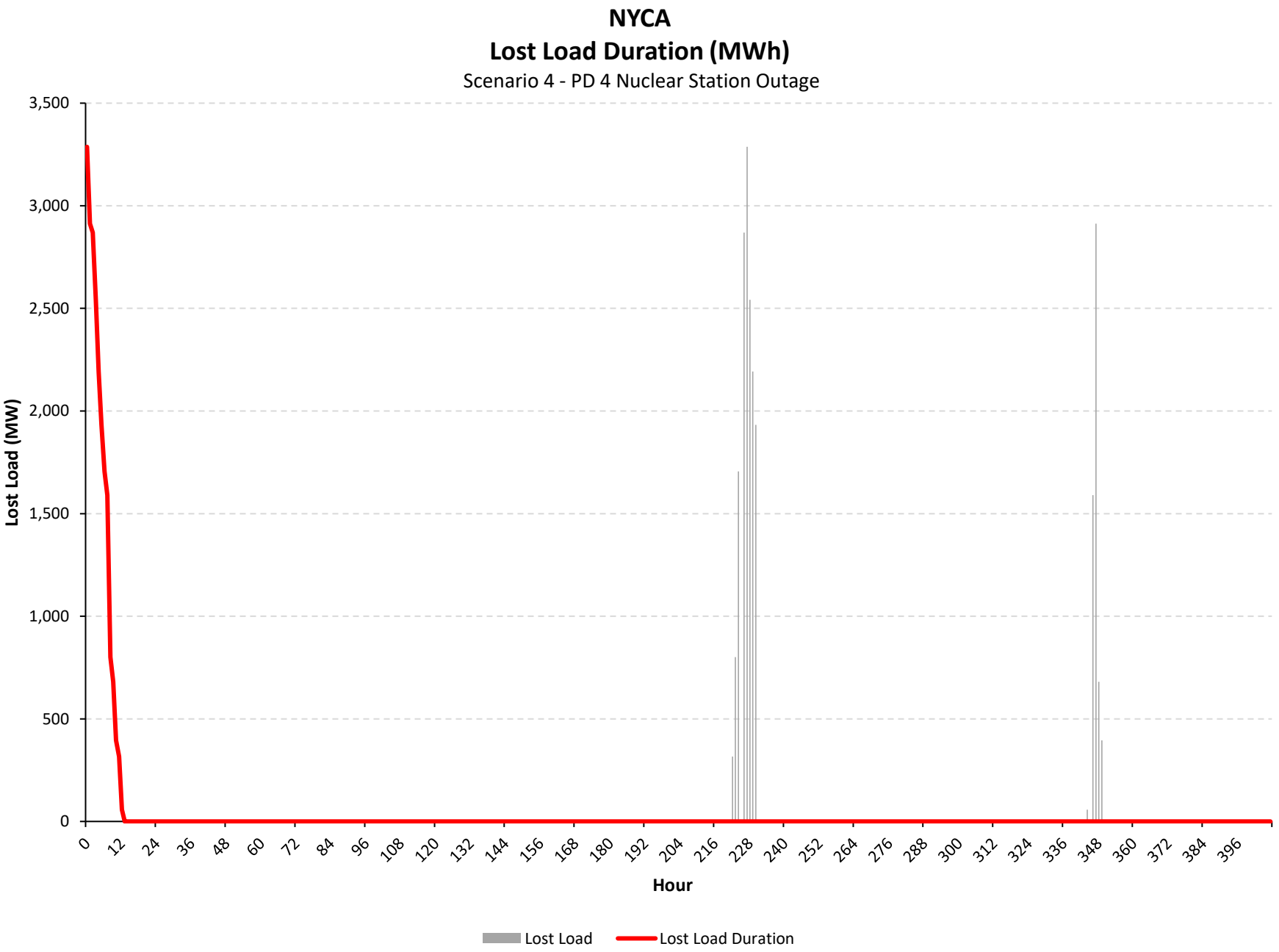
Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.

NYCA

Emergency Actions and Lost Load Duration (MWh)

Scenario 4 - PD 4 Nuclear Station Outage




NYCA
Lost Load Duration (MWh)
Scenario 4 - PD 4 Nuclear Station Outage
Lost Load (MW)
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

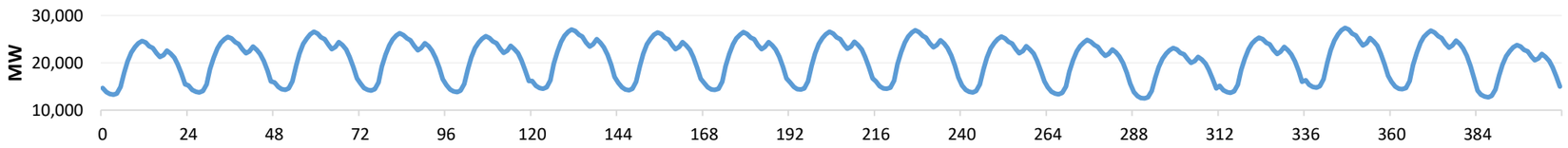
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 5 No Truck Refill (Winter 2026/2027)

Hourly Results Summary

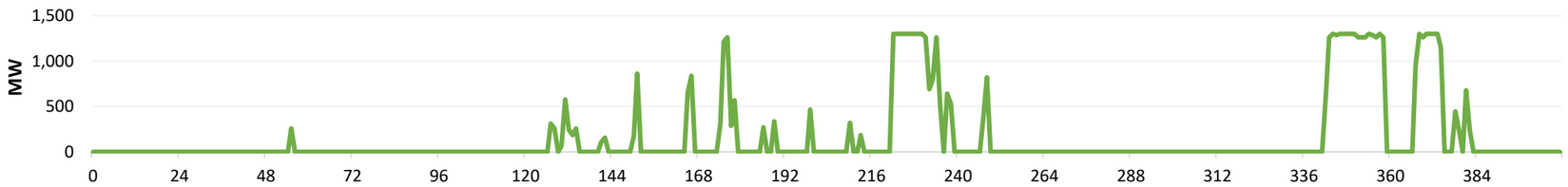
Case Name: Scenario 4 - PD 5 No Truck Refill

Load During Modeling Period



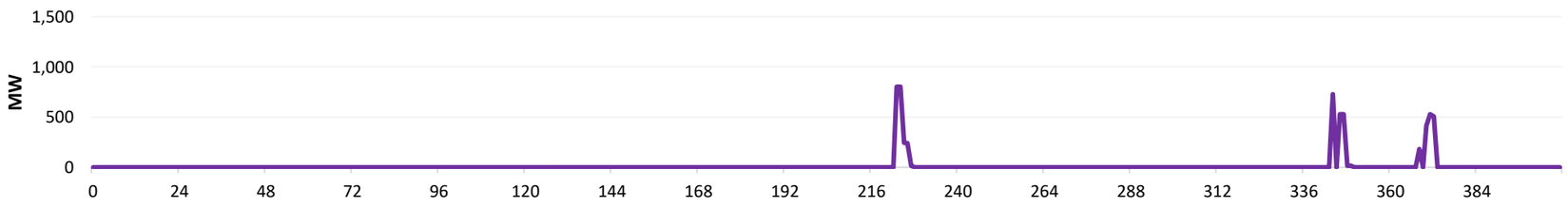
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



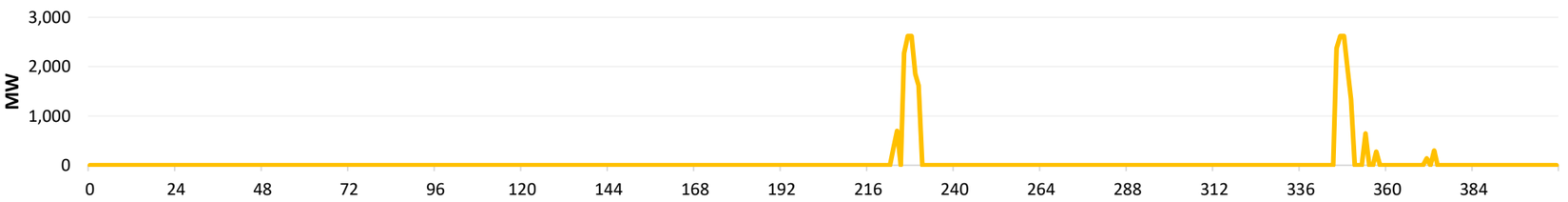
Export Reductions	
Total Hrs.	71
Total MWh	61,349
Avg. MW	150.4

SCR/EDRP Deployed During Modeling Period



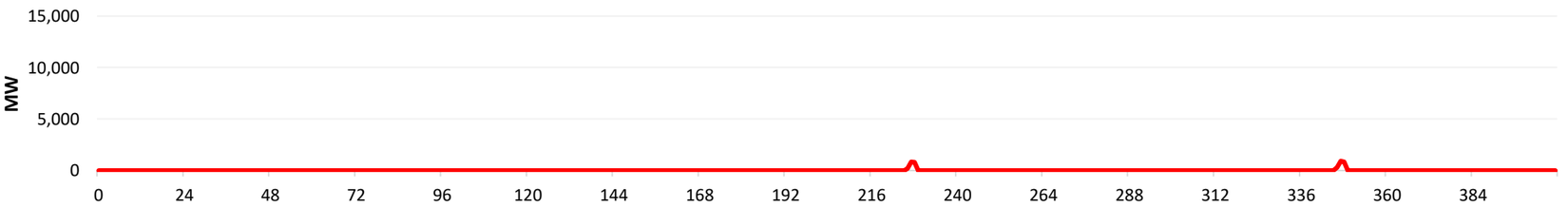
SCR Deployment	
Total Hrs.	14
Total MWh	5,547
Avg. MW	13.6

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	16
Total MWh	24,246
Avg. MW	59.4
First Hour with Viol.	223

Loss of Load During Modeling Period



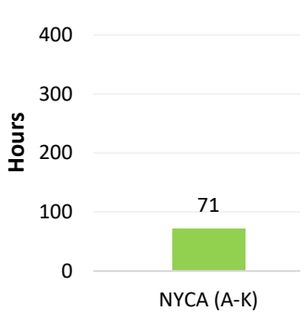
Loss of Load	
Total Hrs.	6
Total MWh	3,878
Avg. MW	9.5
First Hour with Losses	226

Full Period Results Summary

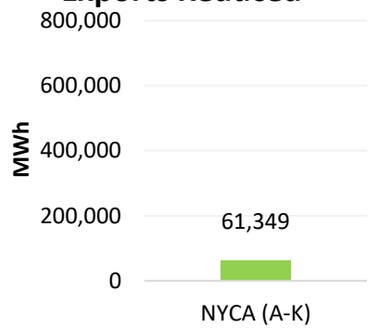
Case Name: Scenario 4 - PD 5 No Truck Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

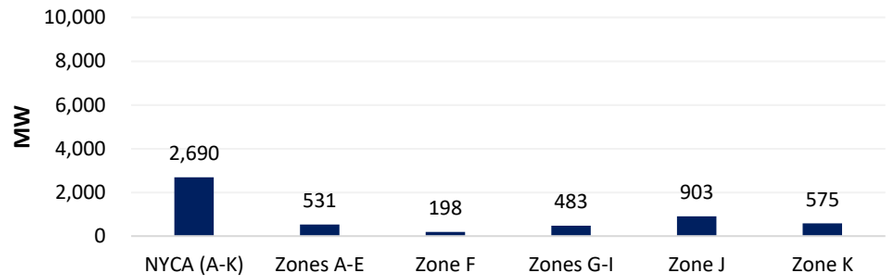
Hours Exports Reduced



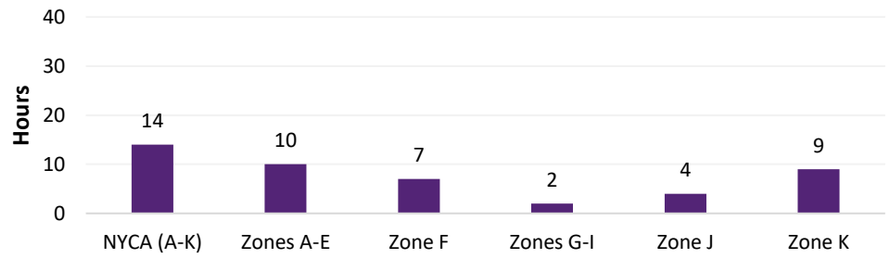
Total MWh of Exports Reduced



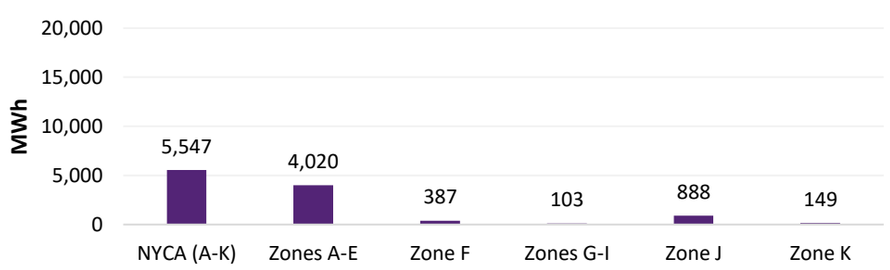
Average Capacity Not Available Due to Exhausted Fuel Inventory



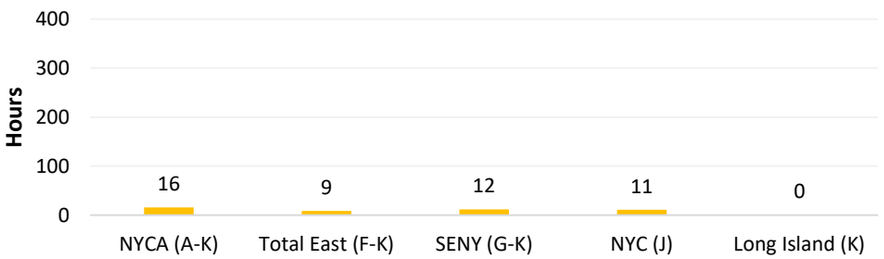
Hours SCR/EDRP Deployed



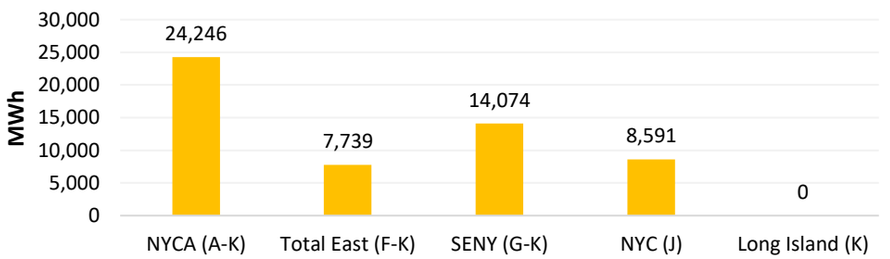
Total MWh SCR/EDRP Deployed



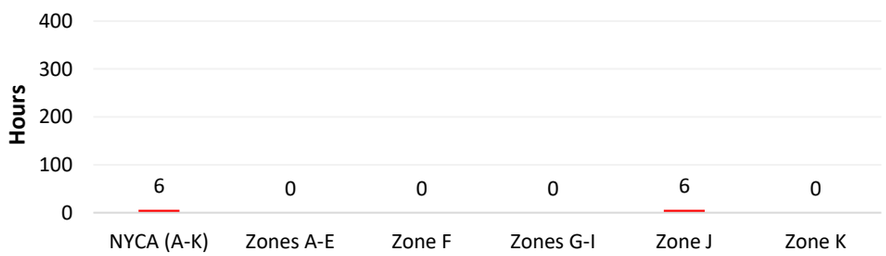
Hours with Reserve Violations



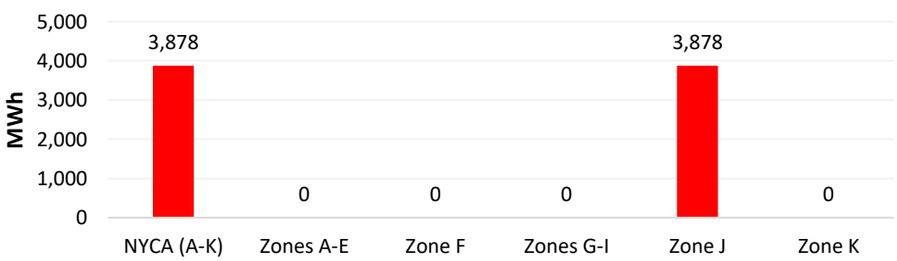
Total MWh of Reserve Violations

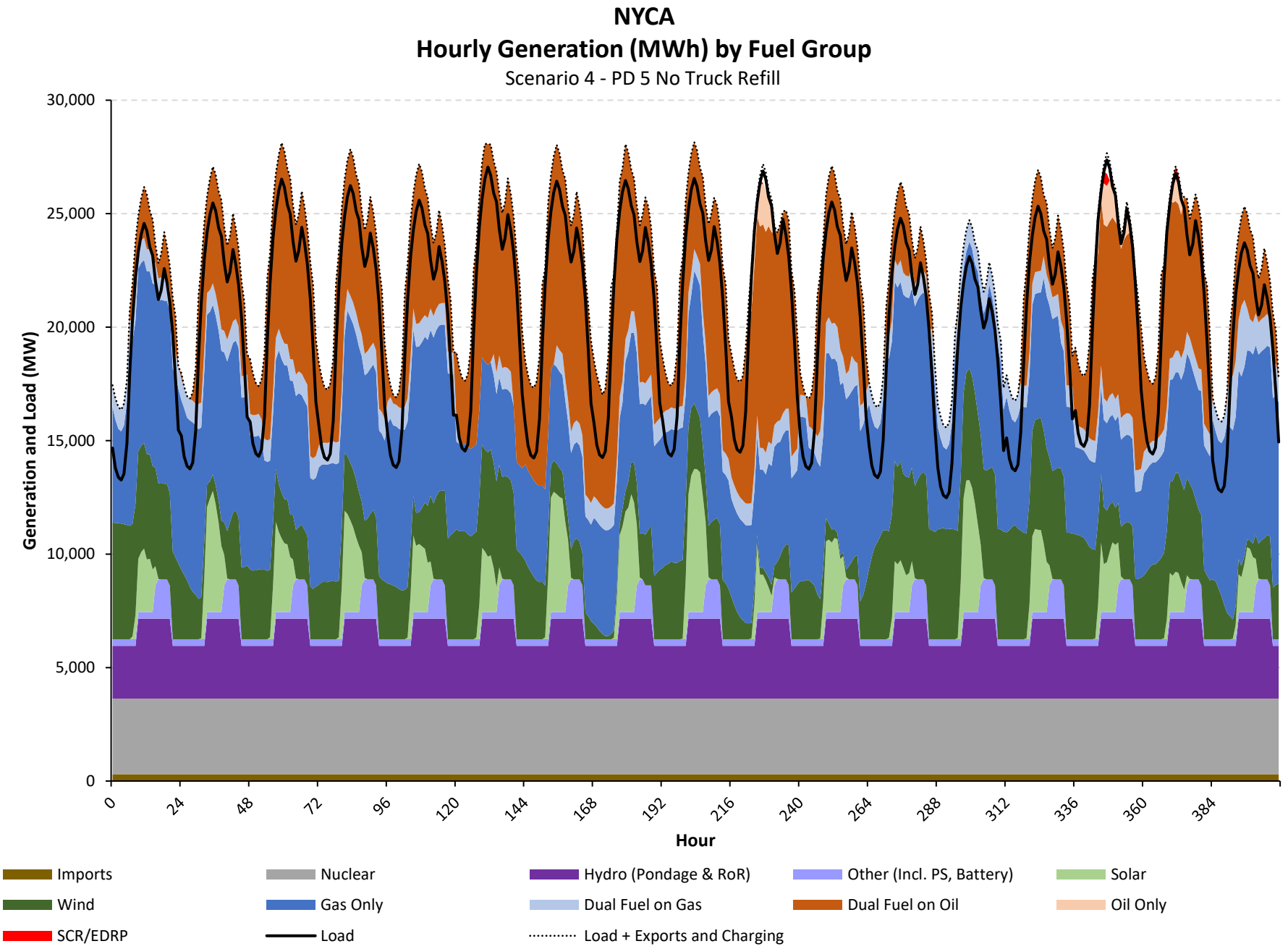


Hours with Loss of Load

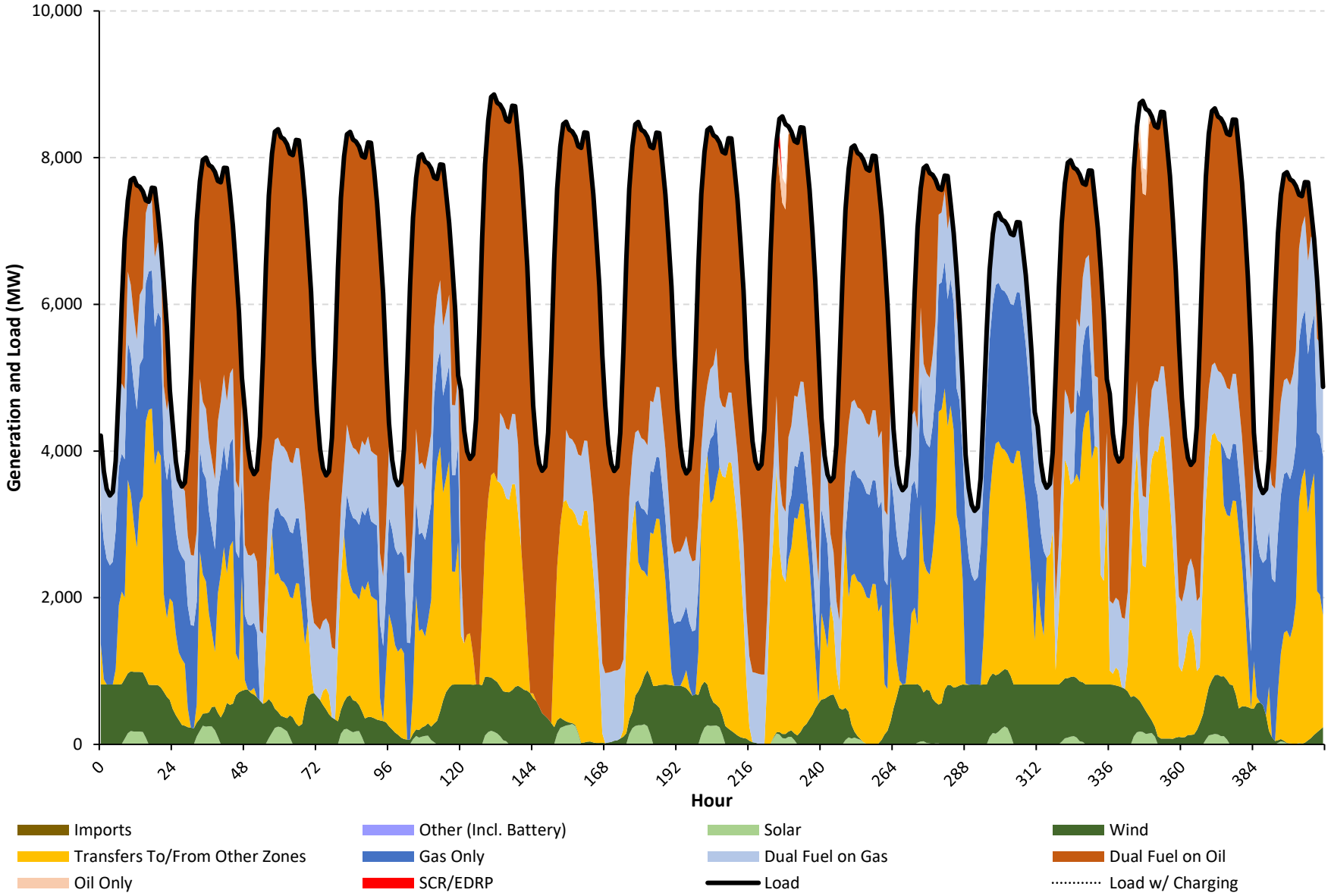


Total MWh of Lost Load

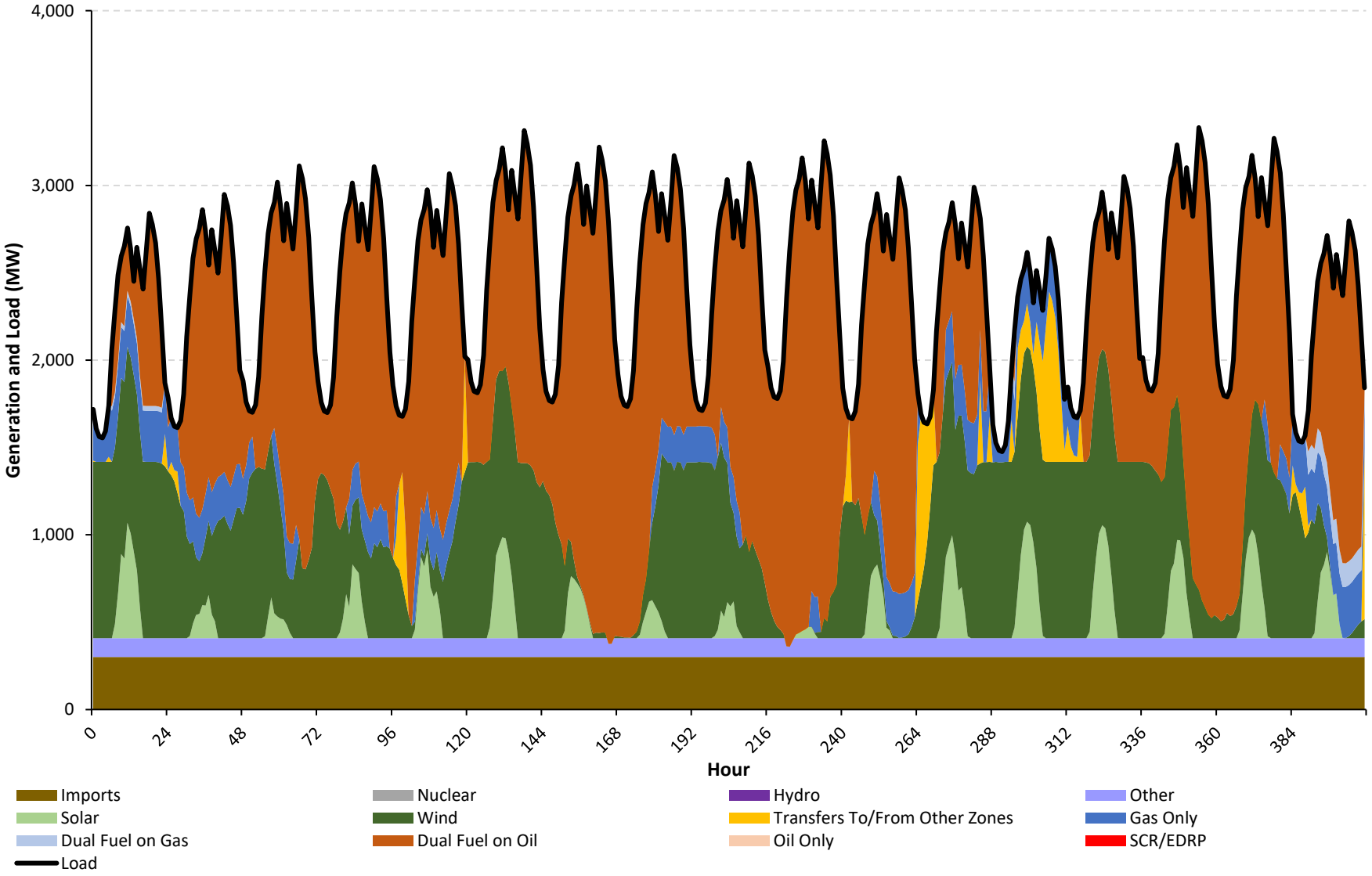



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 4 - PD 5 No Truck Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 5 No Truck Refill



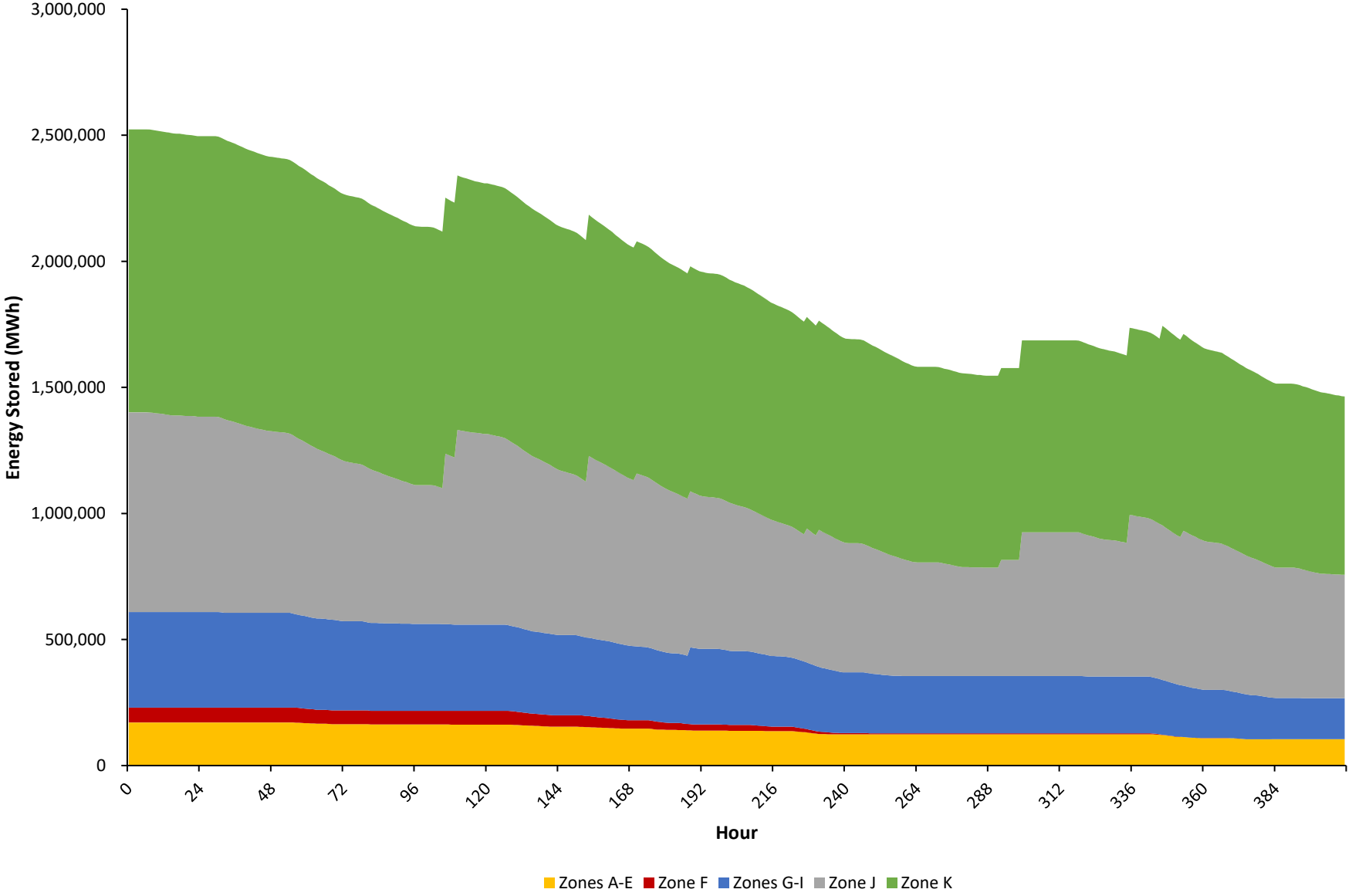
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 5 No Truck Refill

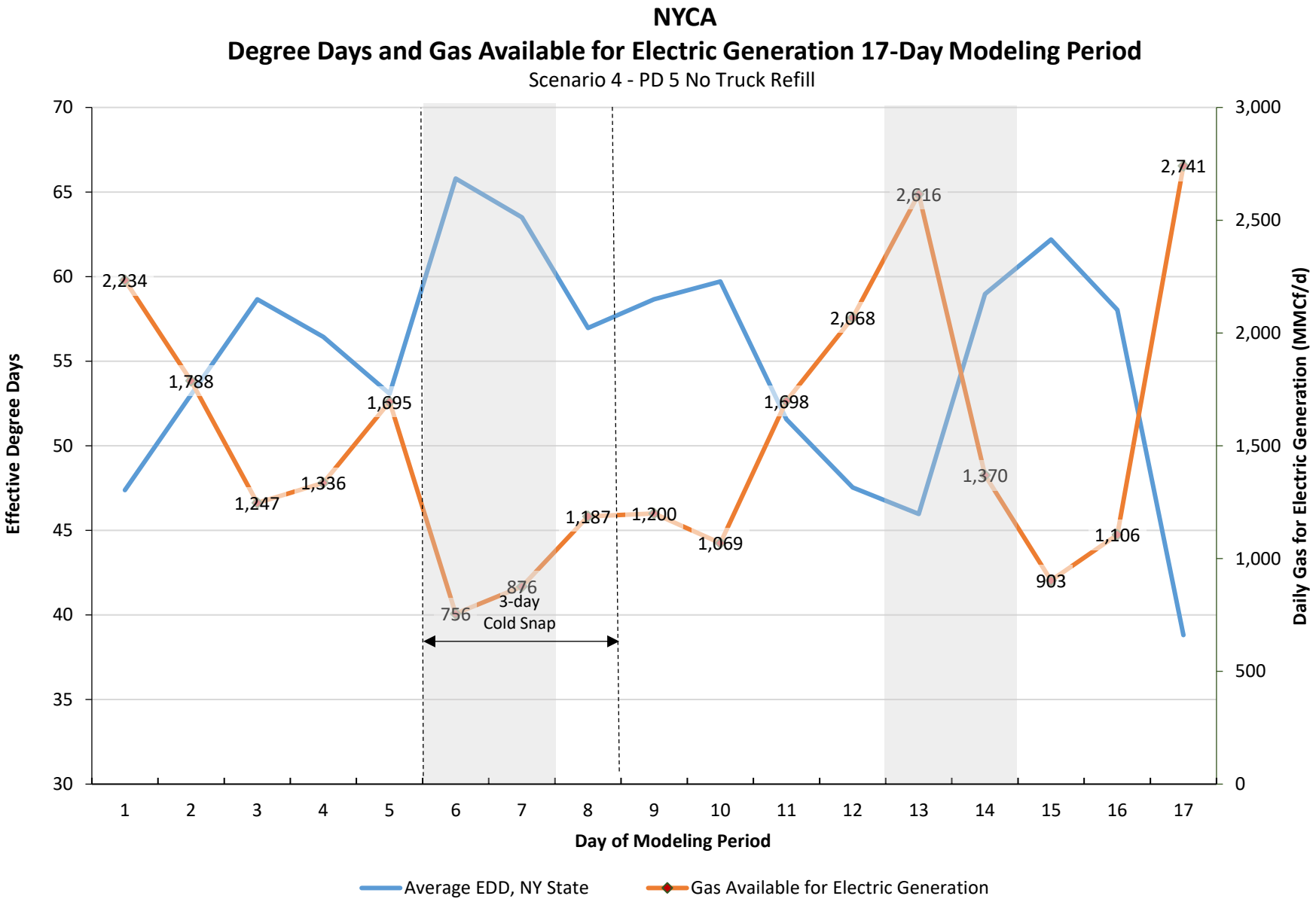


NYCA

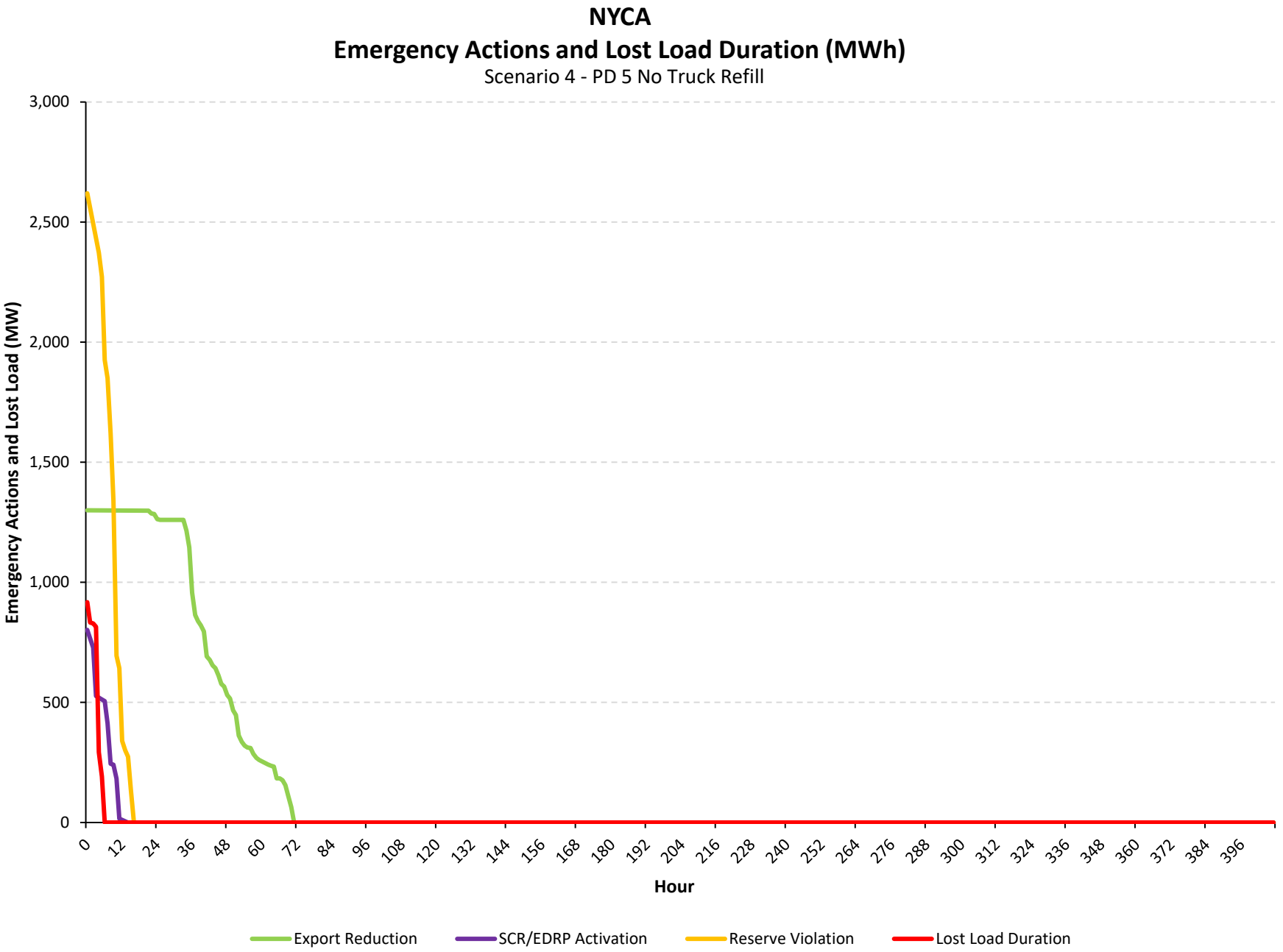
Quantity of Stored Fuel for Oil and Dual Fuel Units

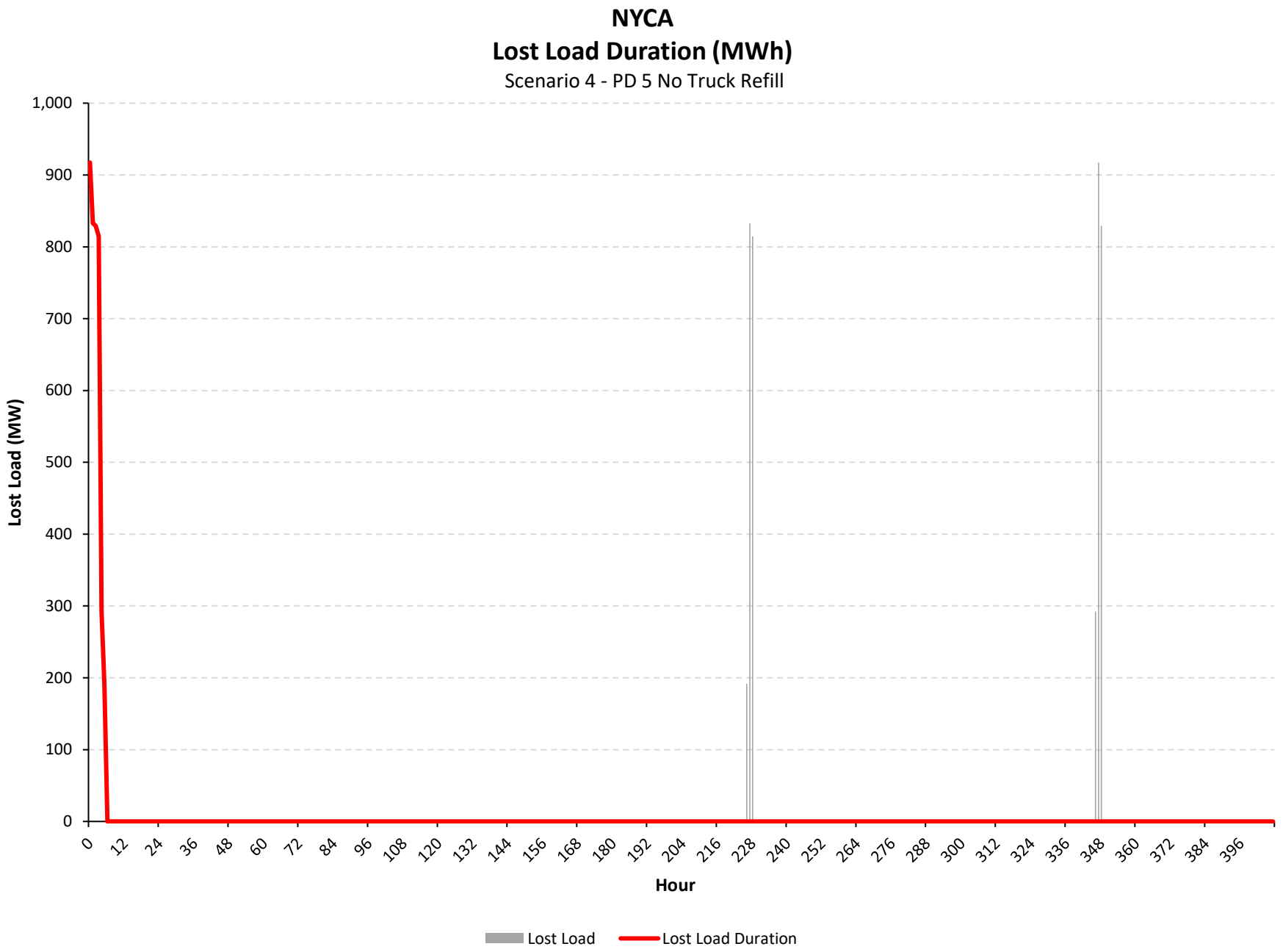
Scenario 4 - PD 5 No Truck Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 4 - PD 5 No Truck Refill
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0
12
24
36
48
60
72
84
96
108
120
132
144
156
168
180
192
204
216
228
240
252
264
276
288
300
312
324
336
348
360
372
384
396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 4 - PD 5 No Truck Refill
Lost Load (MW)
1,000
900
800
700
600
500
400
300
200
100
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

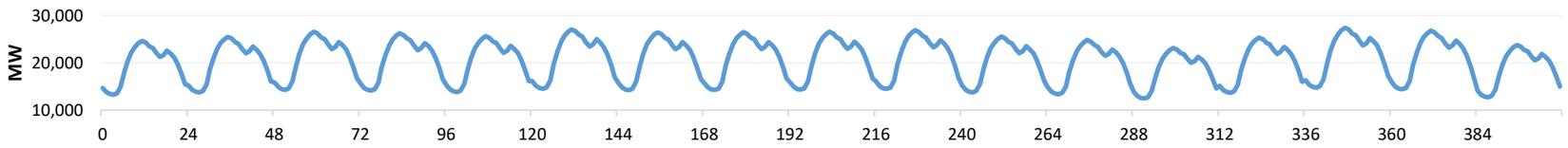
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 6 No Barge Refill (Winter 2026/2027)

Hourly Results Summary

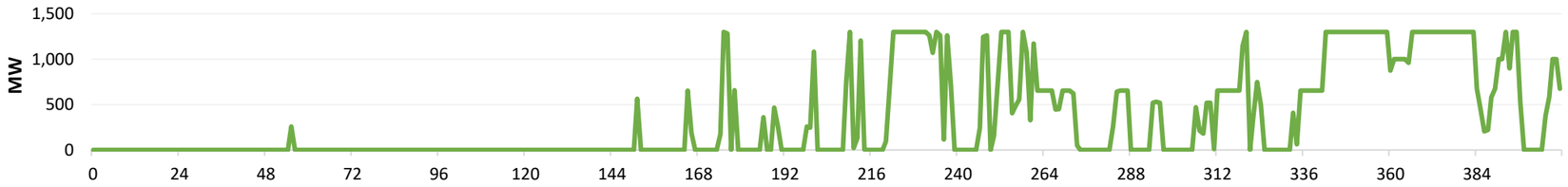
Case Name: Scenario 4 - PD 6 No Barge Refill

Load During Modeling Period



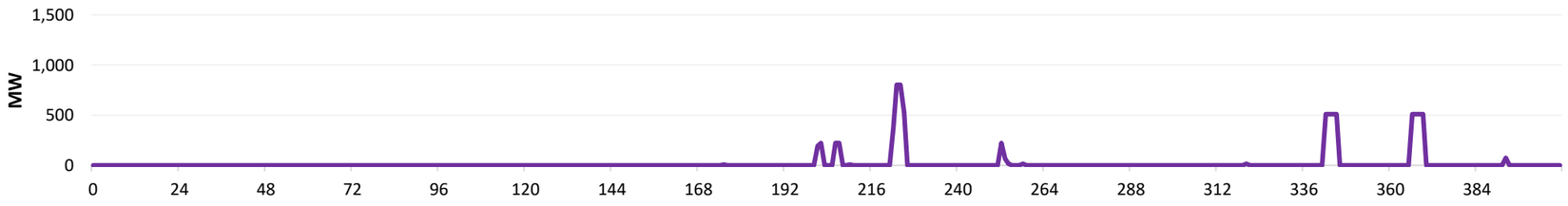
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



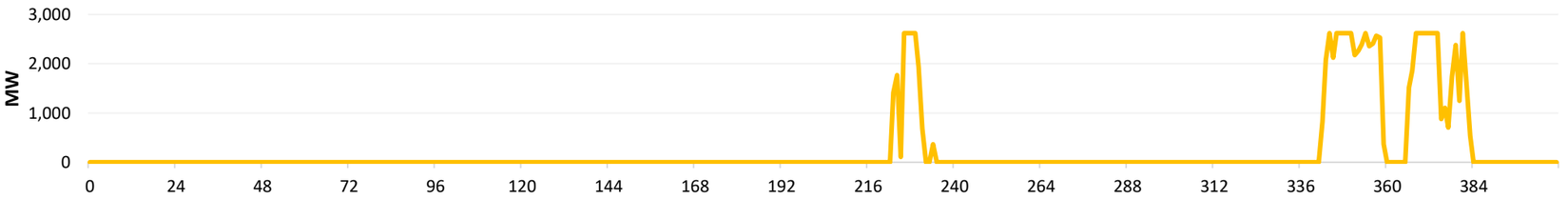
Export Reductions	
Total Hrs.	161
Total MWh	138,039
Avg. MW	338.3

SCR/EDRP Deployed During Modeling Period



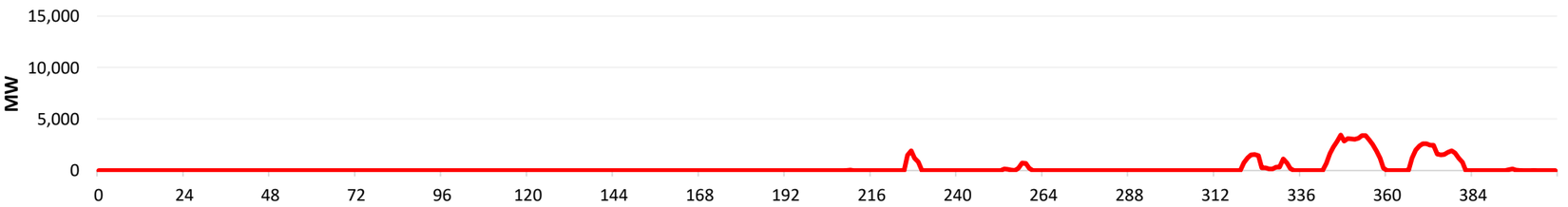
SCR Deployment	
Total Hrs.	24
Total MWh	7,878
Avg. MW	19.3

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	46
Total MWh	91,688
Avg. MW	224.7
First Hour with Viol.	202

Loss of Load During Modeling Period



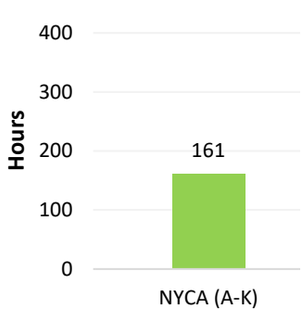
Loss of Load	
Total Hrs.	67
Total MWh	87,706
Avg. MW	215.0
First Hour with Losses	209

Full Period Results Summary

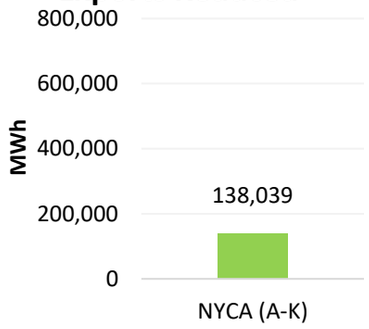
Case Name: Scenario 4 - PD 6 No Barge Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

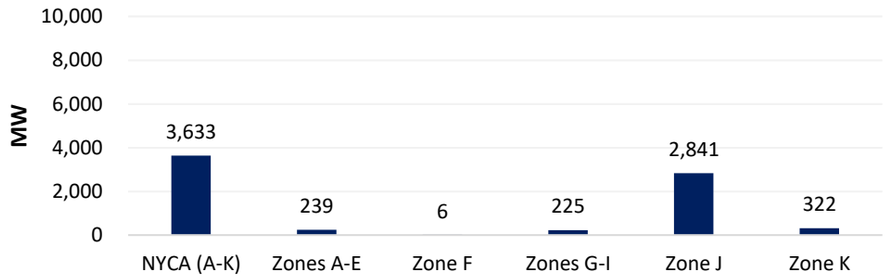
Hours Exports Reduced



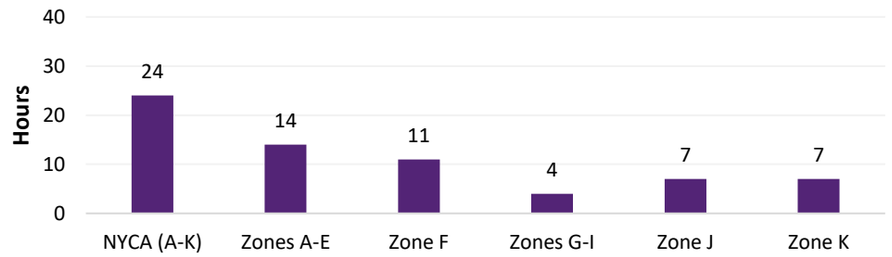
Total MWh of Exports Reduced



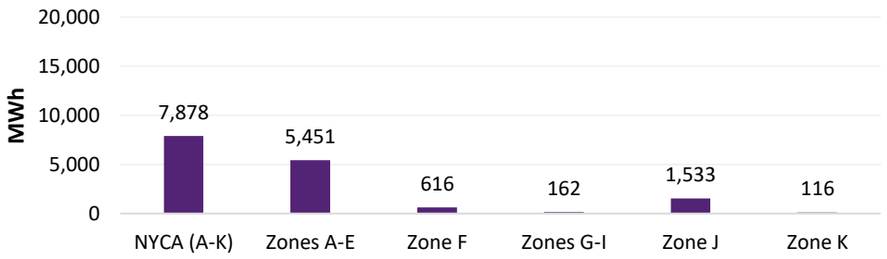
Average Capacity Not Available Due to Exhausted Fuel Inventory



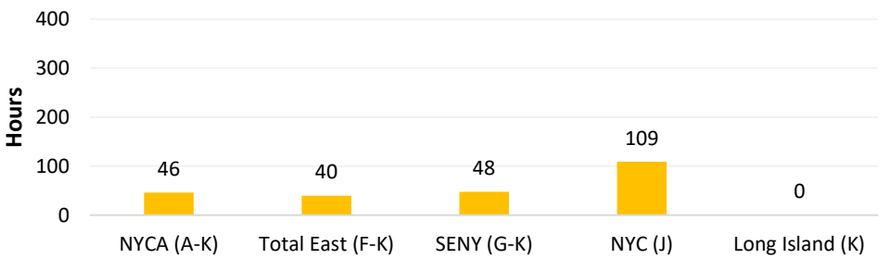
Hours SCR/EDRP Deployed



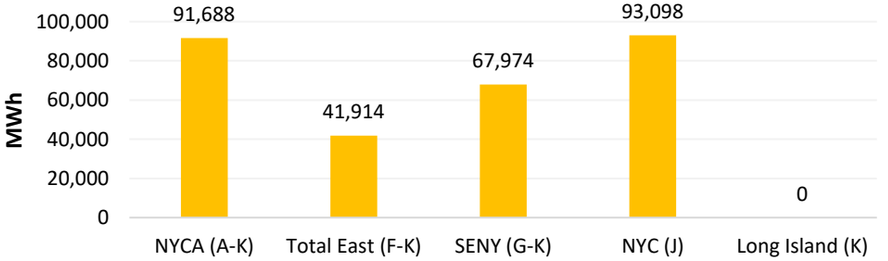
Total MWh SCR/EDRP Deployed



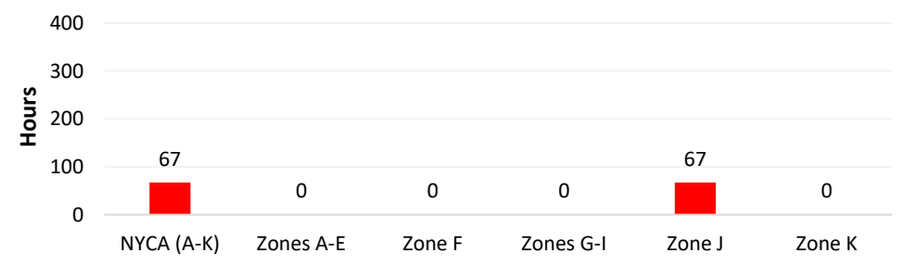
Hours with Reserve Violations



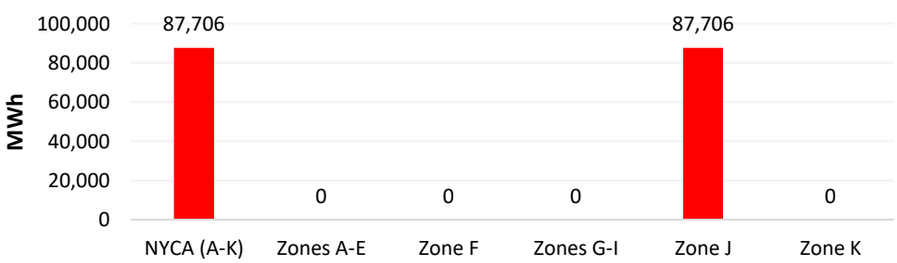
Total MWh of Reserve Violations

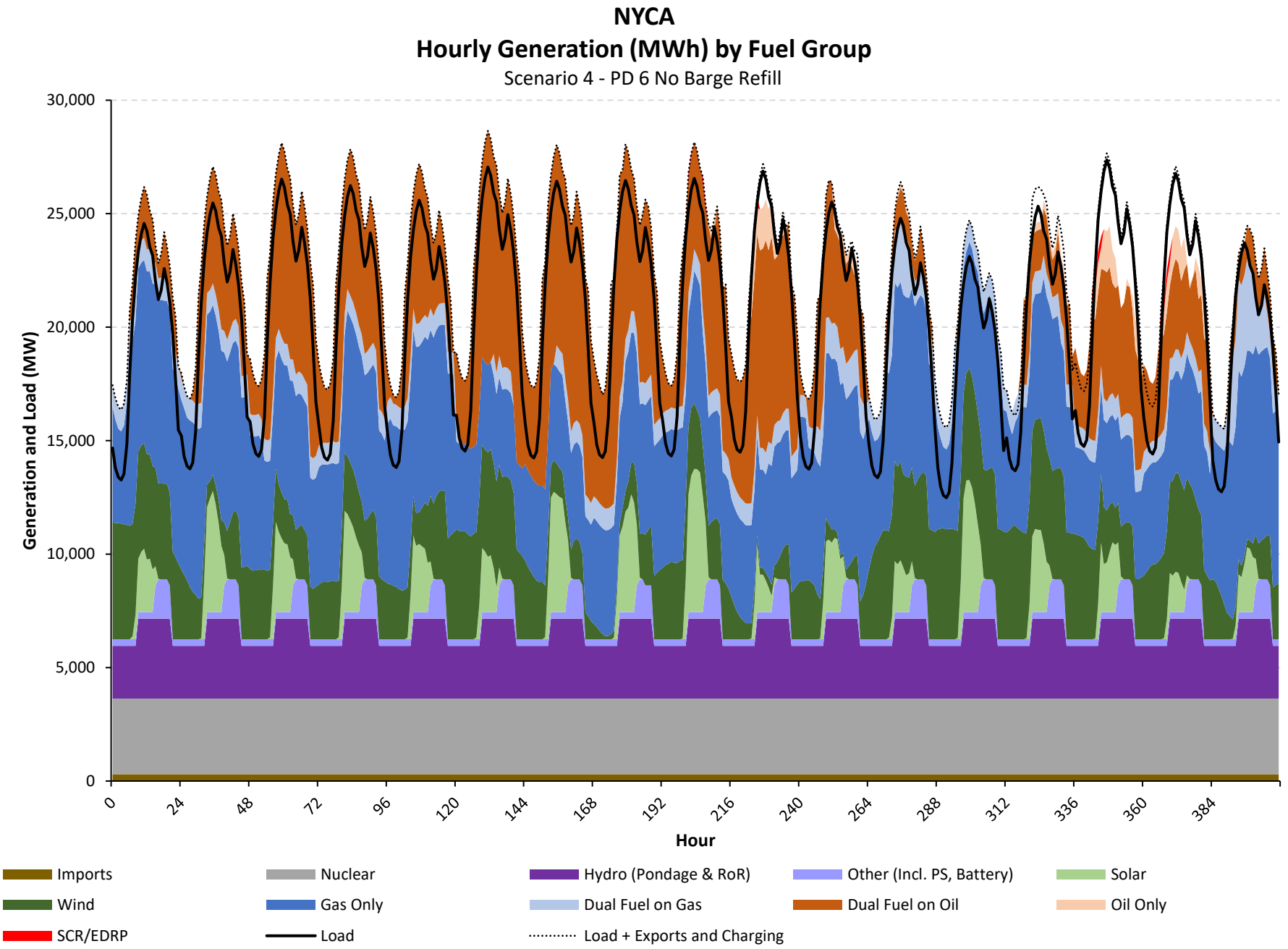


Hours with Loss of Load

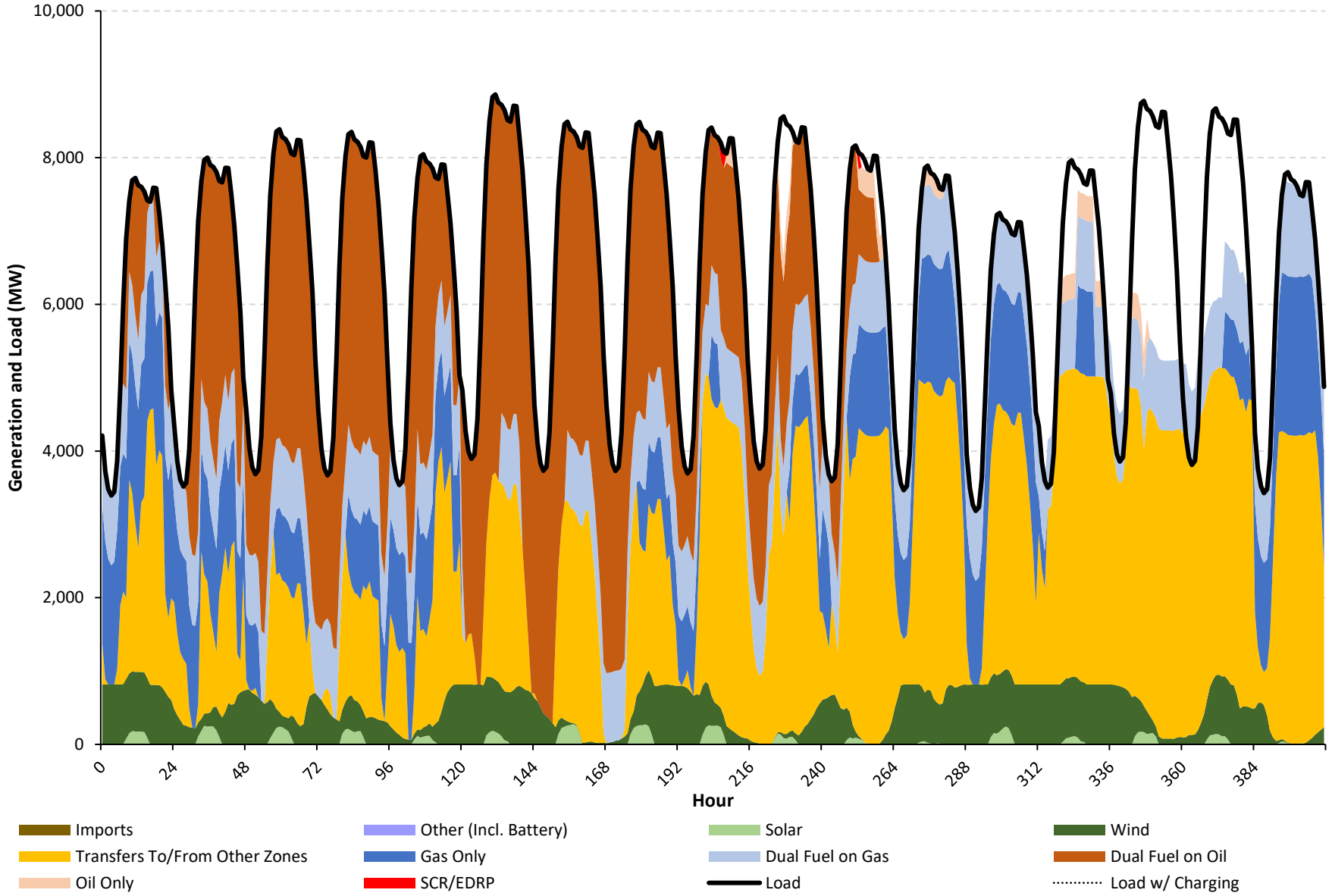


Total MWh of Lost Load

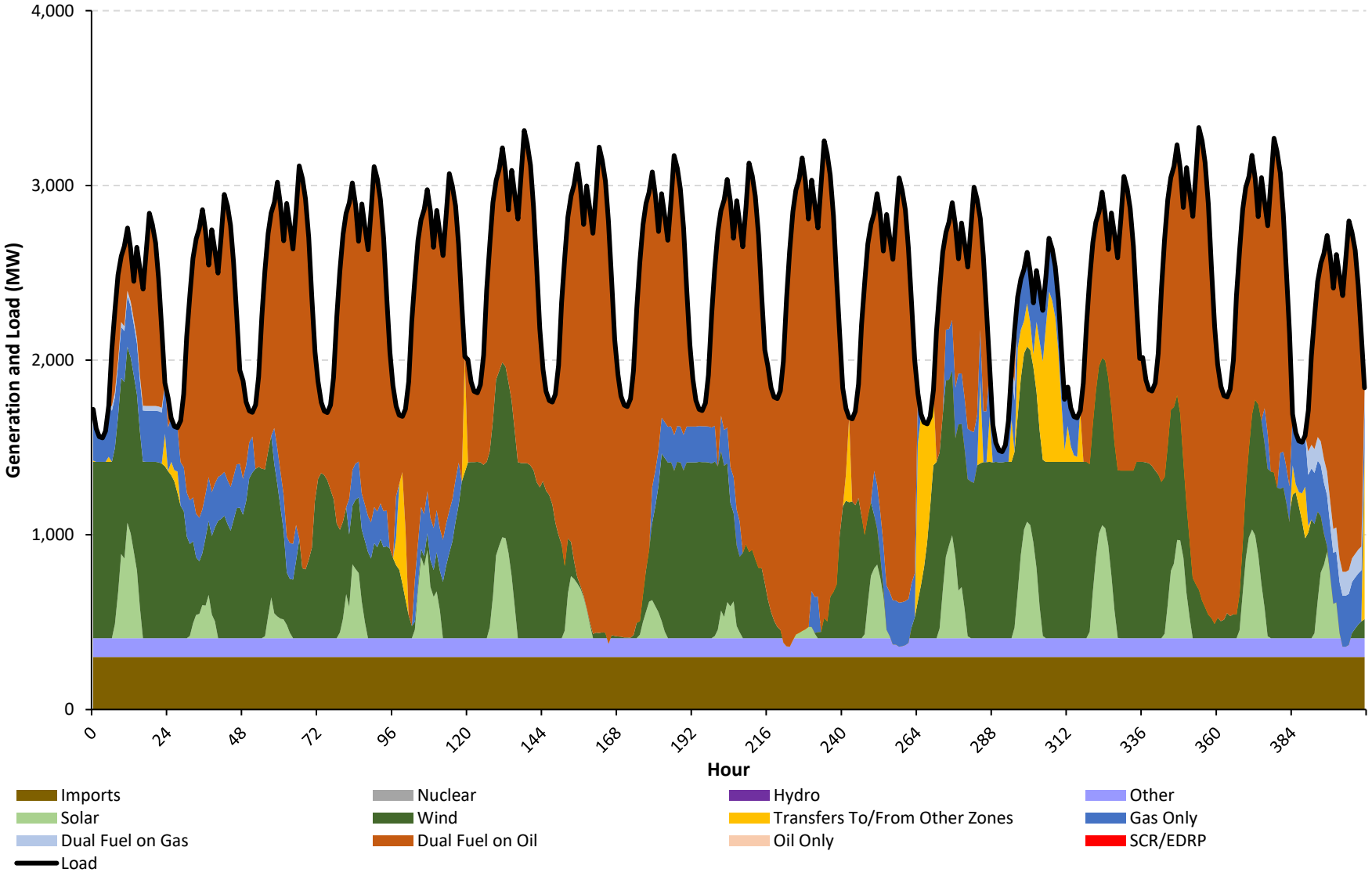



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 4 - PD 6 No Barge Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 6 No Barge Refill



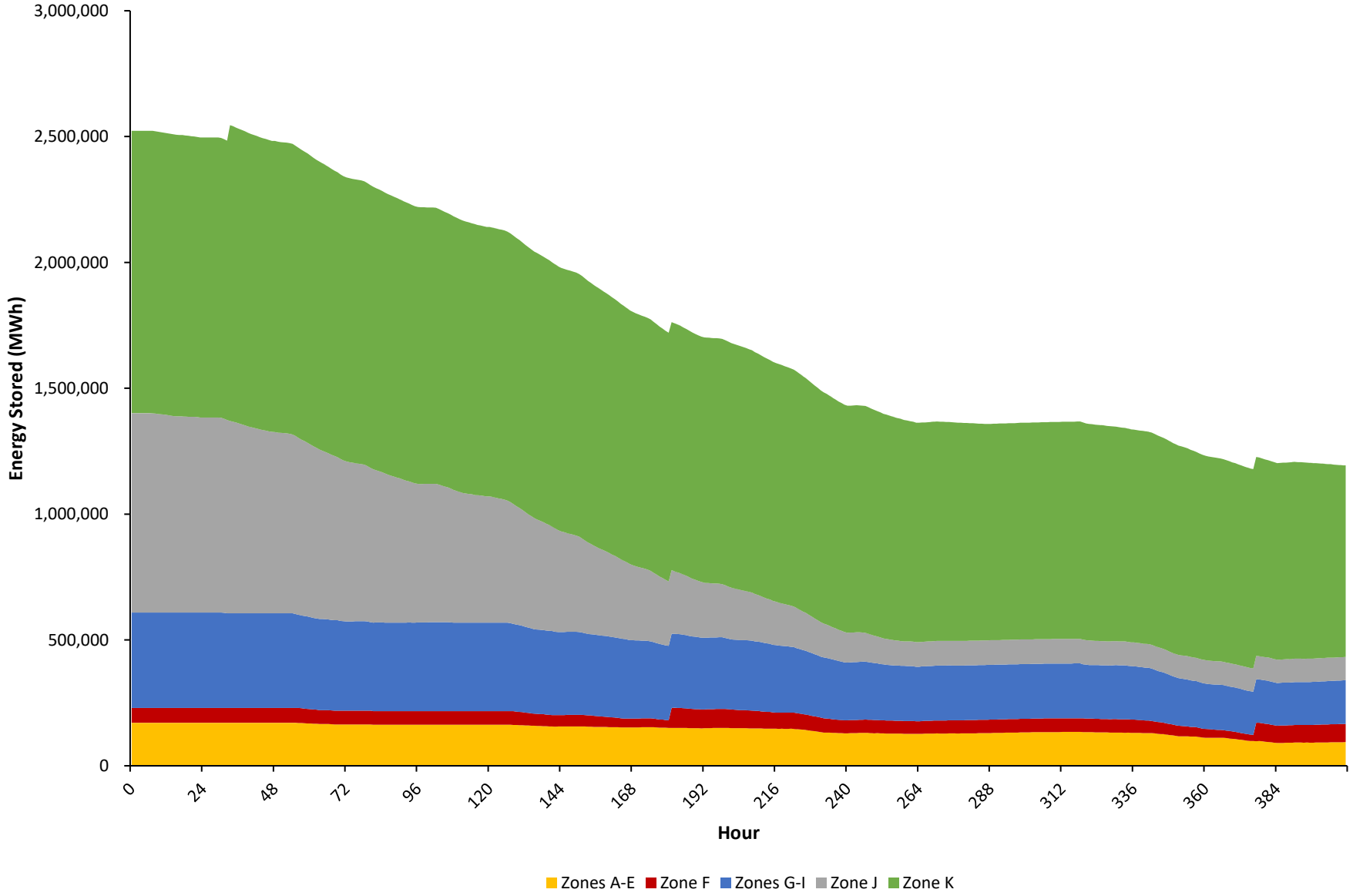
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 6 No Barge Refill

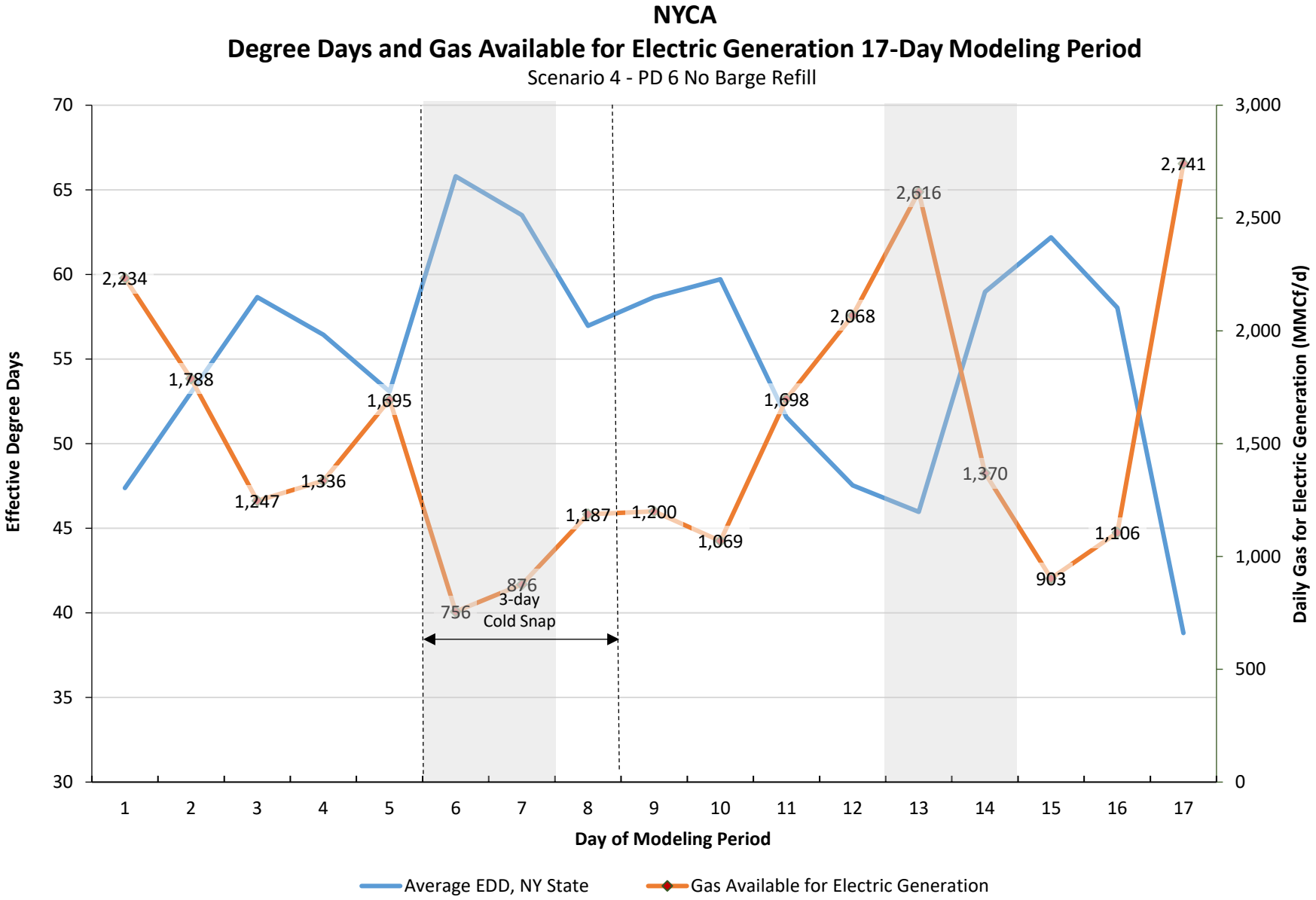


NYCA

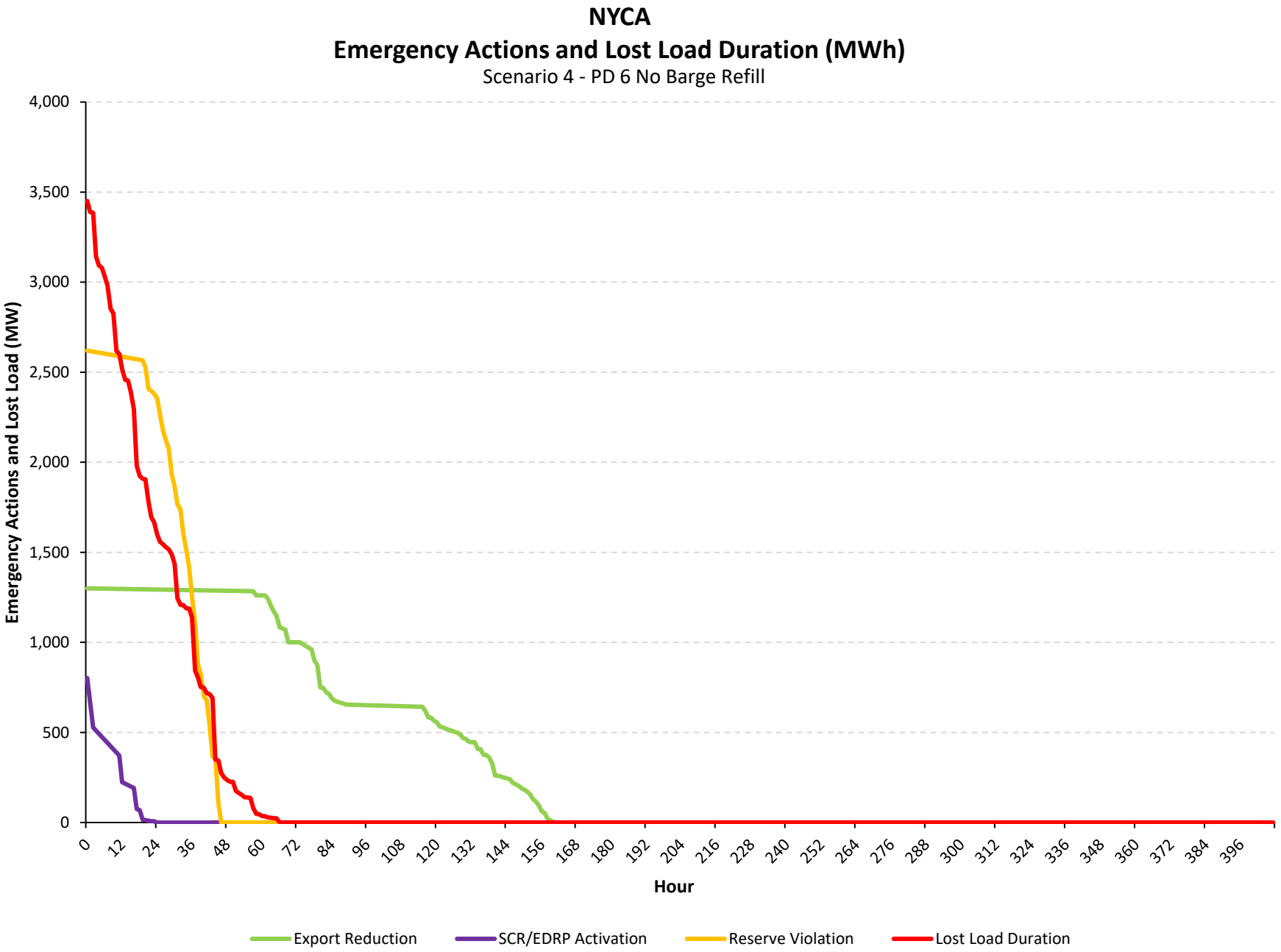
Quantity of Stored Fuel for Oil and Dual Fuel Units

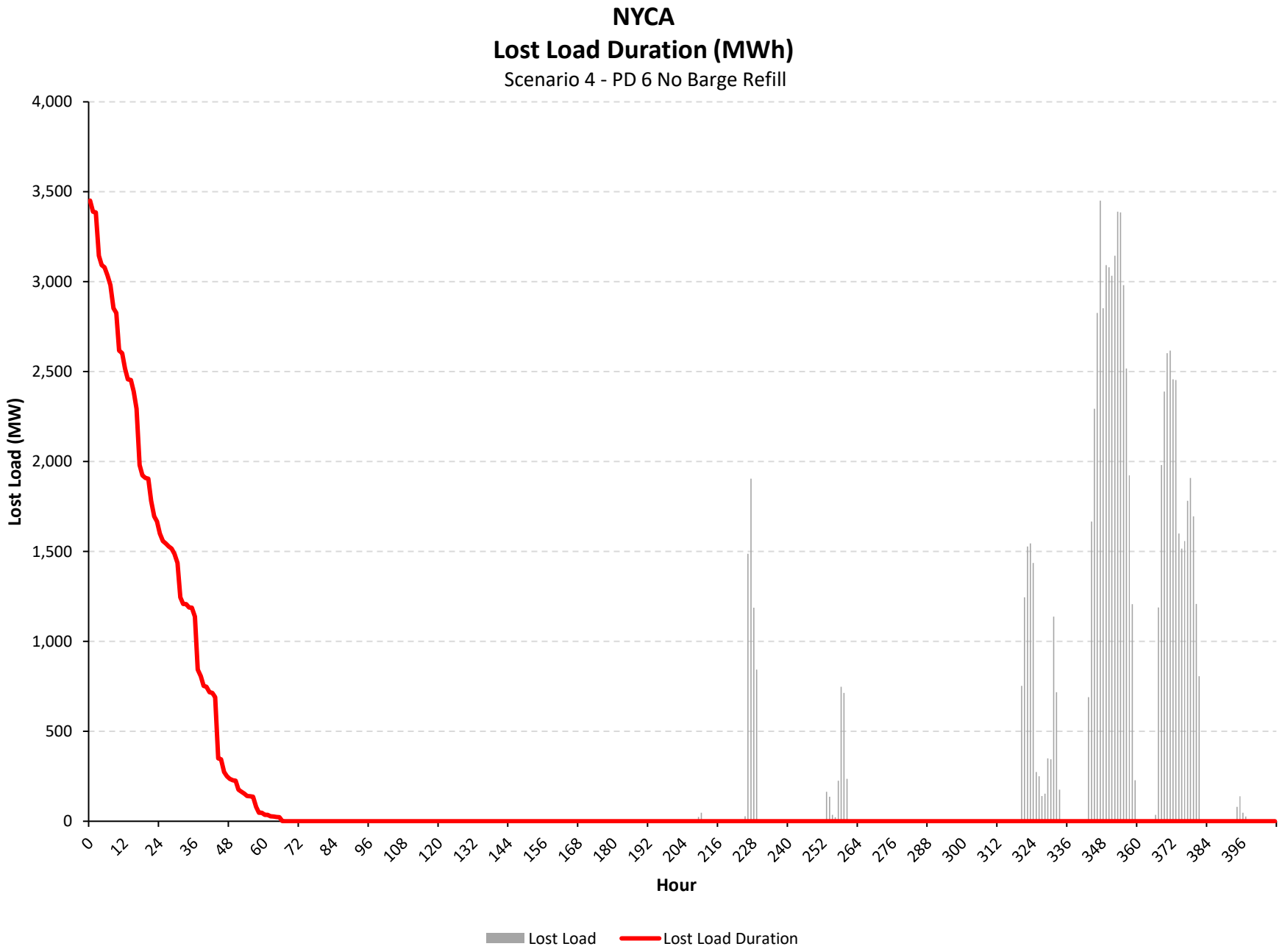
Scenario 4 - PD 6 No Barge Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 4 - PD 6 No Barge Refill
Emergency Actions and Lost Load (MW)
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 4 - PD 6 No Barge Refill
Lost Load (MW)
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

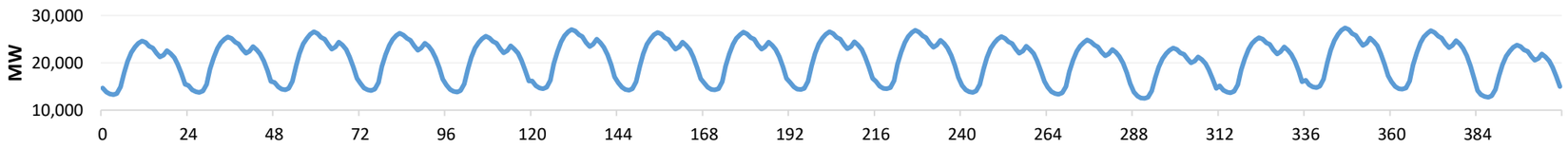
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 7 No Refill (Winter 2026/2027)

Hourly Results Summary

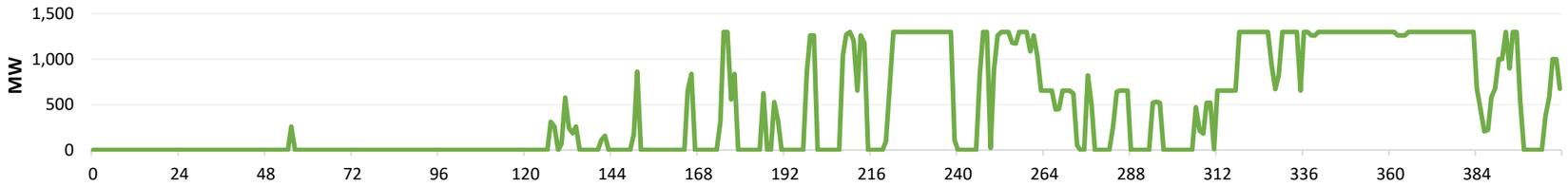
Case Name: Scenario 4 - PD 7 No Refill

Load During Modeling Period



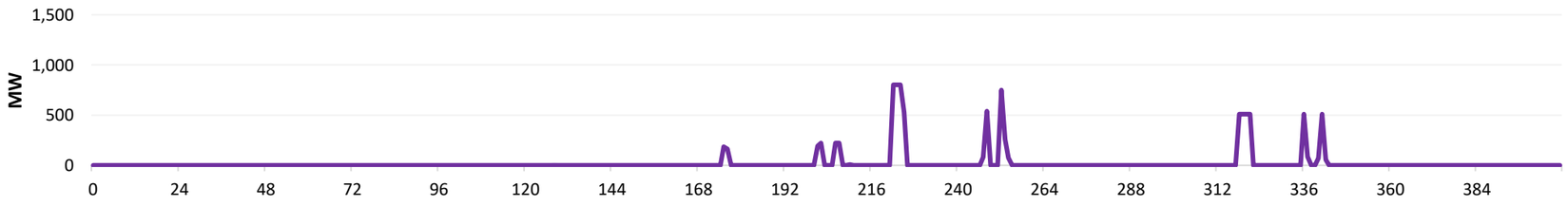
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



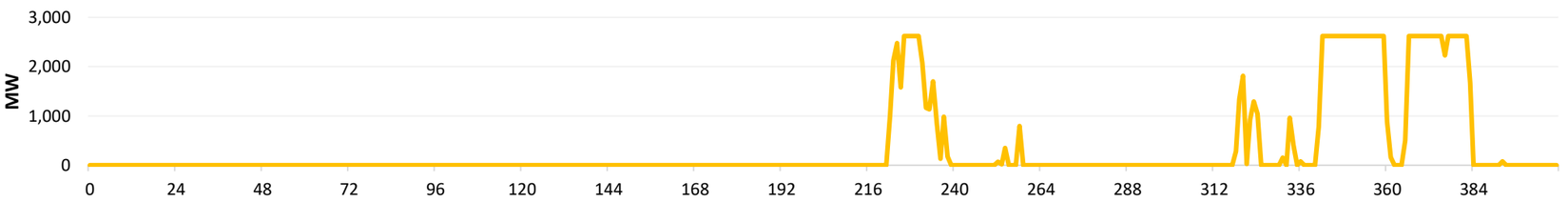
Export Reductions	
Total Hrs.	186
Total MWh	179,151
Avg. MW	439.1

SCR/EDRP Deployed During Modeling Period



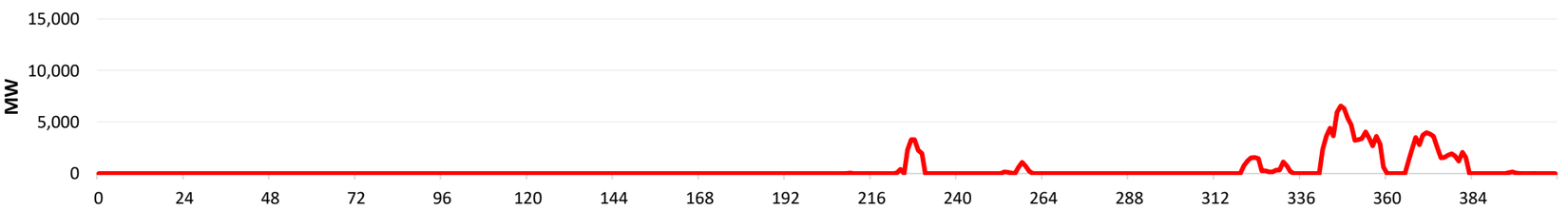
SCR Deployment	
Total Hrs.	25
Total MWh	9,120
Avg. MW	22.4

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	73
Total MWh	133,430
Avg. MW	327.0
First Hour with Viol.	202

Loss of Load During Modeling Period



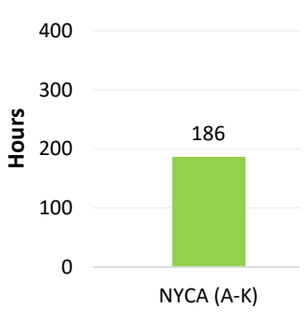
Loss of Load	
Total Hrs.	72
Total MWh	137,739
Avg. MW	337.6
First Hour with Losses	209

Full Period Results Summary

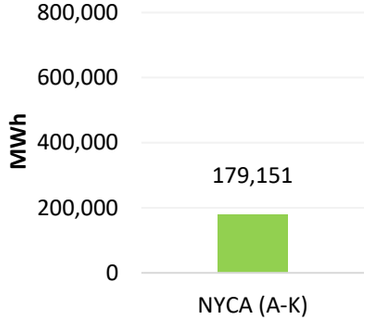
Case Name: Scenario 4 - PD 7 No Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

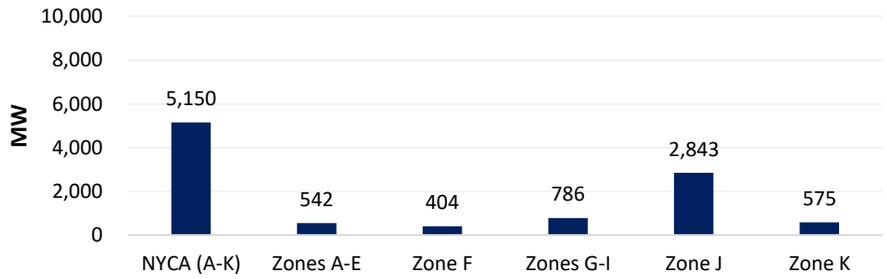
Hours Exports Reduced



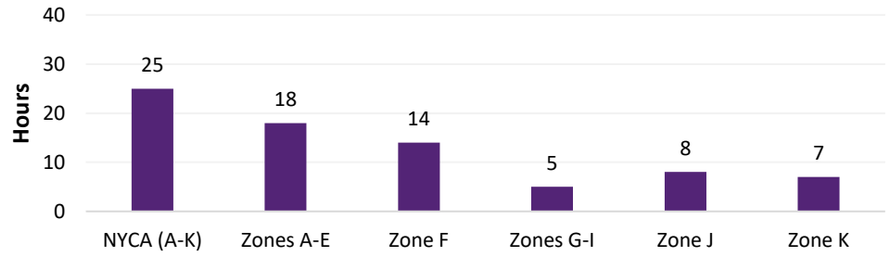
Total MWh of Exports Reduced



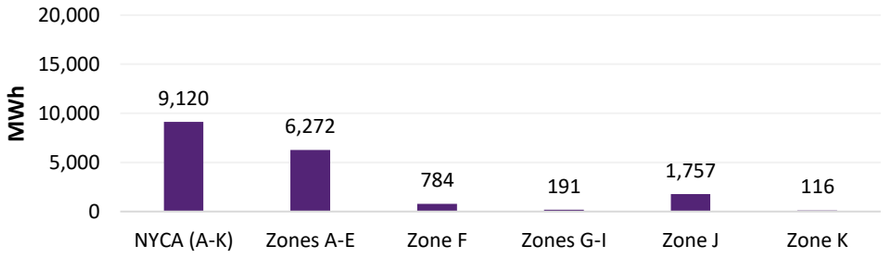
Average Capacity Not Available Due to Exhausted Fuel Inventory



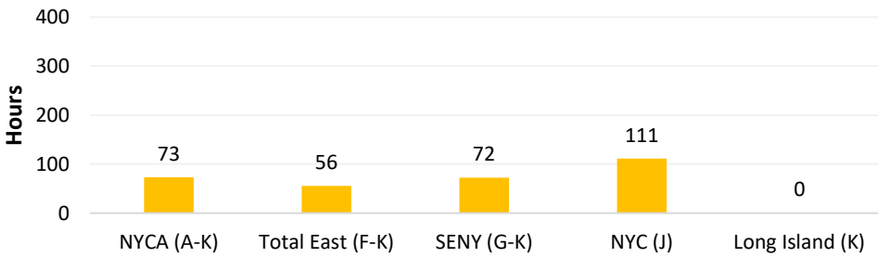
Hours SCR/EDRP Deployed



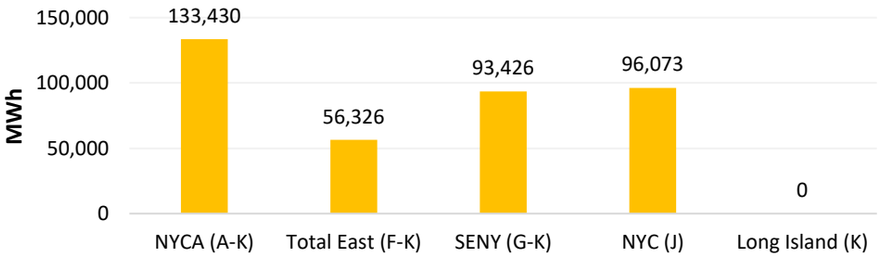
Total MWh SCR/EDRP Deployed



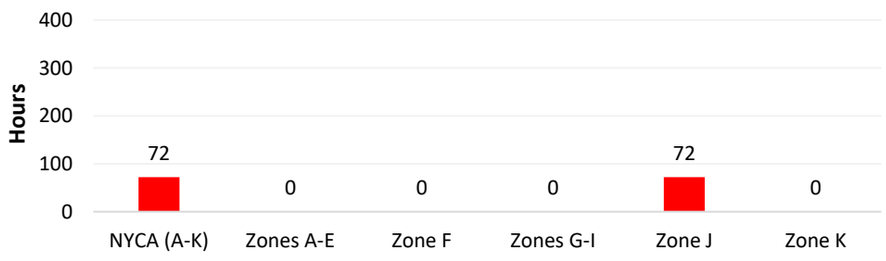
Hours with Reserve Violations



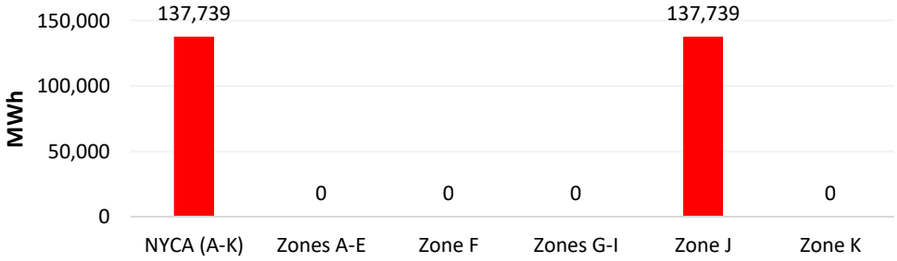
Total MWh of Reserve Violations

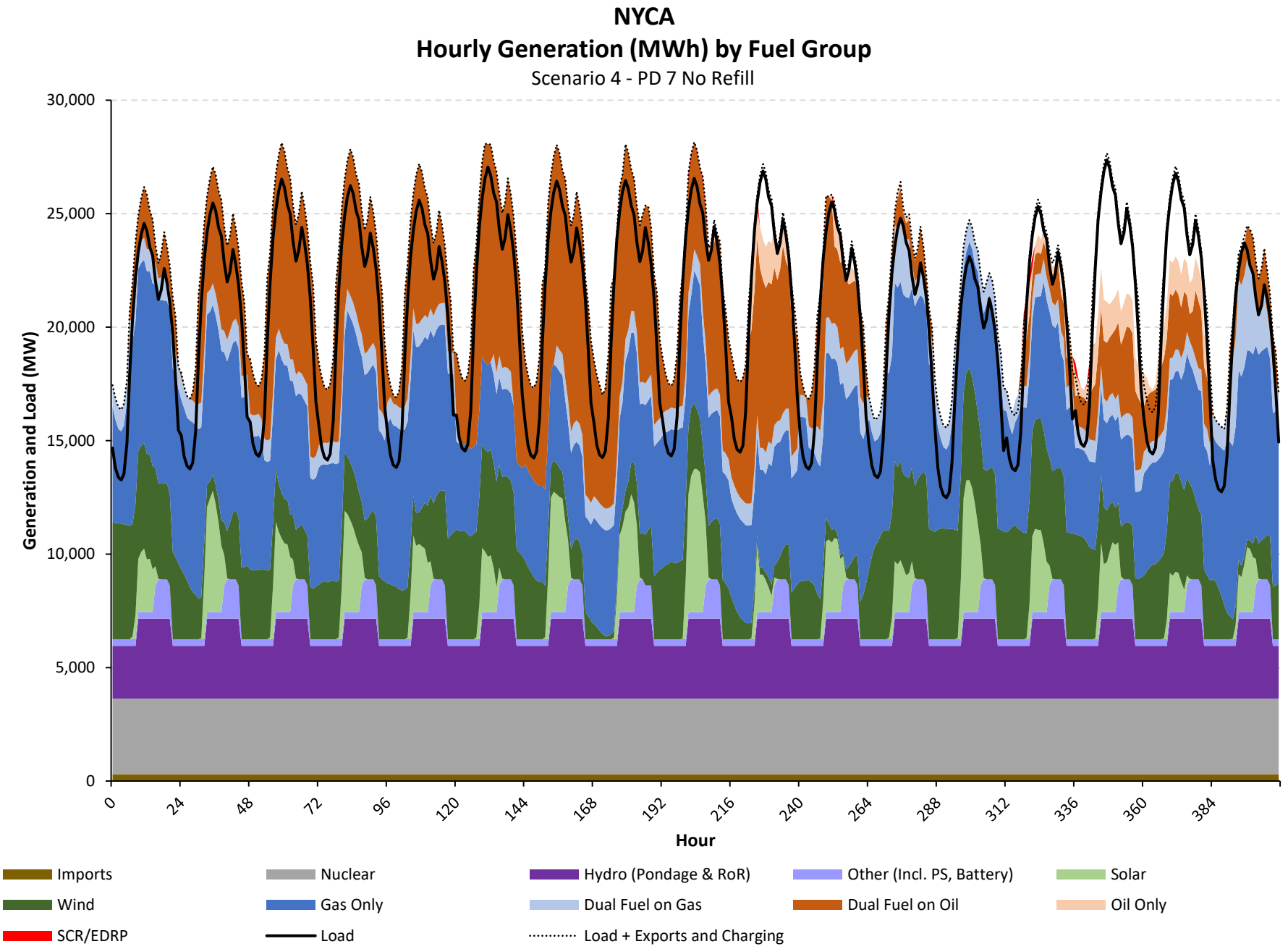


Hours with Loss of Load

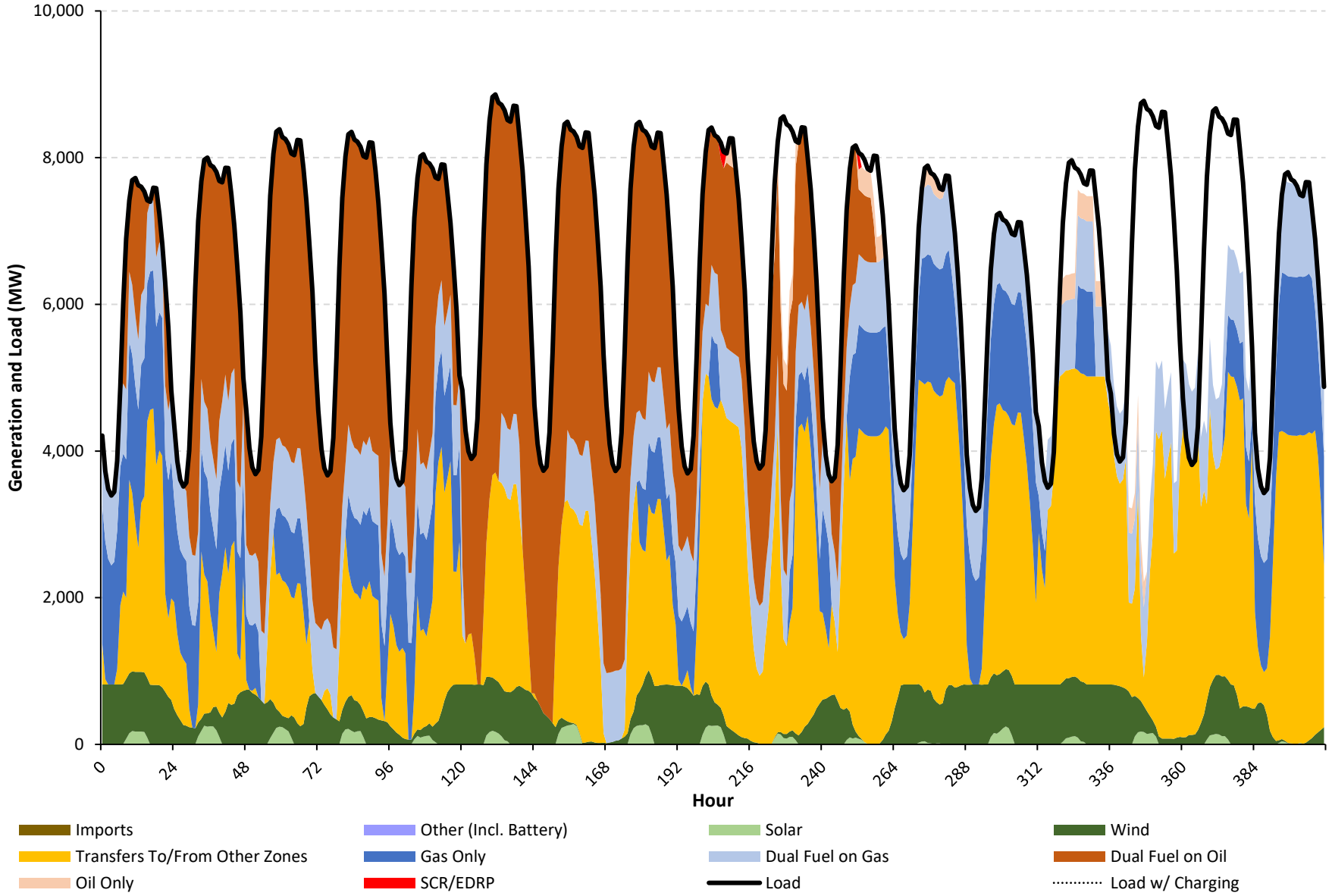


Total MWh of Lost Load

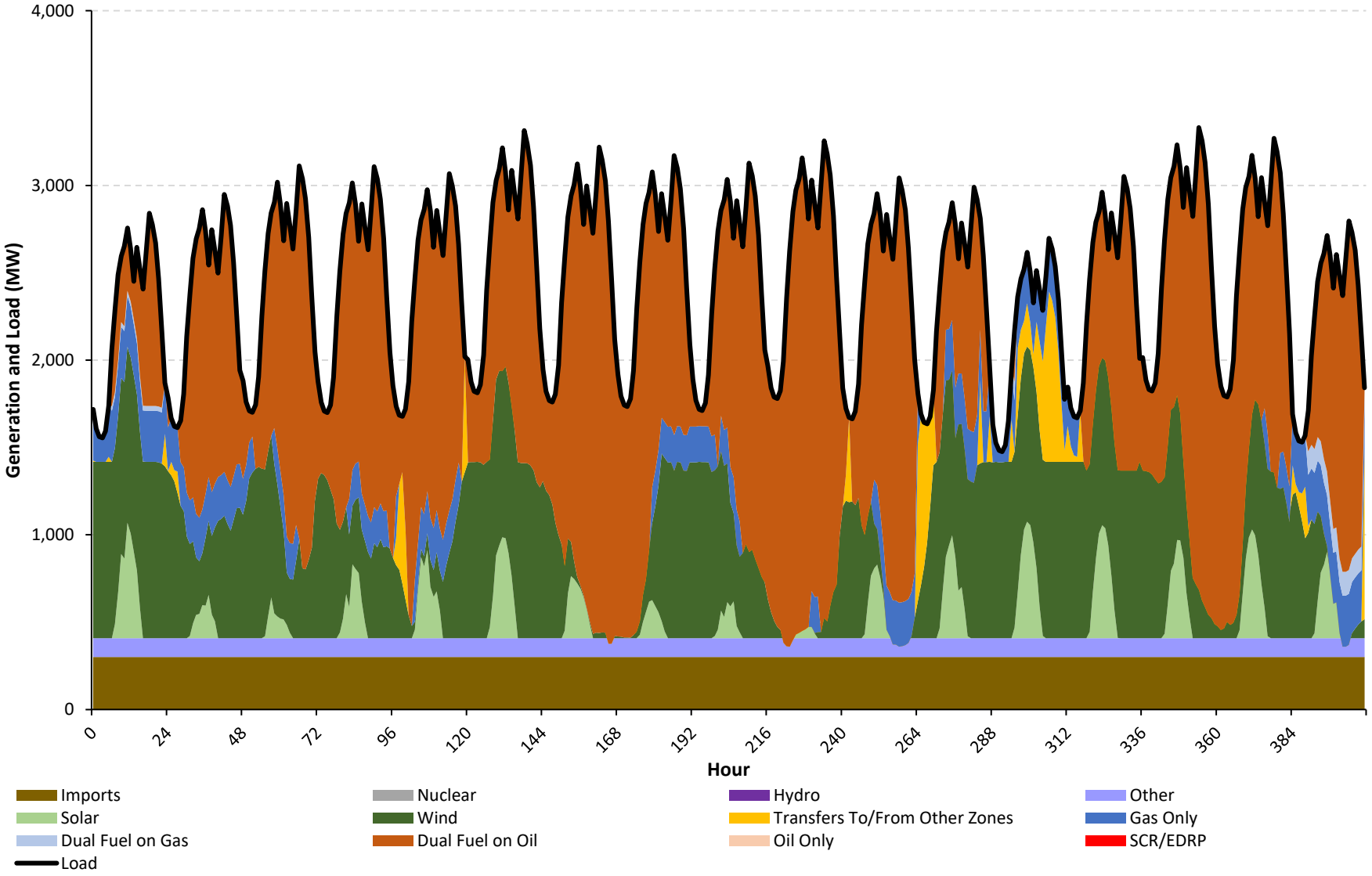



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 4 - PD 7 No Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 7 No Refill



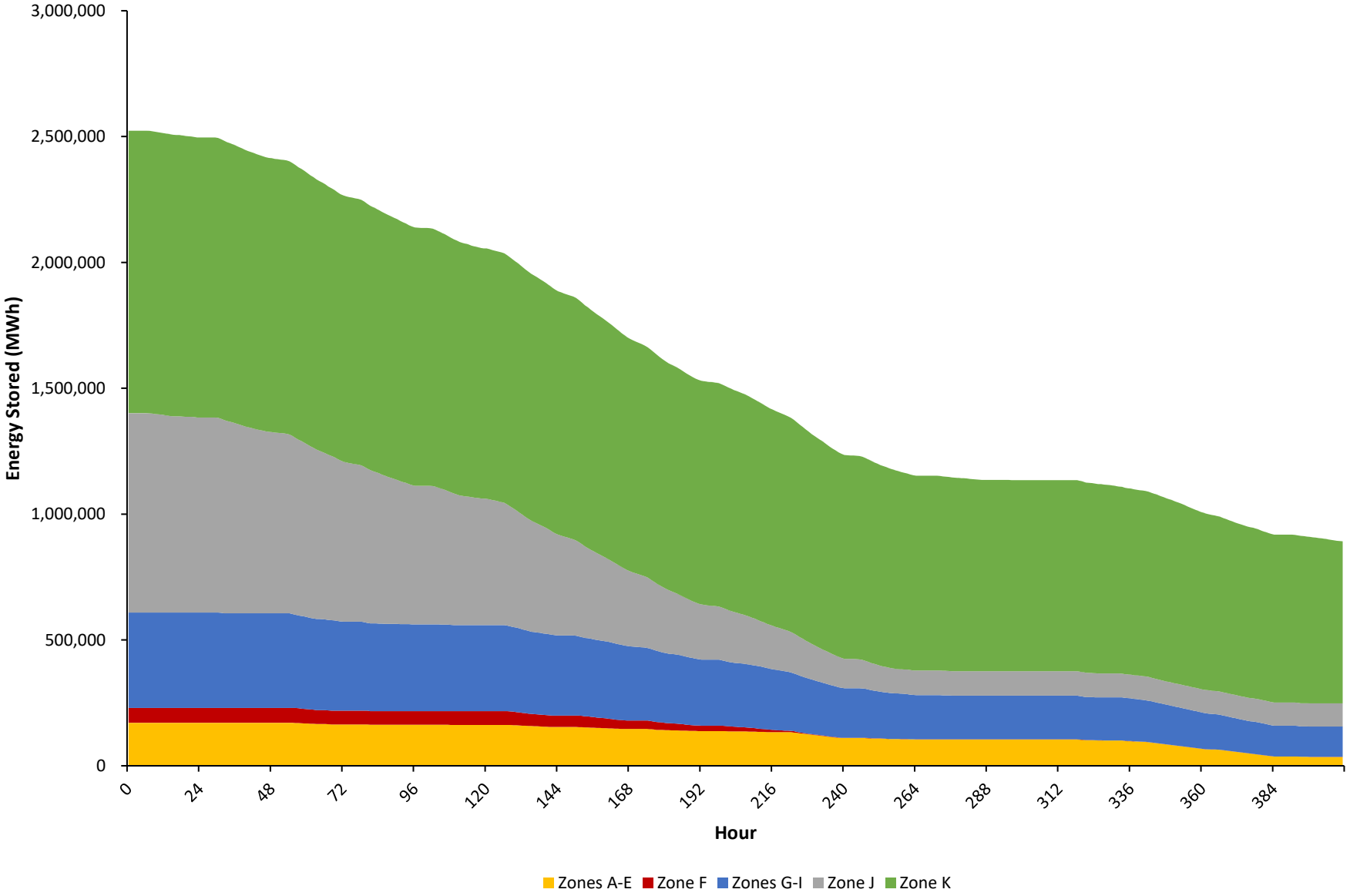
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 7 No Refill

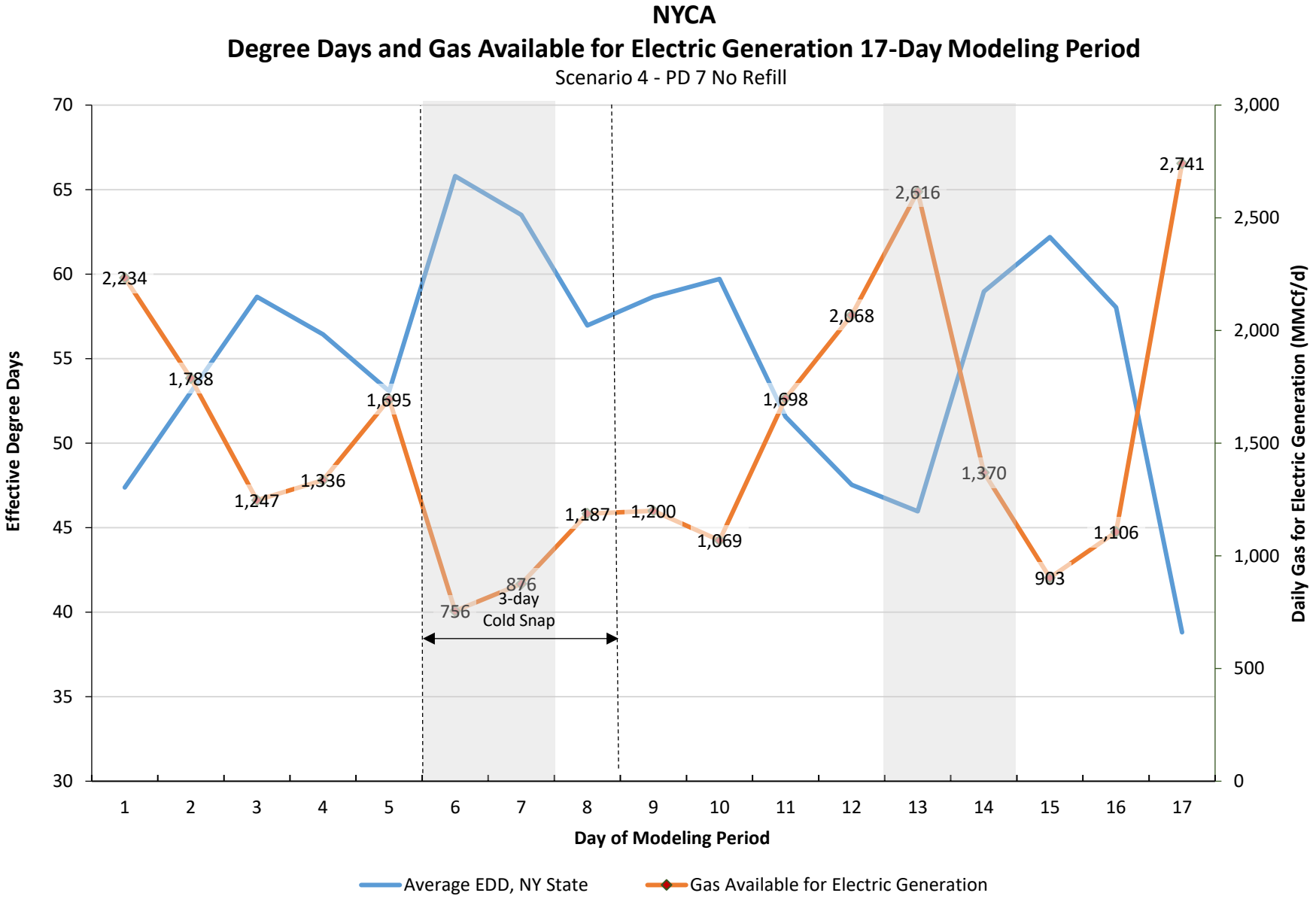


NYCA

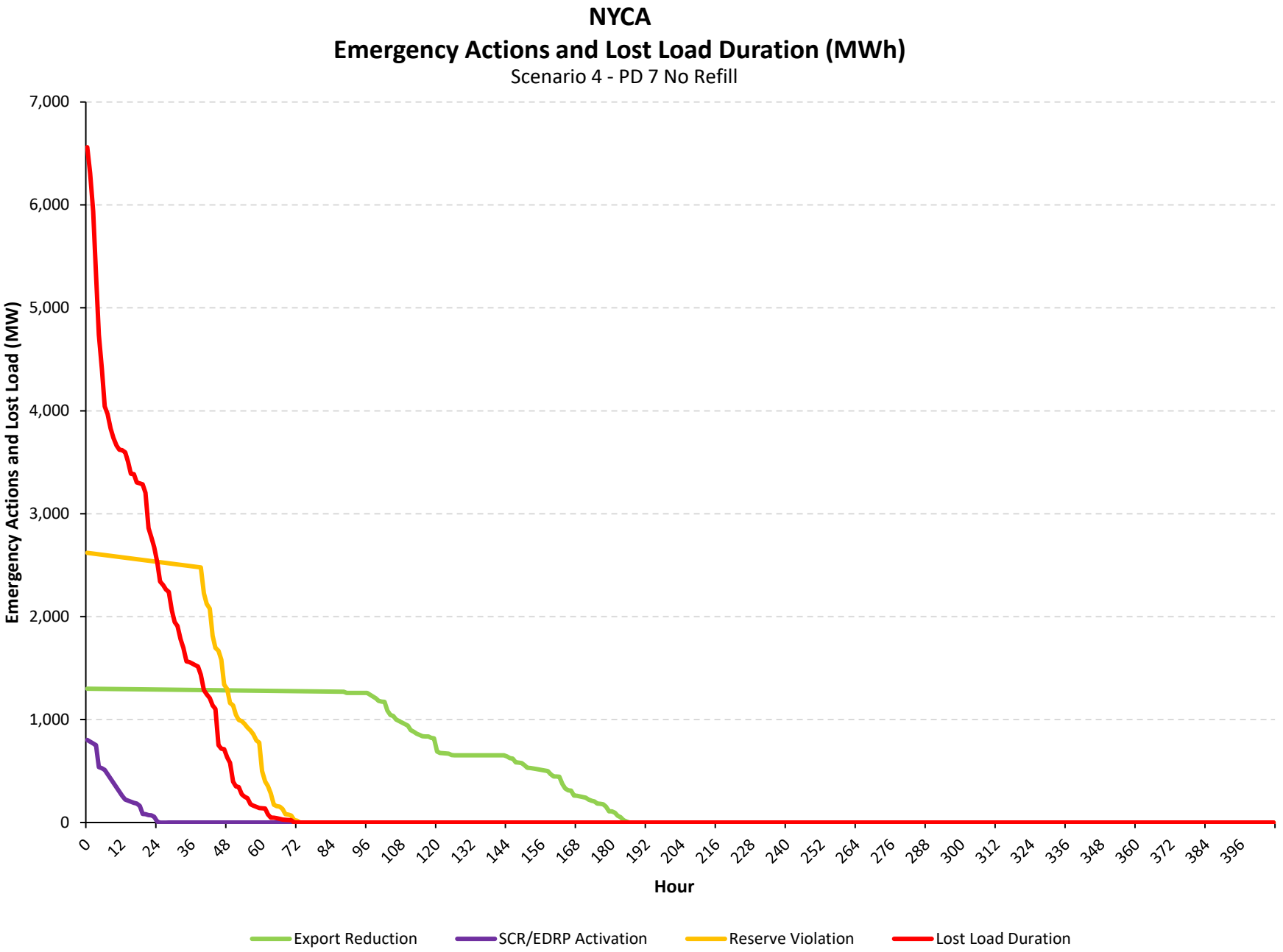
Quantity of Stored Fuel for Oil and Dual Fuel Units

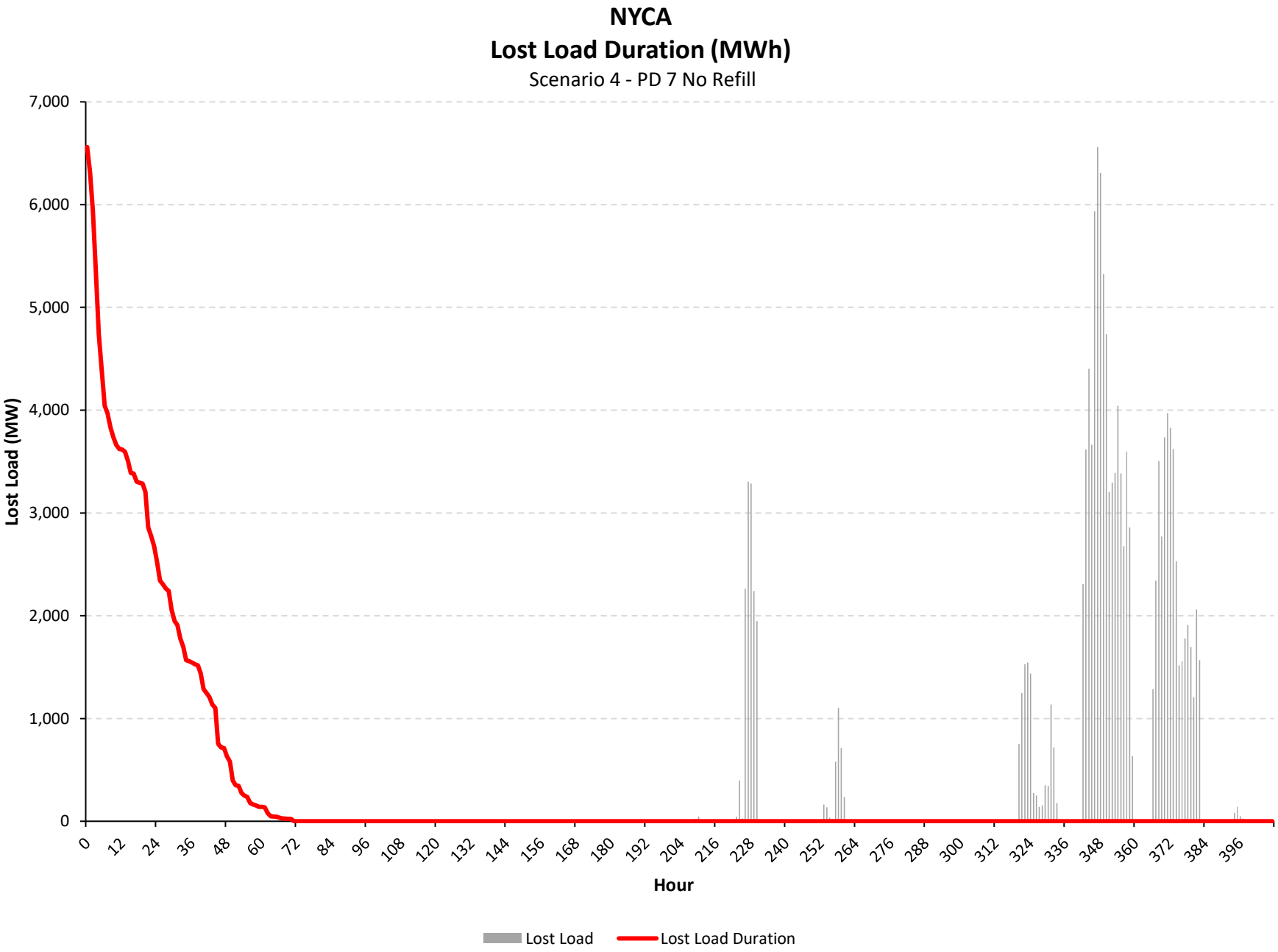
Scenario 4 - PD 7 No Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 4 - PD 7 No Refill
Emergency Actions and Lost Load (MW)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 4 - PD 7 No Refill
Lost Load (MW)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

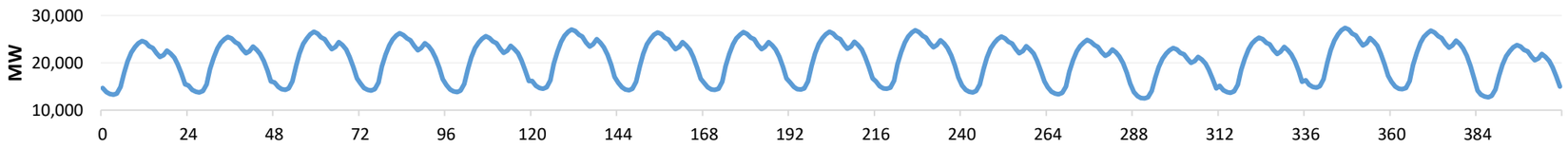
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 8 Non-Firm Gas Unavailable (F-K) (Winter 2026/2027)

Hourly Results Summary

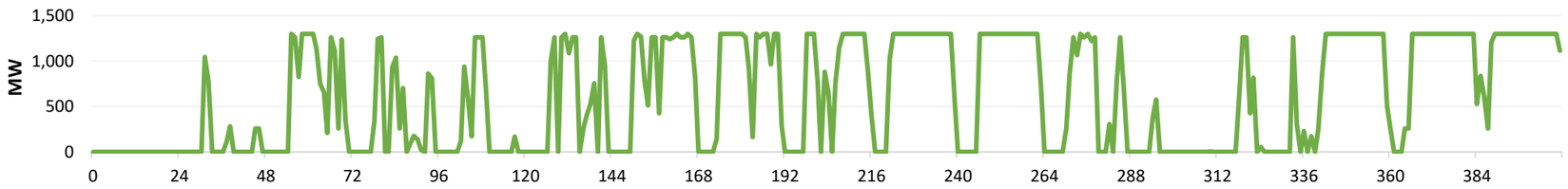
Case Name: Scenario 4 - PD 8 Non-Firm Gas Unavailable (F-K)

Load During Modeling Period



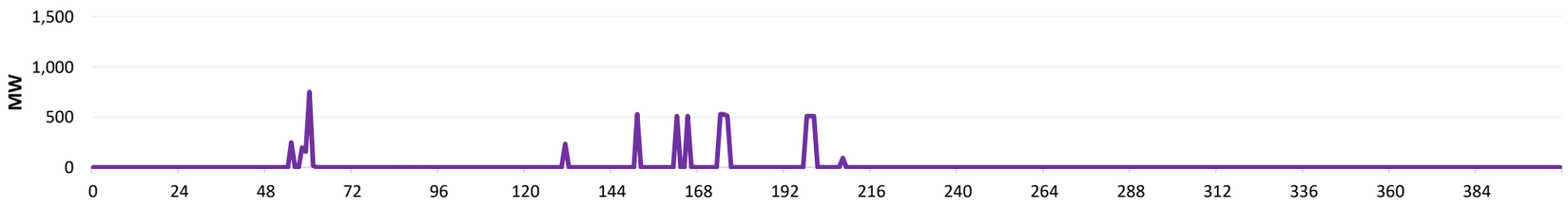
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



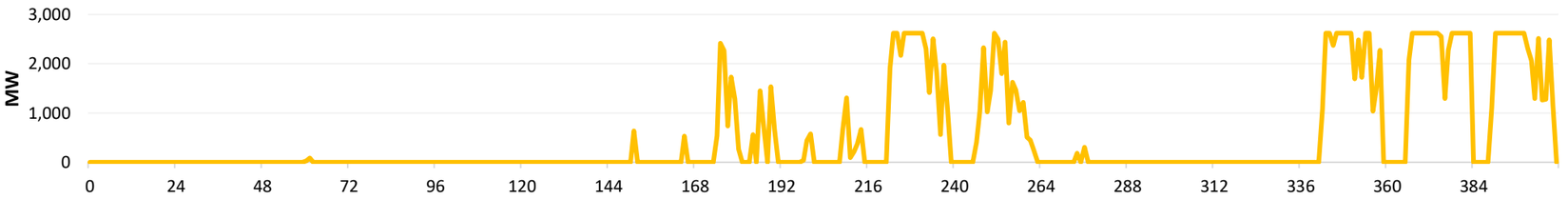
Export Reductions	
Total Hrs.	240
Total MWh	247,120
Avg. MW	605.7

SCR/EDRP Deployed During Modeling Period



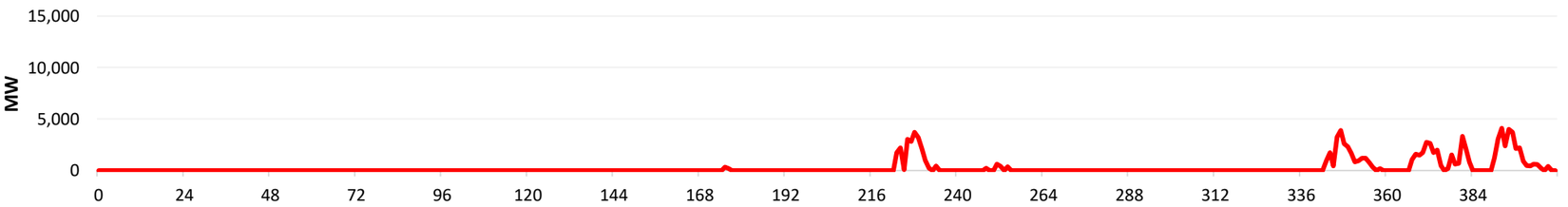
SCR Deployment	
Total Hrs.	16
Total MWh	6,333
Avg. MW	15.5

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	114
Total MWh	201,493
Avg. MW	493.9
First Hour with Viol.	60

Loss of Load During Modeling Period

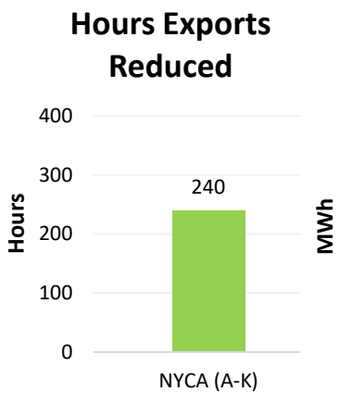


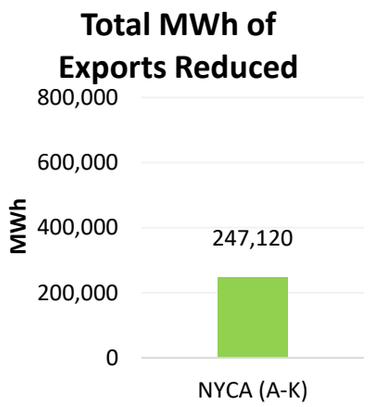
Loss of Load	
Total Hrs.	63
Total MWh	96,489
Avg. MW	236.5
First Hour with Losses	175

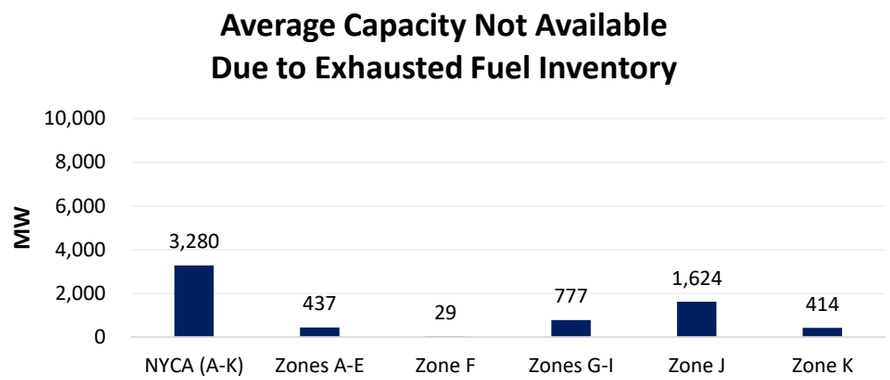
Full Period Results Summary

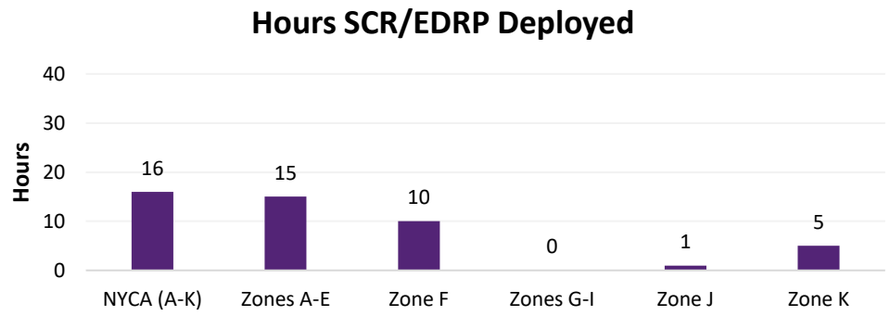
Case Name: Scenario 4 - PD 8 Non-Firm Gas Unavailable (F-K)

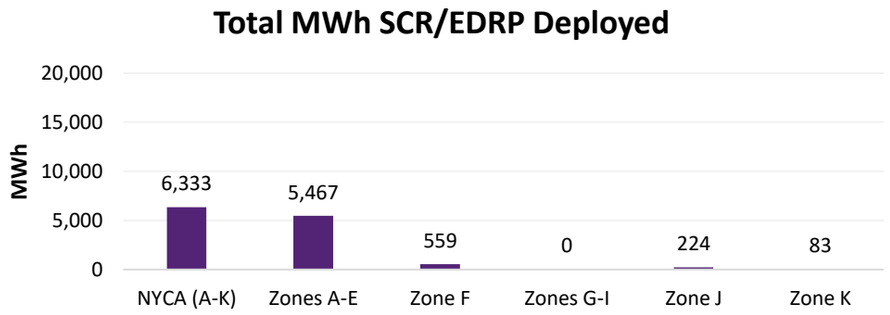
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

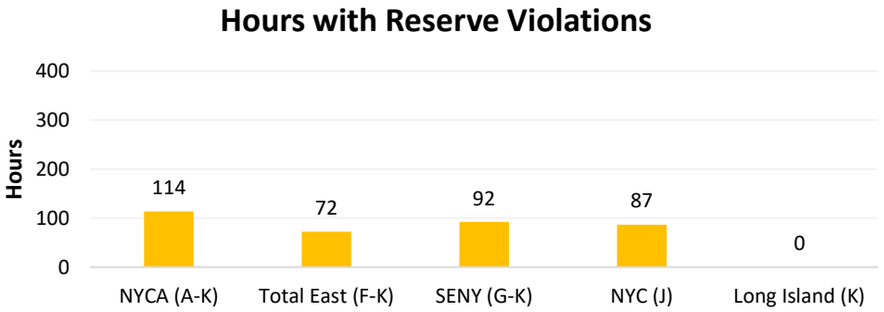


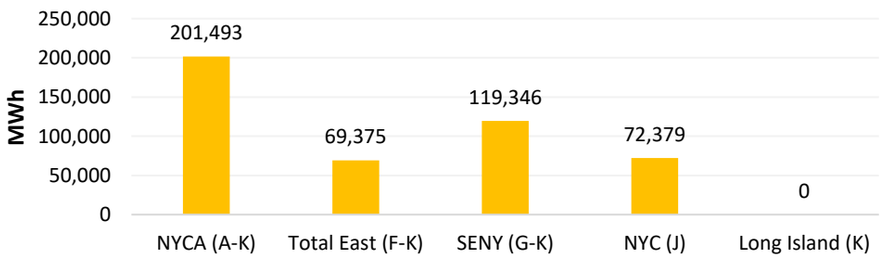


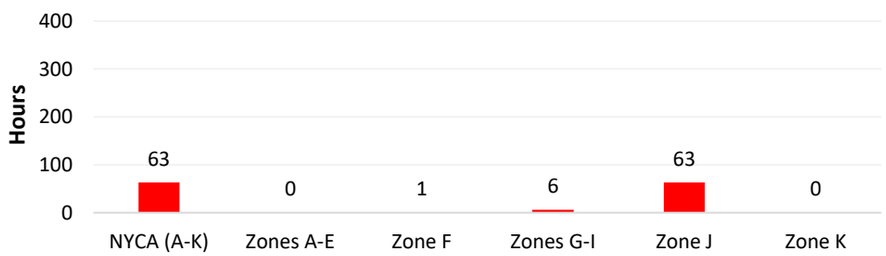


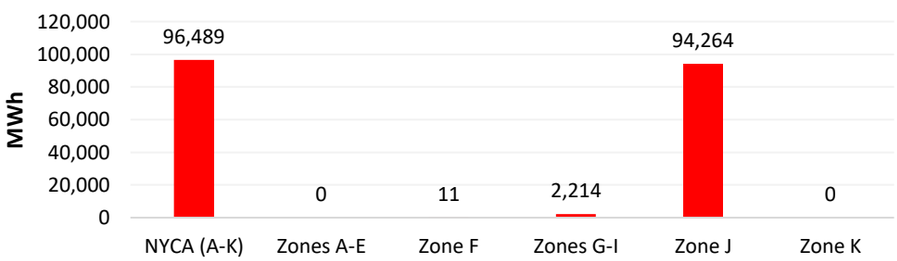


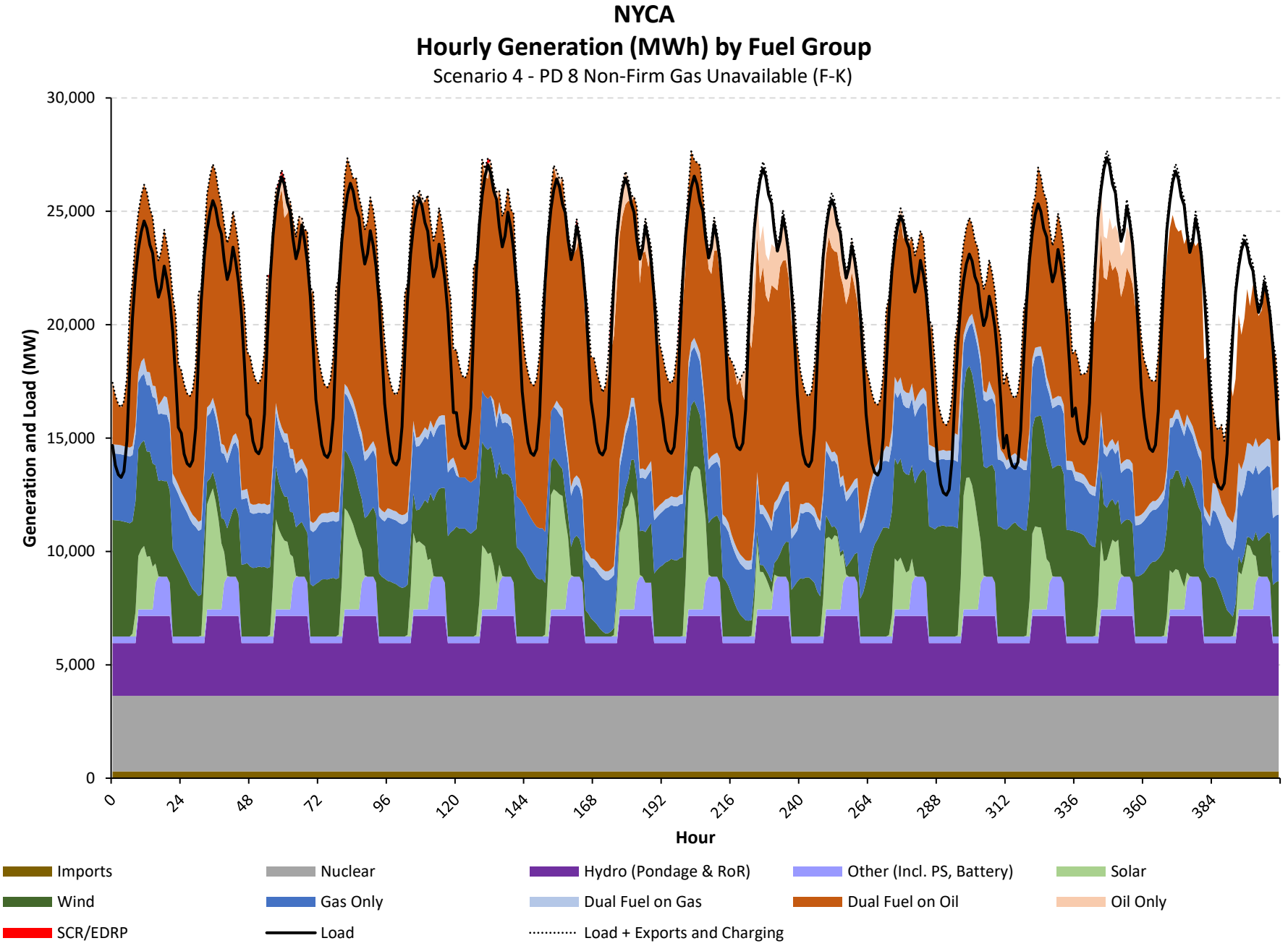




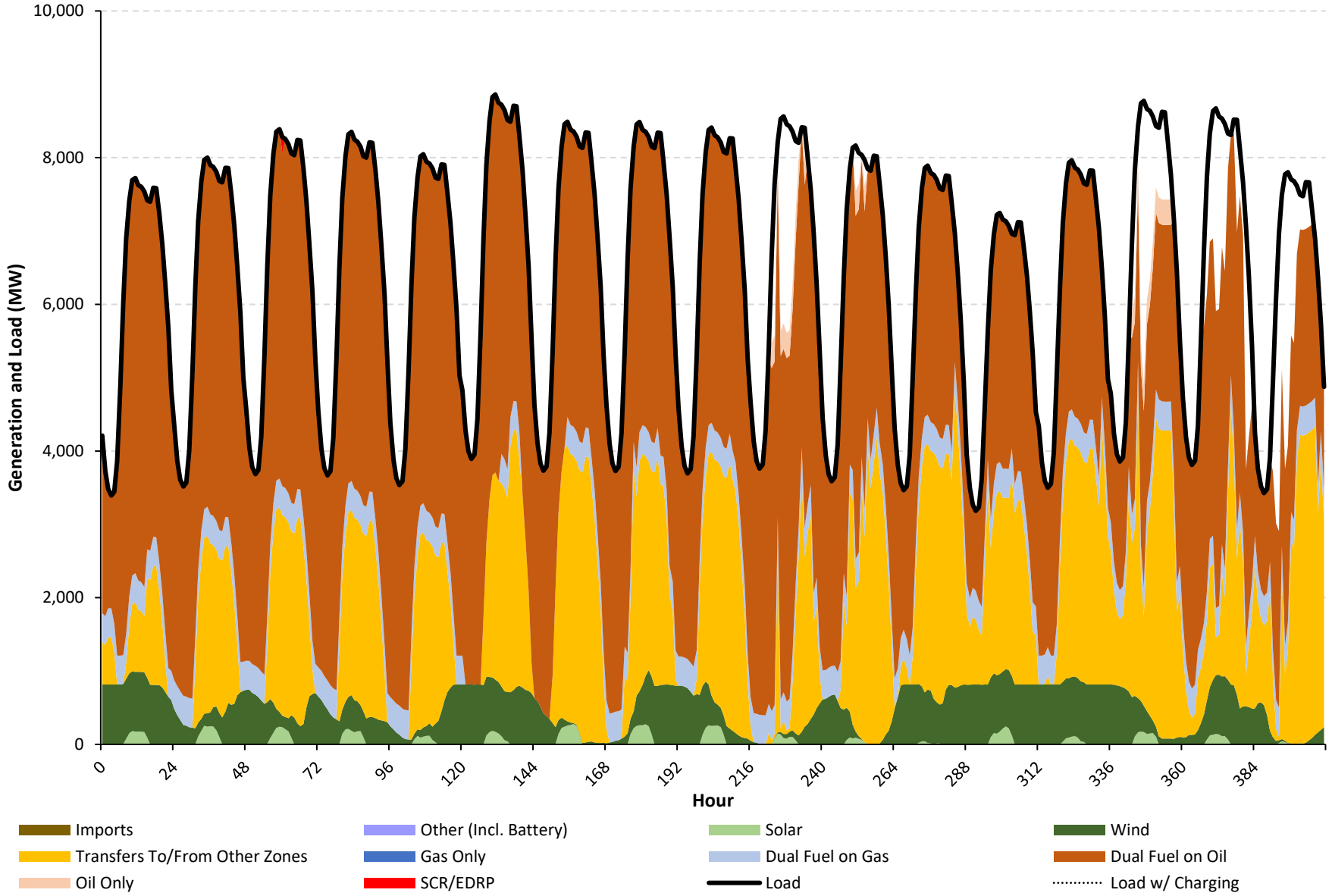




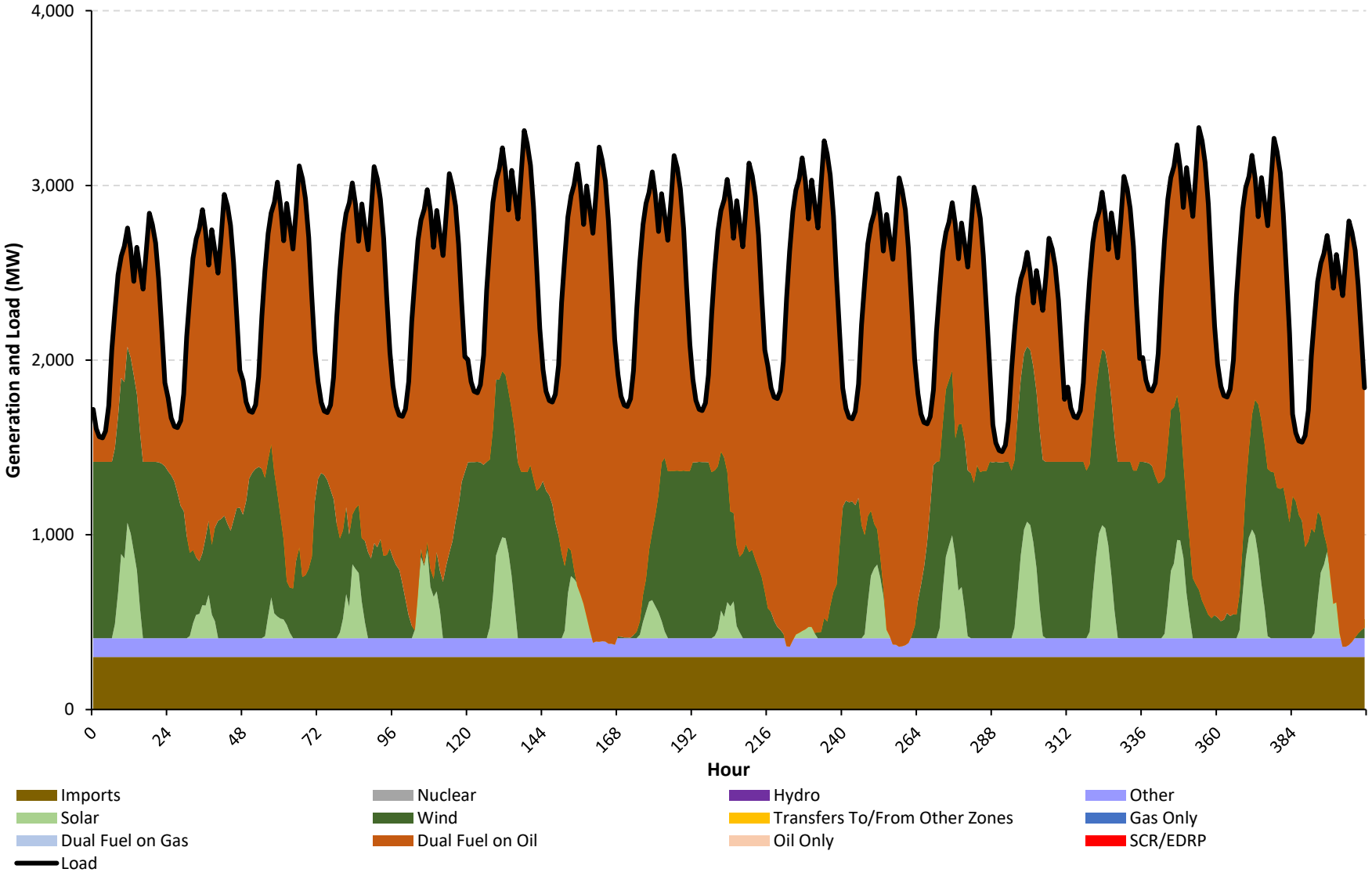



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 4 - PD 8 Non-Firm Gas Unavailable (F-K)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 8 Non-Firm Gas Unavailable (F-K)



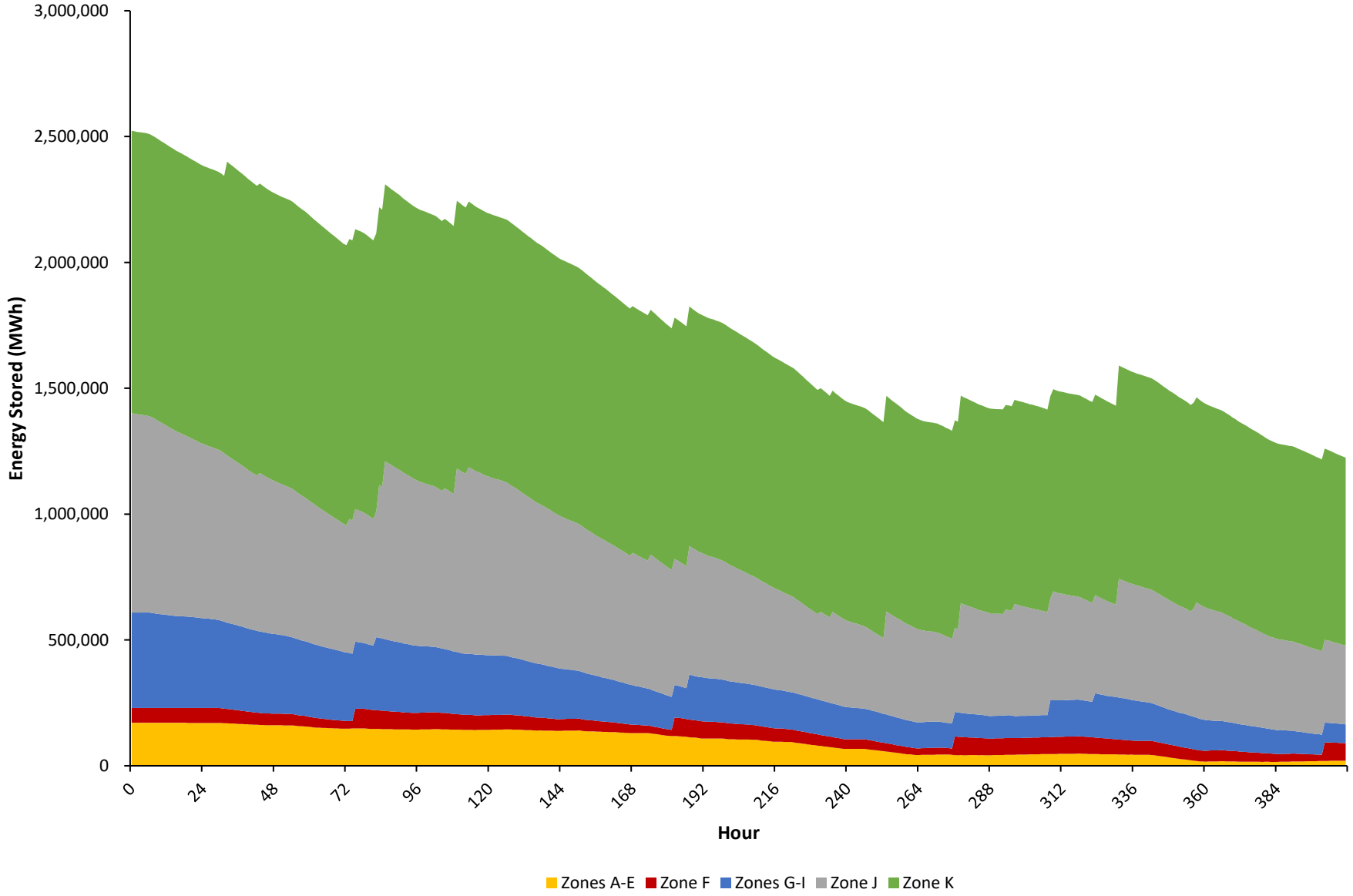
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 8 Non-Firm Gas Unavailable (F-K)

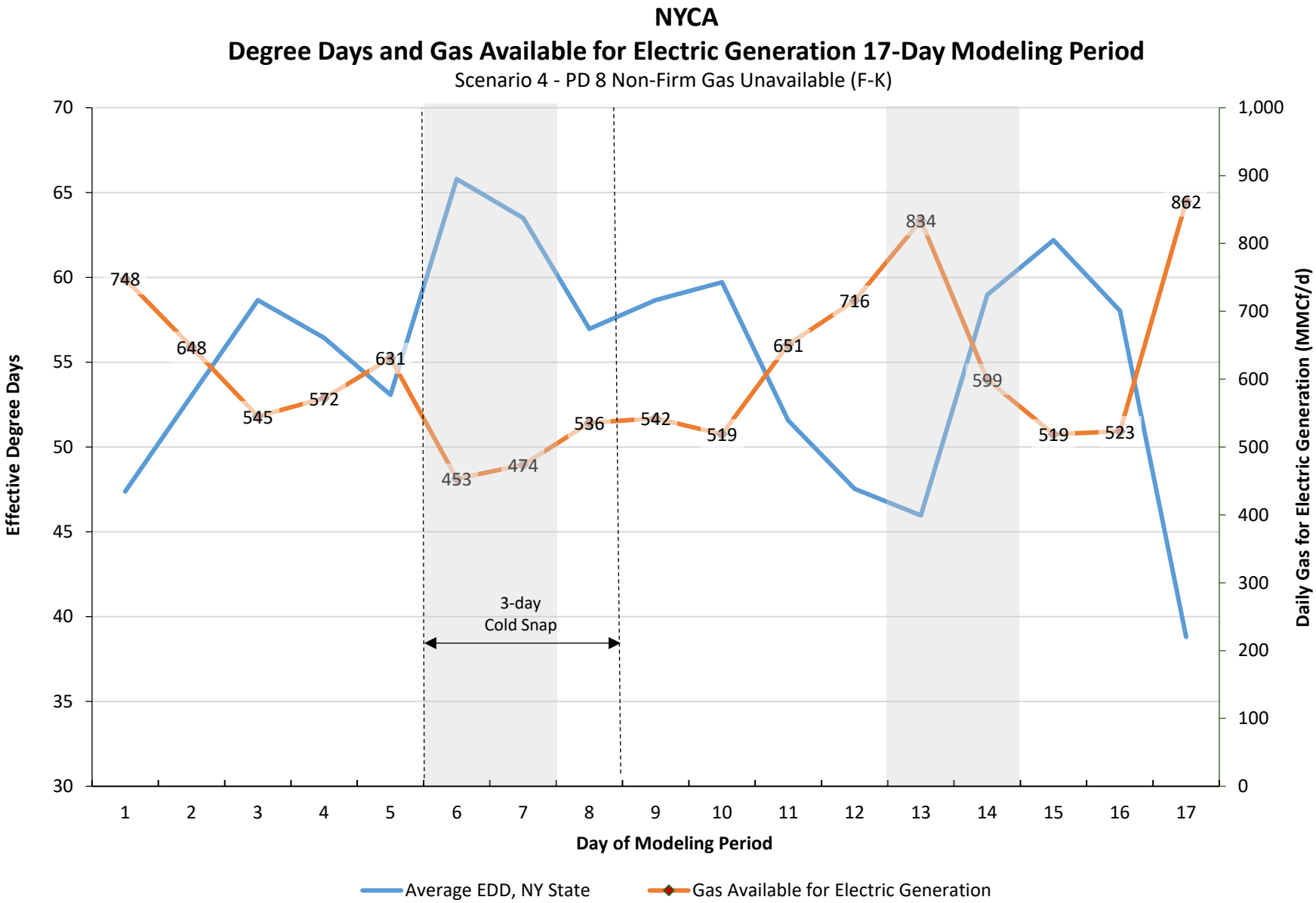


NYCA

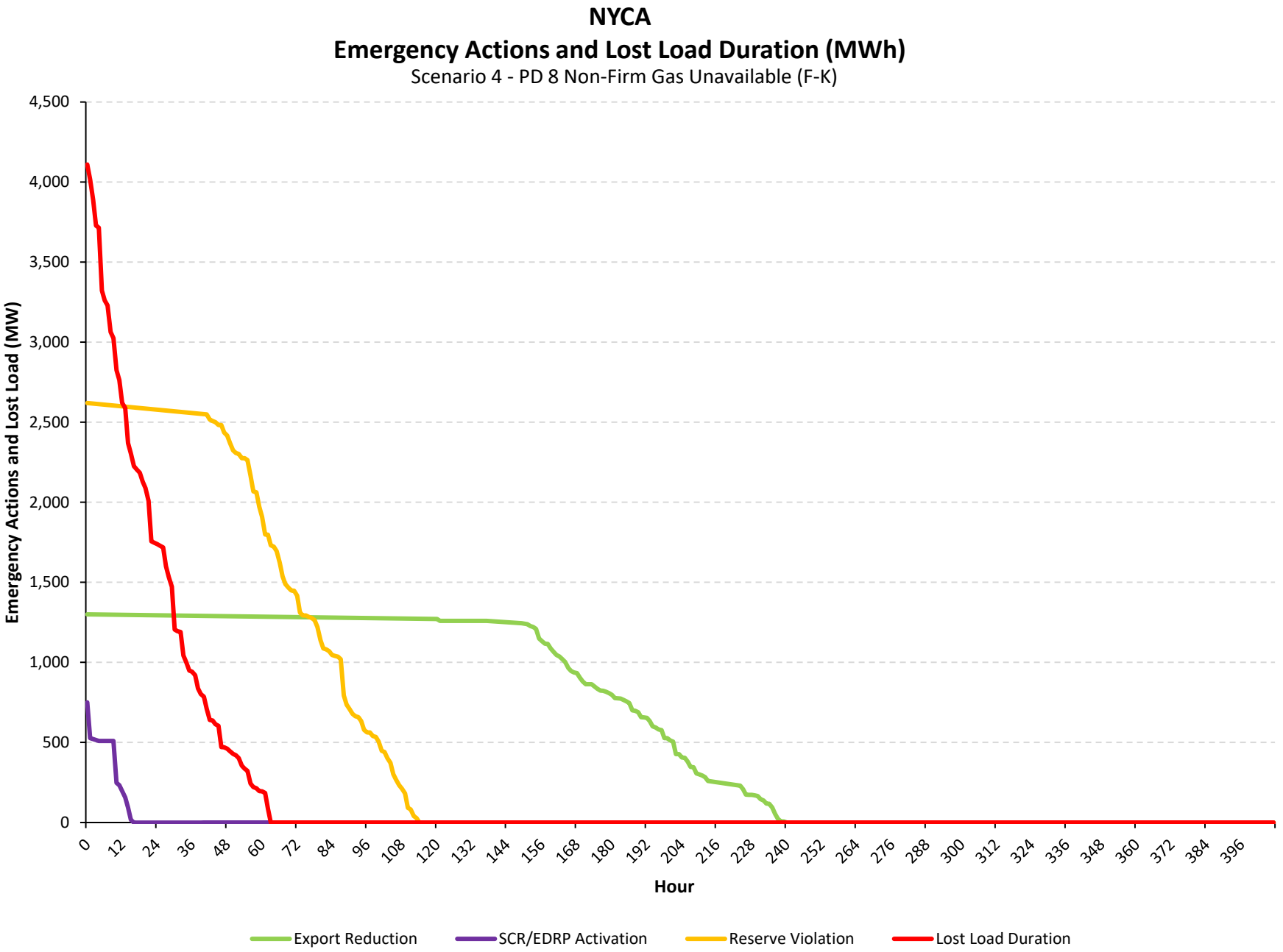
Quantity of Stored Fuel for Oil and Dual Fuel Units

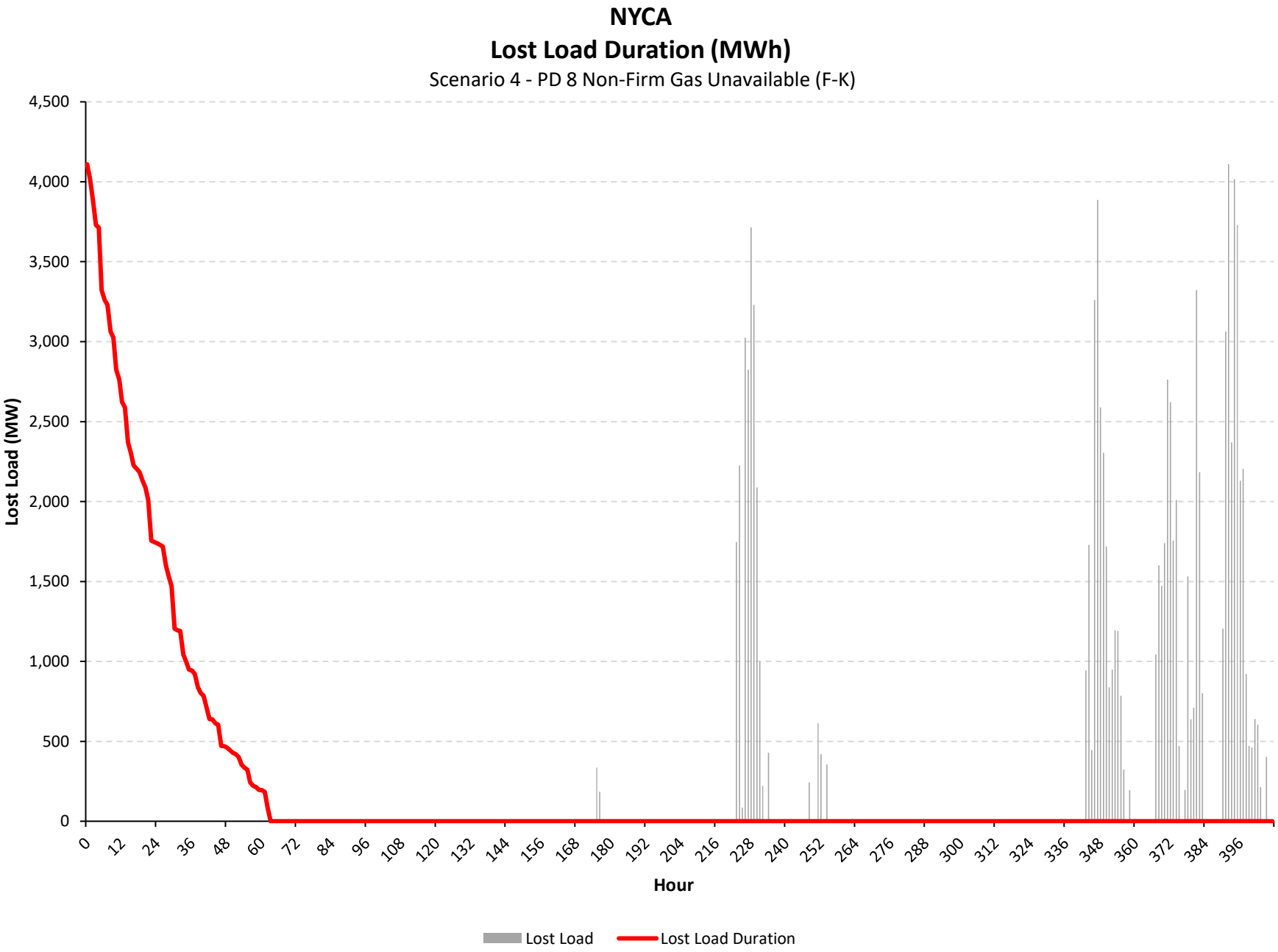
Scenario 4 - PD 8 Non-Firm Gas Unavailable (F-K)





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 4 - PD 8 Non-Firm Gas Unavailable (F-K)
Emergency Actions and Lost Load (MW)
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 4 - PD 8 Non-Firm Gas Unavailable (F-K)
Lost Load (MW)
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

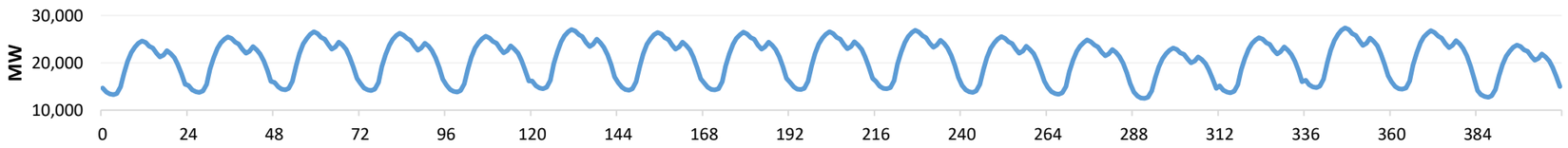
Case: Scenario 4 - PD 9 Non-Firm Gas Unavailable (NYCA) (Winter 2026/2027)

Hourly Results Summary

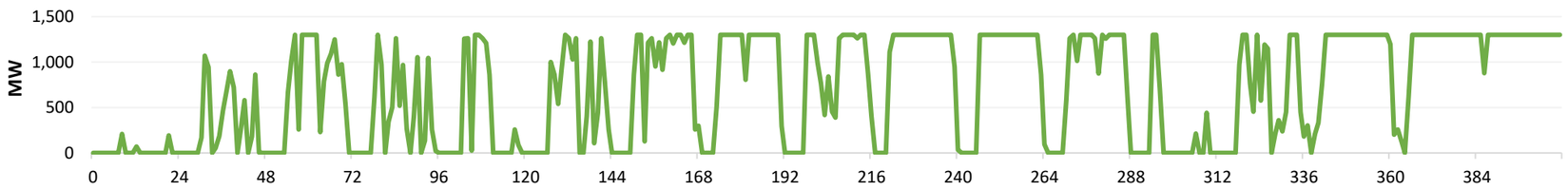
Case Name: Scenario 4 - PD 9 Non-Firm Gas Unavailable (NYCA)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Load During Modeling Period

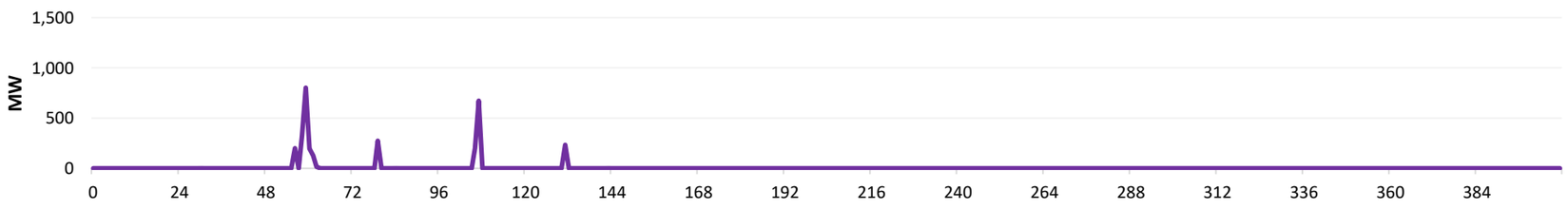


Export to ISO-NE Reduction During Modeling Period



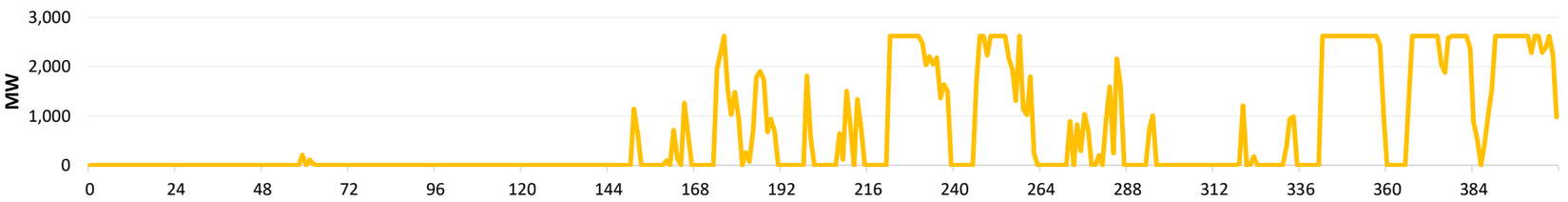
Export Reductions	
Total Hrs.	280
Total MWh	285,498
Avg. MW	699.7

SCR/EDRP Deployed During Modeling Period



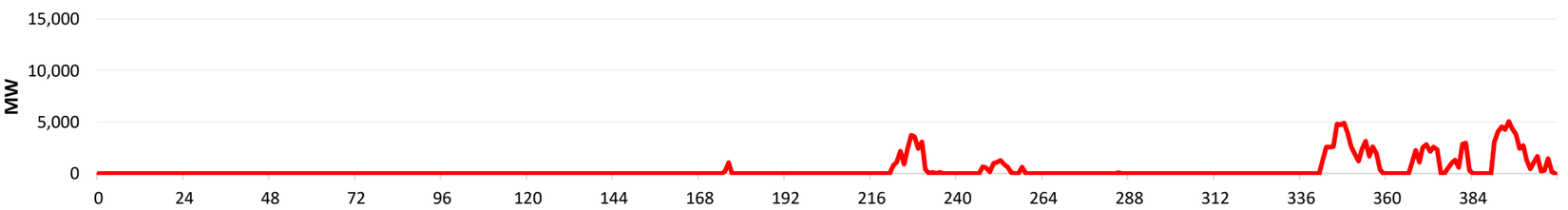
SCR Deployment	
Total Hrs.	10
Total MWh	3,046
Avg. MW	7.5

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	147
Total MWh	260,953
Avg. MW	639.6
First Hour with Viol.	59

Loss of Load During Modeling Period



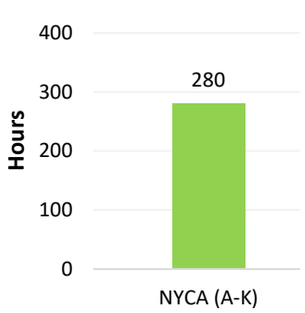
Loss of Load	
Total Hrs.	74
Total MWh	141,283
Avg. MW	346.3
First Hour with Losses	175

Full Period Results Summary

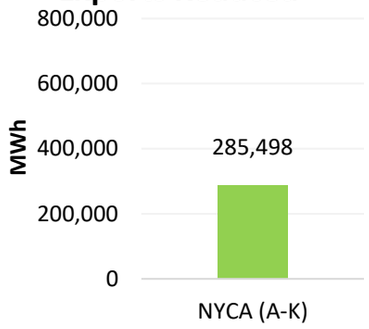
Case Name: Scenario 4 - PD 9 Non-Firm Gas Unavailable (NYCA)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

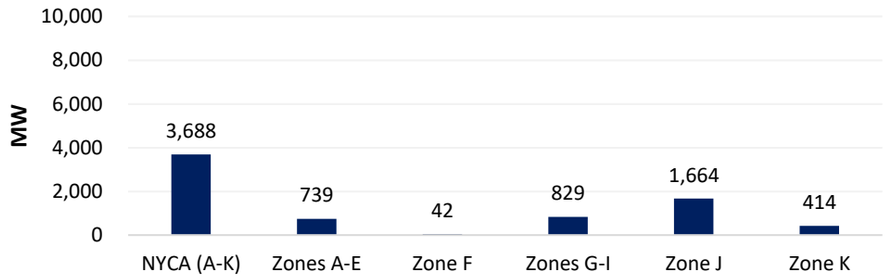
Hours Exports Reduced



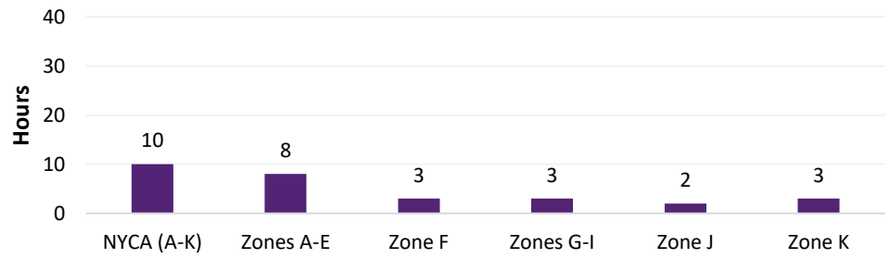
Total MWh of Exports Reduced



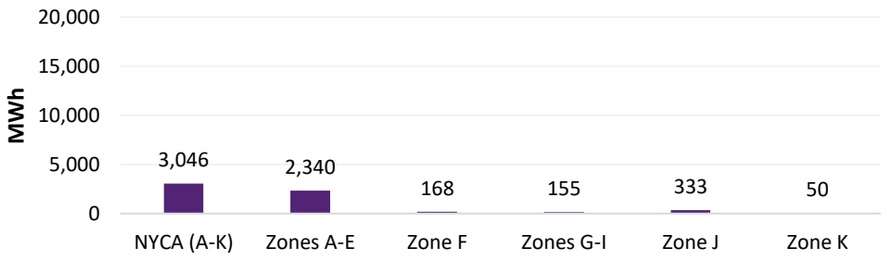
Average Capacity Not Available Due to Exhausted Fuel Inventory



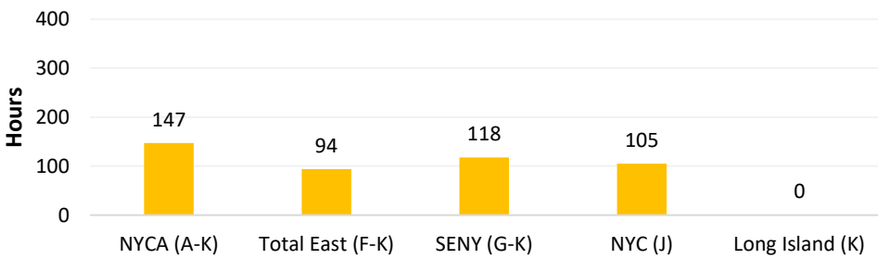
Hours SCR/EDRP Deployed



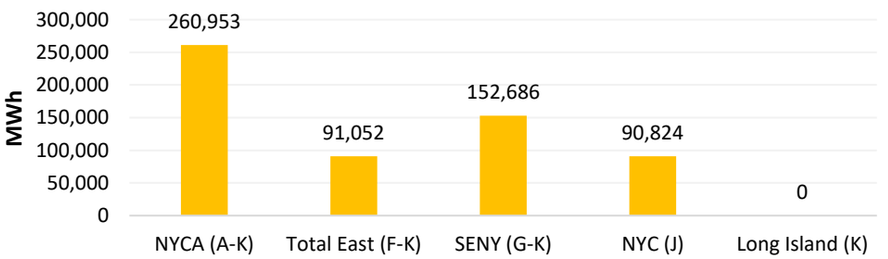
Total MWh SCR/EDRP Deployed



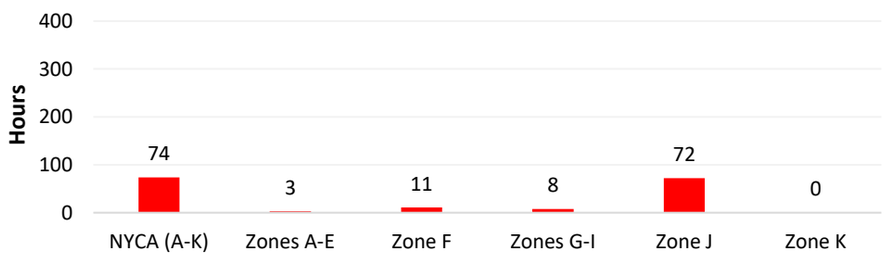
Hours with Reserve Violations



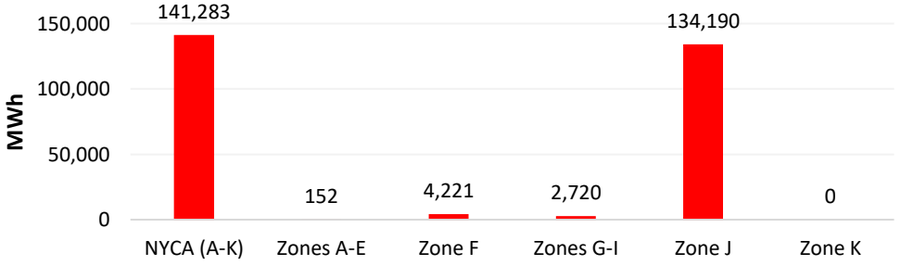
Total MWh of Reserve Violations

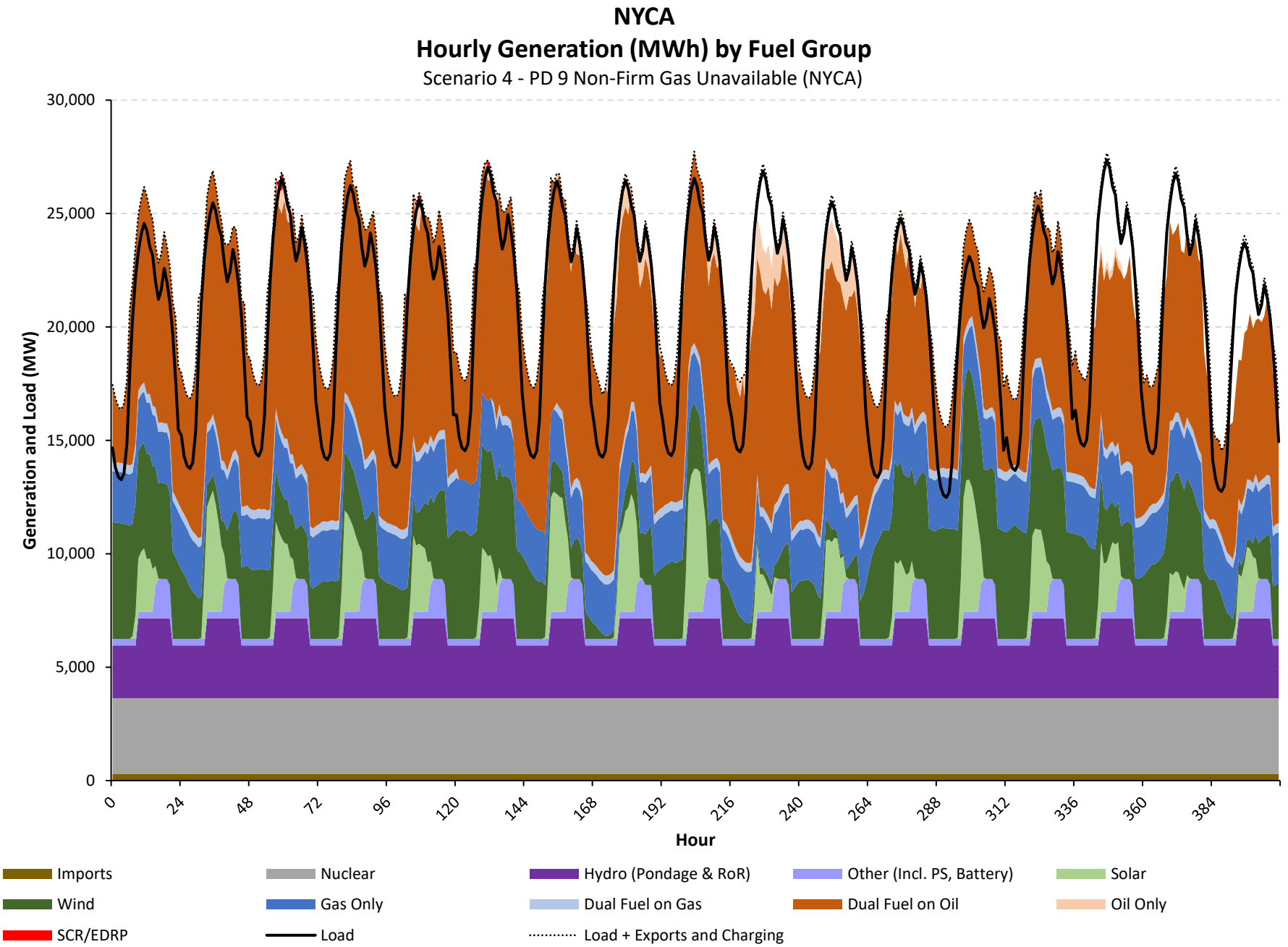


Hours with Loss of Load

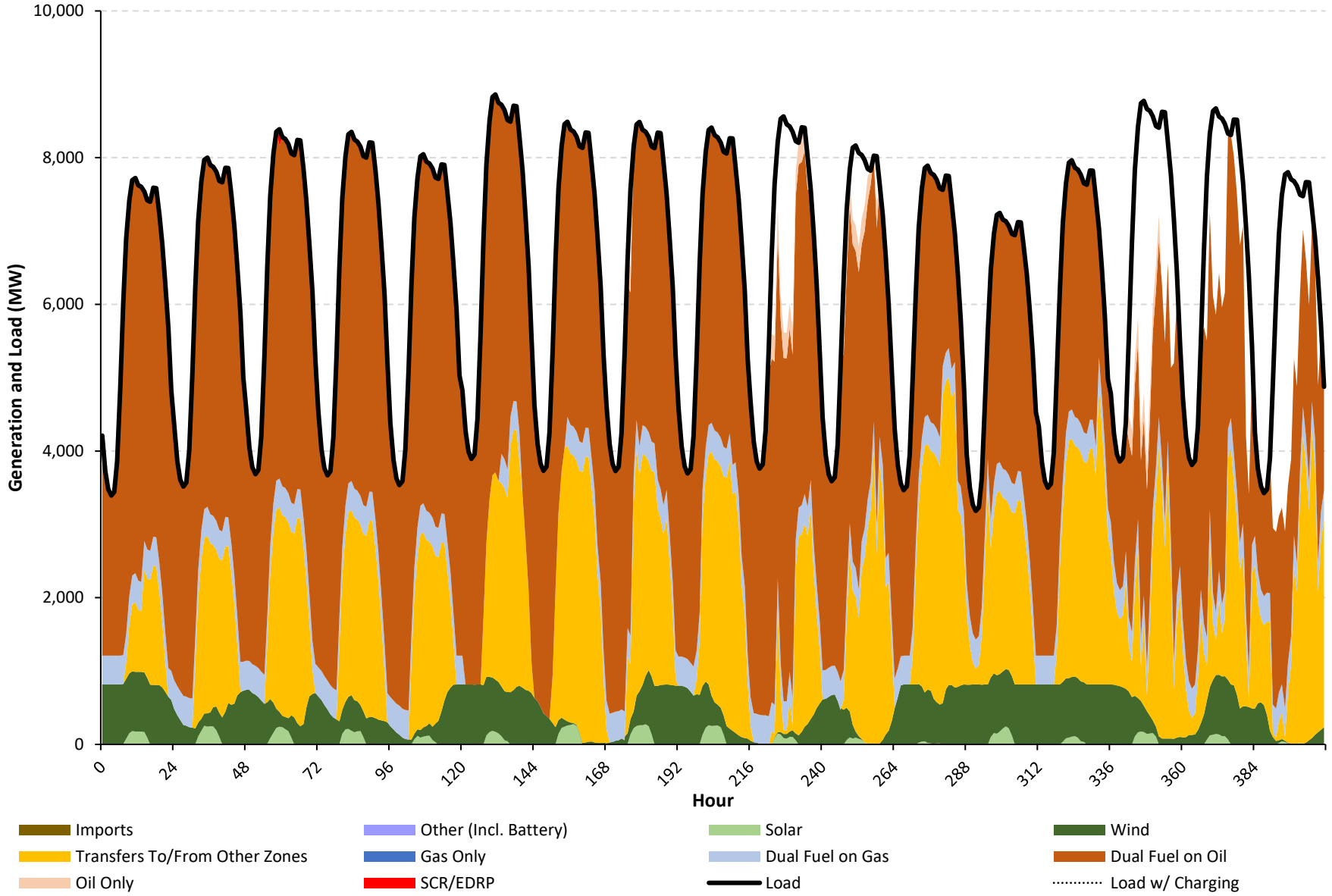


Total MWh of Lost Load

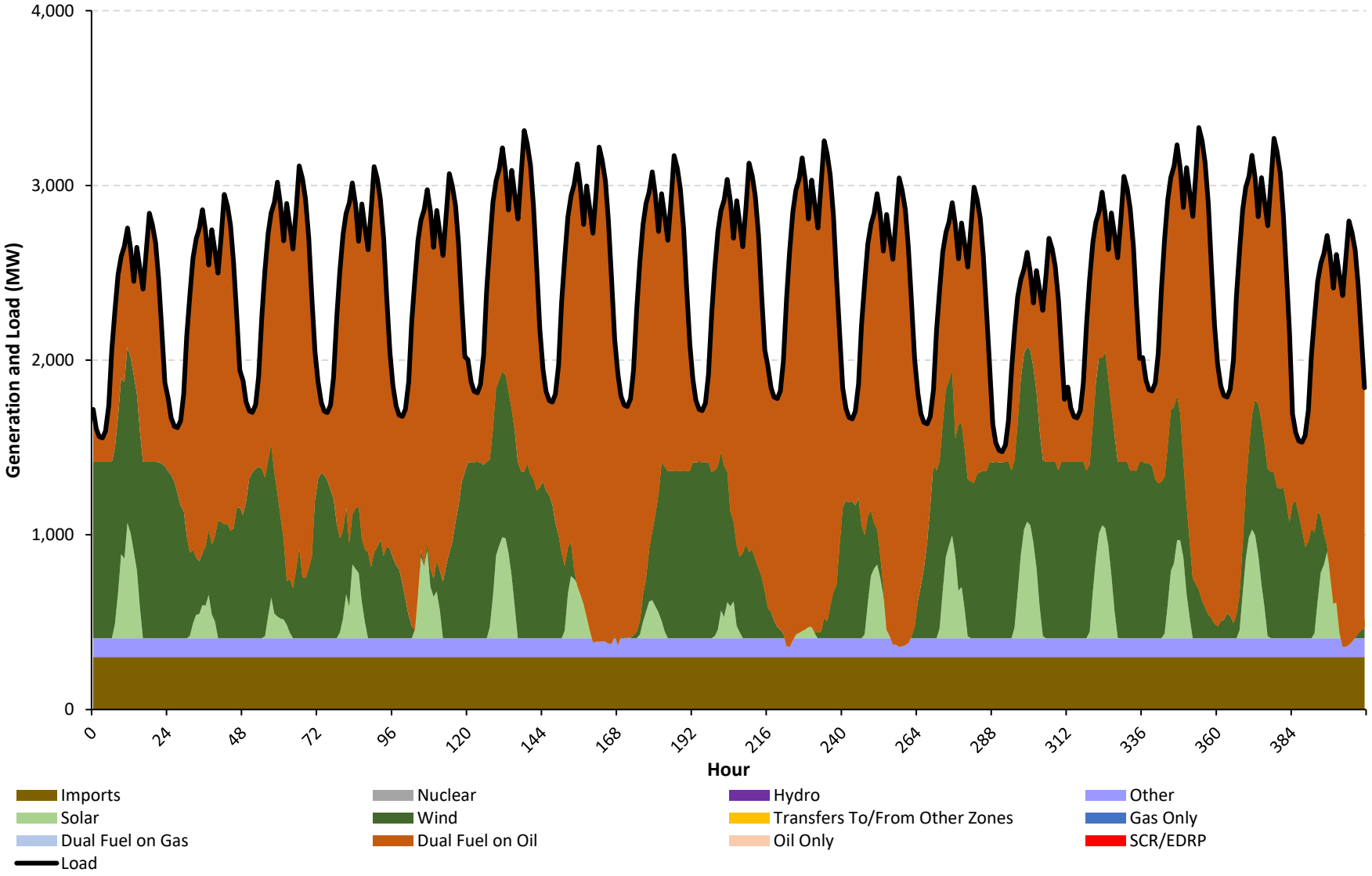



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 4 - PD 9 Non-Firm Gas Unavailable (NYCA)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 9 Non-Firm Gas Unavailable (NYCA)



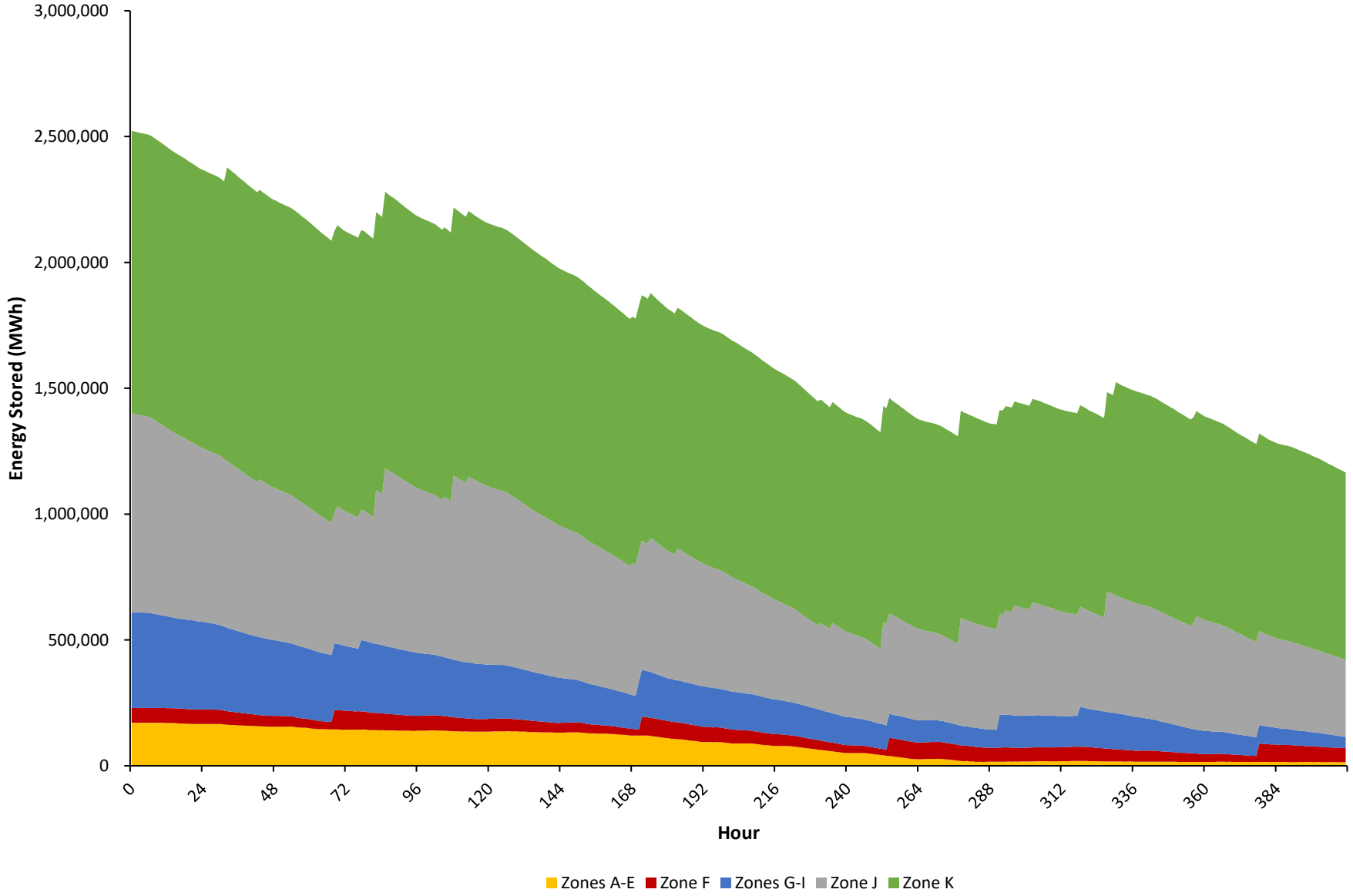
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 9 Non-Firm Gas Unavailable (NYCA)



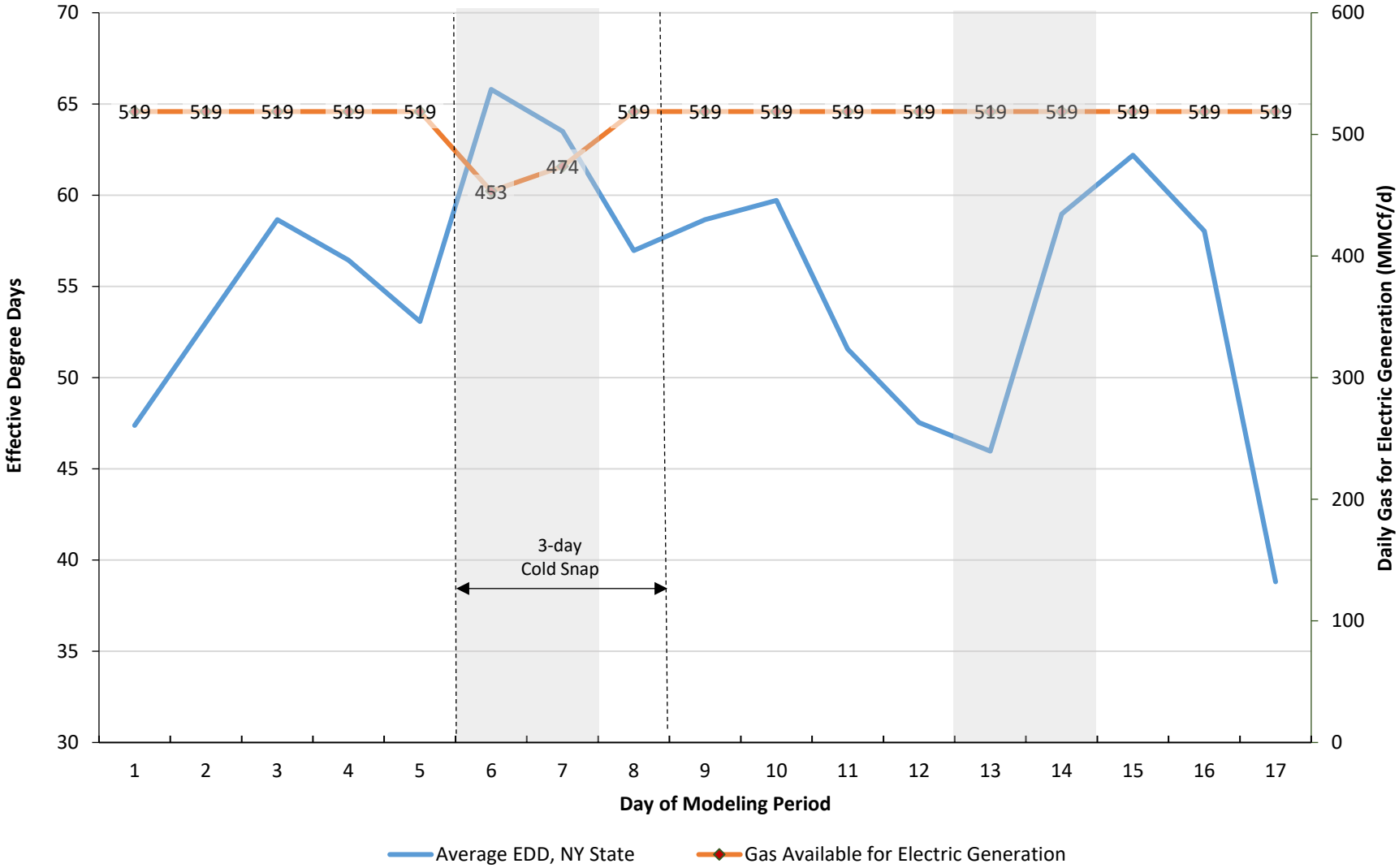
NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

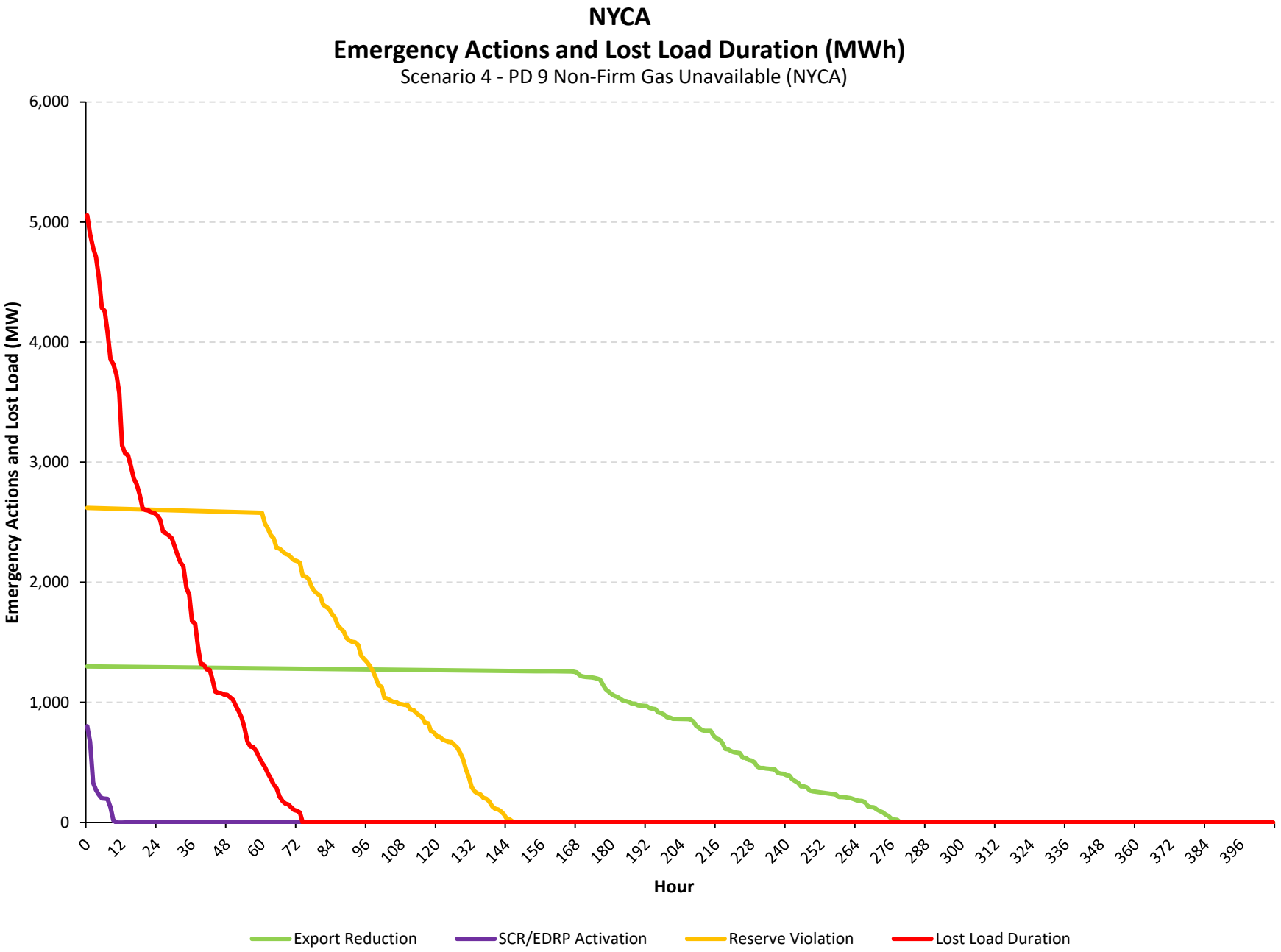
Scenario 4 - PD 9 Non-Firm Gas Unavailable (NYCA)

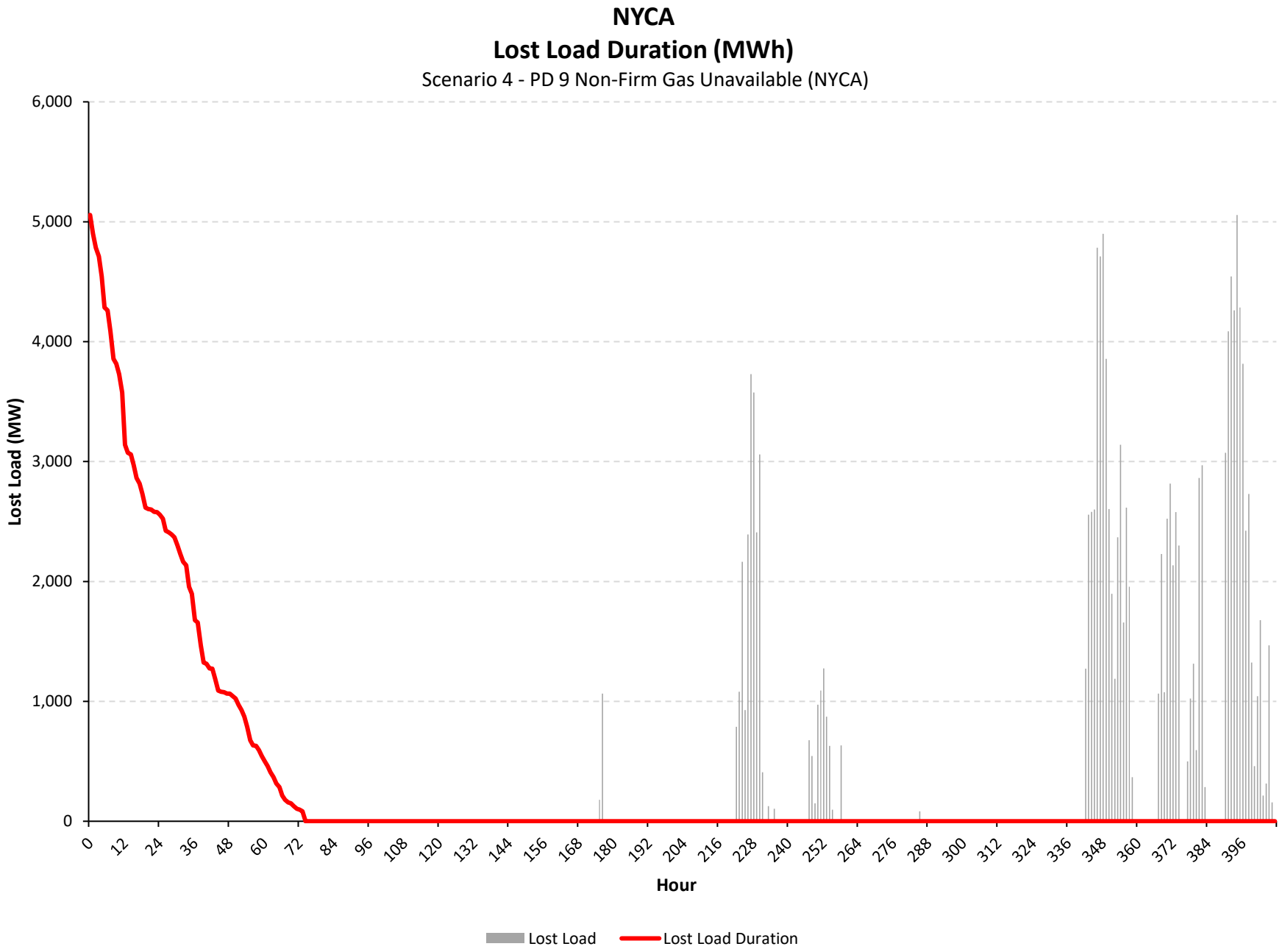


NYCA
Degree Days and Gas Available for Electric Generation 17-Day Modeling Period
Scenario 4 - PD 9 Non-Firm Gas Unavailable (NYCA)



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 4 - PD 9 Non-Firm Gas Unavailable (NYCA)
Emergency Actions and Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 4 - PD 9 Non-Firm Gas Unavailable (NYCA)
Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

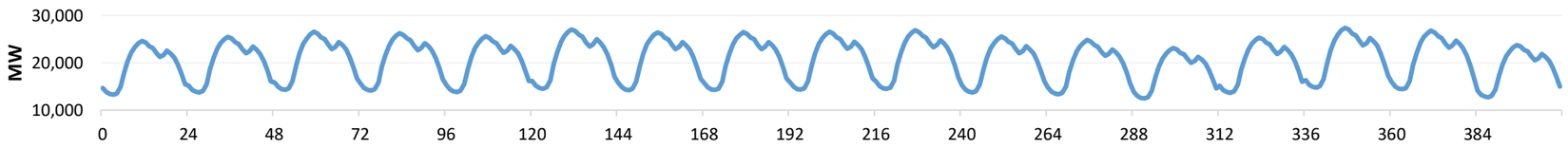
Case: Scenario 4 - PD 10 Non-Firm Gas Unavailable (4 days) (Winter 2026/2027)

Hourly Results Summary

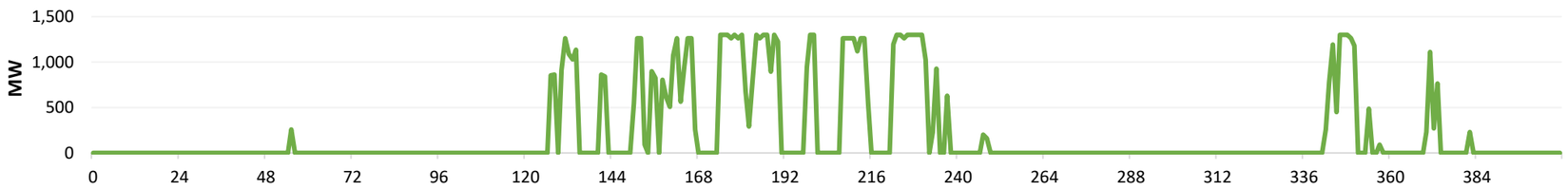
Case Name: Scenario 4 - PD 10 Non-Firm Gas Unavailable (4 days)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Load During Modeling Period

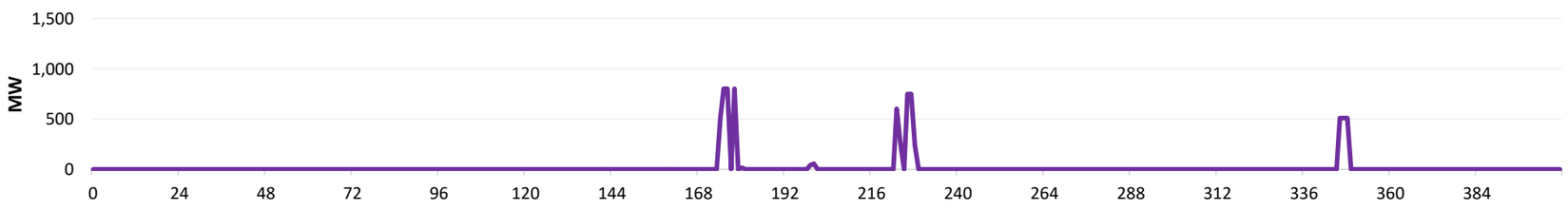


Export to ISO-NE Reduction During Modeling Period



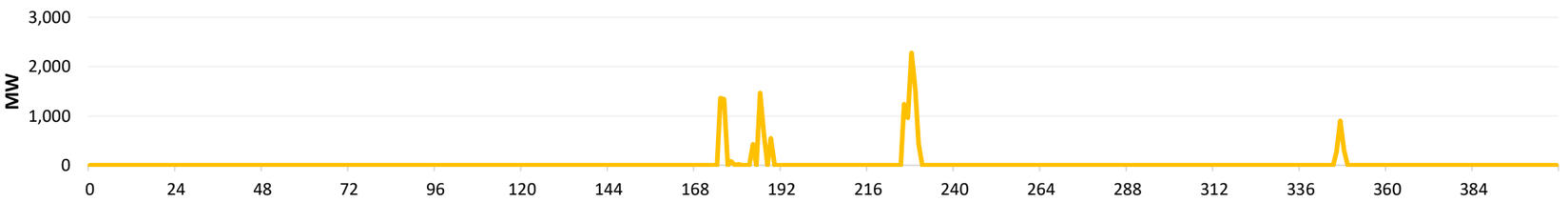
Export Reductions	
Total Hrs.	85
Total MWh	81,618
Avg. MW	200.0

SCR/EDRP Deployed During Modeling Period



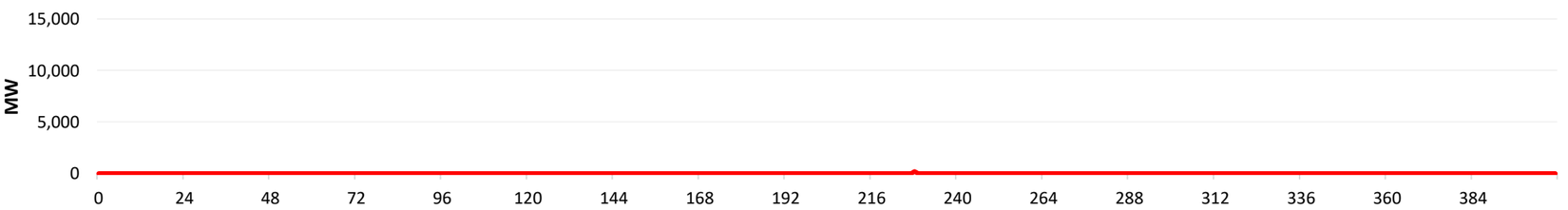
SCR Deployment	
Total Hrs.	15
Total MWh	7,166
Avg. MW	17.6

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	16
Total MWh	13,825
Avg. MW	33.9
First Hour with Viol.	174

Loss of Load During Modeling Period

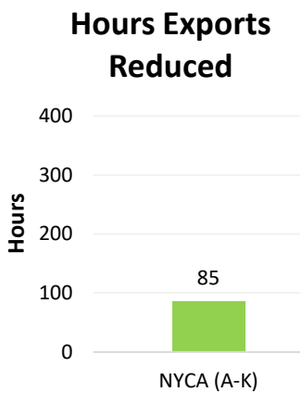


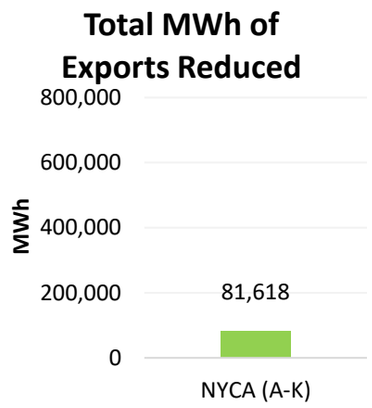
Loss of Load	
Total Hrs.	1
Total MWh	199
Avg. MW	0.5
First Hour with Losses	228

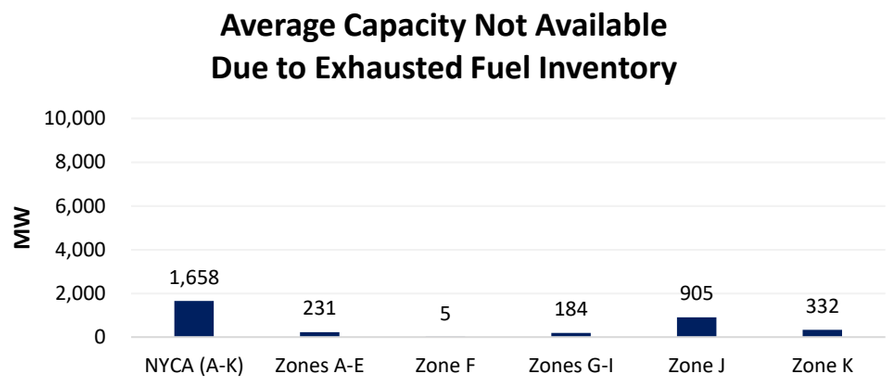
Full Period Results Summary

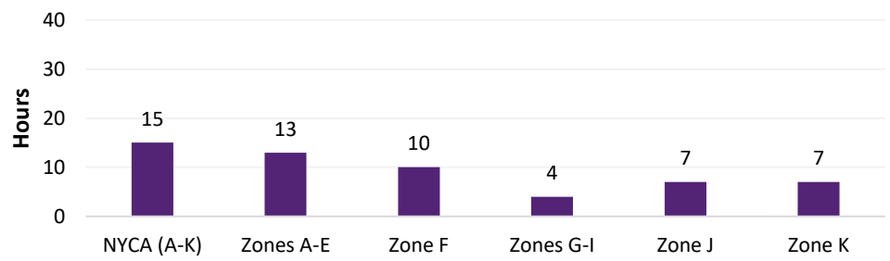
Case Name: Scenario 4 - PD 10 Non-Firm Gas Unavailable (4 days)

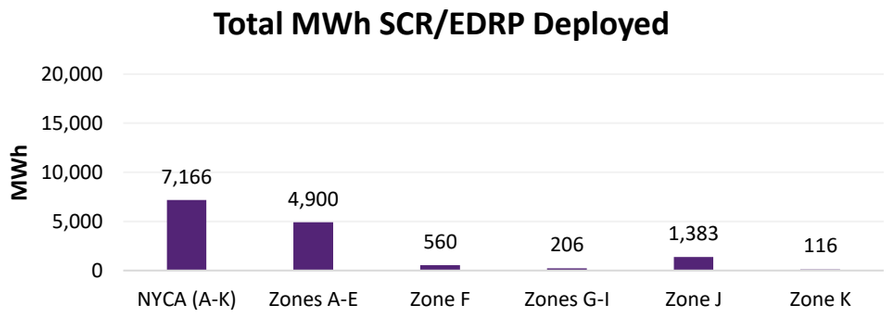
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

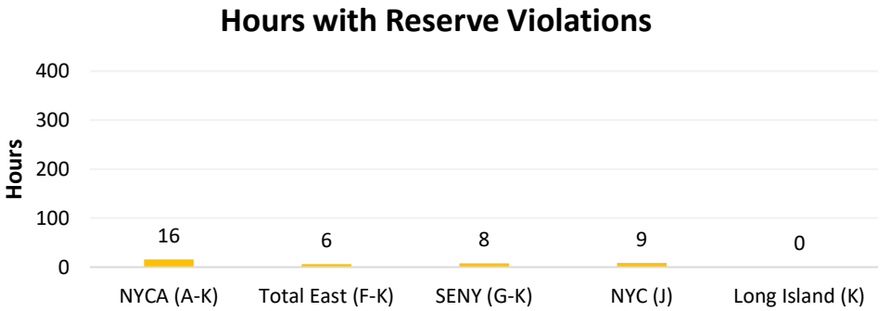


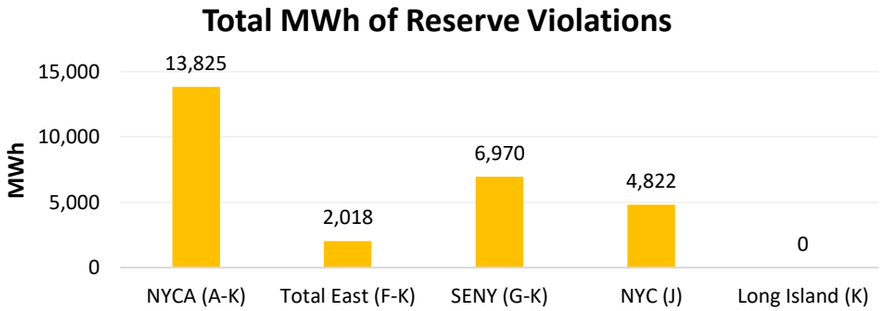


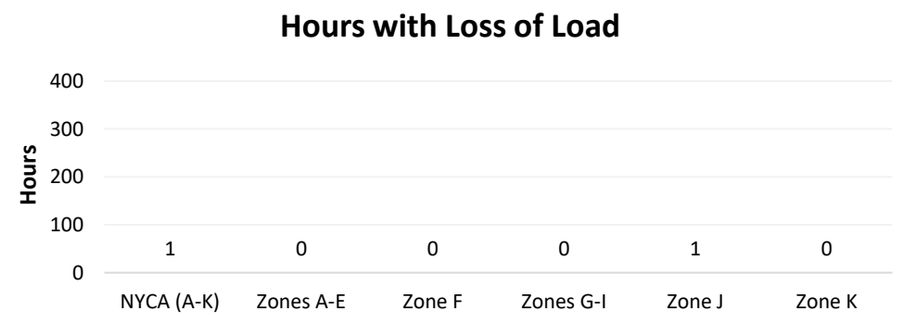


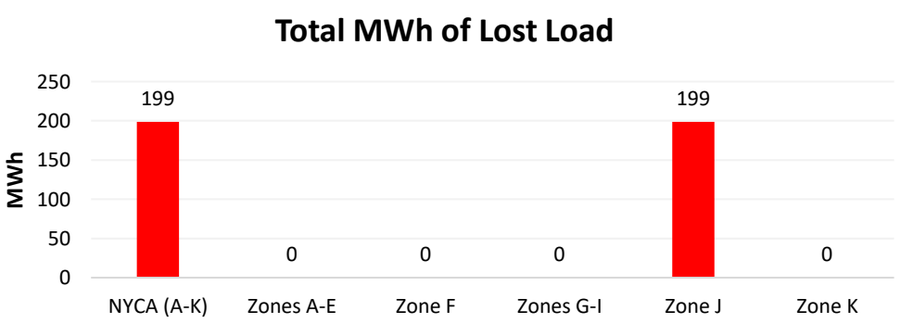


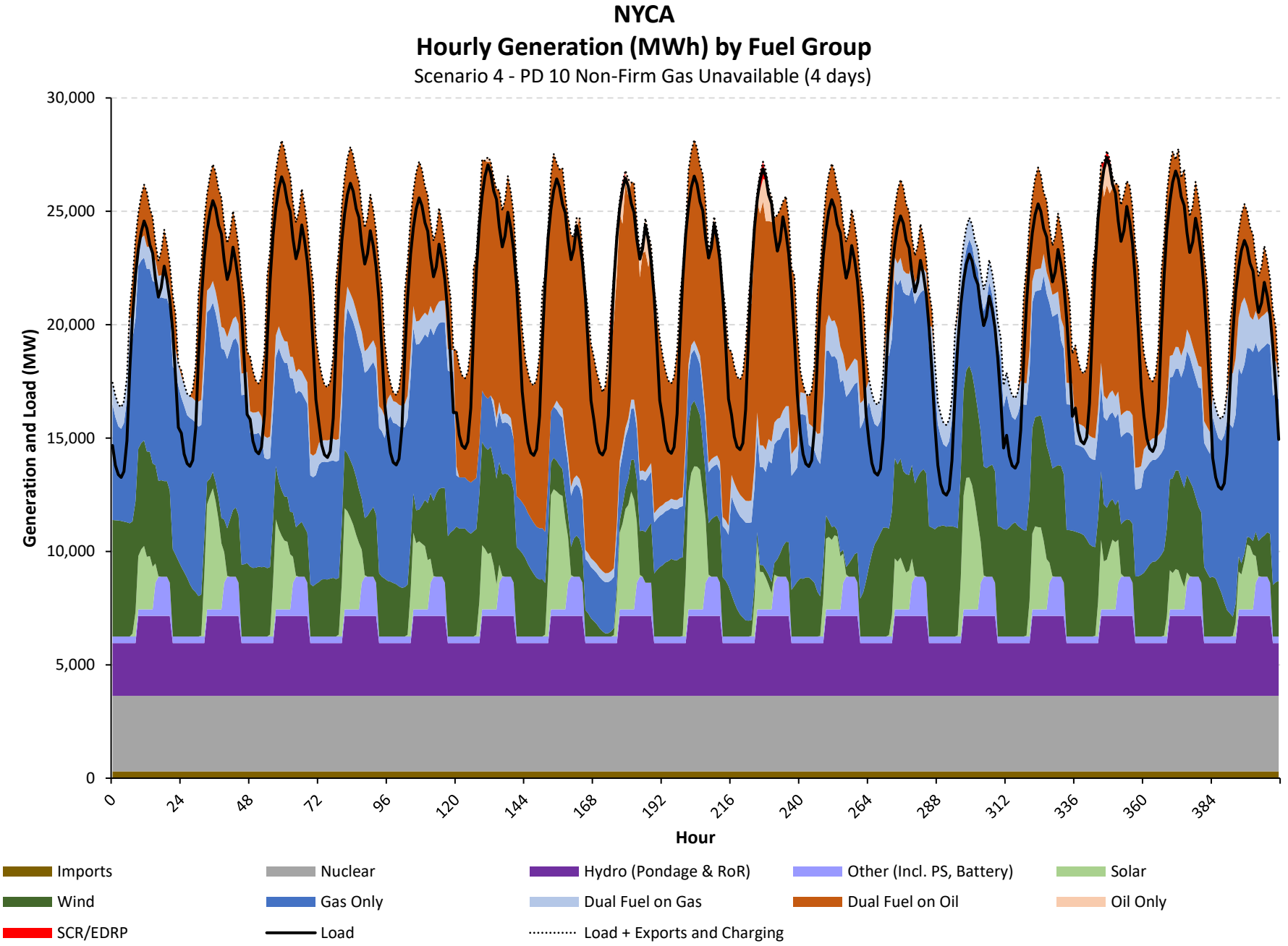




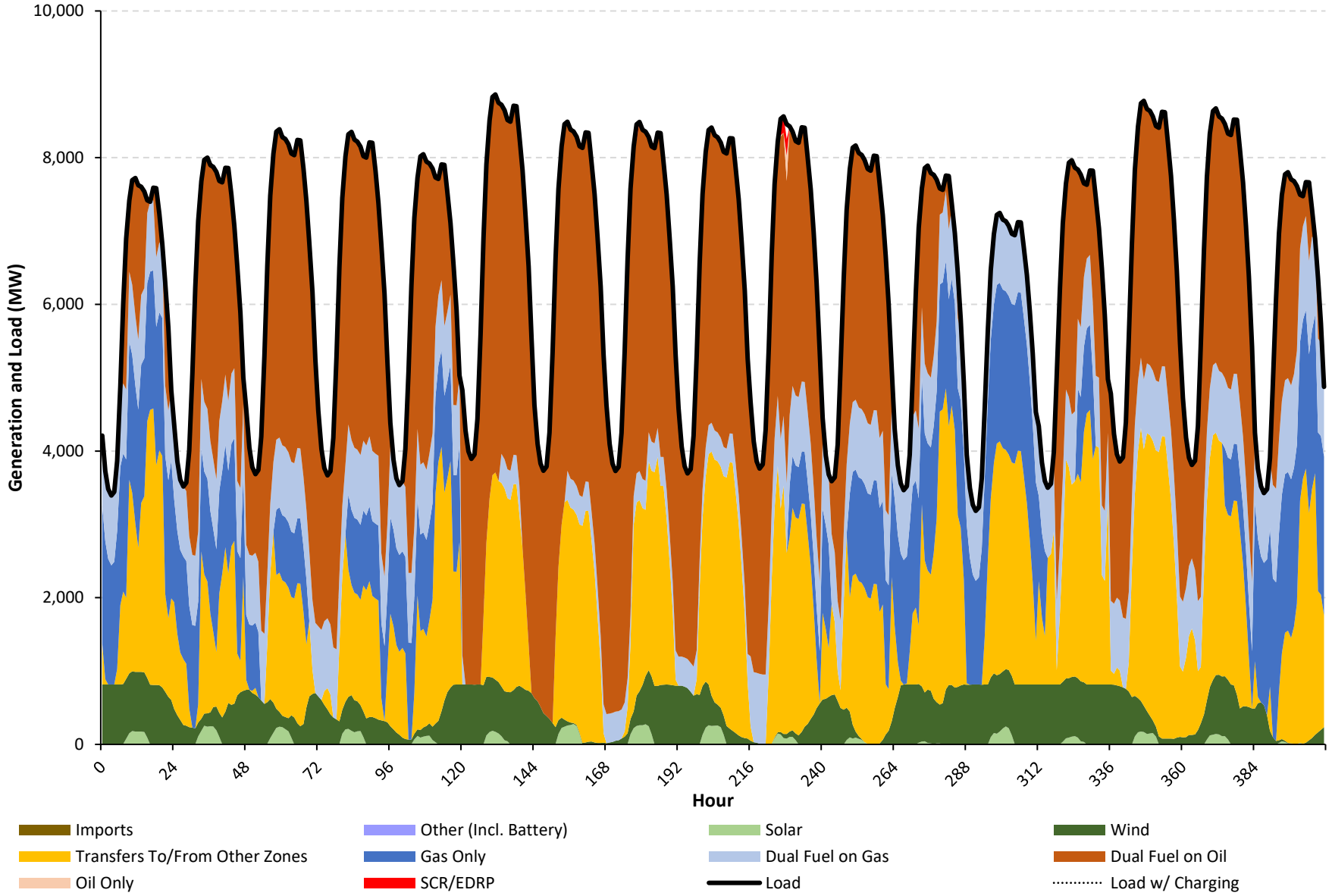




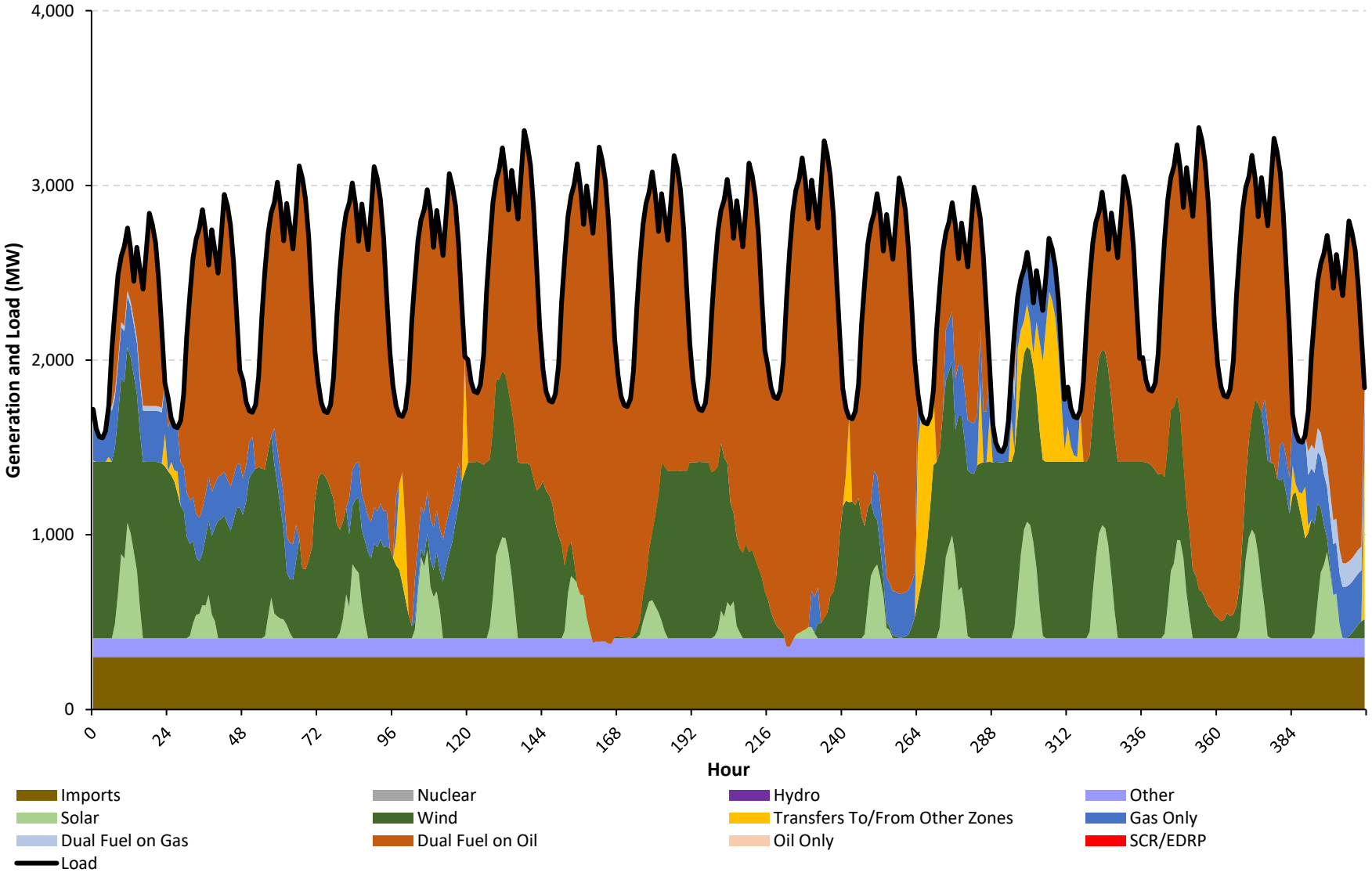



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 4 - PD 10 Non-Firm Gas Unavailable (4 days)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 10 Non-Firm Gas Unavailable (4 days)



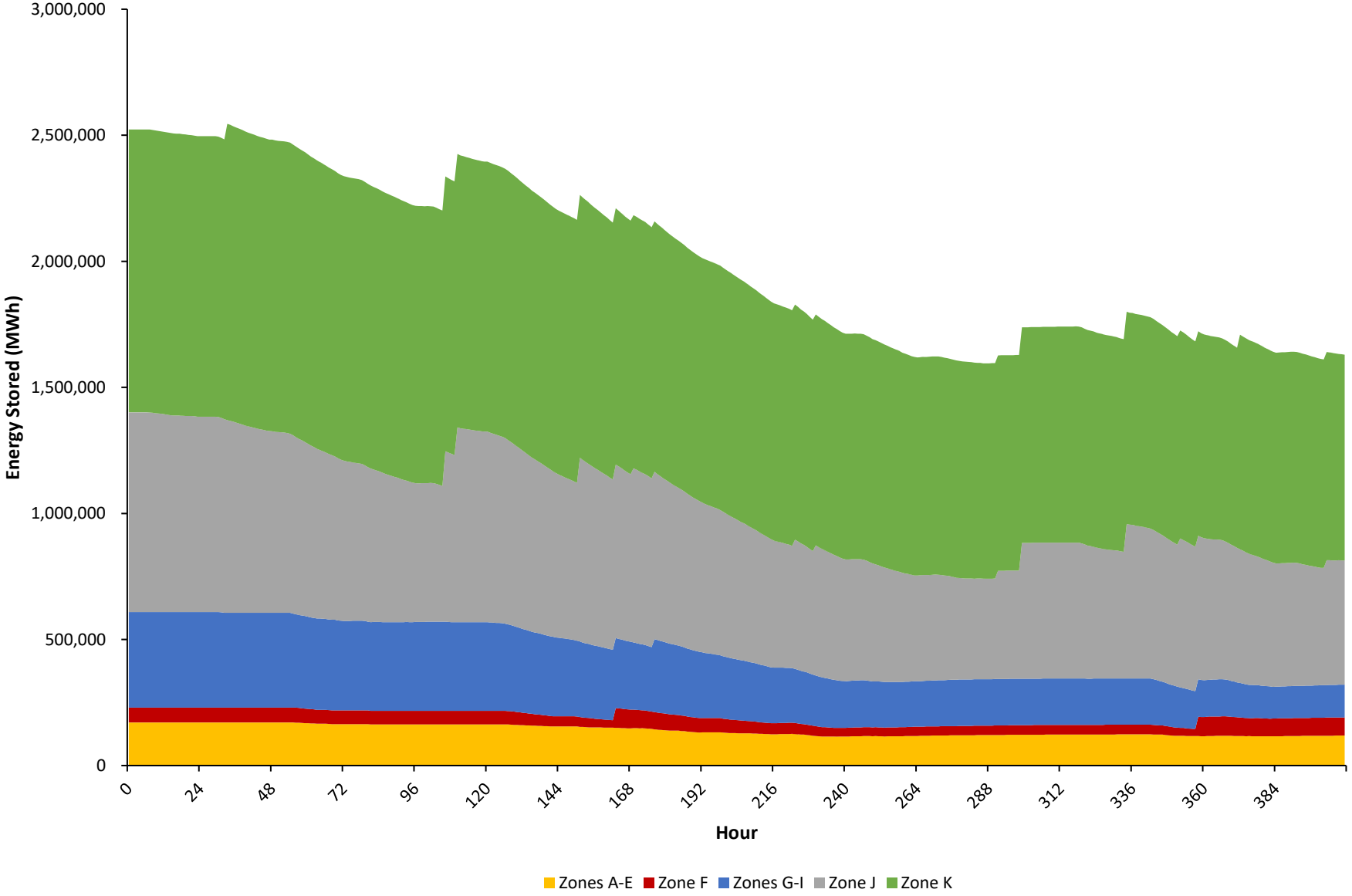
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 10 Non-Firm Gas Unavailable (4 days)

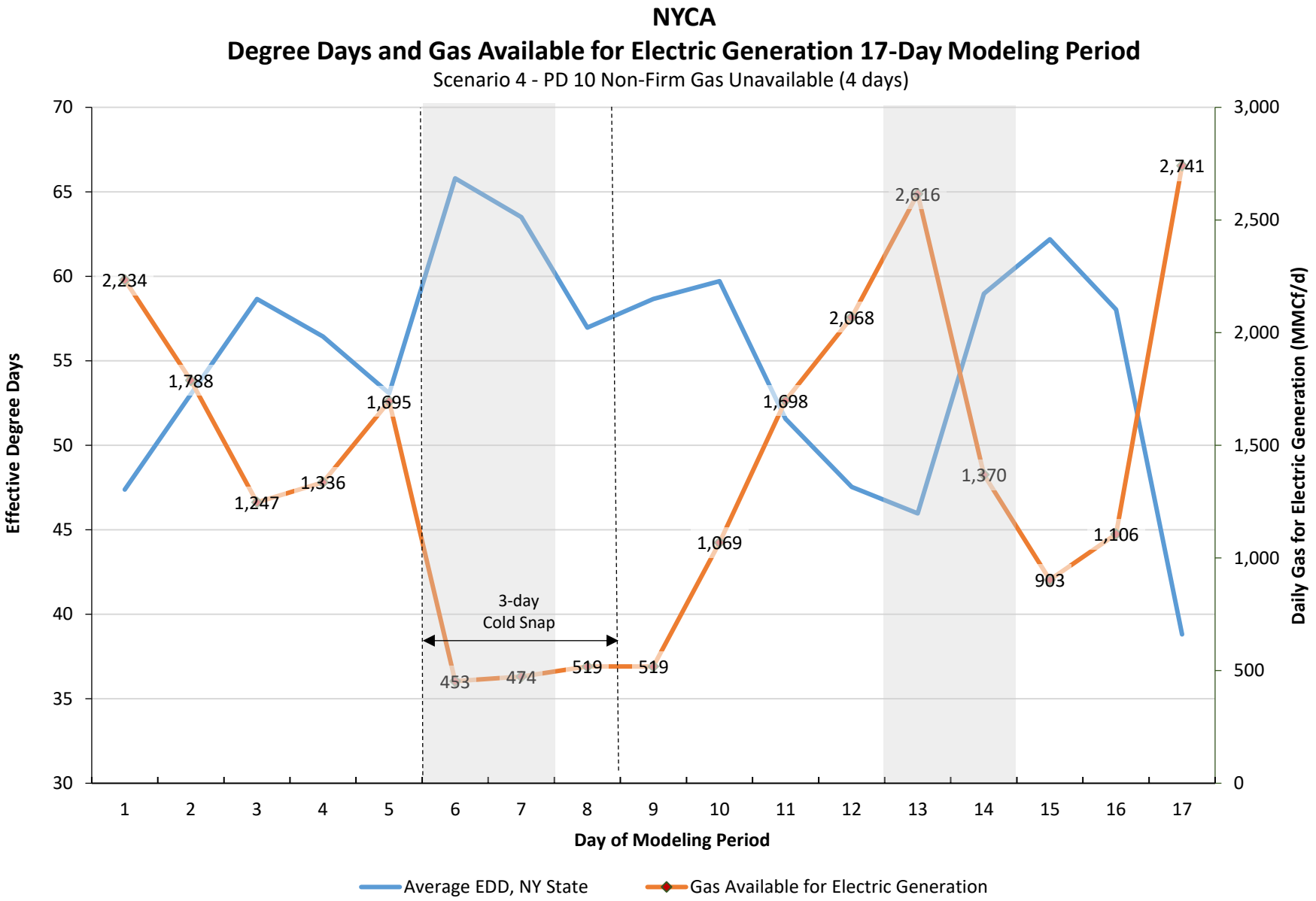


NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

Scenario 4 - PD 10 Non-Firm Gas Unavailable (4 days)



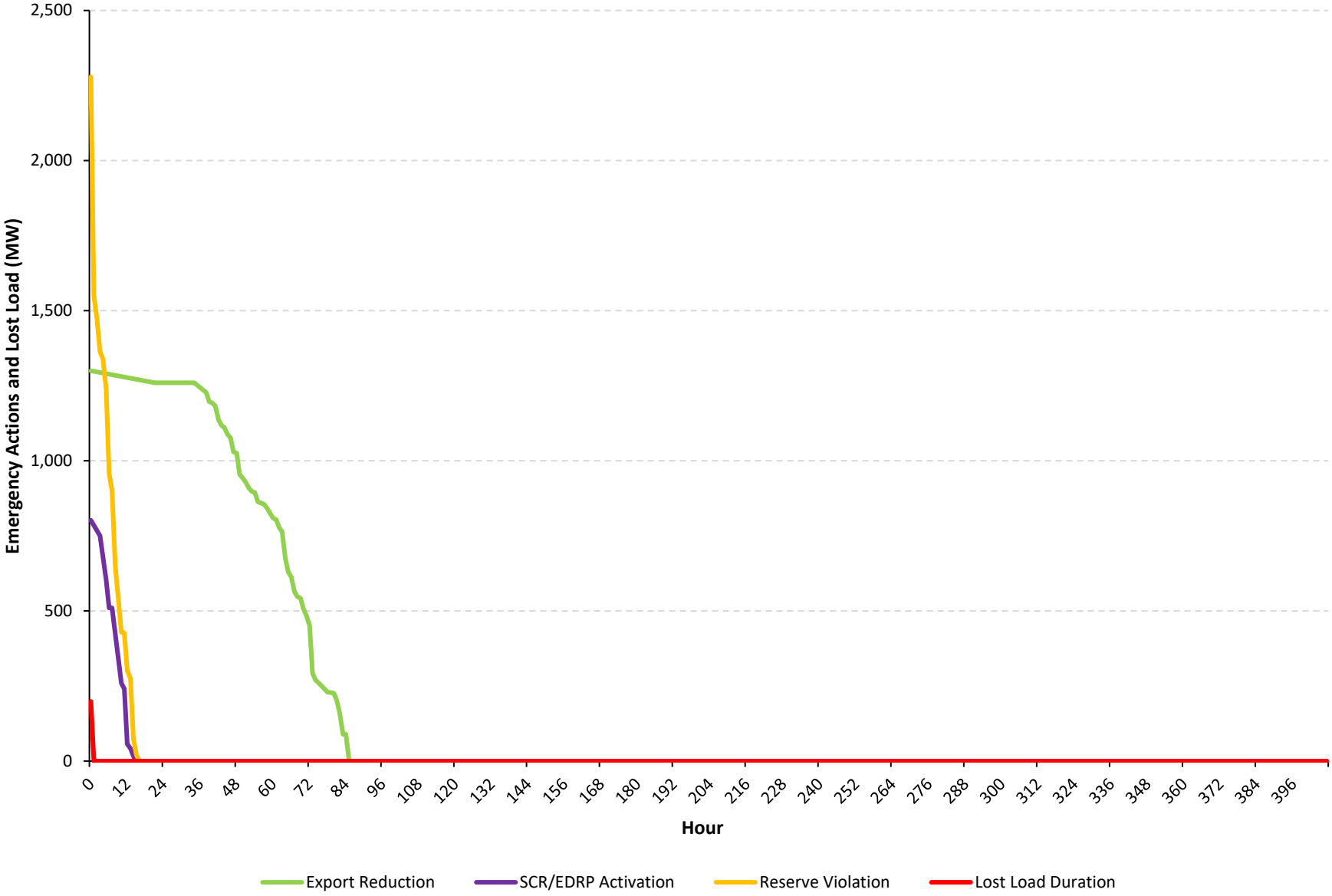


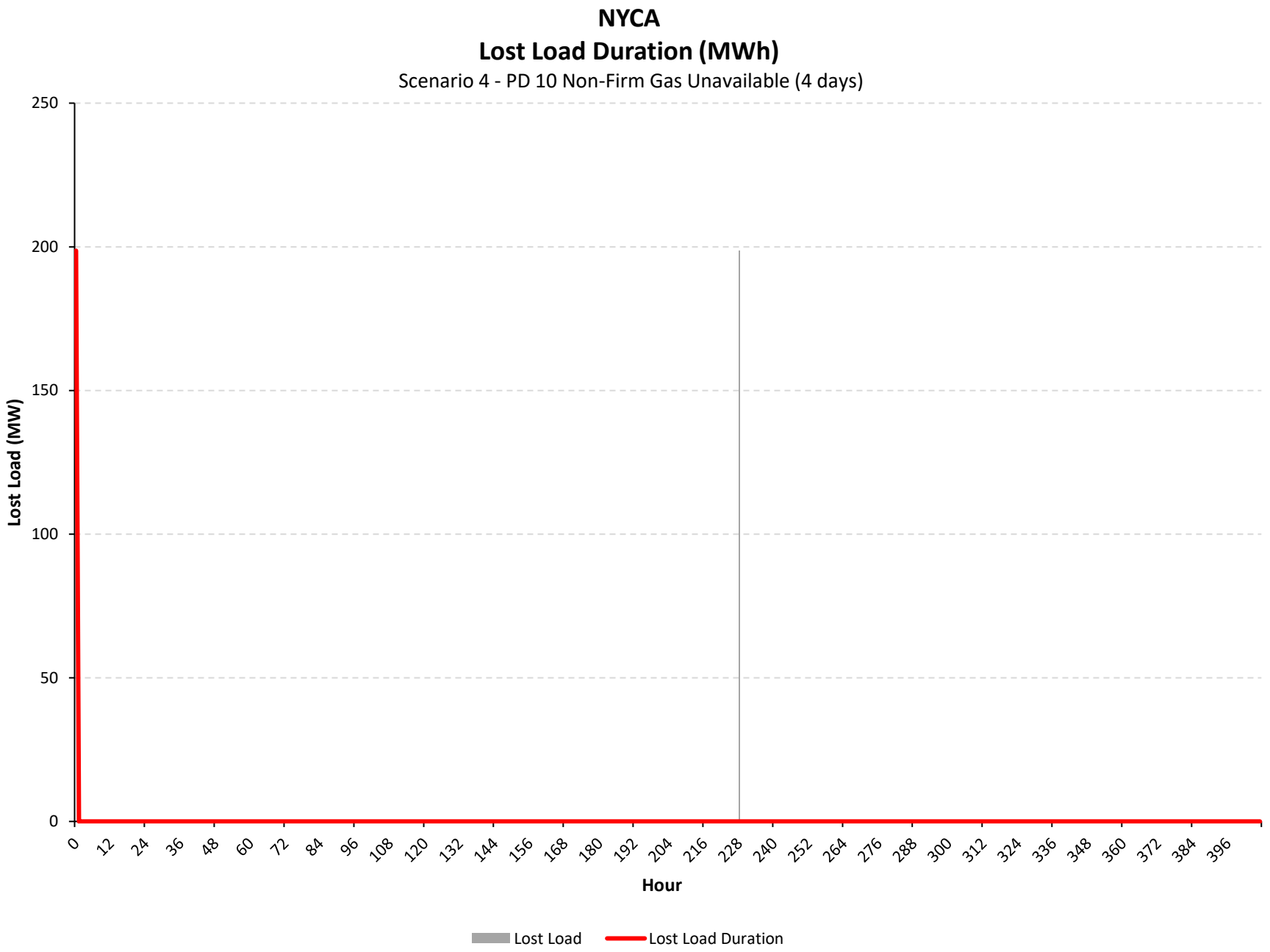
Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.

NYCA

Emergency Actions and Lost Load Duration (MWh)

Scenario 4 - PD 10 Non-Firm Gas Unavailable (4 days)




NYCA
Lost Load Duration (MWh)
Scenario 4 - PD 10 Non-Firm Gas Unavailable (4 days)
Lost Load (MW)
250
200
150
100
50
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

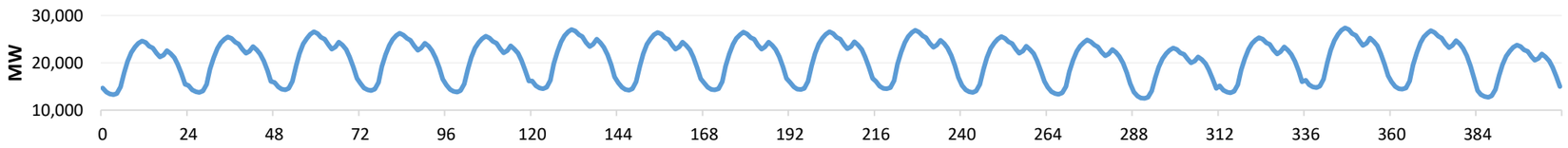
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 11 Combination Disruption (Winter 2026/2027)

Hourly Results Summary

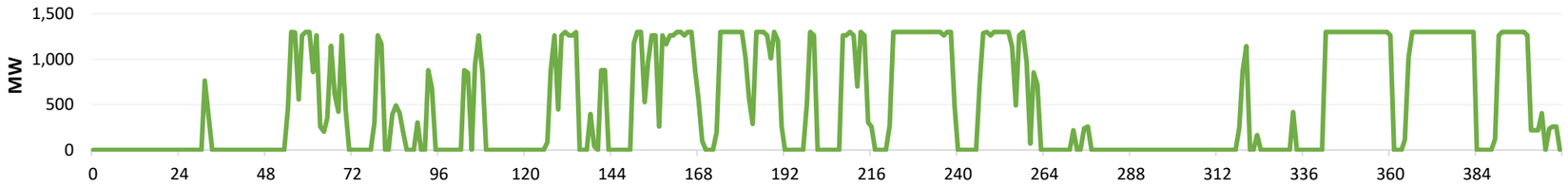
Case Name: Scenario 4 - PD 11 Combination Disruption

Load During Modeling Period



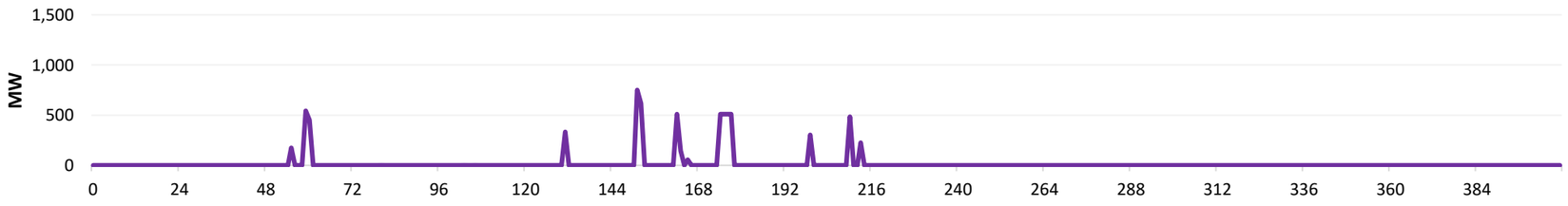
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



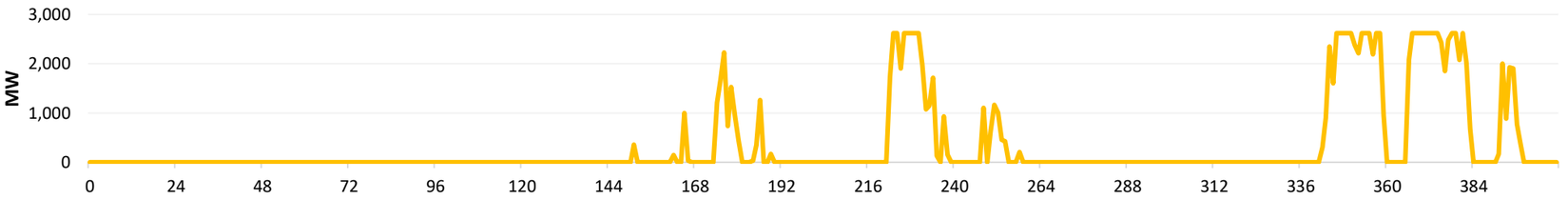
Export Reductions	
Total Hrs.	198
Total MWh	197,625
Avg. MW	484.4

SCR/EDRP Deployed During Modeling Period



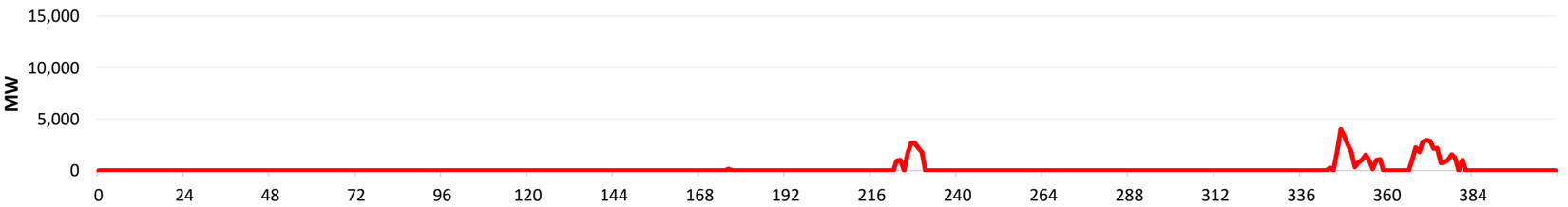
SCR Deployment	
Total Hrs.	16
Total MWh	6,638
Avg. MW	16.3

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	81
Total MWh	135,703
Avg. MW	332.6
First Hour with Viol.	151

Loss of Load During Modeling Period



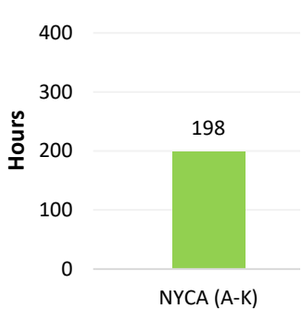
Loss of Load	
Total Hrs.	36
Total MWh	58,107
Avg. MW	142.4
First Hour with Losses	176

Full Period Results Summary

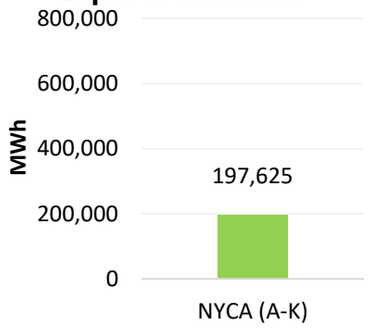
Case Name: Scenario 4 - PD 11 Combination Disruption

Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	High
Renewables:	Base Case
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

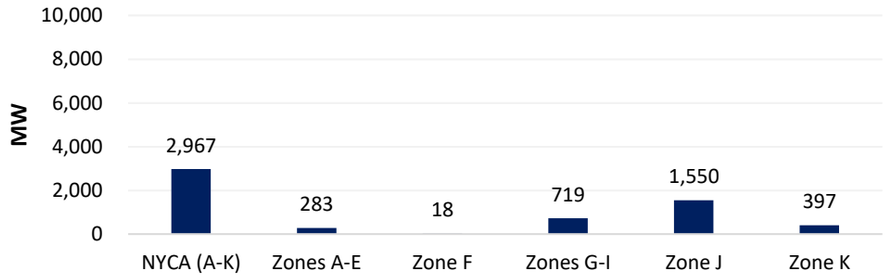
Hours Exports Reduced



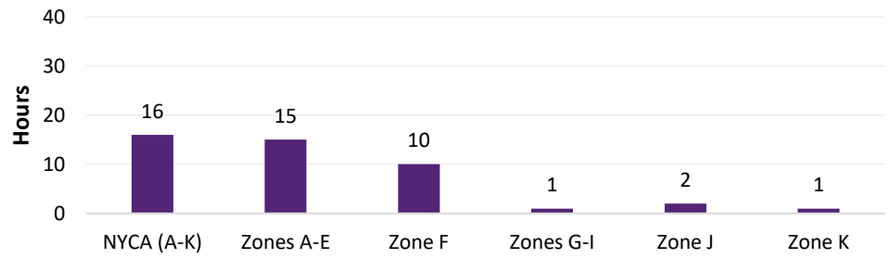
Total MWh of Exports Reduced



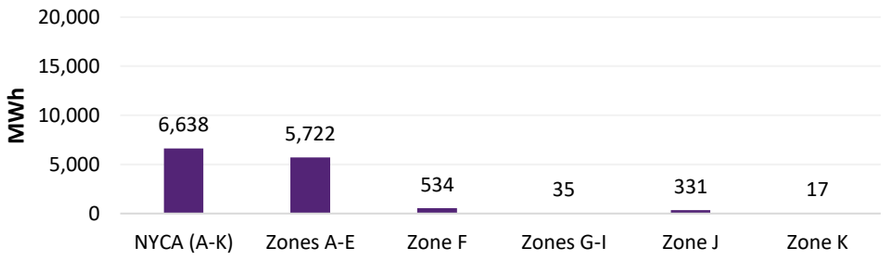
Average Capacity Not Available Due to Exhausted Fuel Inventory



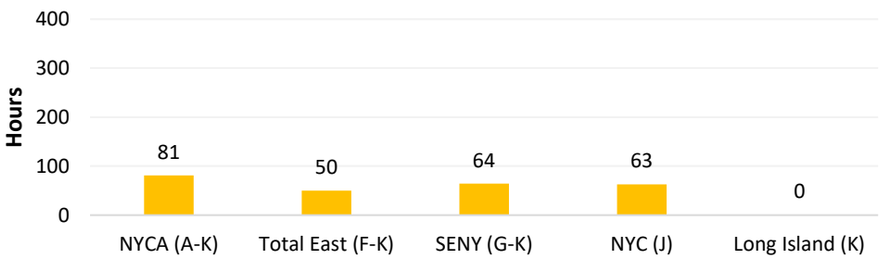
Hours SCR/EDRP Deployed



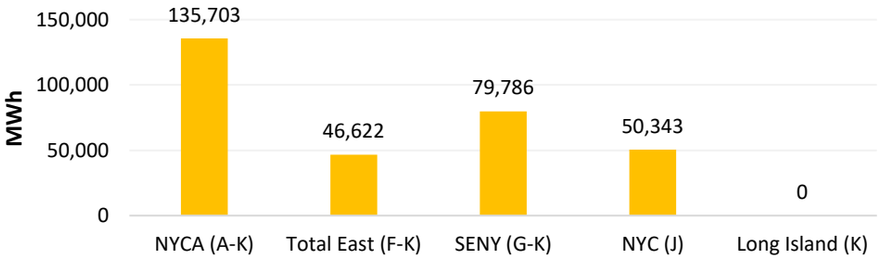
Total MWh SCR/EDRP Deployed



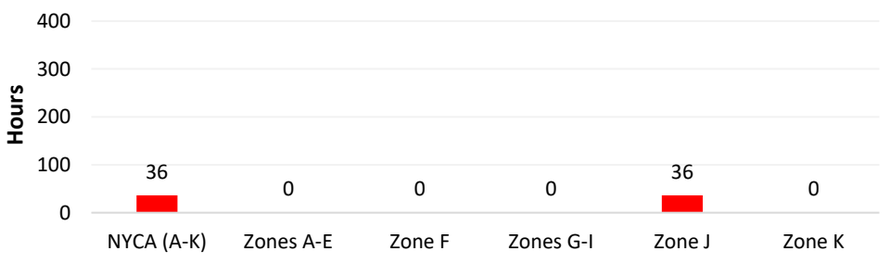
Hours with Reserve Violations



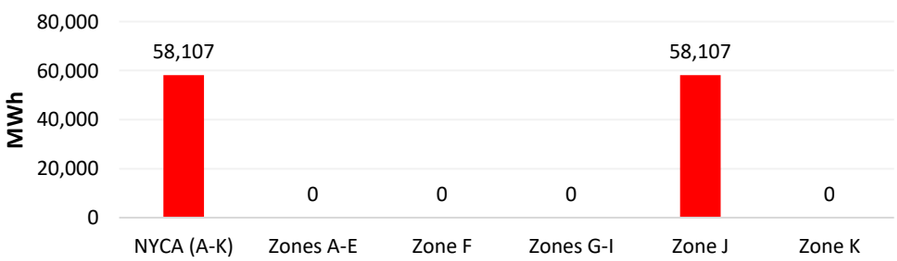
Total MWh of Reserve Violations

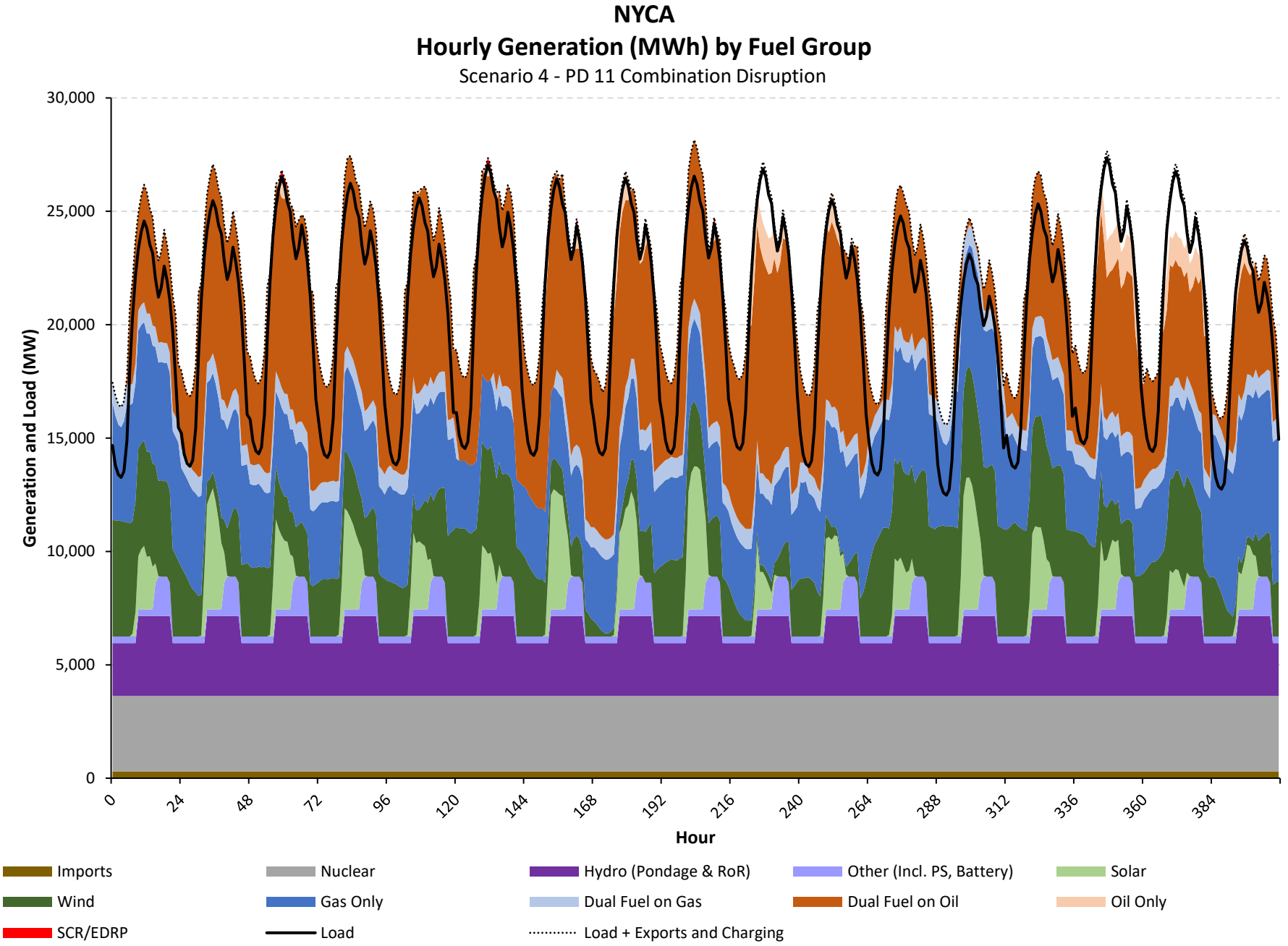


Hours with Loss of Load

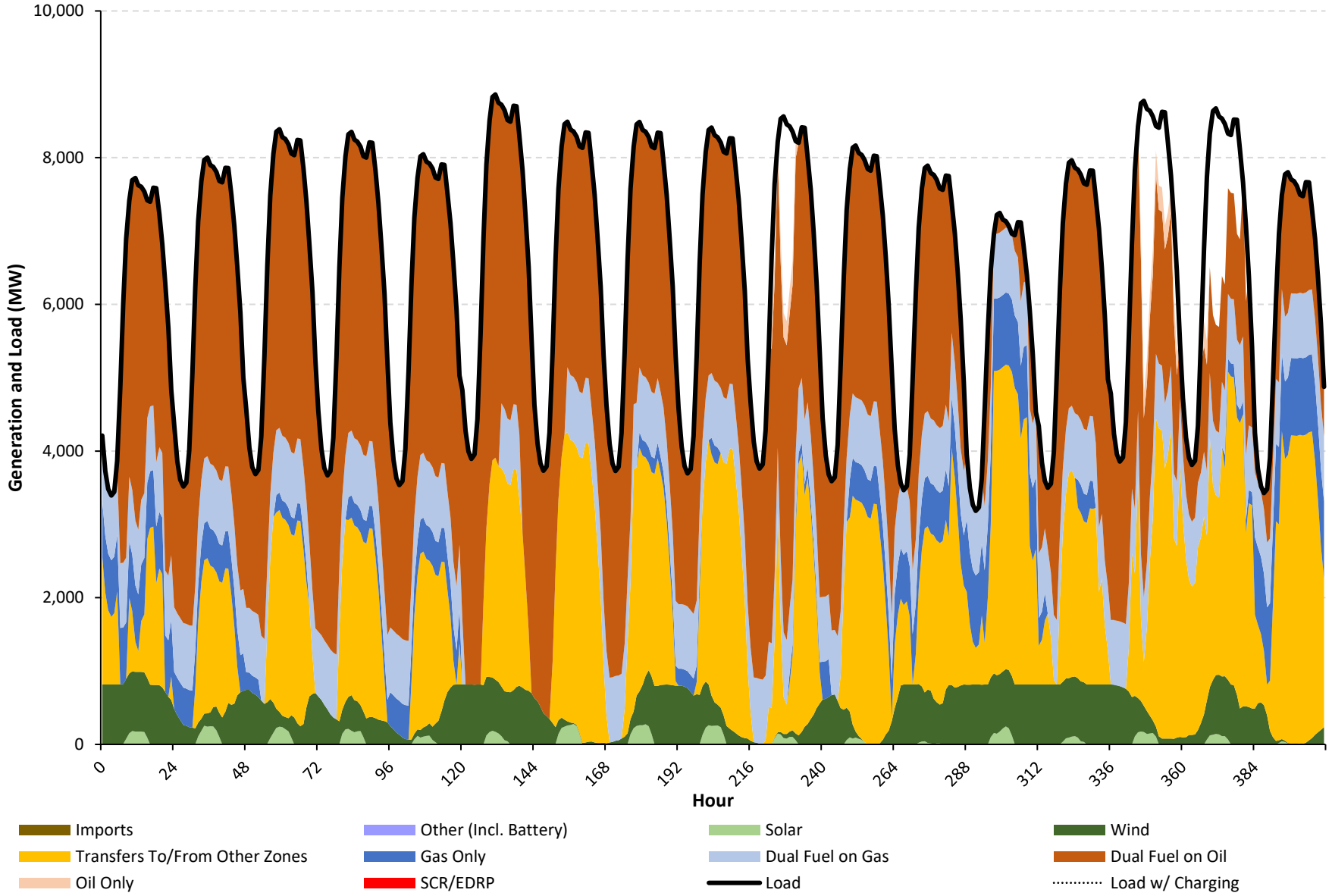


Total MWh of Lost Load

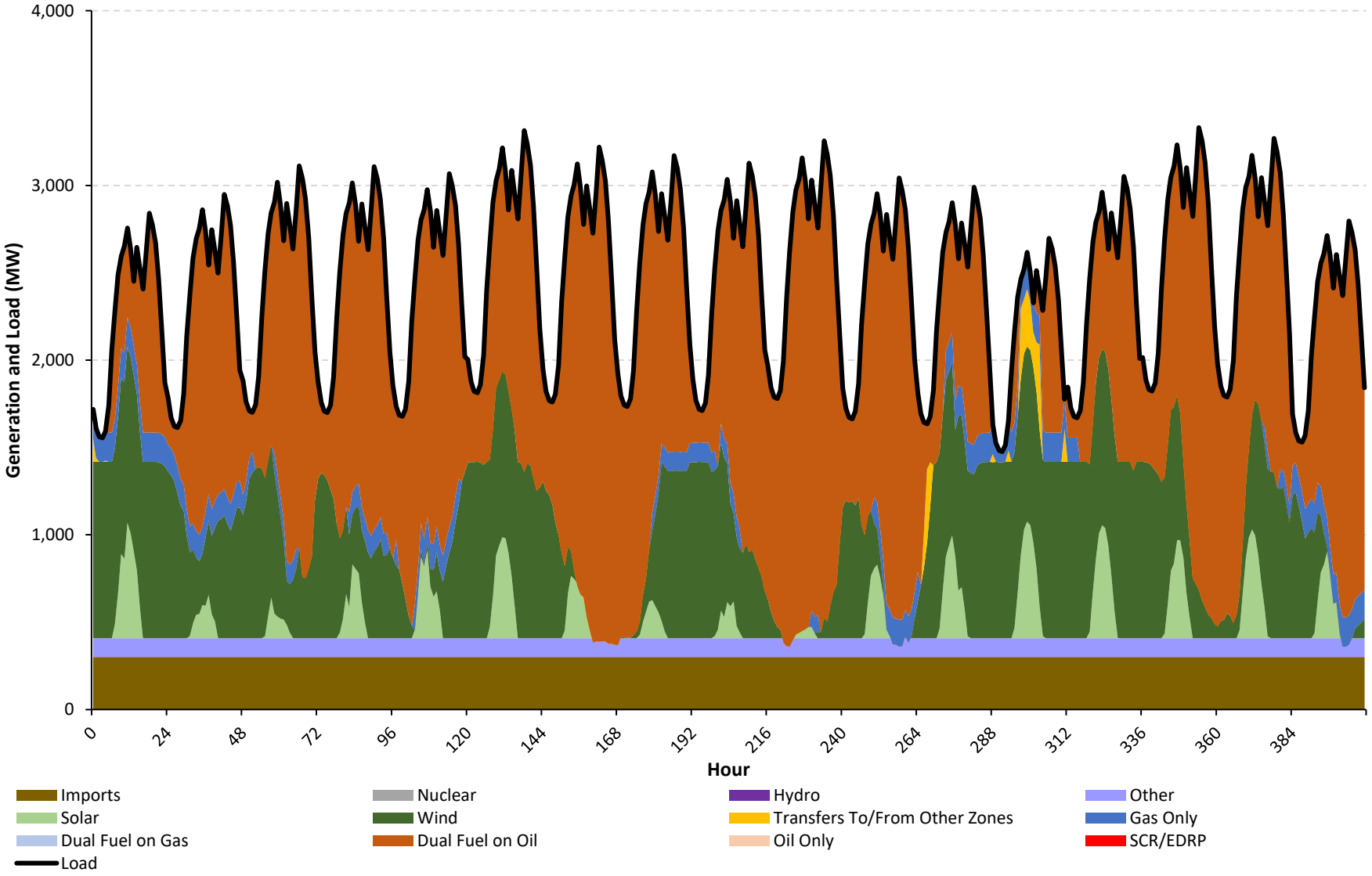



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 4 - PD 11 Combination Disruption
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 11 Combination Disruption



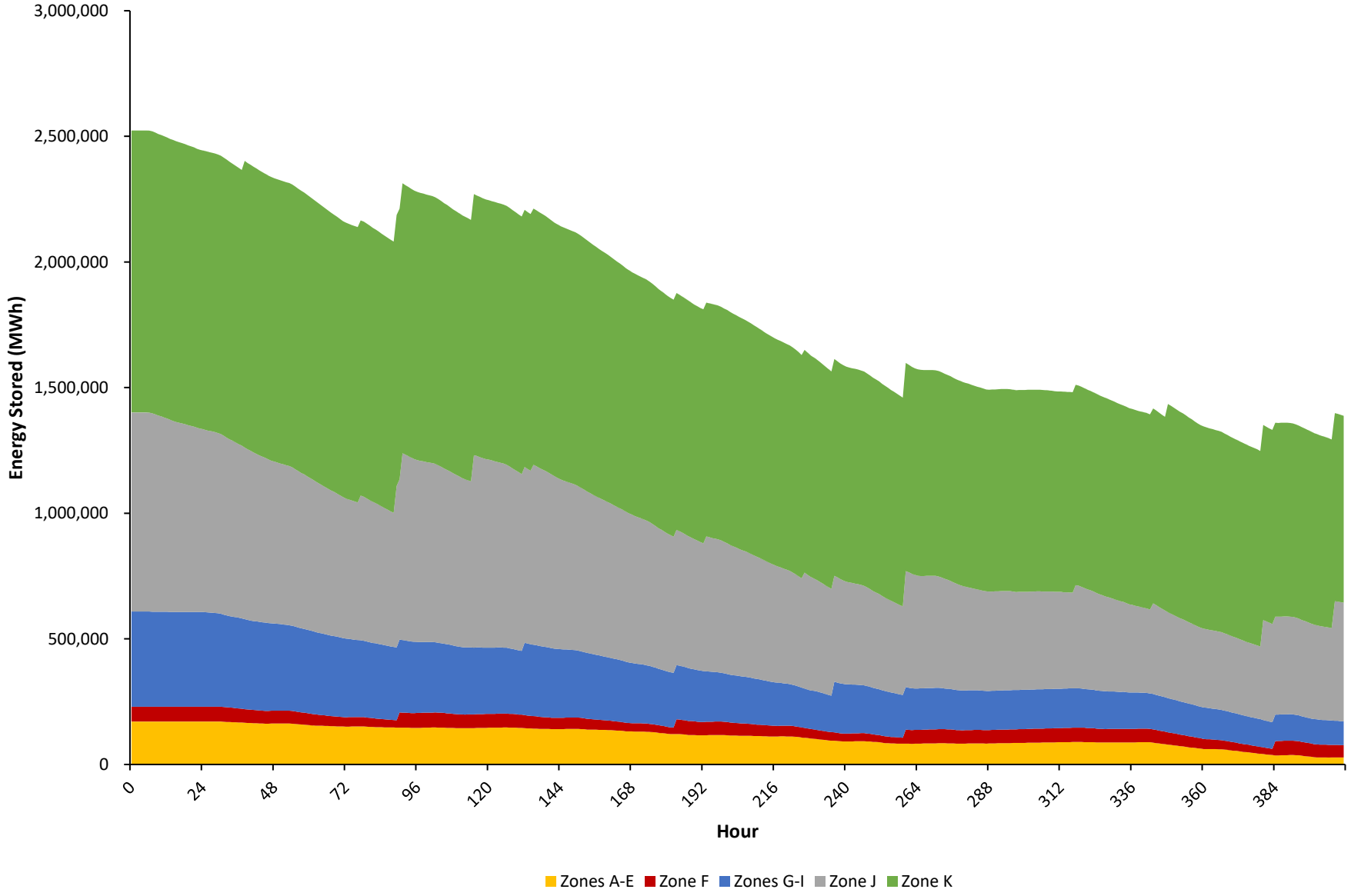
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 11 Combination Disruption



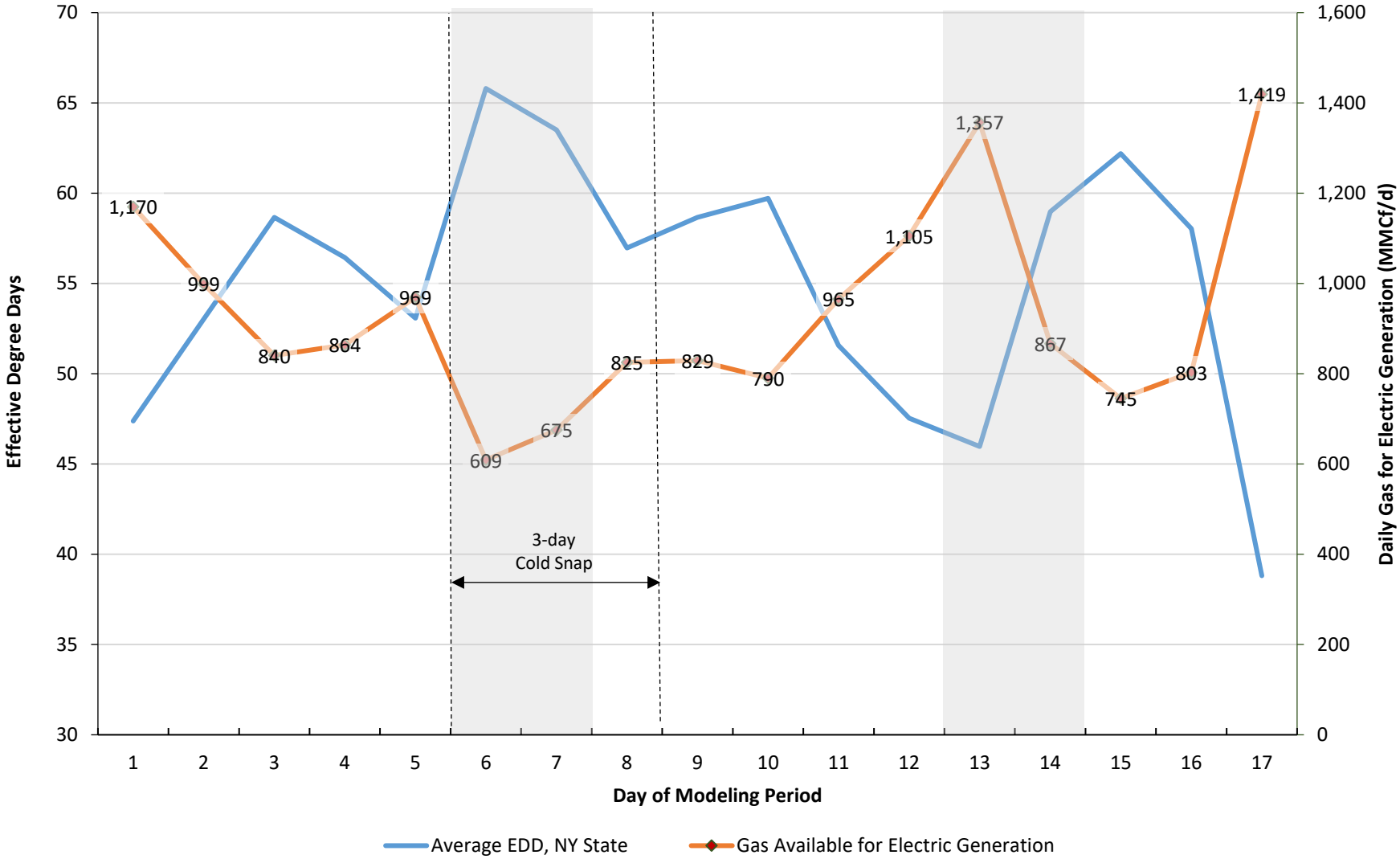
NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

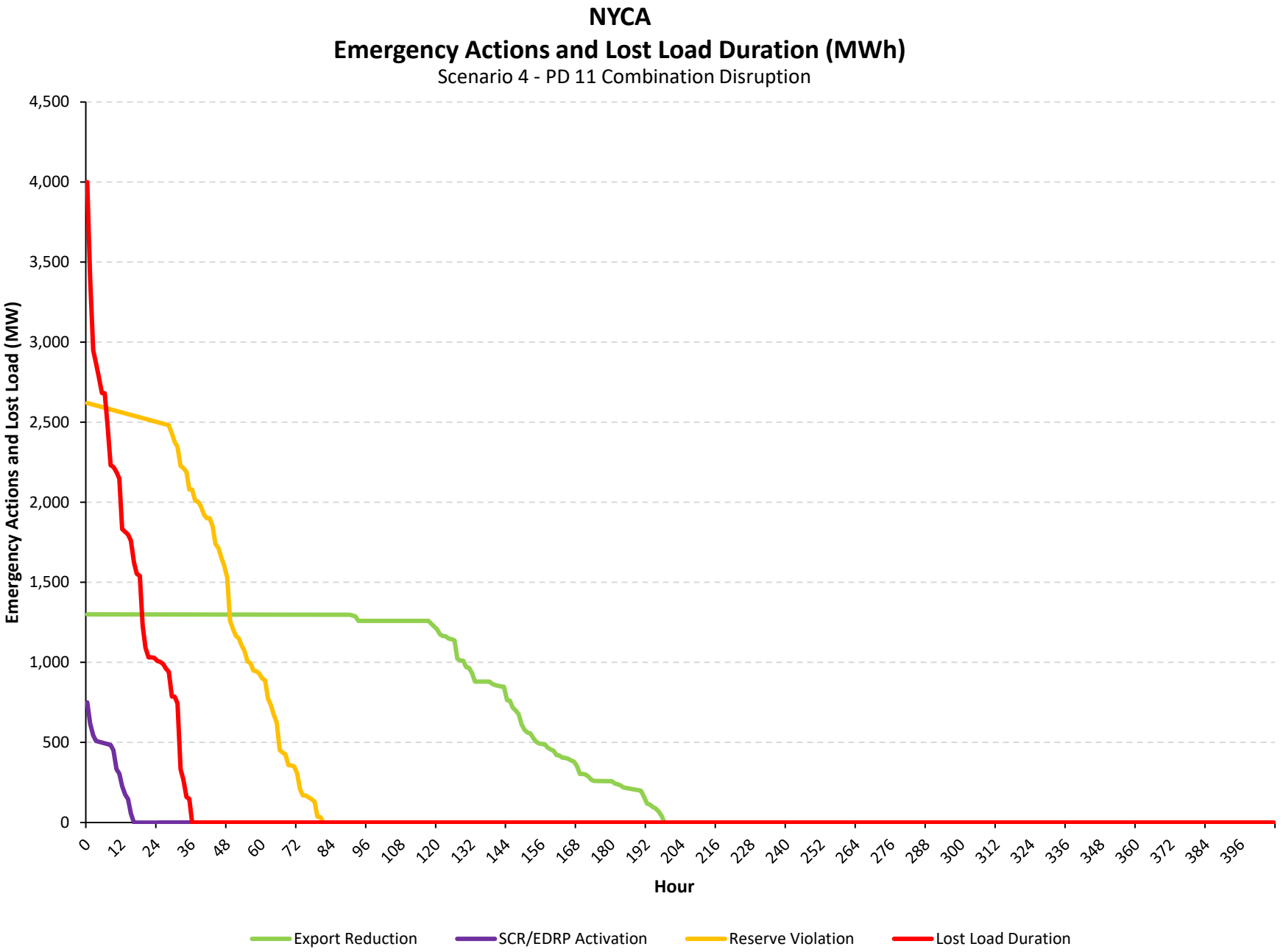
Scenario 4 - PD 11 Combination Disruption

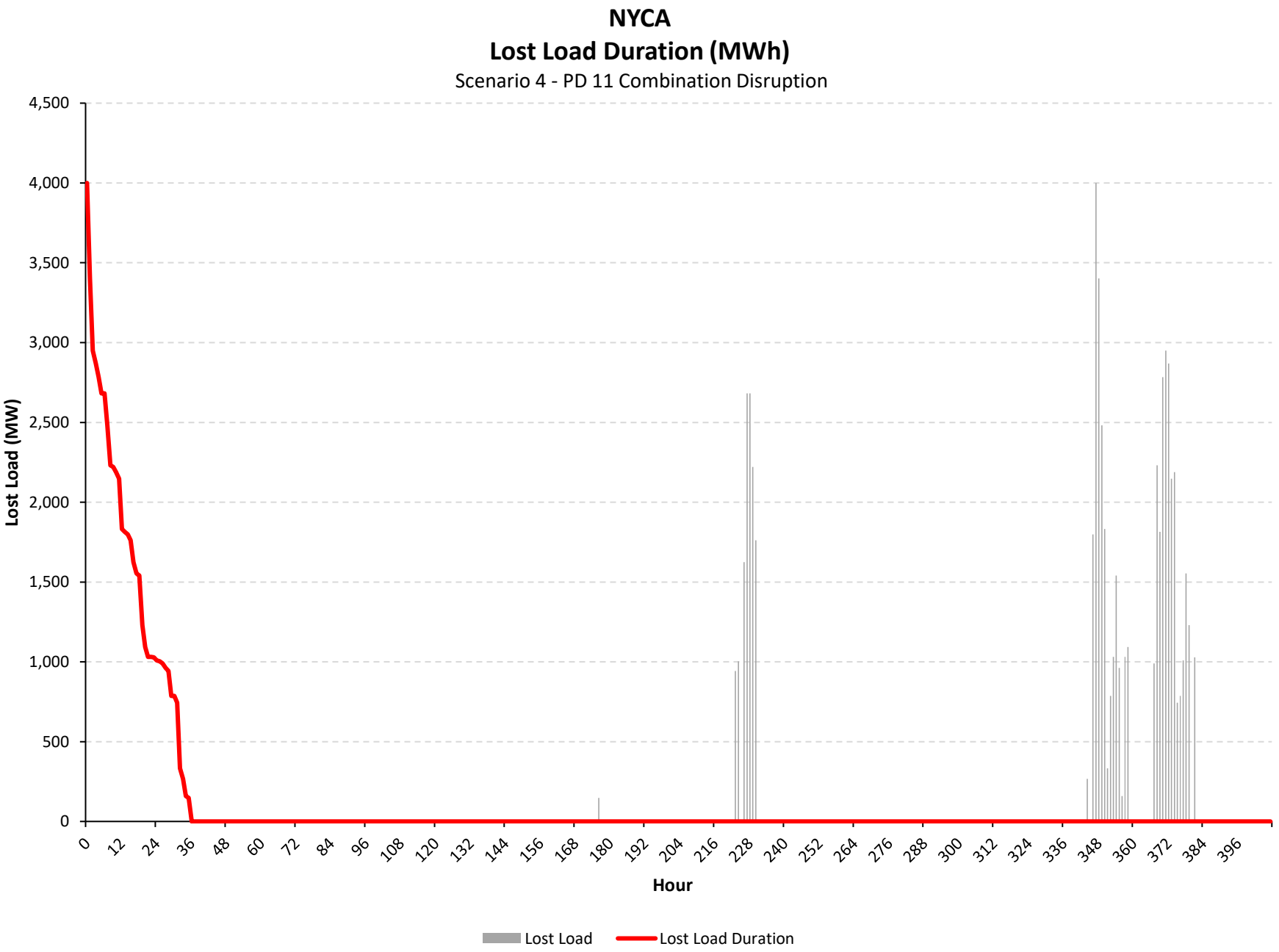


NYCA
Degree Days and Gas Available for Electric Generation 17-Day Modeling Period
Scenario 4 - PD 11 Combination Disruption



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 4 - PD 11 Combination Disruption
Emergency Actions and Lost Load (MW)
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 4 - PD 11 Combination Disruption
Lost Load (MW)
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

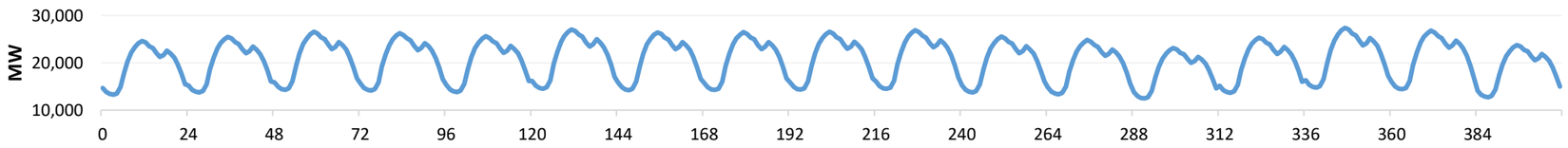
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 5 - PD 1 No Disruptions (Winter 2026/2027)

Hourly Results Summary

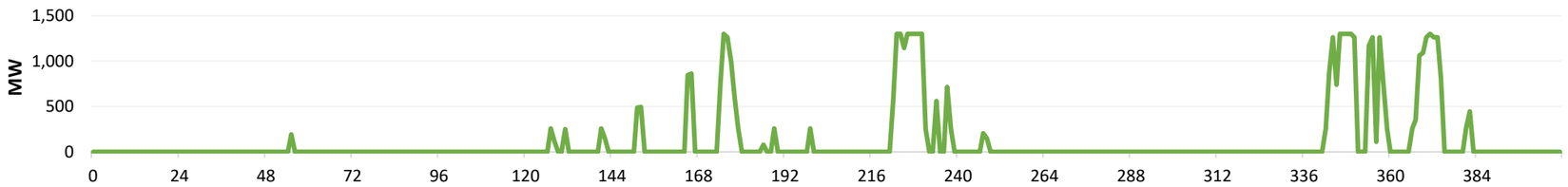
Case Name: Scenario 5 - PD 1 No Disruptions

Load During Modeling Period



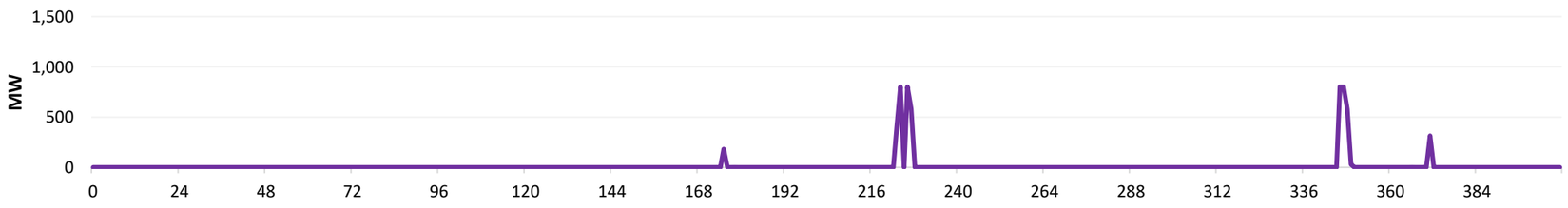
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



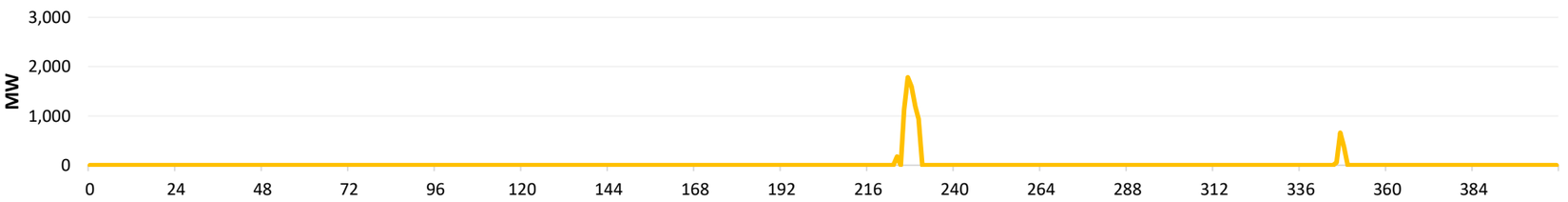
Export Reductions	
Total Hrs.	60
Total MWh	46,427
Avg. MW	113.8

SCR/EDRP Deployed During Modeling Period



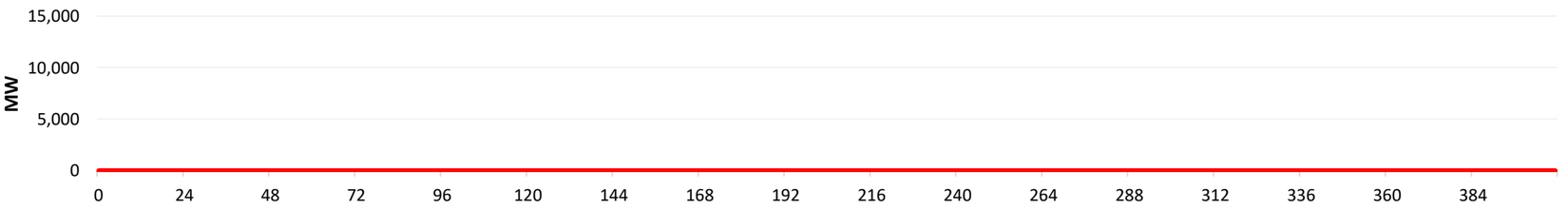
SCR Deployment	
Total Hrs.	10
Total MWh	5,287
Avg. MW	13.0

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	9
Total MWh	7,901
Avg. MW	19.4
First Hour with Viol.	224

Loss of Load During Modeling Period



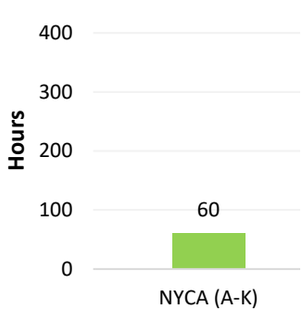
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

Full Period Results Summary

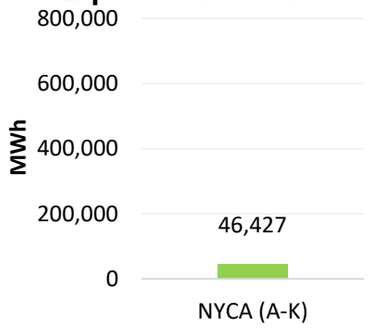
Case Name: Scenario 5 - PD 1 No Disruptions

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

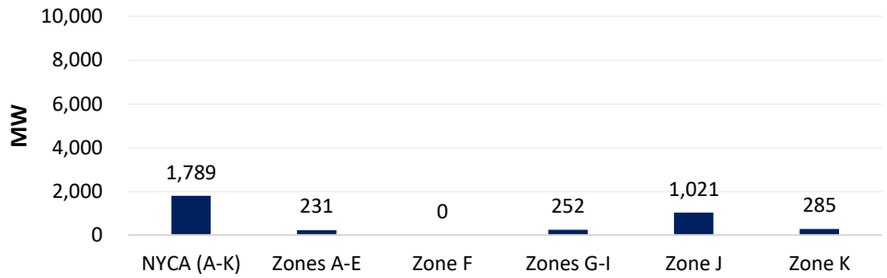
Hours Exports Reduced



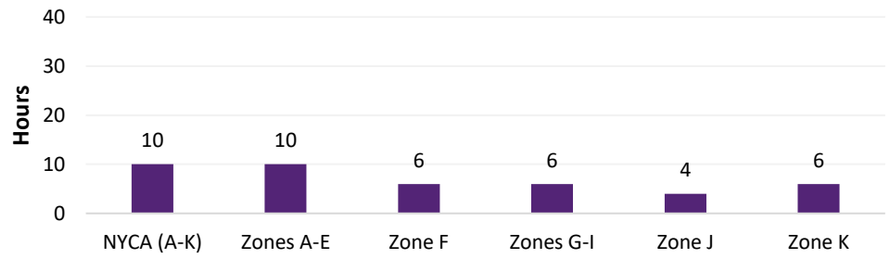
Total MWh of Exports Reduced



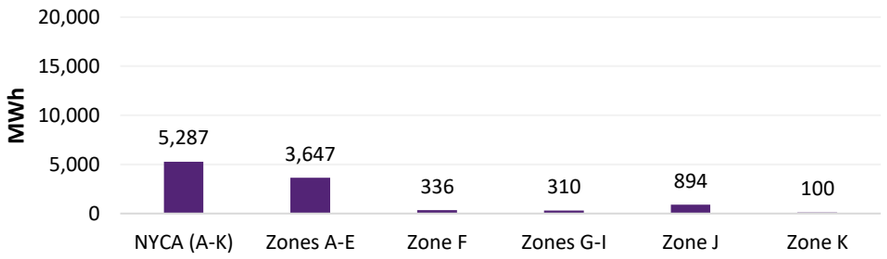
Average Capacity Not Available Due to Exhausted Fuel Inventory



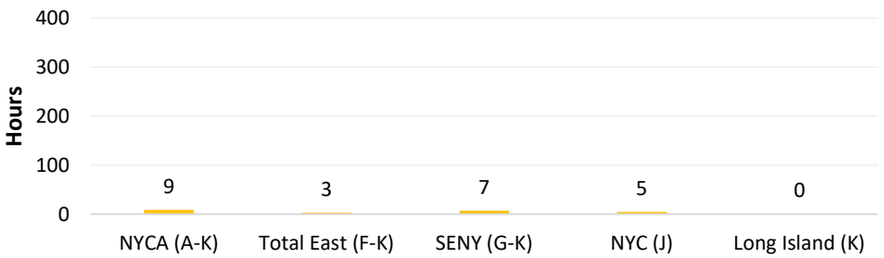
Hours SCR/EDRP Deployed



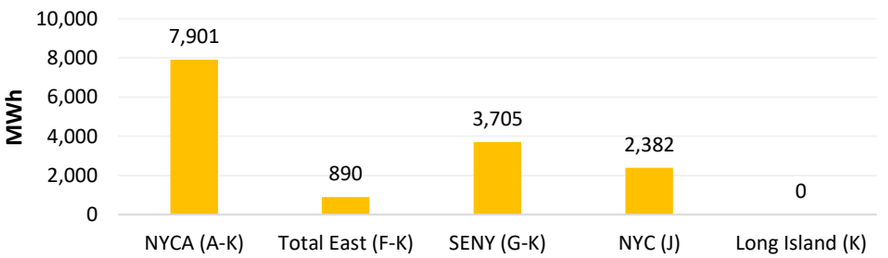
Total MWh SCR/EDRP Deployed



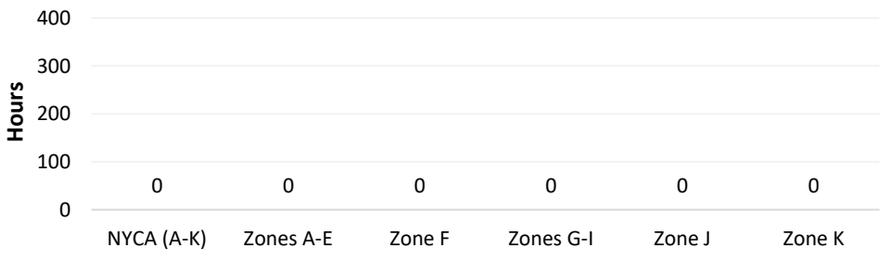
Hours with Reserve Violations



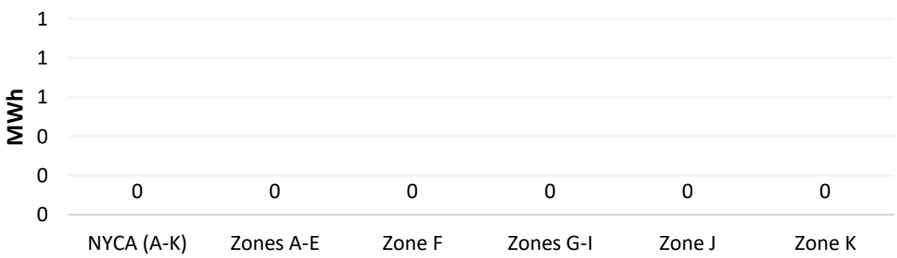
Total MWh of Reserve Violations

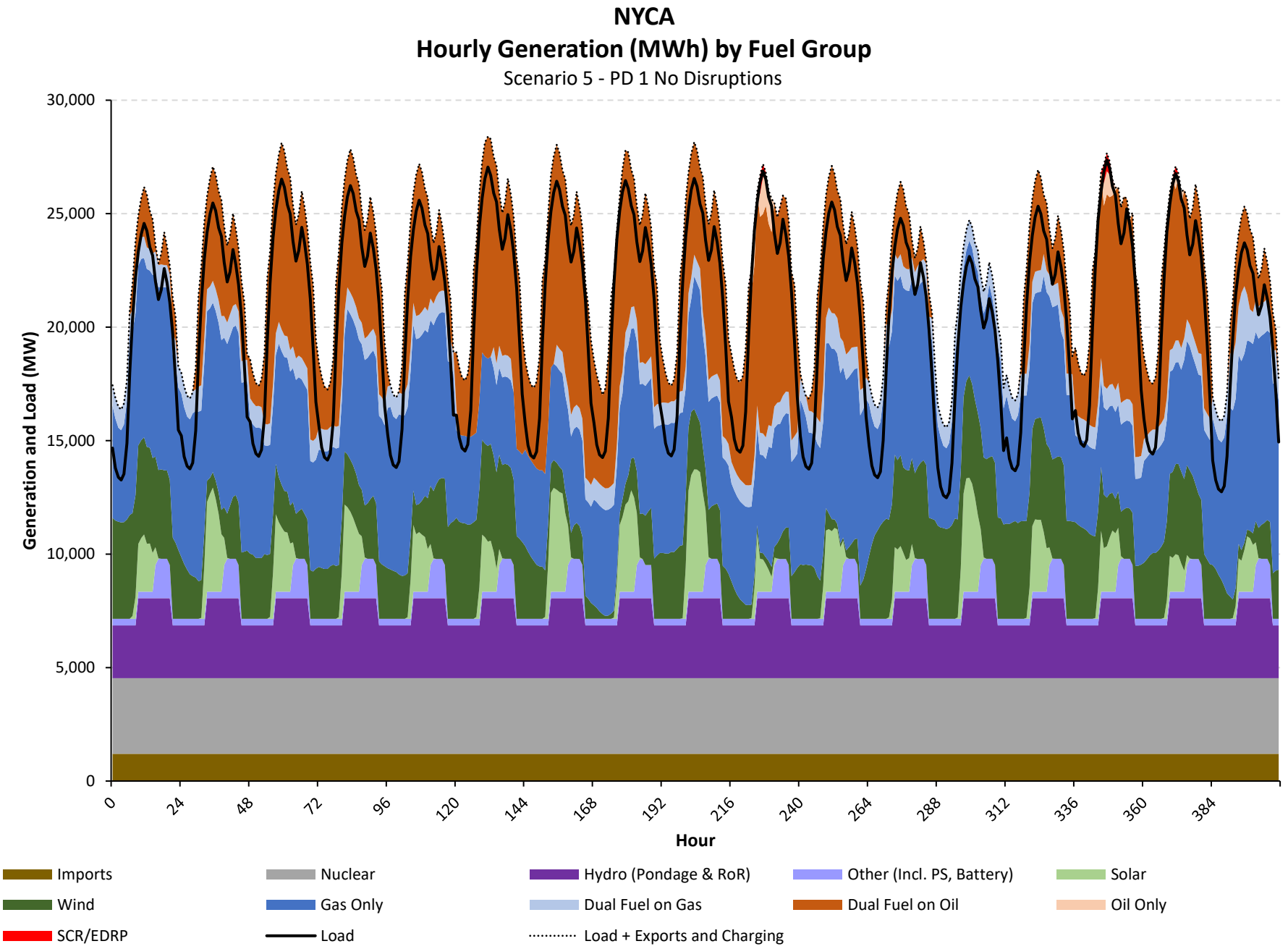


Hours with Loss of Load

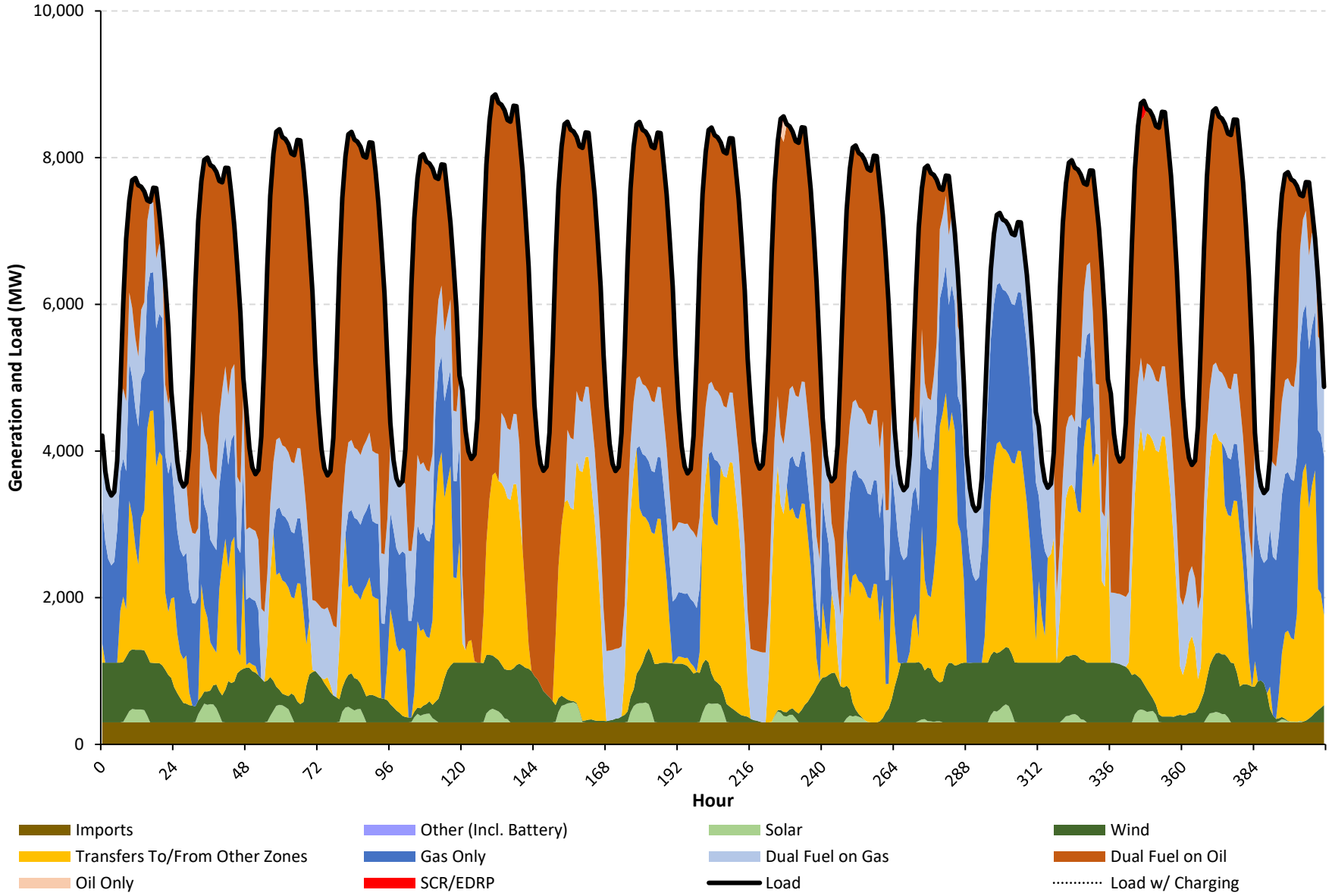


Total MWh of Lost Load

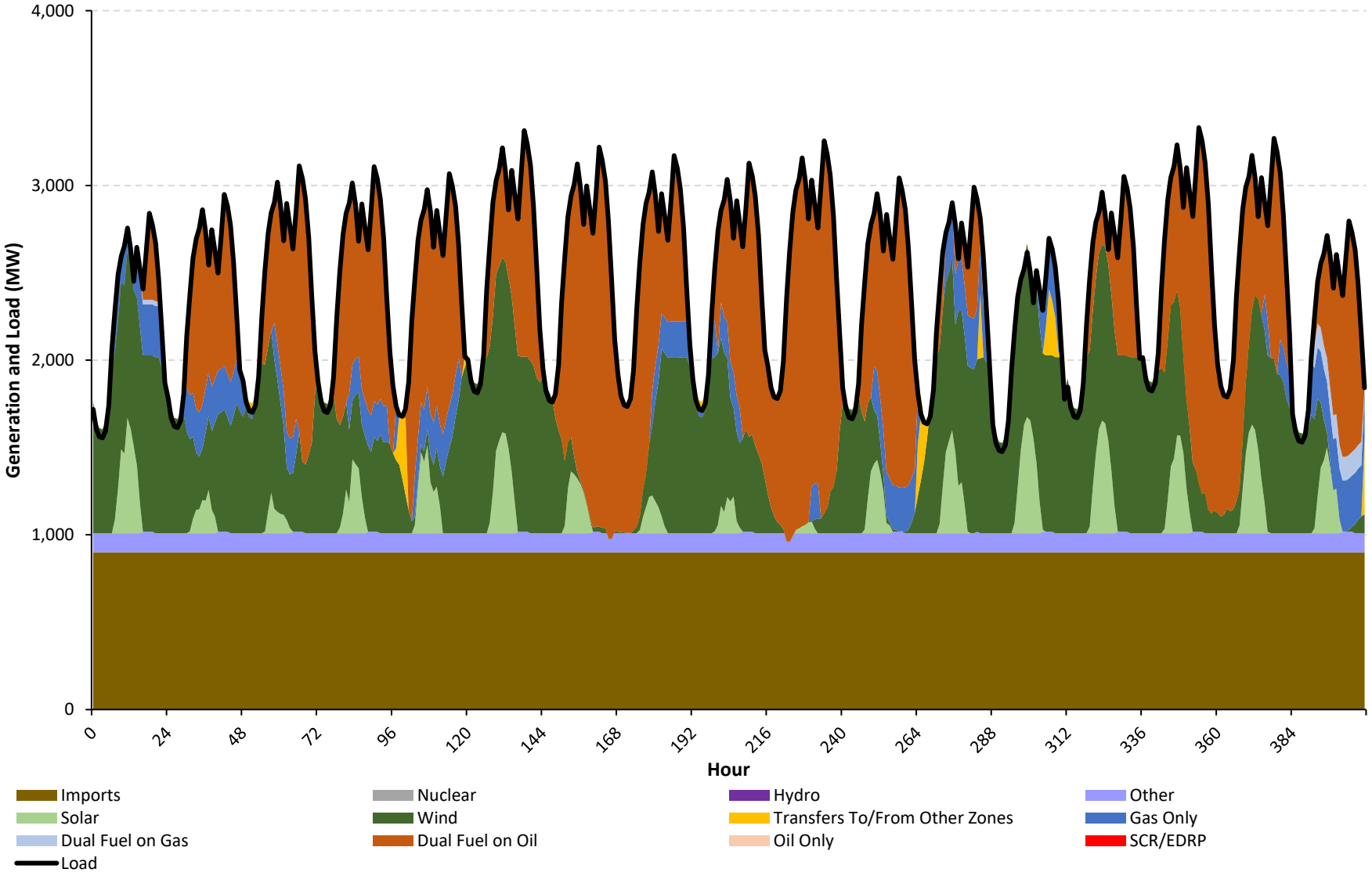


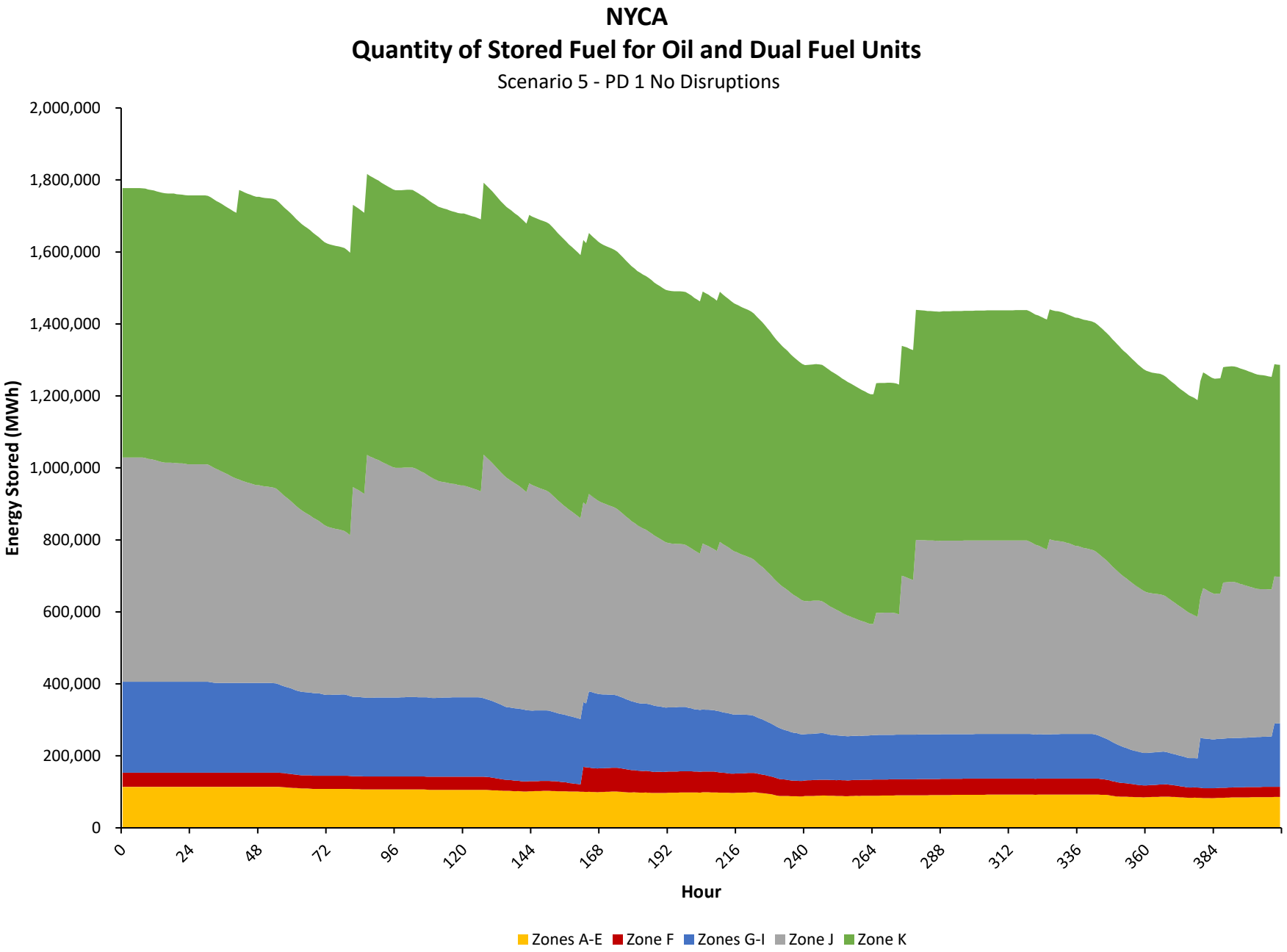

NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 5 - PD 1 No Disruptions
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

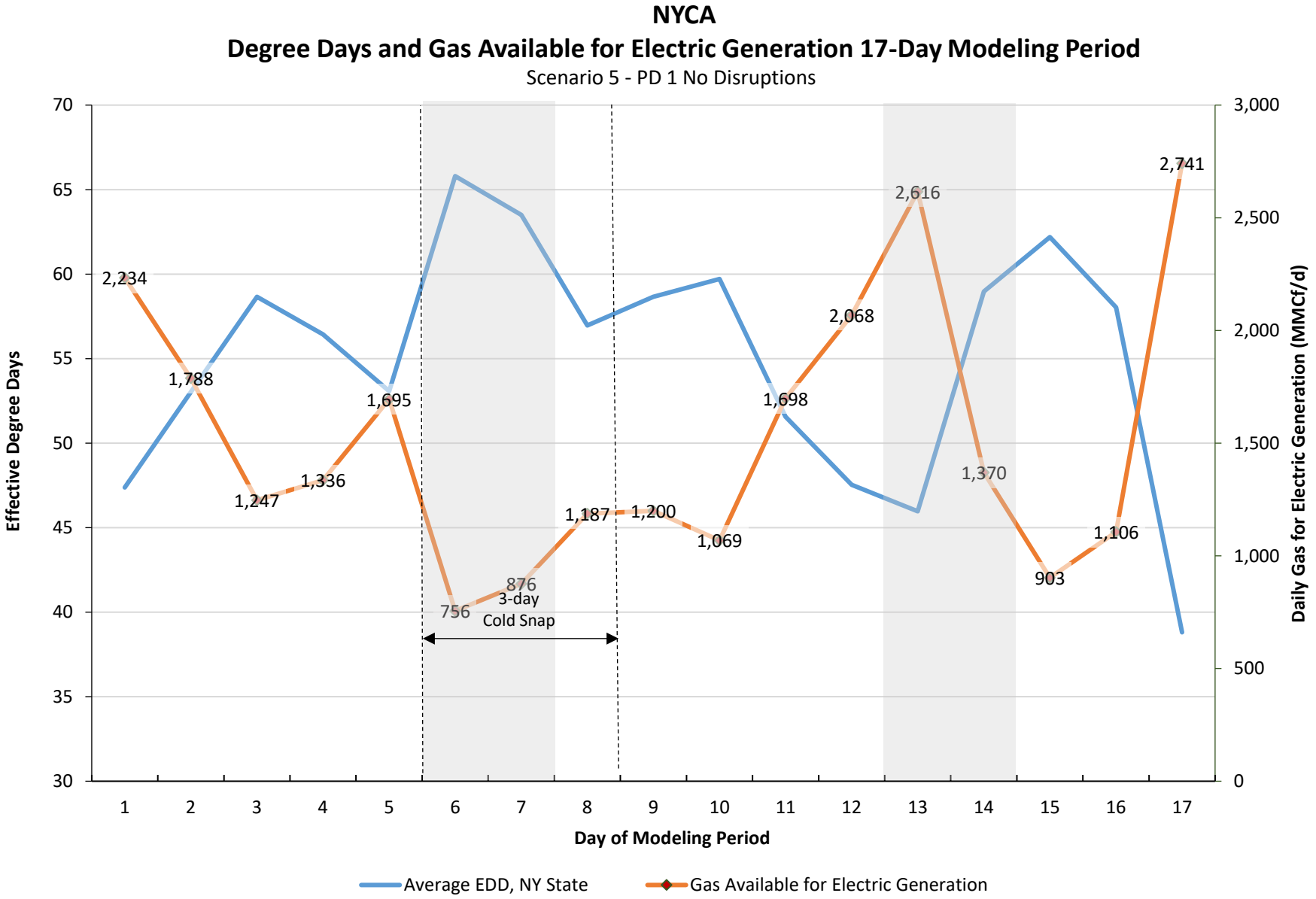
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 1 No Disruptions



Zone K
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 1 No Disruptions




NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 5 - PD 1 No Disruptions
Energy Stored (MWh)
2,000,000
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Zones A-E
Zone F
Zones G-I
Zone J
Zone K

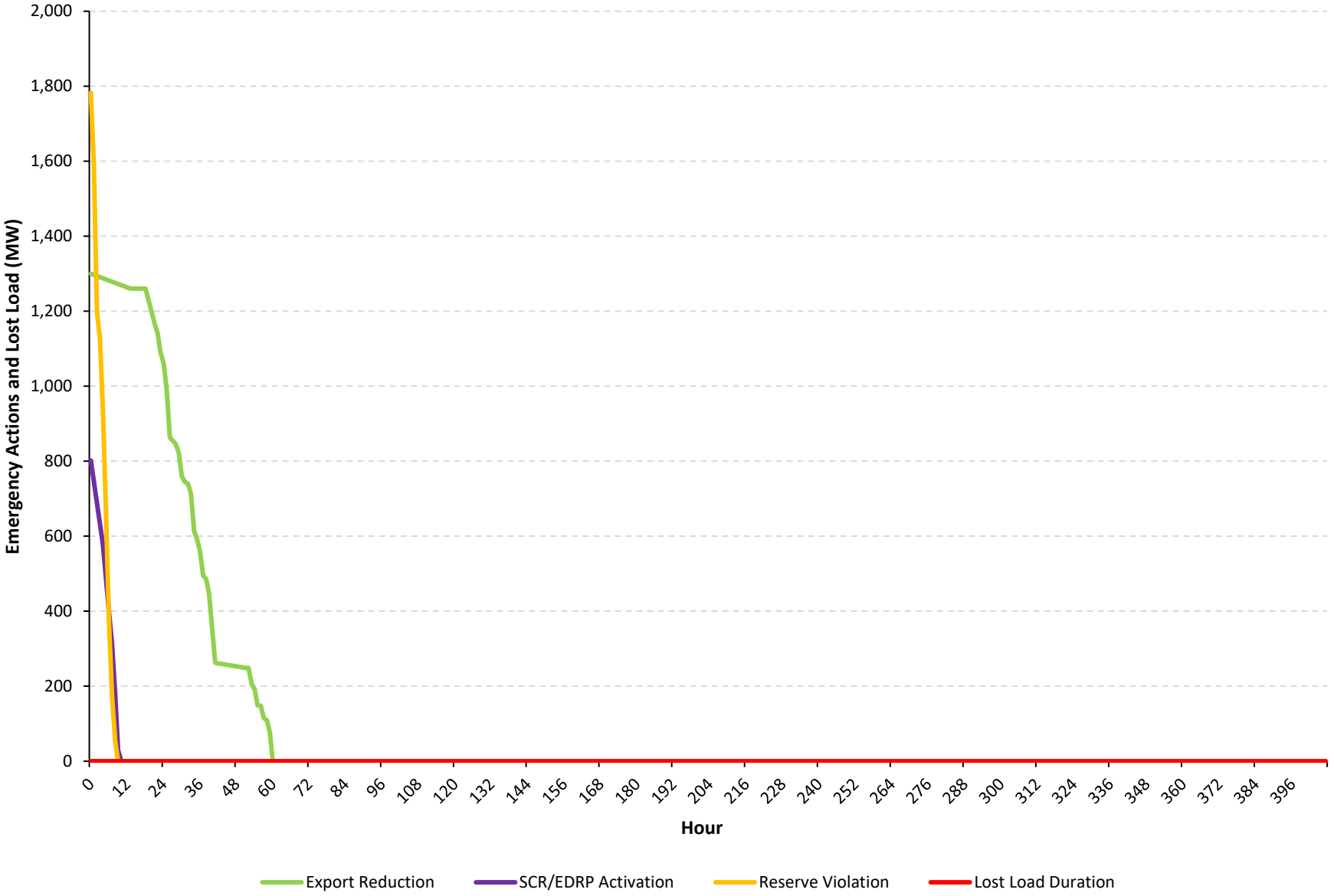


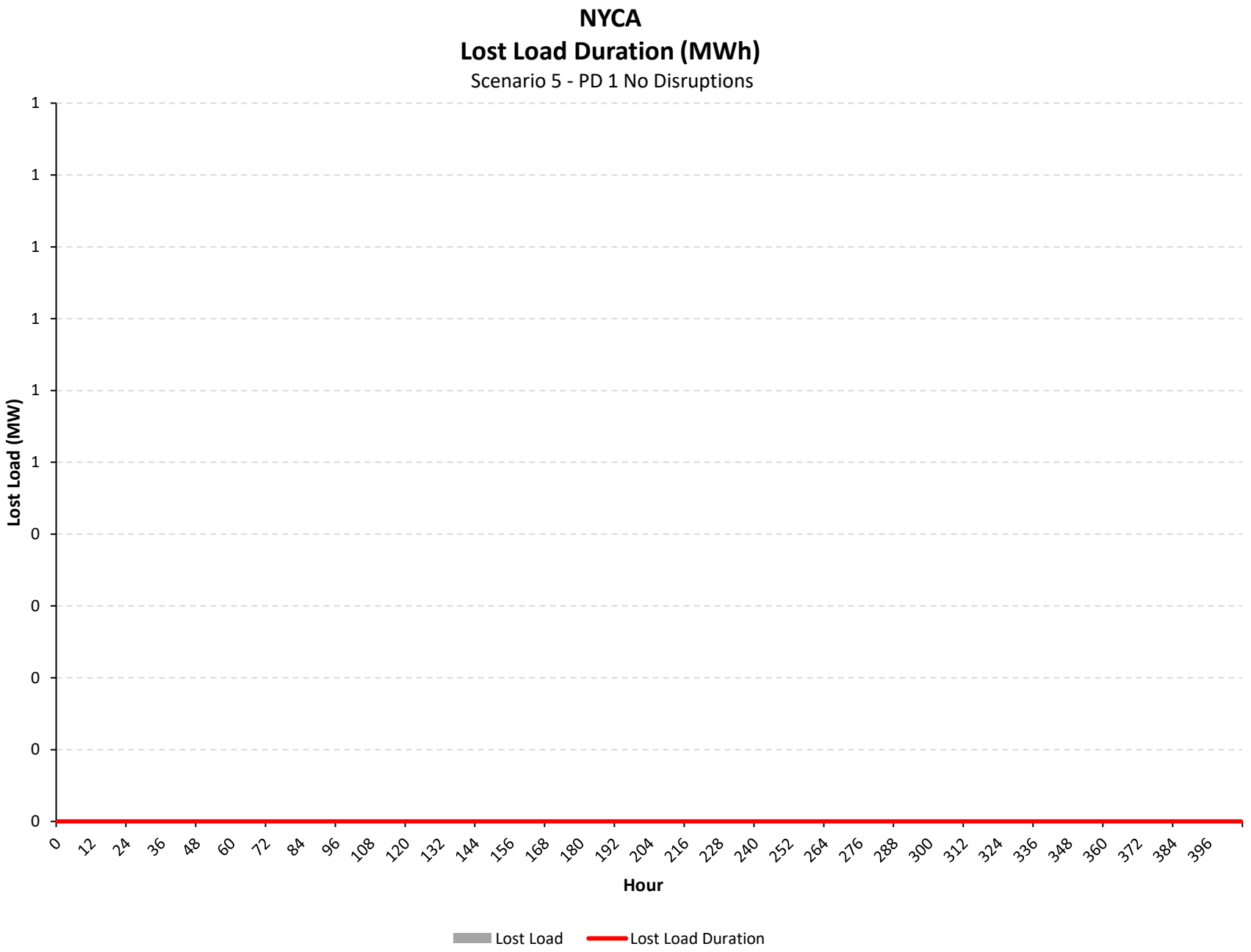
Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.

NYCA

Emergency Actions and Lost Load Duration (MWh)

Scenario 5 - PD 1 No Disruptions




NYCA
Lost Load Duration (MWh)
Scenario 5 - PD 1 No Disruptions
Lost Load (MW)
1
1
1
1
1
1
0
0
0
0
0
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

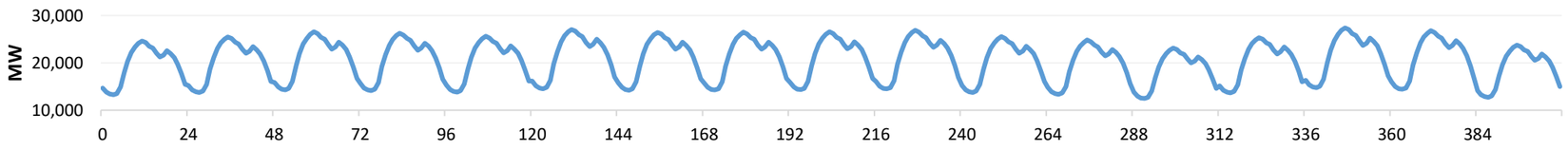
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 5 - PD 2 High Outage (Winter 2026/2027)

Hourly Results Summary

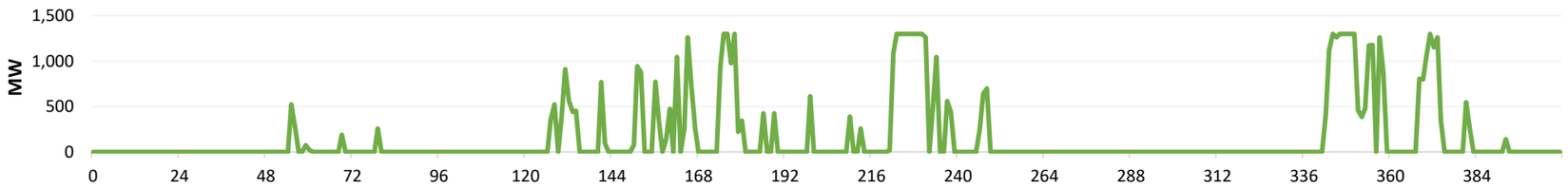
Case Name: Scenario 5 - PD 2 High Outage

Load During Modeling Period



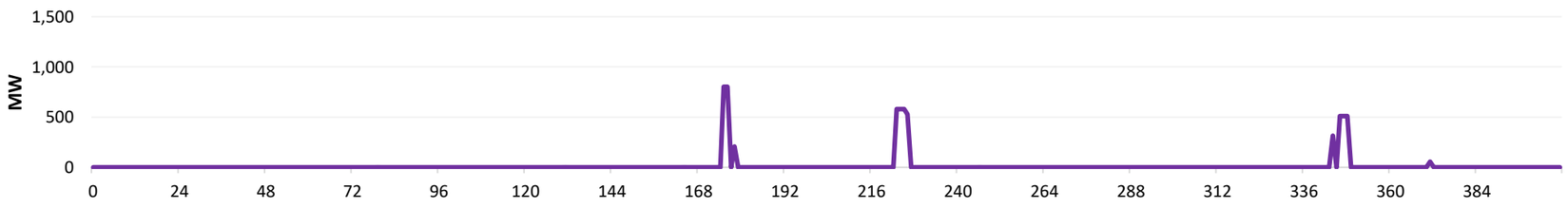
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



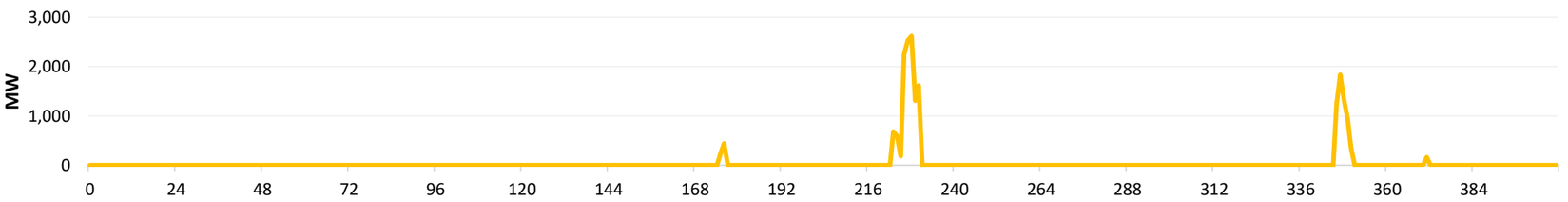
Export Reductions	
Total Hrs.	83
Total MWh	62,422
Avg. MW	153.0

SCR/EDRP Deployed During Modeling Period



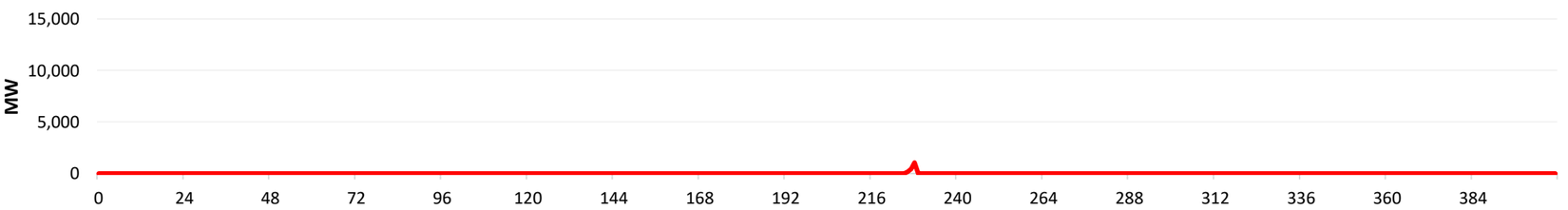
SCR Deployment	
Total Hrs.	12
Total MWh	5,976
Avg. MW	14.6

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	16
Total MWh	18,271
Avg. MW	44.8
First Hour with Viol.	175

Loss of Load During Modeling Period



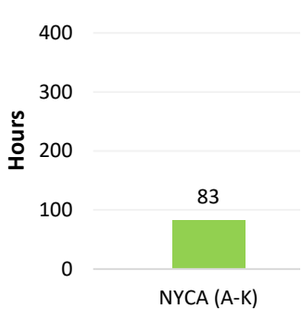
Loss of Load	
Total Hrs.	3
Total MWh	1,682
Avg. MW	4.1
First Hour with Losses	226

Full Period Results Summary

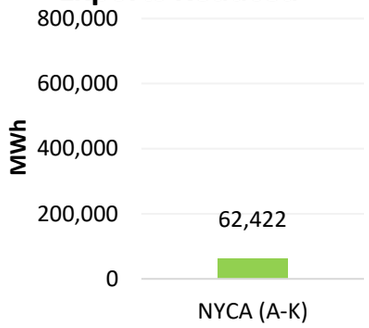
Case Name: Scenario 5 - PD 2 High Outage

Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

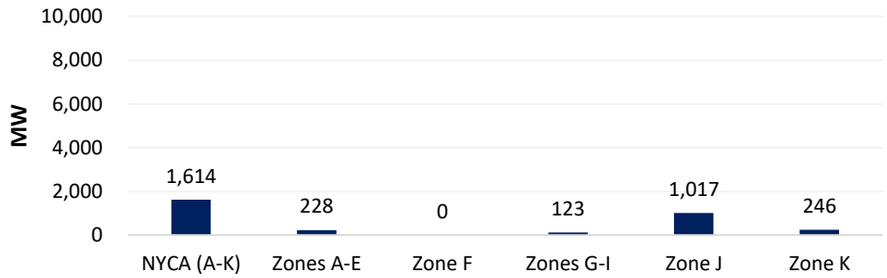
Hours Exports Reduced



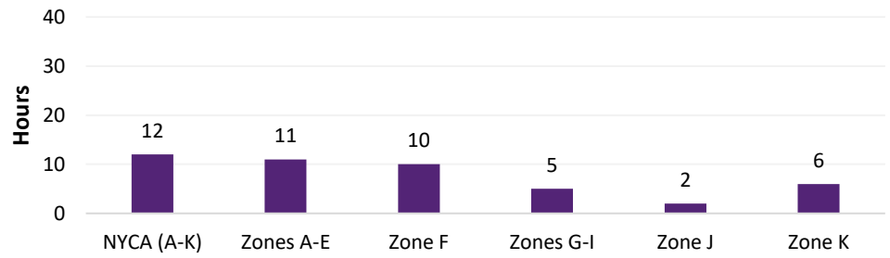
Total MWh of Exports Reduced



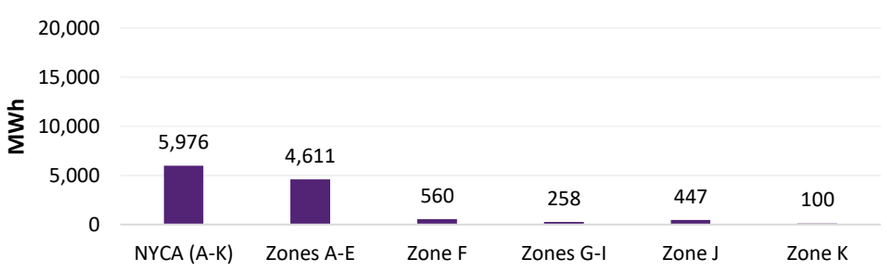
Average Capacity Not Available Due to Exhausted Fuel Inventory



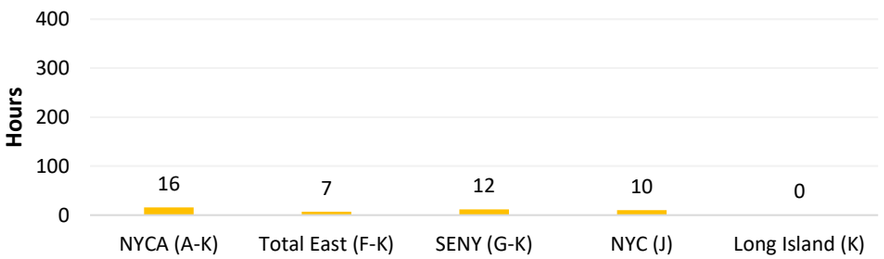
Hours SCR/EDRP Deployed



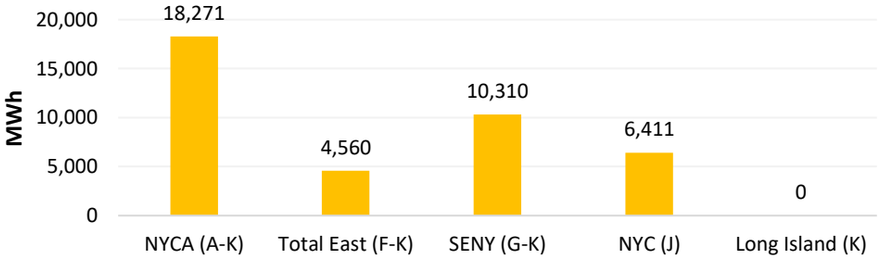
Total MWh SCR/EDRP Deployed



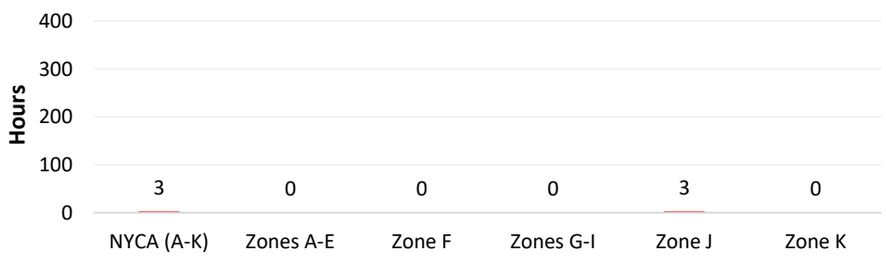
Hours with Reserve Violations



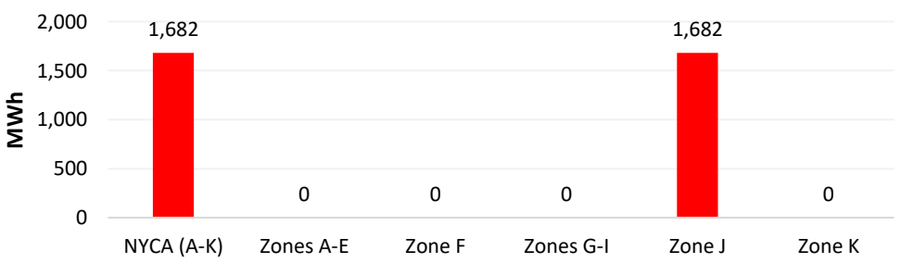
Total MWh of Reserve Violations

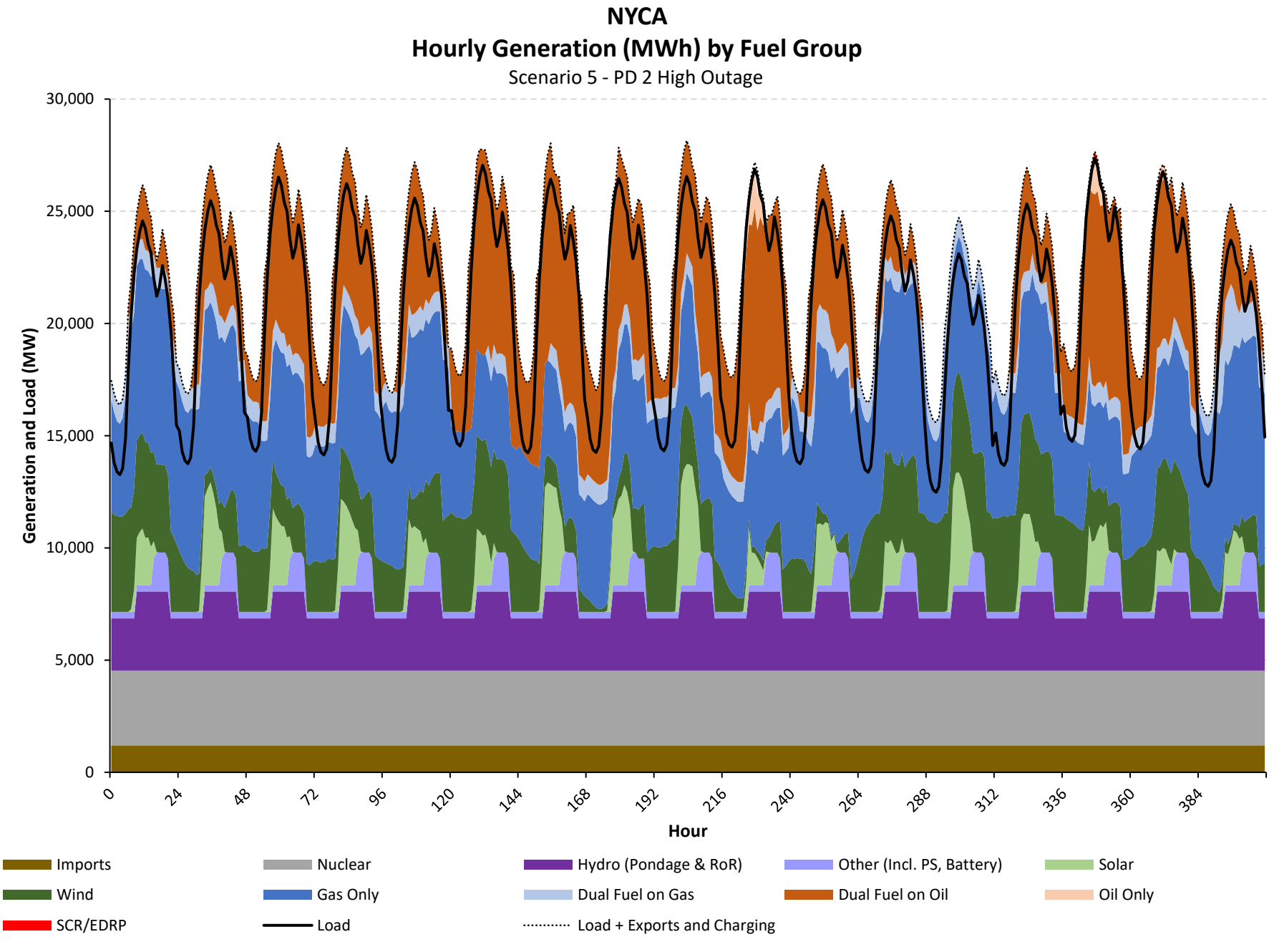


Hours with Loss of Load

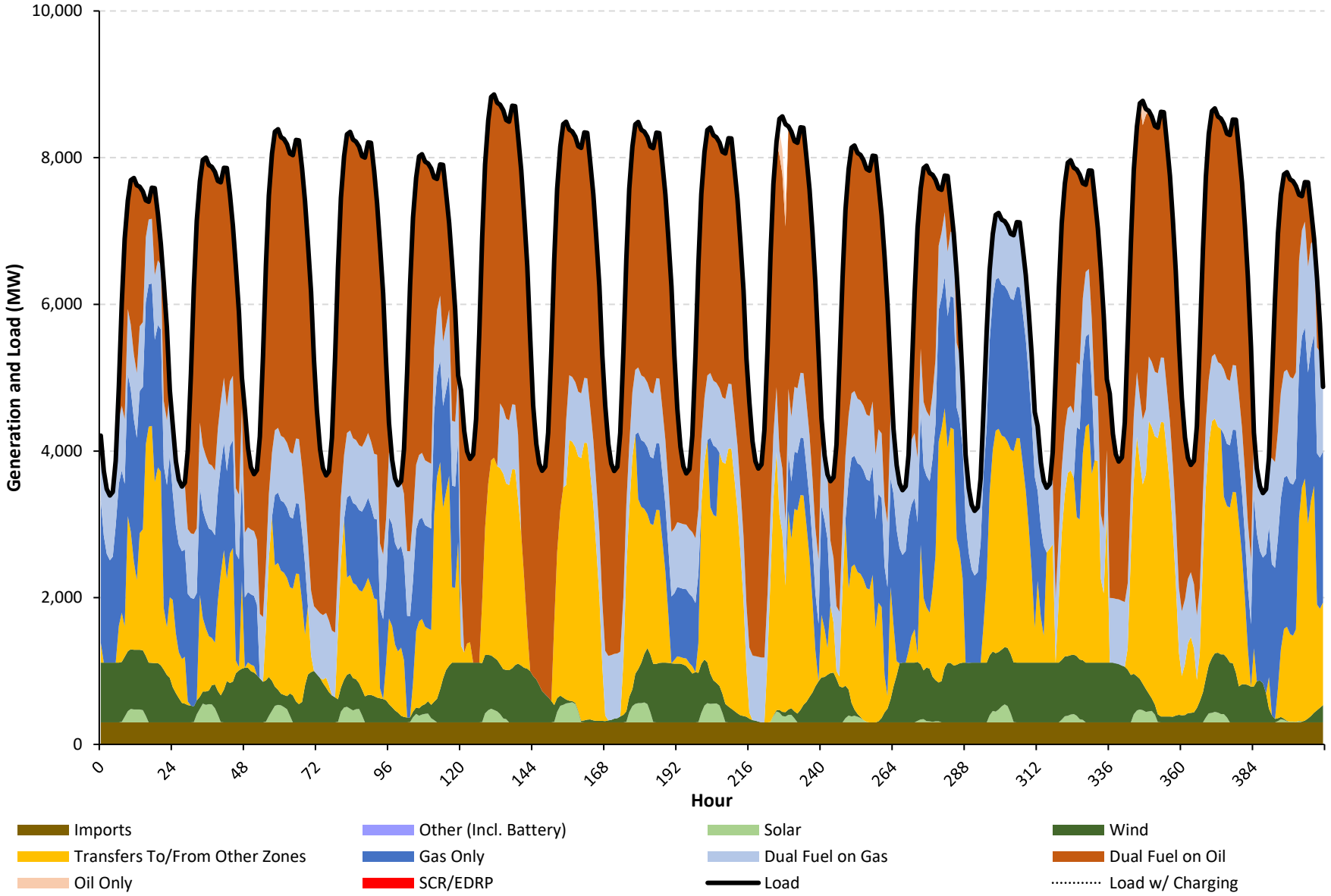


Total MWh of Lost Load

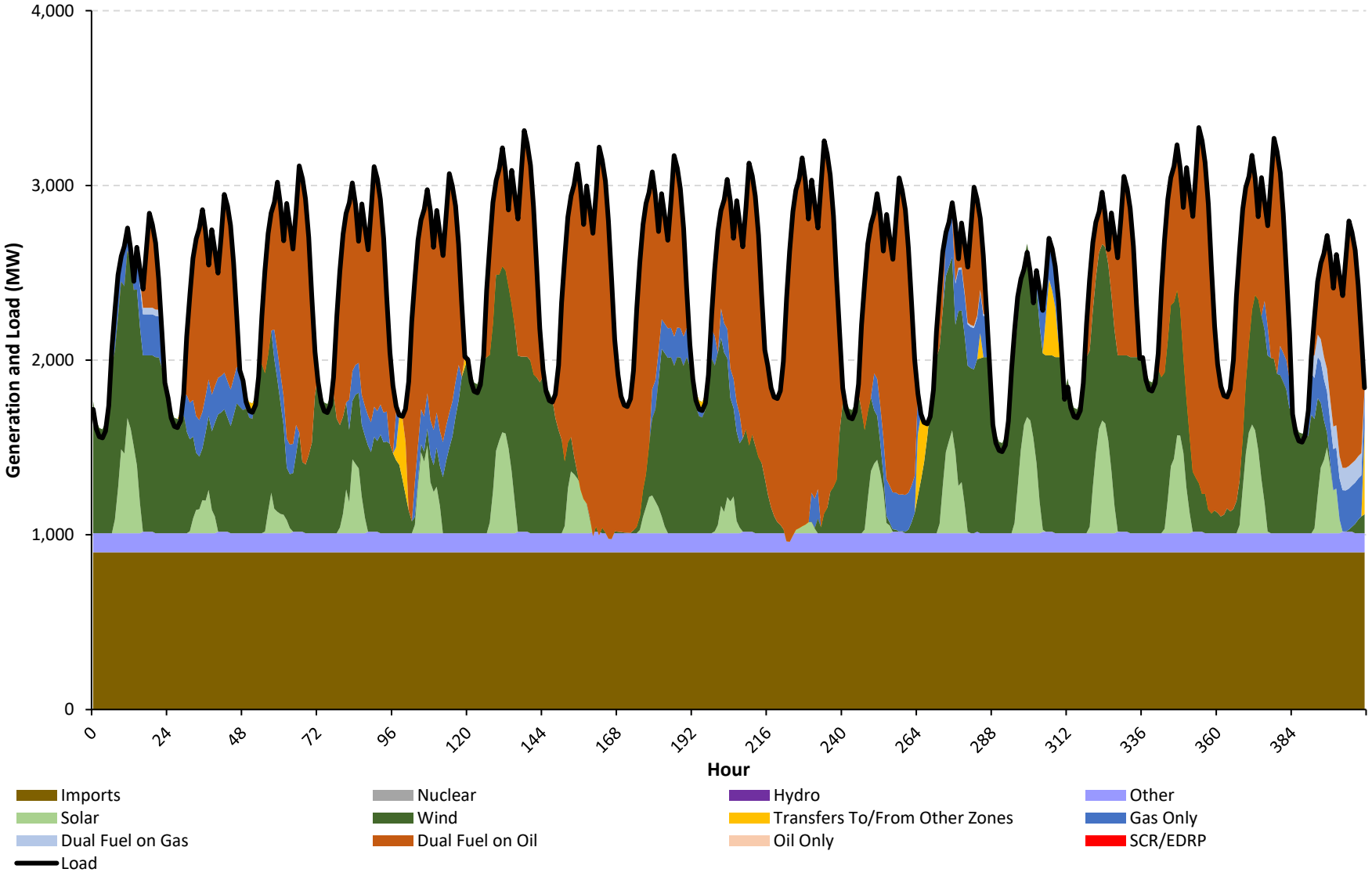



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 5 - PD 2 High Outage
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

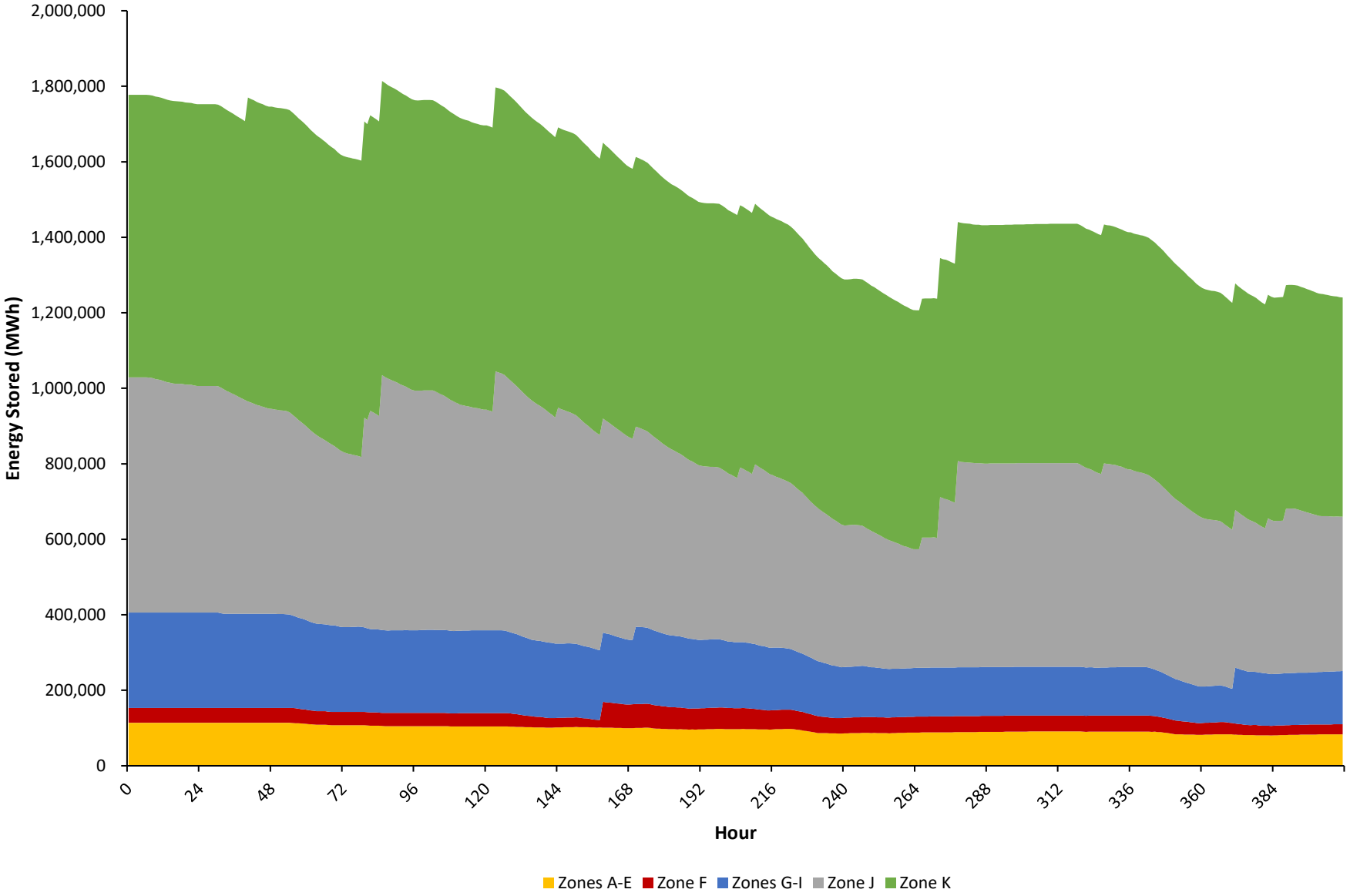
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 2 High Outage

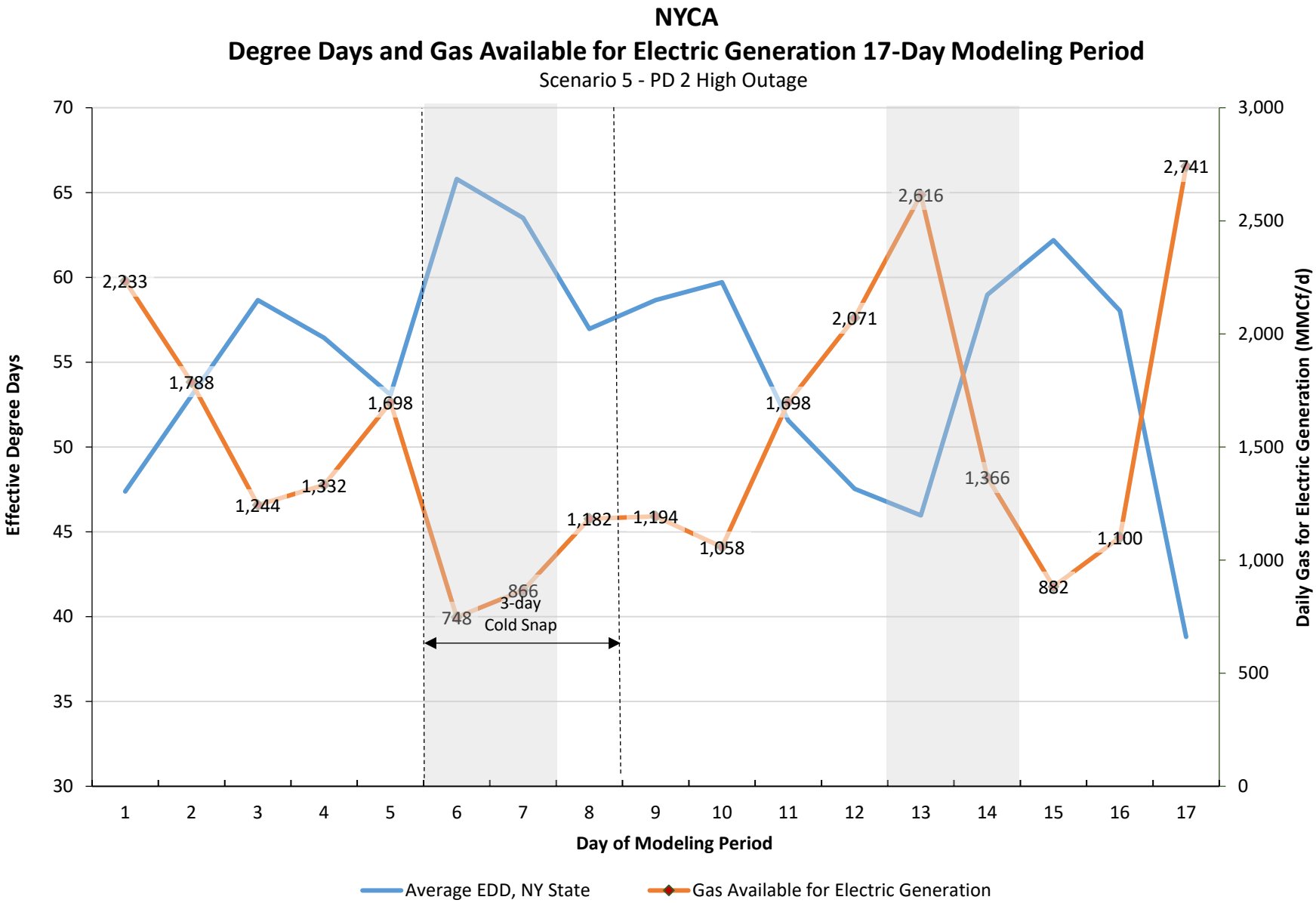


Zone K
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 2 High Outage

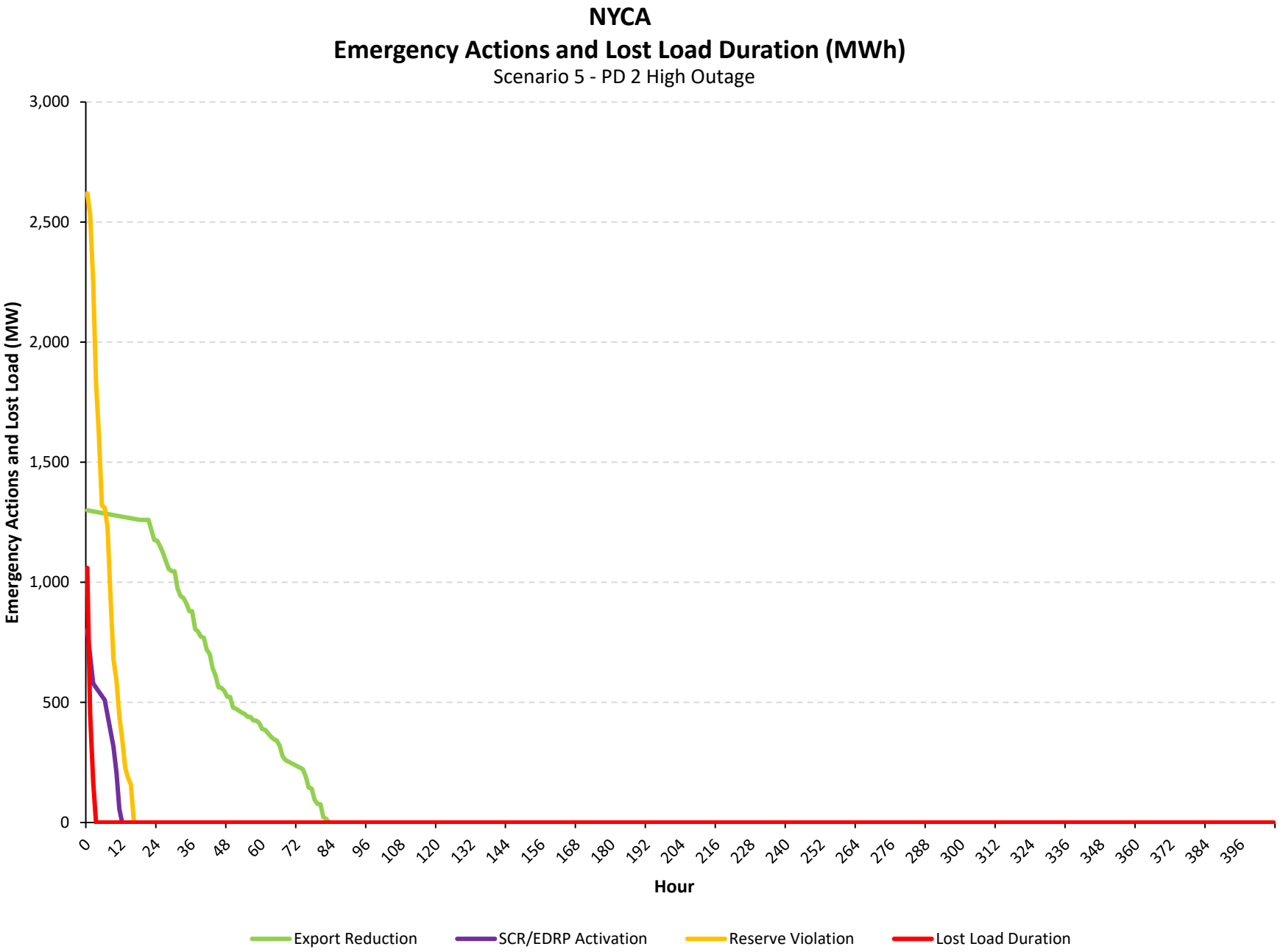


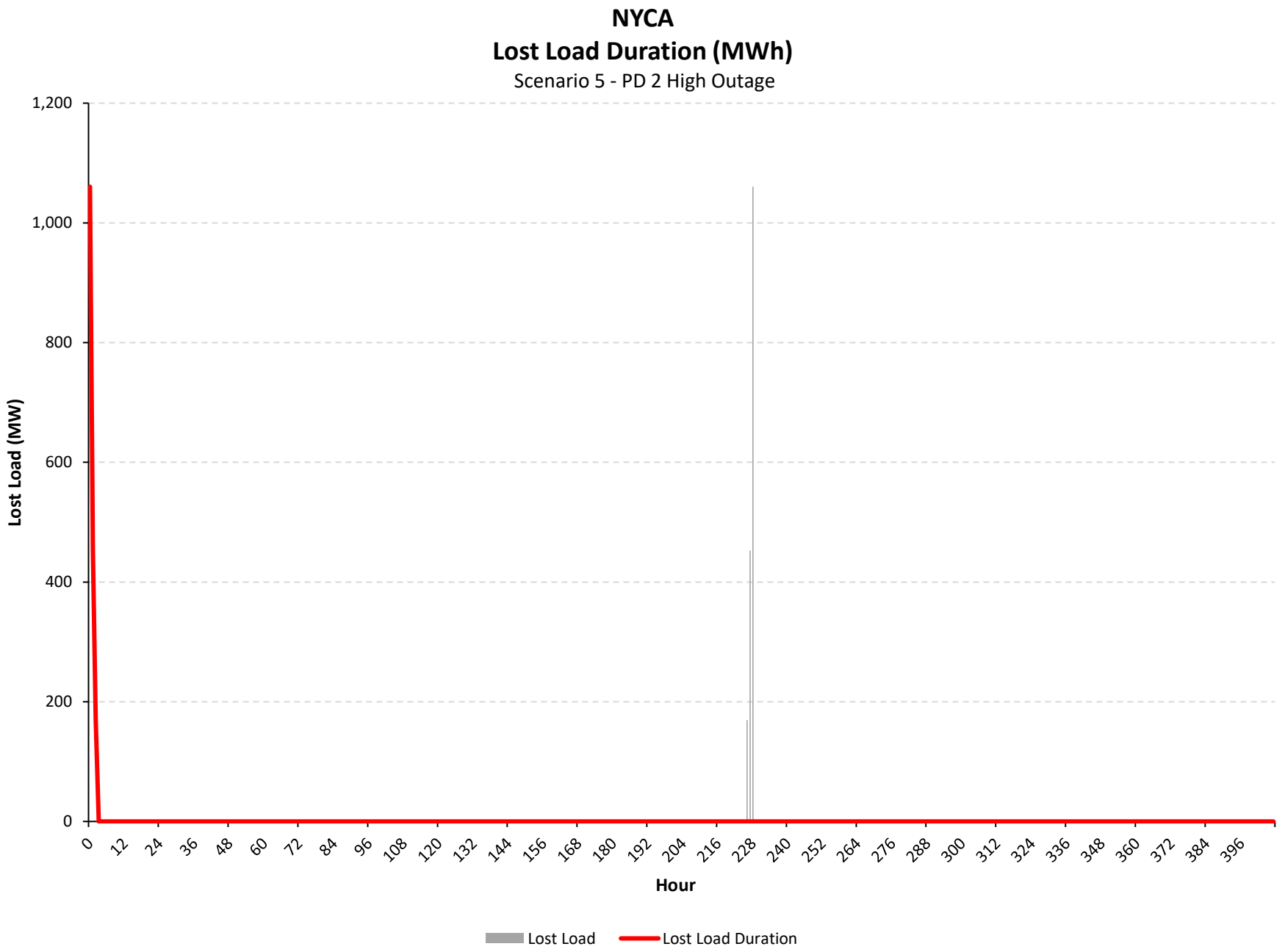
NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 5 - PD 2 High Outage





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 5 - PD 2 High Outage
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 5 - PD 2 High Outage
1,200
1,000
800
600
400
200
0
Lost Load (MW)
0
12
24
36
48
60
72
84
96
108
120
132
144
156
168
180
192
204
216
228
240
252
264
276
288
300
312
324
336
348
360
372
384
396
Hour
Lost Load
Lost Load Duration

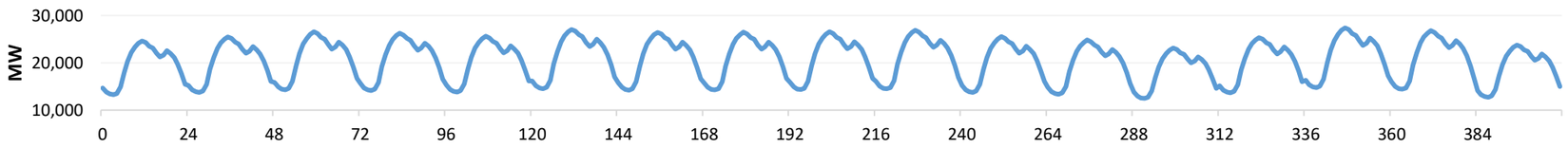
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 5 - PD 3 SENY Deactivation (Winter 2026/2027)

Hourly Results Summary

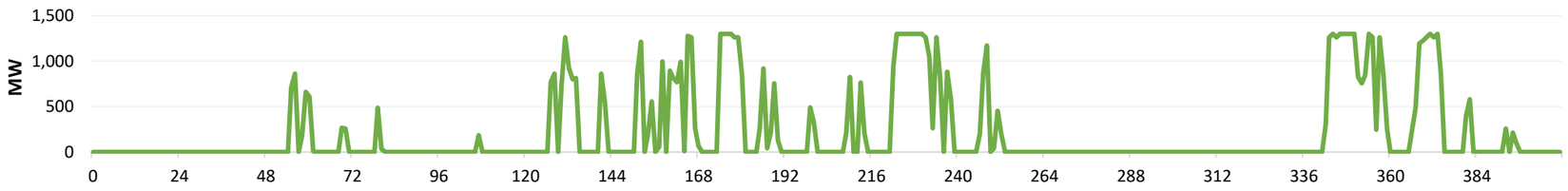
Case Name: Scenario 5 - PD 3 SENY Deactivation

Load During Modeling Period



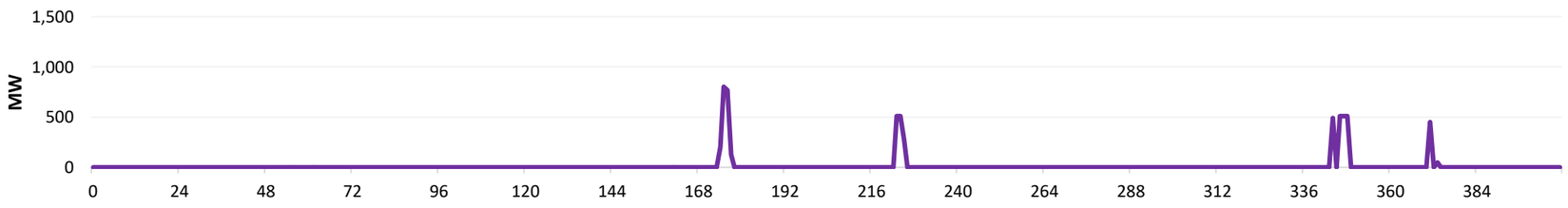
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



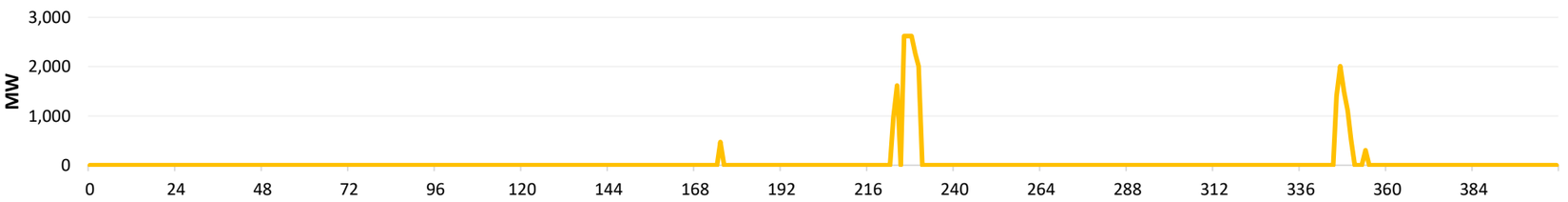
Export Reductions	
Total Hrs.	108
Total MWh	85,119
Avg. MW	208.6

SCR/EDRP Deployed During Modeling Period



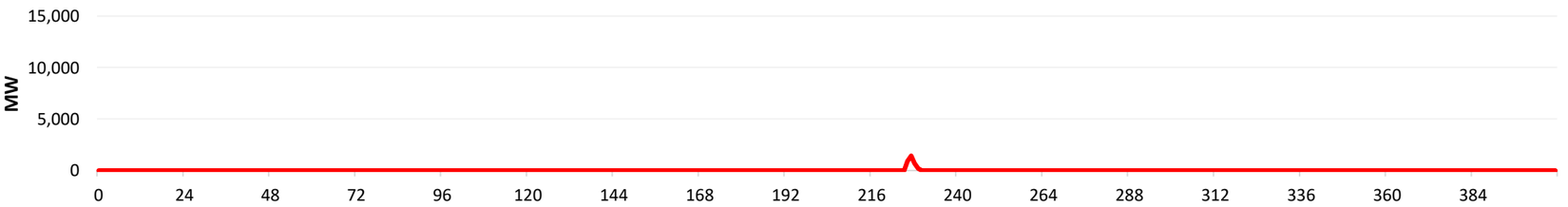
SCR Deployment	
Total Hrs.	13
Total MWh	5,715
Avg. MW	14.0

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	14
Total MWh	22,010
Avg. MW	53.9
First Hour with Viol.	175

Loss of Load During Modeling Period



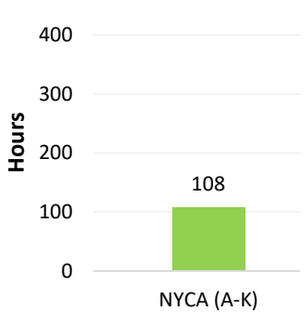
Loss of Load	
Total Hrs.	4
Total MWh	3,203
Avg. MW	7.9
First Hour with Losses	226

Full Period Results Summary

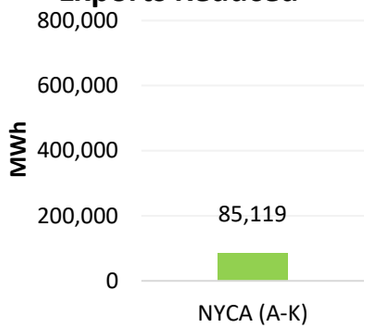
Case Name: Scenario 5 - PD 3 SENY Deactivation

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	All

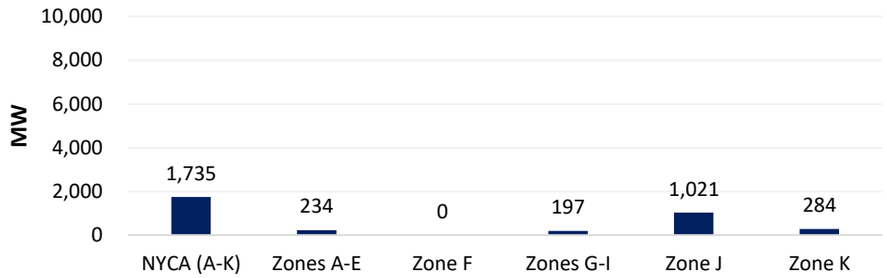
Hours Exports Reduced



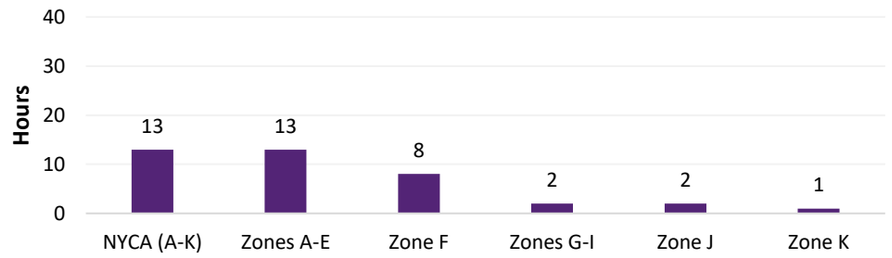
Total MWh of Exports Reduced



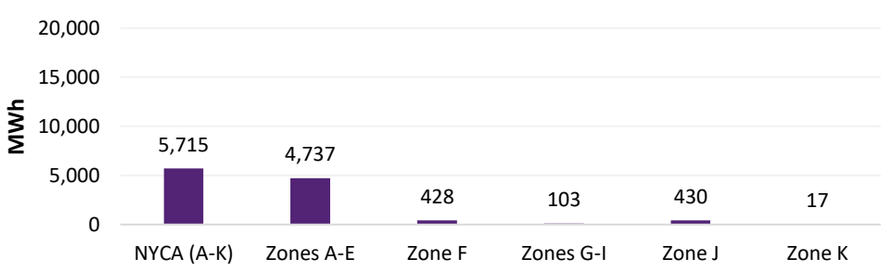
Average Capacity Not Available Due to Exhausted Fuel Inventory



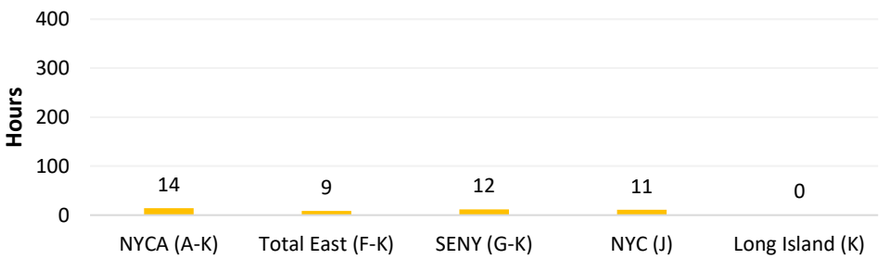
Hours SCR/EDRP Deployed



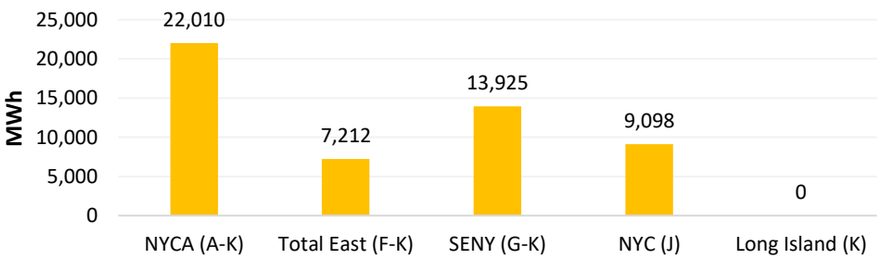
Total MWh SCR/EDRP Deployed



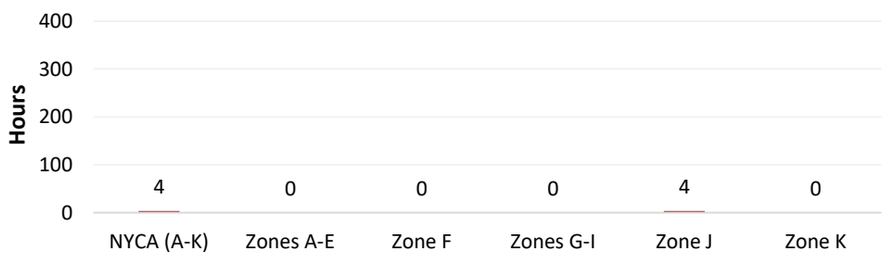
Hours with Reserve Violations



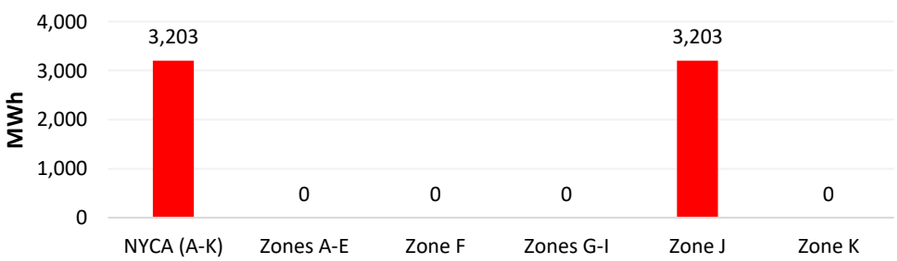
Total MWh of Reserve Violations

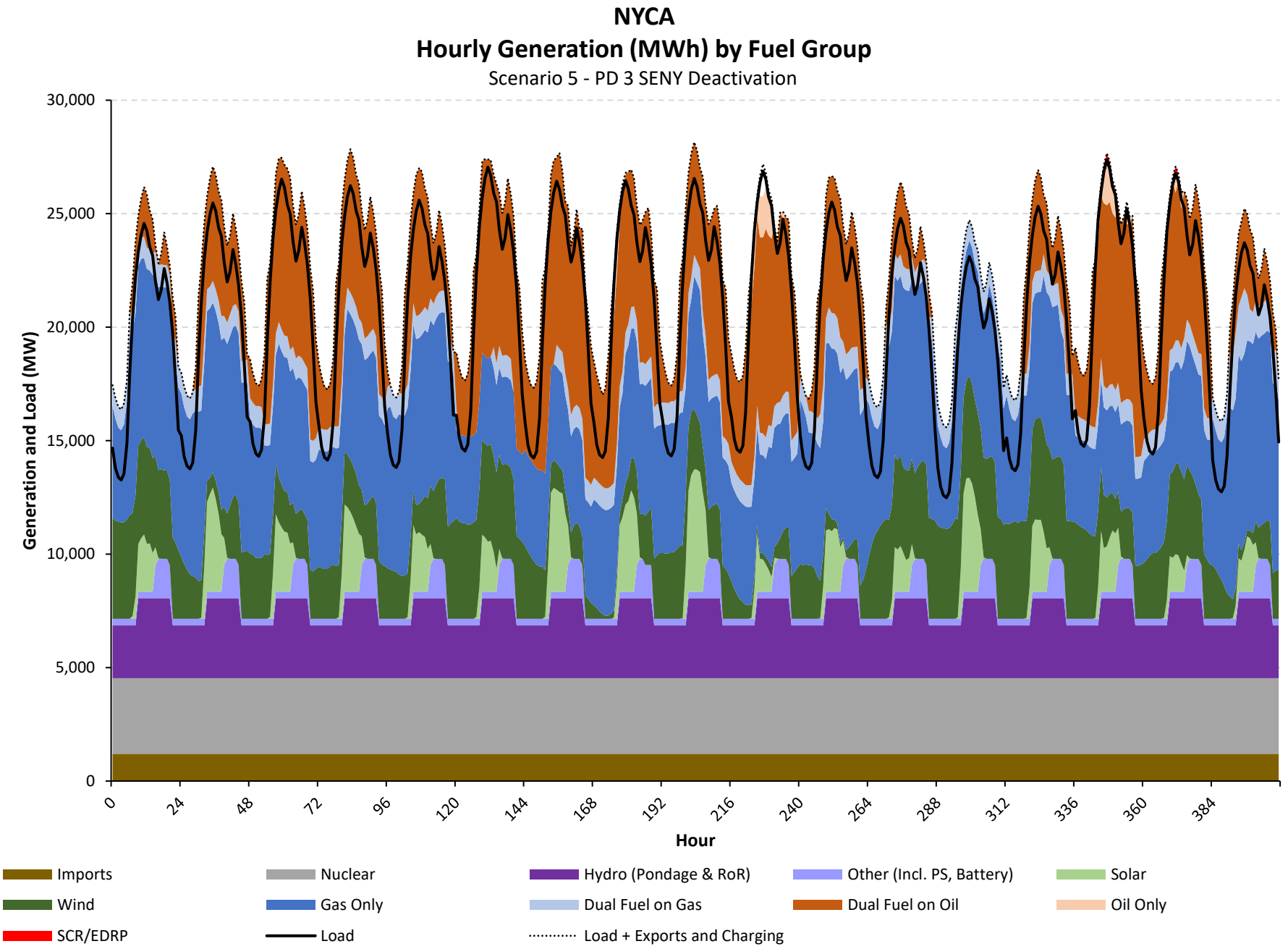


Hours with Loss of Load

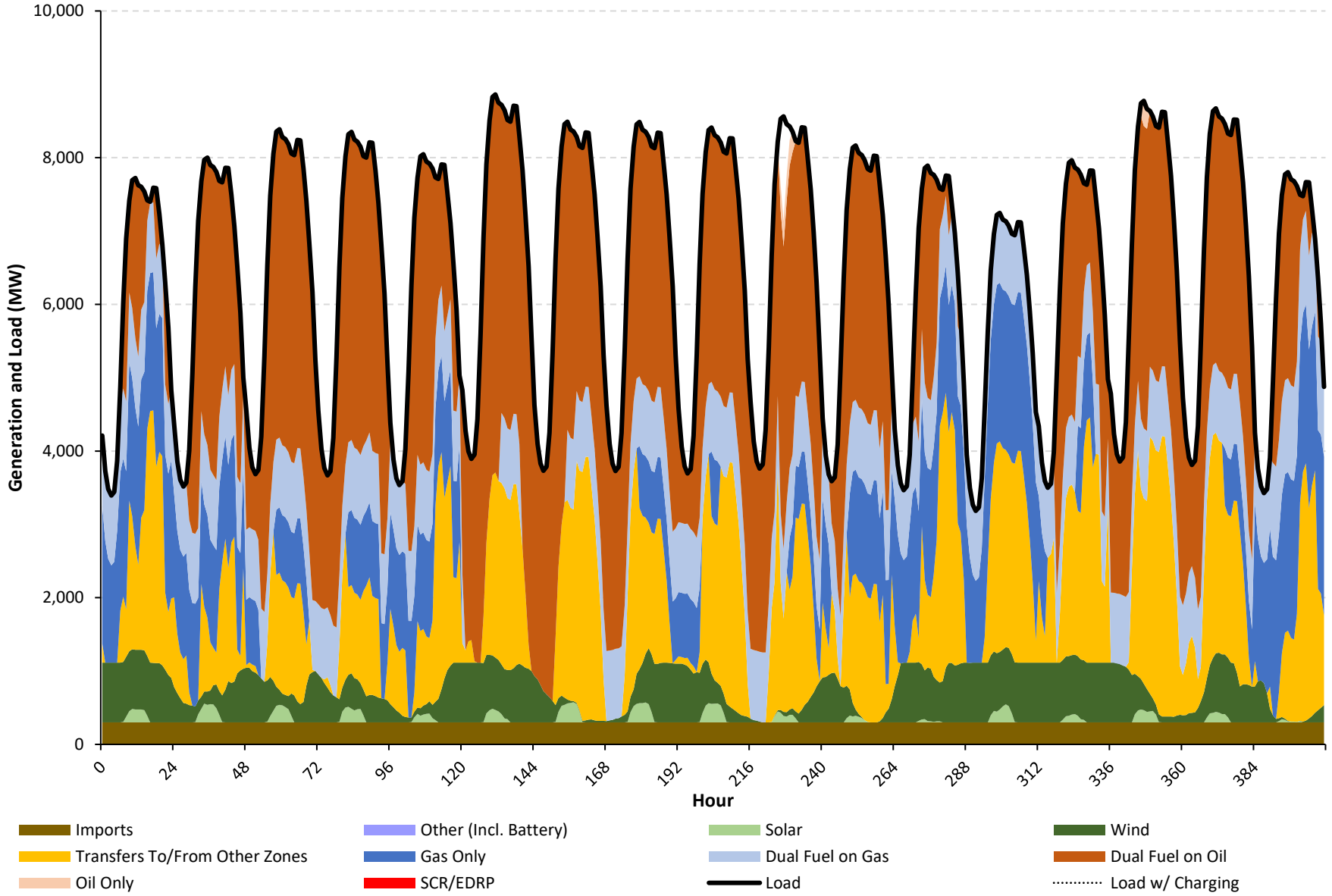


Total MWh of Lost Load

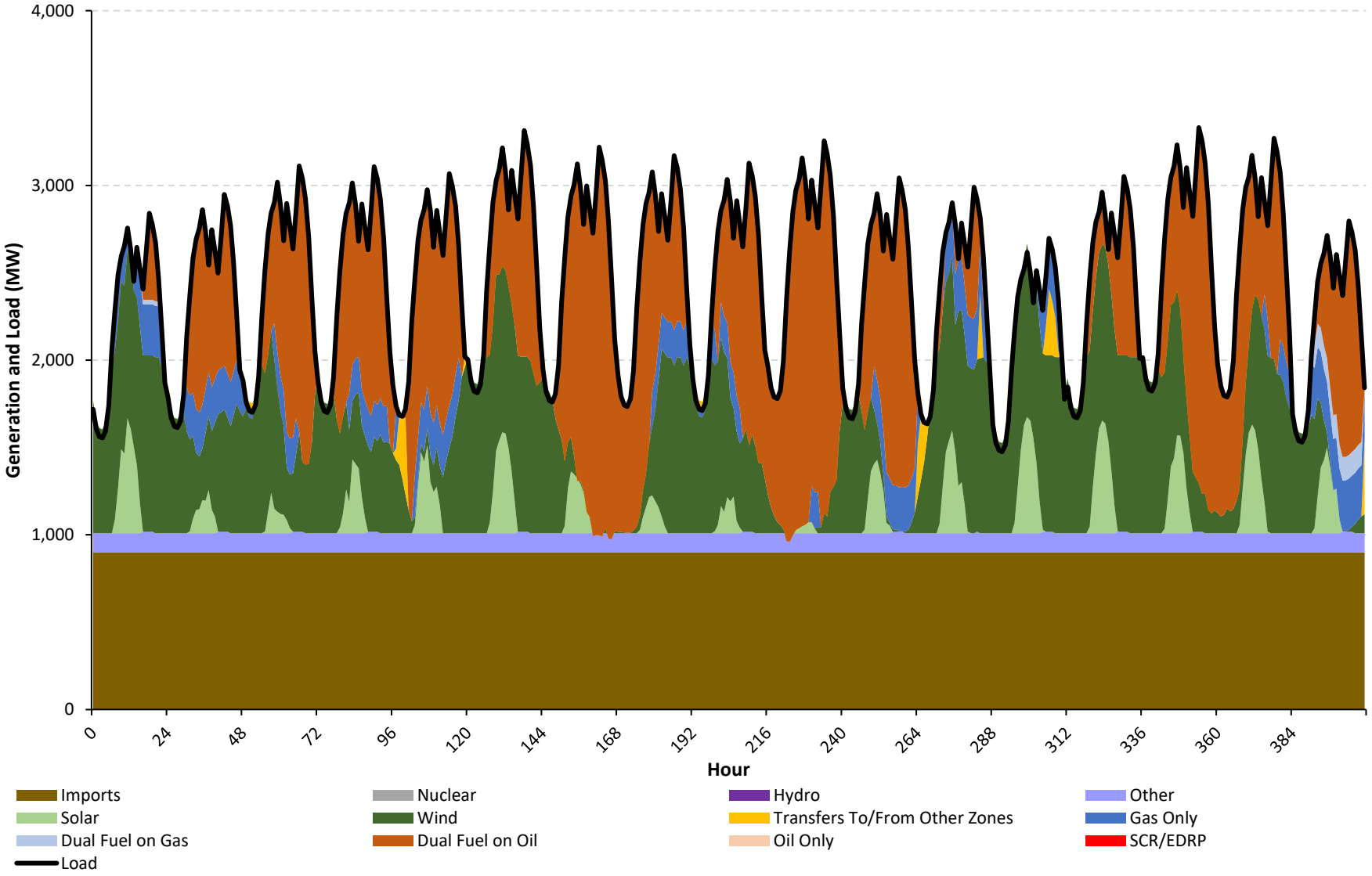



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 5 - PD 3 SENY Deactivation
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 3 SENY Deactivation



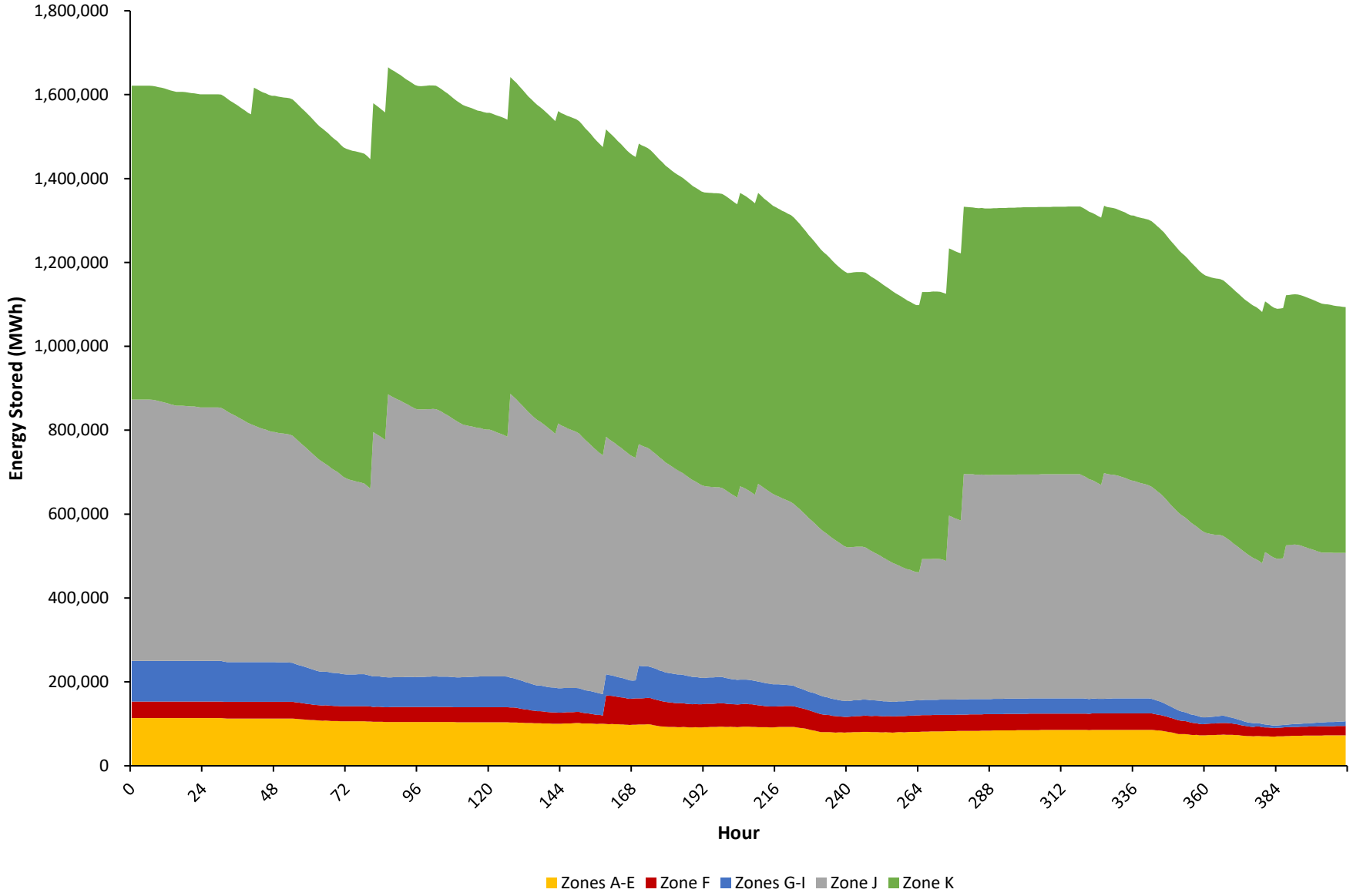
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 3 SENY Deactivation

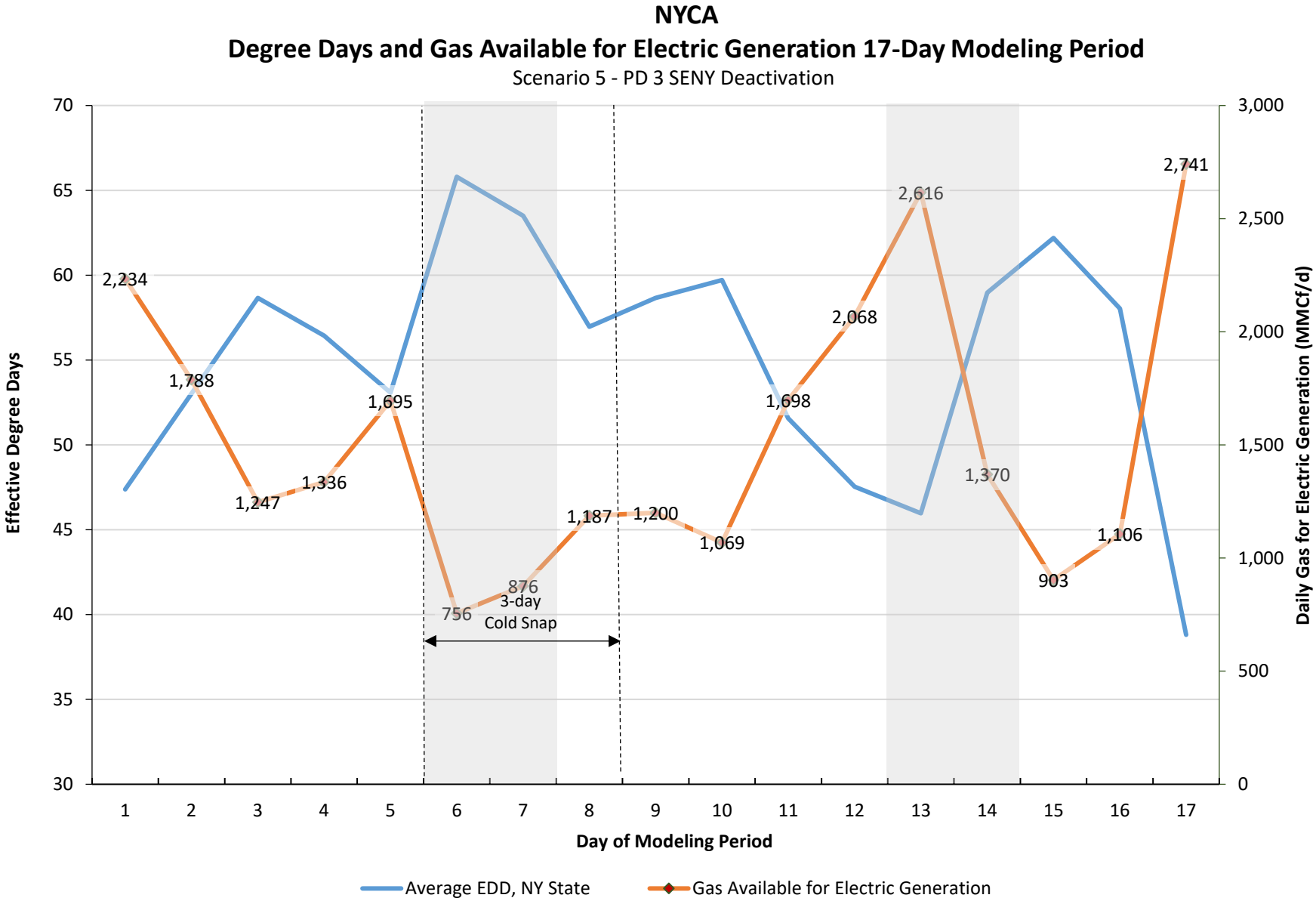


NYCA

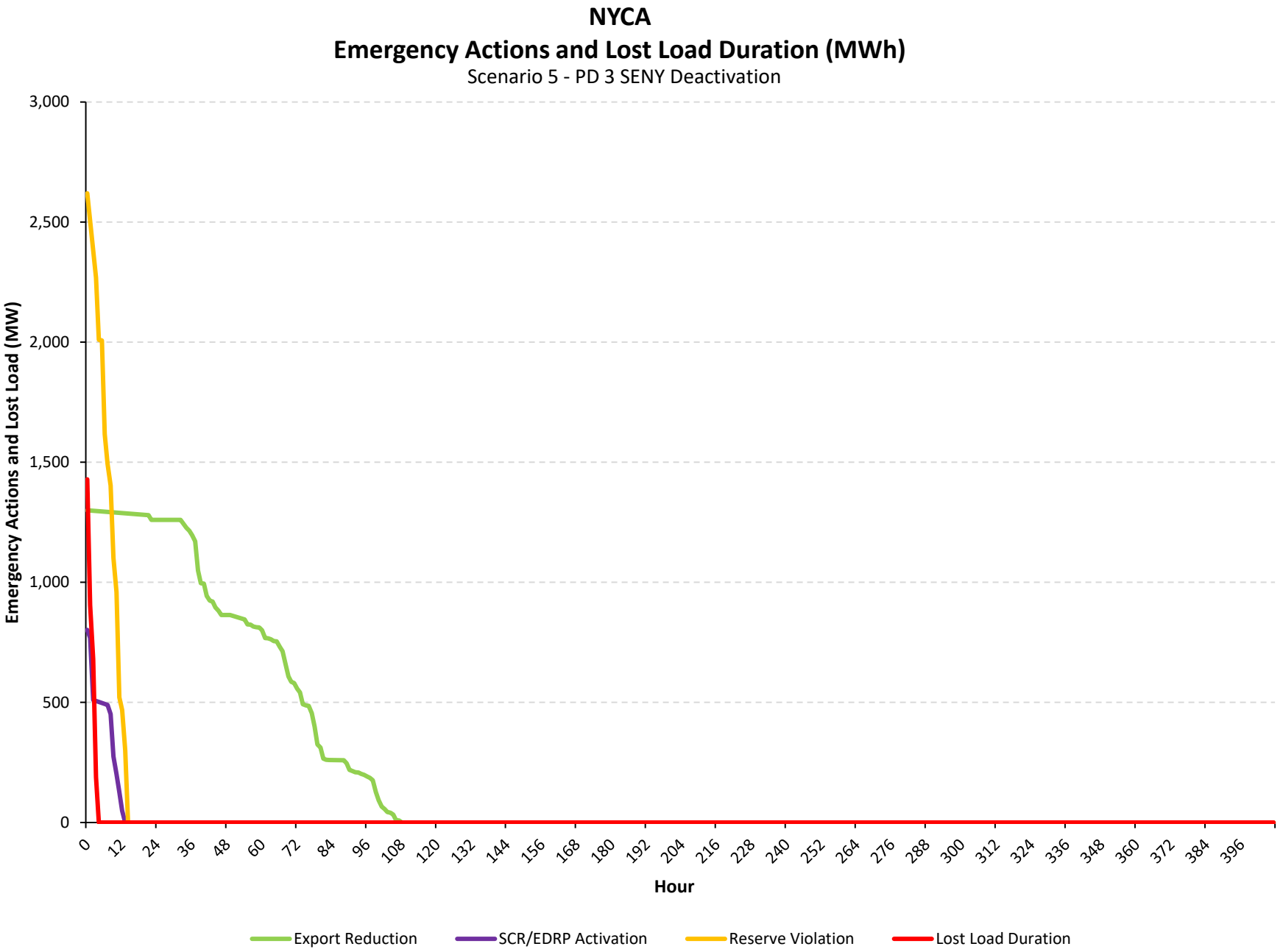
Quantity of Stored Fuel for Oil and Dual Fuel Units

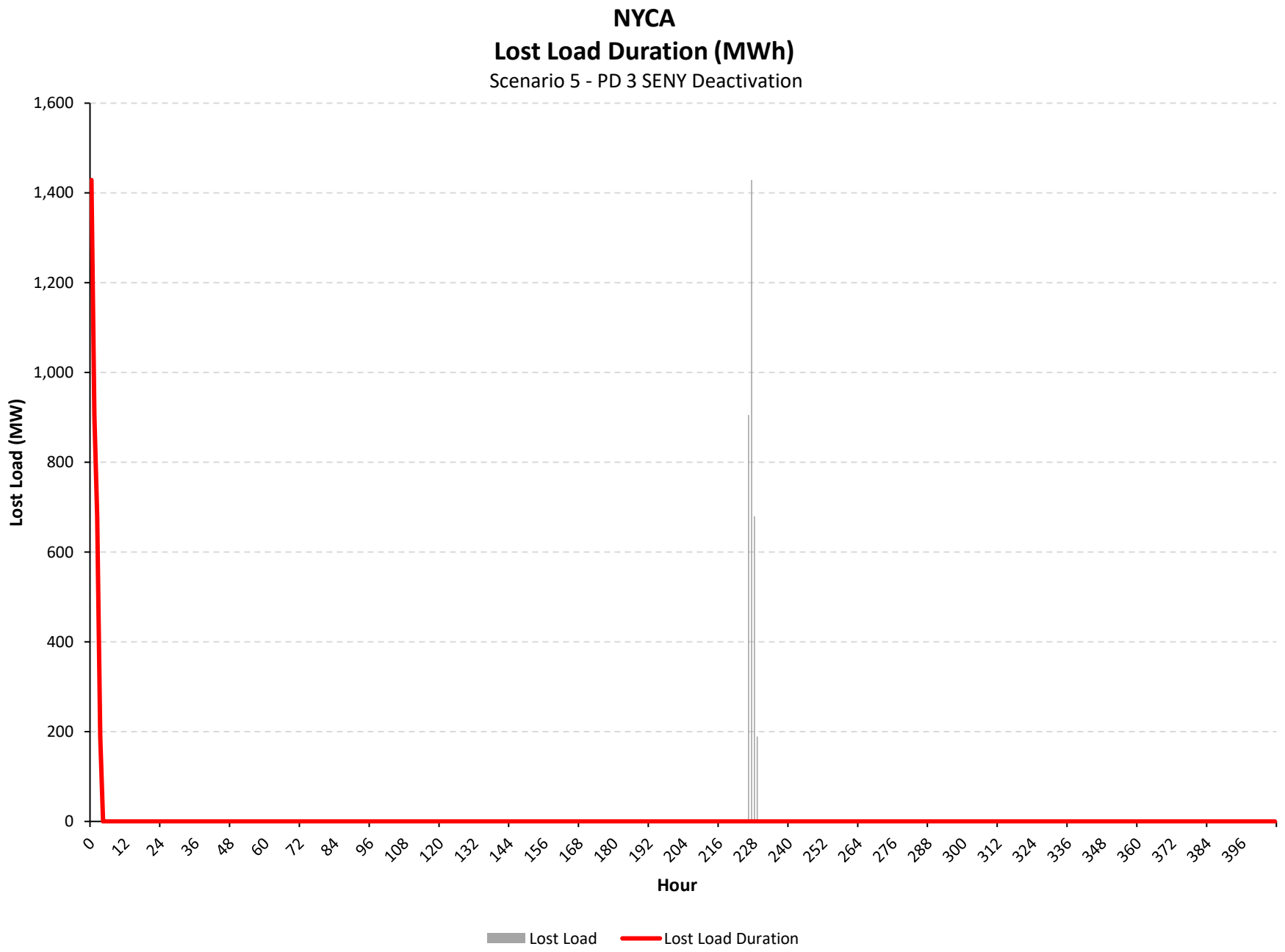
Scenario 5 - PD 3 SENY Deactivation





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 5 - PD 3 SENY Deactivation
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0
12
24
36
48
60
72
84
96
108
120
132
144
156
168
180
192
204
216
228
240
252
264
276
288
300
312
324
336
348
360
372
384
396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 5 - PD 3 SENY Deactivation
Lost Load (MW)
1,600
1,400
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

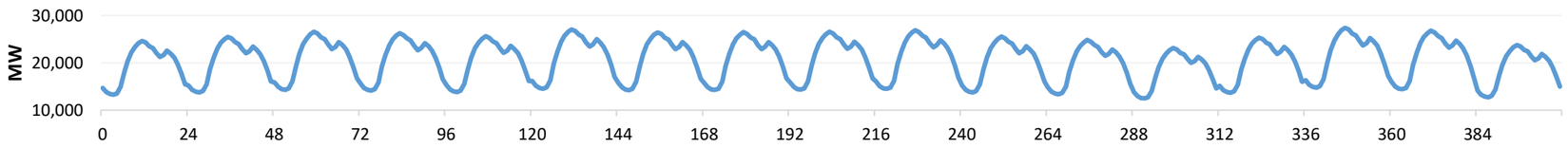
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 5 - PD 4 Nuclear Station Outage (Winter 2026/2027)

Hourly Results Summary

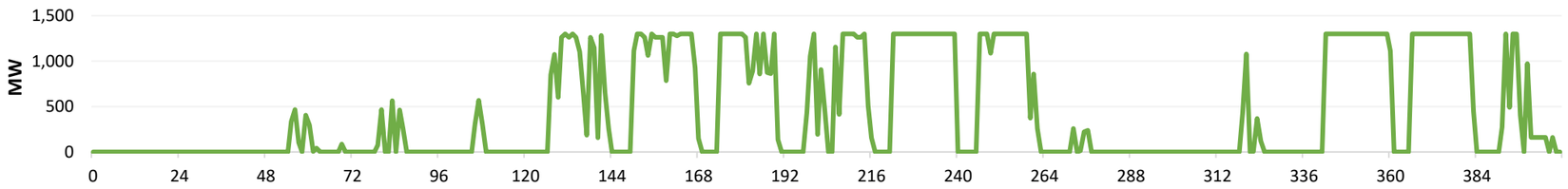
Case Name: Scenario 5 - PD 4 Nuclear Station Outage

Load During Modeling Period



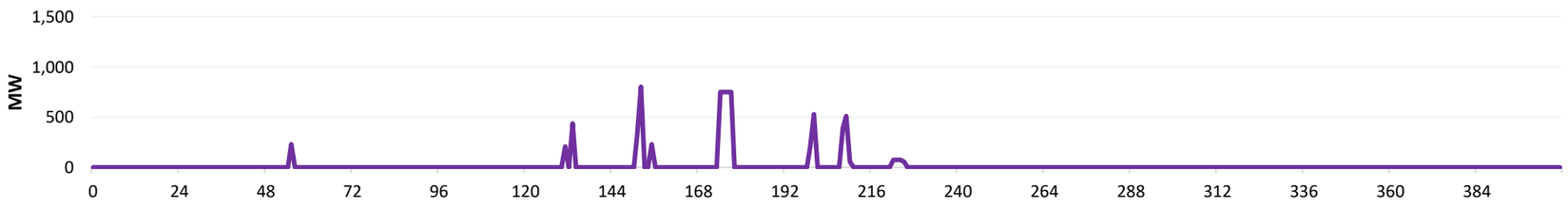
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



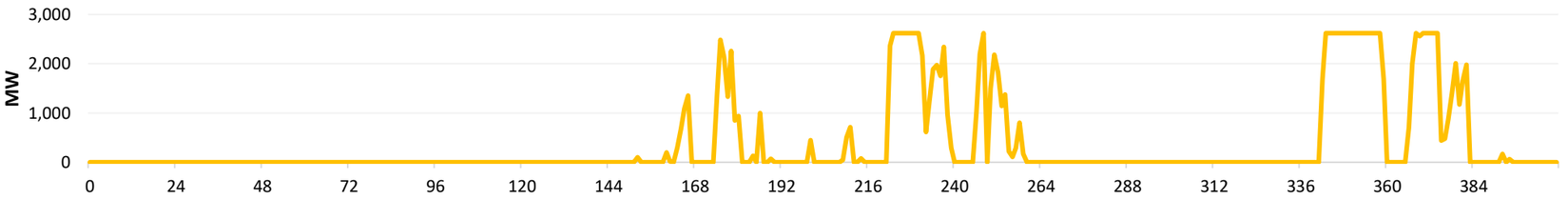
Export Reductions	
Total Hrs.	180
Total MWh	176,315
Avg. MW	432.1

SCR/EDRP Deployed During Modeling Period



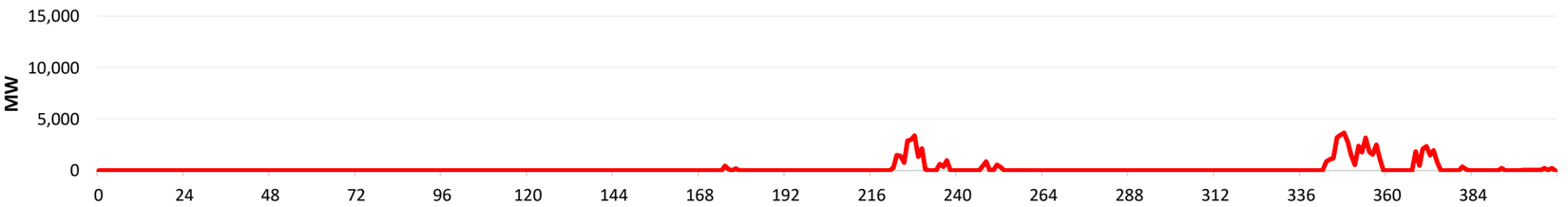
SCR Deployment	
Total Hrs.	19
Total MWh	7,190
Avg. MW	17.6

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	90
Total MWh	146,650
Avg. MW	359.4
First Hour with Viol.	152

Loss of Load During Modeling Period



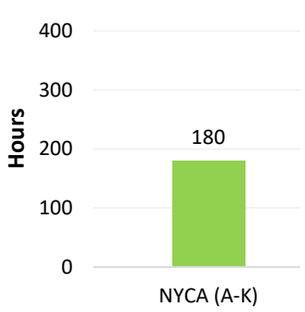
Loss of Load	
Total Hrs.	57
Total MWh	66,879
Avg. MW	163.9
First Hour with Losses	175

Full Period Results Summary

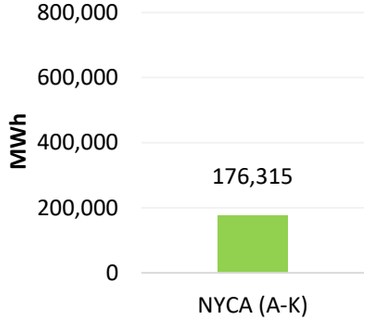
Case Name: Scenario 5 - PD 4 Nuclear Station Outage

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	All

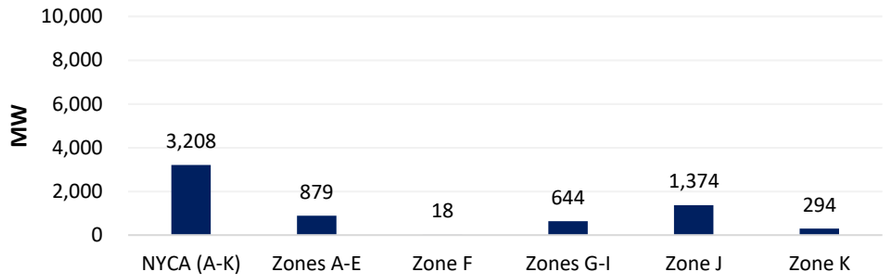
Hours Exports Reduced



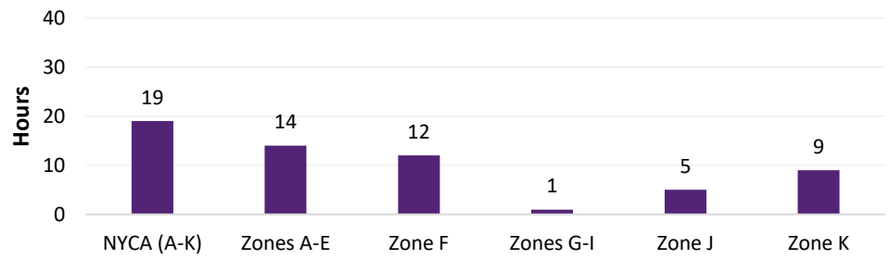
Total MWh of Exports Reduced



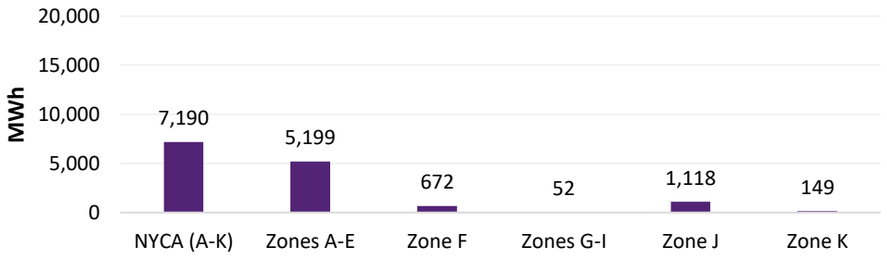
Average Capacity Not Available Due to Exhausted Fuel Inventory



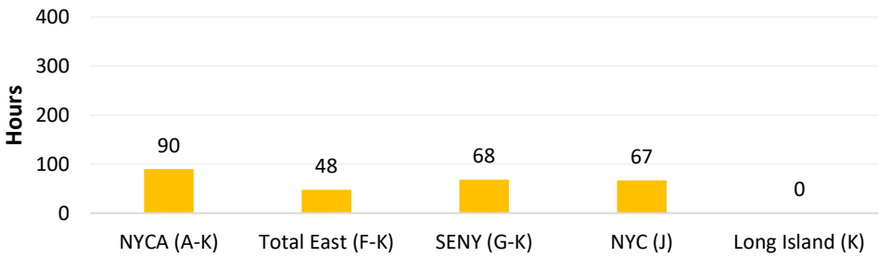
Hours SCR/EDRP Deployed



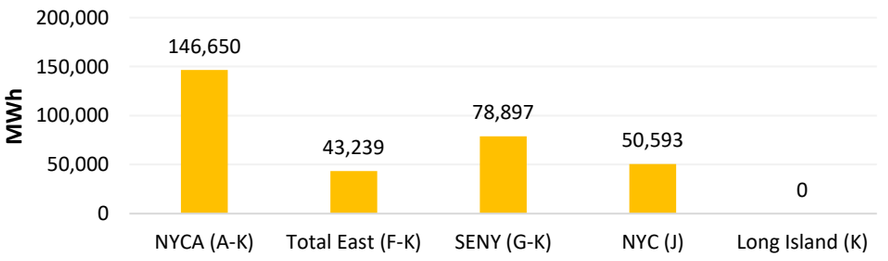
Total MWh SCR/EDRP Deployed



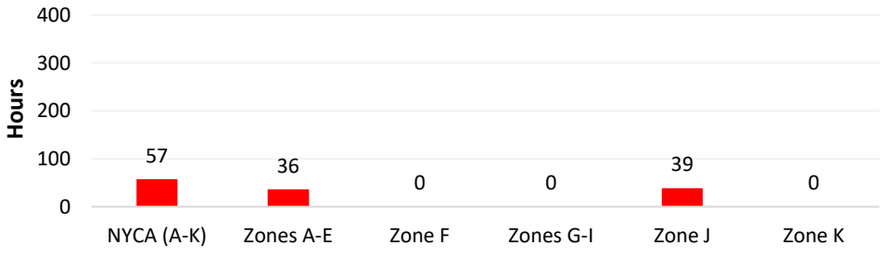
Hours with Reserve Violations



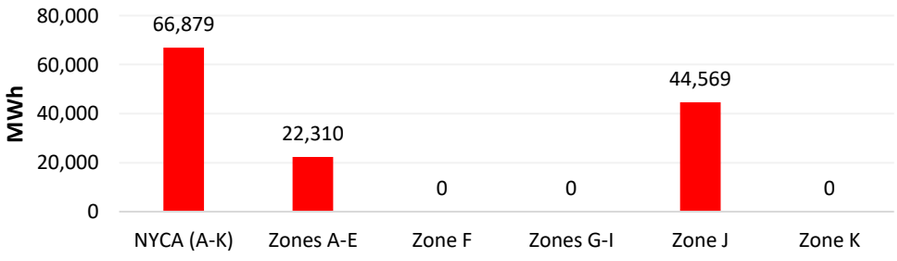
Total MWh of Reserve Violations

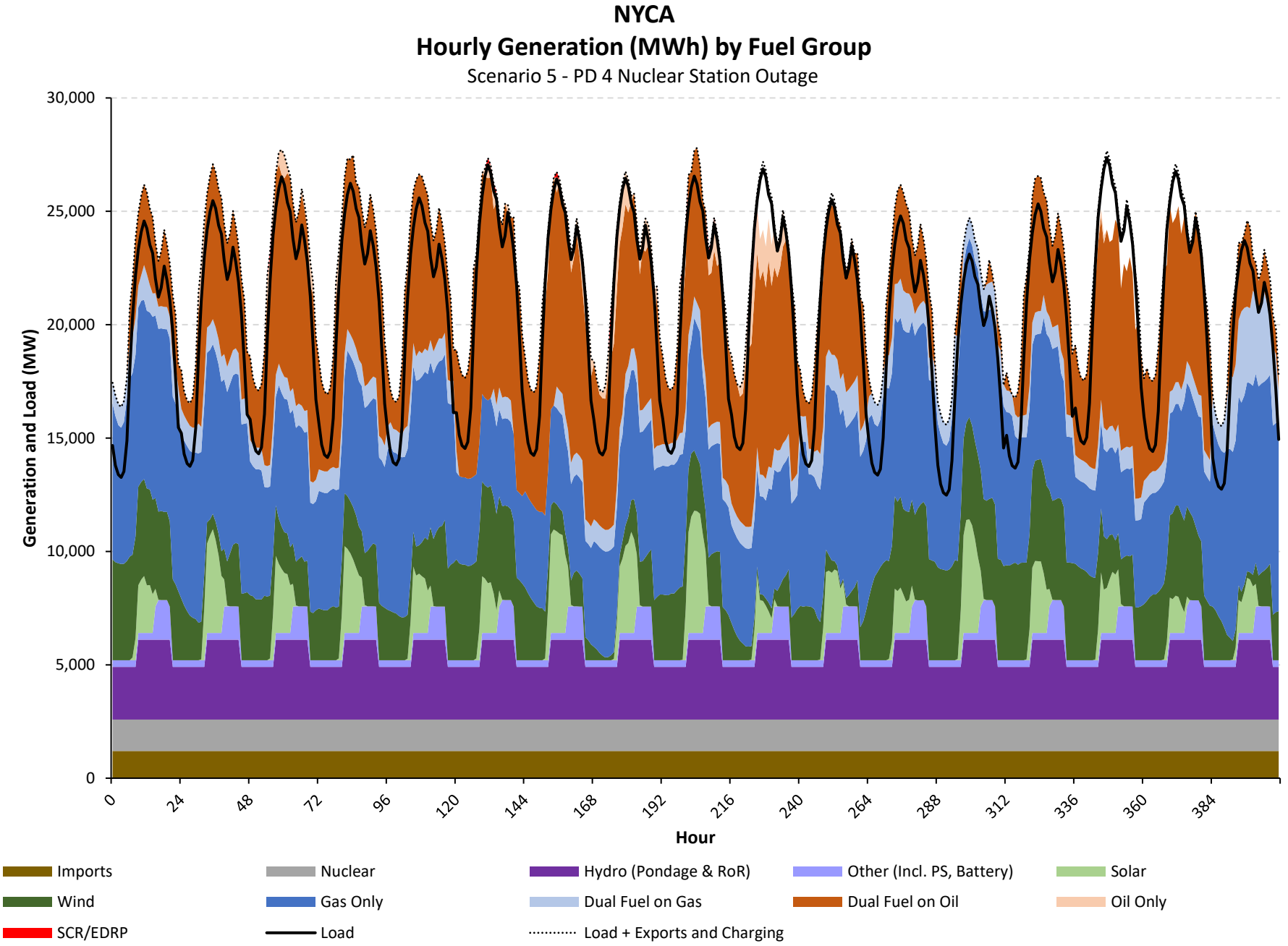


Hours with Loss of Load

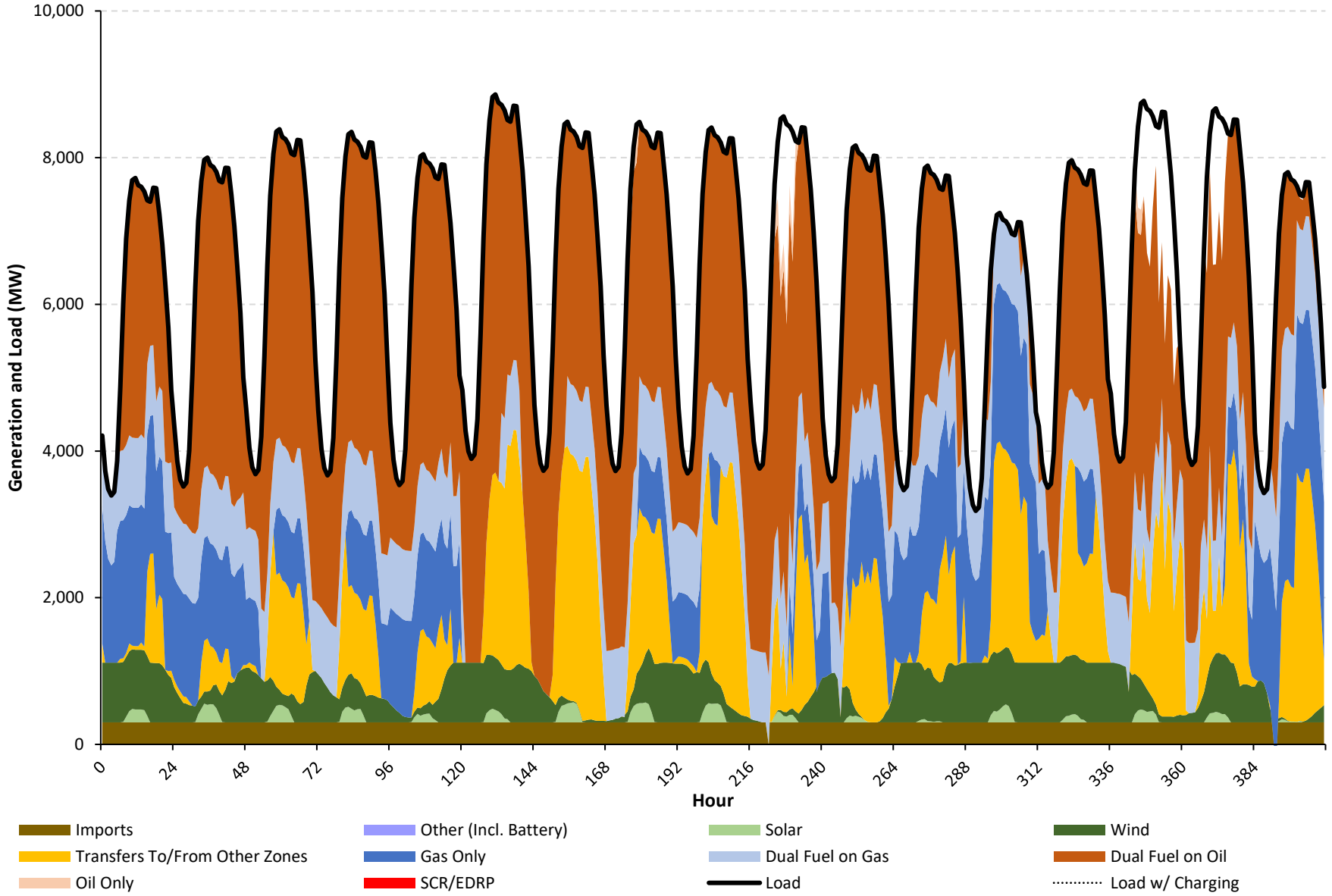


Total MWh of Lost Load

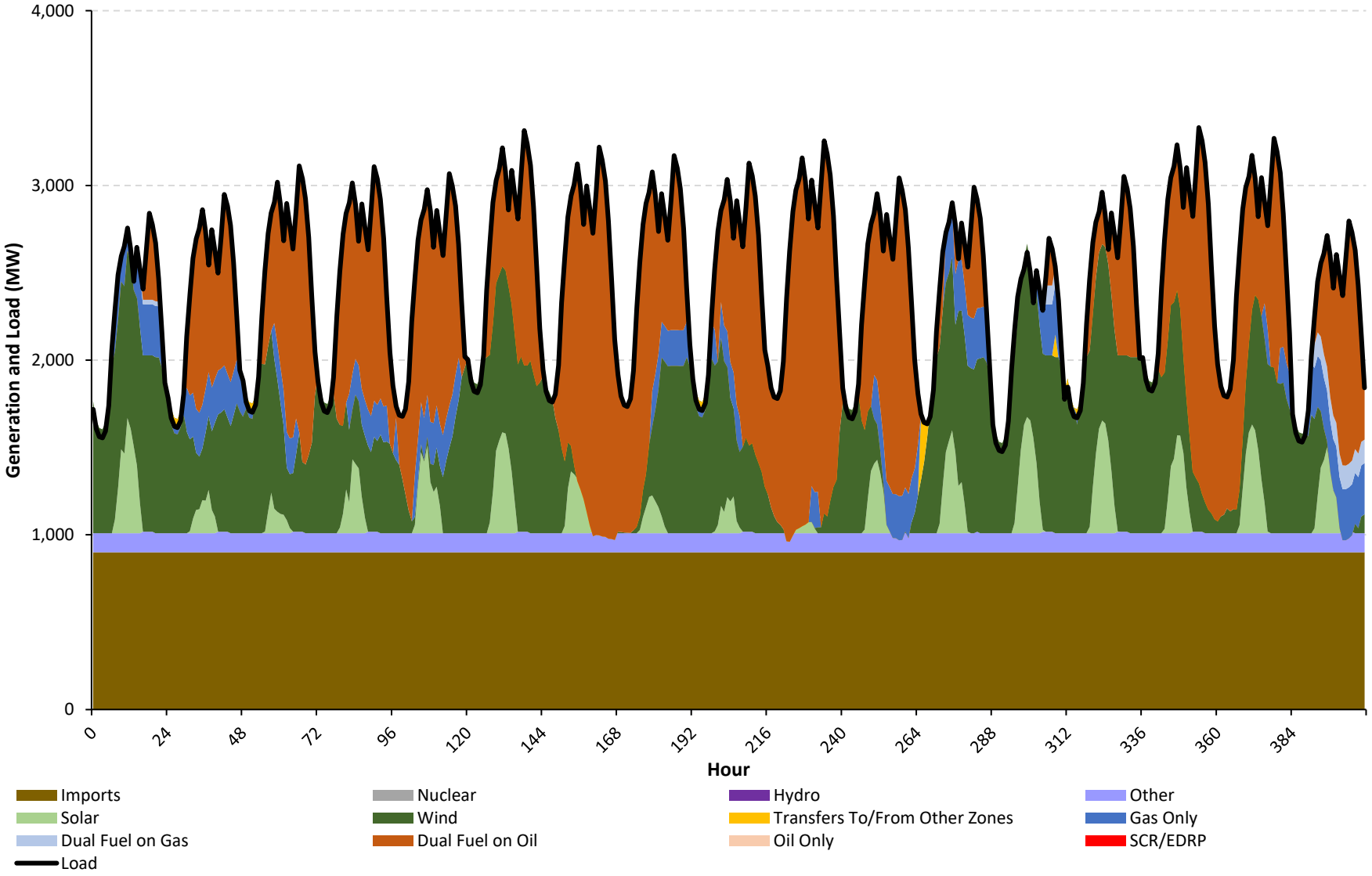



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 5 - PD 4 Nuclear Station Outage
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

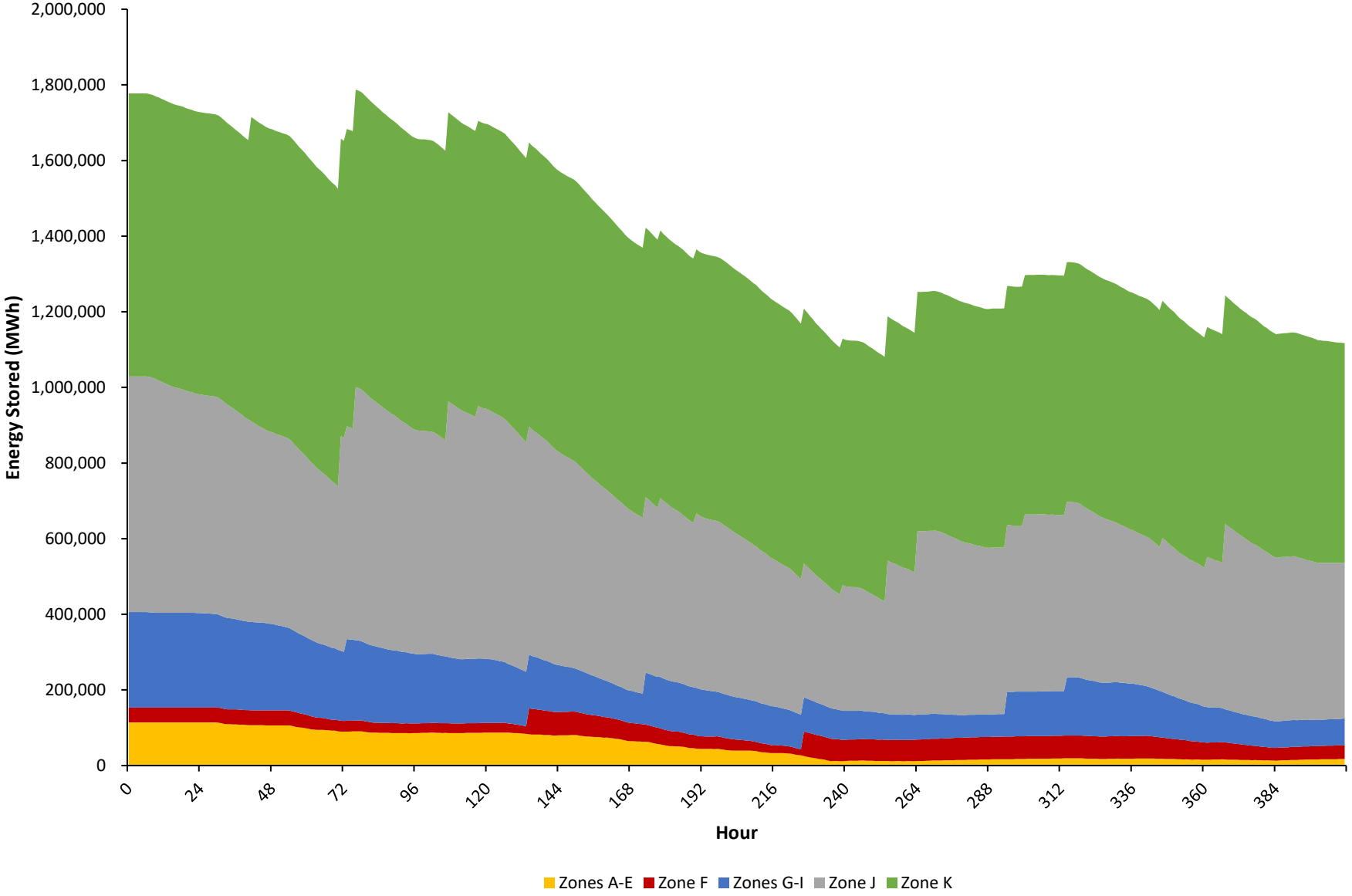
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 4 Nuclear Station Outage

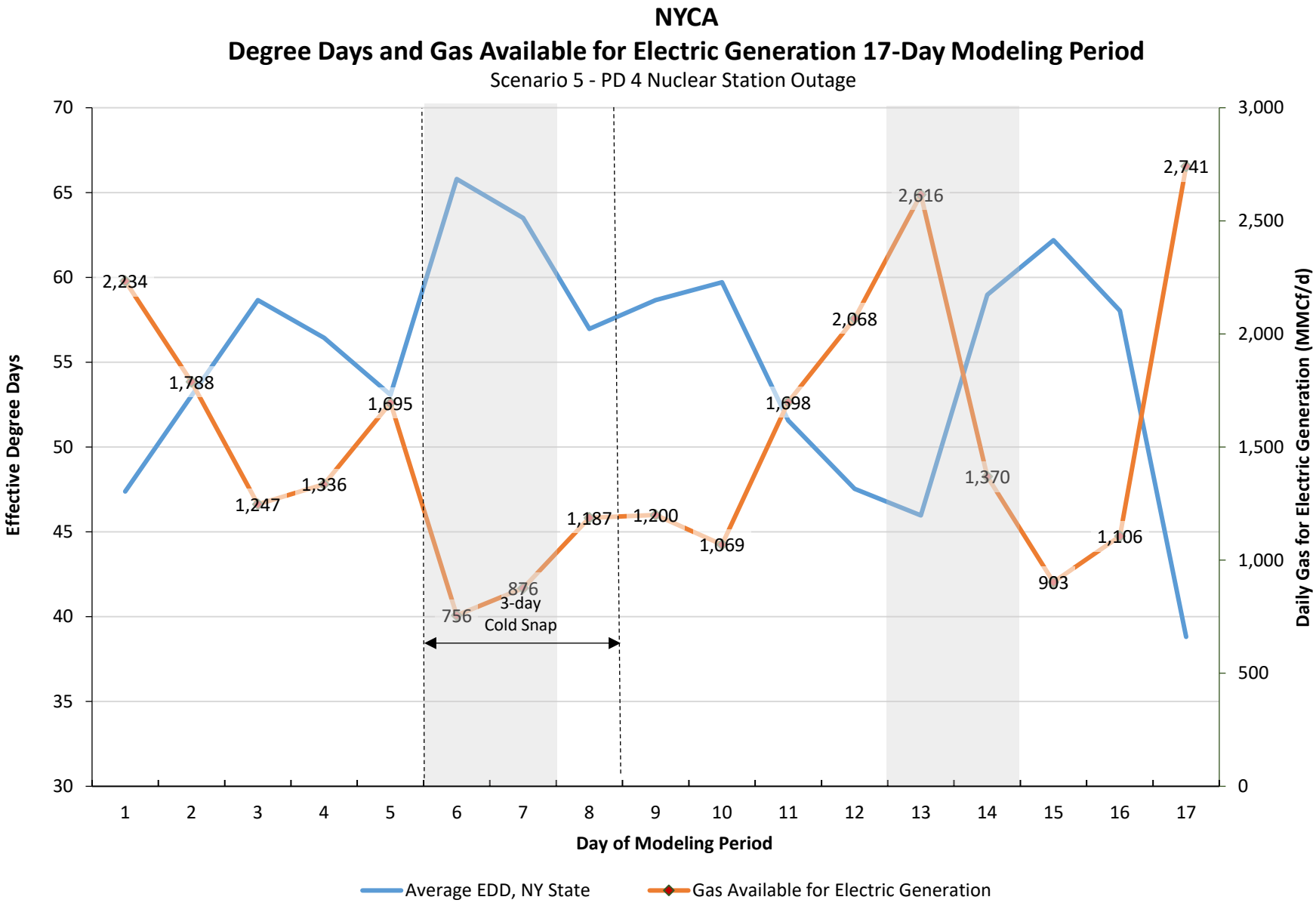


Zone K
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 4 Nuclear Station Outage

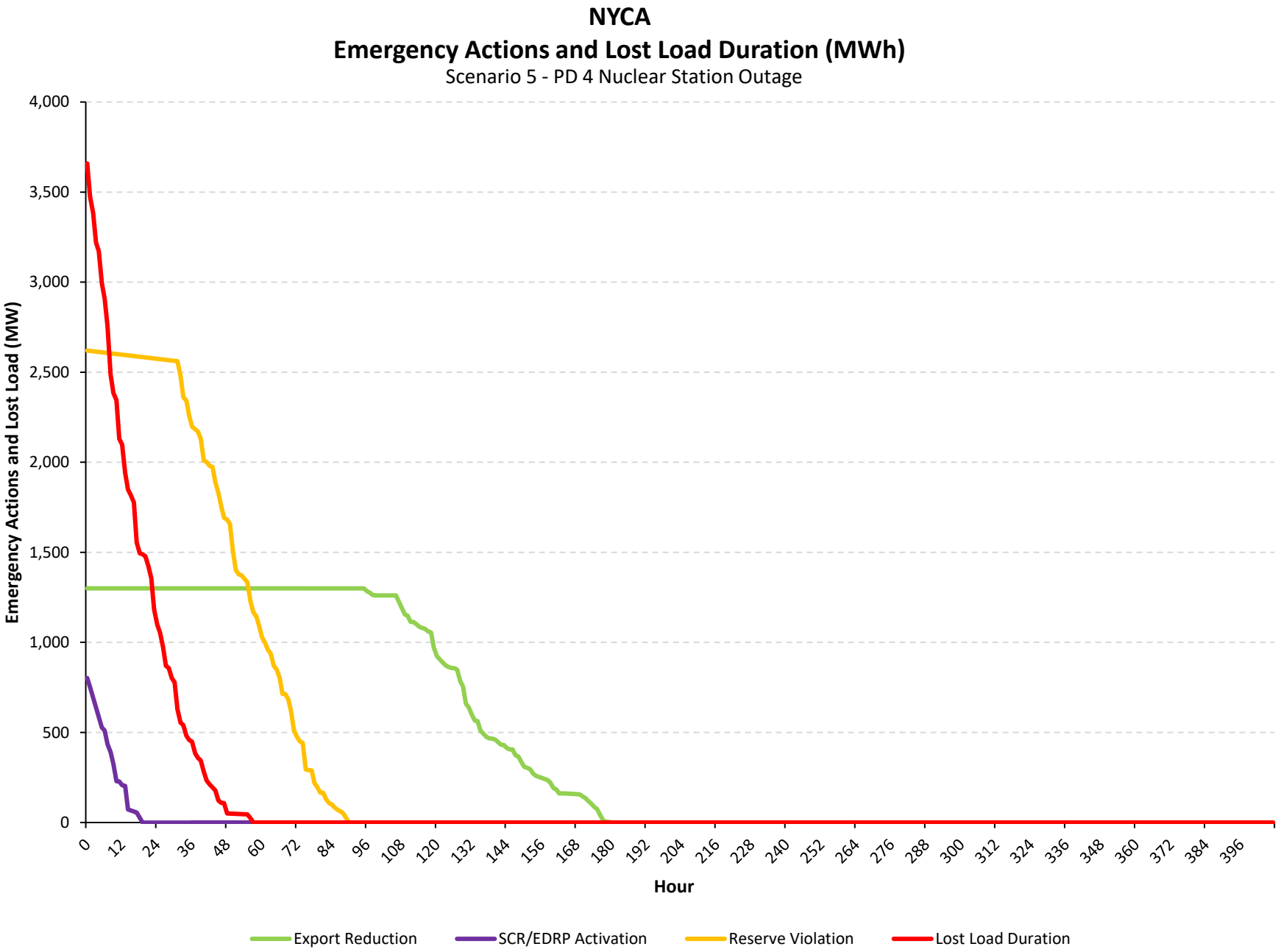


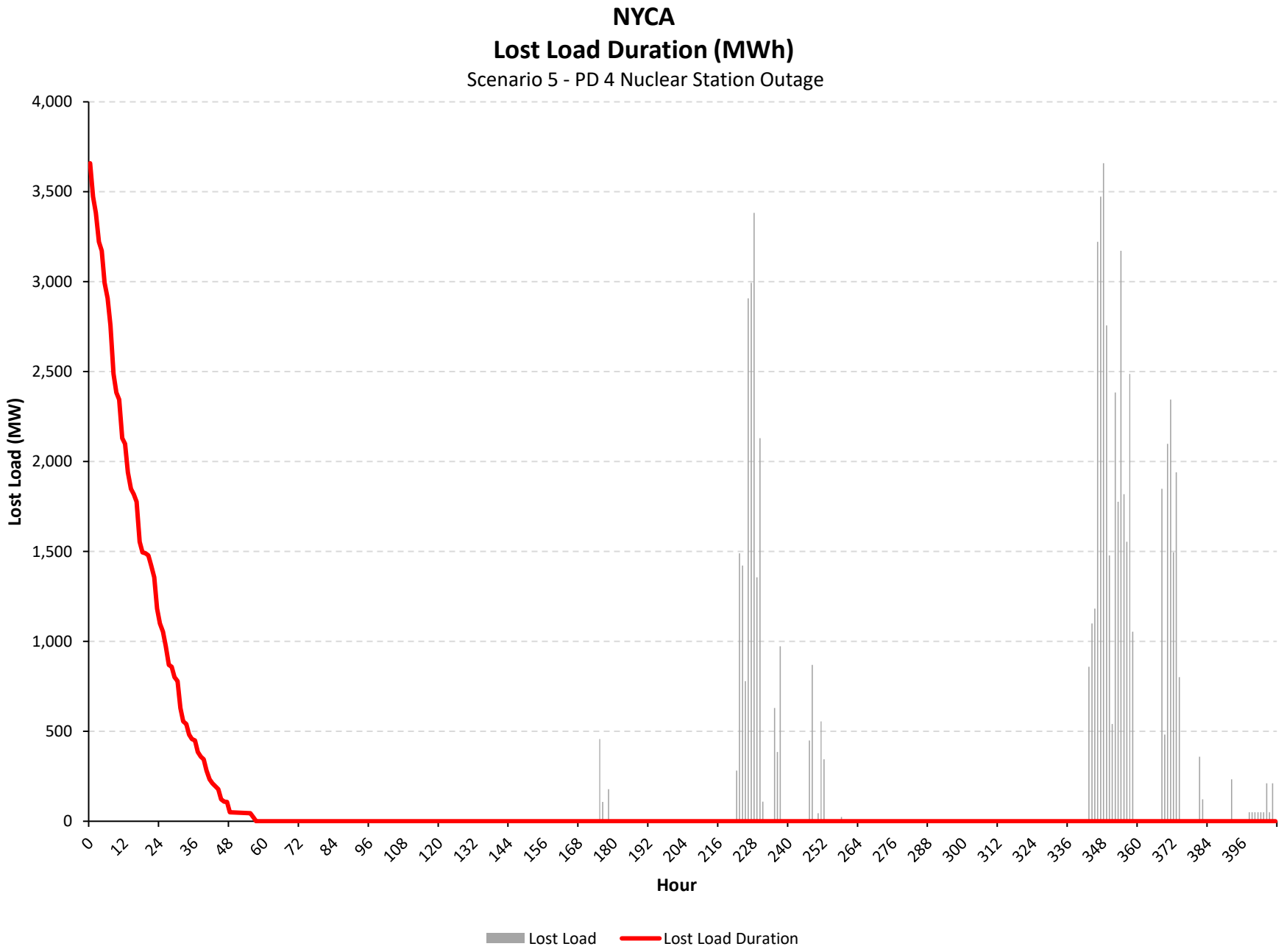
NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 5 - PD 4 Nuclear Station Outage





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 5 - PD 4 Nuclear Station Outage
Emergency Actions and Lost Load (MW)
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 5 - PD 4 Nuclear Station Outage
Lost Load (MW)
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

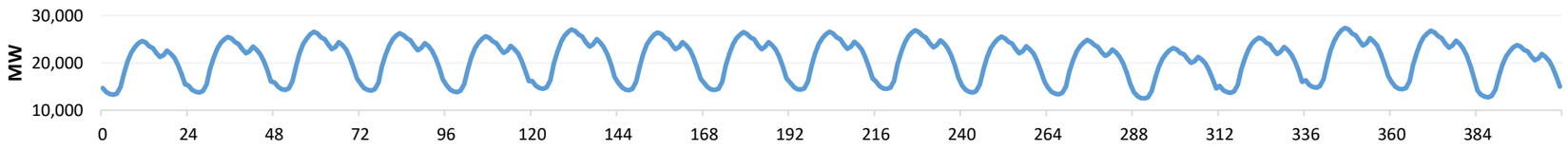
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 5 - PD 5 No Truck Refill (Winter 2026/2027)

Hourly Results Summary

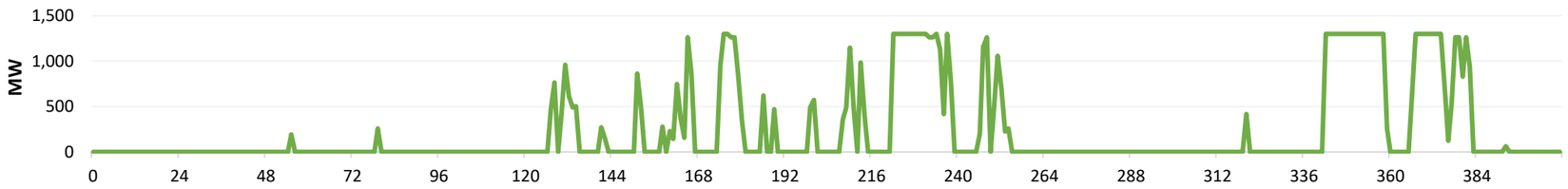
Case Name: Scenario 5 - PD 5 No Truck Refill

Load During Modeling Period



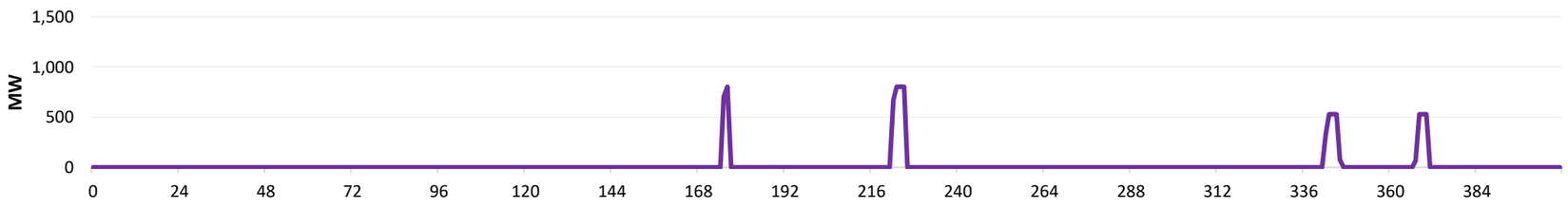
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



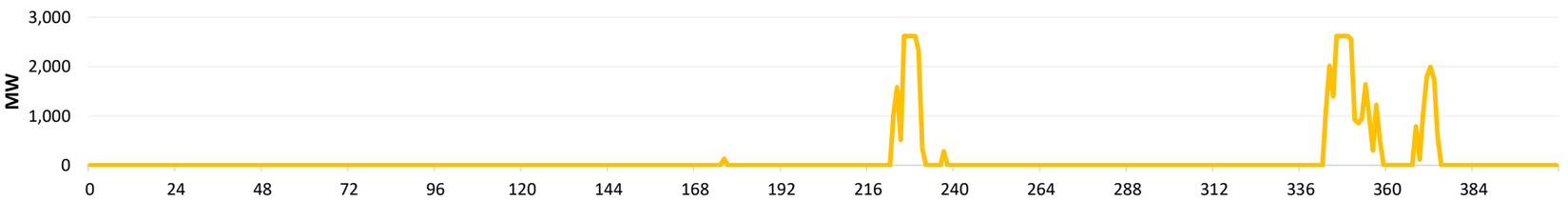
Export Reductions	
Total Hrs.	100
Total MWh	90,420
Avg. MW	221.6

SCR/EDRP Deployed During Modeling Period



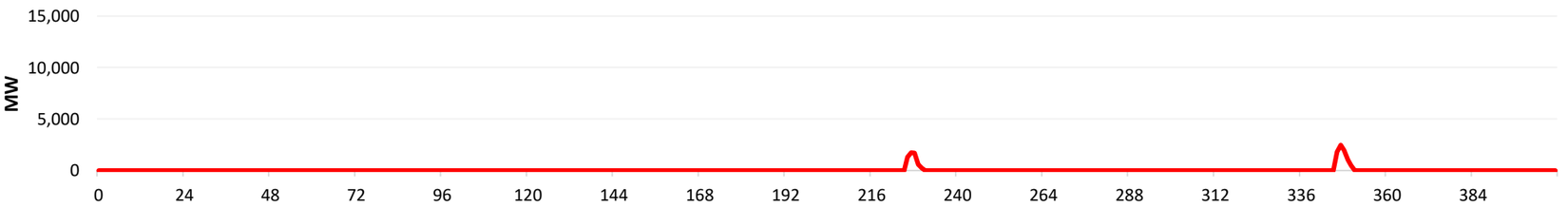
SCR Deployment	
Total Hrs.	15
Total MWh	8,209
Avg. MW	20.1

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	35
Total MWh	49,621
Avg. MW	121.6
First Hour with Viol.	176

Loss of Load During Modeling Period



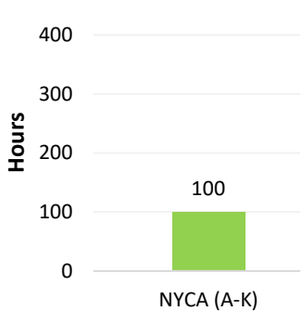
Loss of Load	
Total Hrs.	10
Total MWh	13,359
Avg. MW	32.7
First Hour with Losses	226

Full Period Results Summary

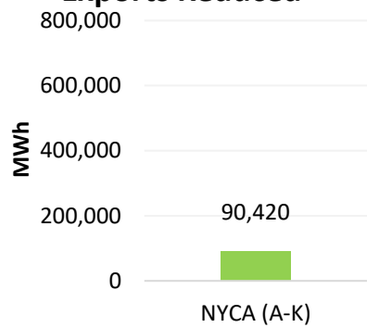
Case Name: Scenario 5 - PD 5 No Truck Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

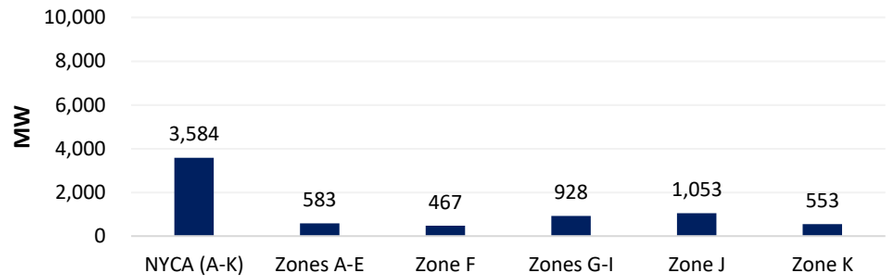
Hours Exports Reduced



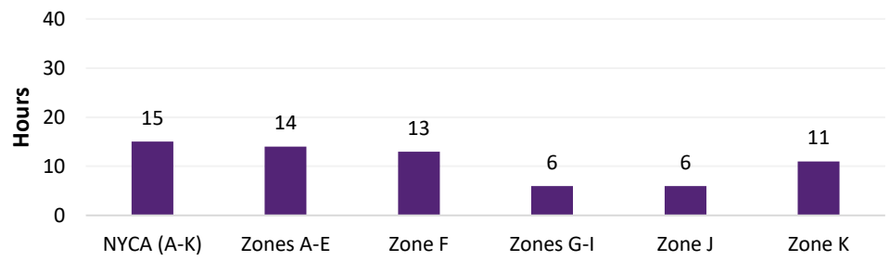
Total MWh of Exports Reduced



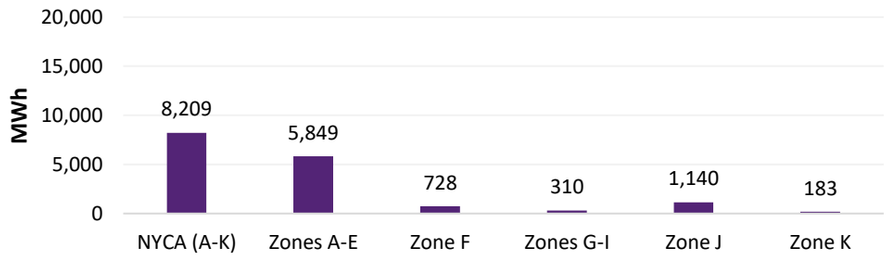
Average Capacity Not Available Due to Exhausted Fuel Inventory



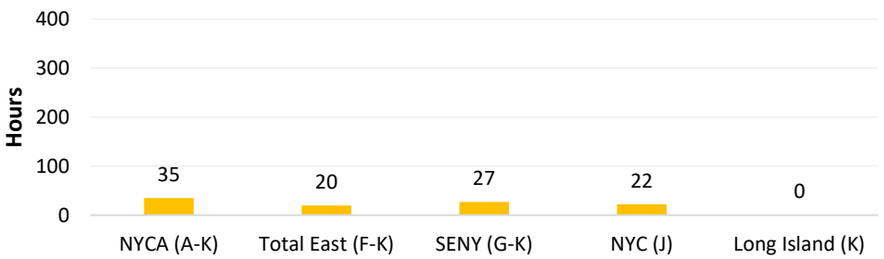
Hours SCR/EDRP Deployed



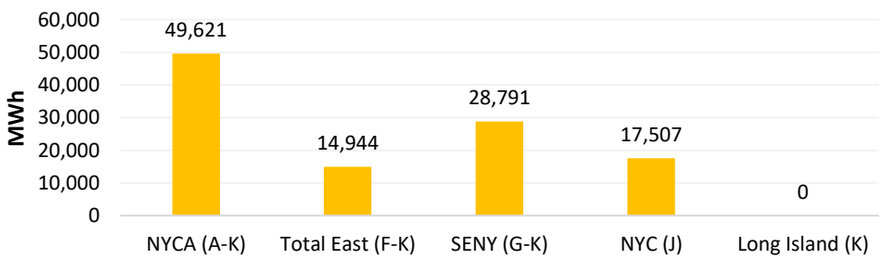
Total MWh SCR/EDRP Deployed



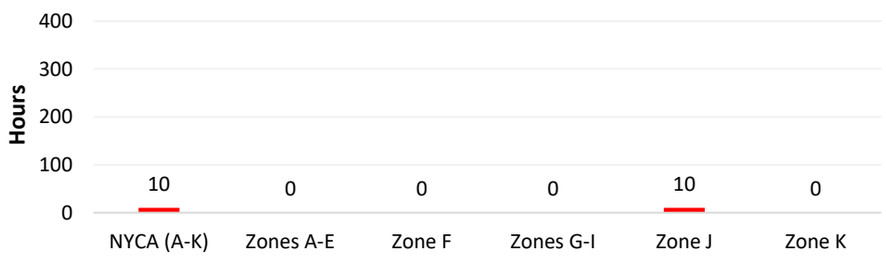
Hours with Reserve Violations



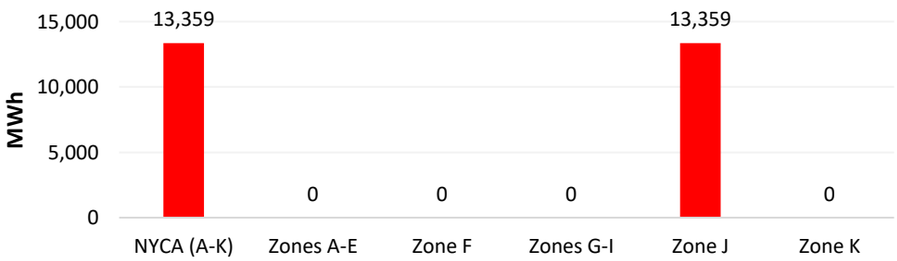
Total MWh of Reserve Violations

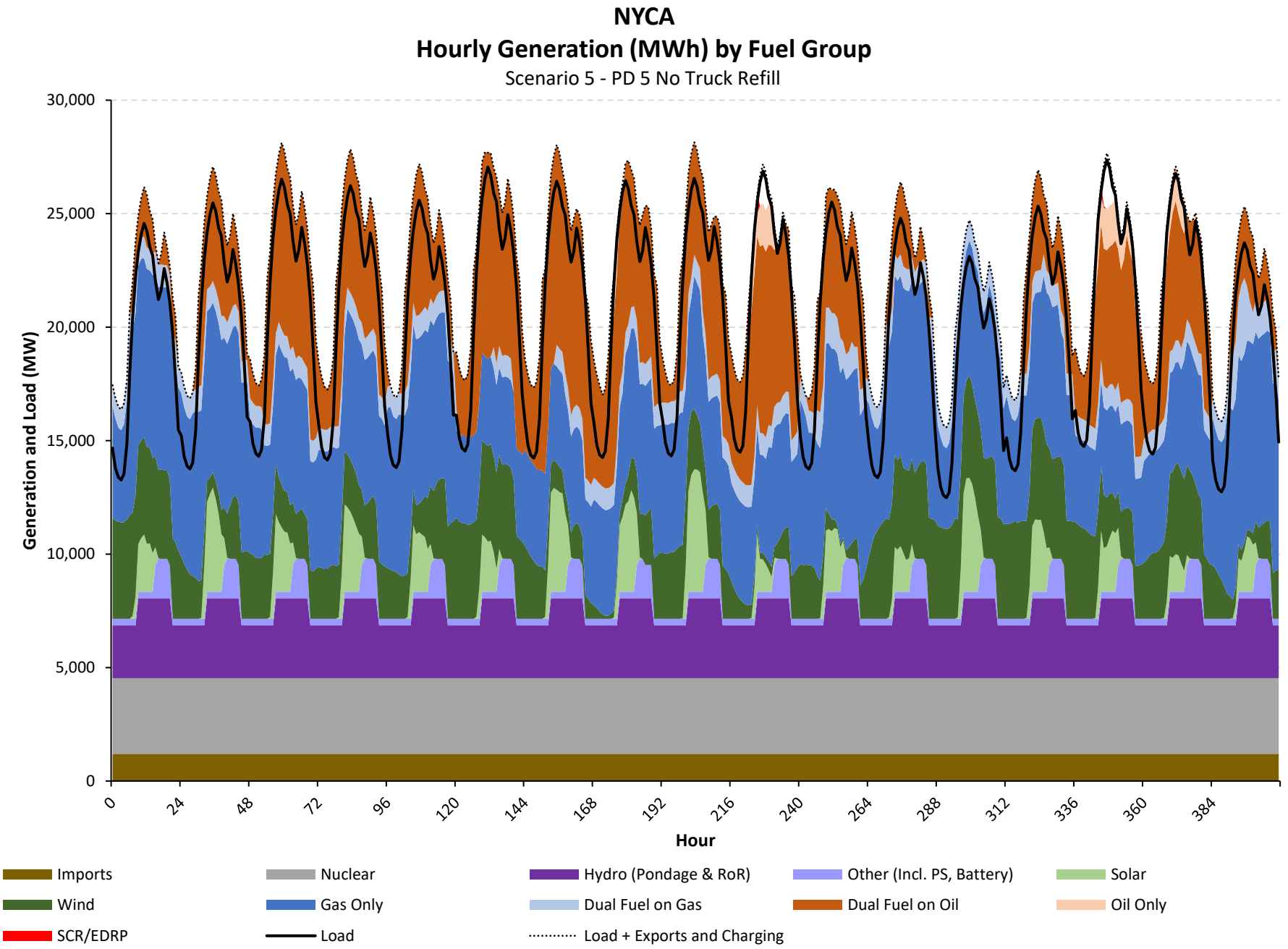


Hours with Loss of Load

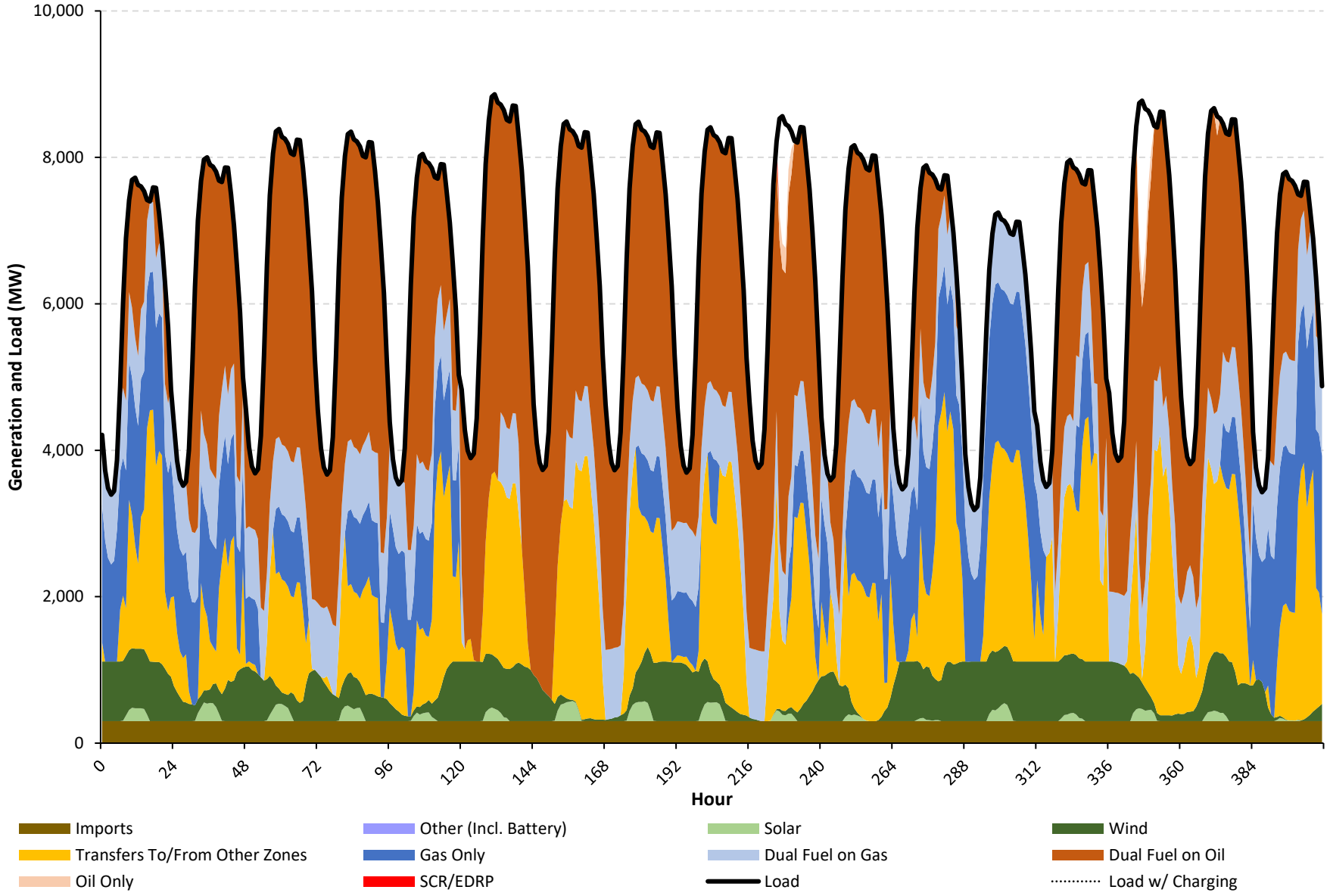


Total MWh of Lost Load

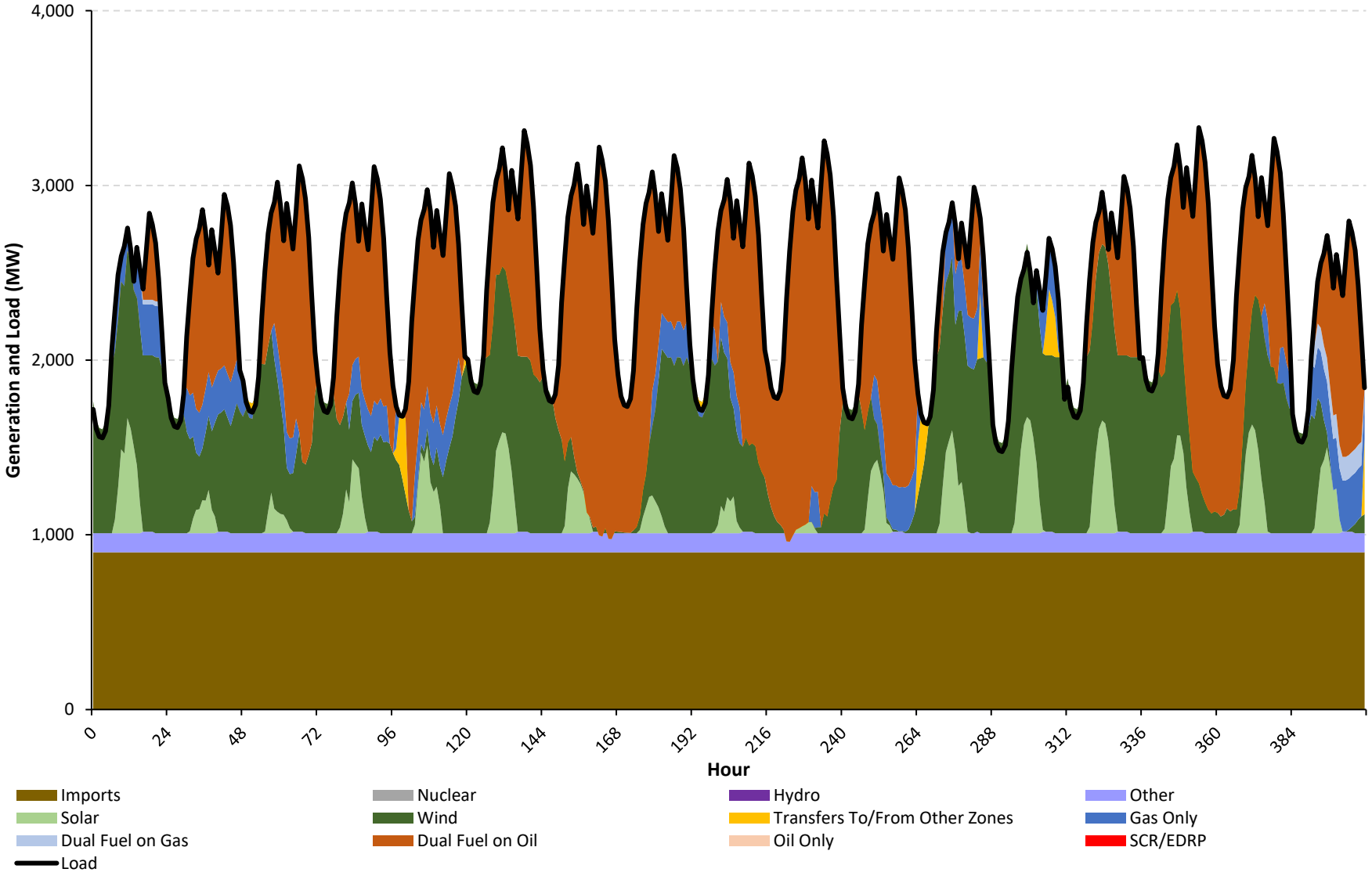


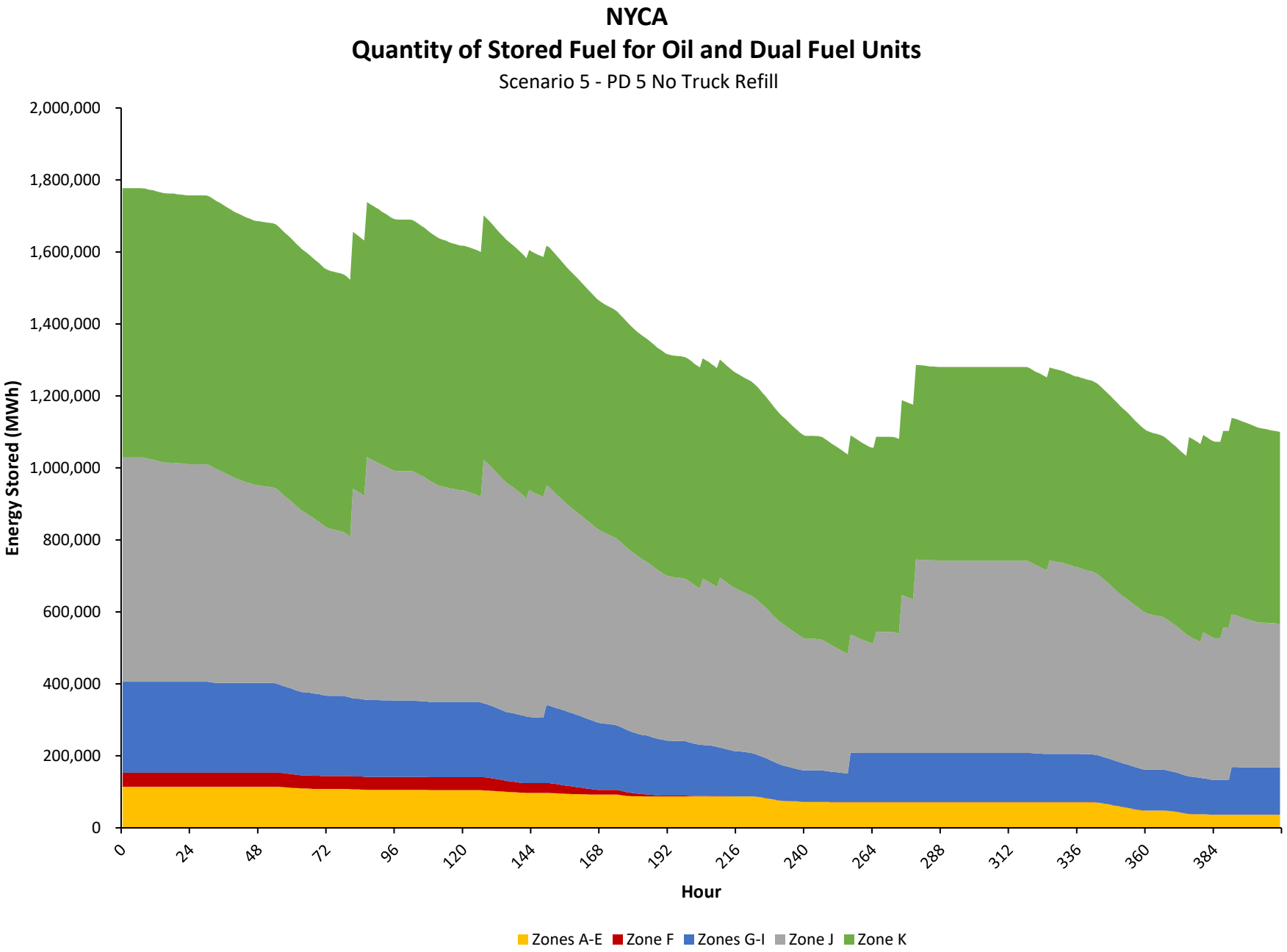

NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 5 - PD 5 No Truck Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

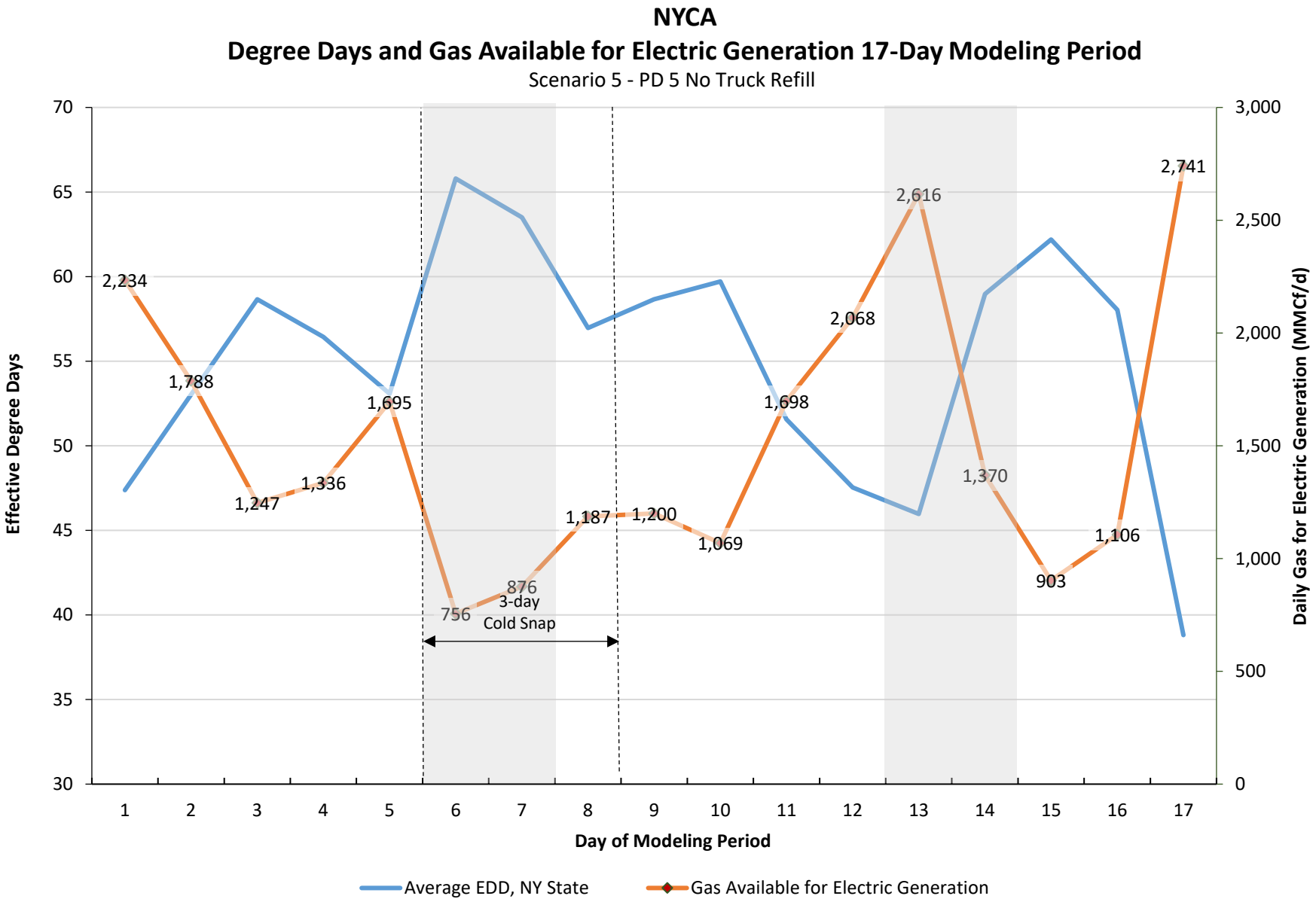
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 5 No Truck Refill



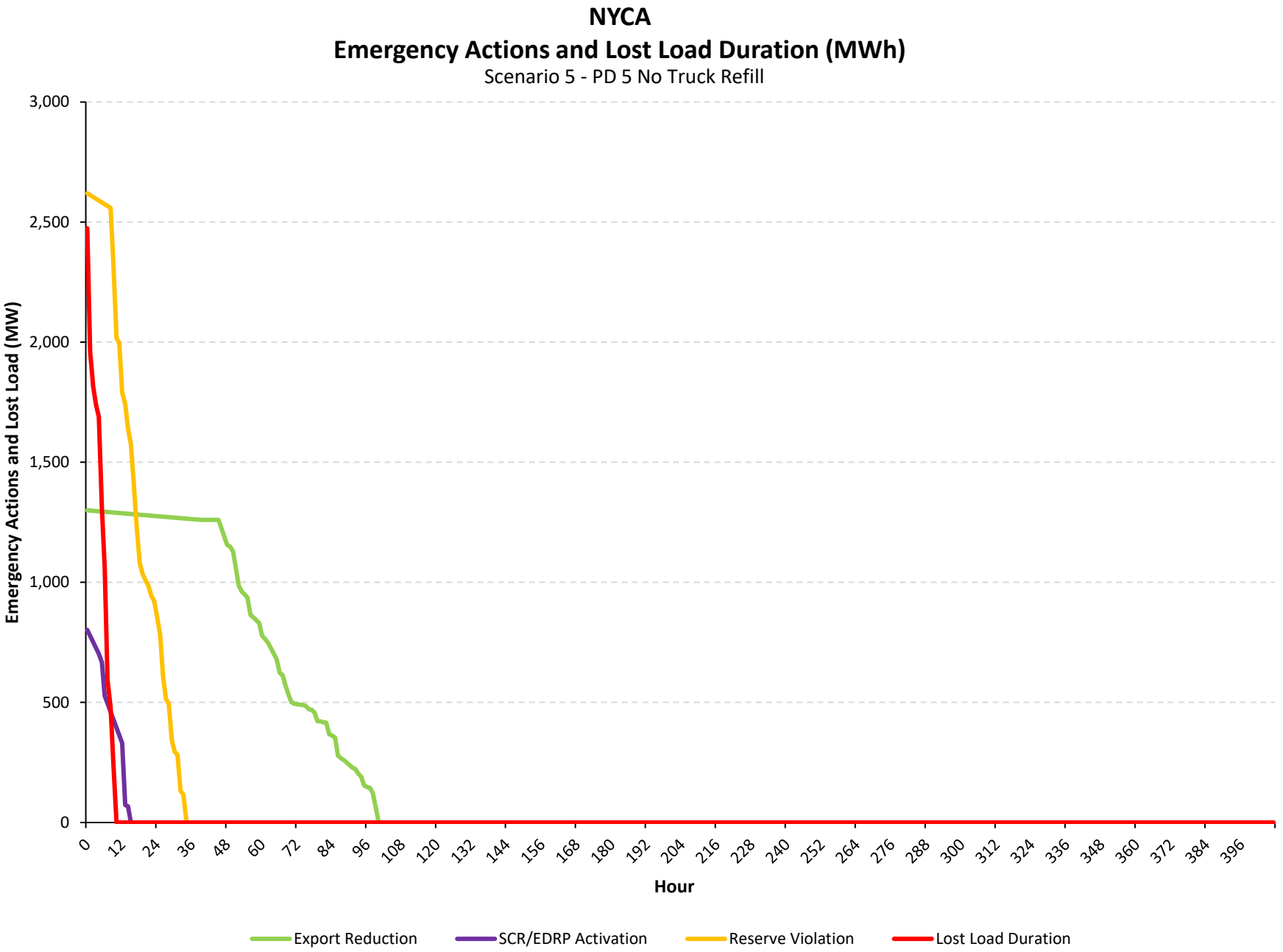
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 5 No Truck Refill

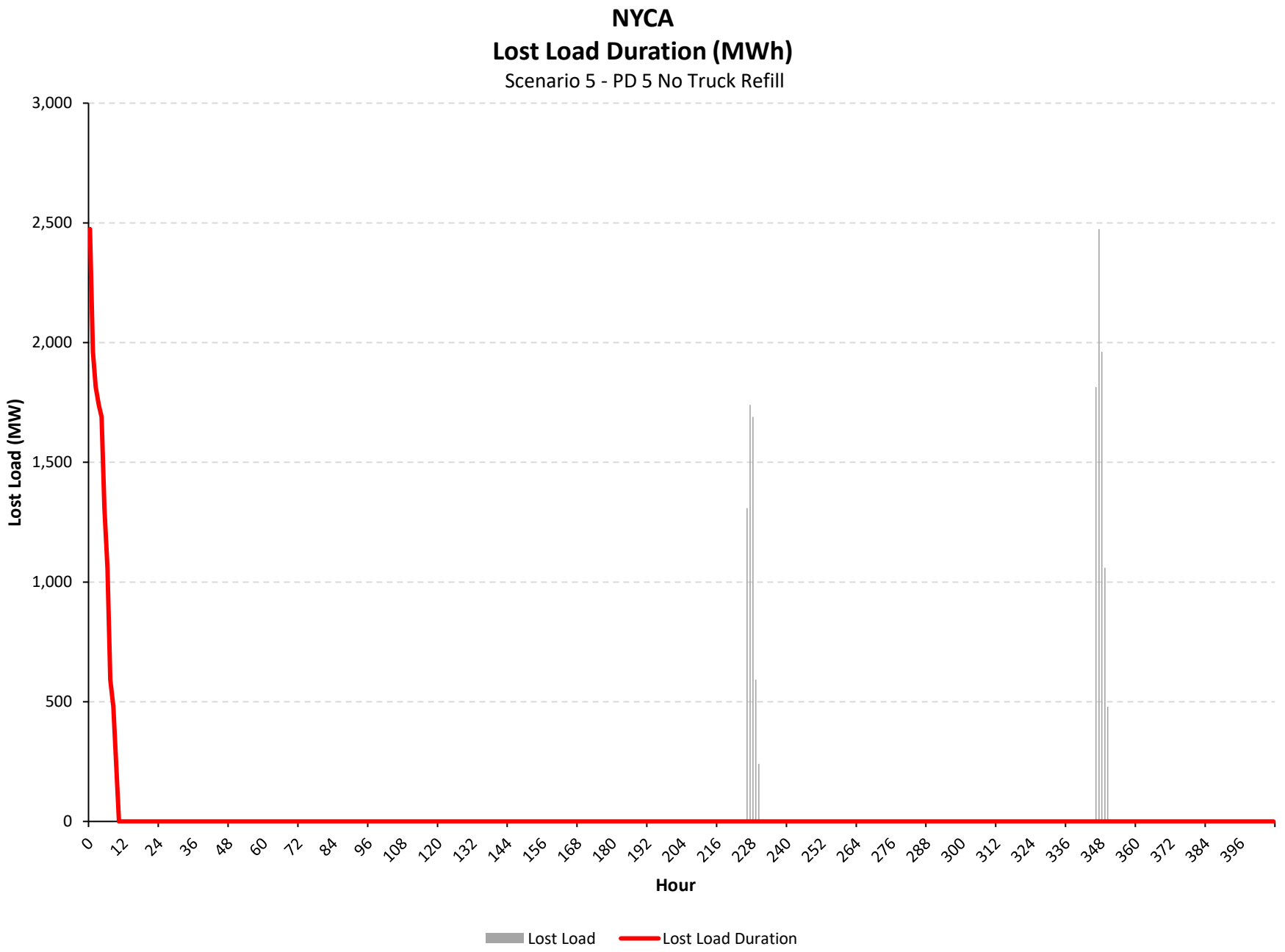



NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 5 - PD 5 No Truck Refill
Energy Stored (MWh)
2,000,000
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Zones A-E
Zone F
Zones G-I
Zone J
Zone K



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 5 - PD 5 No Truck Refill
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 5 - PD 5 No Truck Refill
Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

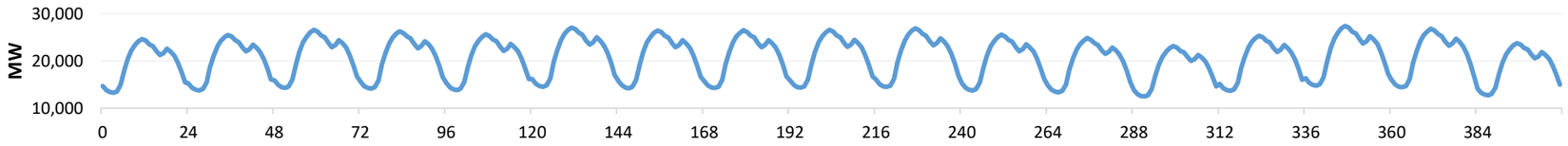
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 5 - PD 6 No Barge Refill (Winter 2026/2027)

Hourly Results Summary

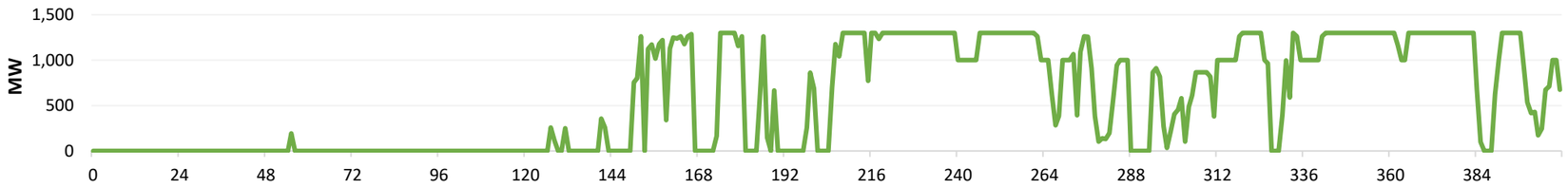
Case Name: Scenario 5 - PD 6 No Barge Refill

Load During Modeling Period



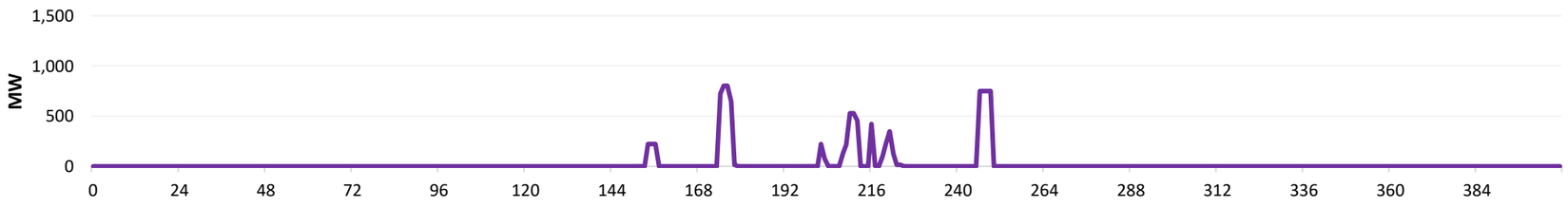
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



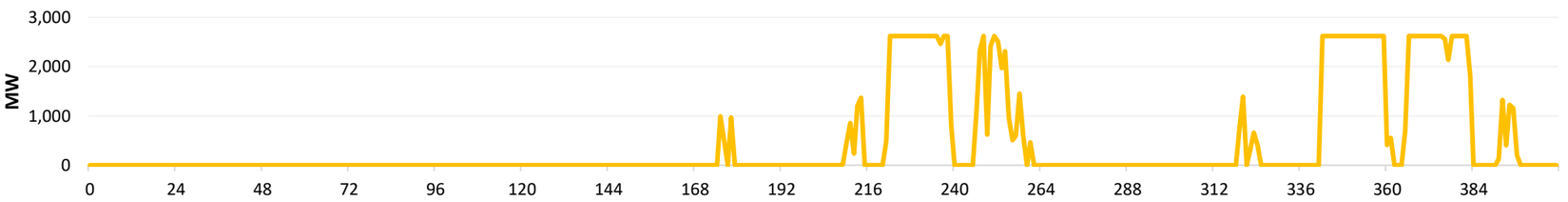
Export Reductions	
Total Hrs.	228
Total MWh	233,216
Avg. MW	571.6

SCR/EDRP Deployed During Modeling Period



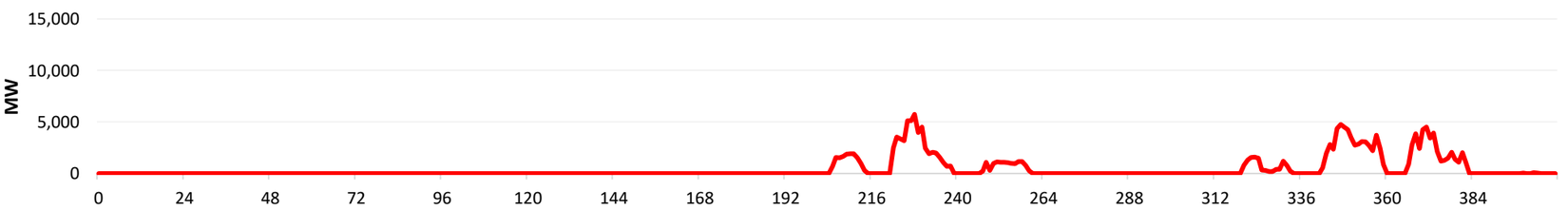
SCR Deployment	
Total Hrs.	27
Total MWh	10,061
Avg. MW	24.7

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	93
Total MWh	177,905
Avg. MW	436.0
First Hour with Viol.	154

Loss of Load During Modeling Period



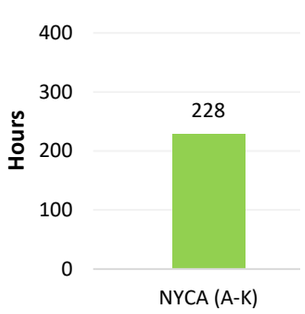
Loss of Load	
Total Hrs.	93
Total MWh	179,230
Avg. MW	439.3
First Hour with Losses	205

Full Period Results Summary

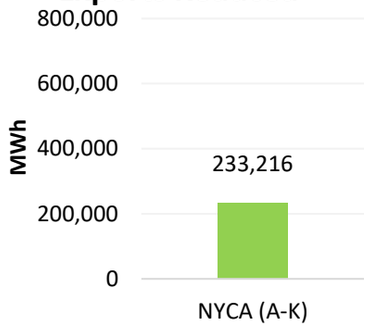
Case Name: Scenario 5 - PD 6 No Barge Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

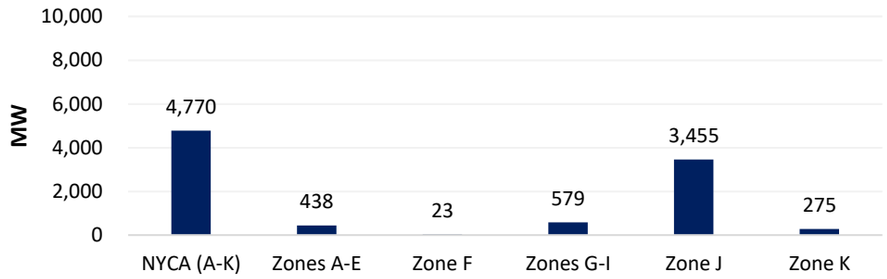
Hours Exports Reduced



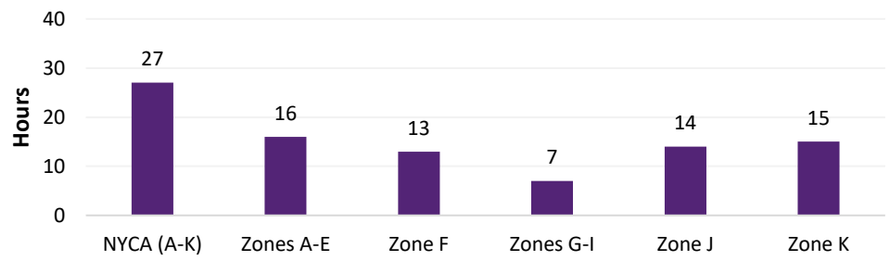
Total MWh of Exports Reduced



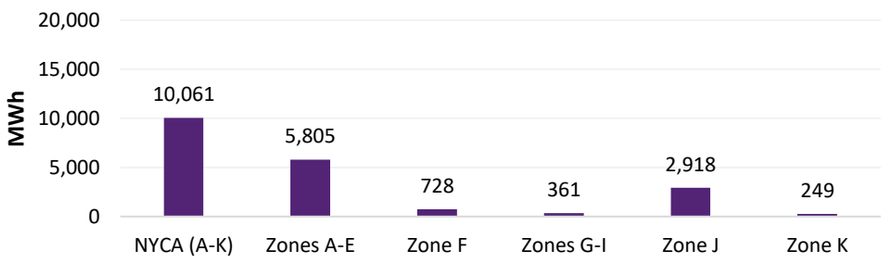
Average Capacity Not Available Due to Exhausted Fuel Inventory



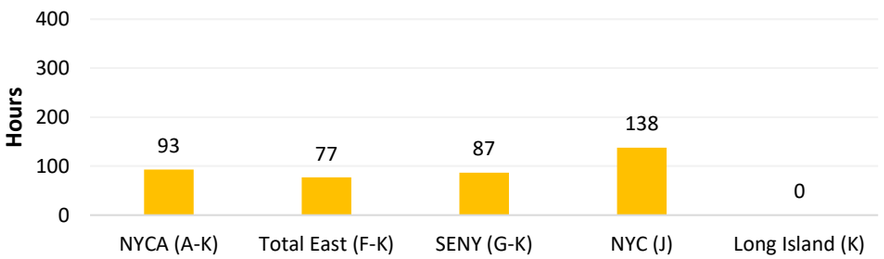
Hours SCR/EDRP Deployed



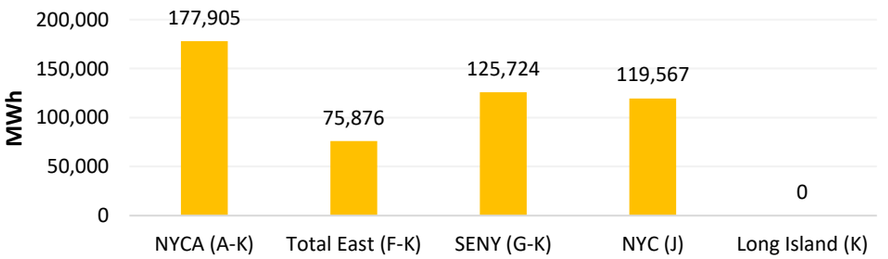
Total MWh SCR/EDRP Deployed



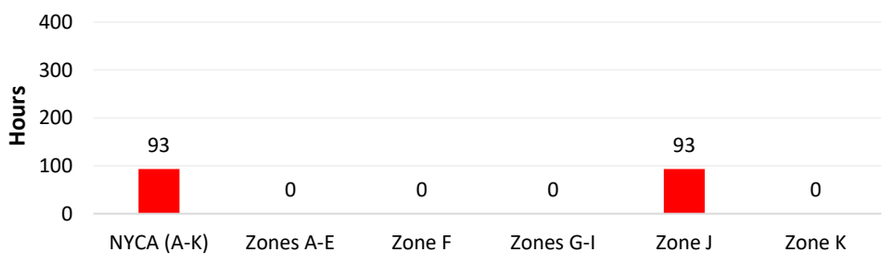
Hours with Reserve Violations



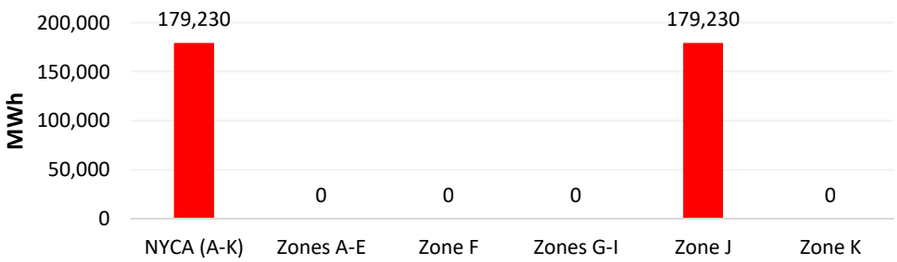
Total MWh of Reserve Violations

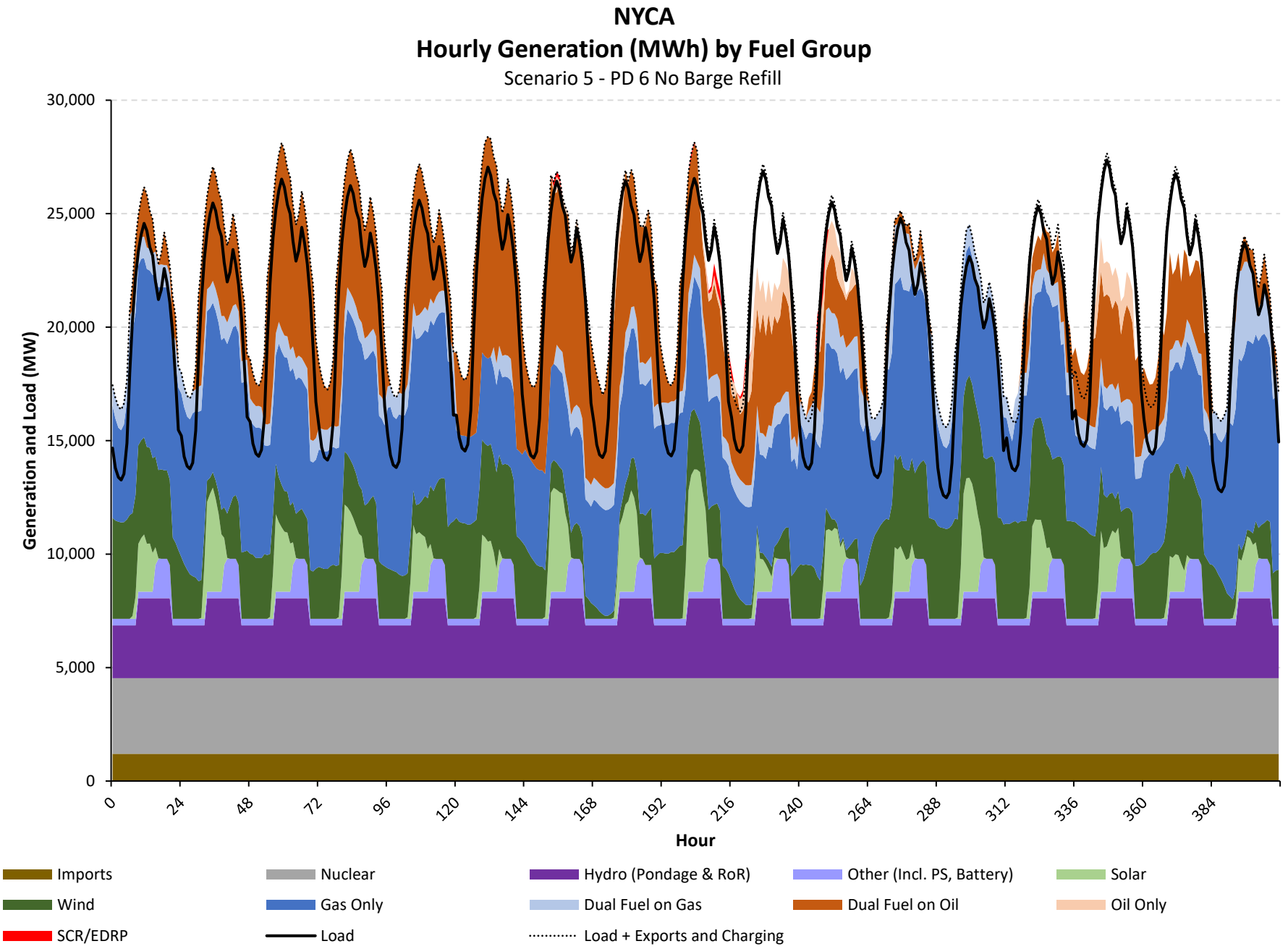


Hours with Loss of Load

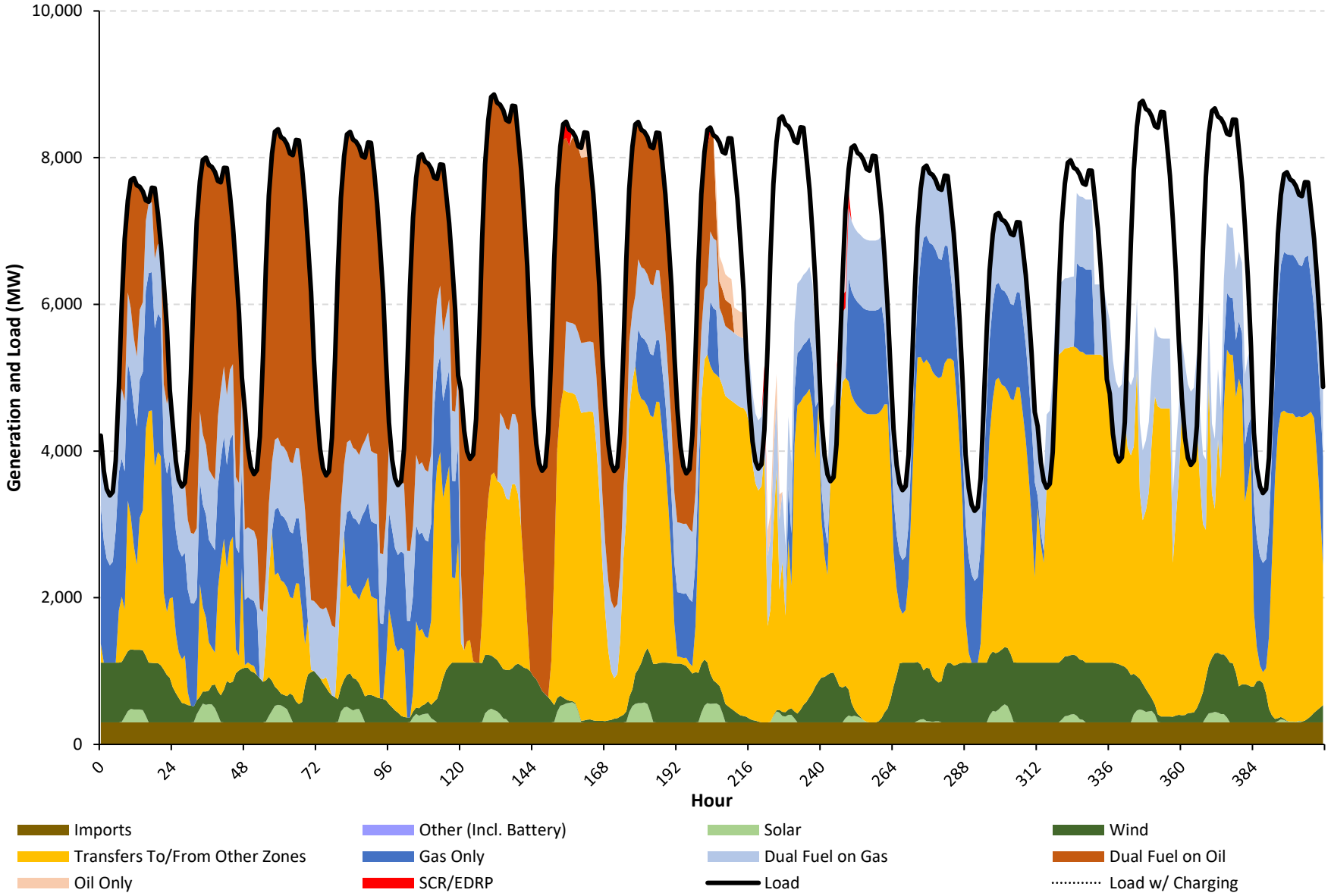


Total MWh of Lost Load

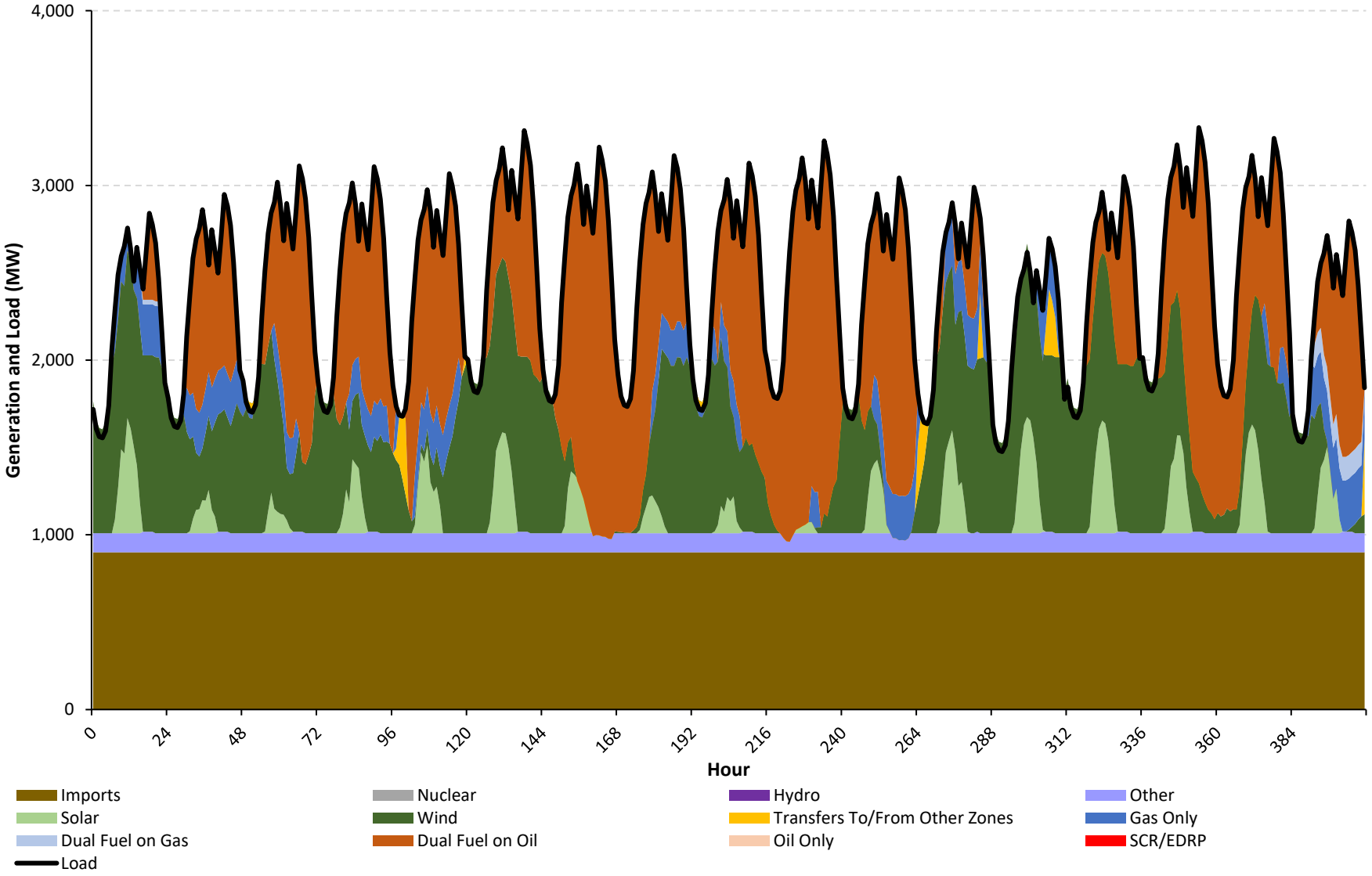



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 5 - PD 6 No Barge Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 6 No Barge Refill



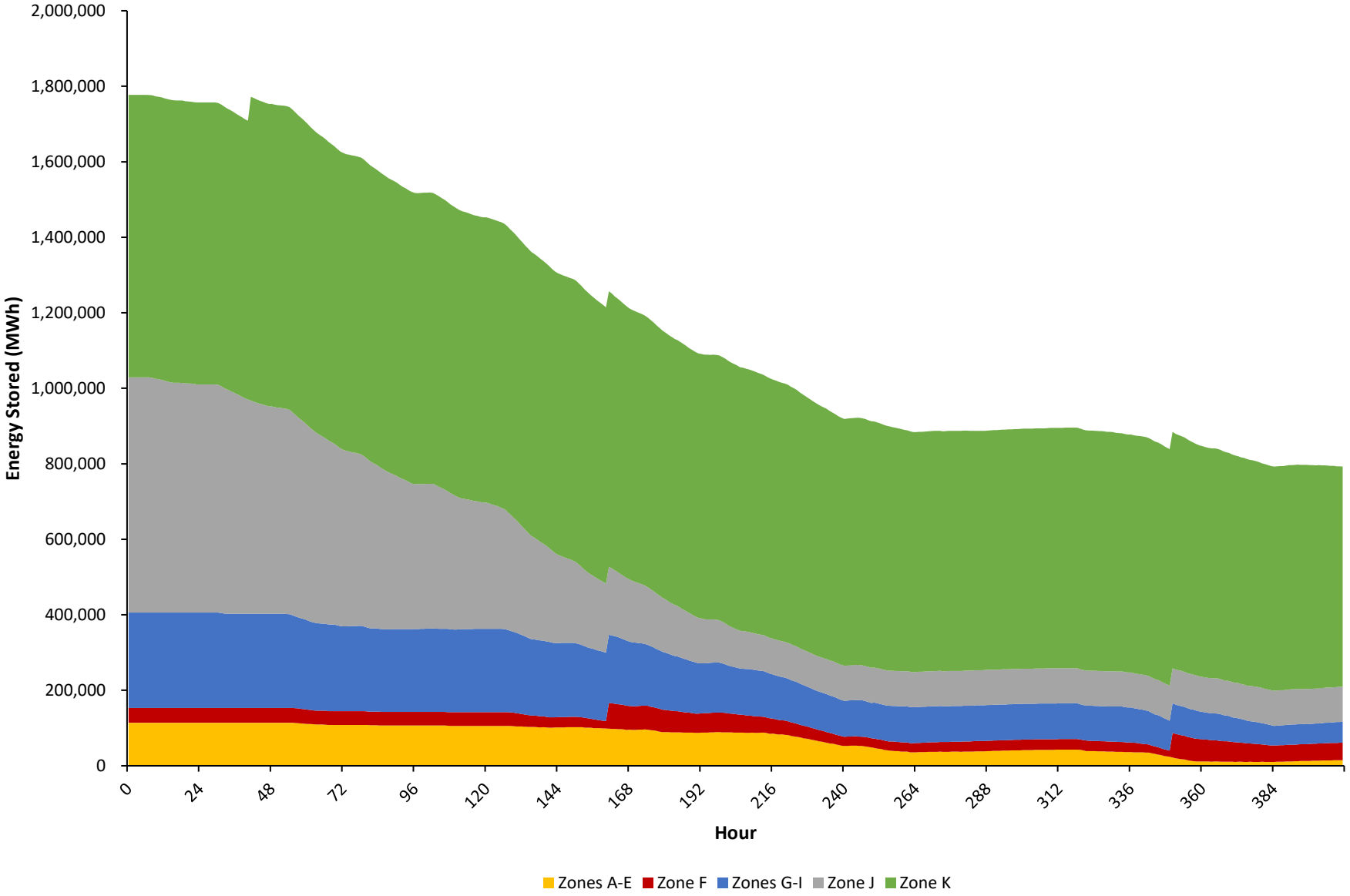
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 6 No Barge Refill

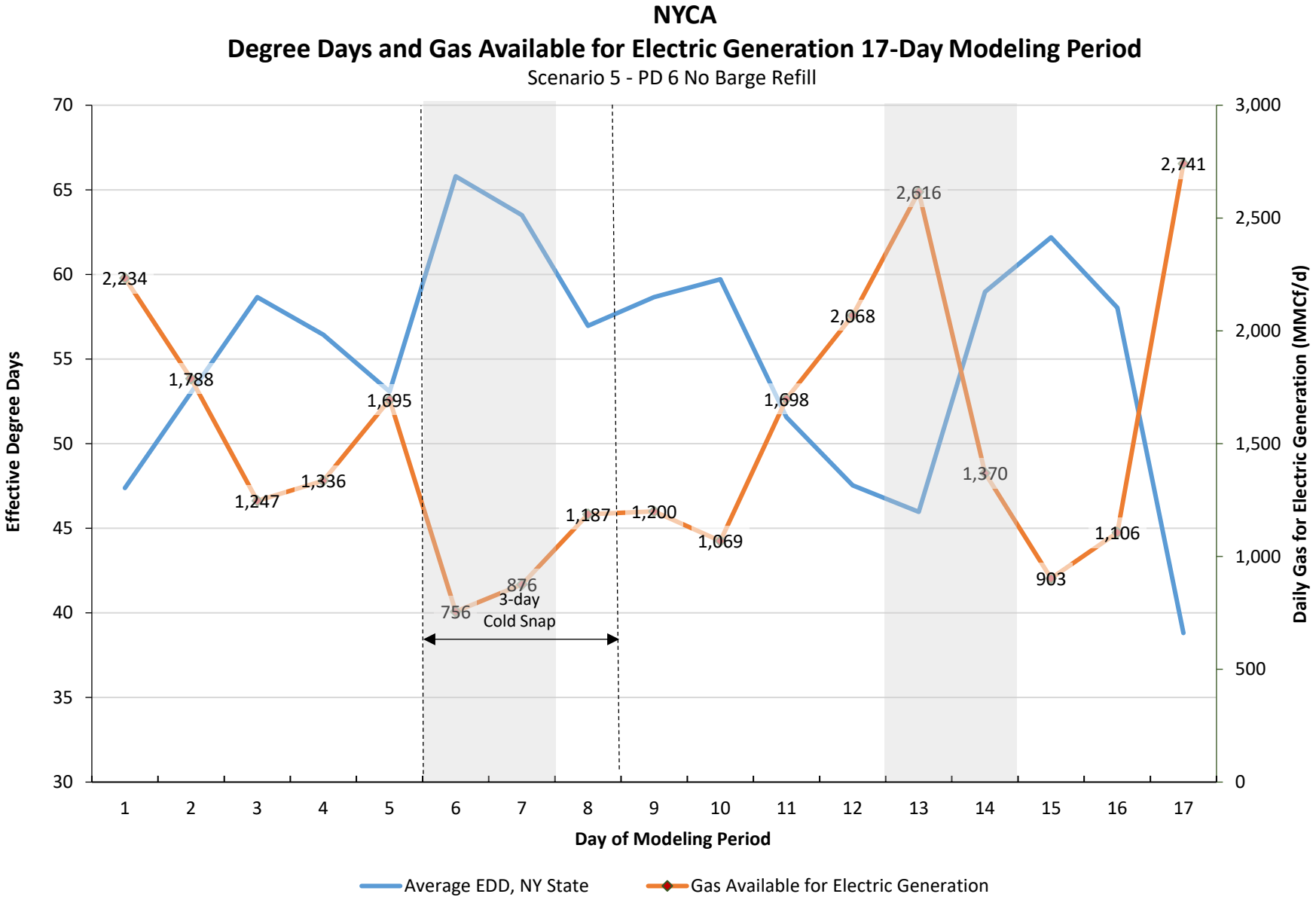


NYCA

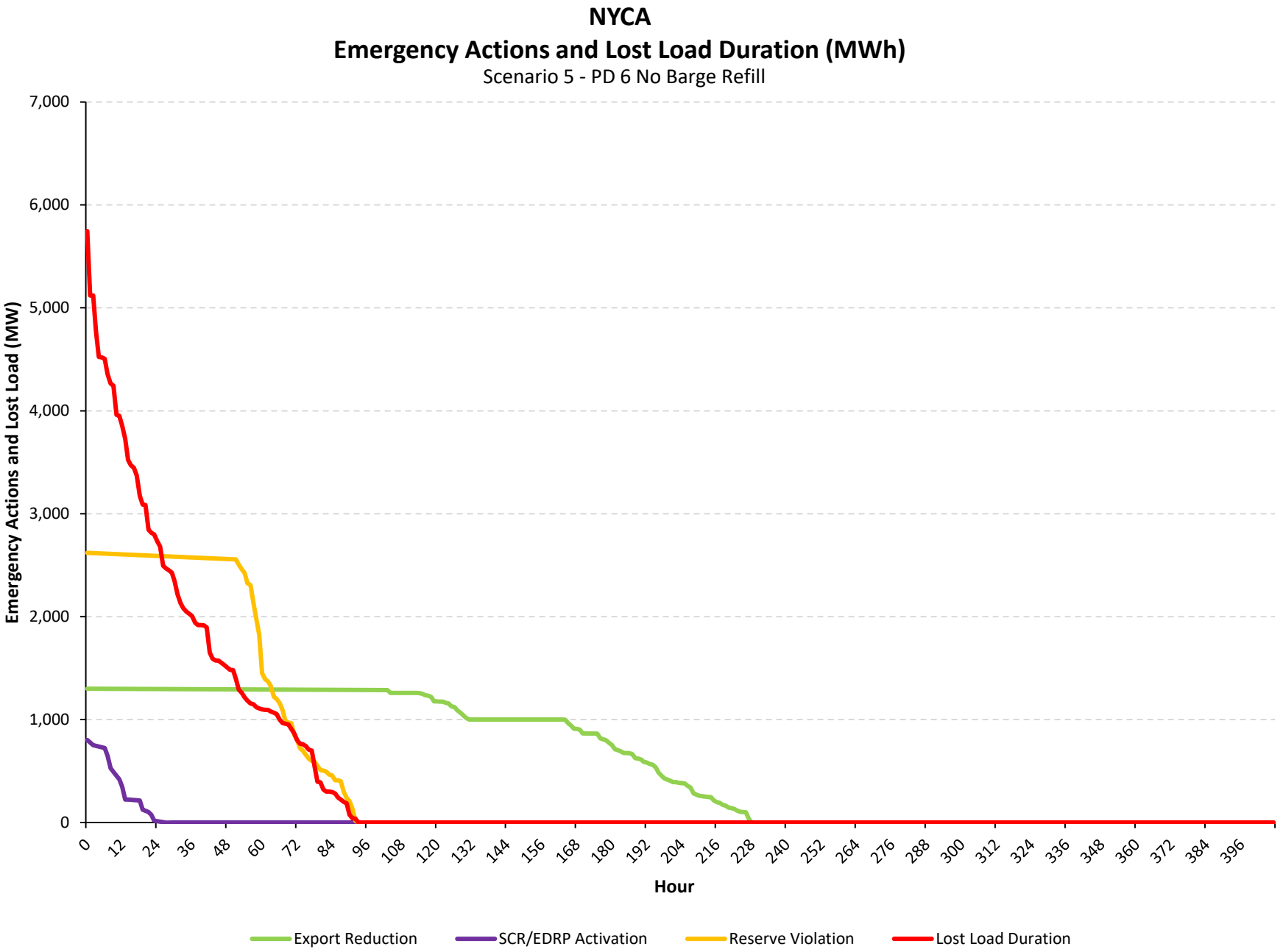
Quantity of Stored Fuel for Oil and Dual Fuel Units

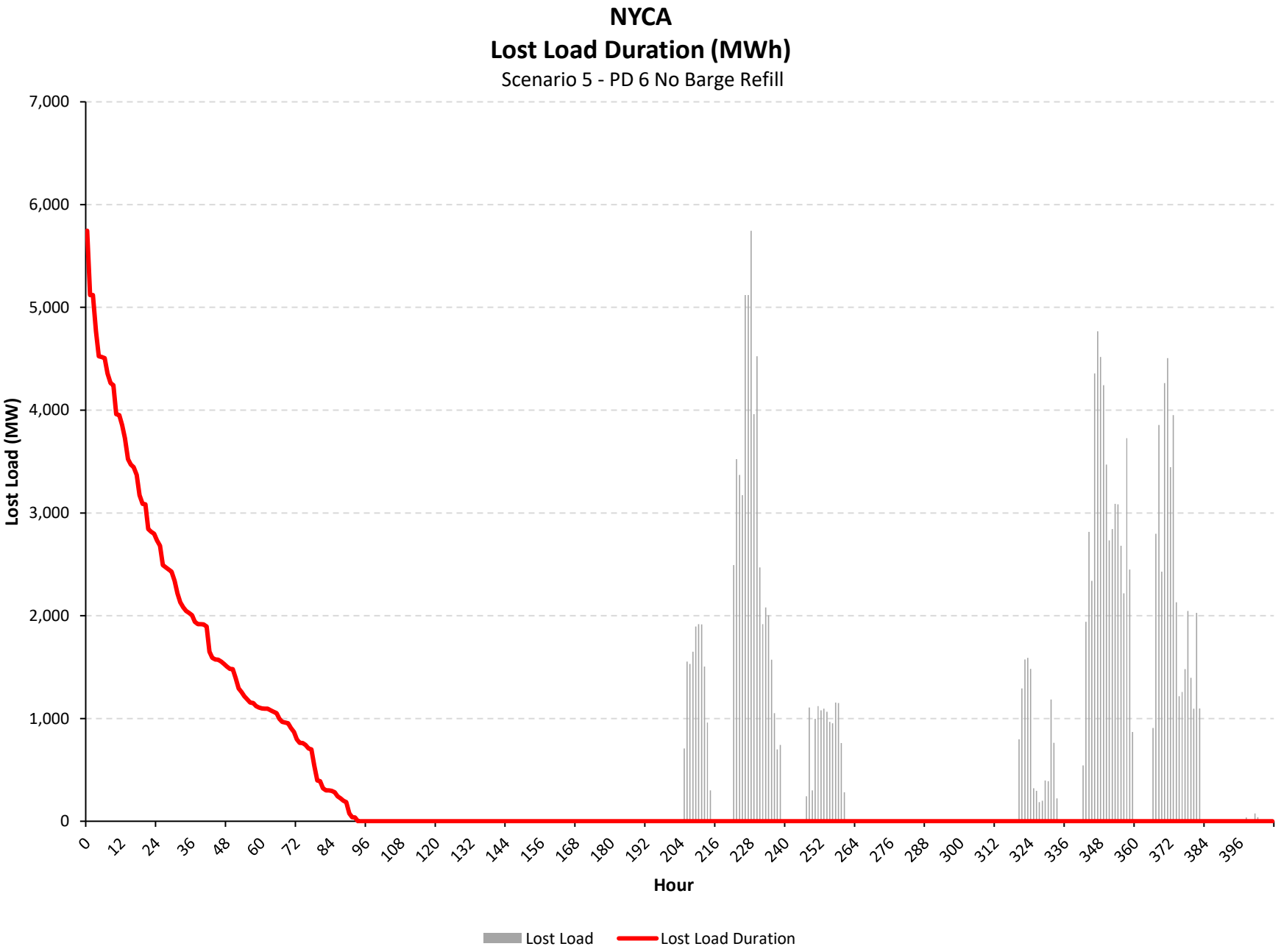
Scenario 5 - PD 6 No Barge Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 5 - PD 6 No Barge Refill
Emergency Actions and Lost Load (MW)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 5 - PD 6 No Barge Refill
Lost Load (MW)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

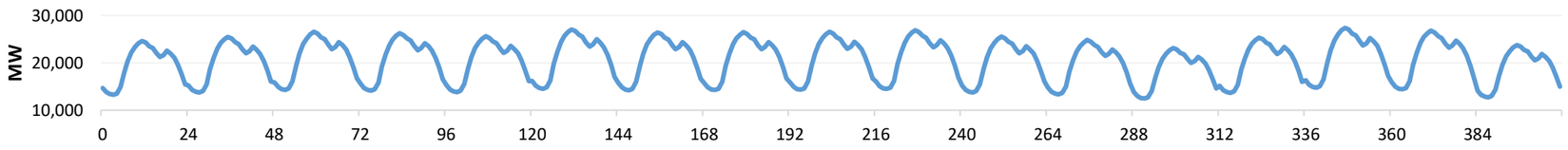
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 5 - PD 7 No Refill (Winter 2026/2027)

Hourly Results Summary

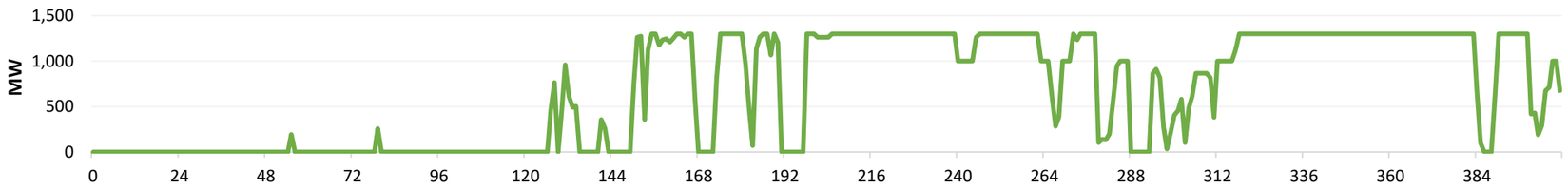
Case Name: Scenario 5 - PD 7 No Refill

Load During Modeling Period



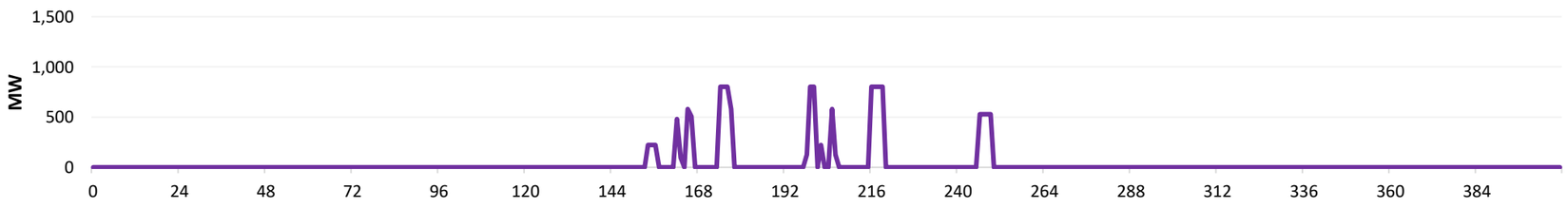
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



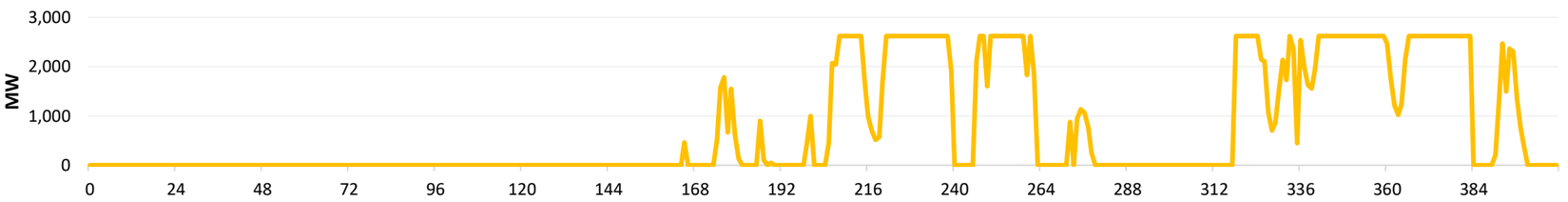
Export Reductions	
Total Hrs.	248
Total MWh	270,817
Avg. MW	663.8

SCR/EDRP Deployed During Modeling Period



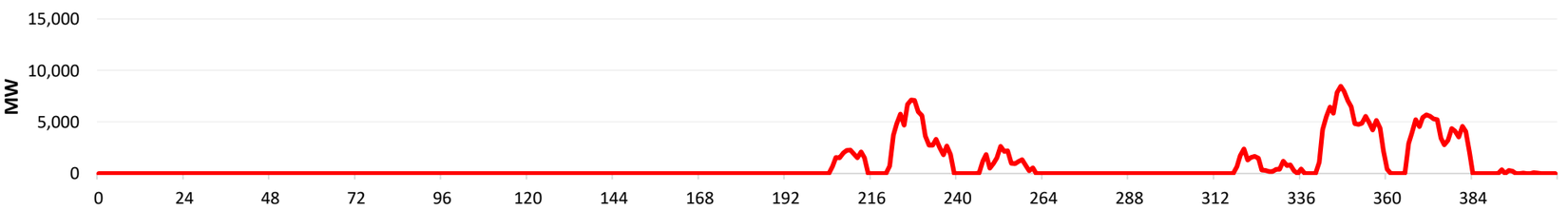
SCR Deployment	
Total Hrs.	25
Total MWh	13,289
Avg. MW	32.6

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	146
Total MWh	299,469
Avg. MW	734.0
First Hour with Viol.	154

Loss of Load During Modeling Period



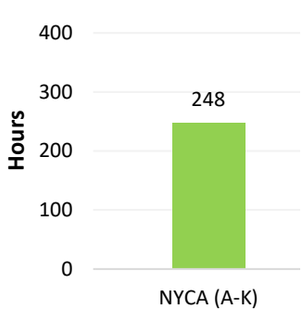
Loss of Load	
Total Hrs.	107
Total MWh	305,780
Avg. MW	749.5
First Hour with Losses	205

Full Period Results Summary

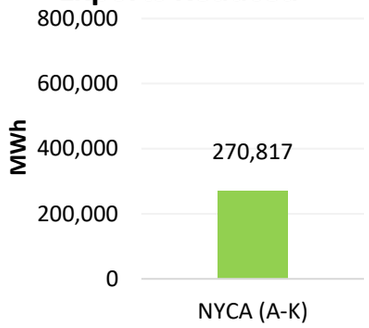
Case Name: Scenario 5 - PD 7 No Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

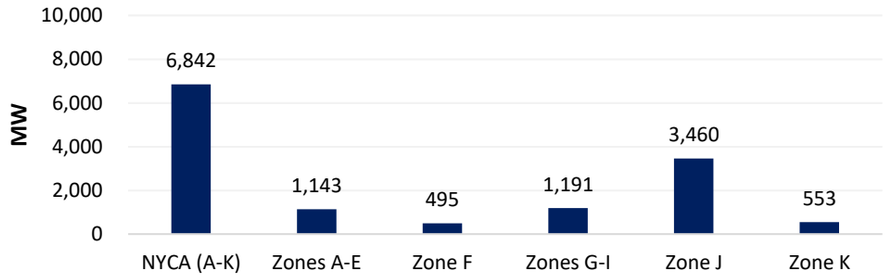
Hours Exports Reduced



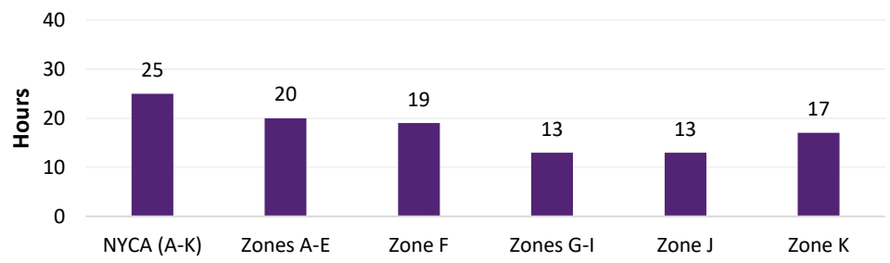
Total MWh of Exports Reduced



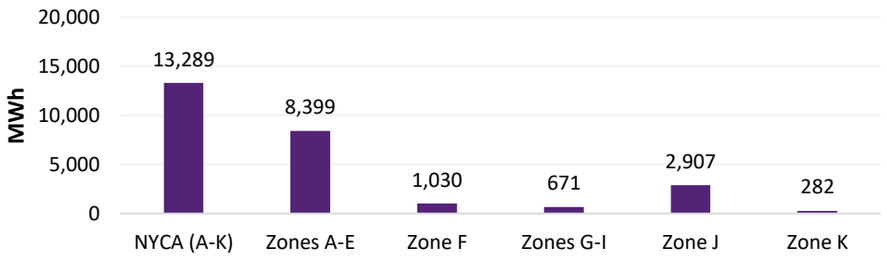
Average Capacity Not Available Due to Exhausted Fuel Inventory



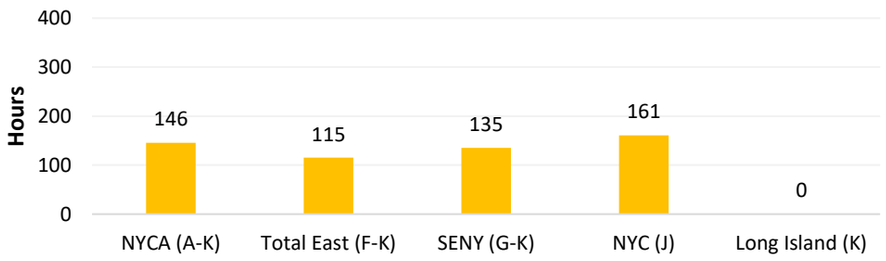
Hours SCR/EDRP Deployed



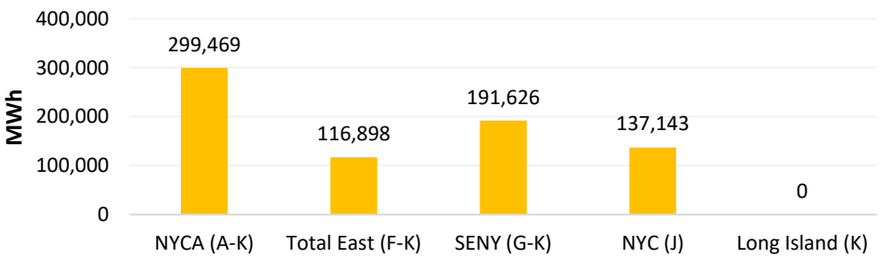
Total MWh SCR/EDRP Deployed



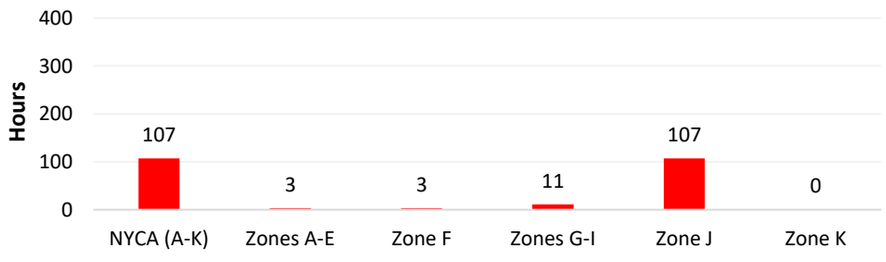
Hours with Reserve Violations



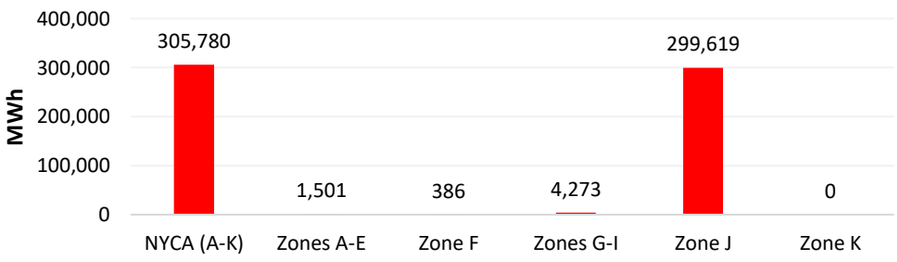
Total MWh of Reserve Violations

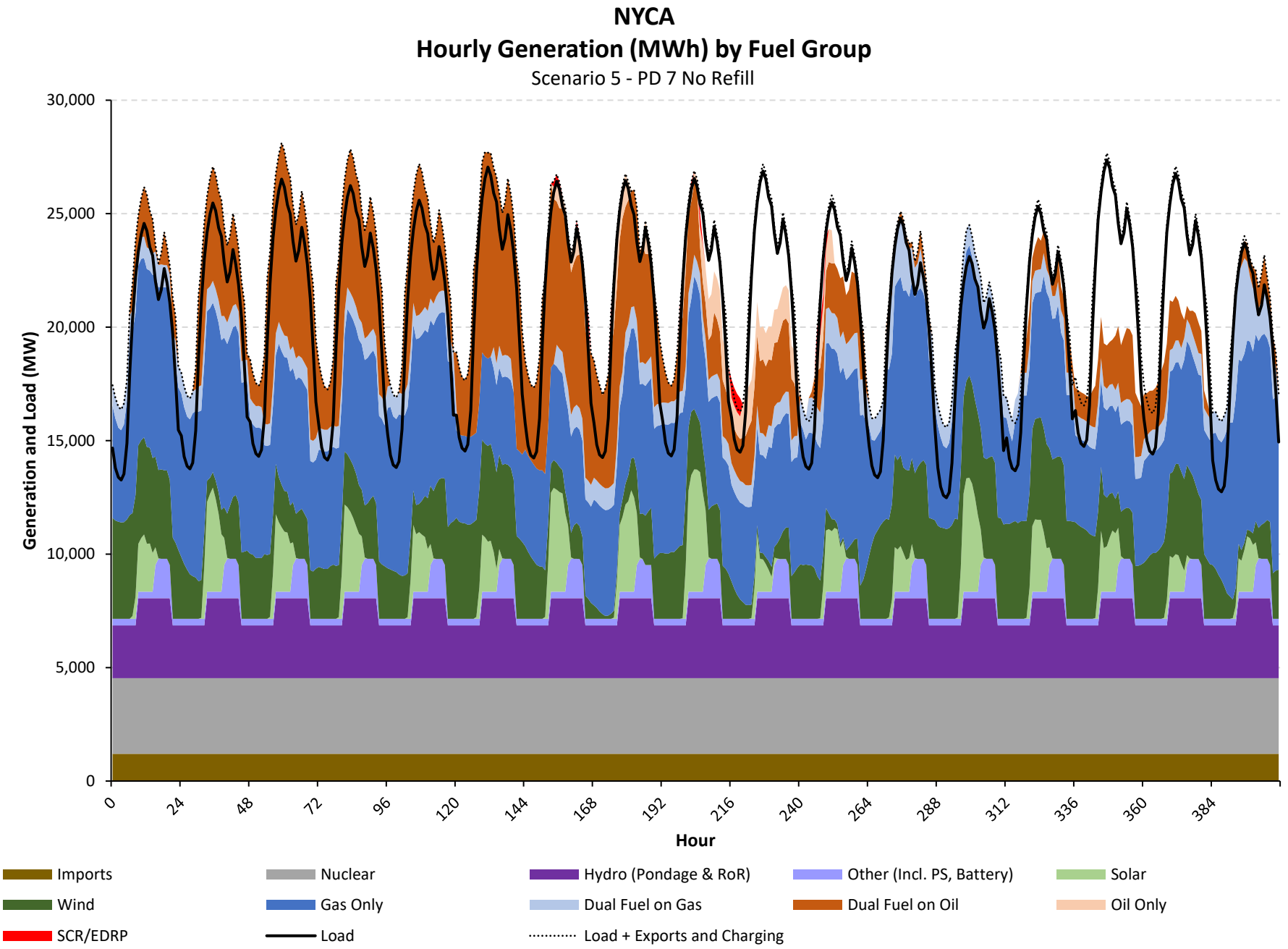


Hours with Loss of Load

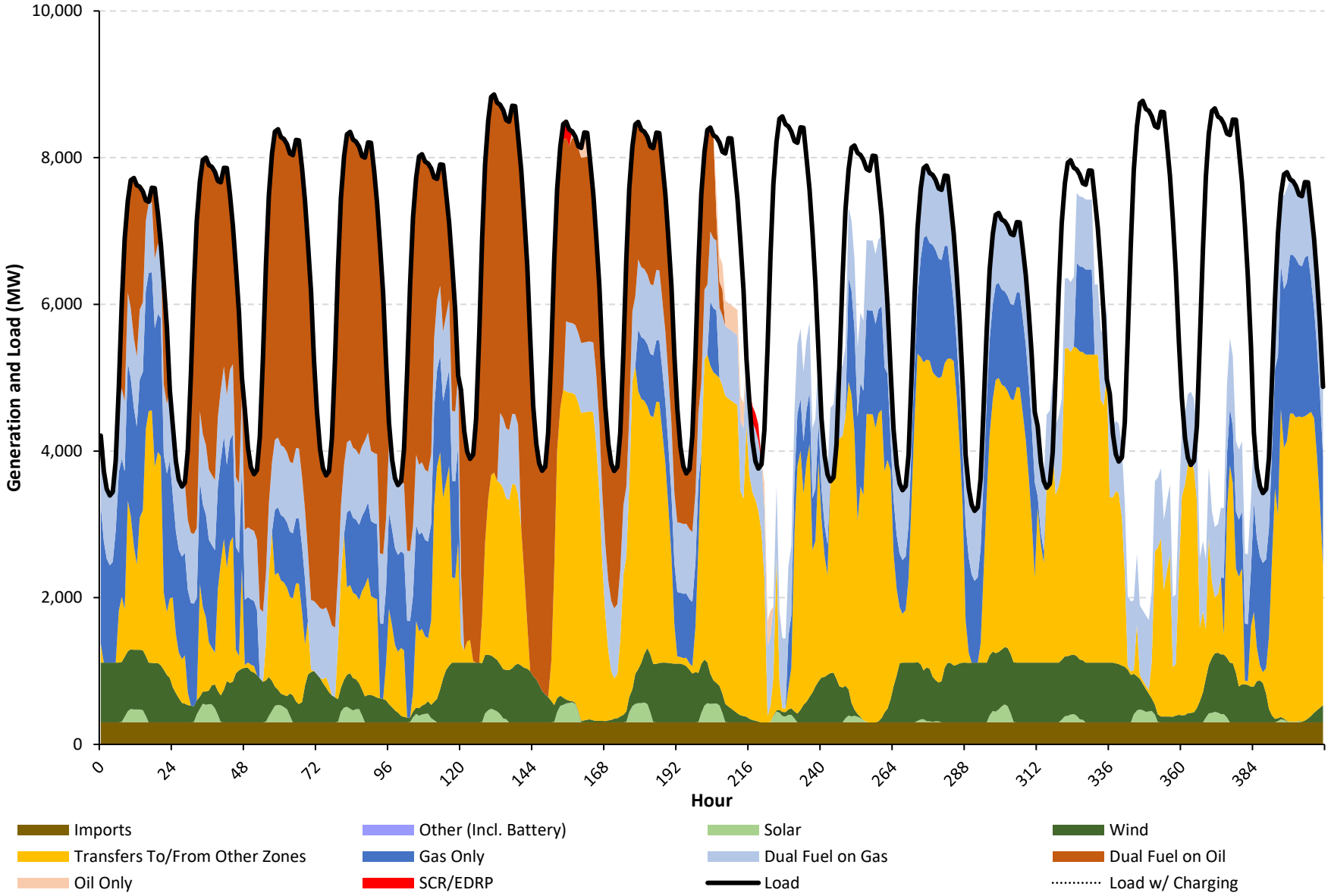


Total MWh of Lost Load

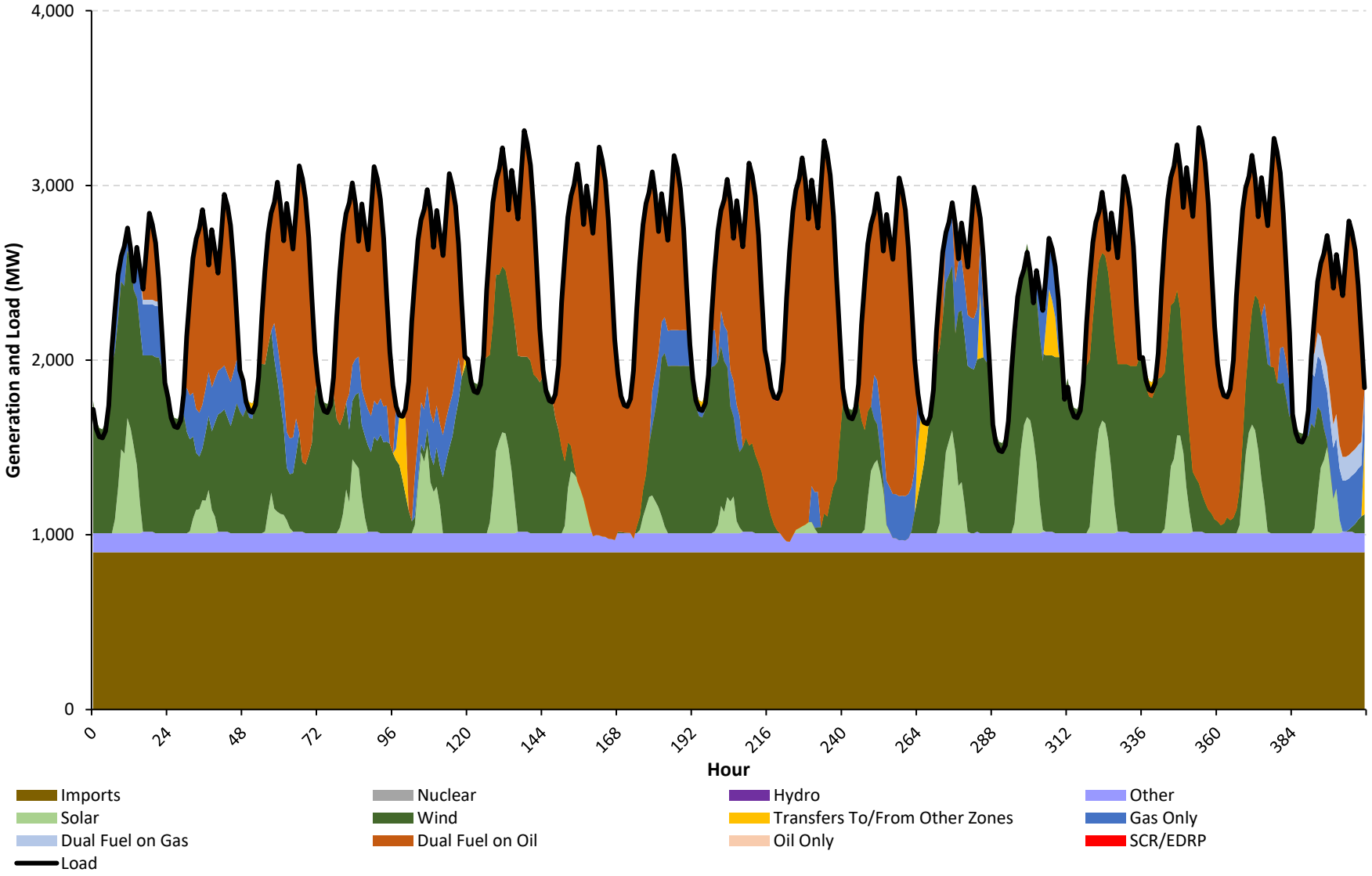



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 5 - PD 7 No Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 7 No Refill



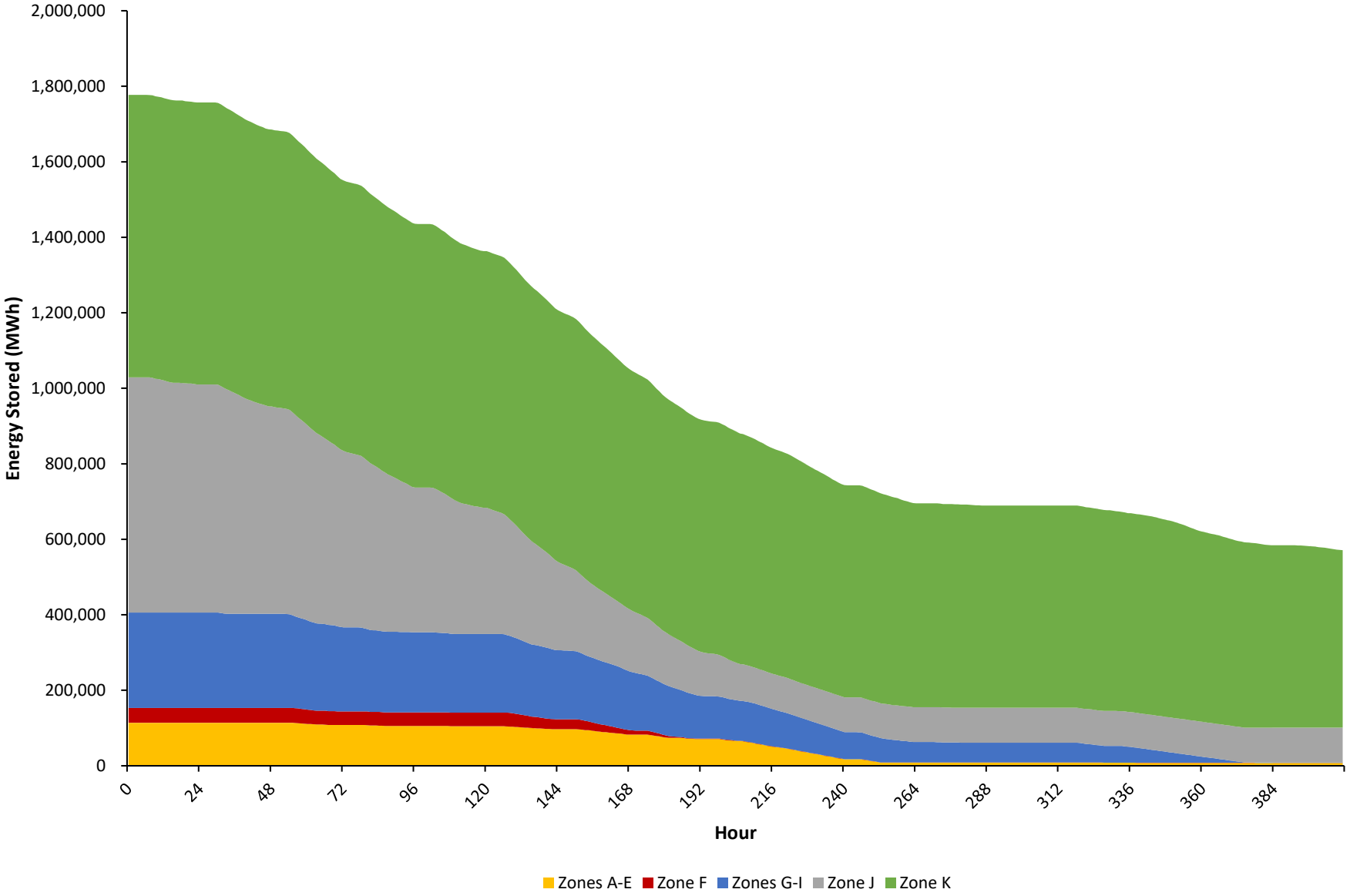
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 7 No Refill

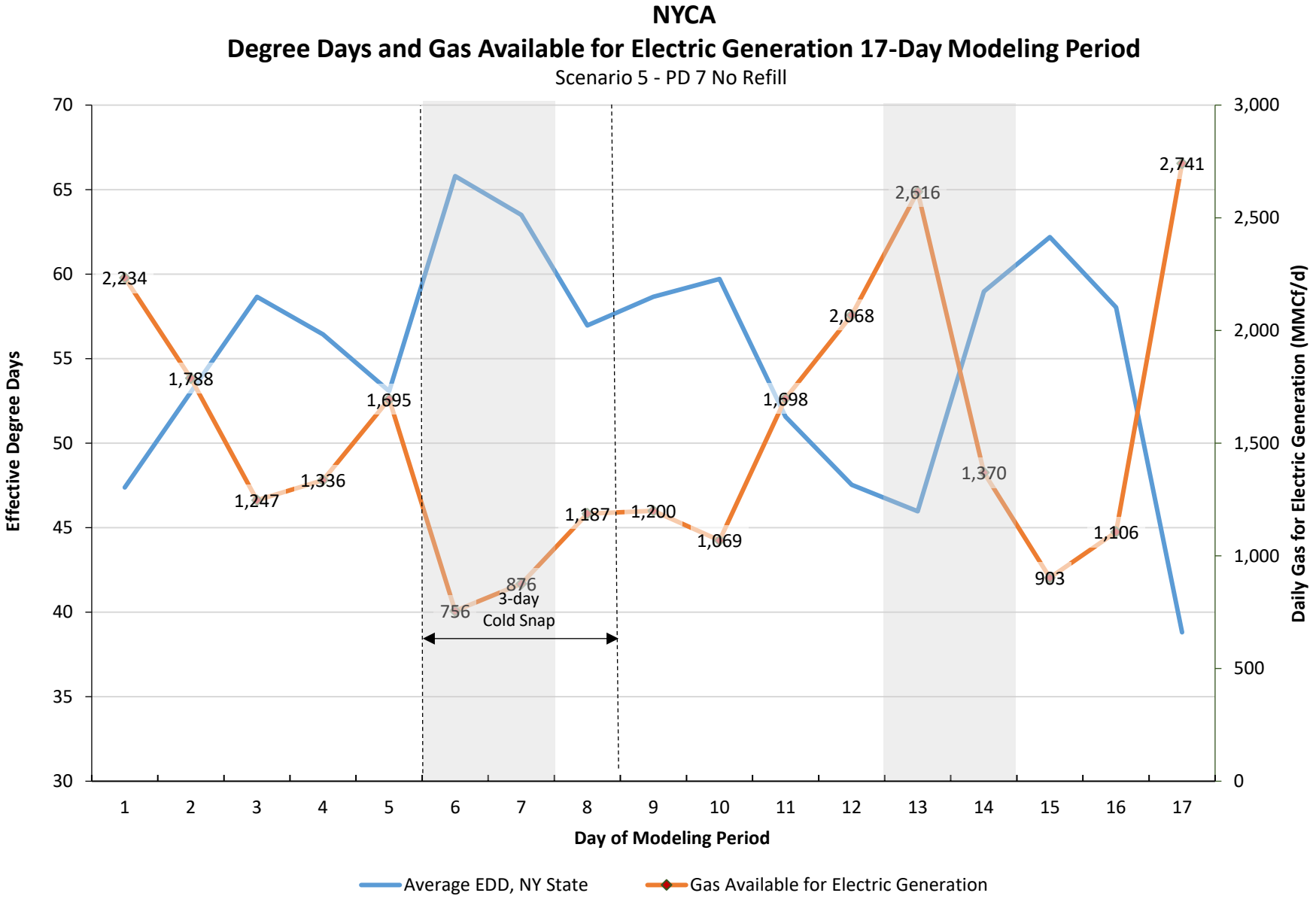


NYCA

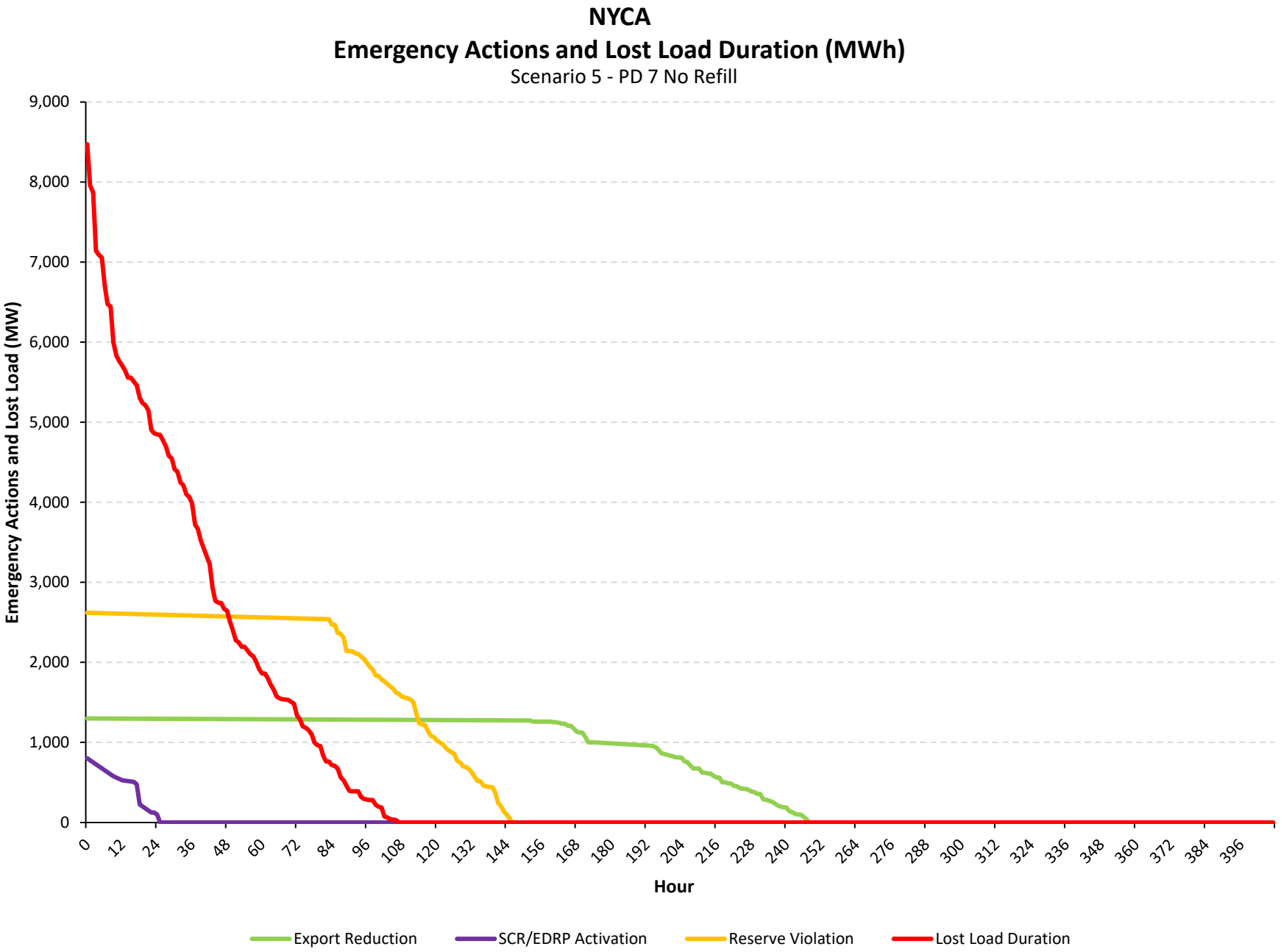
Quantity of Stored Fuel for Oil and Dual Fuel Units

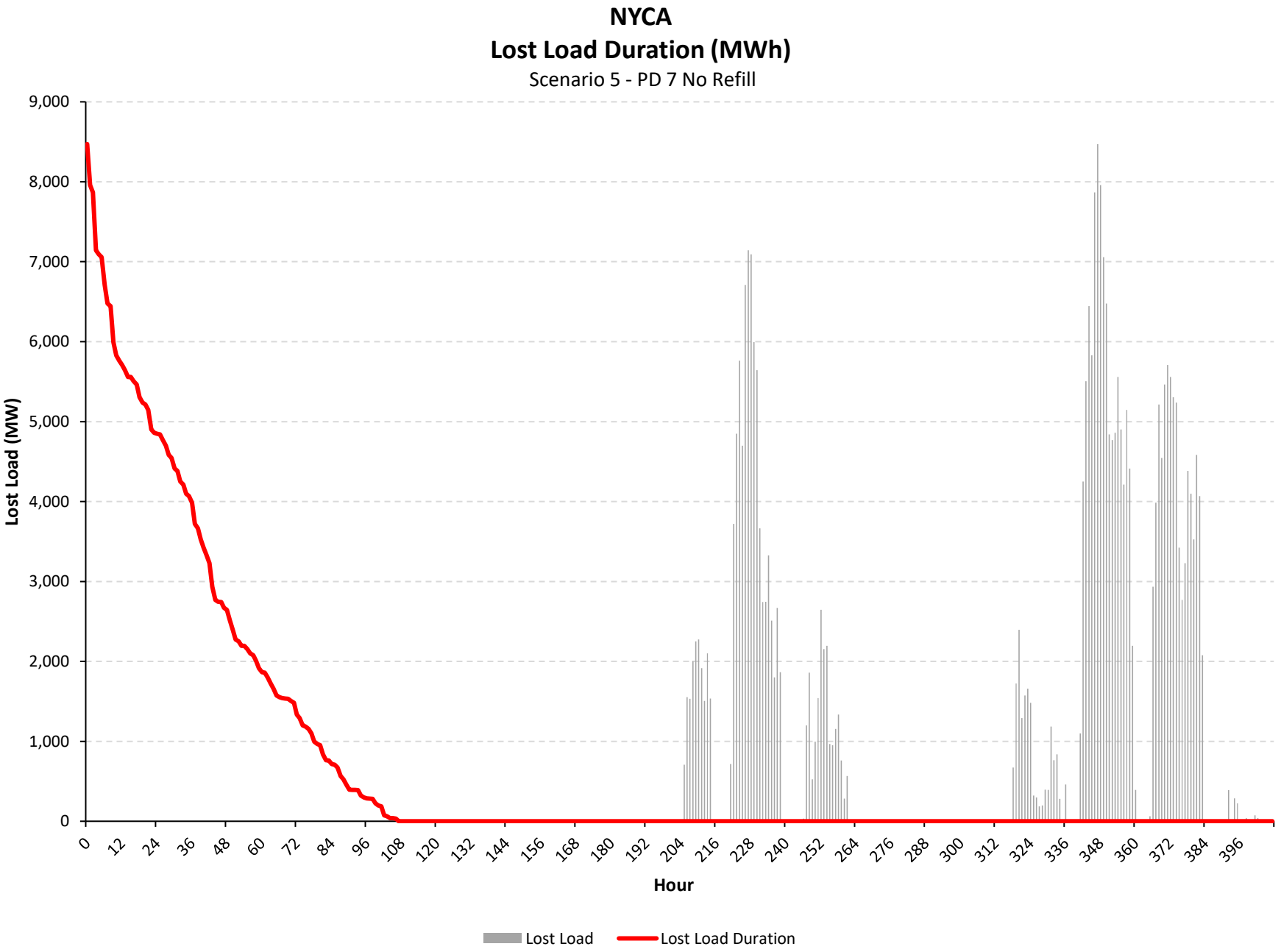
Scenario 5 - PD 7 No Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 5 - PD 7 No Refill
Emergency Actions and Lost Load (MW)
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 5 - PD 7 No Refill
Lost Load (MW)
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

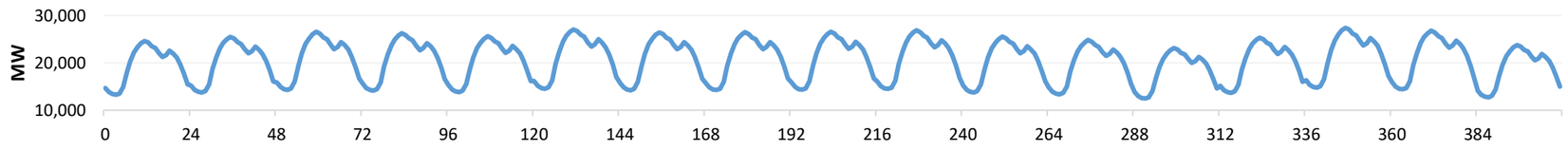
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 5 - PD 8 Non-Firm Gas Unavailable (F-K) (Winter 2026/2027)

Hourly Results Summary

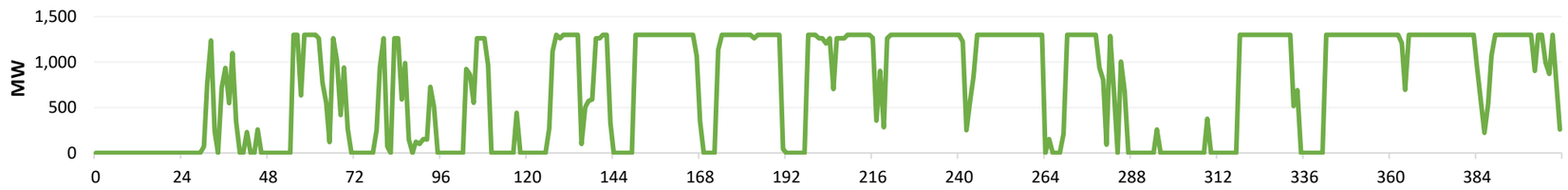
Case Name: Scenario 5 - PD 8 Non-Firm Gas Unavailable (F-K)

Load During Modeling Period



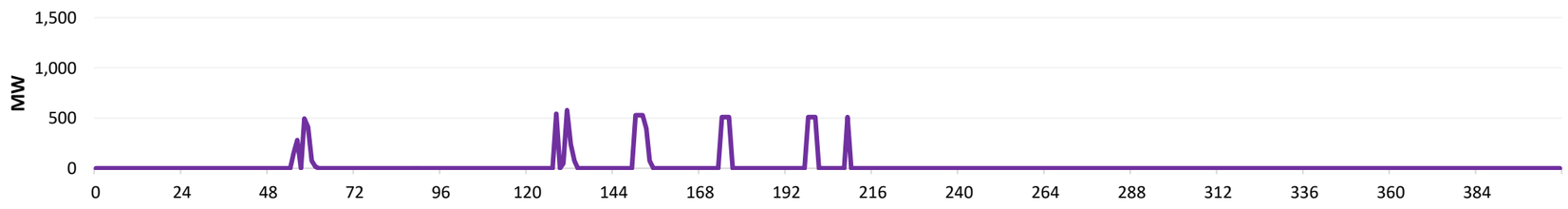
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



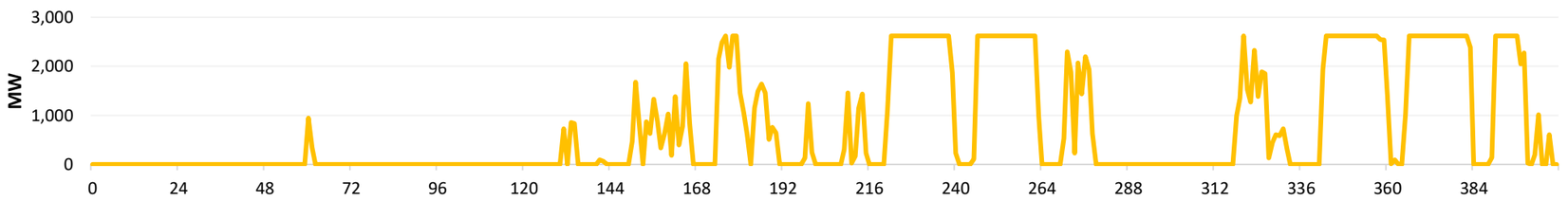
Export Reductions	
Total Hrs.	275
Total MWh	300,217
Avg. MW	735.8

SCR/EDRP Deployed During Modeling Period



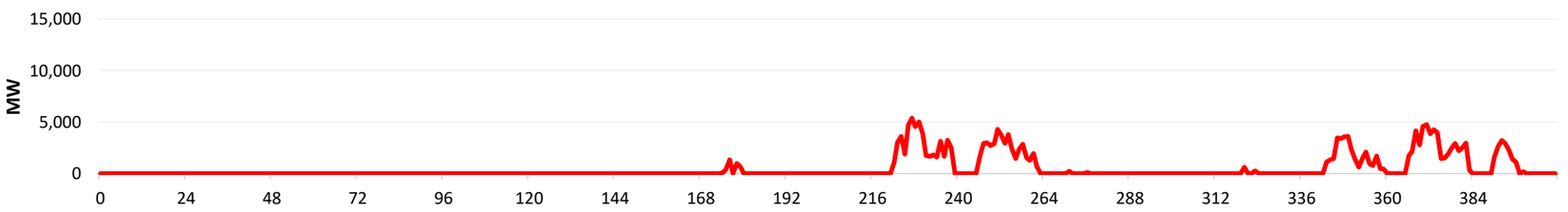
SCR Deployment	
Total Hrs.	23
Total MWh	8,528
Avg. MW	20.9

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	166
Total MWh	294,749
Avg. MW	722.4
First Hour with Viol.	60

Loss of Load During Modeling Period



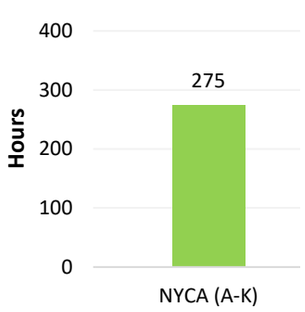
Loss of Load	
Total Hrs.	86
Total MWh	193,657
Avg. MW	474.6
First Hour with Losses	174

Full Period Results Summary

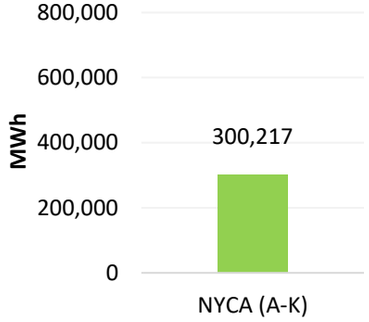
Case Name: Scenario 5 - PD 8 Non-Firm Gas Unavailable (F-K)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

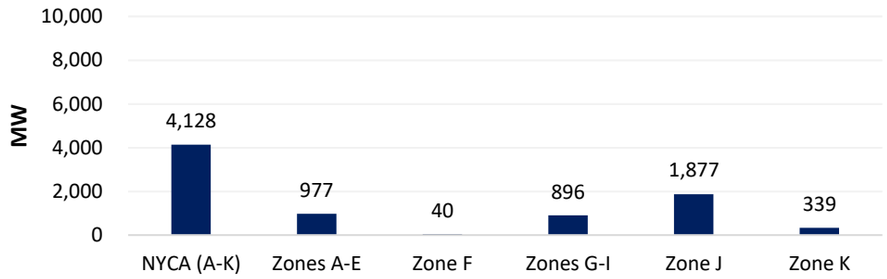
Hours Exports Reduced



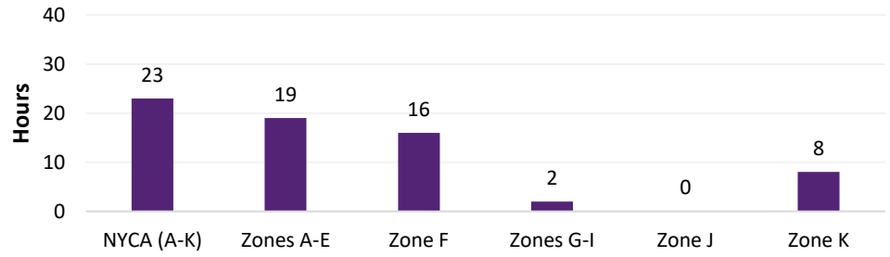
Total MWh of Exports Reduced



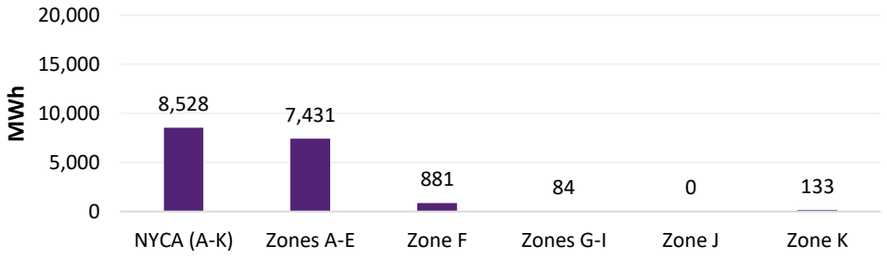
Average Capacity Not Available Due to Exhausted Fuel Inventory



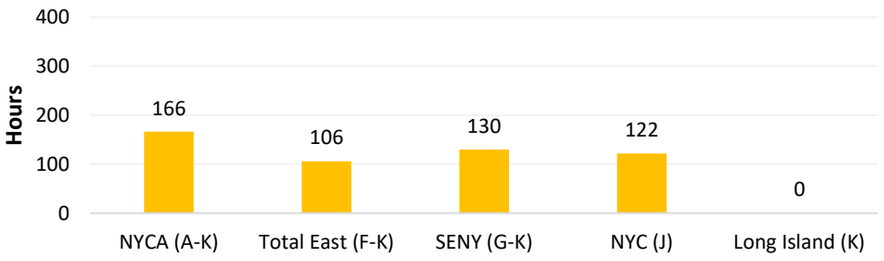
Hours SCR/EDRP Deployed



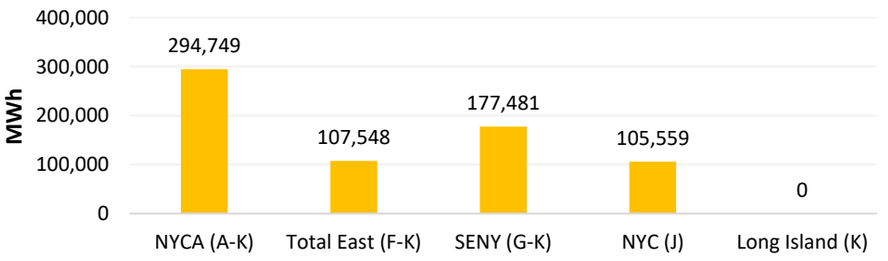
Total MWh SCR/EDRP Deployed



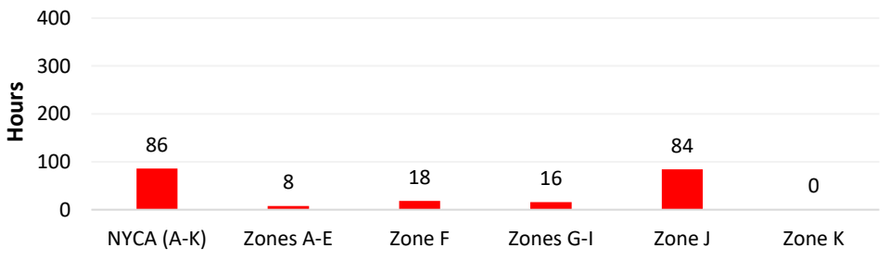
Hours with Reserve Violations



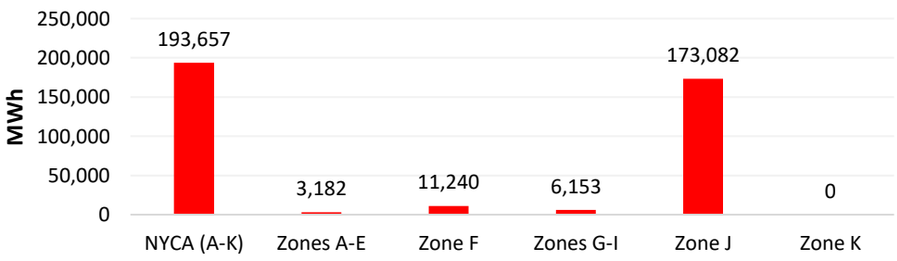
Total MWh of Reserve Violations

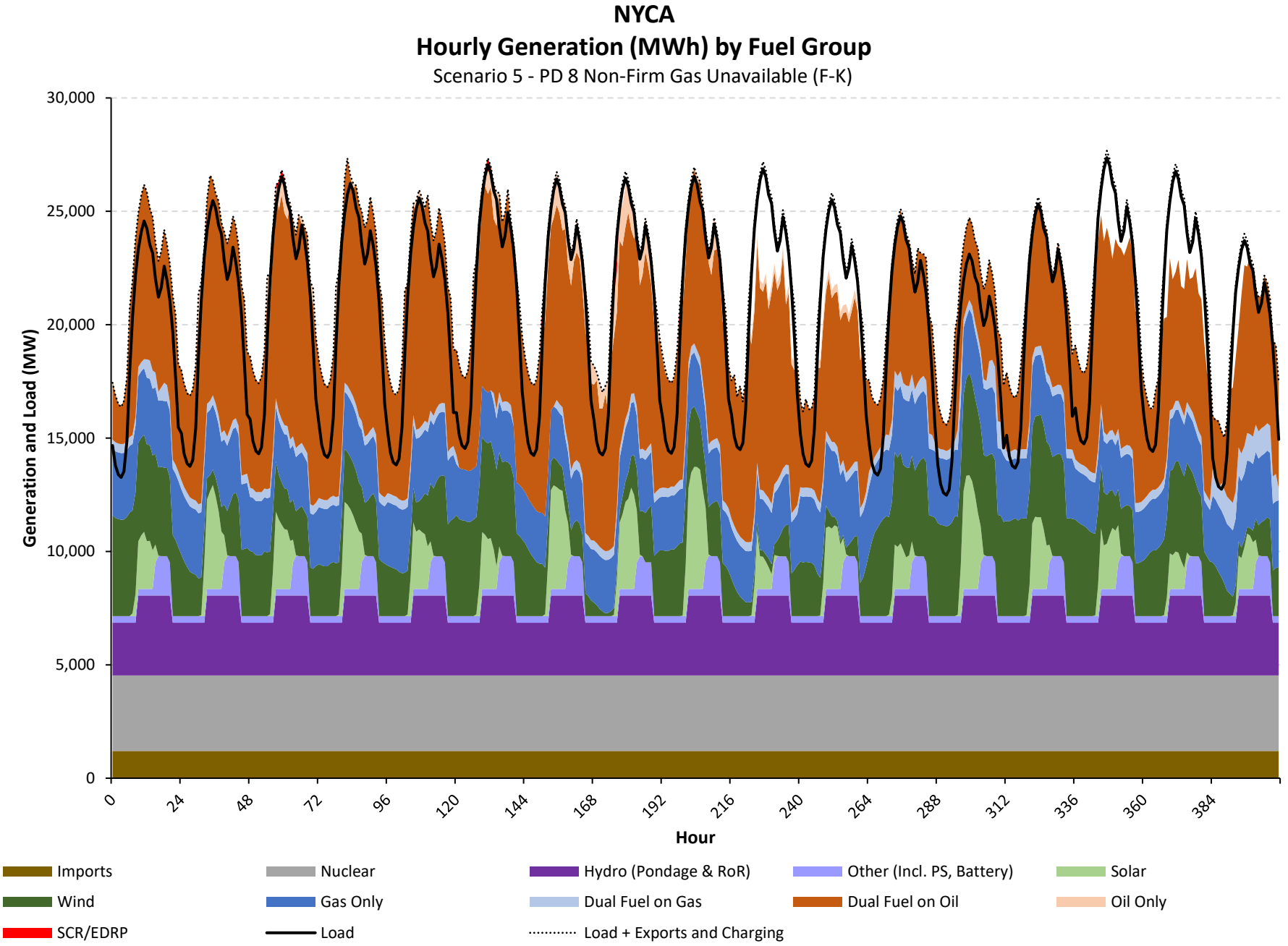


Hours with Loss of Load

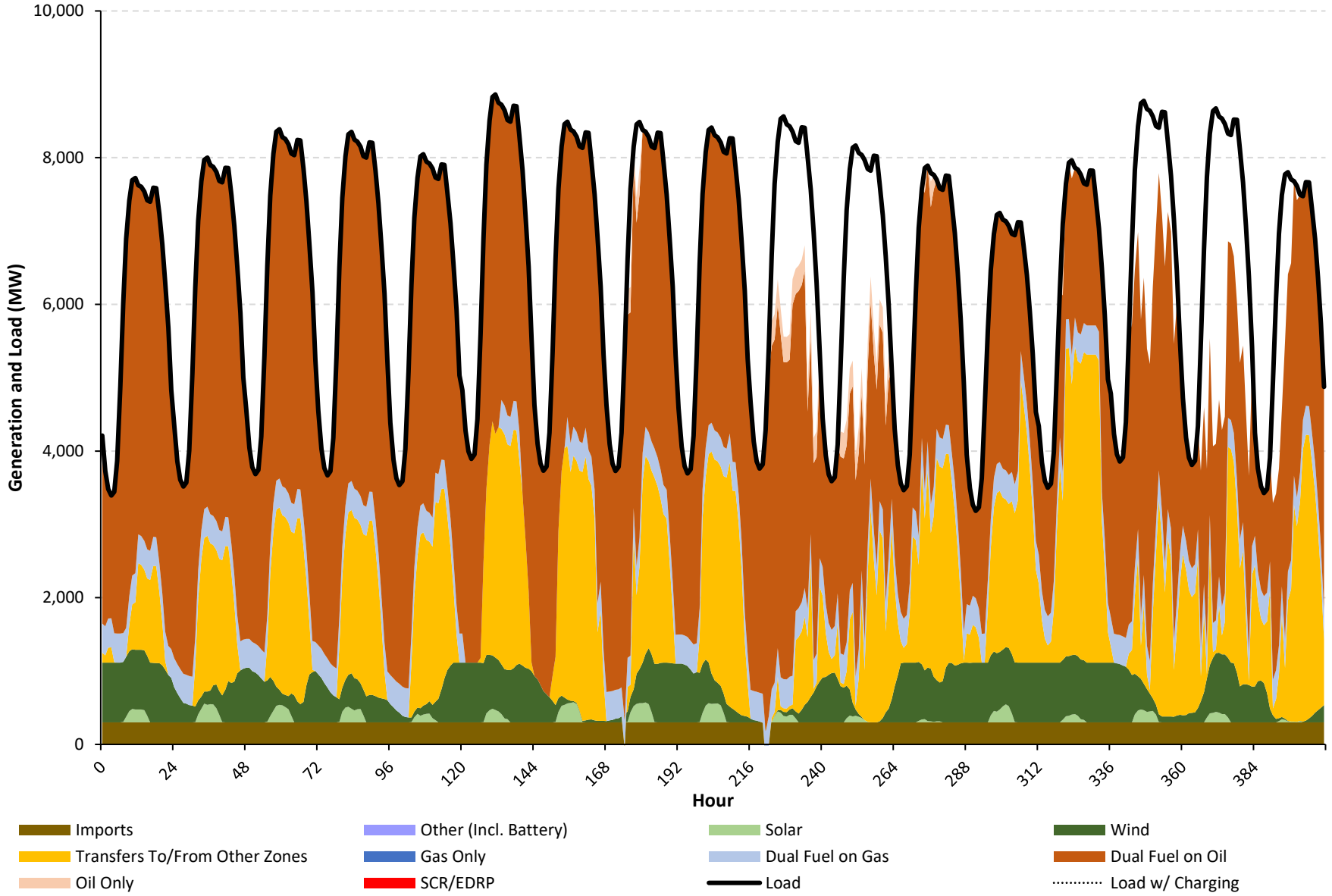


Total MWh of Lost Load

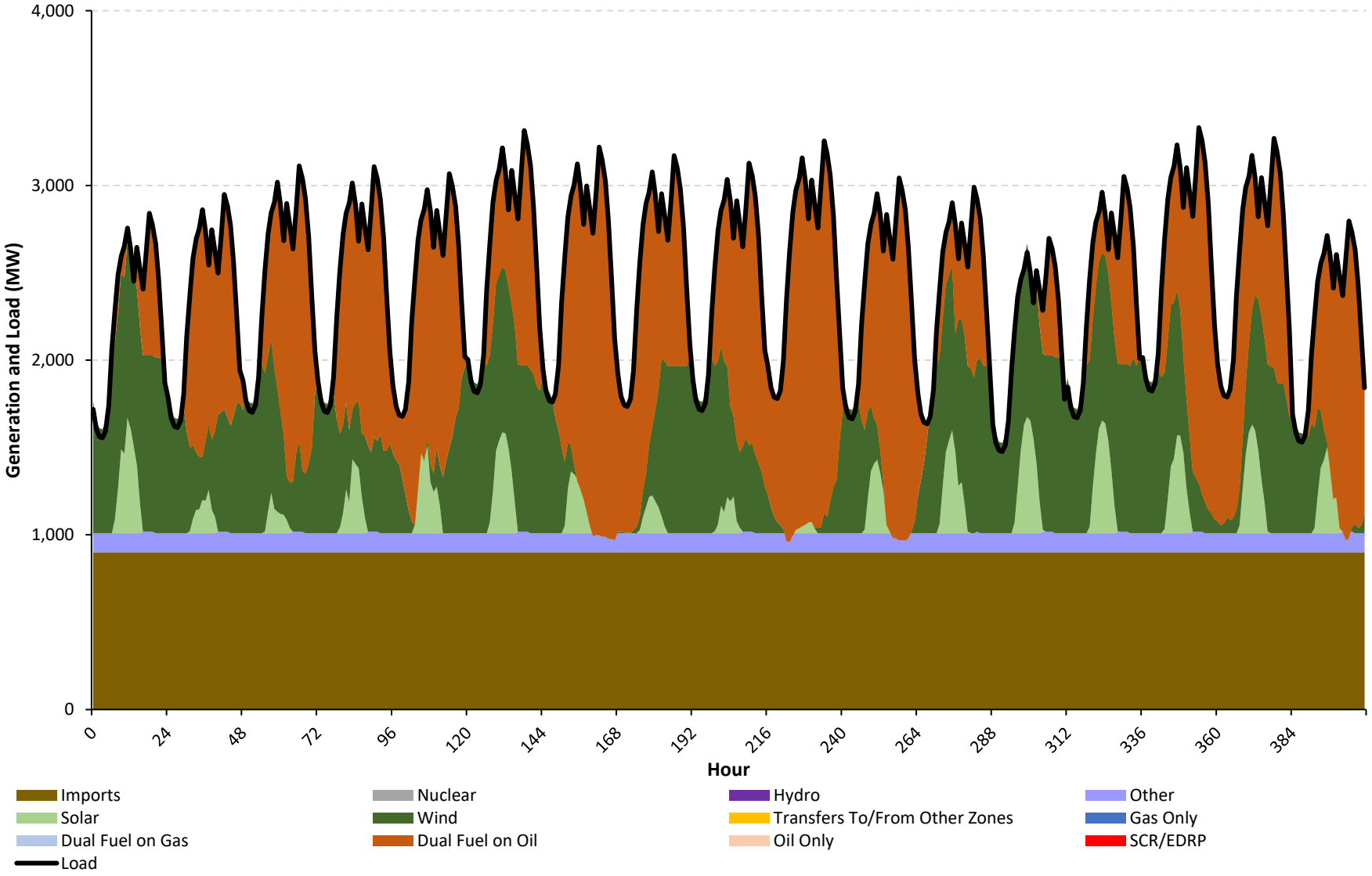



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 5 - PD 8 Non-Firm Gas Unavailable (F-K)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 8 Non-Firm Gas Unavailable (F-K)



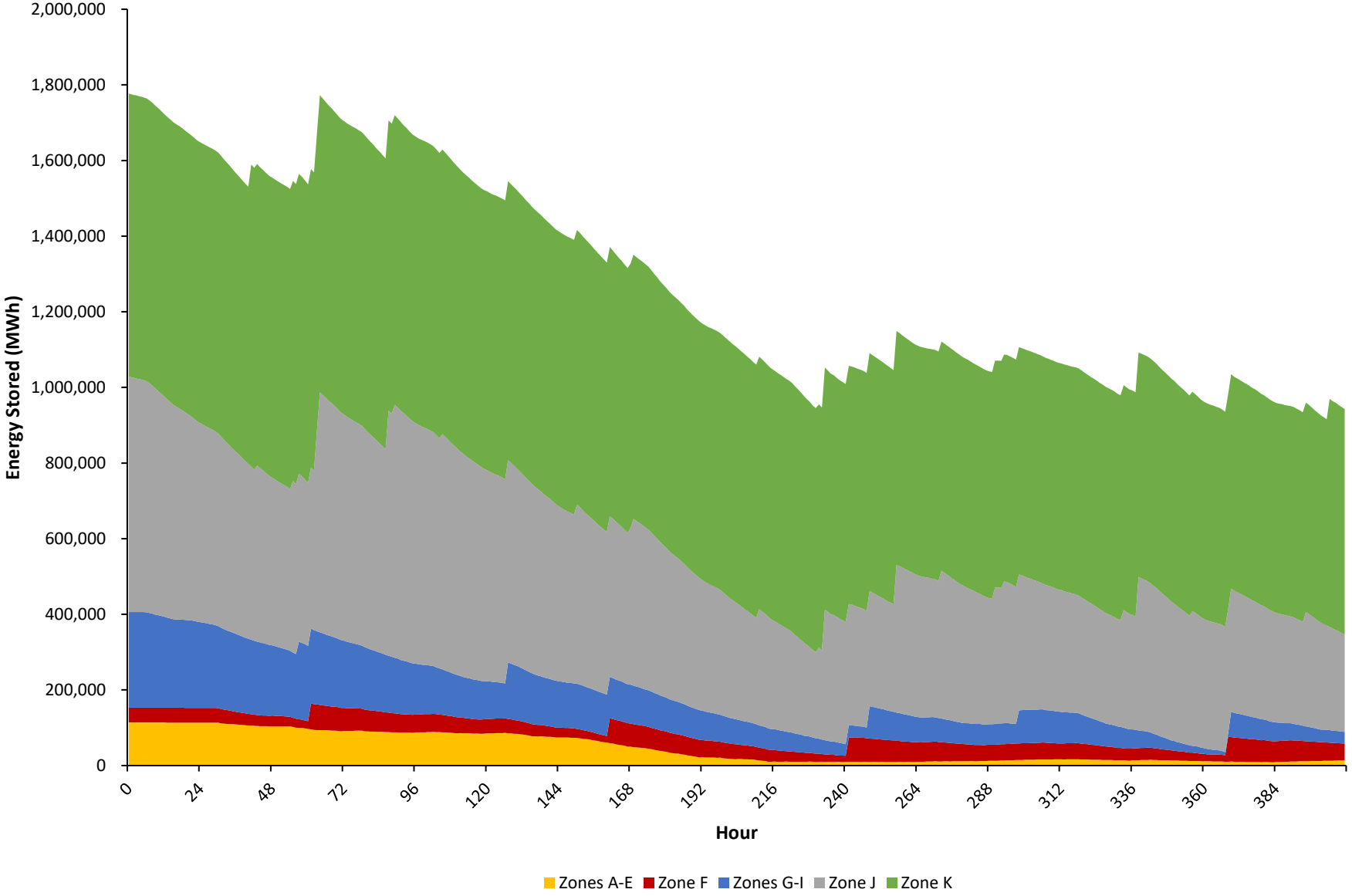
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 8 Non-Firm Gas Unavailable (F-K)

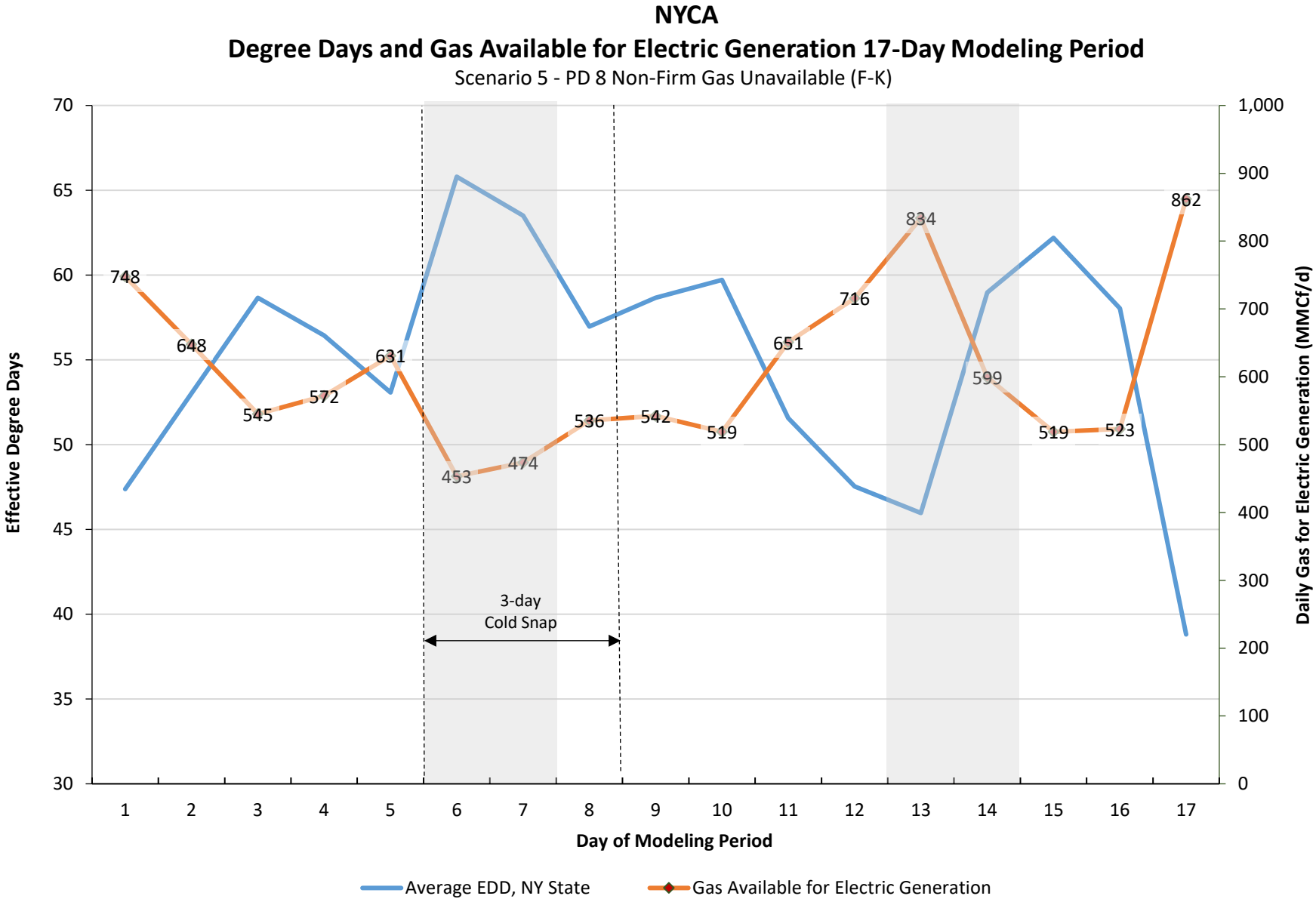


NYCA

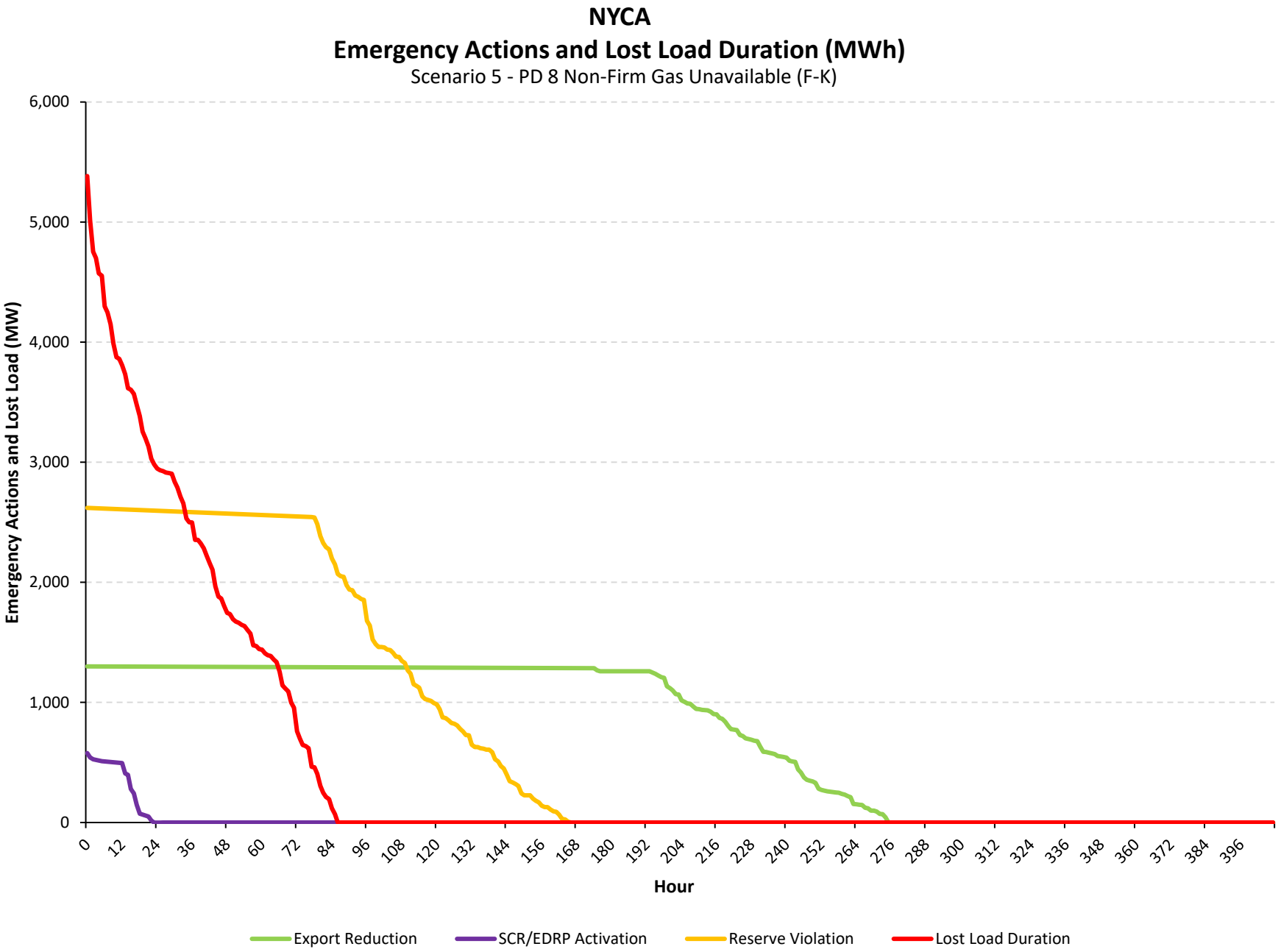
Quantity of Stored Fuel for Oil and Dual Fuel Units

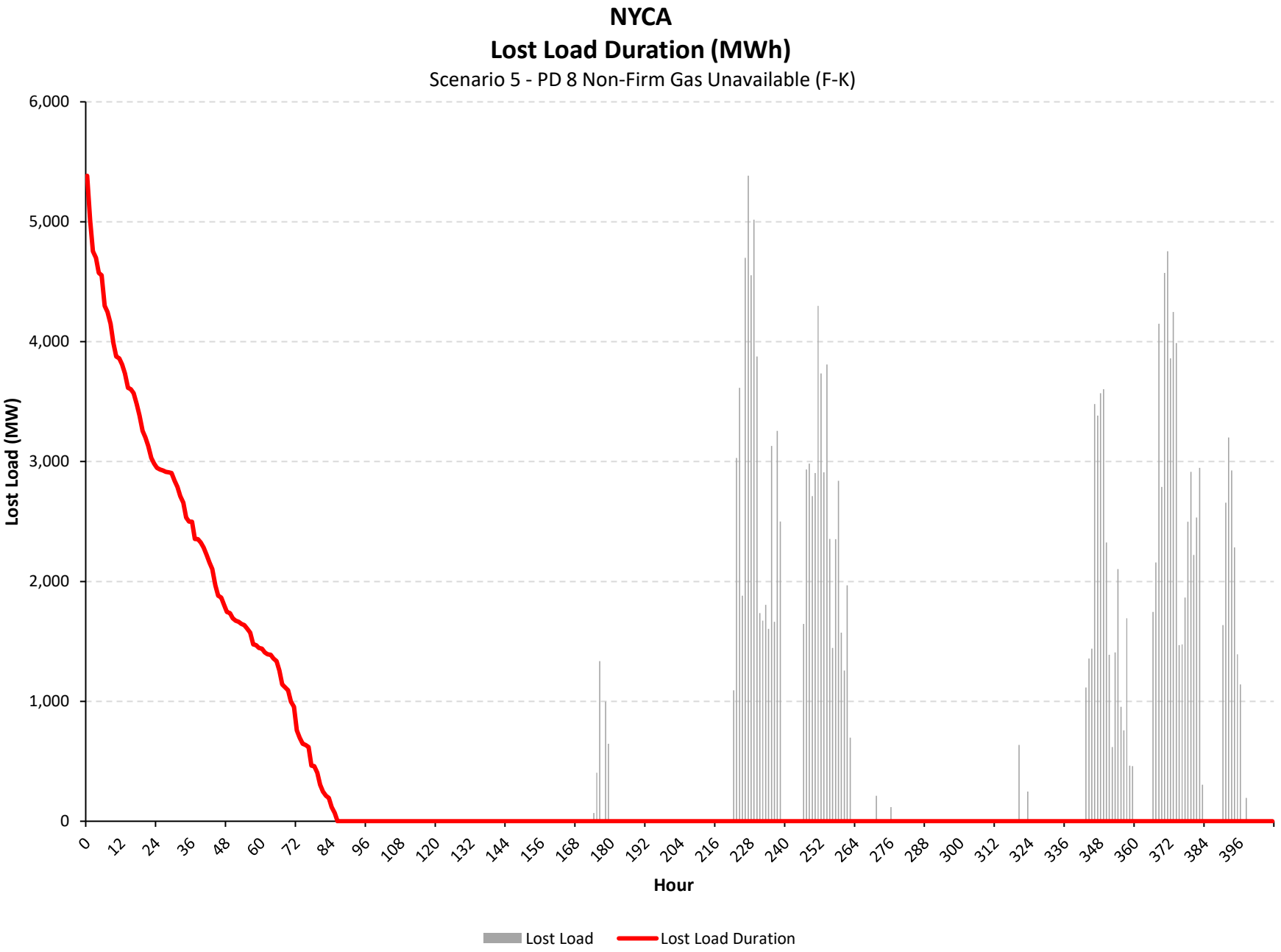
Scenario 5 - PD 8 Non-Firm Gas Unavailable (F-K)





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 5 - PD 8 Non-Firm Gas Unavailable (F-K)
Emergency Actions and Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 5 - PD 8 Non-Firm Gas Unavailable (F-K)
Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

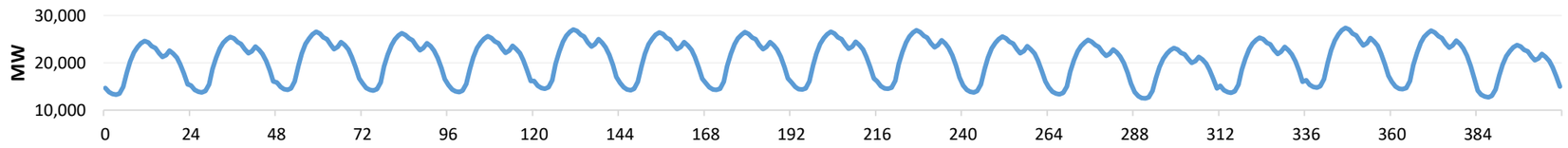
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 5 - PD 9 Non-Firm Gas Unavailable (NYCA) (Winter 2026/2027)

Hourly Results Summary

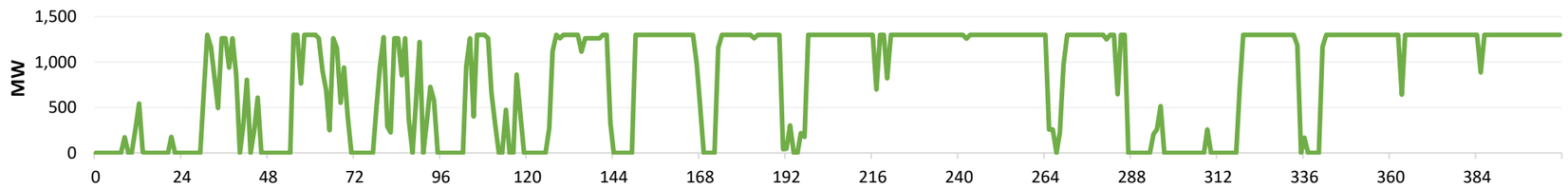
Case Name: Scenario 5 - PD 9 Non-Firm Gas Unavailable (NYCA)

Load During Modeling Period



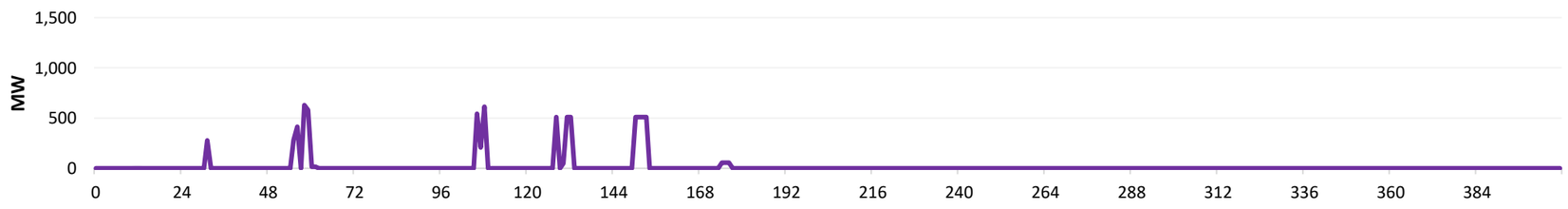
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



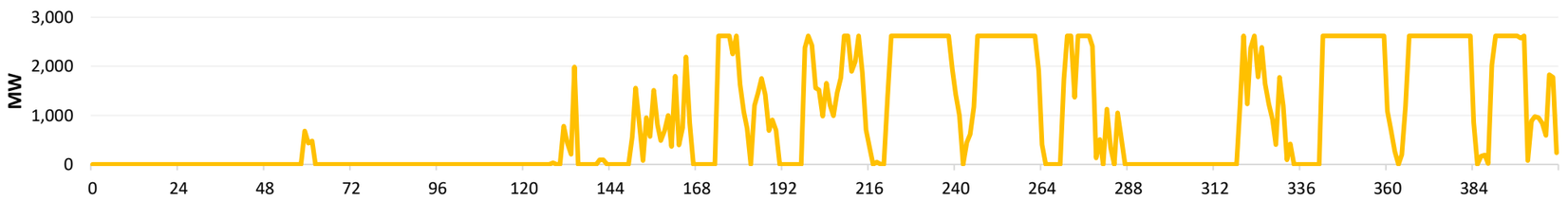
Export Reductions	
Total Hrs.	299
Total MWh	337,596
Avg. MW	827.4

SCR/EDRP Deployed During Modeling Period



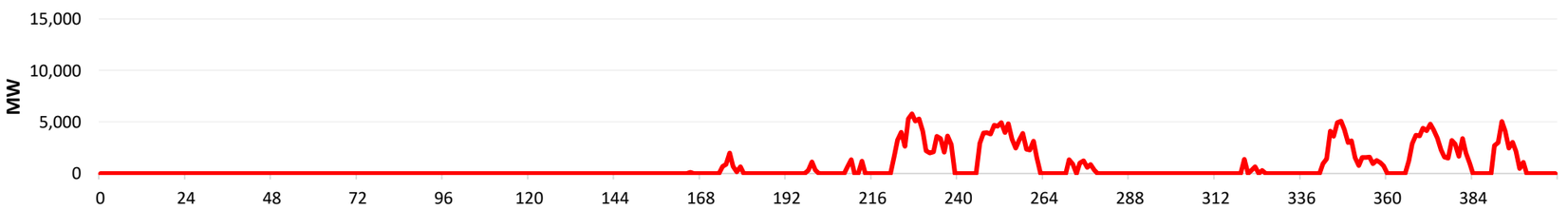
SCR Deployment	
Total Hrs.	21
Total MWh	7,363
Avg. MW	18.0

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	201
Total MWh	359,724
Avg. MW	881.7
First Hour with Viol.	59

Loss of Load During Modeling Period



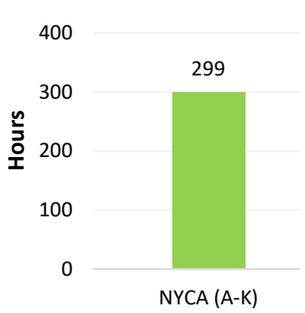
Loss of Load	
Total Hrs.	104
Total MWh	255,733
Avg. MW	626.8
First Hour with Losses	165

Full Period Results Summary

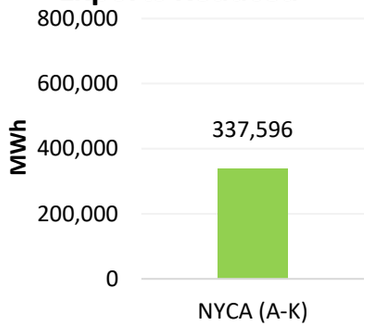
Case Name: Scenario 5 - PD 9 Non-Firm Gas Unavailable (NYCA)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

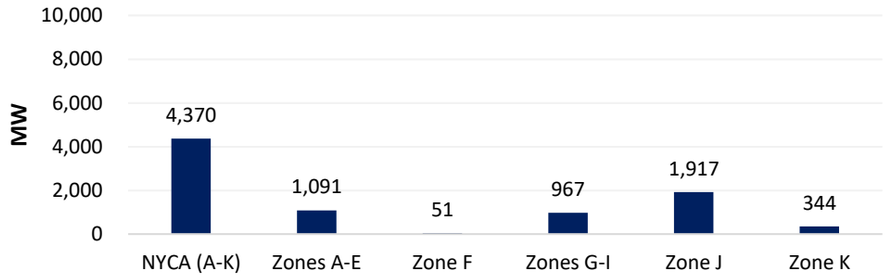
Hours Exports Reduced



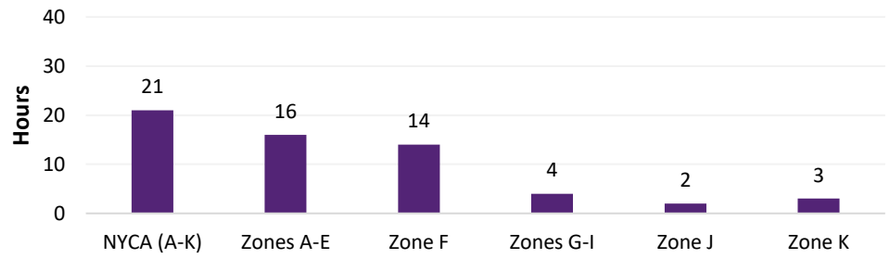
Total MWh of Exports Reduced



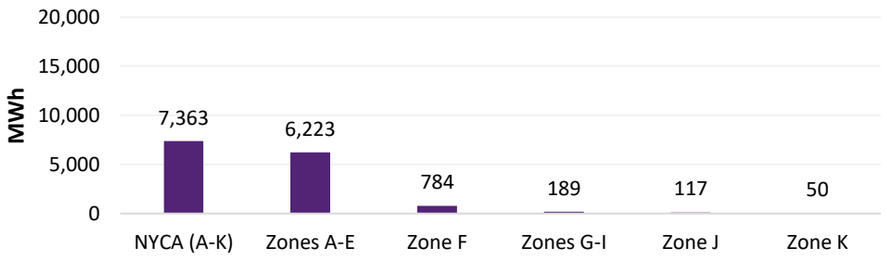
Average Capacity Not Available Due to Exhausted Fuel Inventory



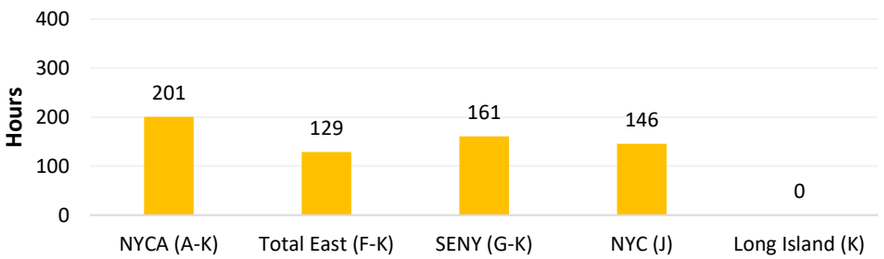
Hours SCR/EDRP Deployed



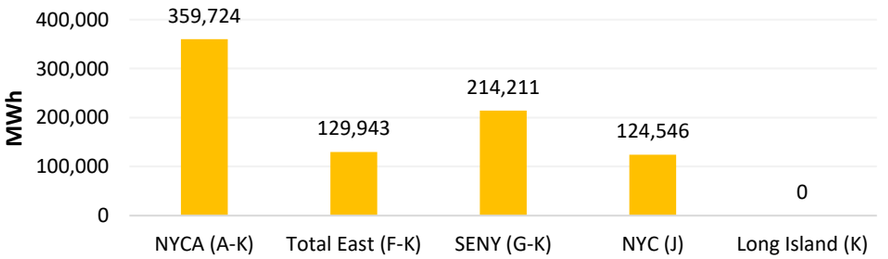
Total MWh SCR/EDRP Deployed



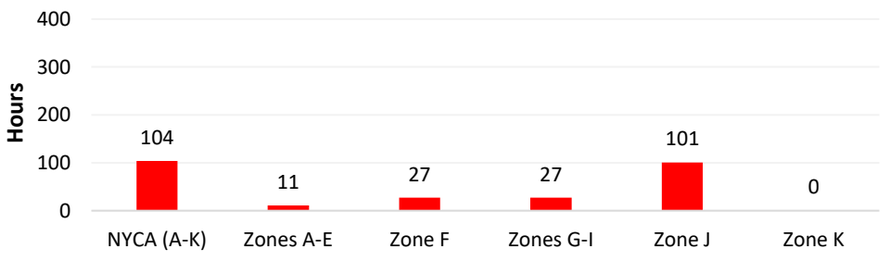
Hours with Reserve Violations



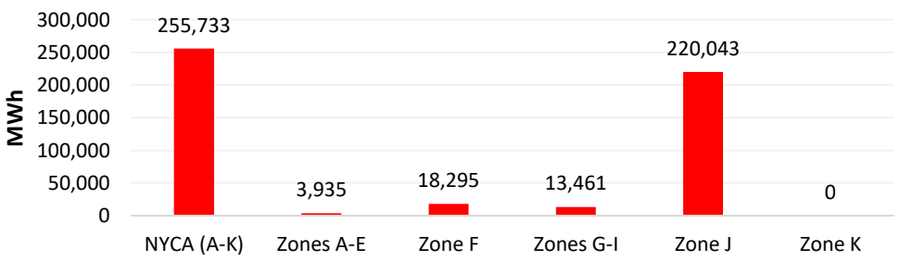
Total MWh of Reserve Violations

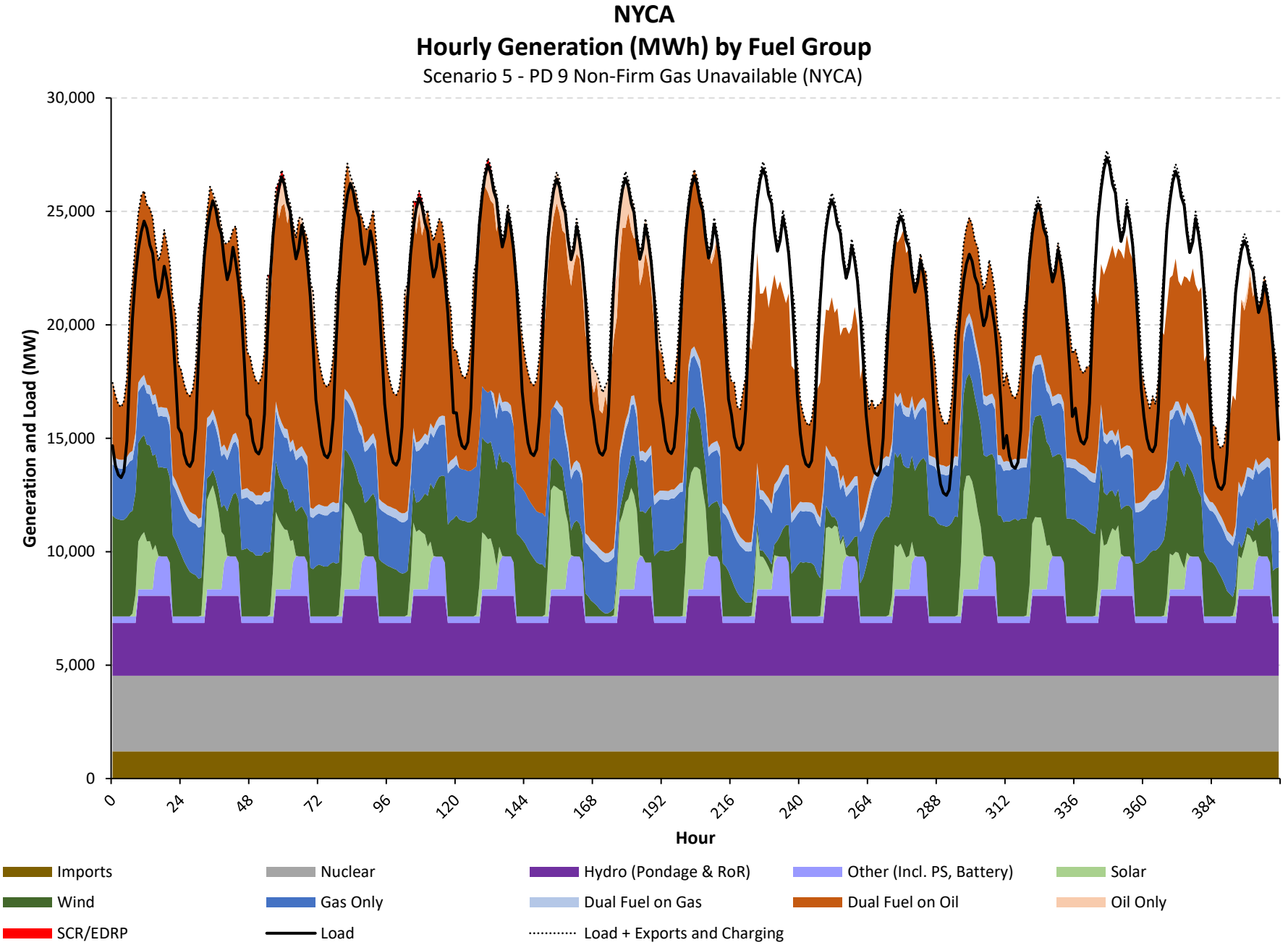


Hours with Loss of Load

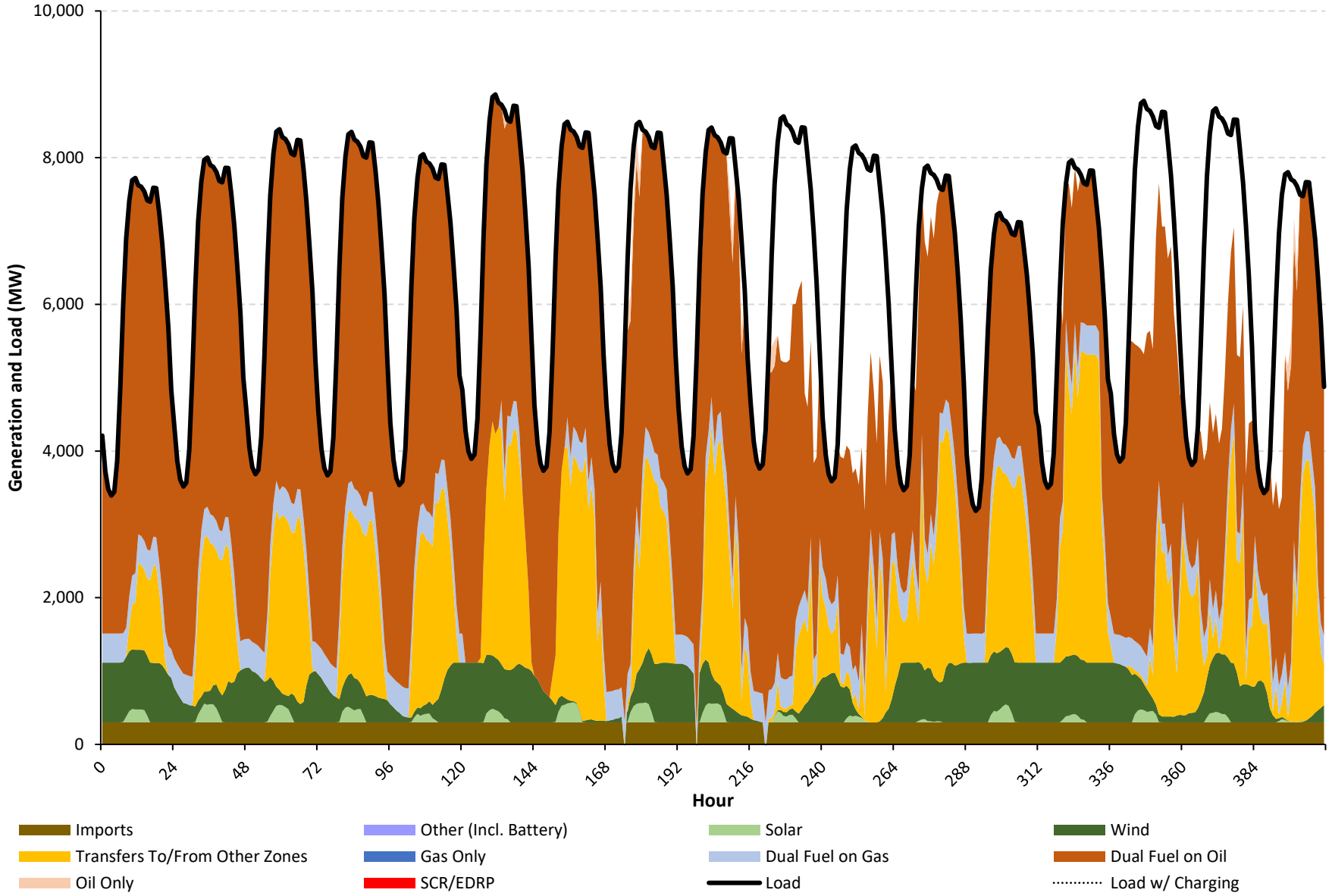


Total MWh of Lost Load

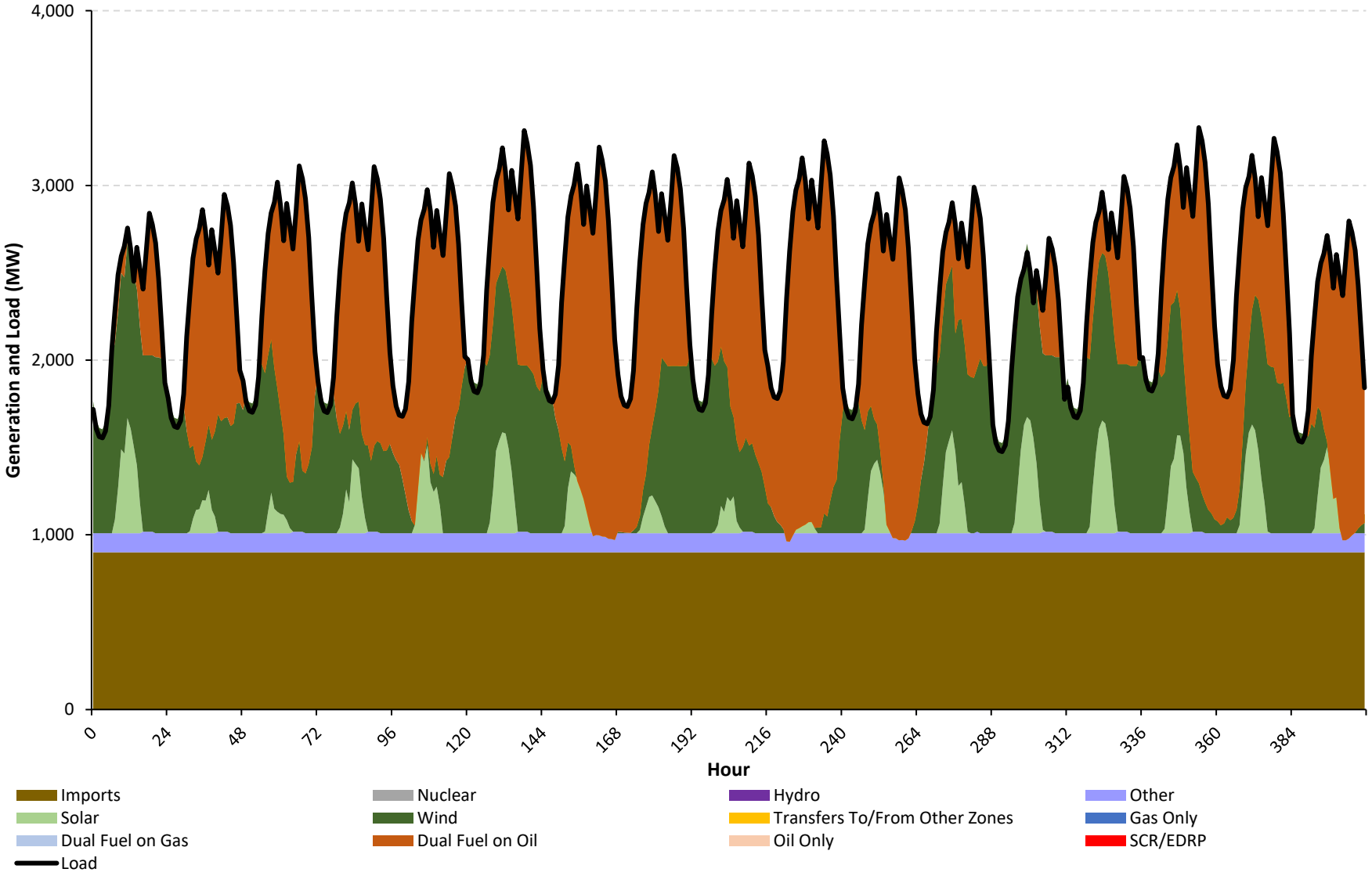



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 5 - PD 9 Non-Firm Gas Unavailable (NYCA)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 9 Non-Firm Gas Unavailable (NYCA)



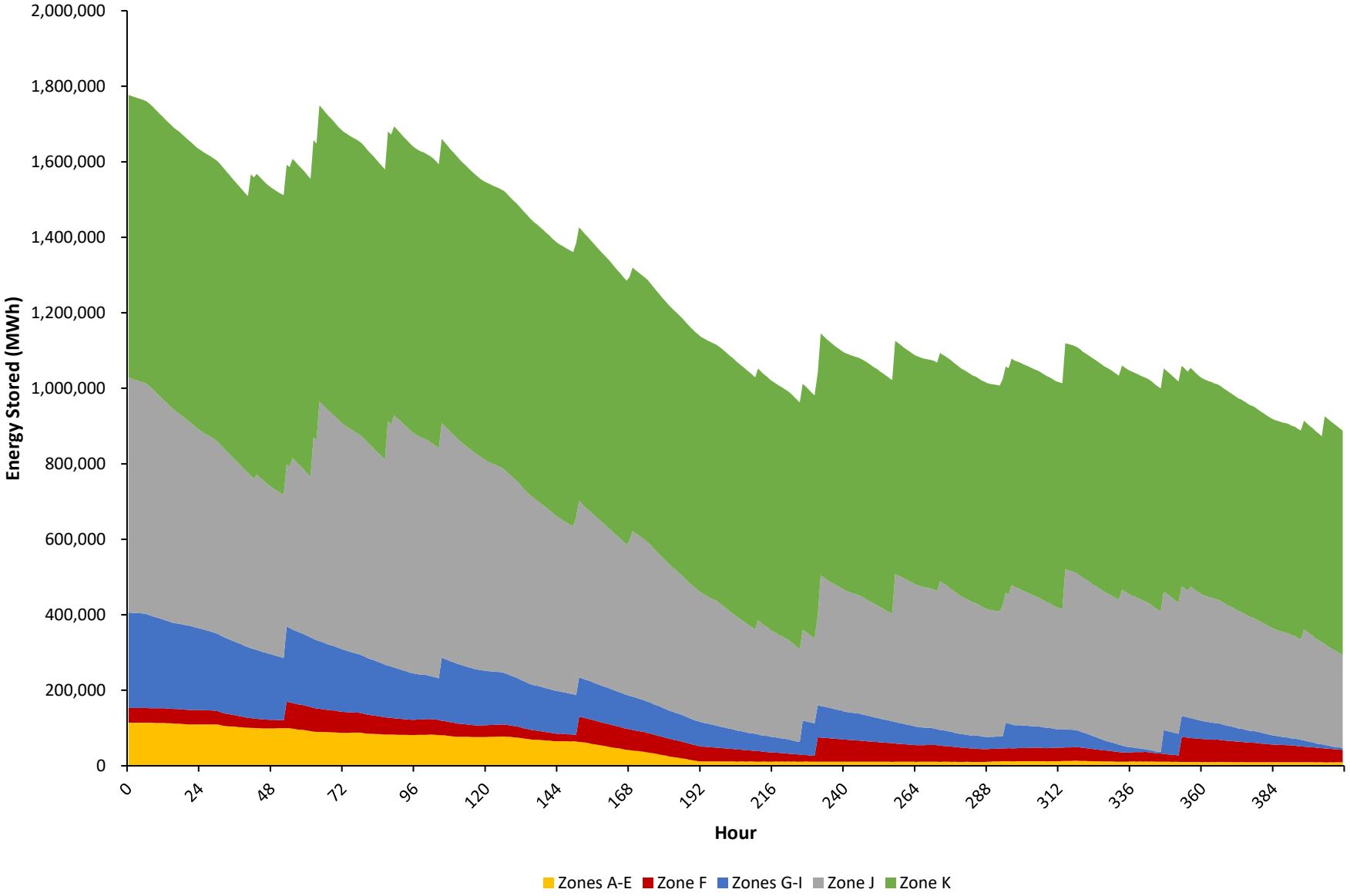
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 9 Non-Firm Gas Unavailable (NYCA)



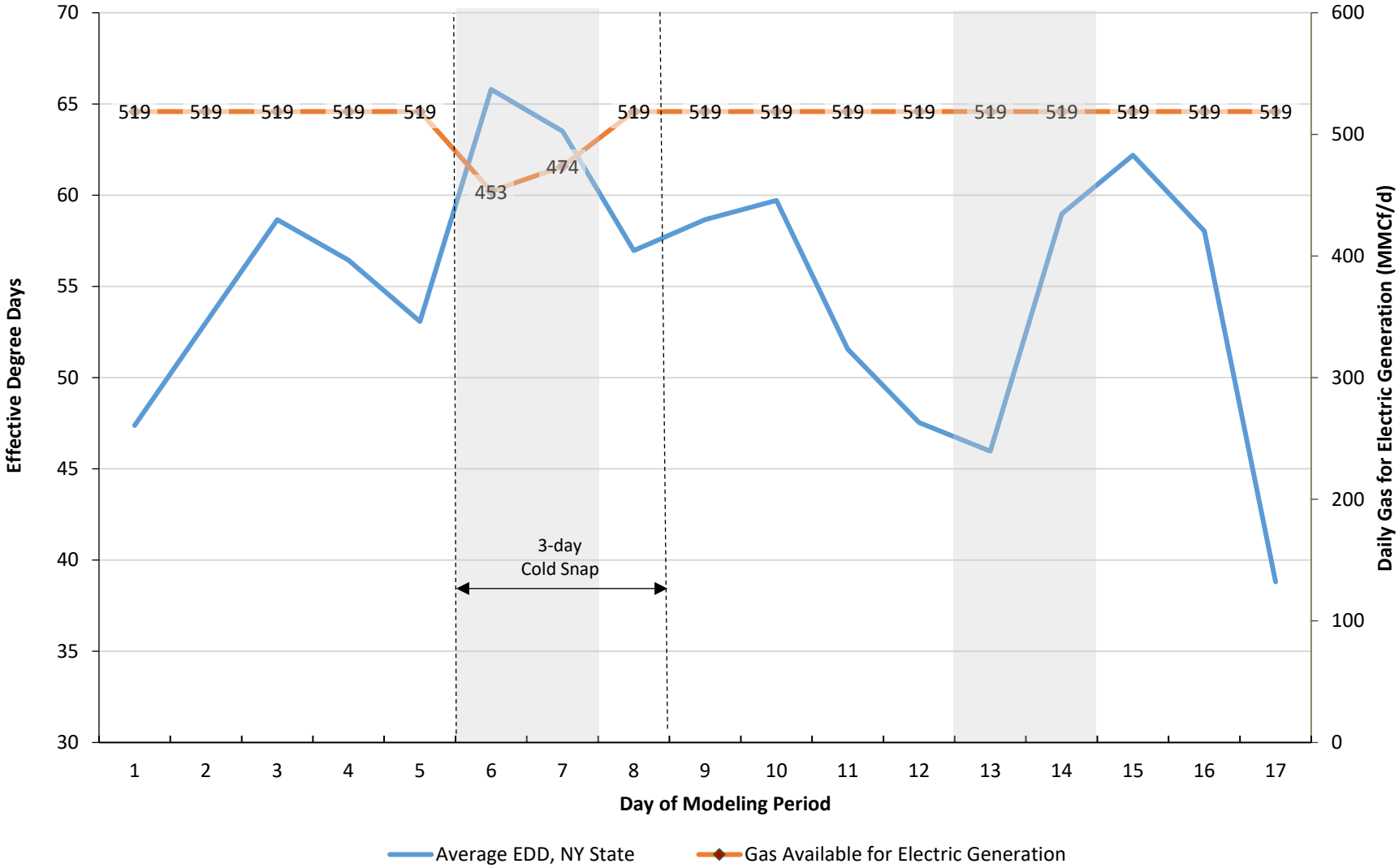
NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

Scenario 5 - PD 9 Non-Firm Gas Unavailable (NYCA)



NYCA
Degree Days and Gas Available for Electric Generation 17-Day Modeling Period
Scenario 5 - PD 9 Non-Firm Gas Unavailable (NYCA)

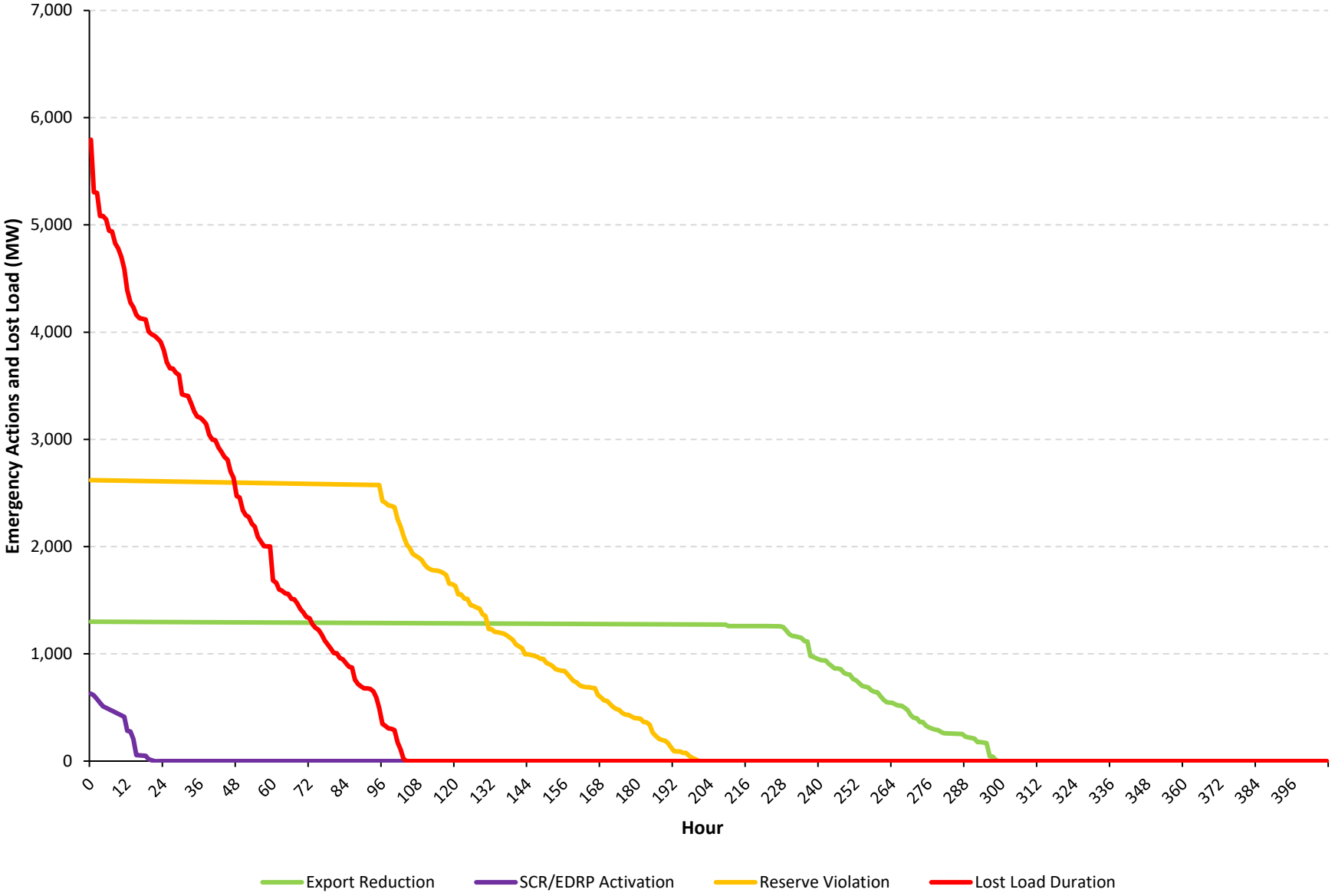


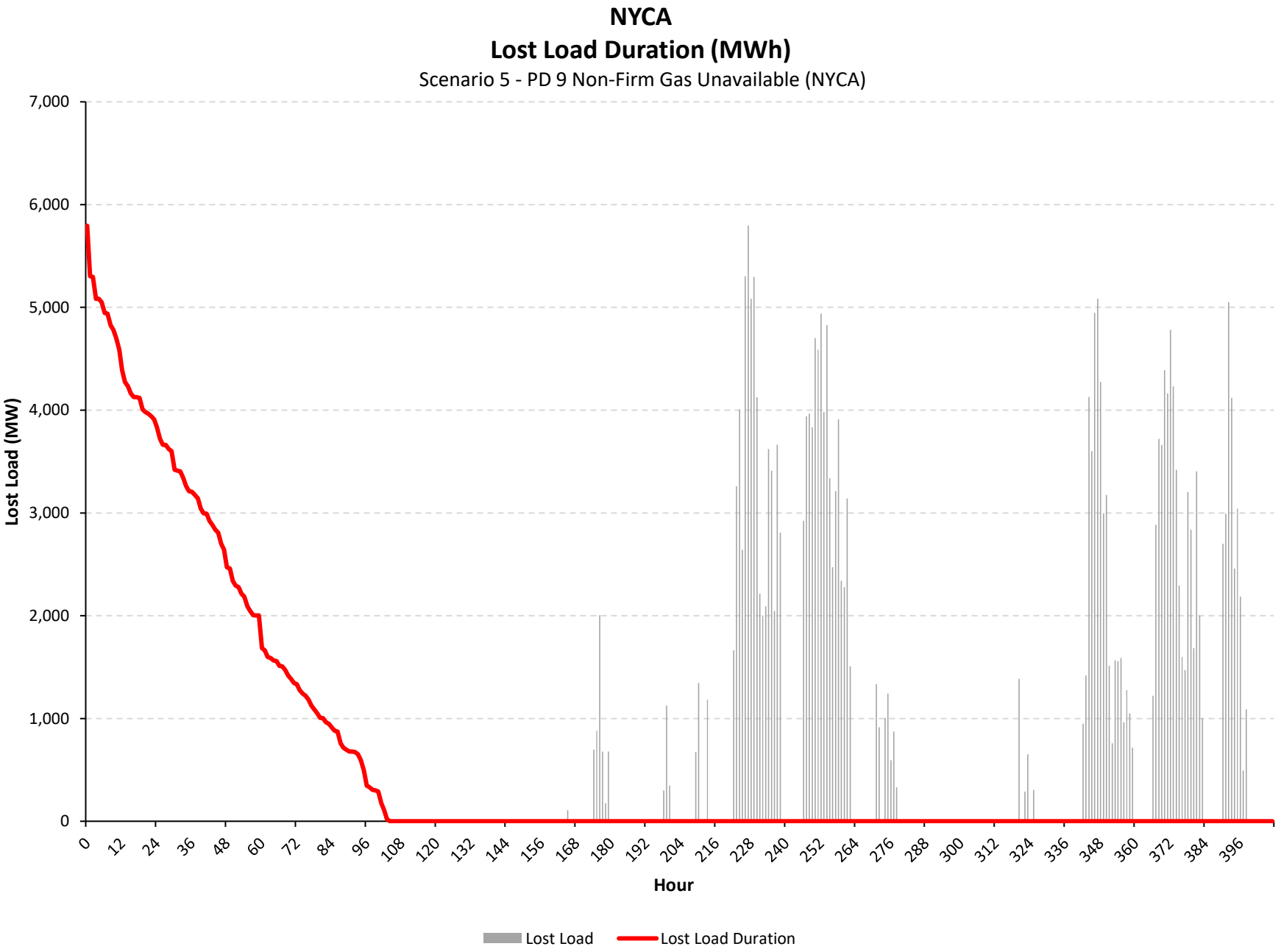
Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.

NYCA

Emergency Actions and Lost Load Duration (MWh)

Scenario 5 - PD 9 Non-Firm Gas Unavailable (NYCA)




NYCA
Lost Load Duration (MWh)
Scenario 5 - PD 9 Non-Firm Gas Unavailable (NYCA)
Lost Load (MW)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

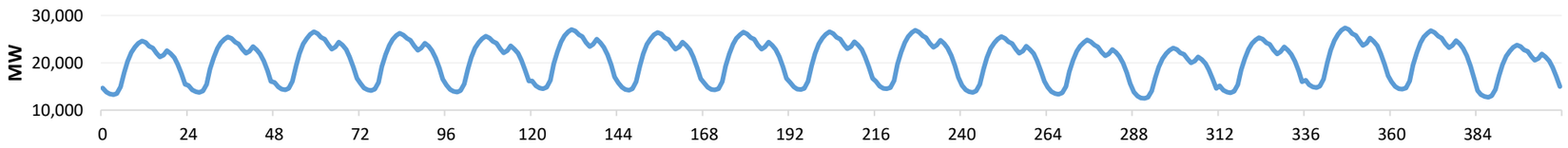
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 5 - PD 10 Non-Firm Gas Unavailable (4 days) (Winter 2026/2027)

Hourly Results Summary

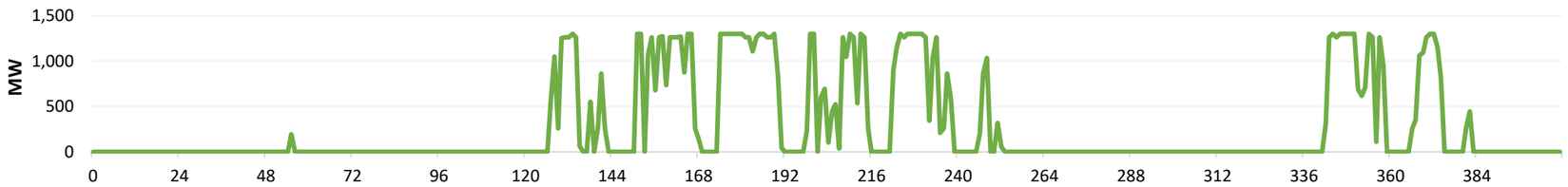
Case Name: Scenario 5 - PD 10 Non-Firm Gas Unavailable (4 days)

Load During Modeling Period



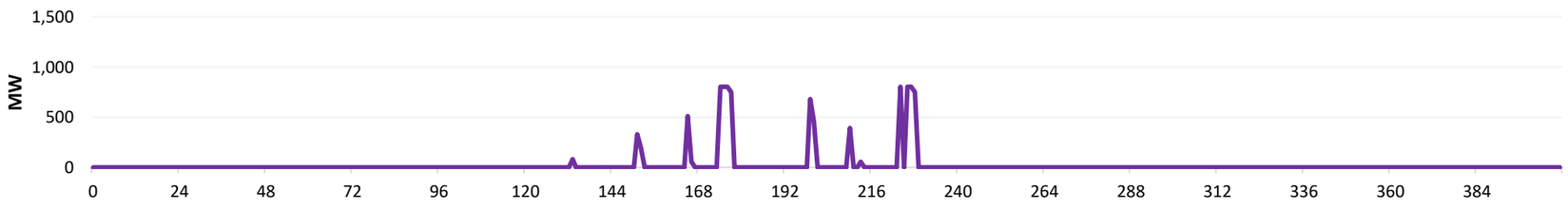
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



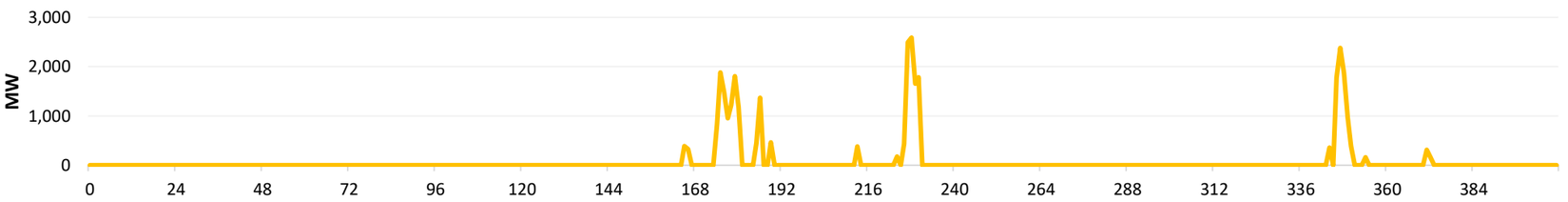
Export Reductions	
Total Hrs.	116
Total MWh	109,178
Avg. MW	267.6

SCR/EDRP Deployed During Modeling Period



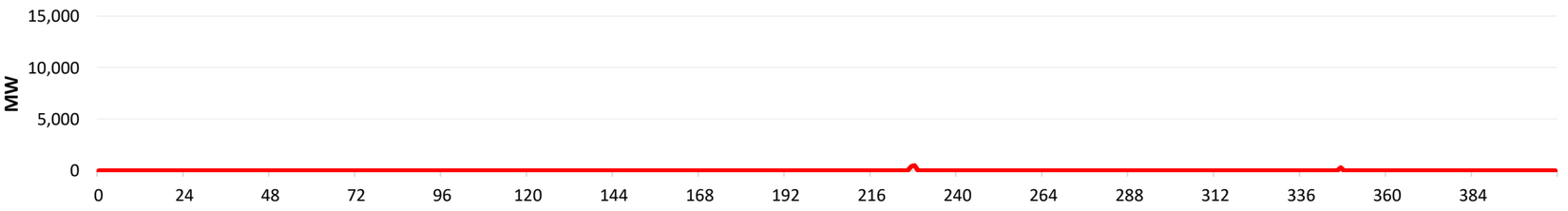
SCR Deployment	
Total Hrs.	17
Total MWh	9,065
Avg. MW	22.2

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	28
Total MWh	30,198
Avg. MW	74.0
First Hour with Viol.	165

Loss of Load During Modeling Period



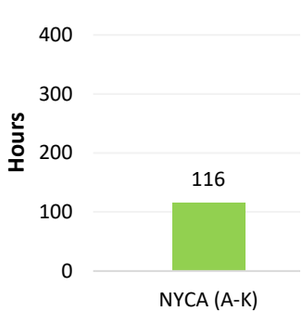
Loss of Load	
Total Hrs.	3
Total MWh	1,224
Avg. MW	3.0
First Hour with Losses	227

Full Period Results Summary

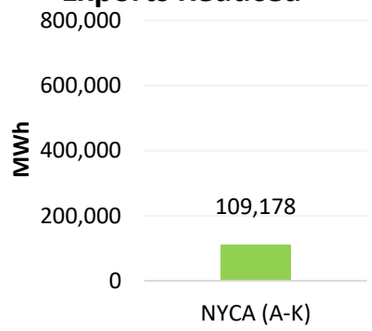
Case Name: Scenario 5 - PD 10 Non-Firm Gas Unavailable (4 days)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

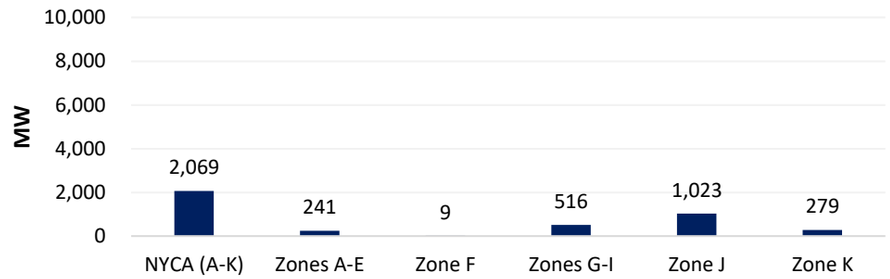
Hours Exports Reduced



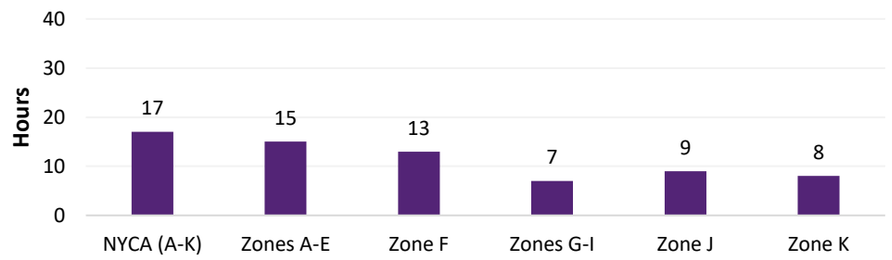
Total MWh of Exports Reduced



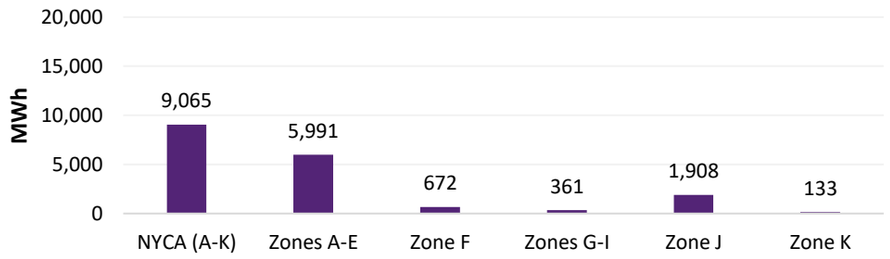
Average Capacity Not Available Due to Exhausted Fuel Inventory



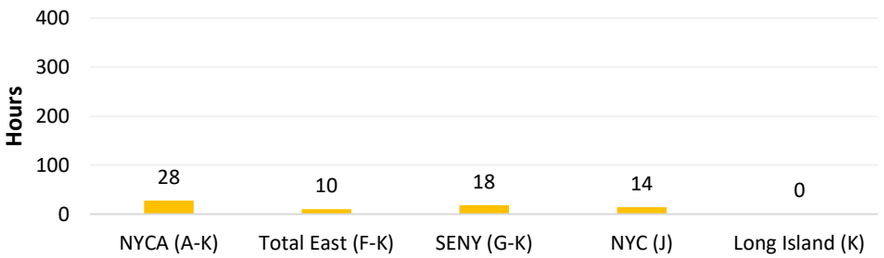
Hours SCR/EDRP Deployed



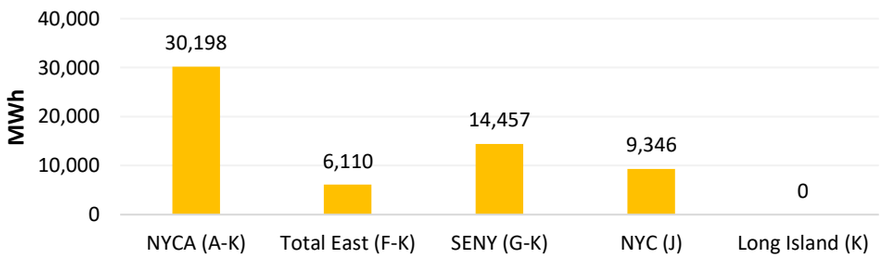
Total MWh SCR/EDRP Deployed



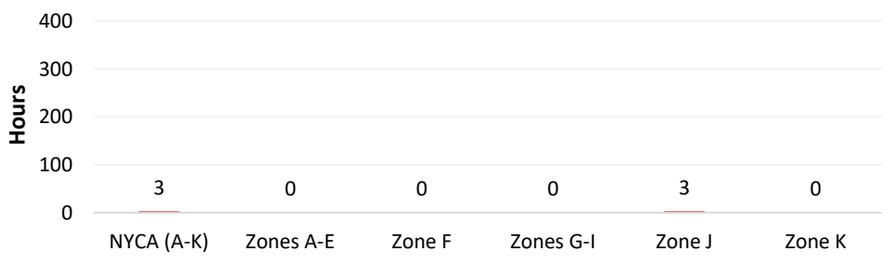
Hours with Reserve Violations



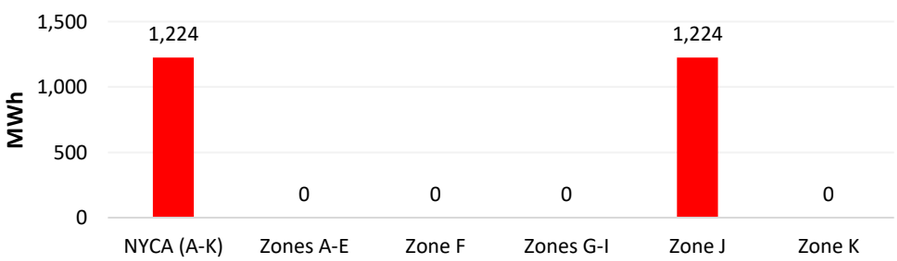
Total MWh of Reserve Violations

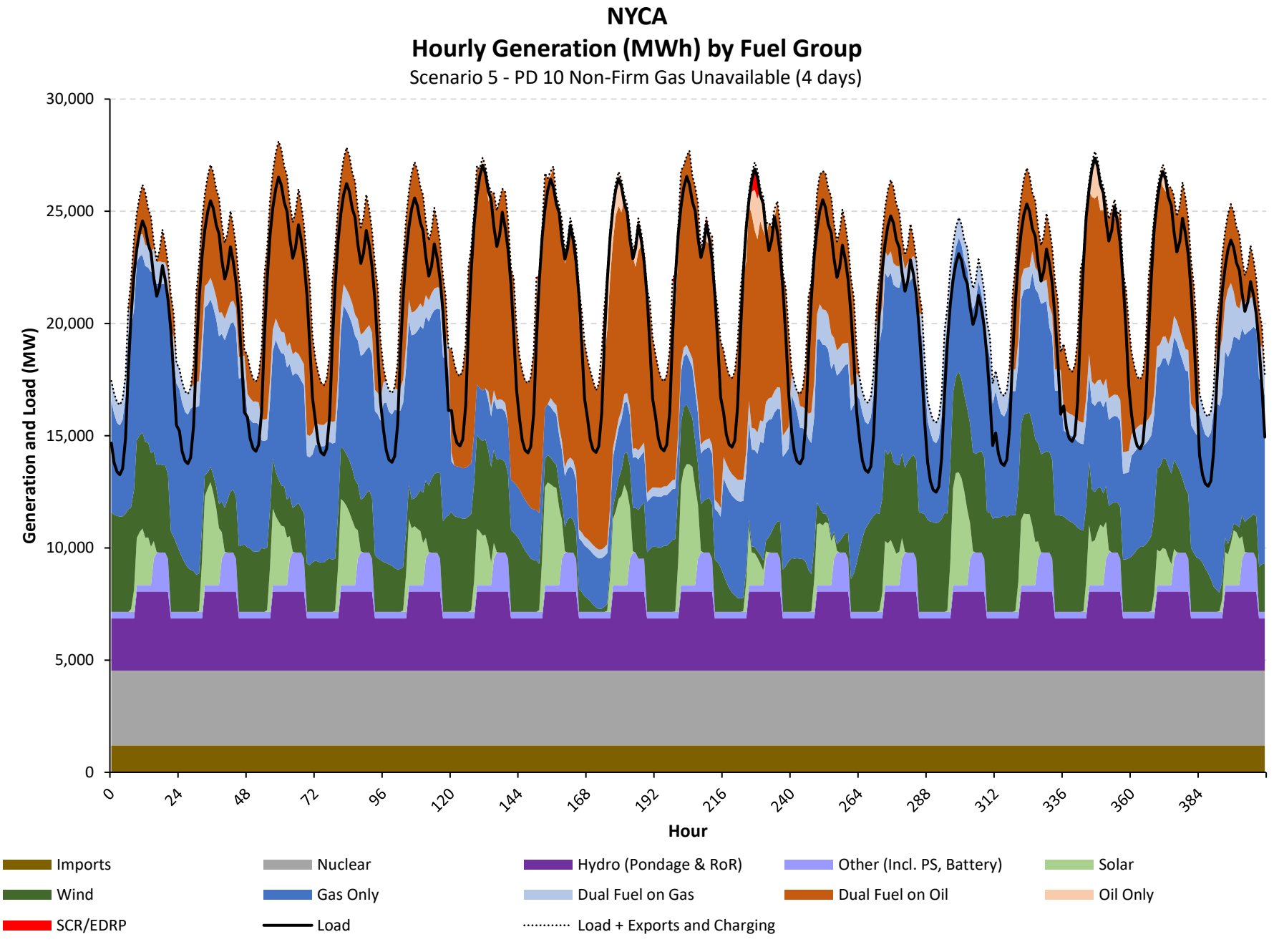


Hours with Loss of Load

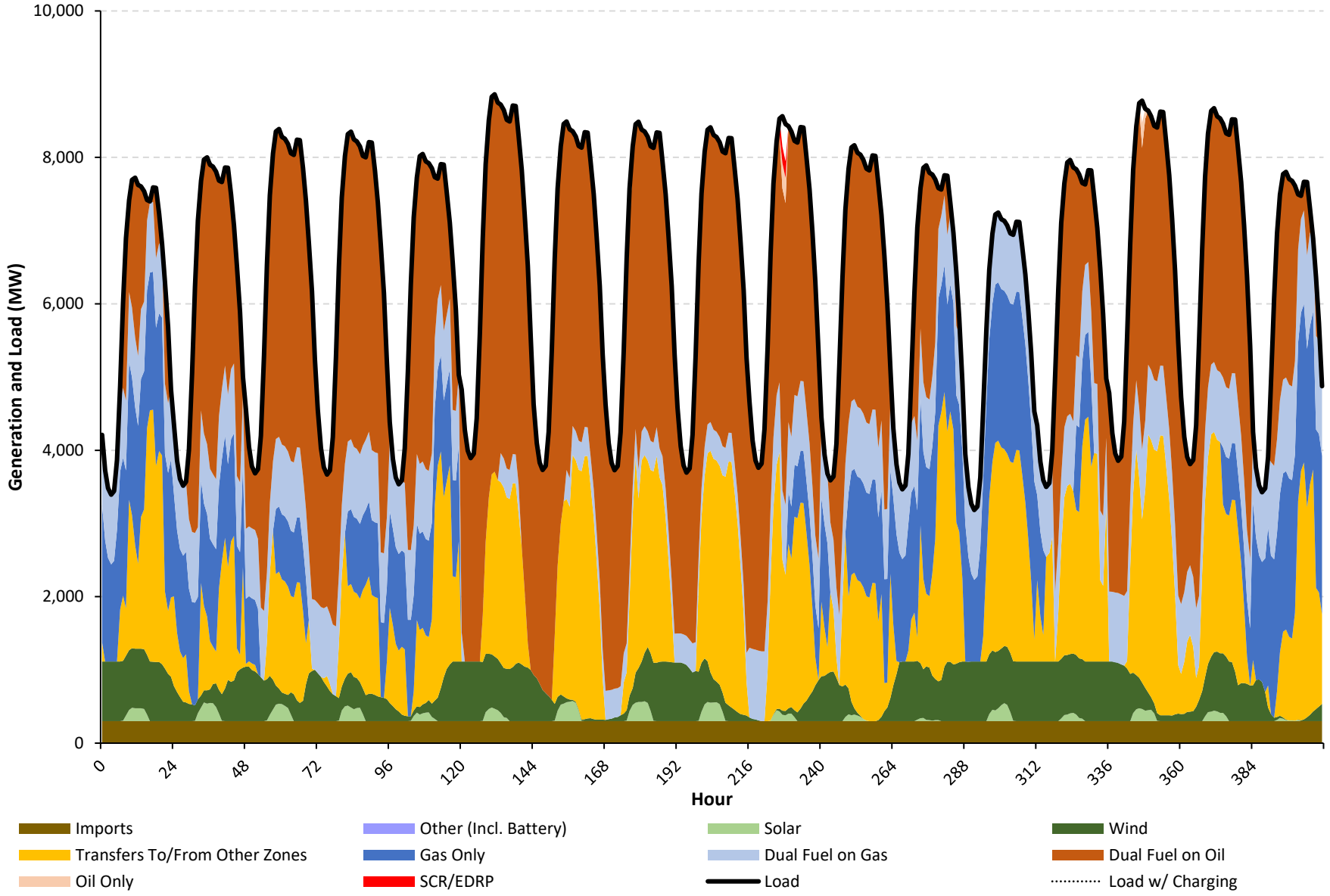


Total MWh of Lost Load

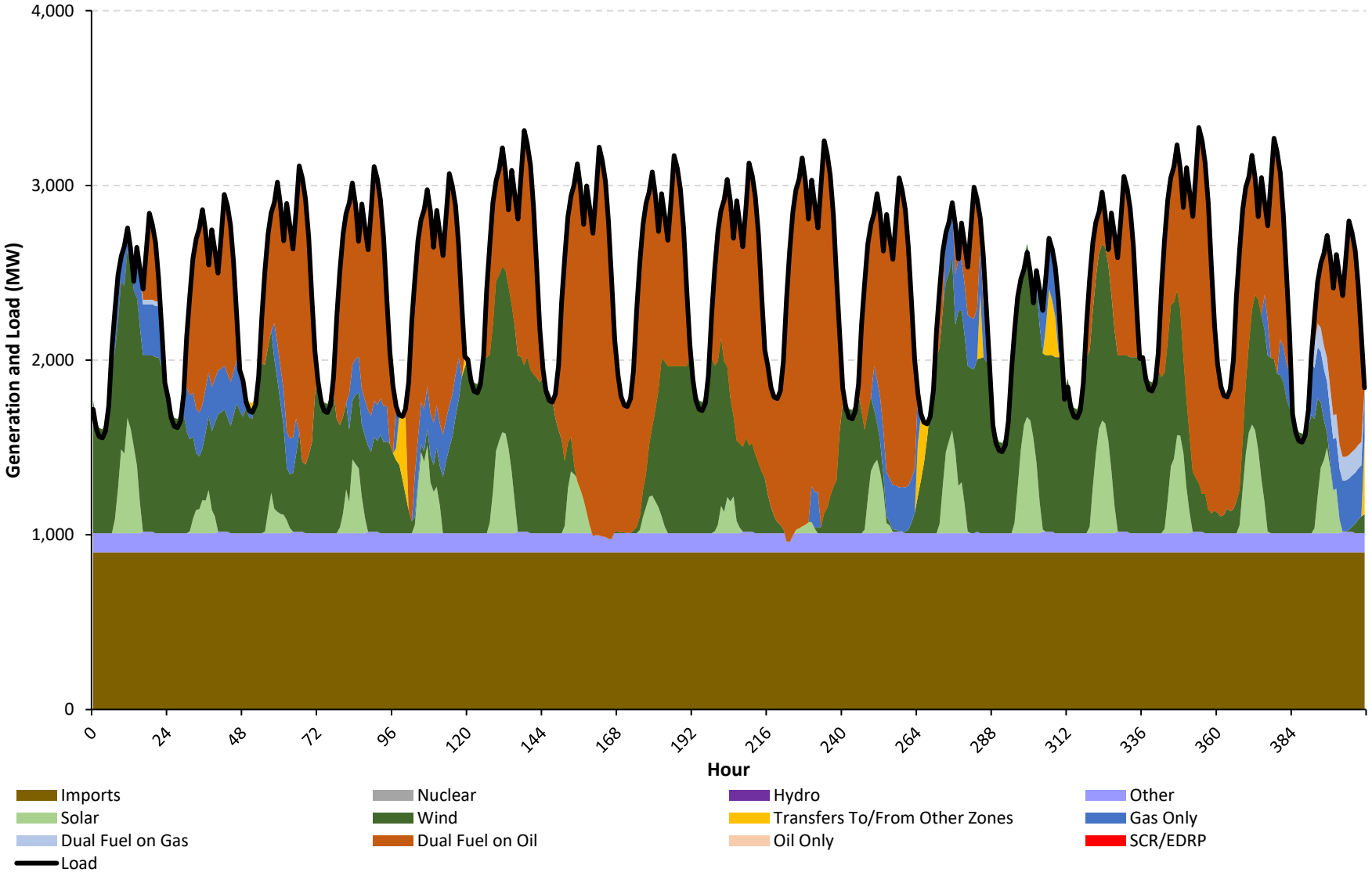



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 5 - PD 10 Non-Firm Gas Unavailable (4 days)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 10 Non-Firm Gas Unavailable (4 days)



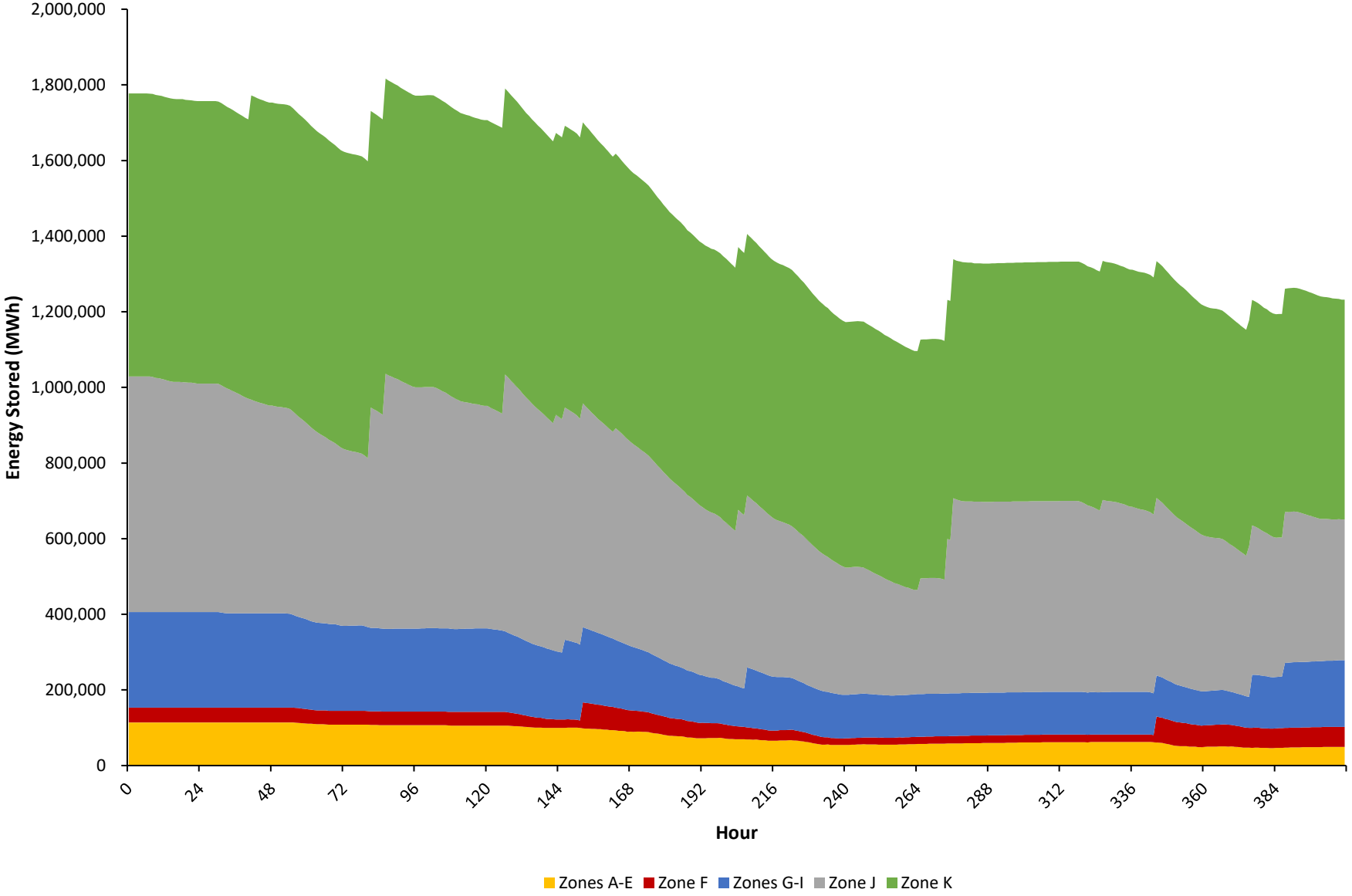
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 10 Non-Firm Gas Unavailable (4 days)

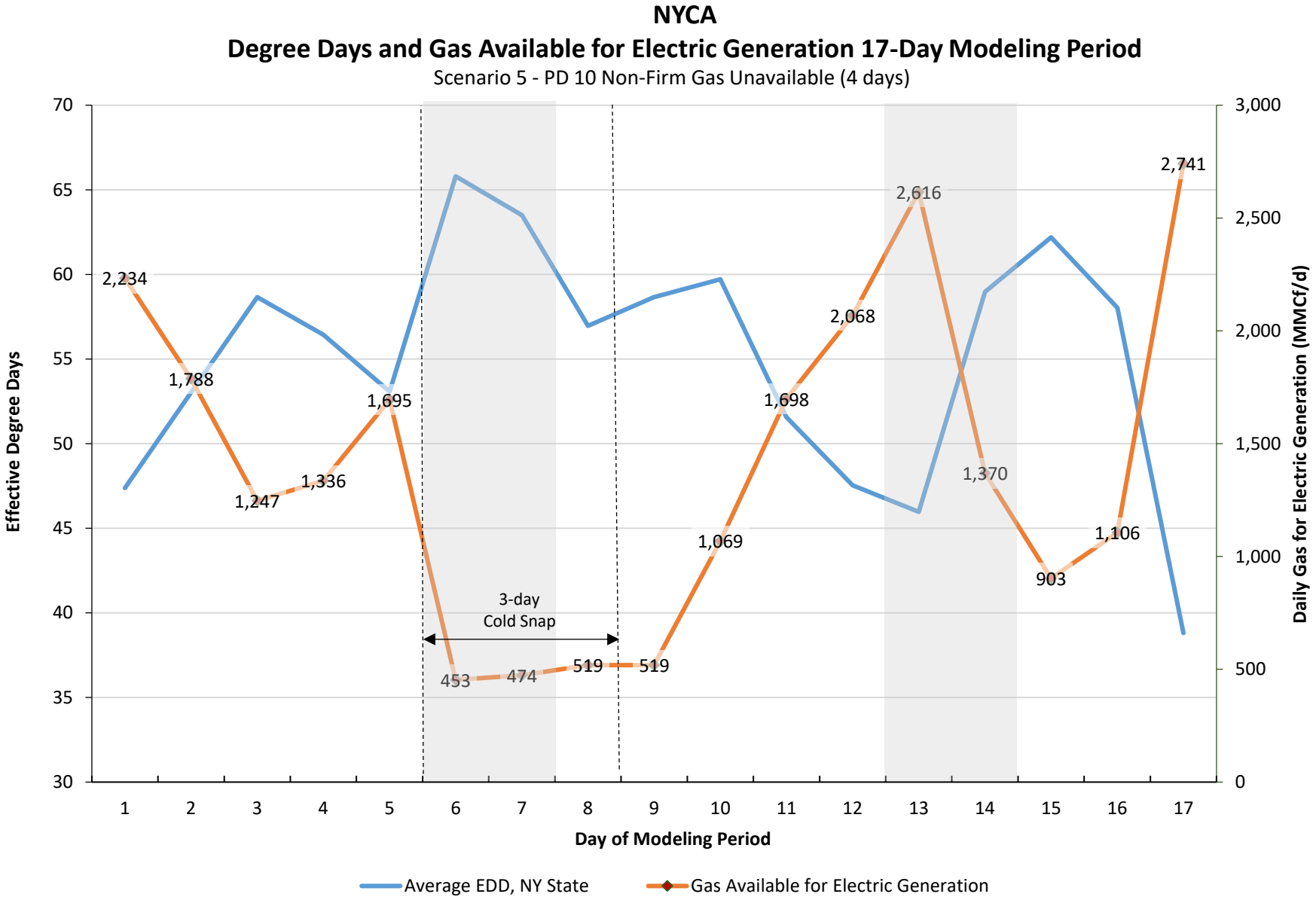


NYCA

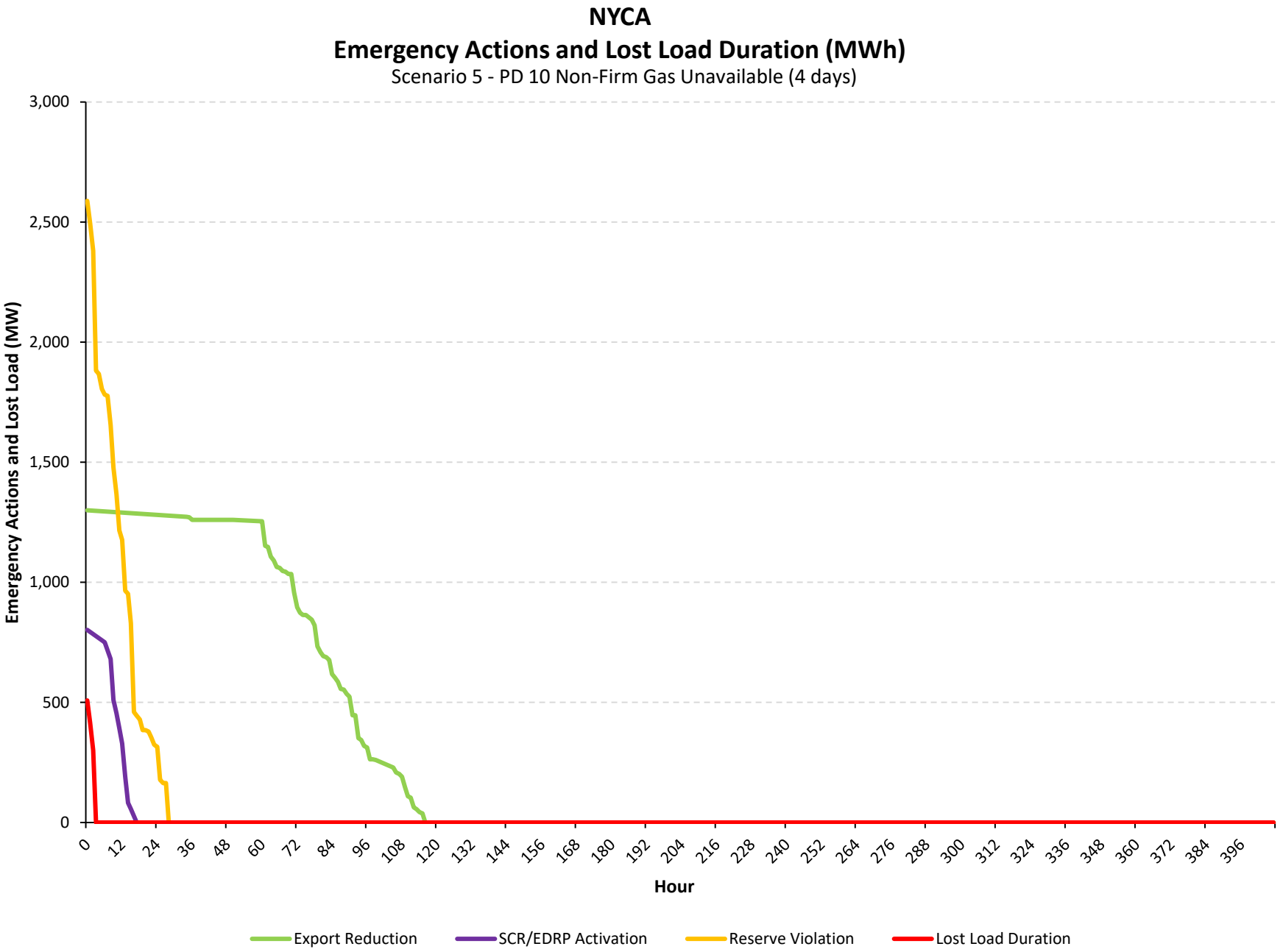
Quantity of Stored Fuel for Oil and Dual Fuel Units

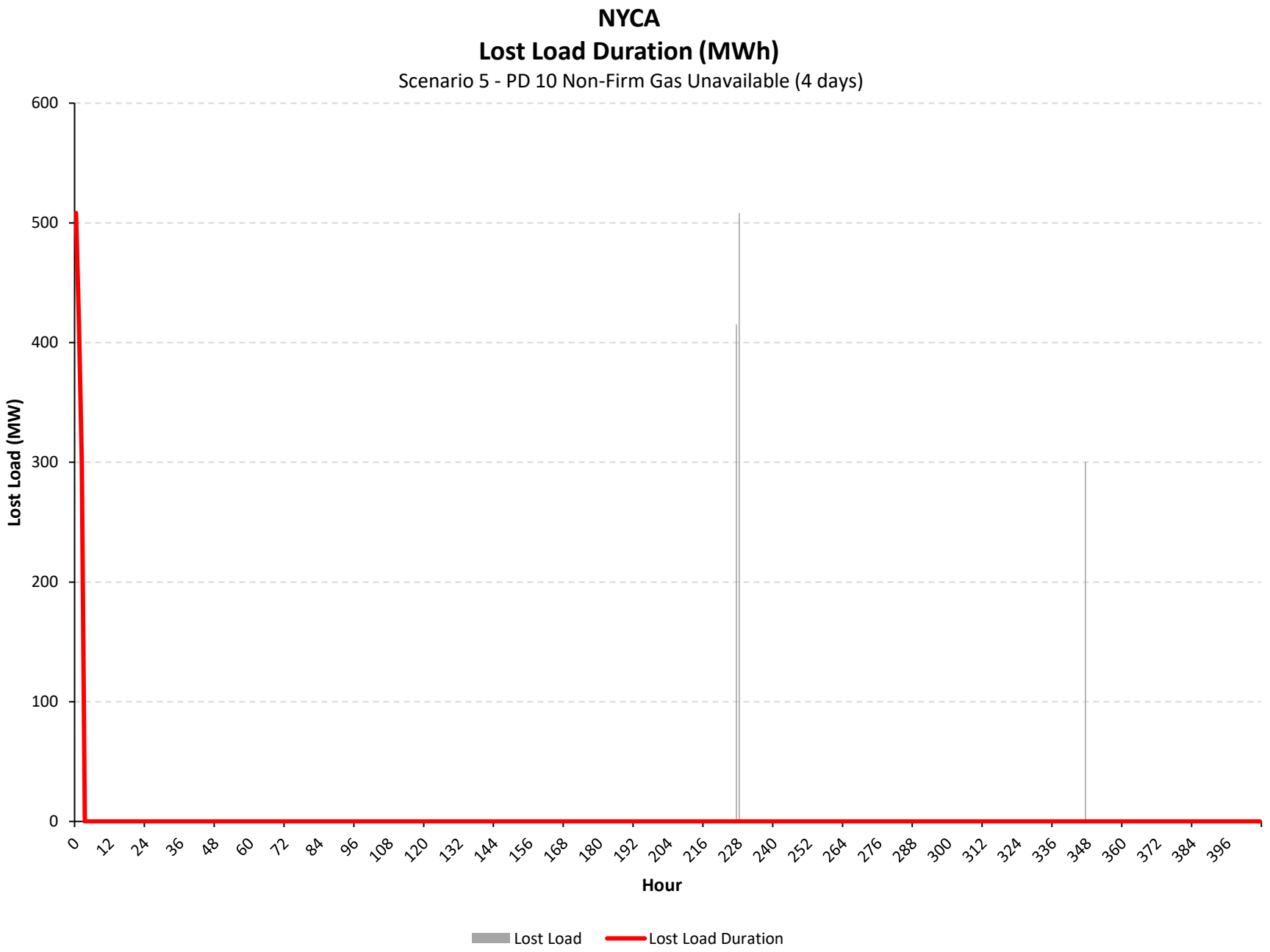
Scenario 5 - PD 10 Non-Firm Gas Unavailable (4 days)





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 5 - PD 10 Non-Firm Gas Unavailable (4 days)
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 5 - PD 10 Non-Firm Gas Unavailable (4 days)
Lost Load (MW)
600
500
400
300
200
100
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

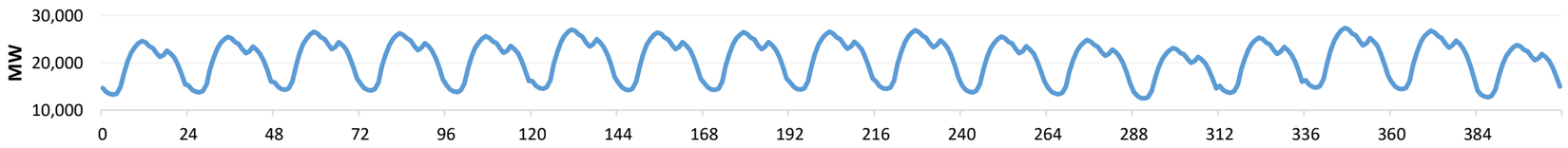
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 5 - PD 11 Combination Disruption (Winter 2026/2027)

Hourly Results Summary

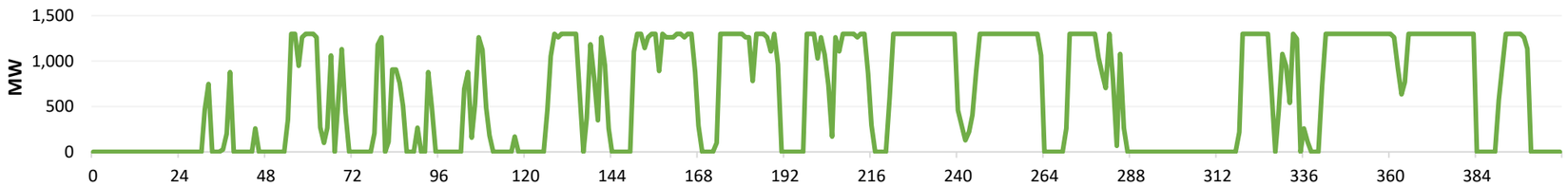
Case Name: Scenario 5 - PD 11 Combination Disruption

Load During Modeling Period



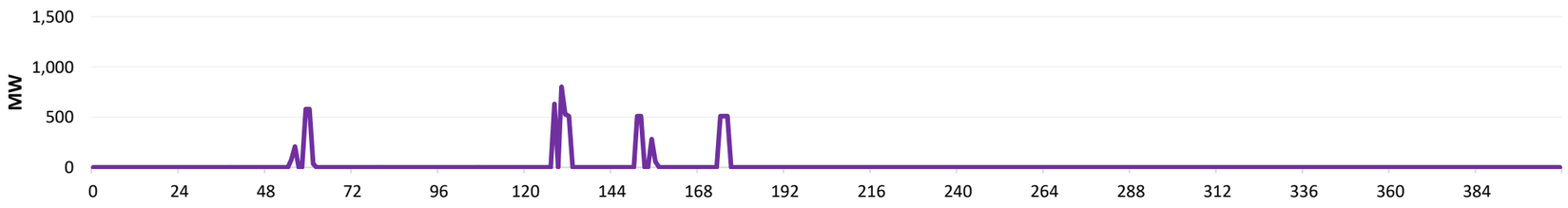
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



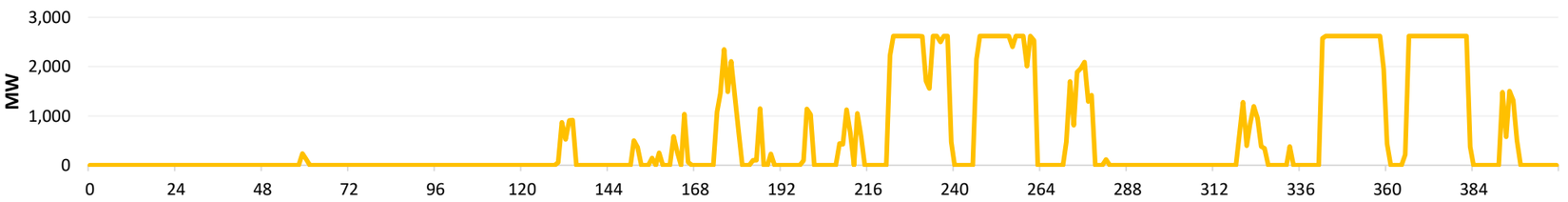
Export Reductions	
Total Hrs.	245
Total MWh	257,781
Avg. MW	631.8

SCR/EDRP Deployed During Modeling Period



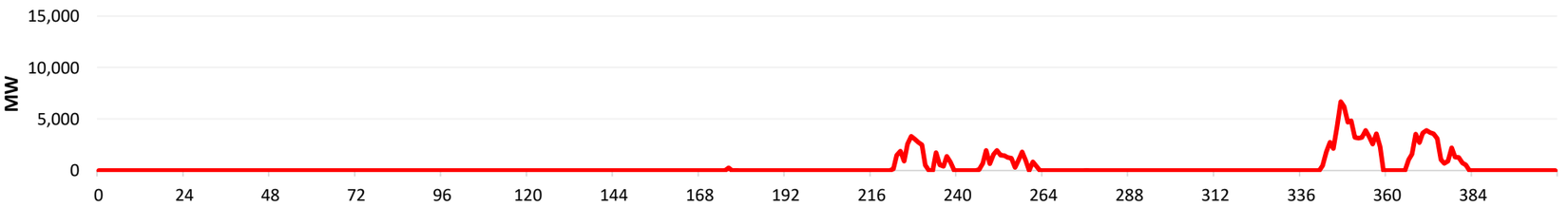
SCR Deployment	
Total Hrs.	16
Total MWh	6,828
Avg. MW	16.7

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	131
Total MWh	226,671
Avg. MW	555.6
First Hour with Viol.	59

Loss of Load During Modeling Period



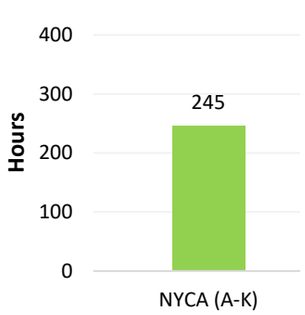
Loss of Load	
Total Hrs.	68
Total MWh	136,595
Avg. MW	334.8
First Hour with Losses	176

Full Period Results Summary

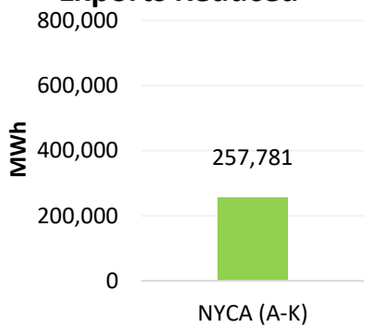
Case Name: Scenario 5 - PD 11 Combination Disruption

Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

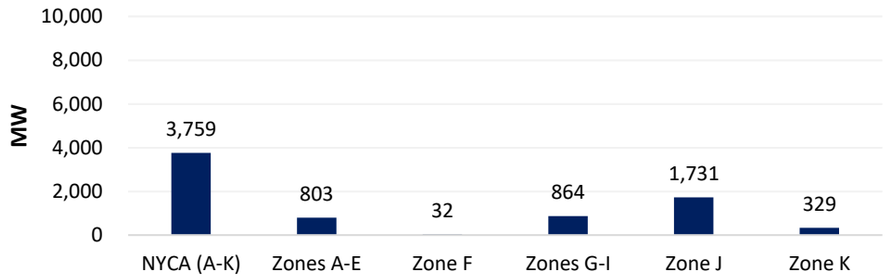
Hours Exports Reduced



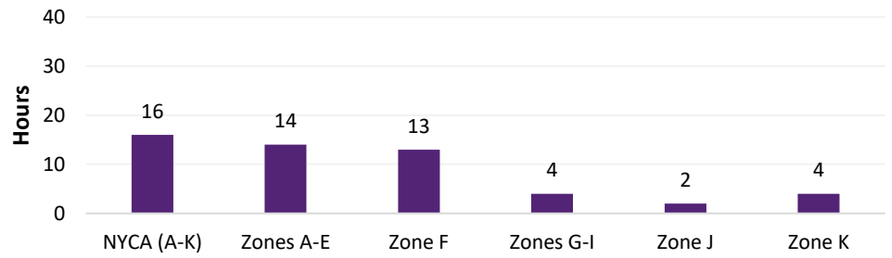
Total MWh of Exports Reduced



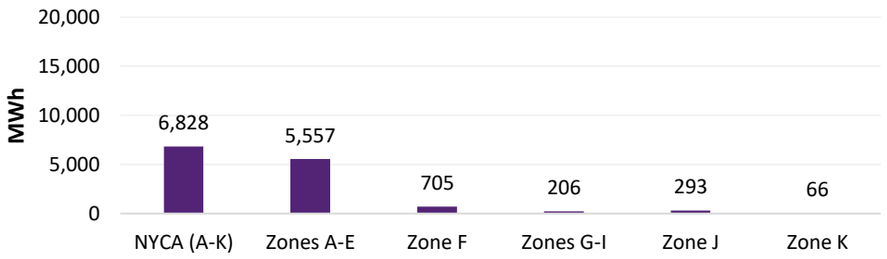
Average Capacity Not Available Due to Exhausted Fuel Inventory



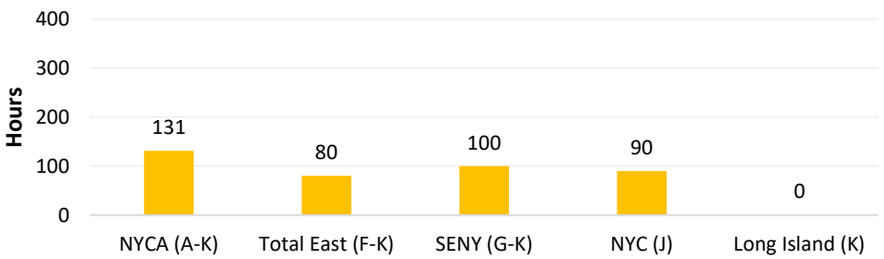
Hours SCR/EDRP Deployed



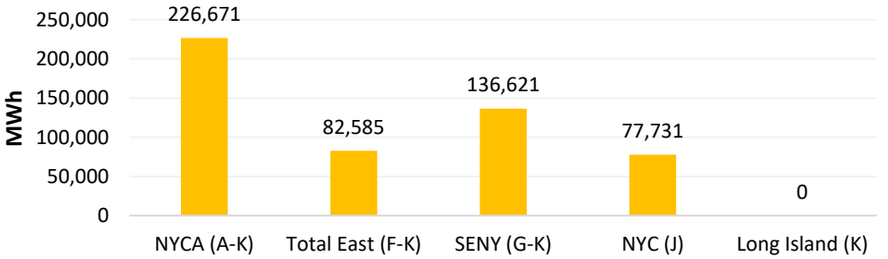
Total MWh SCR/EDRP Deployed



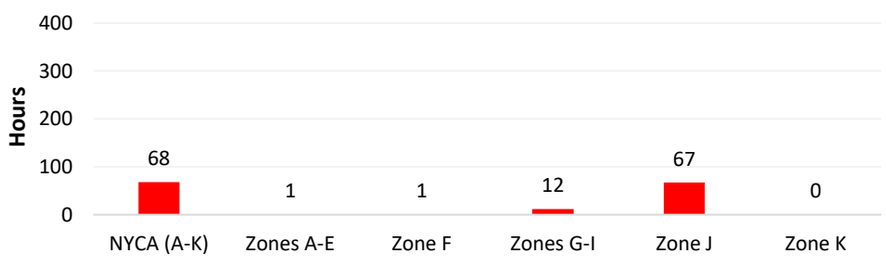
Hours with Reserve Violations



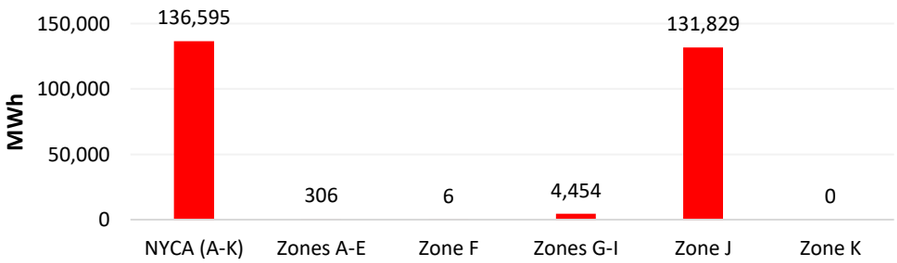
Total MWh of Reserve Violations

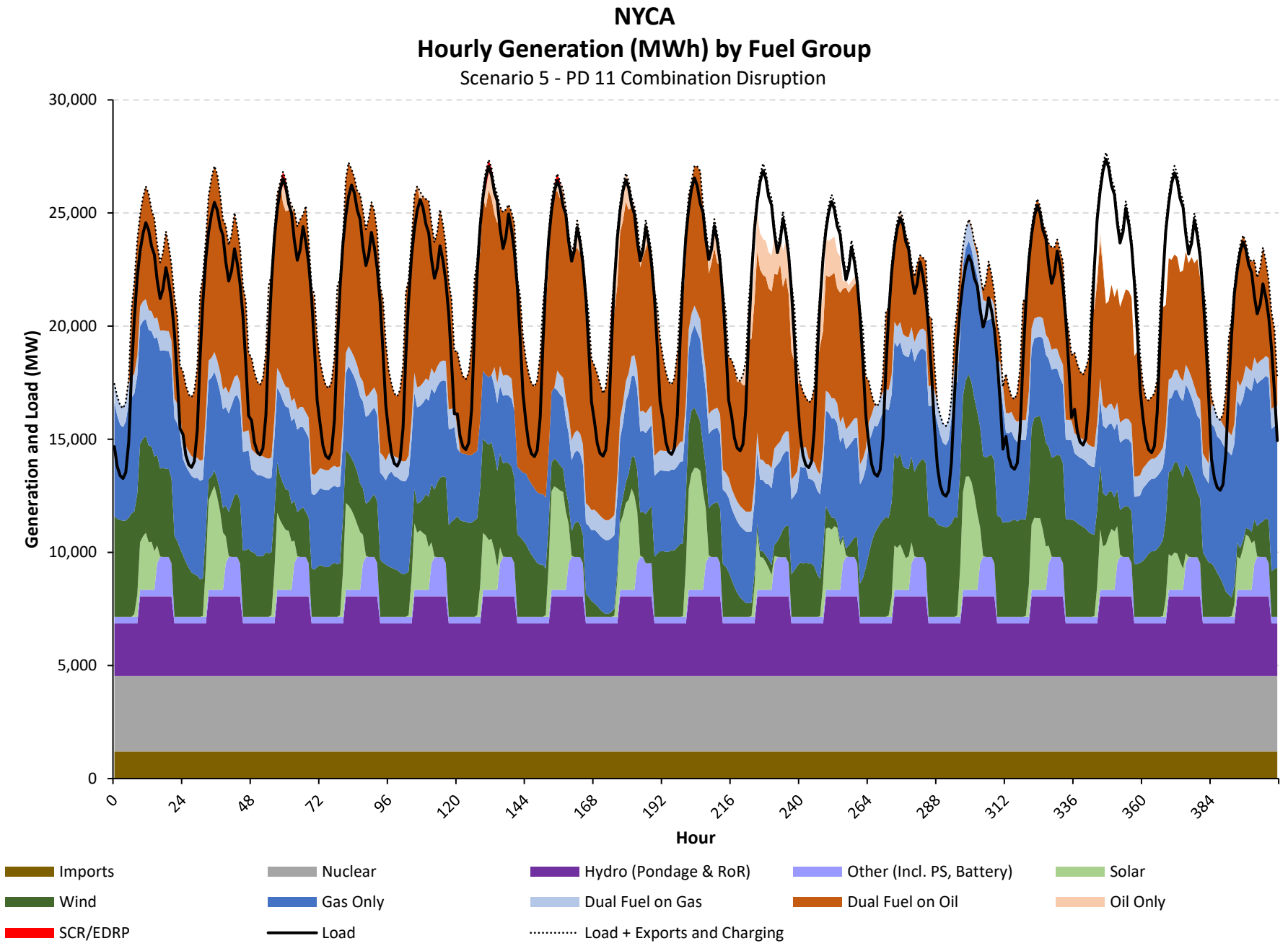


Hours with Loss of Load

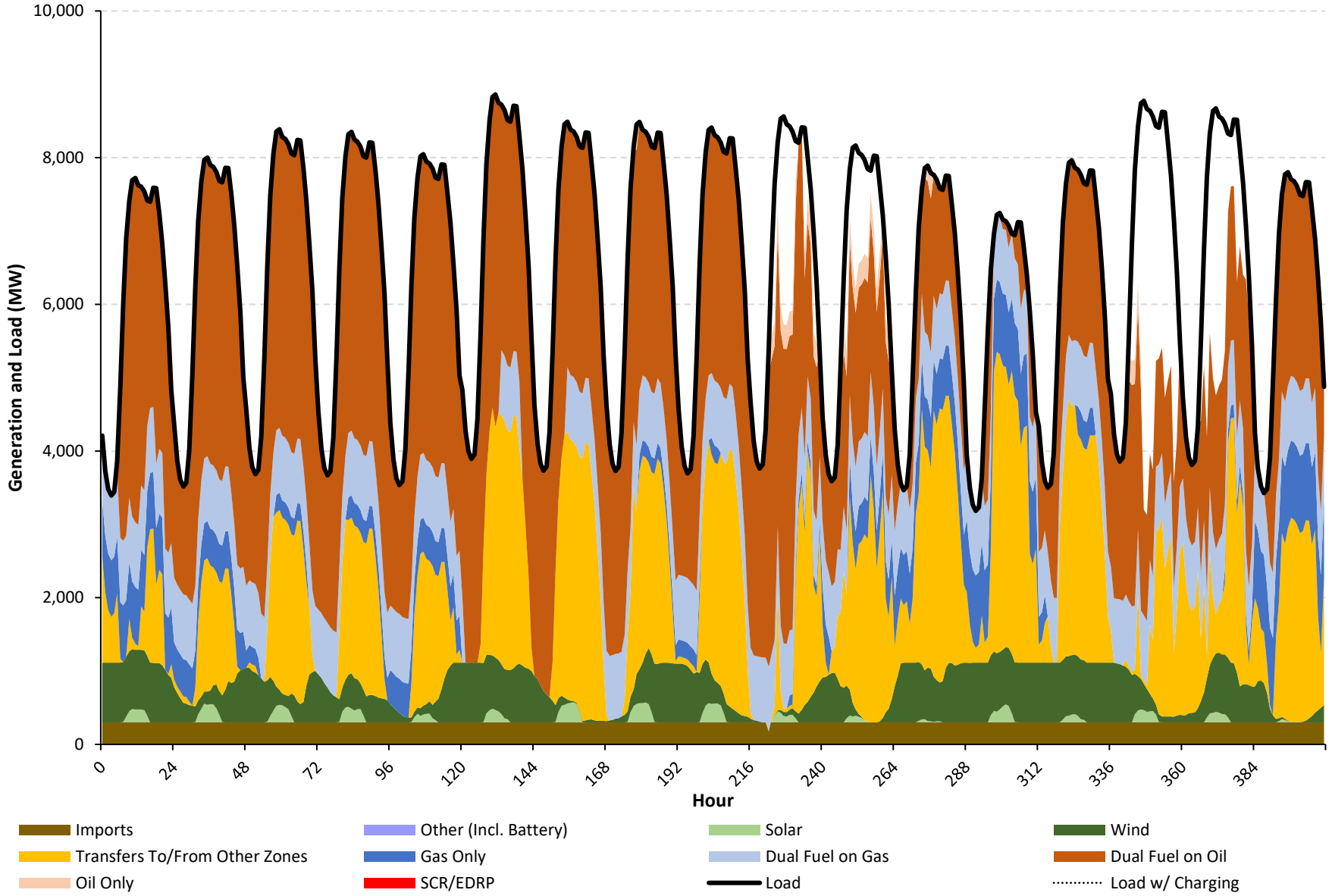


Total MWh of Lost Load

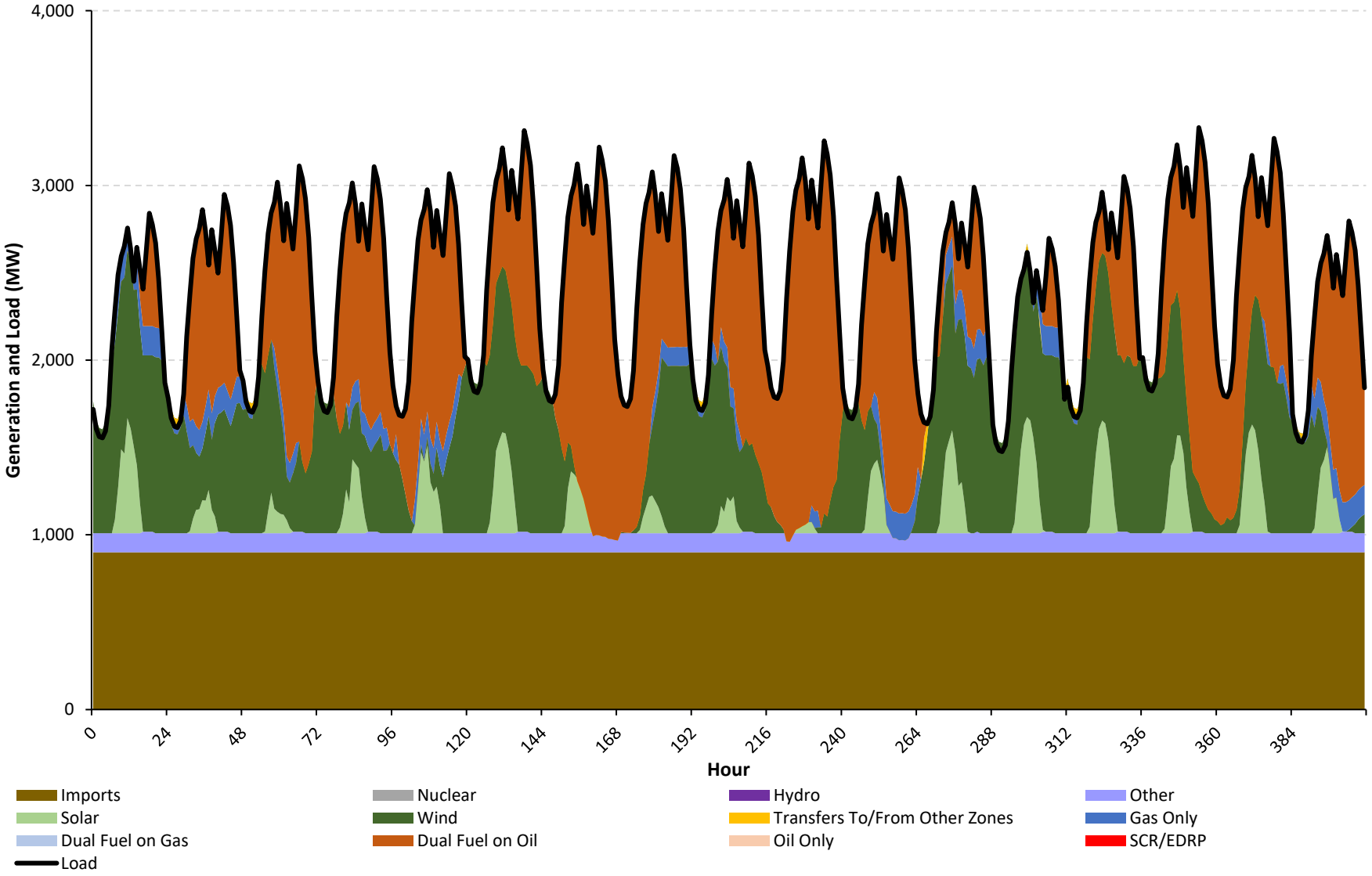



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 5 - PD 11 Combination Disruption
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 11 Combination Disruption



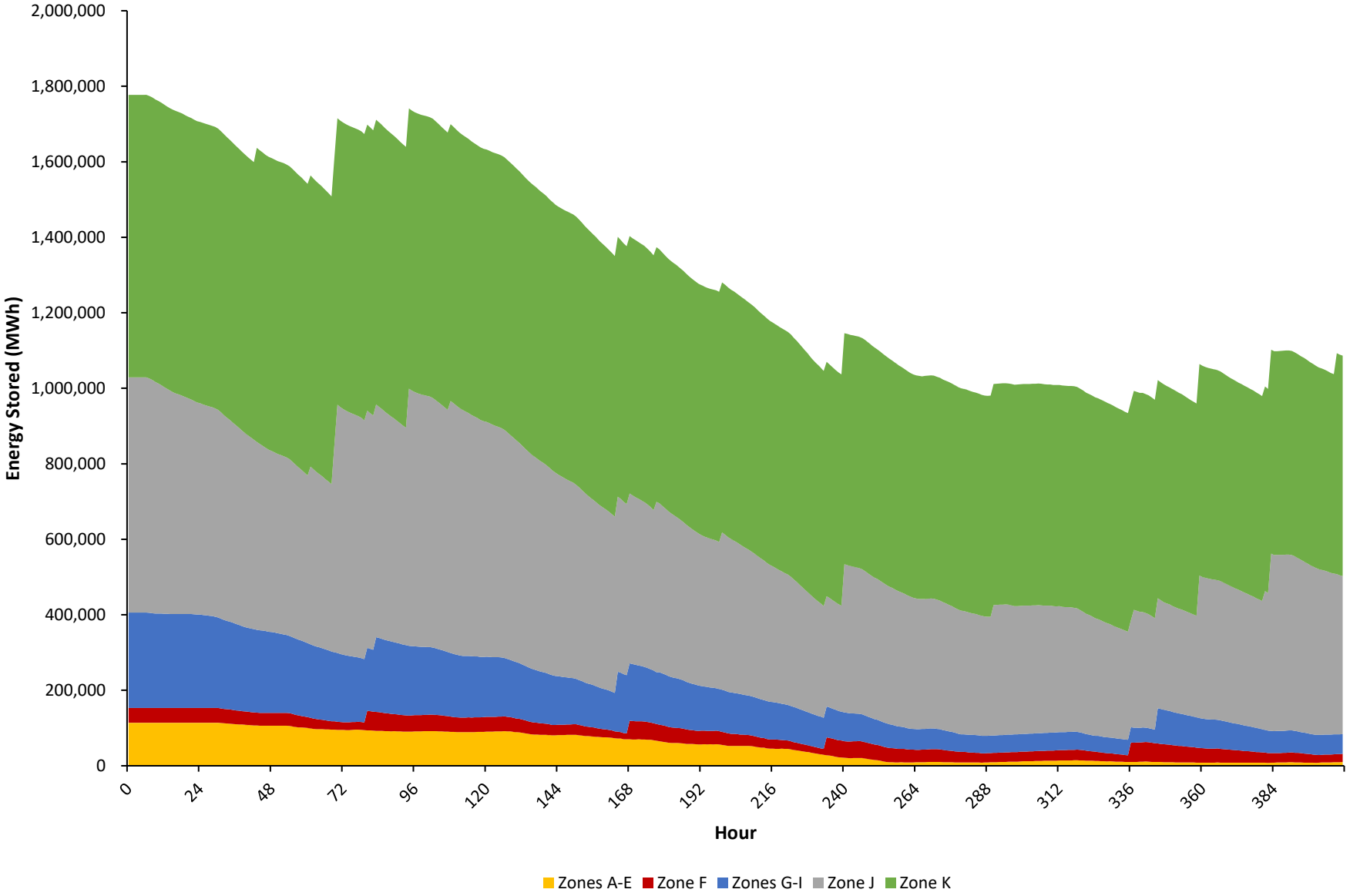
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 5 - PD 11 Combination Disruption

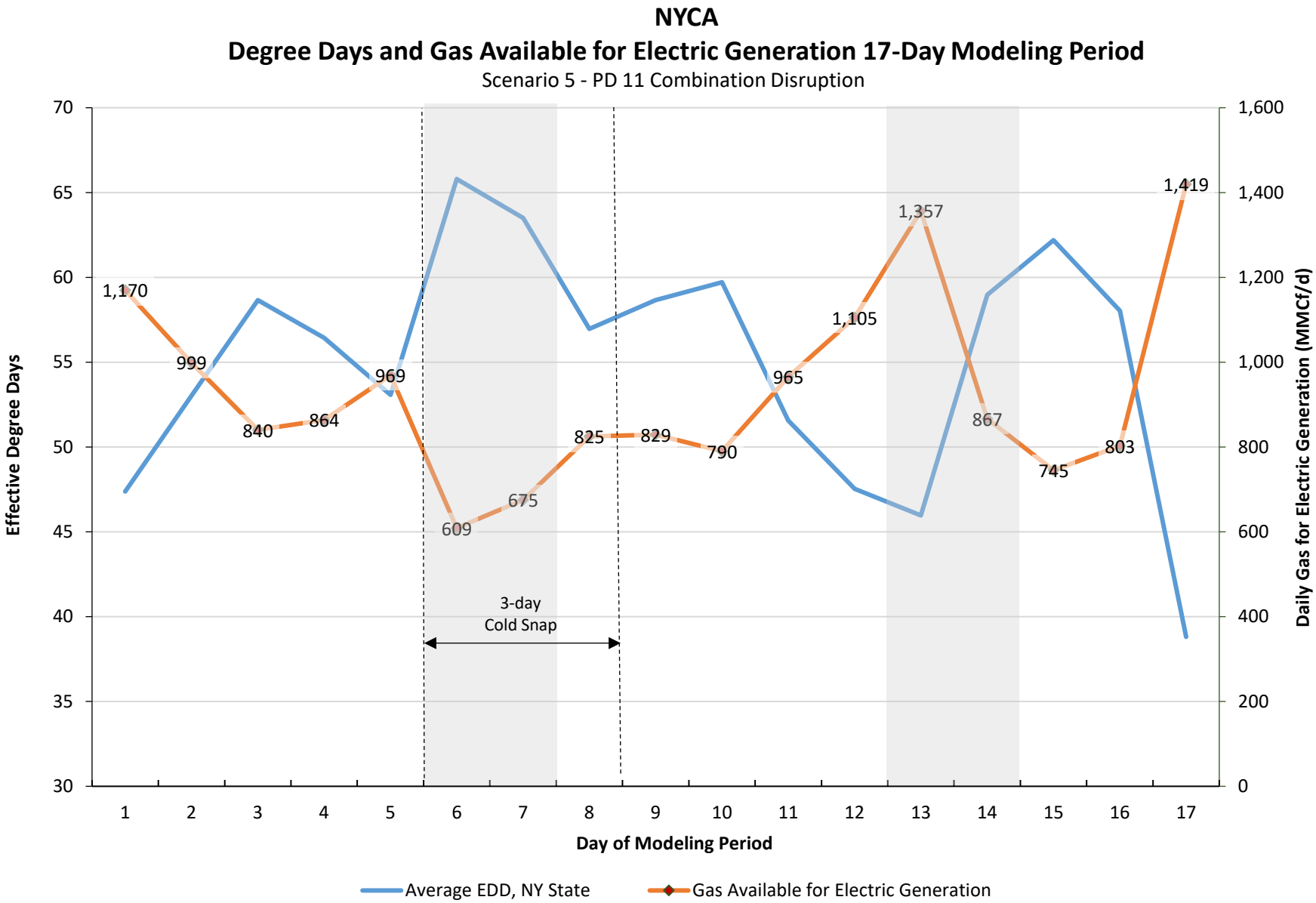


NYCA

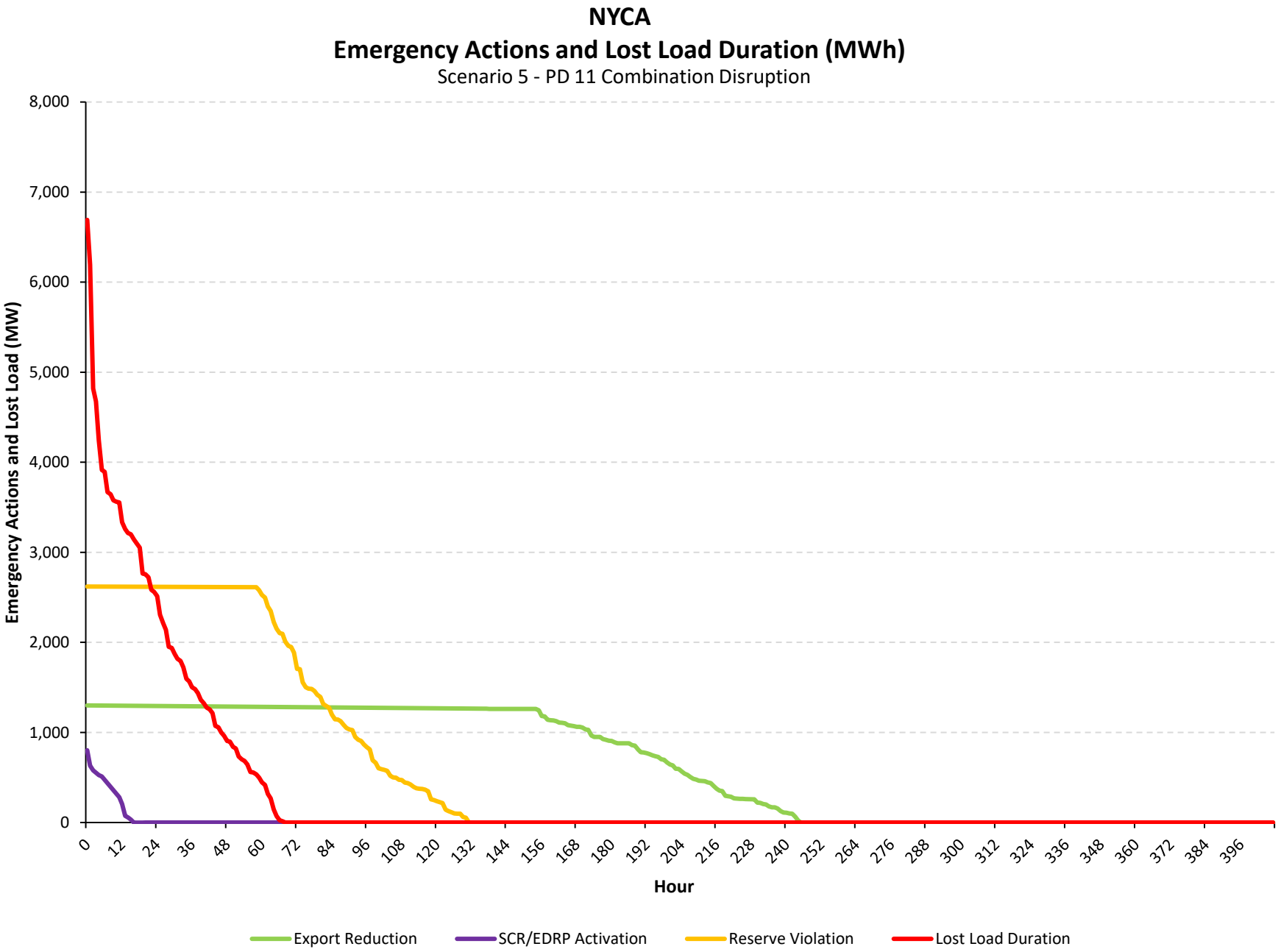
Quantity of Stored Fuel for Oil and Dual Fuel Units

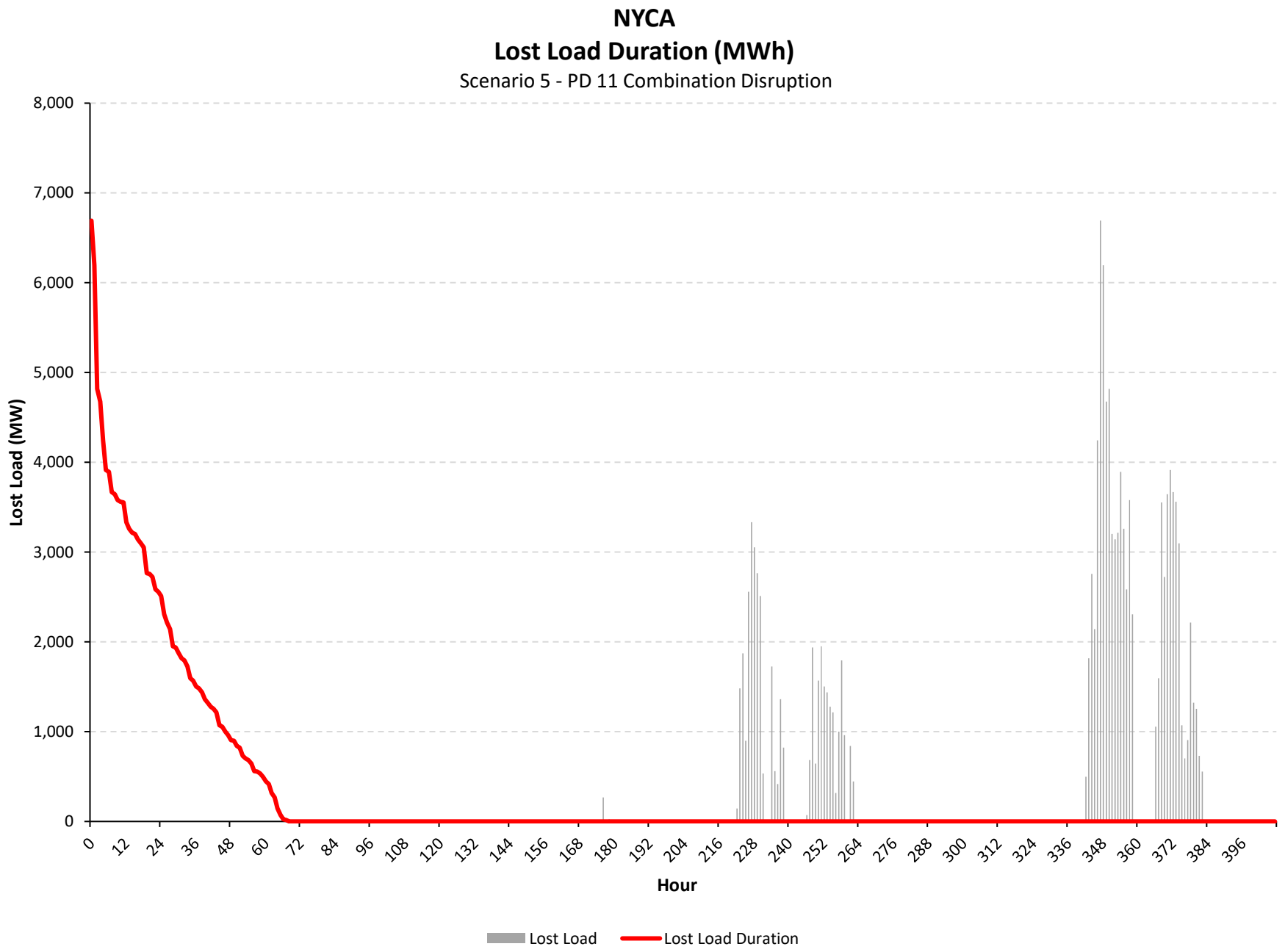
Scenario 5 - PD 11 Combination Disruption





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 5 - PD 11 Combination Disruption
Emergency Actions and Lost Load (MW)
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 5 - PD 11 Combination Disruption
Lost Load (MW)
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

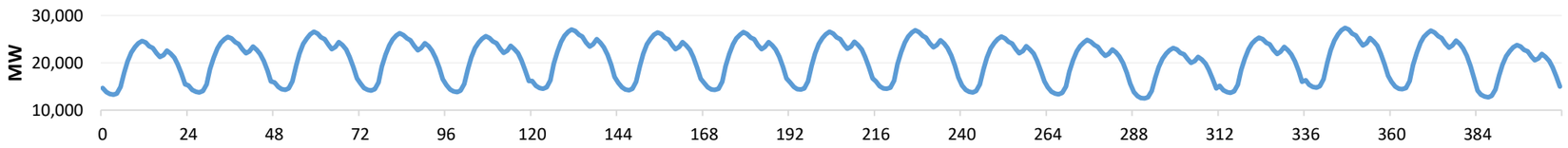
Case: Scenario 6 - PD 1 No Disruptions (Winter 2026/2027)

Hourly Results Summary

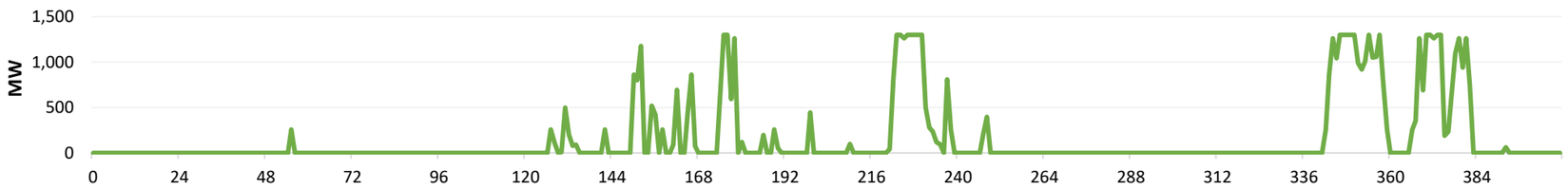
Case Name: Scenario 6 - PD 1 No Disruptions

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Load During Modeling Period

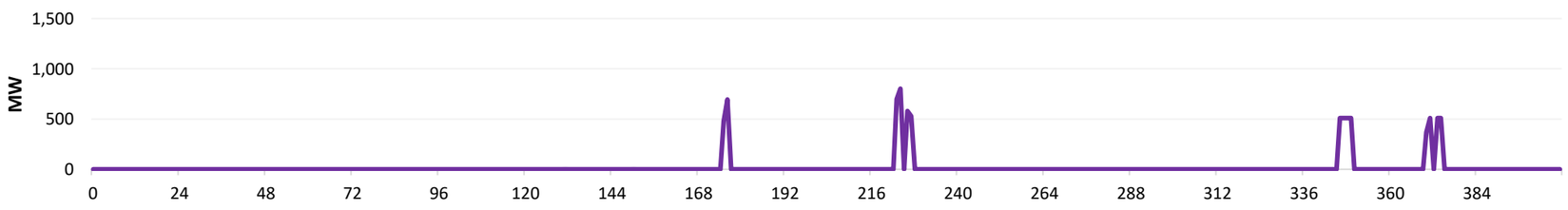


Export to ISO-NE Reduction During Modeling Period



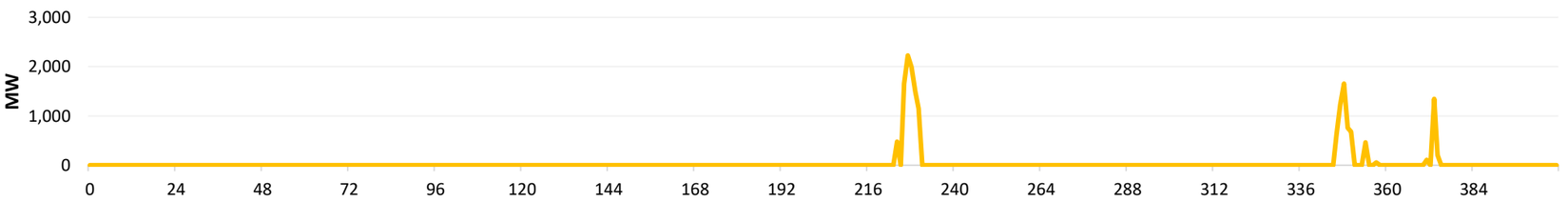
Export Reductions	
Total Hrs.	86
Total MWh	62,429
Avg. MW	153.0

SCR/EDRP Deployed During Modeling Period



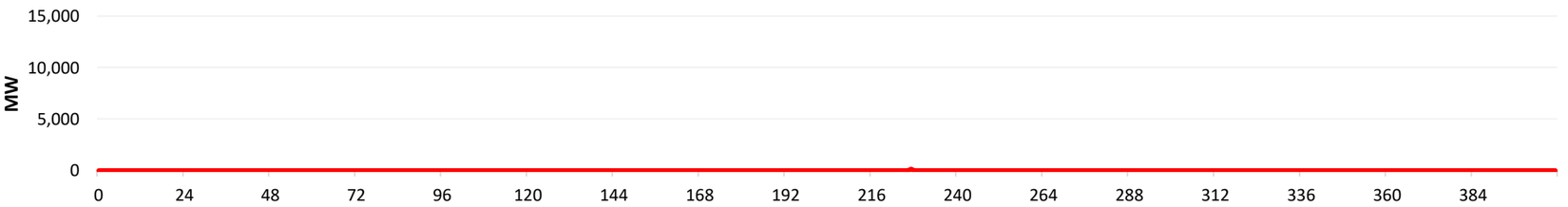
SCR Deployment	
Total Hrs.	14
Total MWh	7,720
Avg. MW	18.9

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	16
Total MWh	16,118
Avg. MW	39.5
First Hour with Viol.	224

Loss of Load During Modeling Period



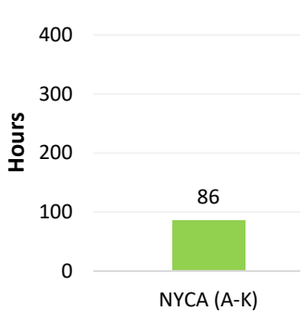
Loss of Load	
Total Hrs.	1
Total MWh	146
Avg. MW	0.4
First Hour with Losses	227

Full Period Results Summary

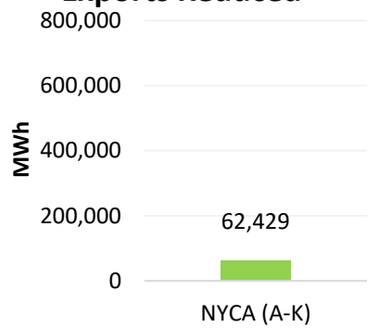
Case Name: Scenario 6 - PD 1 No Disruptions

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

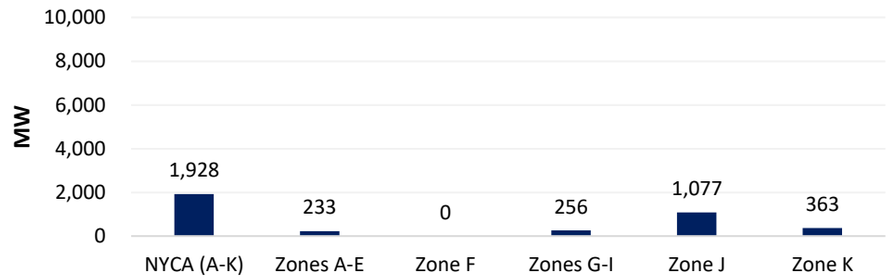
Hours Exports Reduced



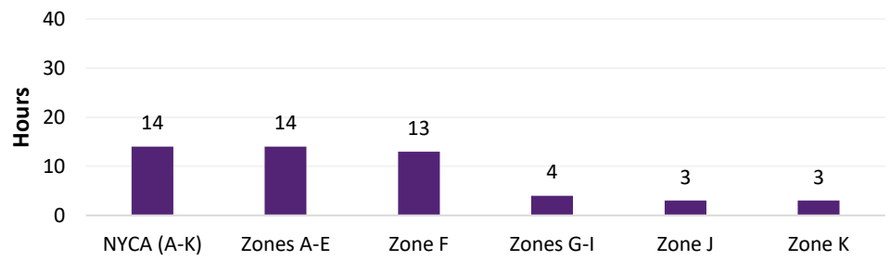
Total MWh of Exports Reduced



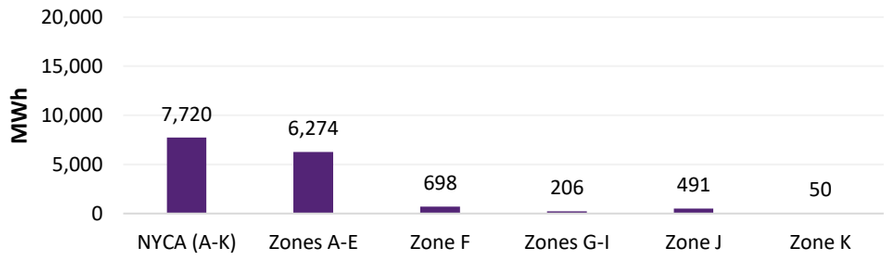
Average Capacity Not Available Due to Exhausted Fuel Inventory



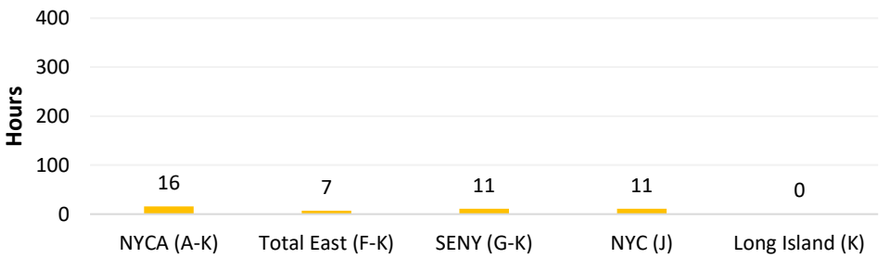
Hours SCR/EDRP Deployed



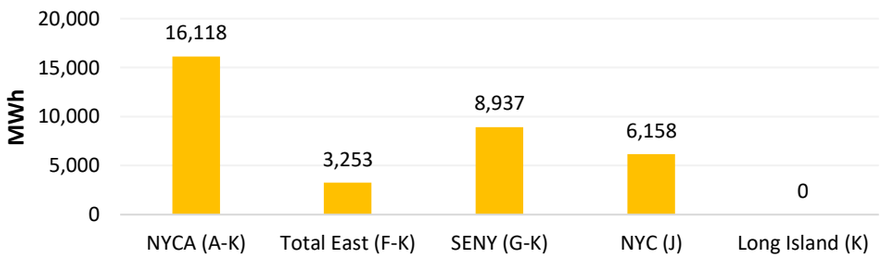
Total MWh SCR/EDRP Deployed



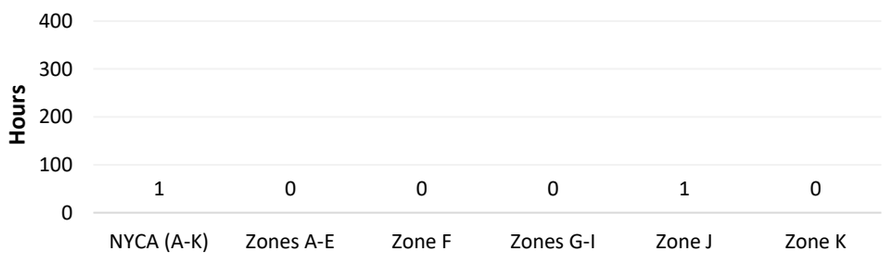
Hours with Reserve Violations



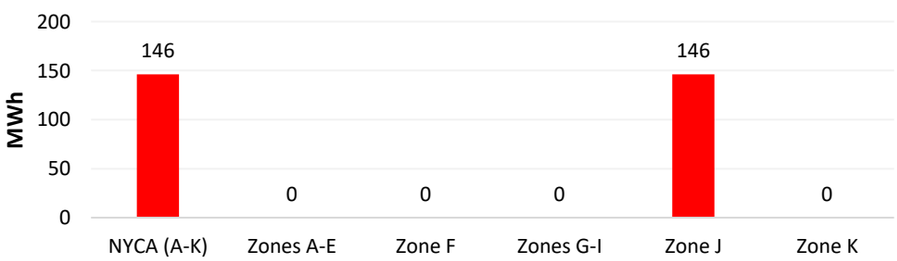
Total MWh of Reserve Violations

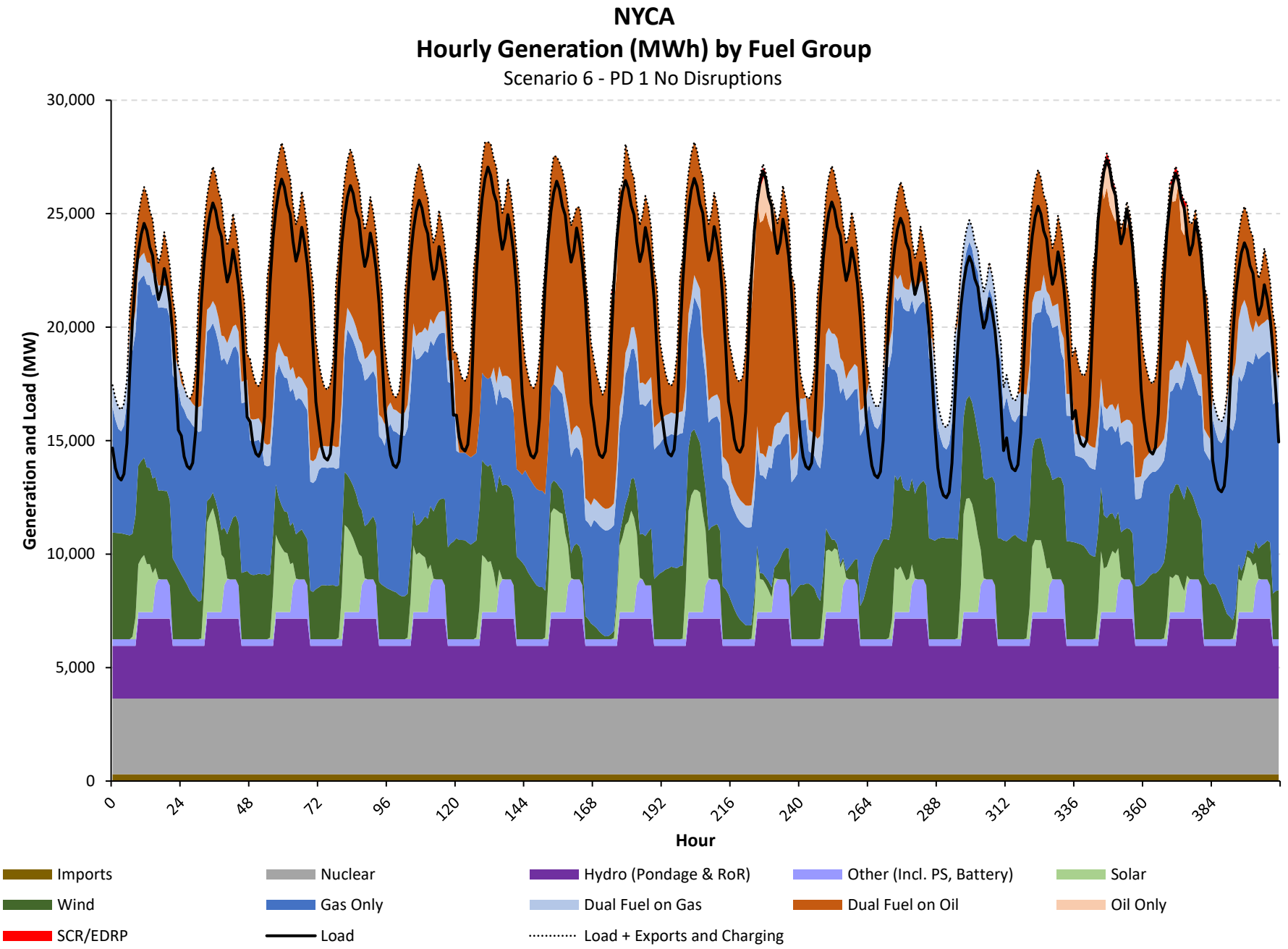


Hours with Loss of Load

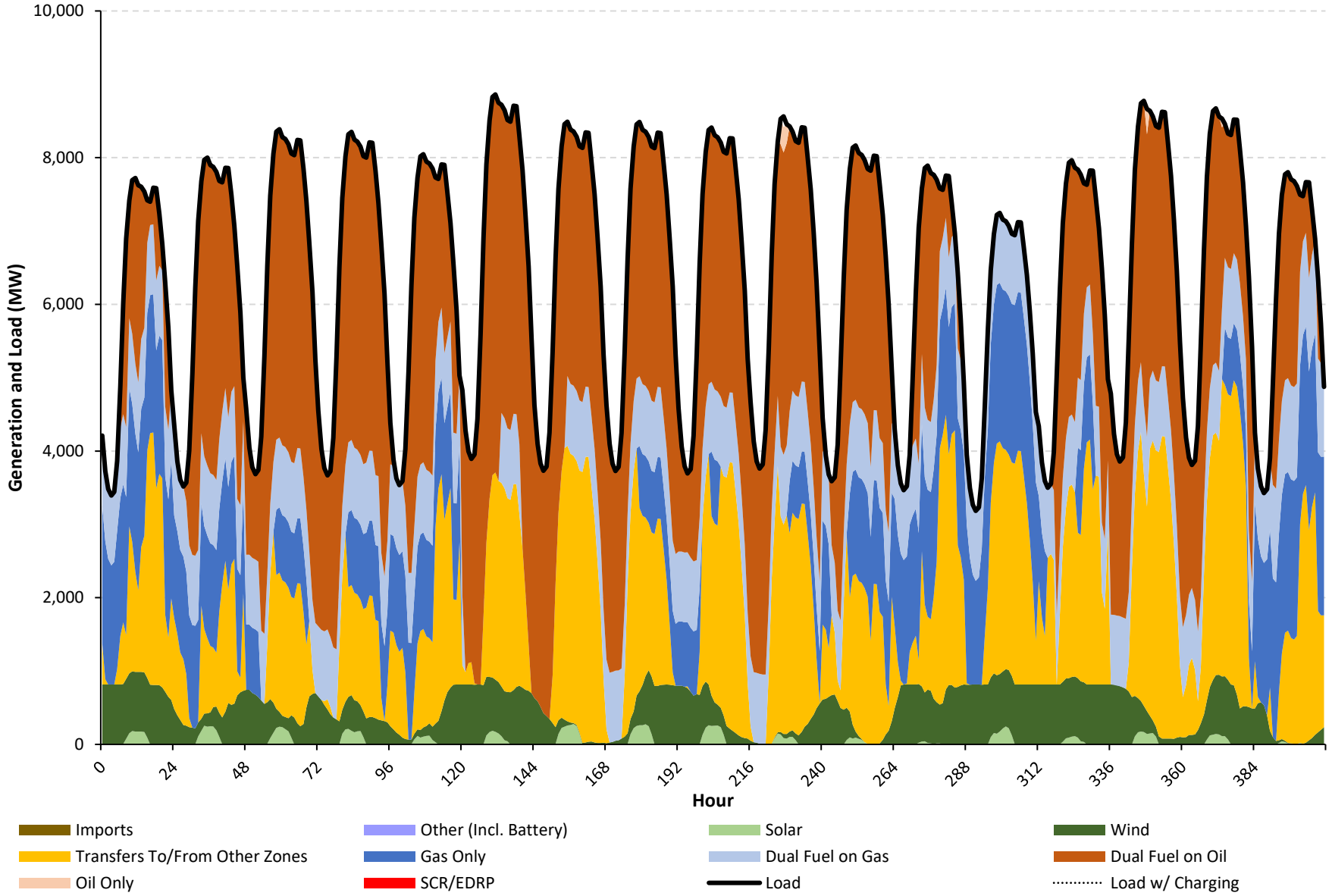


Total MWh of Lost Load

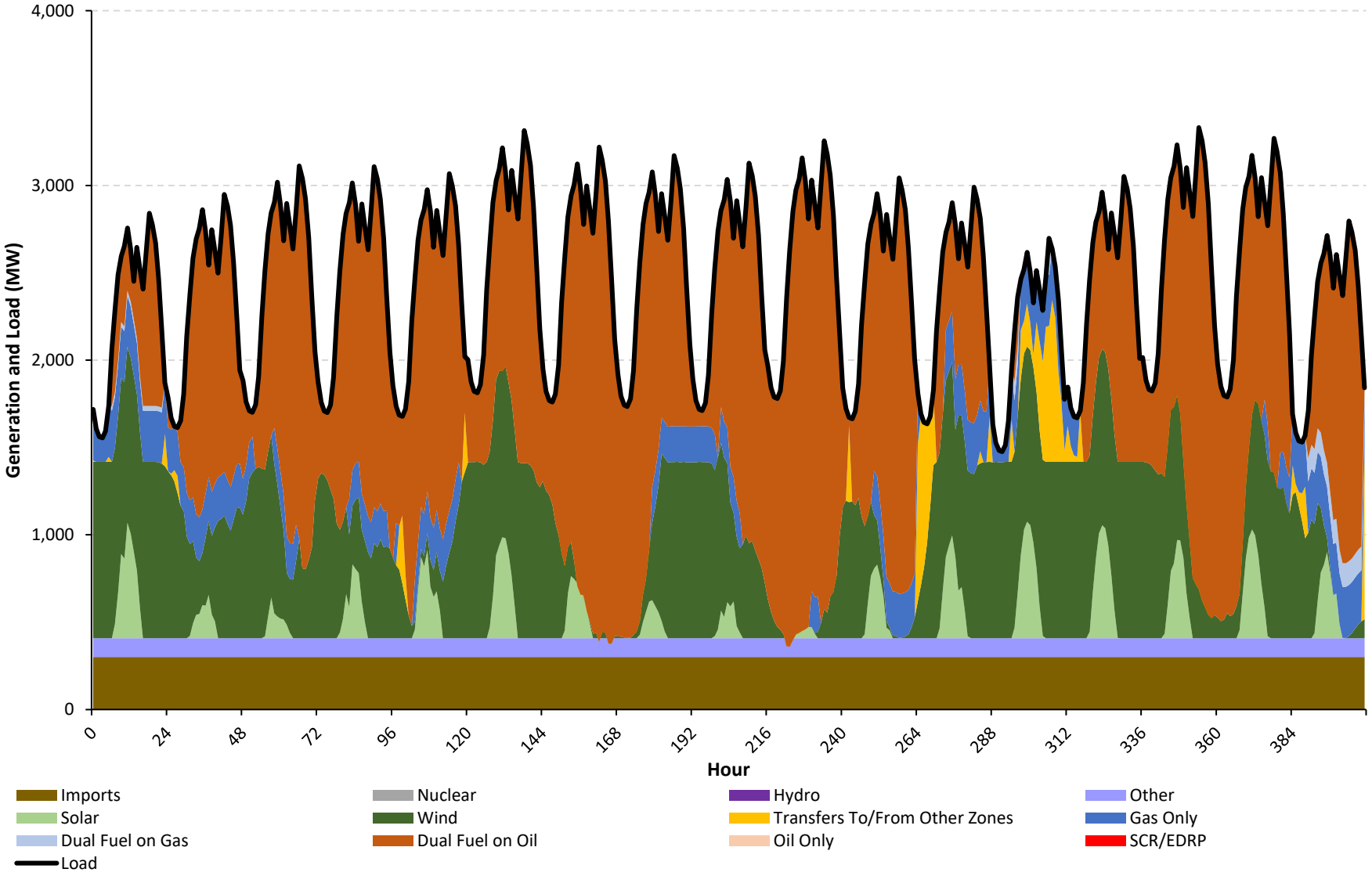



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 6 - PD 1 No Disruptions
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 1 No Disruptions



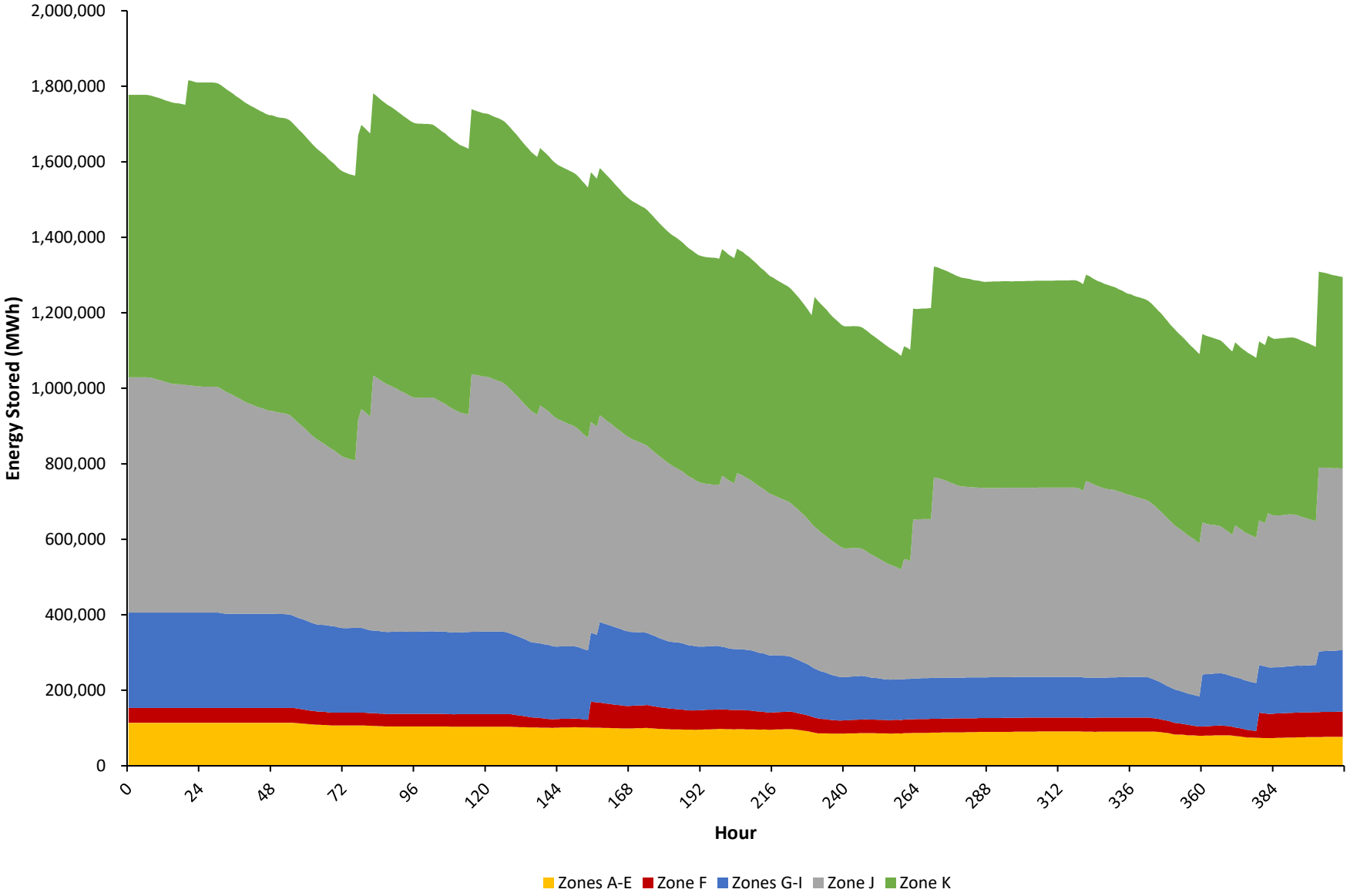
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 1 No Disruptions

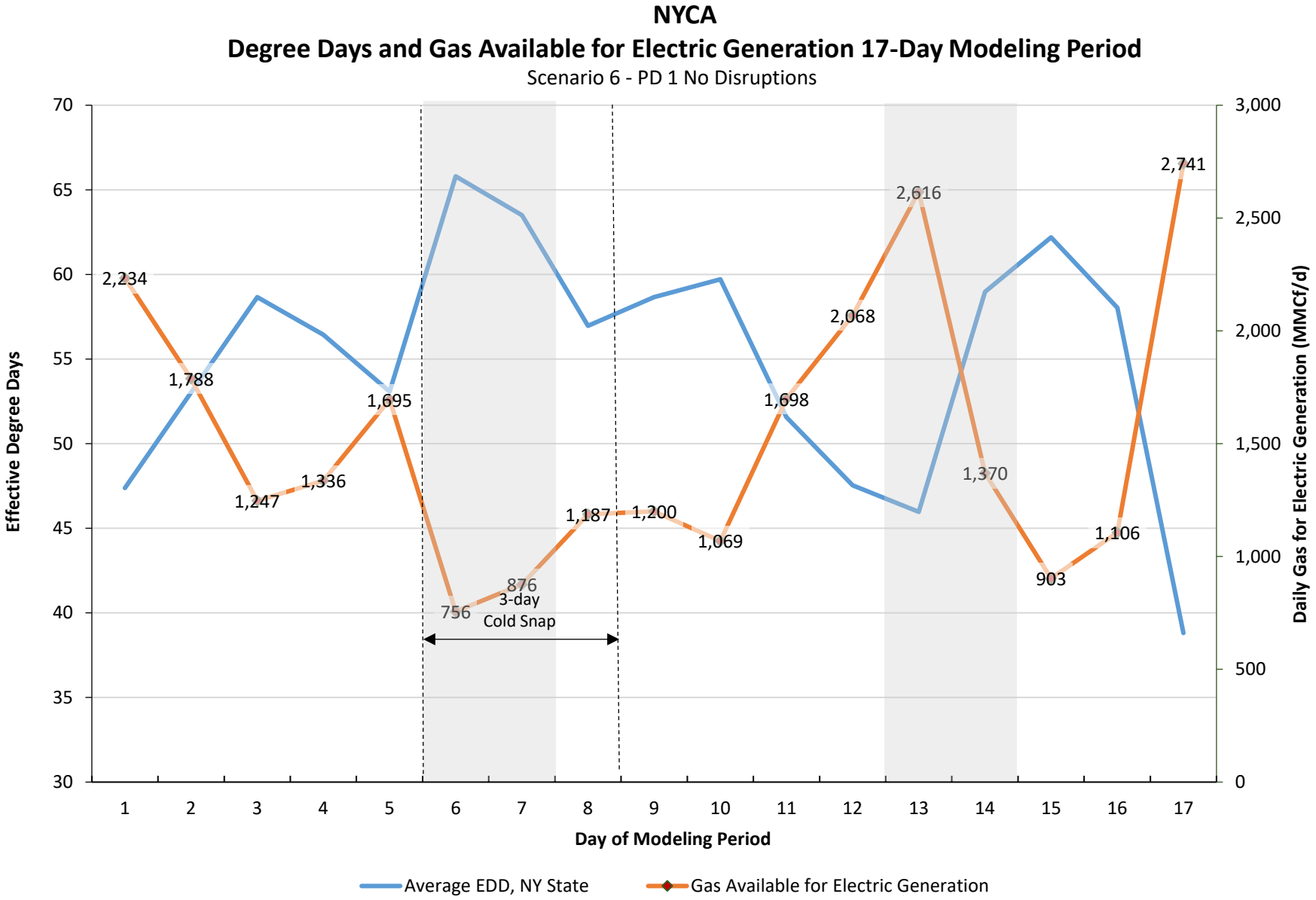


NYCA

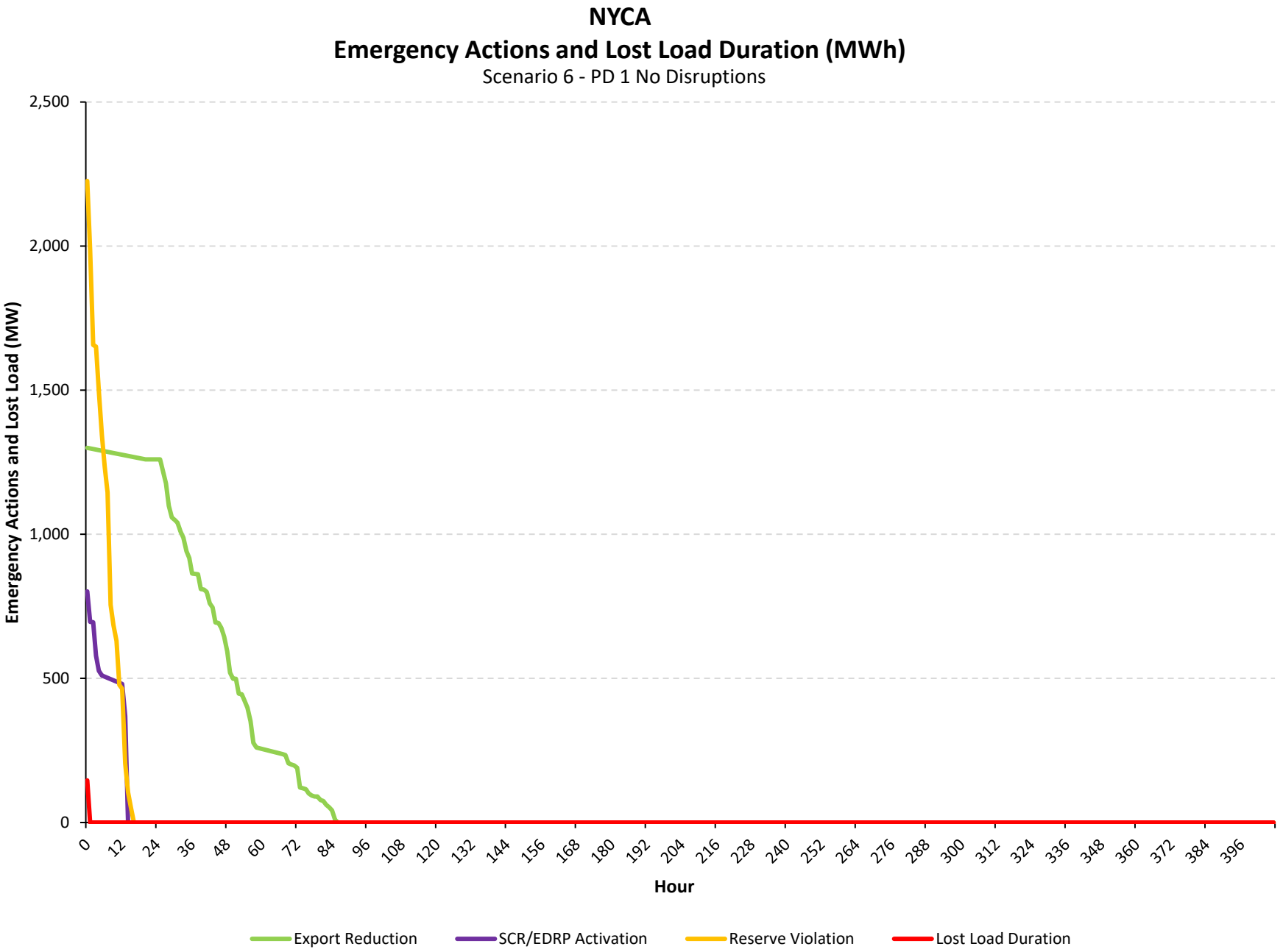
Quantity of Stored Fuel for Oil and Dual Fuel Units

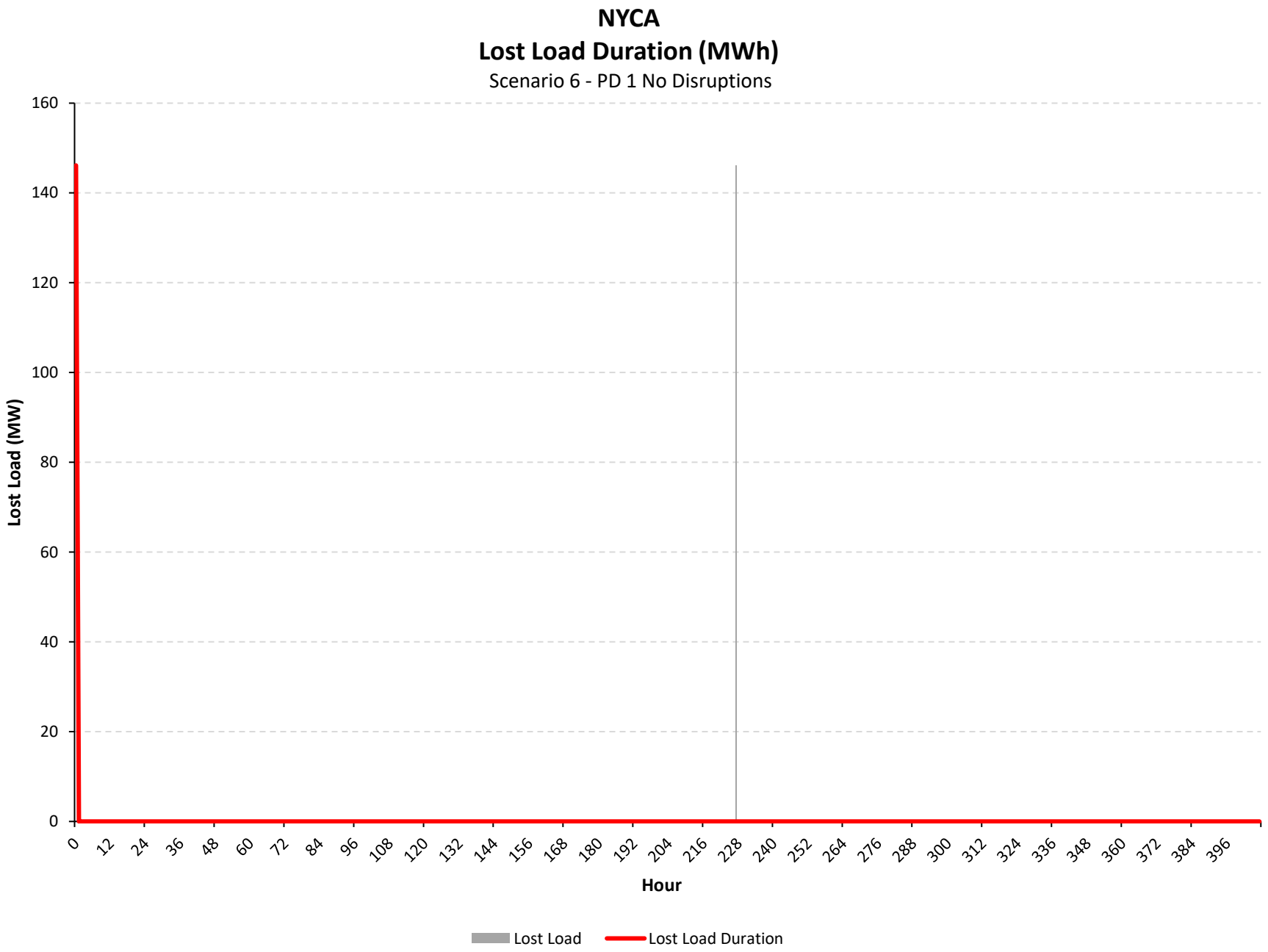
Scenario 6 - PD 1 No Disruptions





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 6 - PD 1 No Disruptions
Emergency Actions and Lost Load (MW)
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 6 - PD 1 No Disruptions
Lost Load (MW)
160
140
120
100
80
60
40
20
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

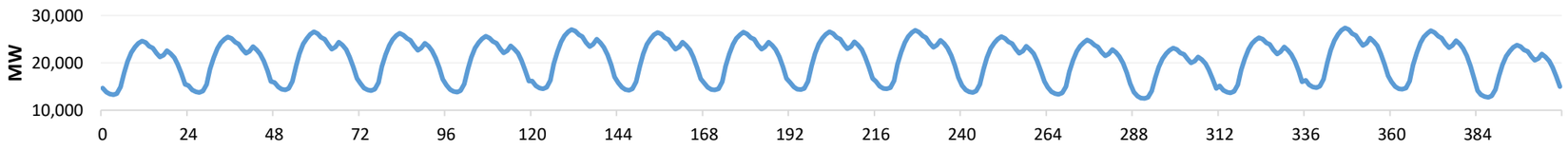
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 6 - PD 2 High Outage (Winter 2026/2027)

Hourly Results Summary

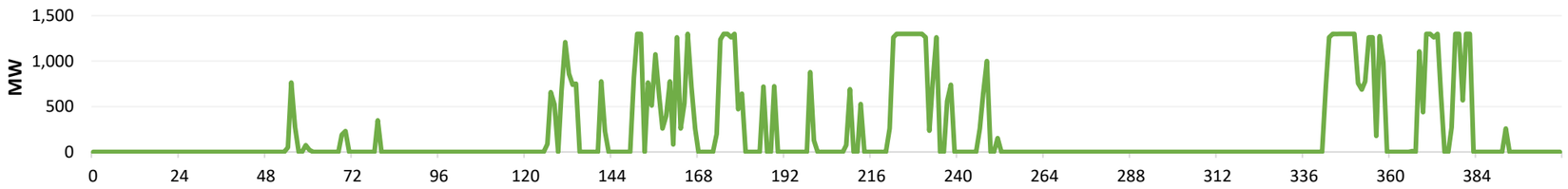
Case Name: Scenario 6 - PD 2 High Outage

Load During Modeling Period



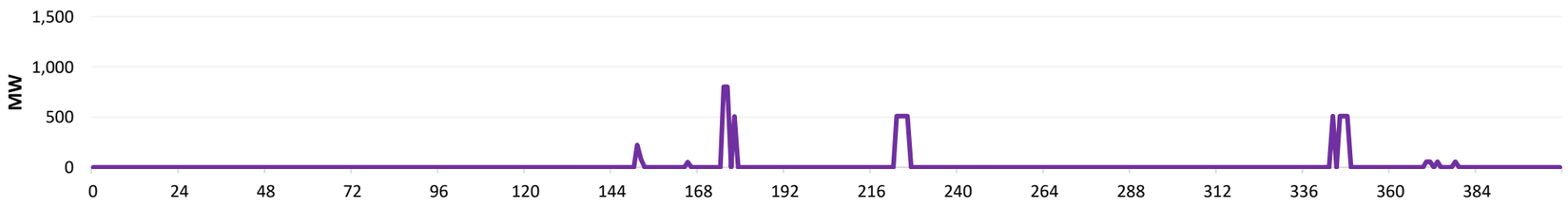
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



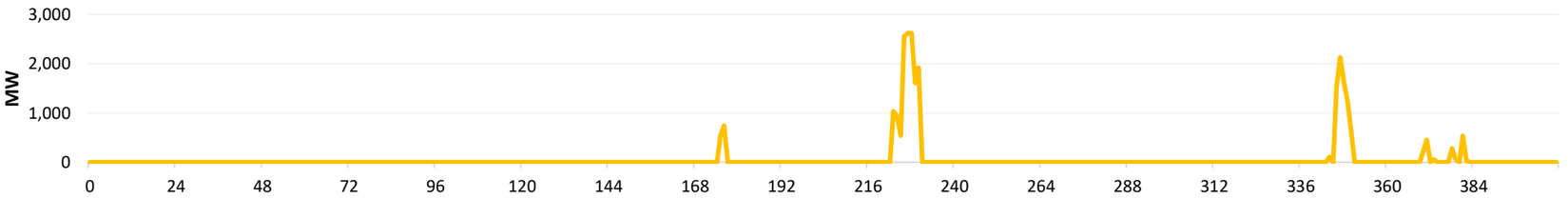
Export Reductions	
Total Hrs.	102
Total MWh	82,854
Avg. MW	203.1

SCR/EDRP Deployed During Modeling Period



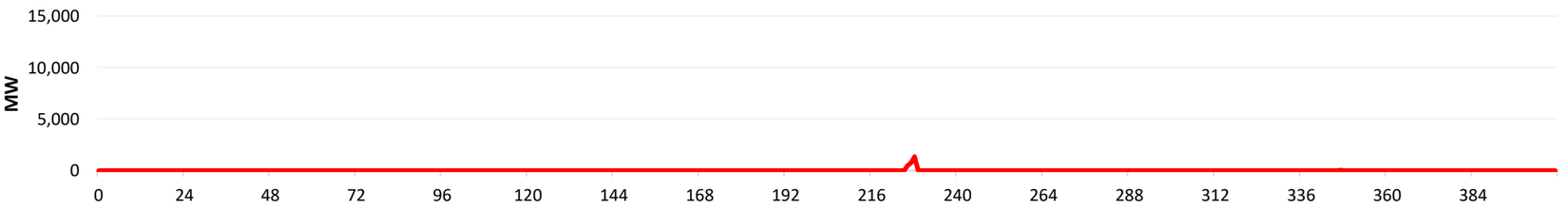
SCR Deployment	
Total Hrs.	18
Total MWh	6,772
Avg. MW	16.6

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	23
Total MWh	23,977
Avg. MW	58.8
First Hour with Viol.	175

Loss of Load During Modeling Period



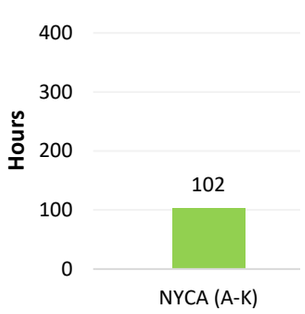
Loss of Load	
Total Hrs.	4
Total MWh	2,634
Avg. MW	6.5
First Hour with Losses	226

Full Period Results Summary

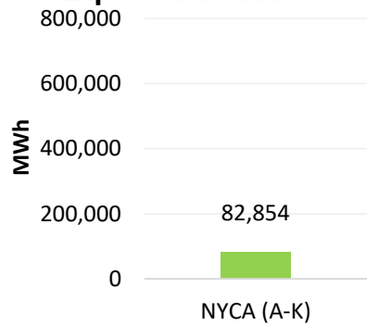
Case Name: Scenario 6 - PD 2 High Outage

Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

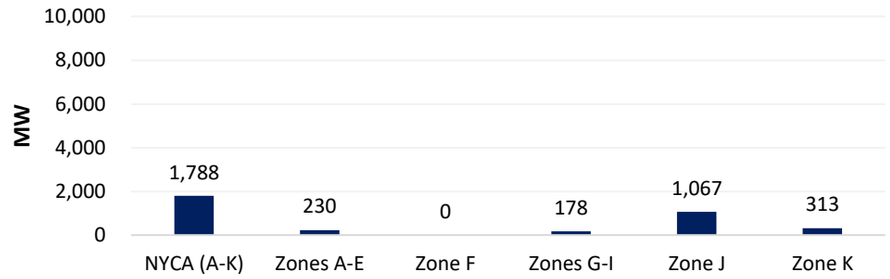
Hours Exports Reduced



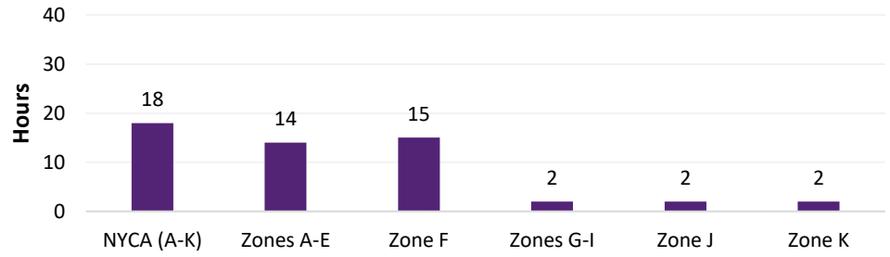
Total MWh of Exports Reduced



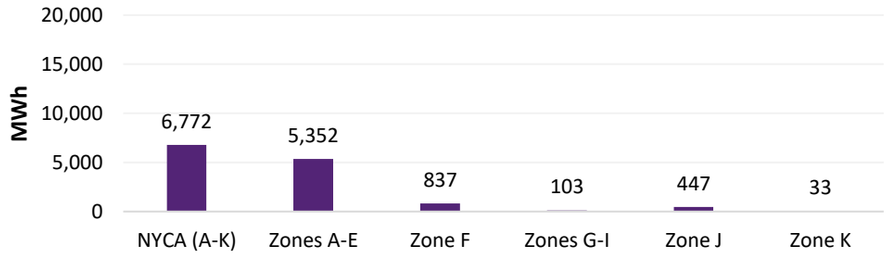
Average Capacity Not Available Due to Exhausted Fuel Inventory



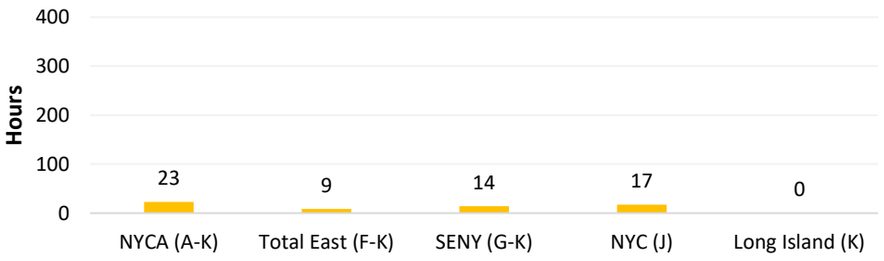
Hours SCR/EDRP Deployed



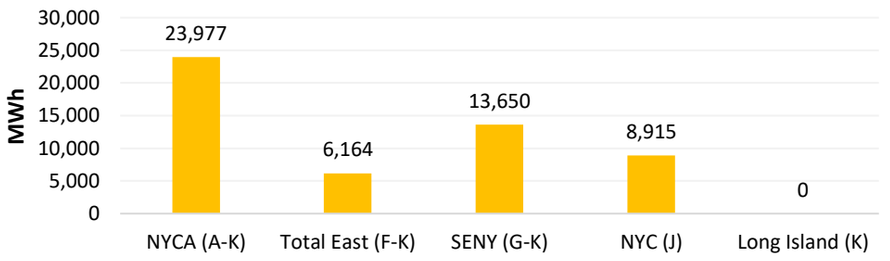
Total MWh SCR/EDRP Deployed



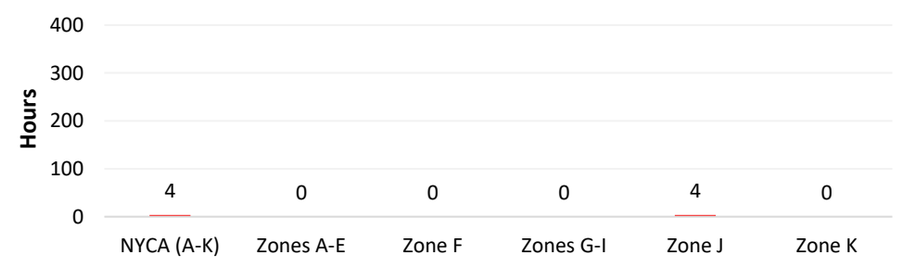
Hours with Reserve Violations



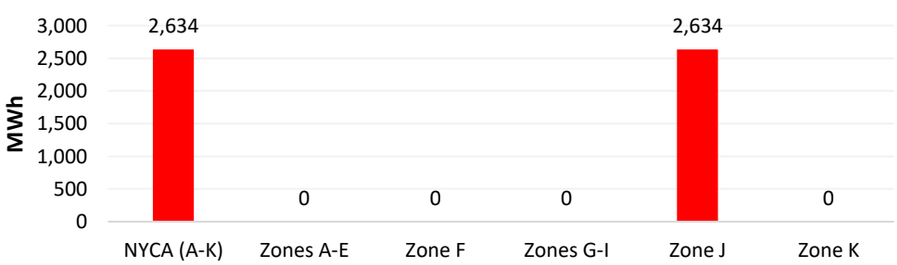
Total MWh of Reserve Violations

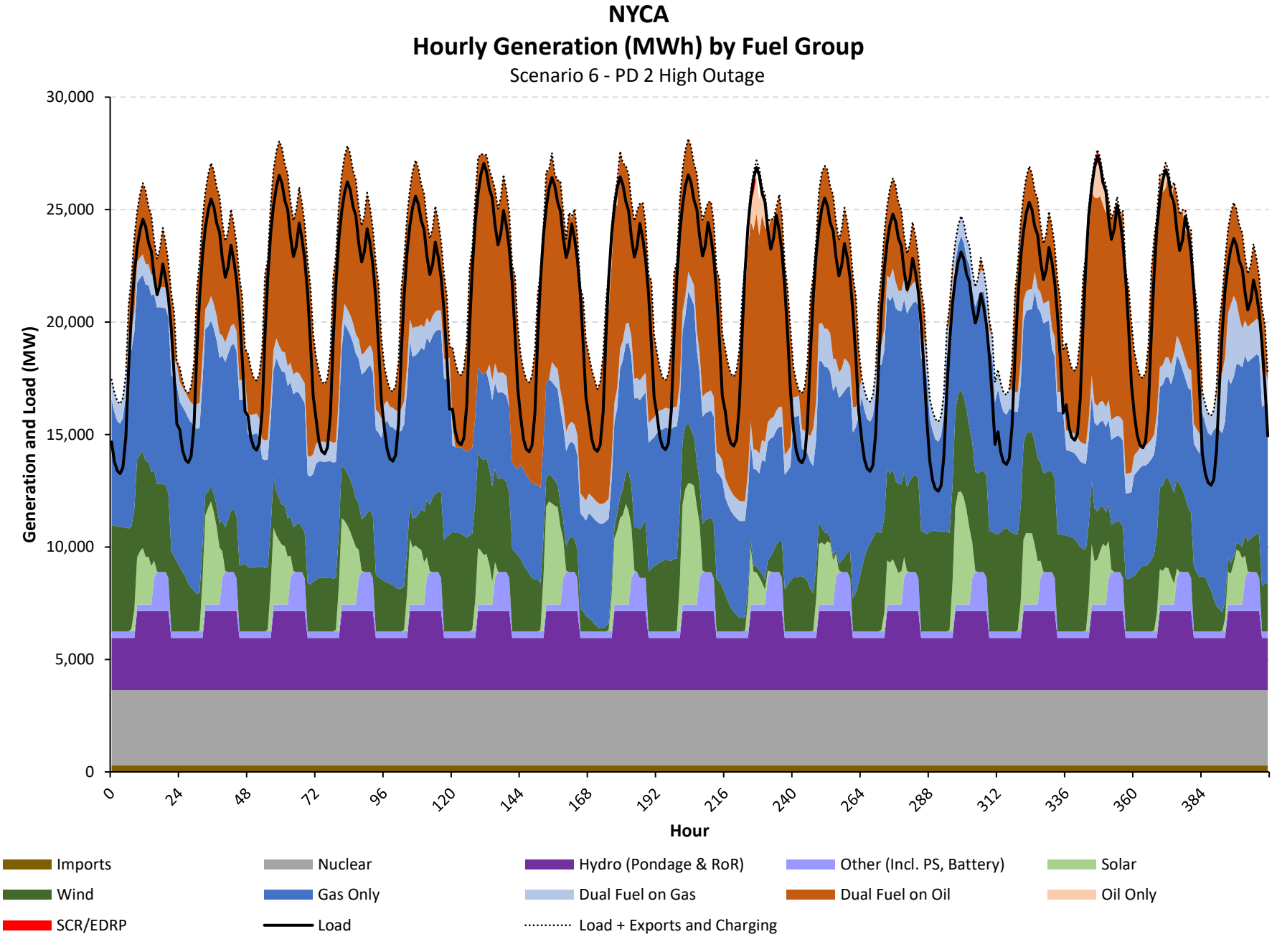


Hours with Loss of Load

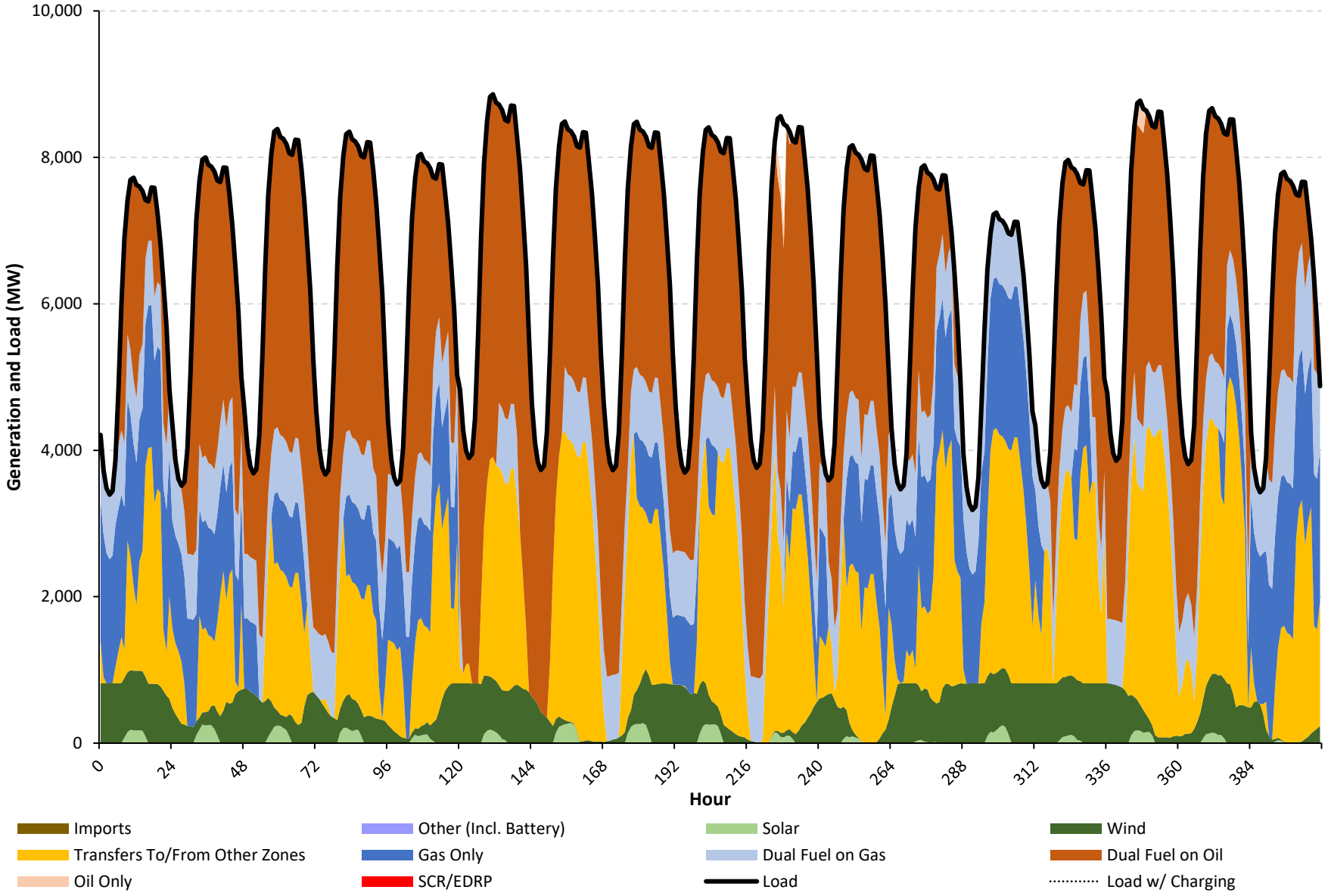


Total MWh of Lost Load

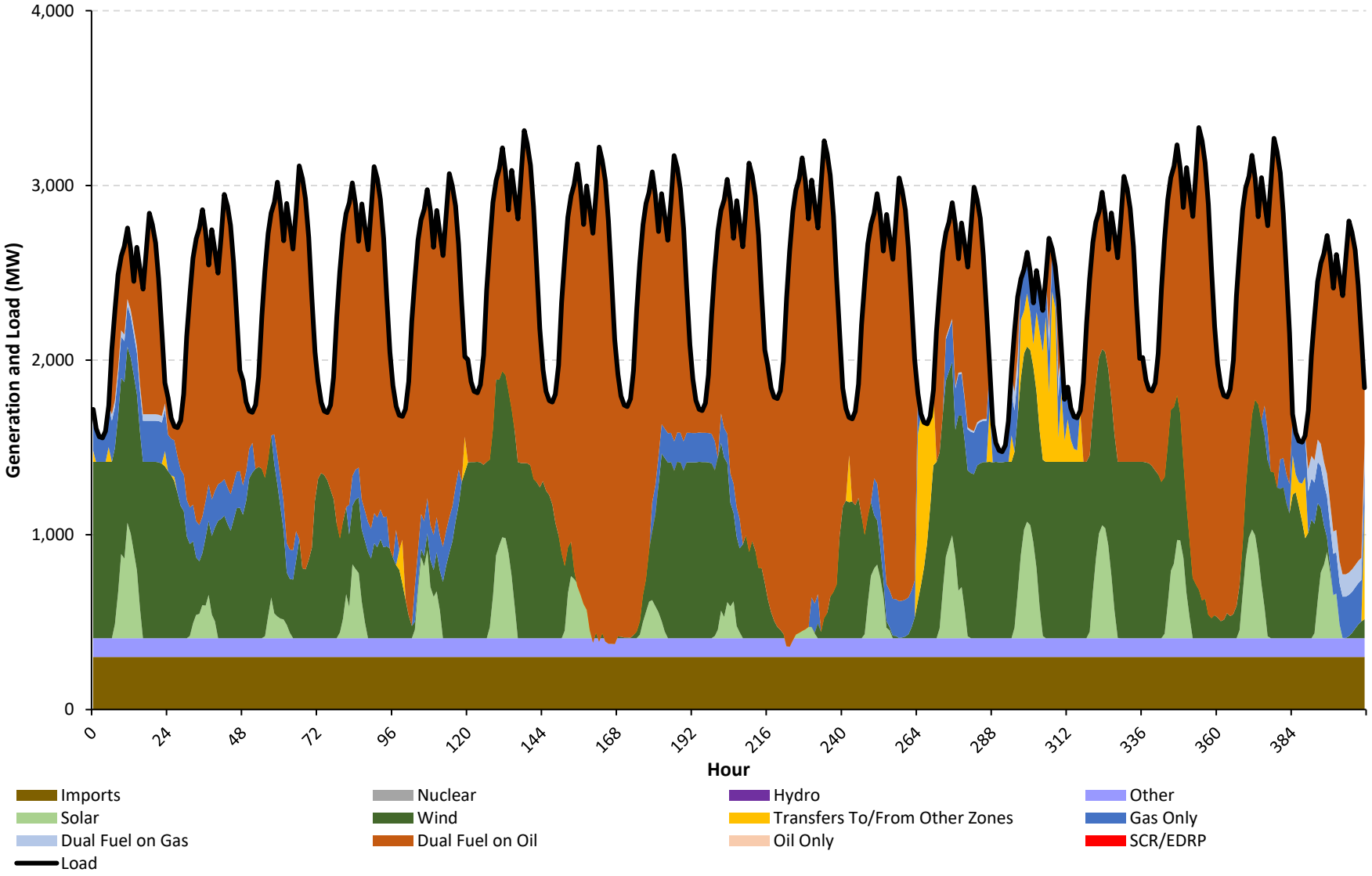


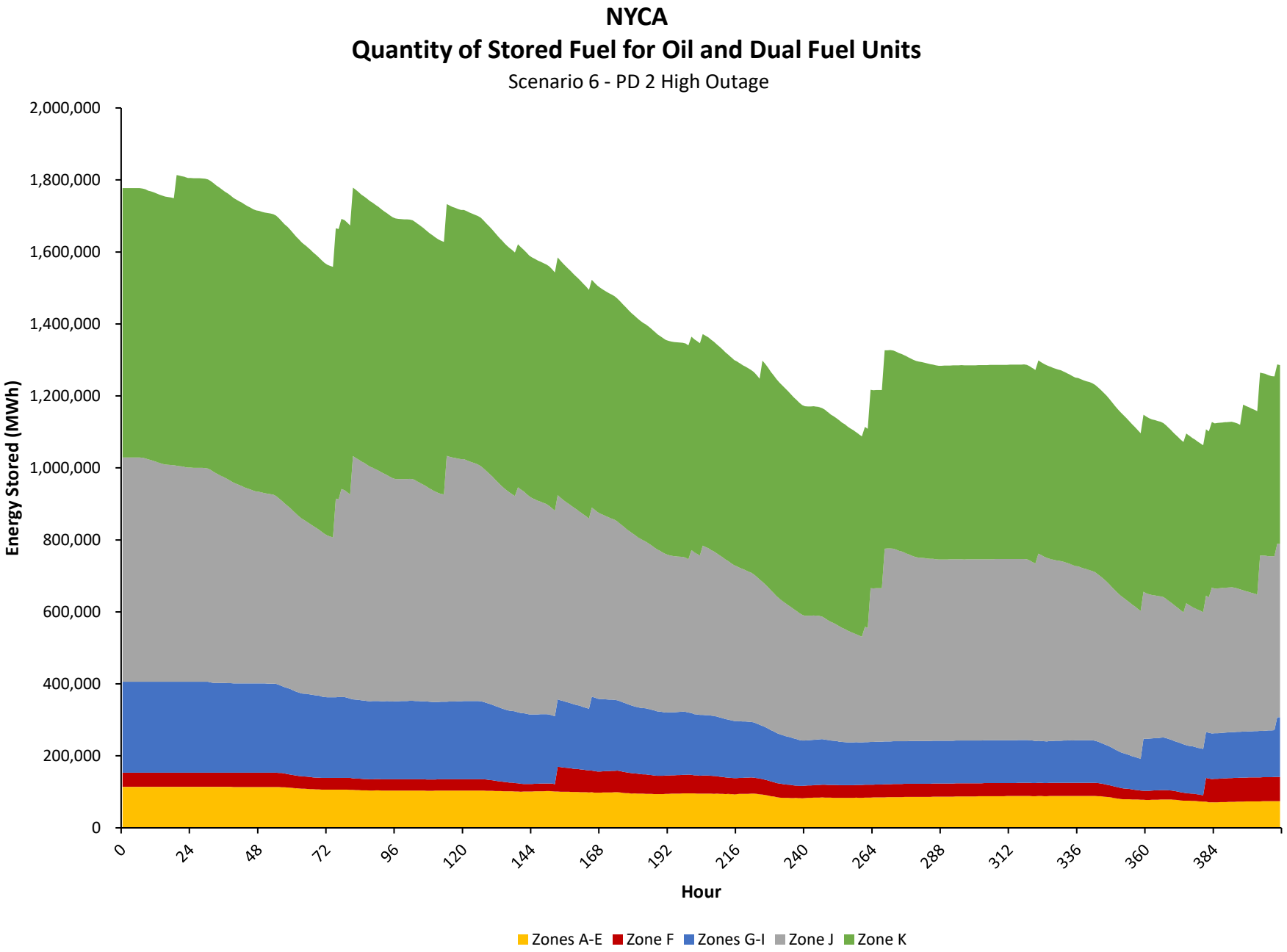

NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 6 - PD 2 High Outage
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

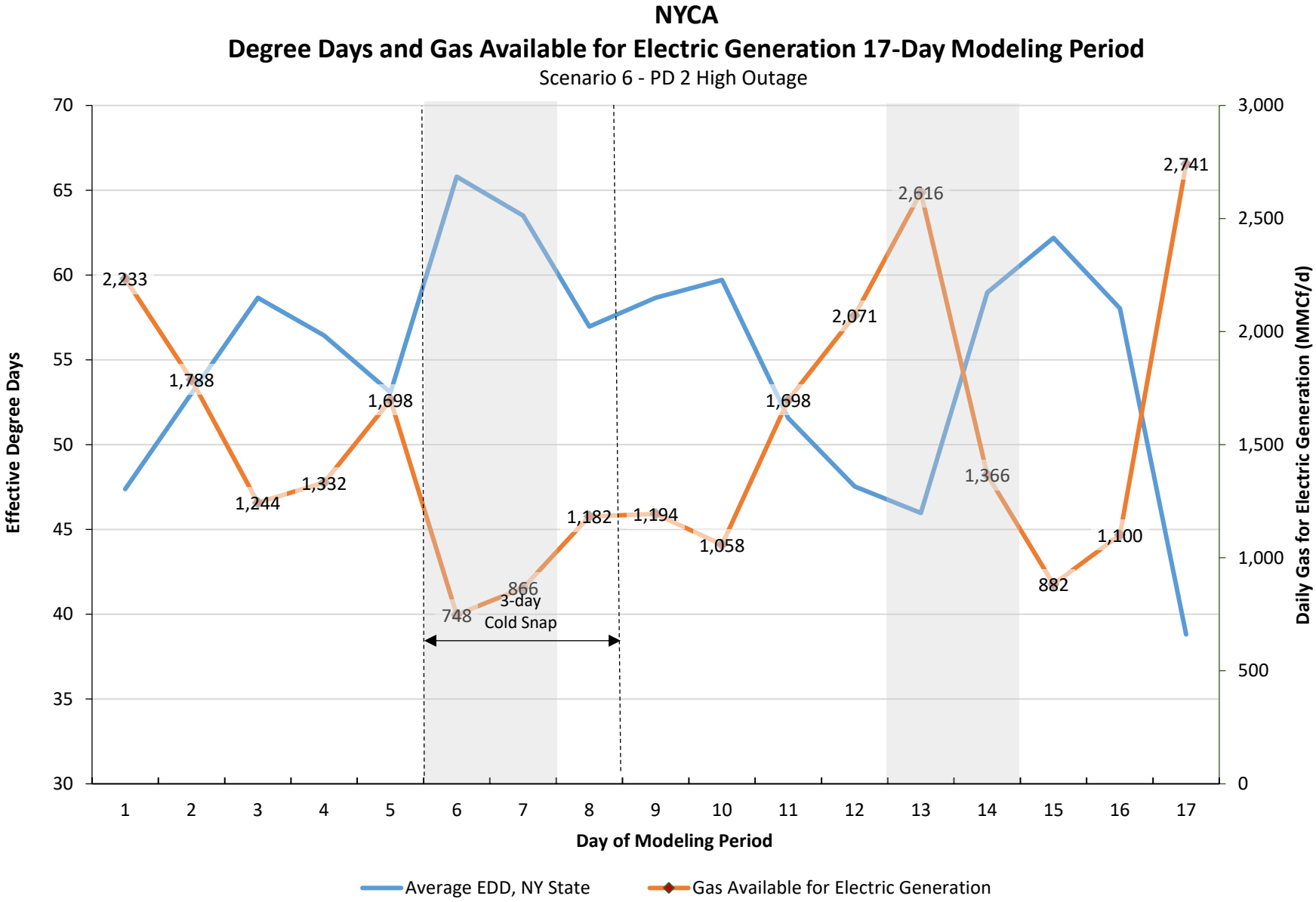
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 2 High Outage



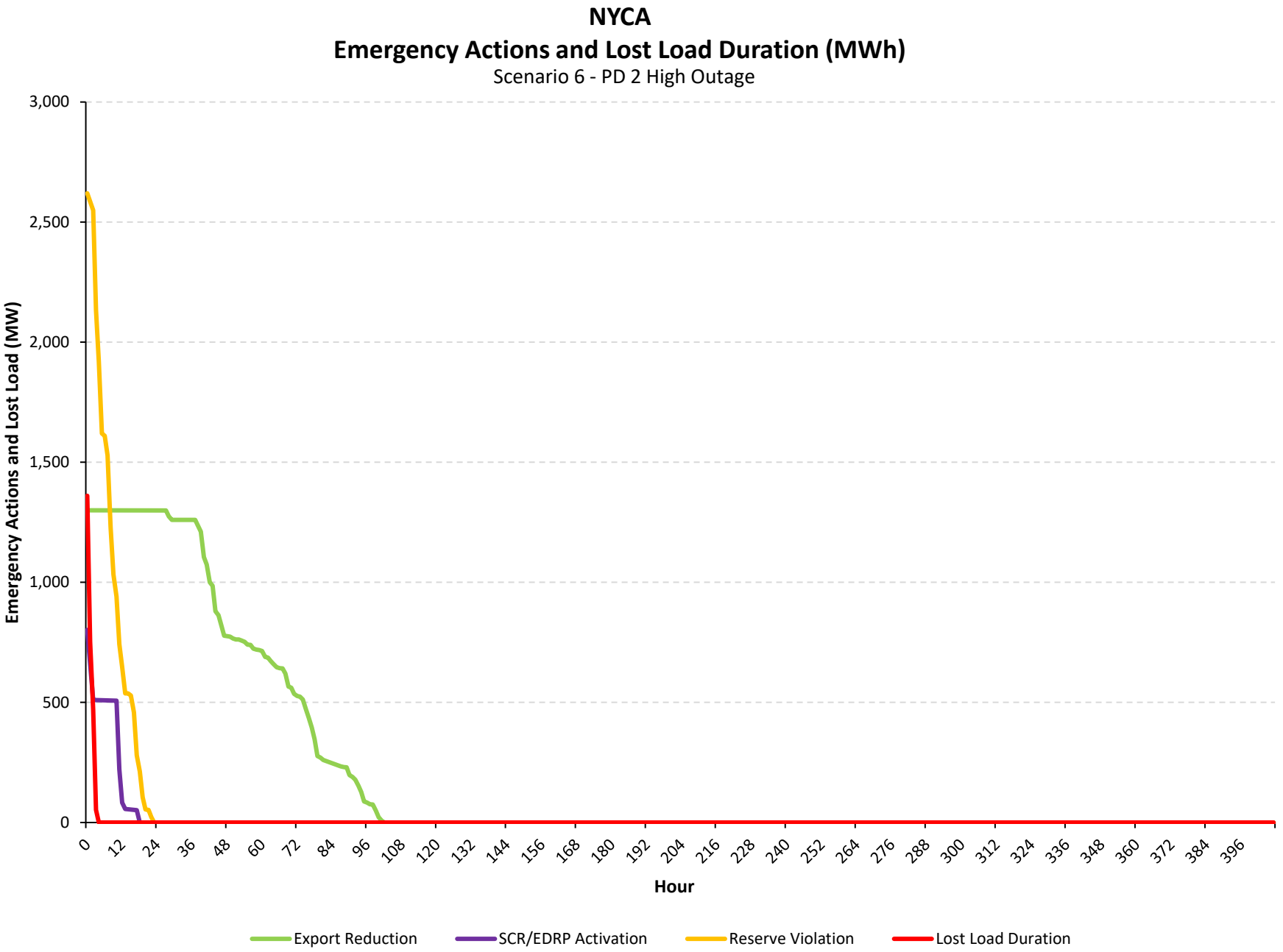
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 2 High Outage

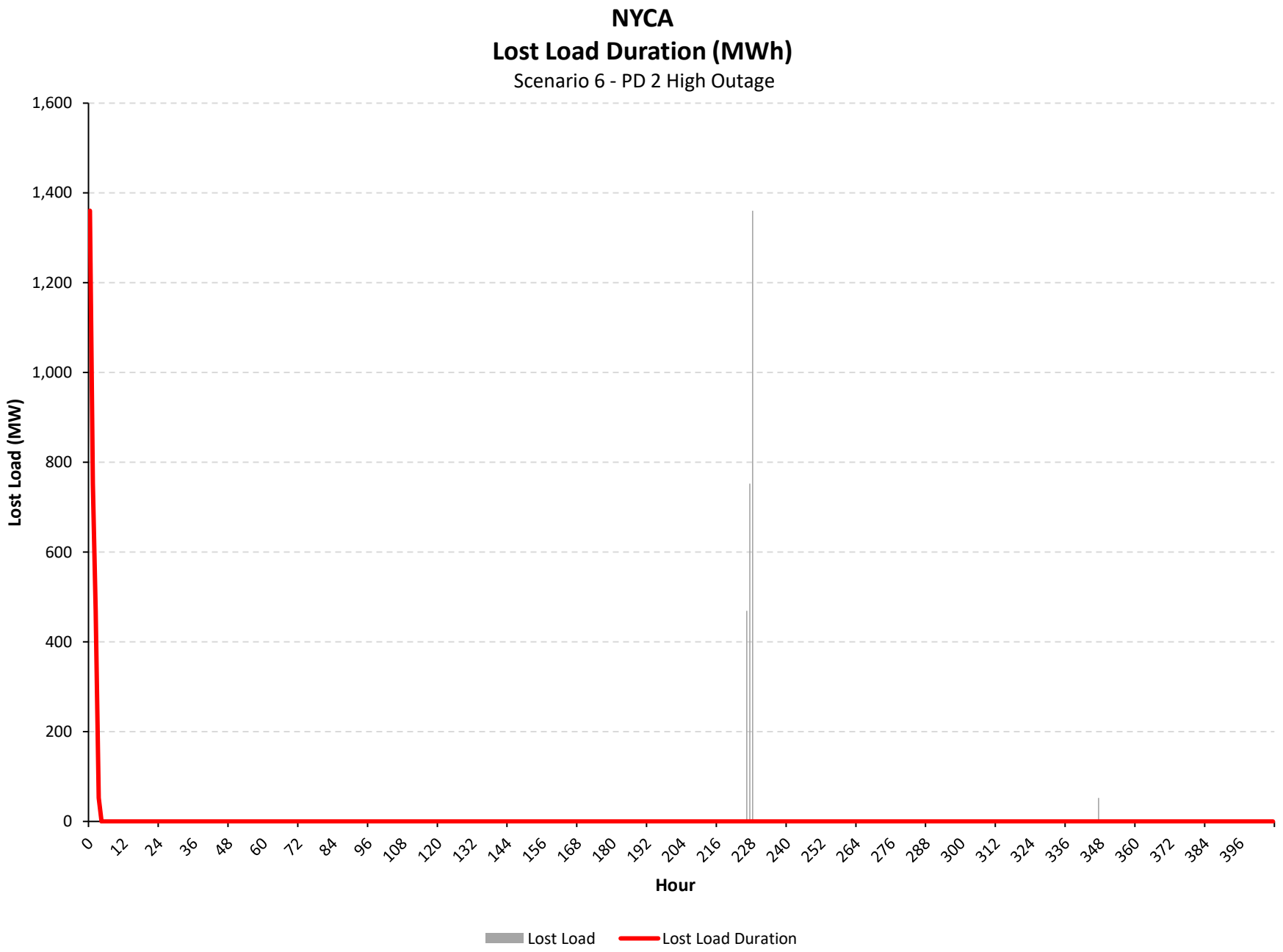



NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 6 - PD 2 High Outage
Energy Stored (MWh)
2,000,000
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Zones A-E
Zone F
Zones G-I
Zone J
Zone K



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 6 - PD 2 High Outage
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 6 - PD 2 High Outage
Lost Load (MW)
1,600
1,400
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

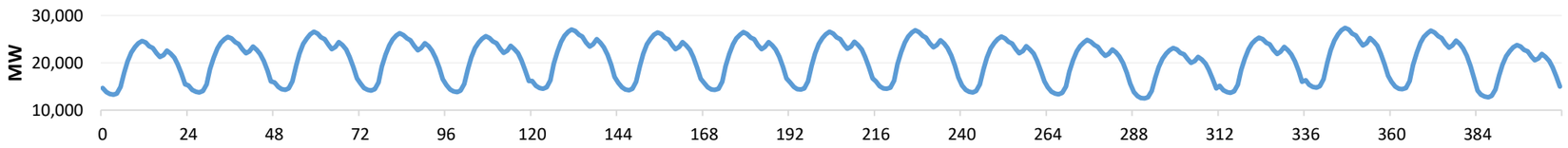
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 6 - PD 3 SENY Deactivation (Winter 2026/2027)

Hourly Results Summary

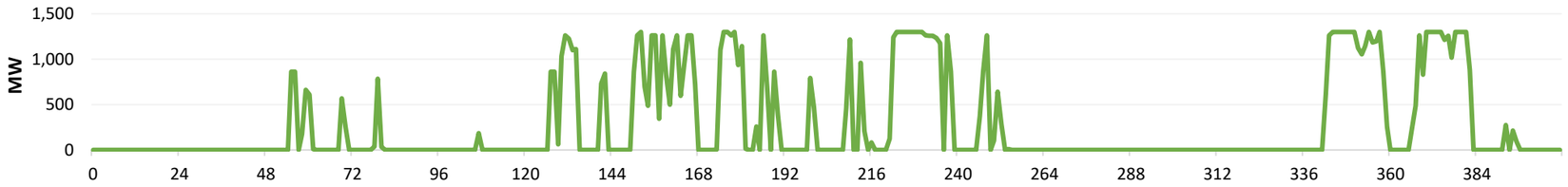
Case Name: Scenario 6 - PD 3 SENY Deactivation

Load During Modeling Period



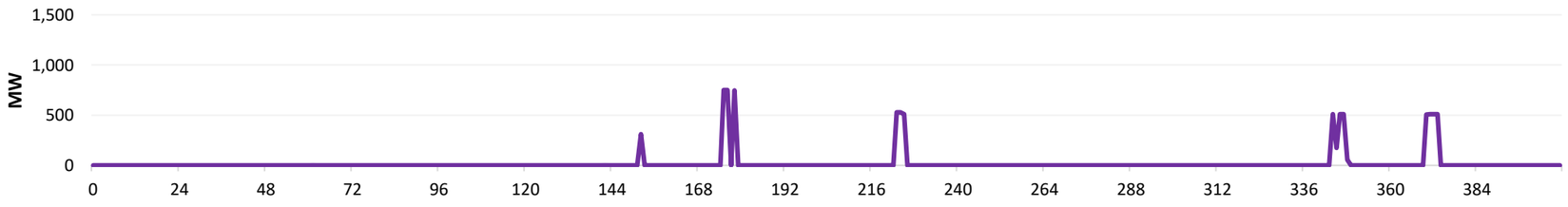
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



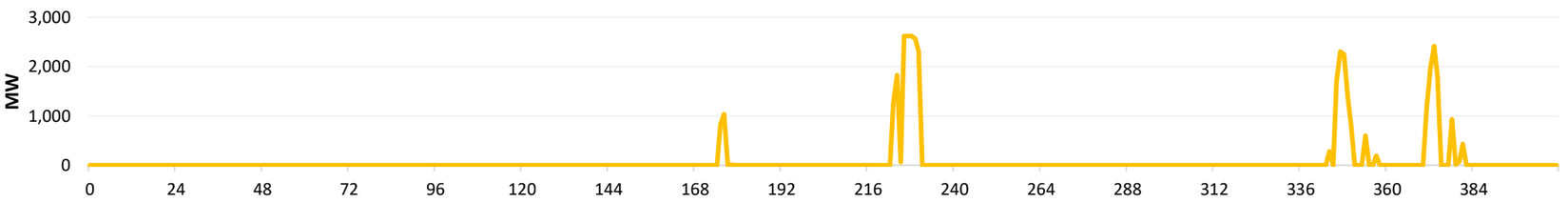
Export Reductions	
Total Hrs.	123
Total MWh	110,857
Avg. MW	271.7

SCR/EDRP Deployed During Modeling Period



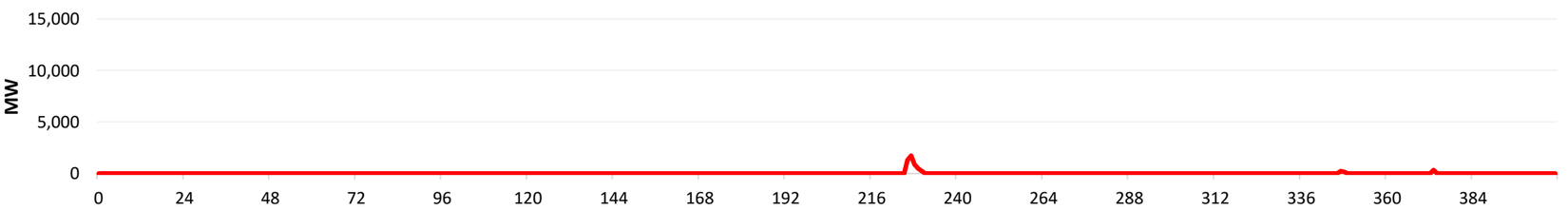
SCR Deployment	
Total Hrs.	16
Total MWh	7,919
Avg. MW	19.4

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	27
Total MWh	36,110
Avg. MW	88.5
First Hour with Viol.	175

Loss of Load During Modeling Period



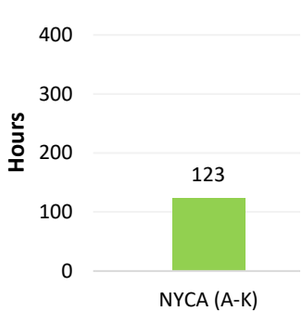
Loss of Load	
Total Hrs.	8
Total MWh	5,365
Avg. MW	13.1
First Hour with Losses	226

Full Period Results Summary

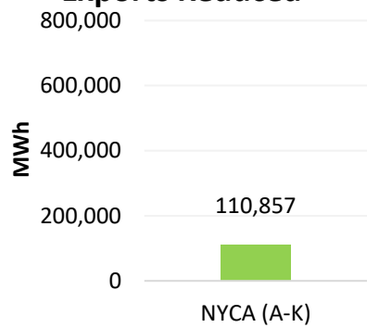
Case Name: Scenario 6 - PD 3 SENY Deactivation

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	Net Zero

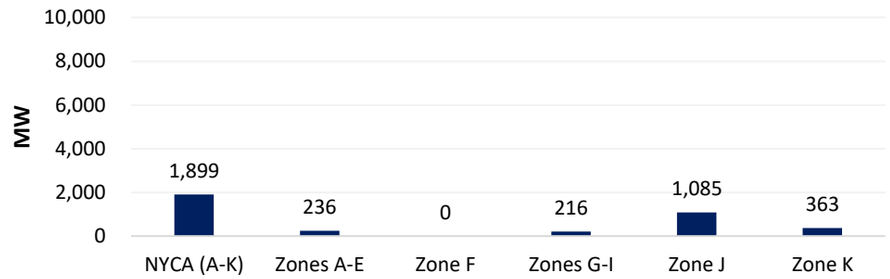
Hours Exports Reduced



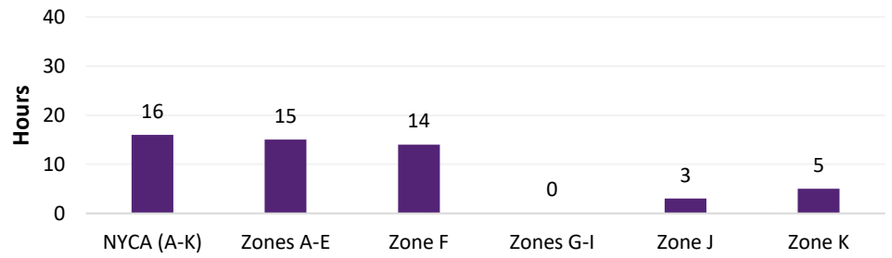
Total MWh of Exports Reduced



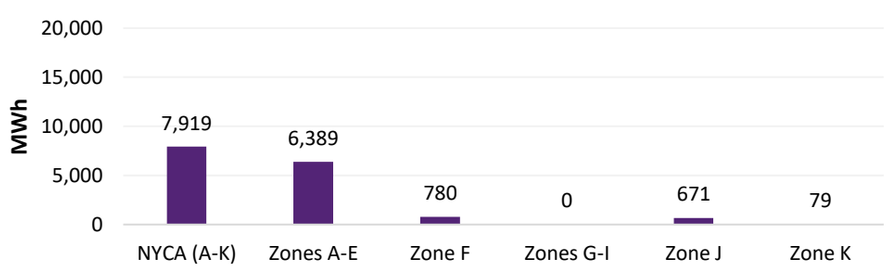
Average Capacity Not Available Due to Exhausted Fuel Inventory



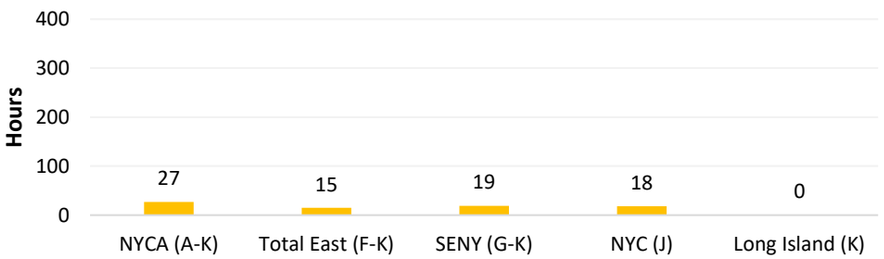
Hours SCR/EDRP Deployed



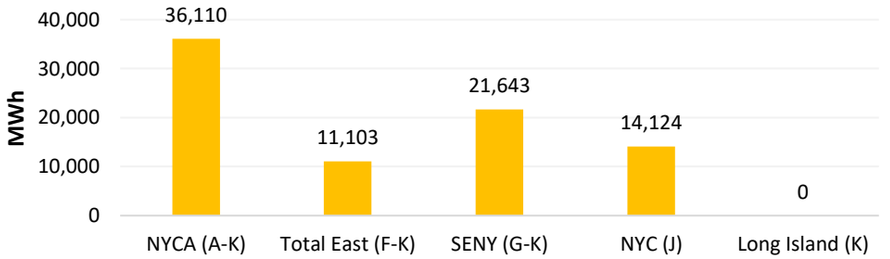
Total MWh SCR/EDRP Deployed



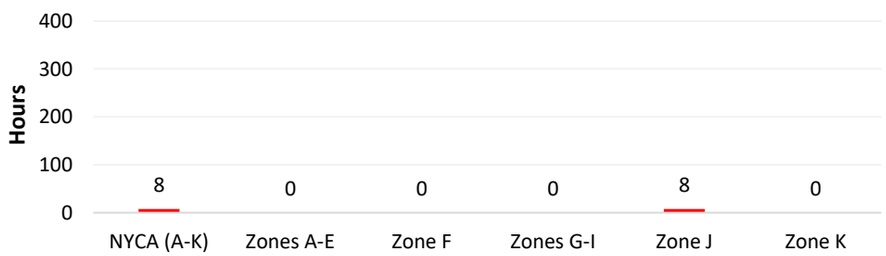
Hours with Reserve Violations



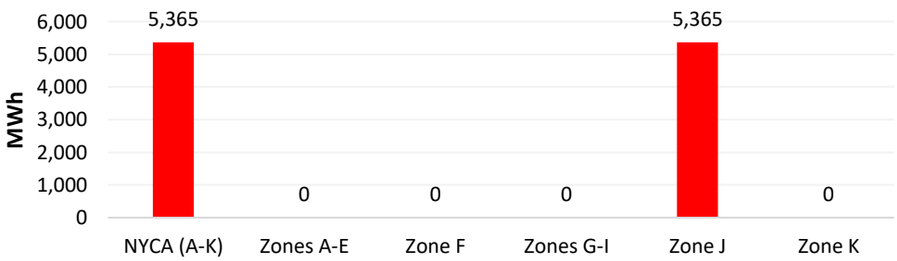
Total MWh of Reserve Violations

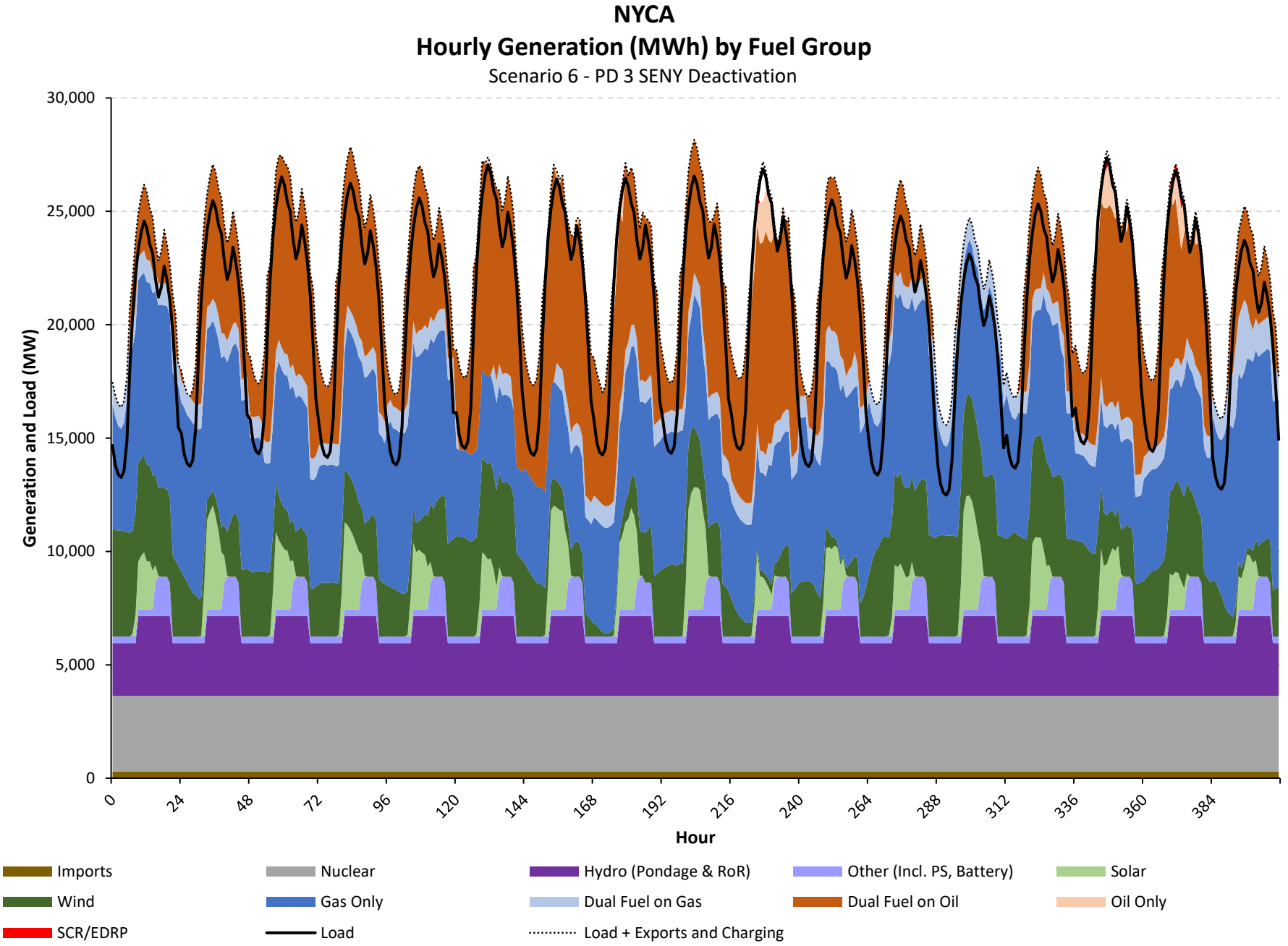


Hours with Loss of Load

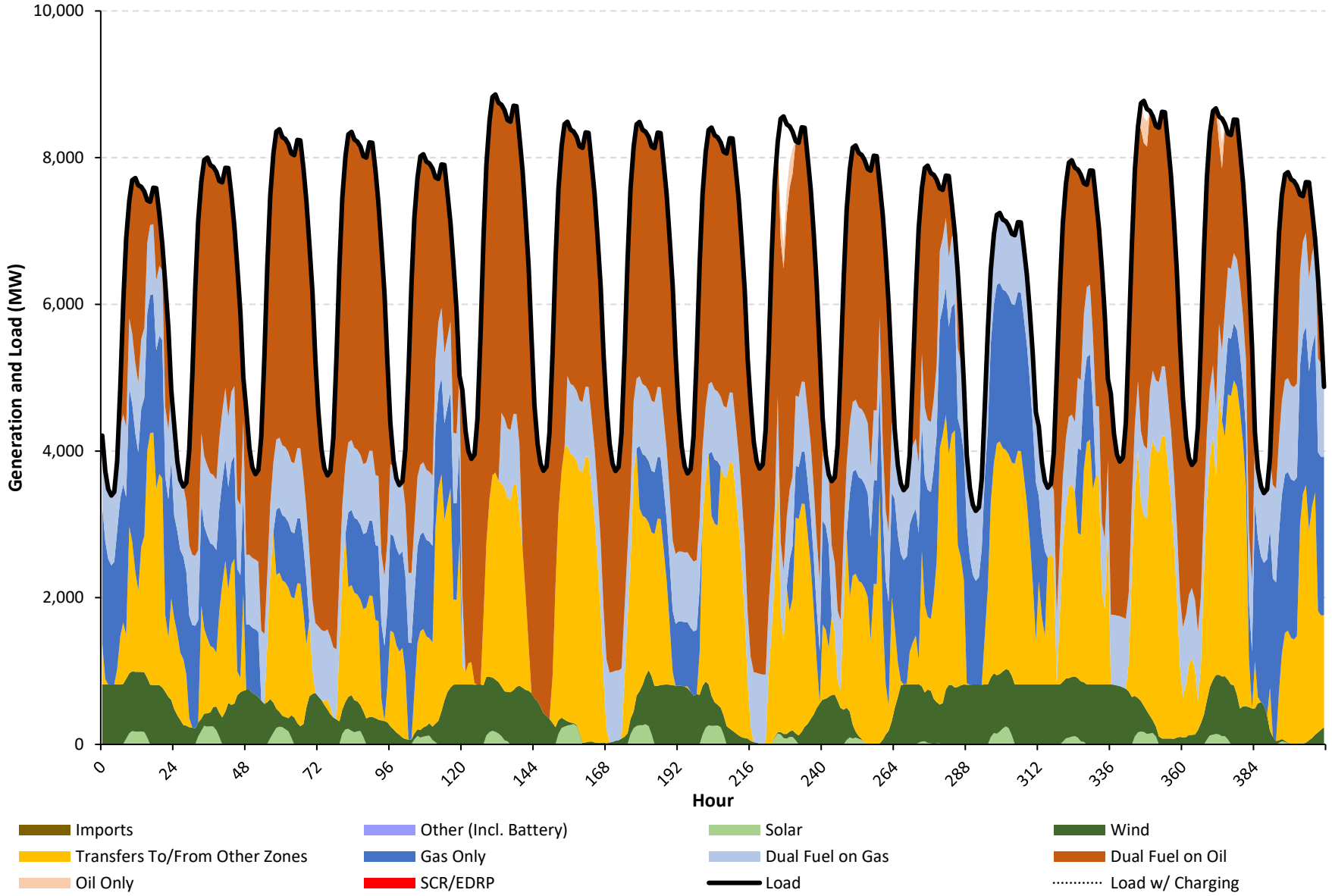


Total MWh of Lost Load

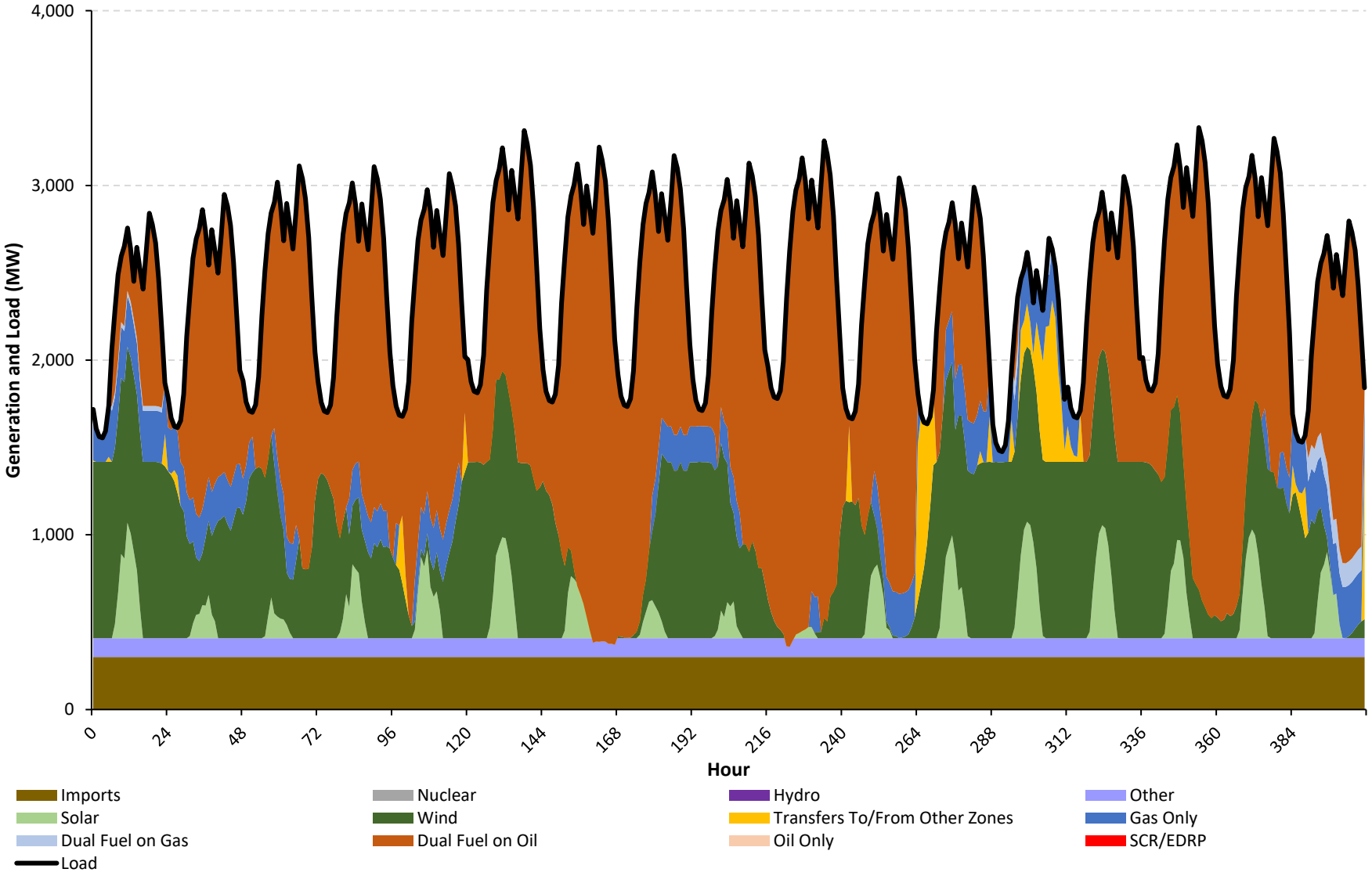



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 6 - PD 3 SENY Deactivation
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 3 SENY Deactivation



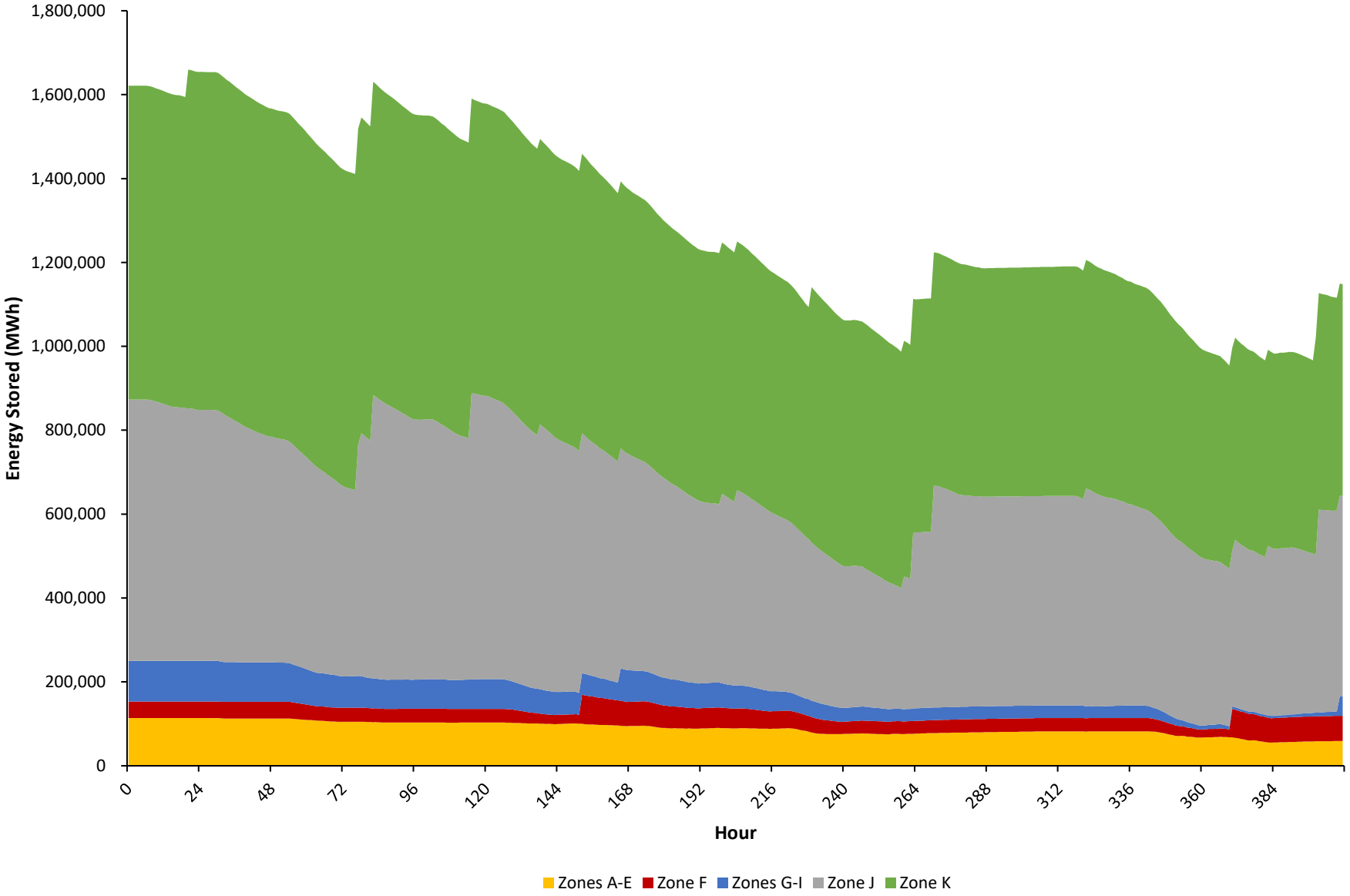
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 3 SENY Deactivation

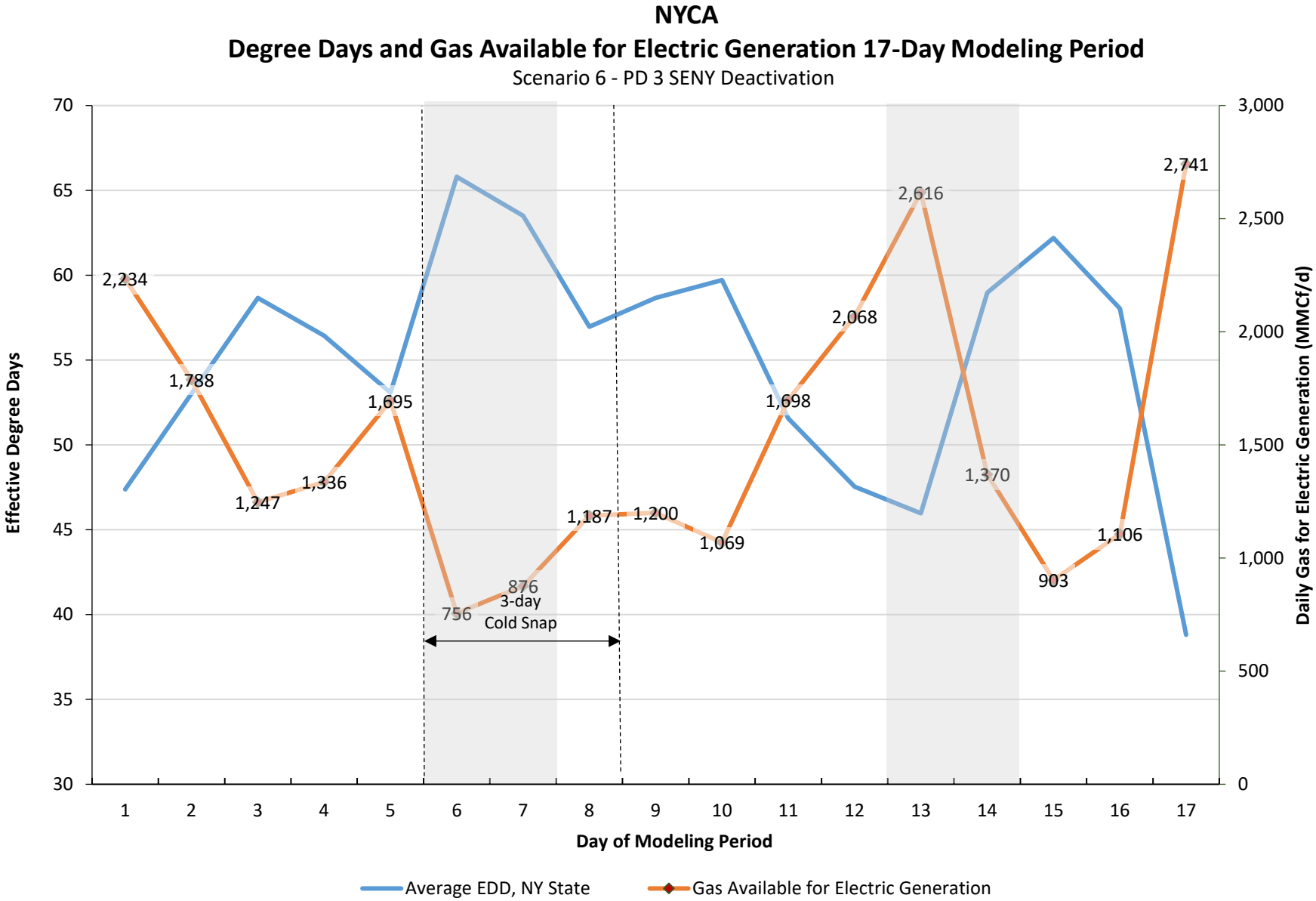


NYCA

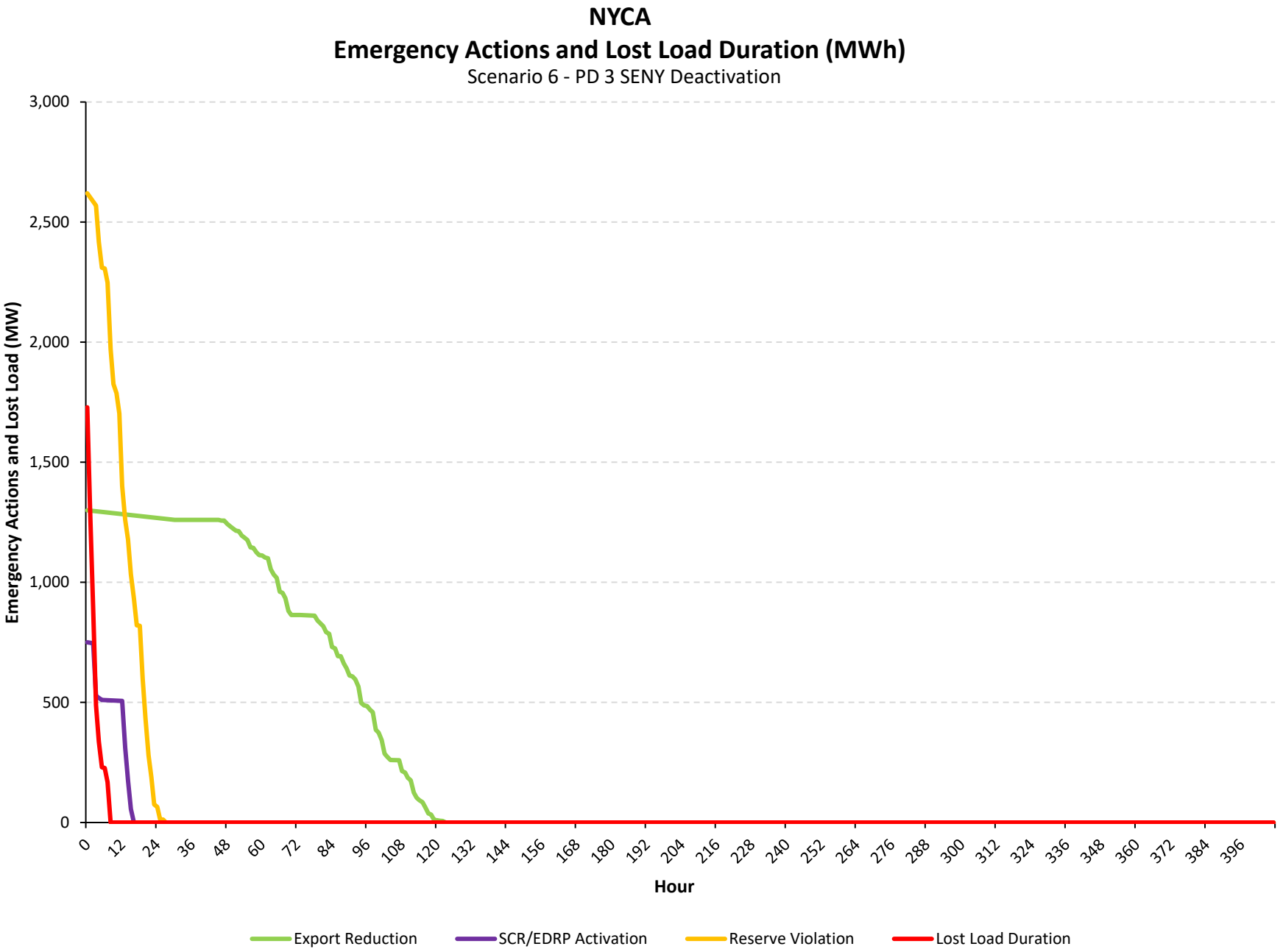
Quantity of Stored Fuel for Oil and Dual Fuel Units

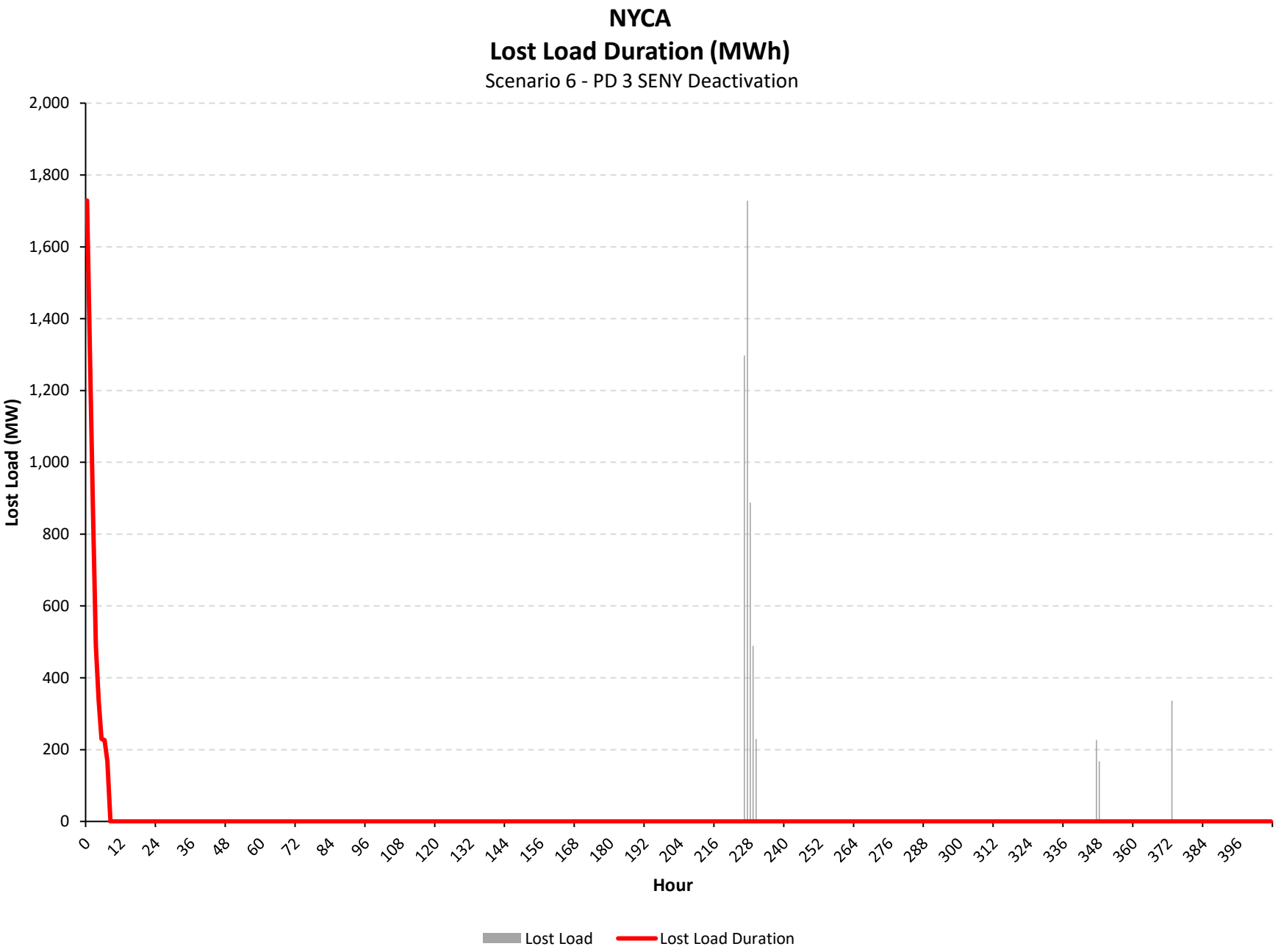
Scenario 6 - PD 3 SENY Deactivation





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 6 - PD 3 SENY Deactivation
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 6 - PD 3 SENY Deactivation
Lost Load (MW)
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

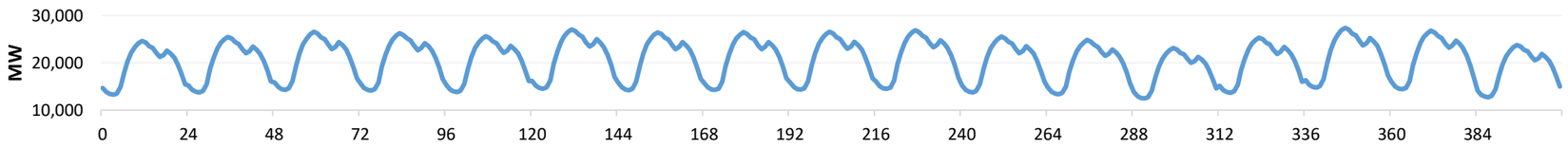
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 6 - PD 4 Nuclear Station Outage (Winter 2026/2027)

Hourly Results Summary

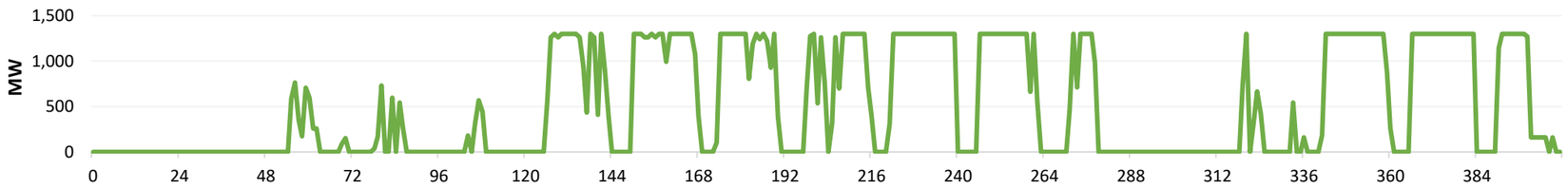
Case Name: Scenario 6 - PD 4 Nuclear Station Outage

Load During Modeling Period



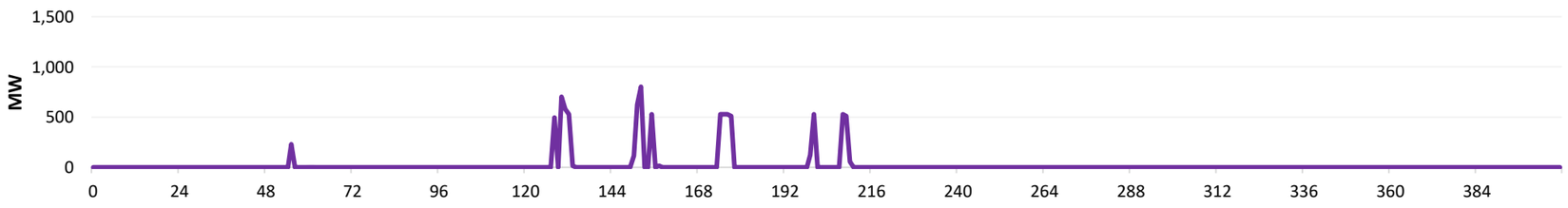
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



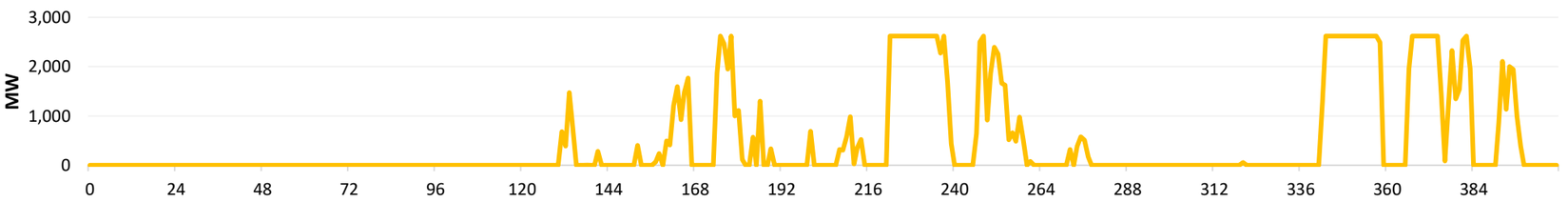
Export Reductions	
Total Hrs.	197
Total MWh	205,022
Avg. MW	502.5

SCR/EDRP Deployed During Modeling Period



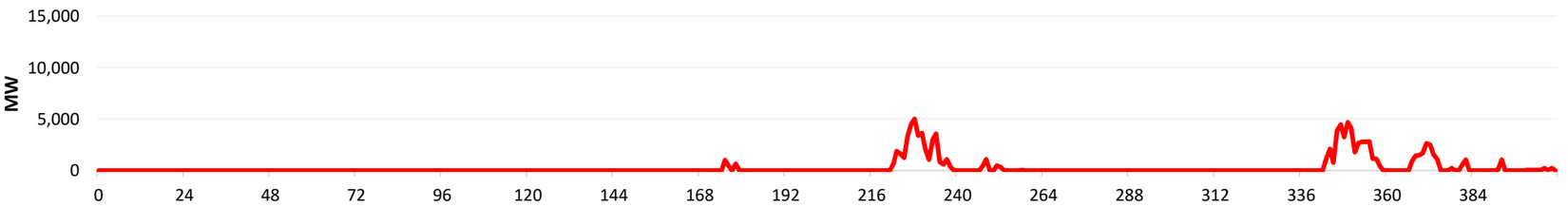
SCR Deployment	
Total Hrs.	20
Total MWh	8,469
Avg. MW	20.8

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	116
Total MWh	187,746
Avg. MW	460.2
First Hour with Viol.	131

Loss of Load During Modeling Period



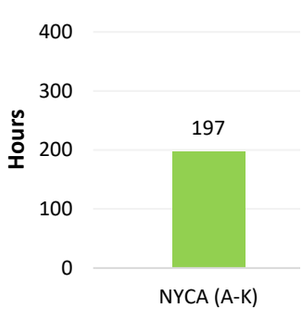
Loss of Load	
Total Hrs.	62
Total MWh	99,461
Avg. MW	243.8
First Hour with Losses	175

Full Period Results Summary

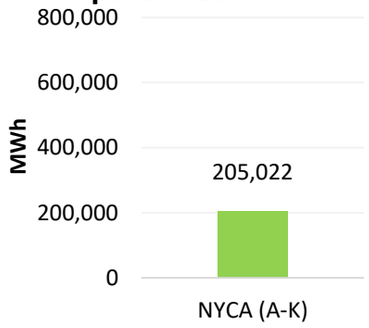
Case Name: Scenario 6 - PD 4 Nuclear Station Outage

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	Net Zero

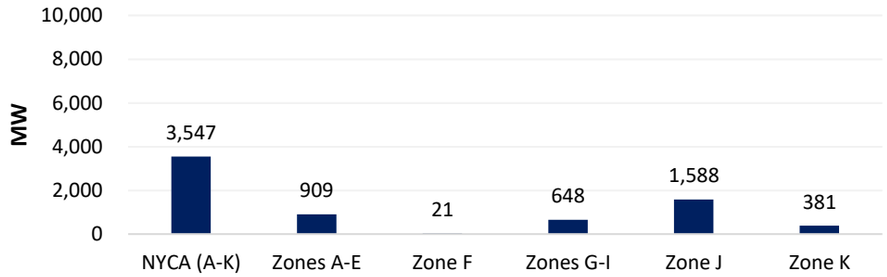
Hours Exports Reduced



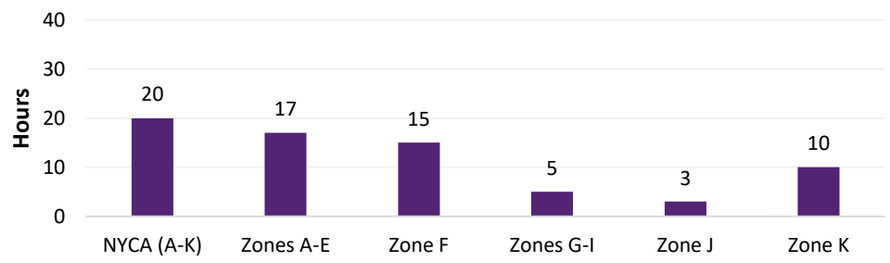
Total MWh of Exports Reduced



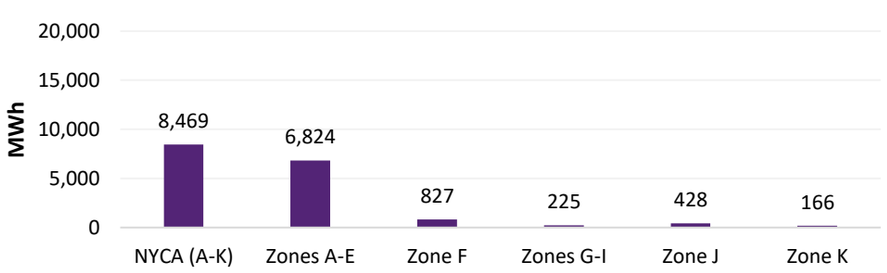
Average Capacity Not Available Due to Exhausted Fuel Inventory



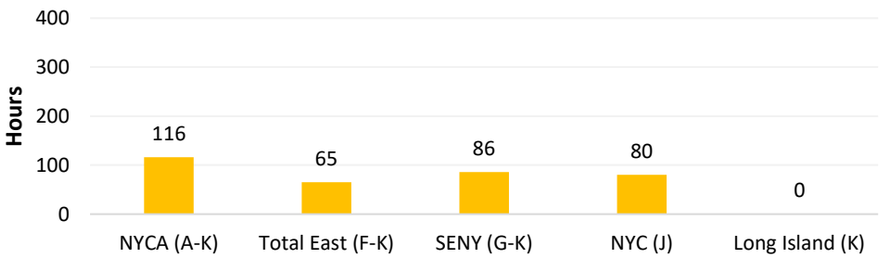
Hours SCR/EDRP Deployed



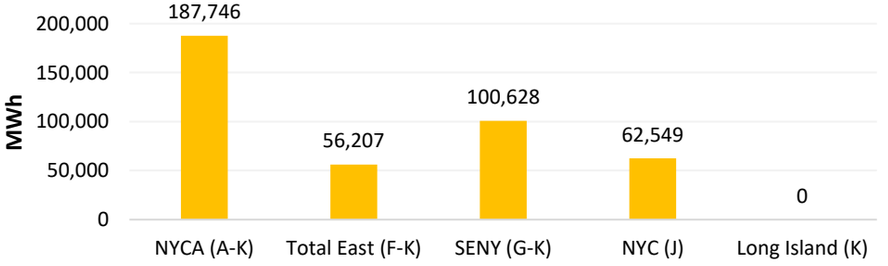
Total MWh SCR/EDRP Deployed



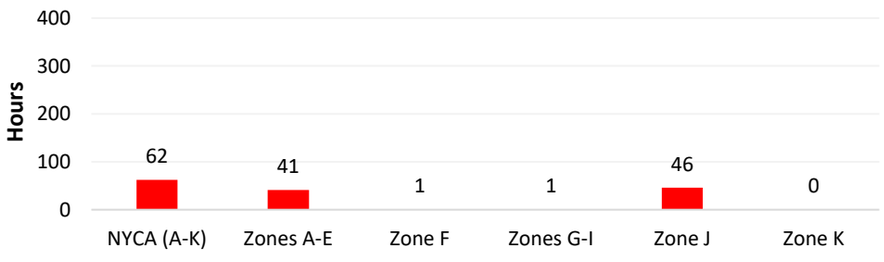
Hours with Reserve Violations



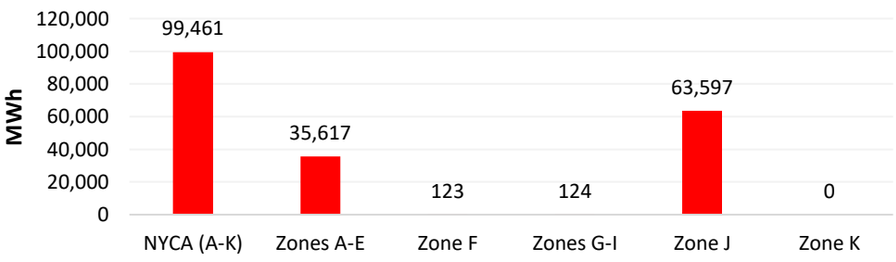
Total MWh of Reserve Violations

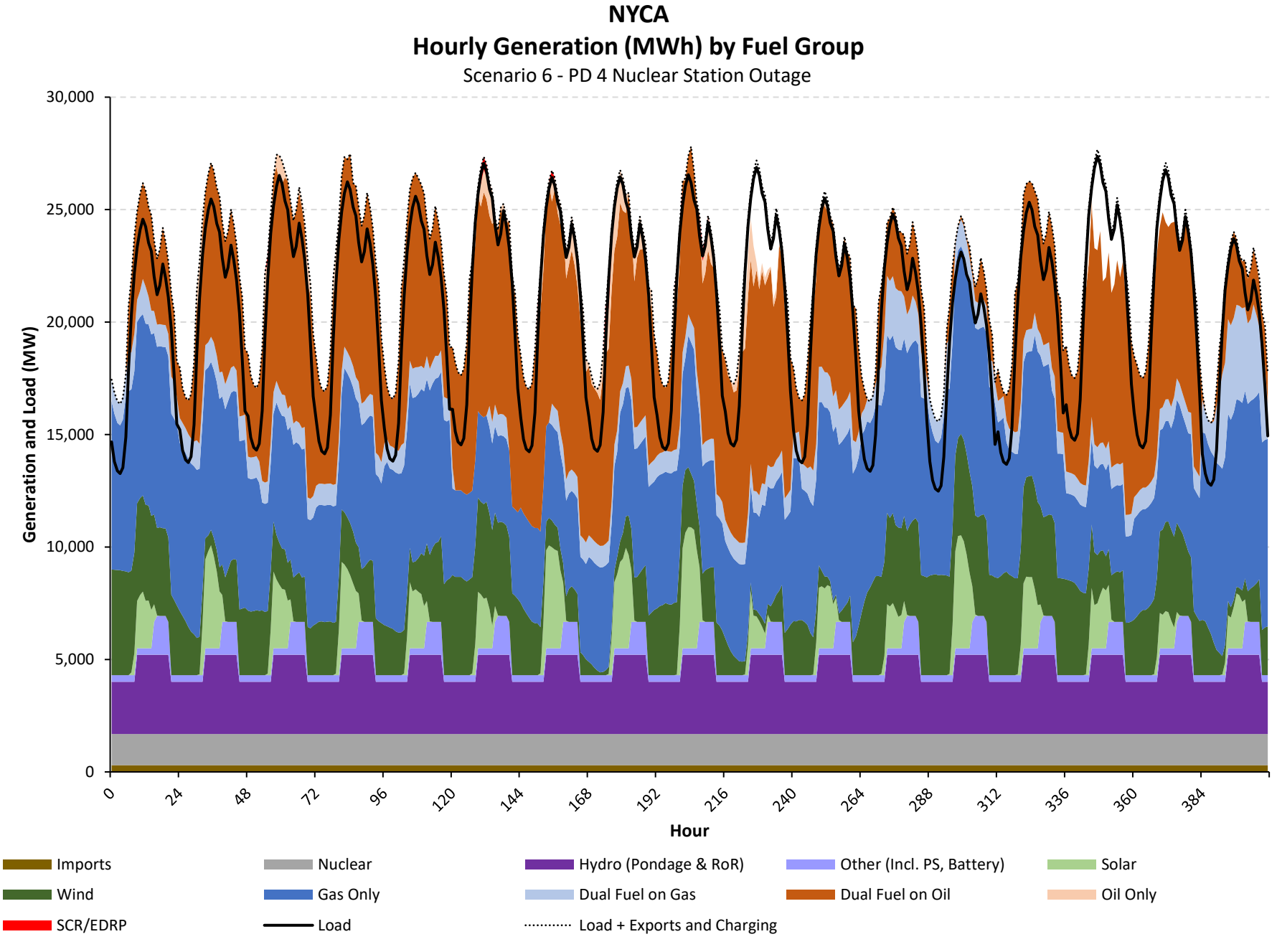


Hours with Loss of Load

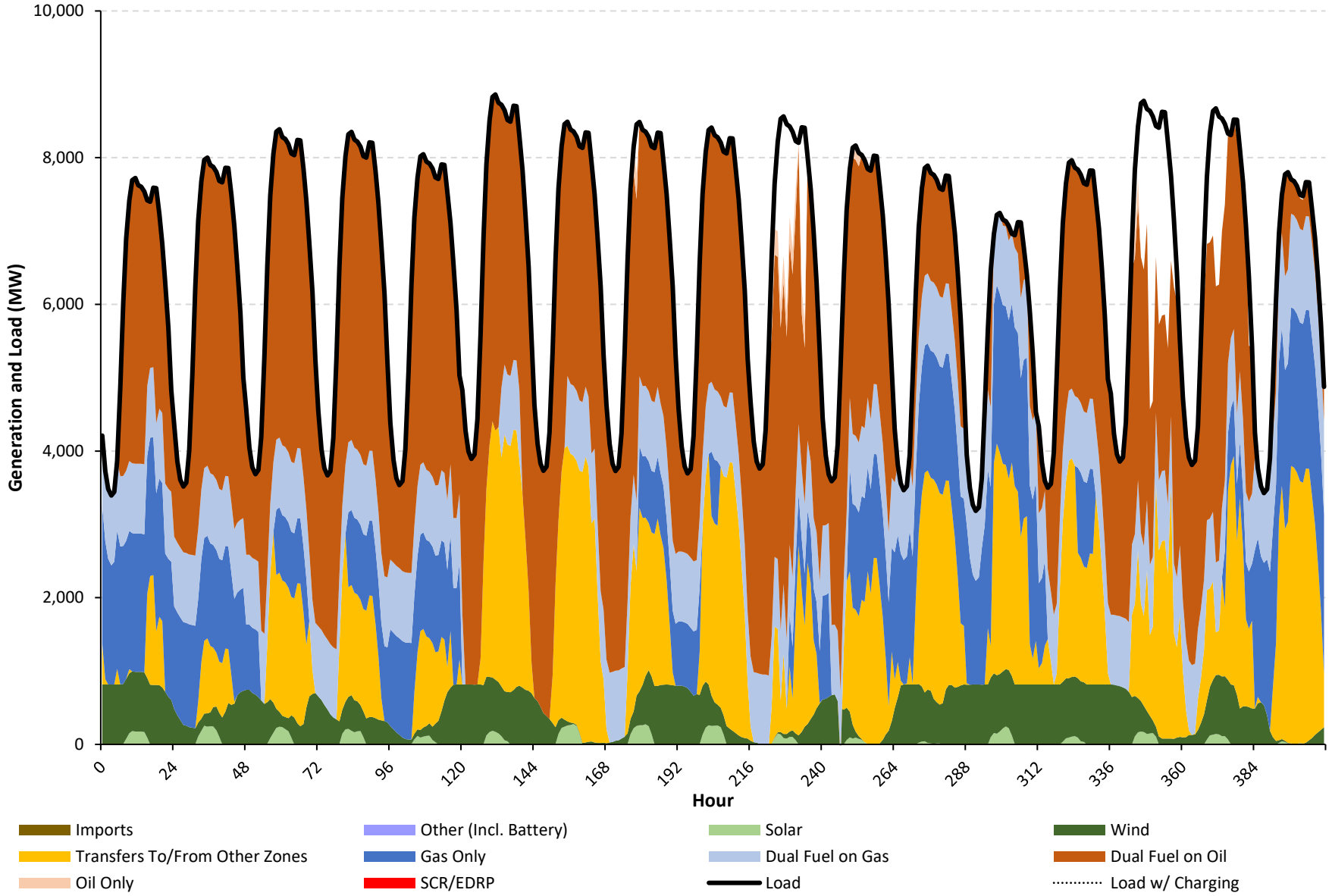


Total MWh of Lost Load

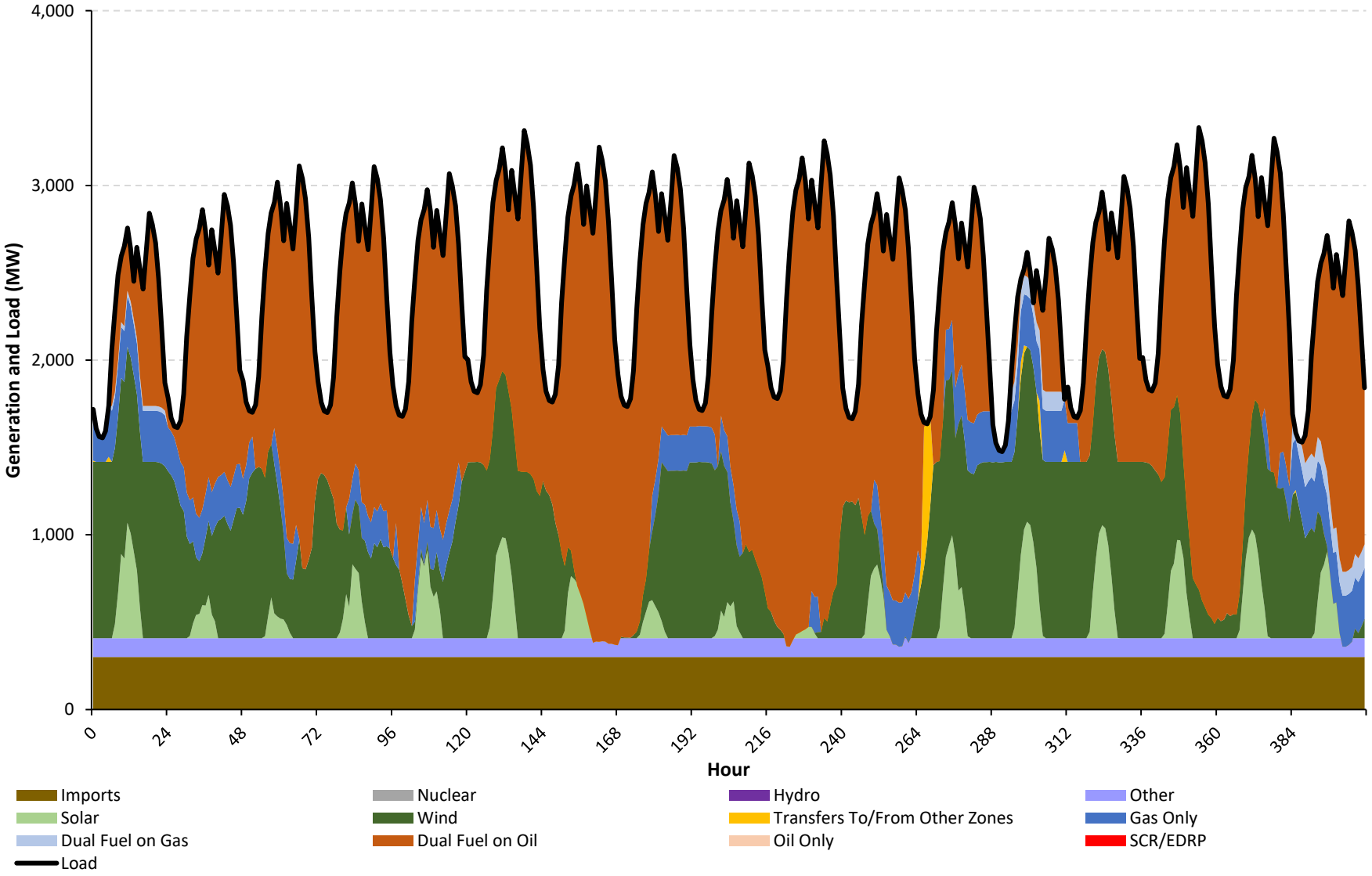



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 6 - PD 4 Nuclear Station Outage
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 4 Nuclear Station Outage



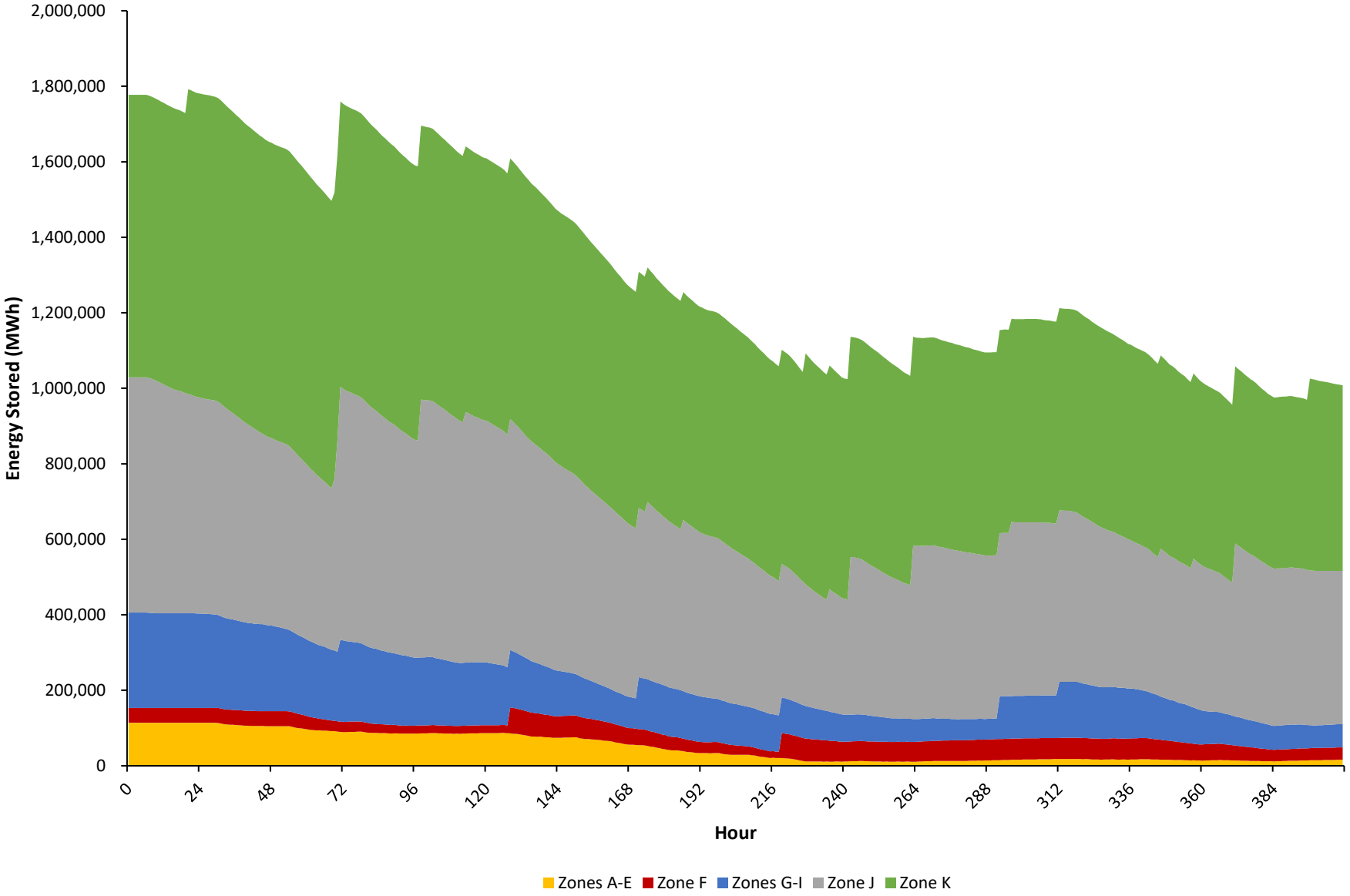
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 4 Nuclear Station Outage

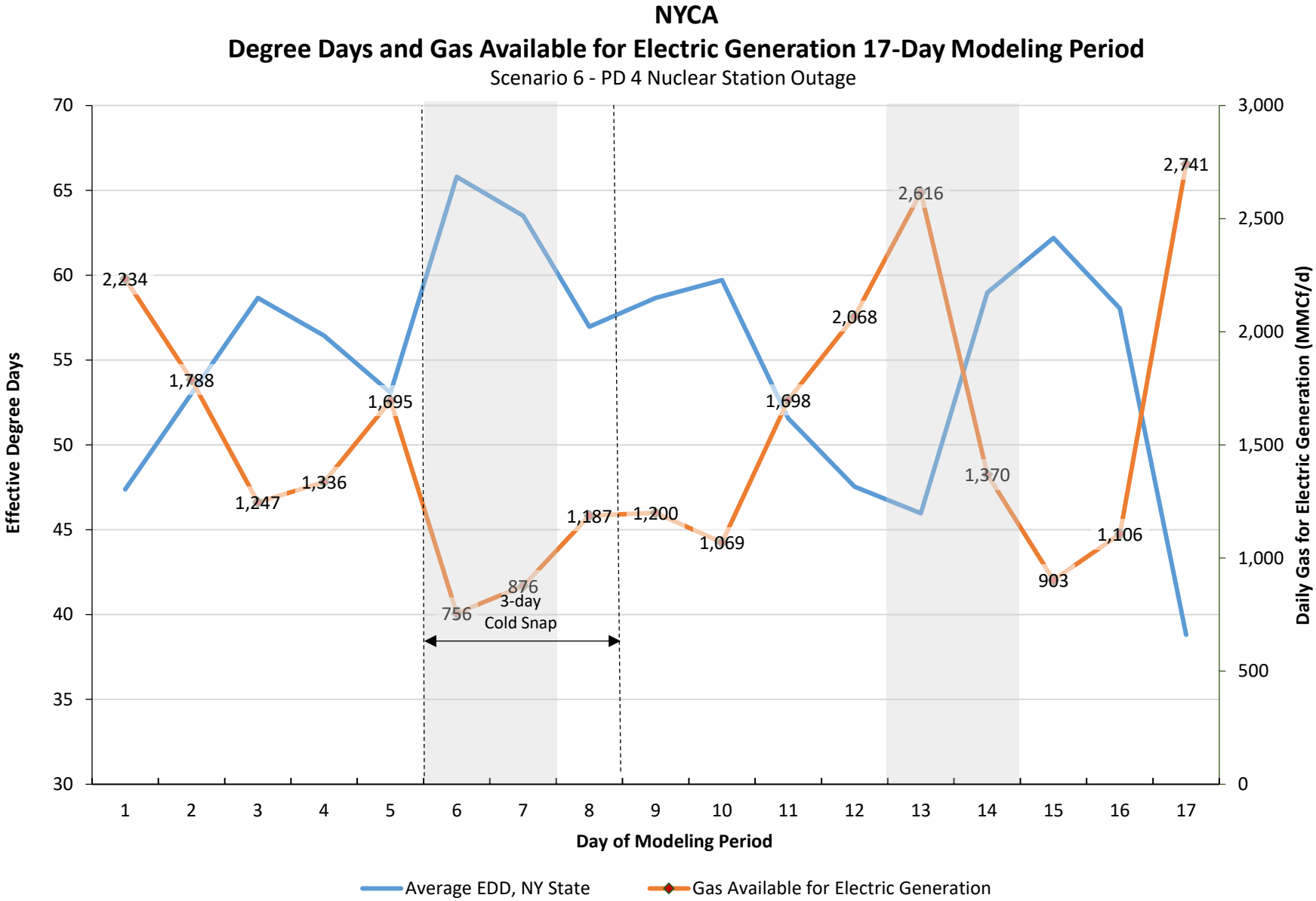


NYCA

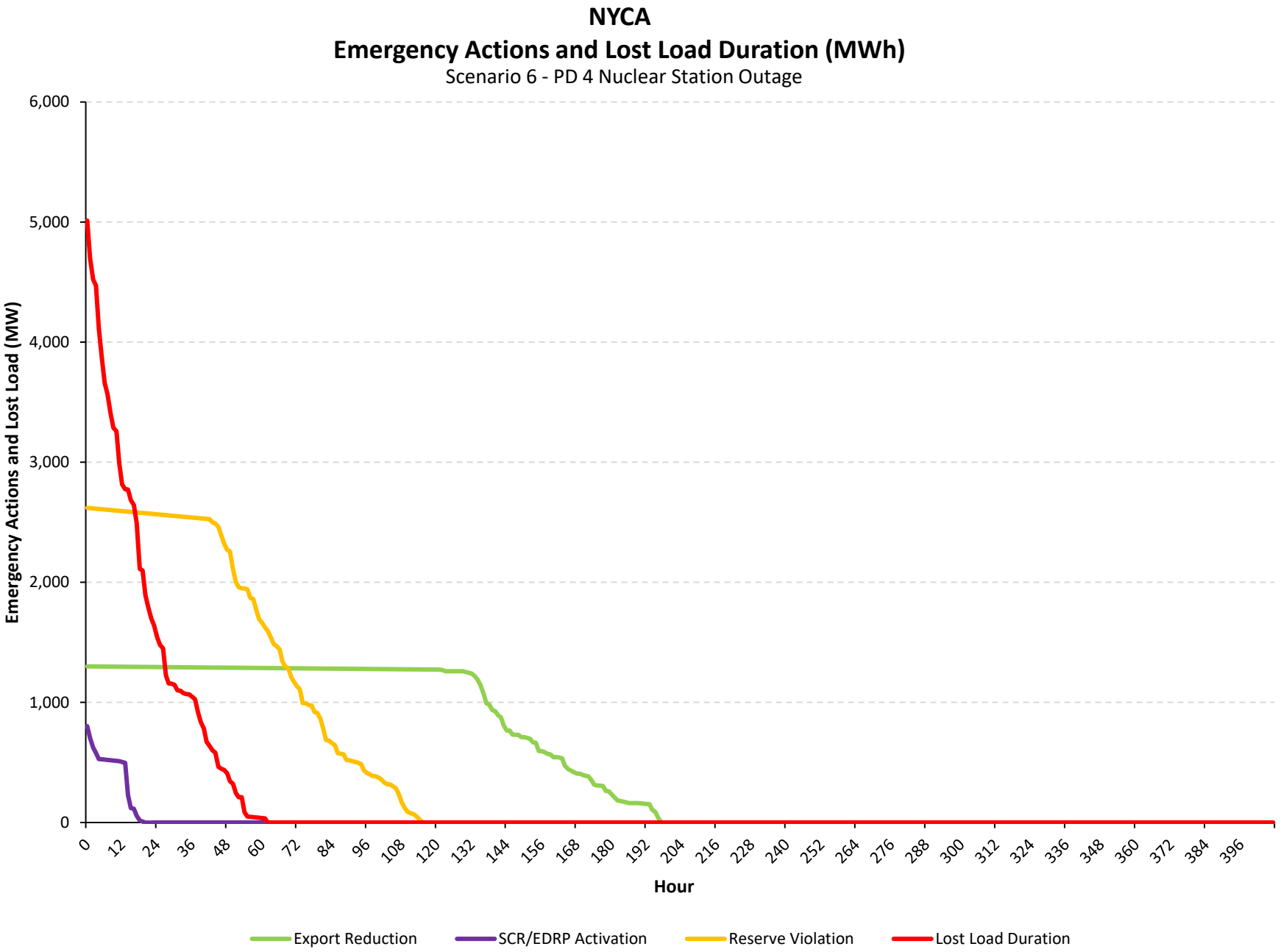
Quantity of Stored Fuel for Oil and Dual Fuel Units

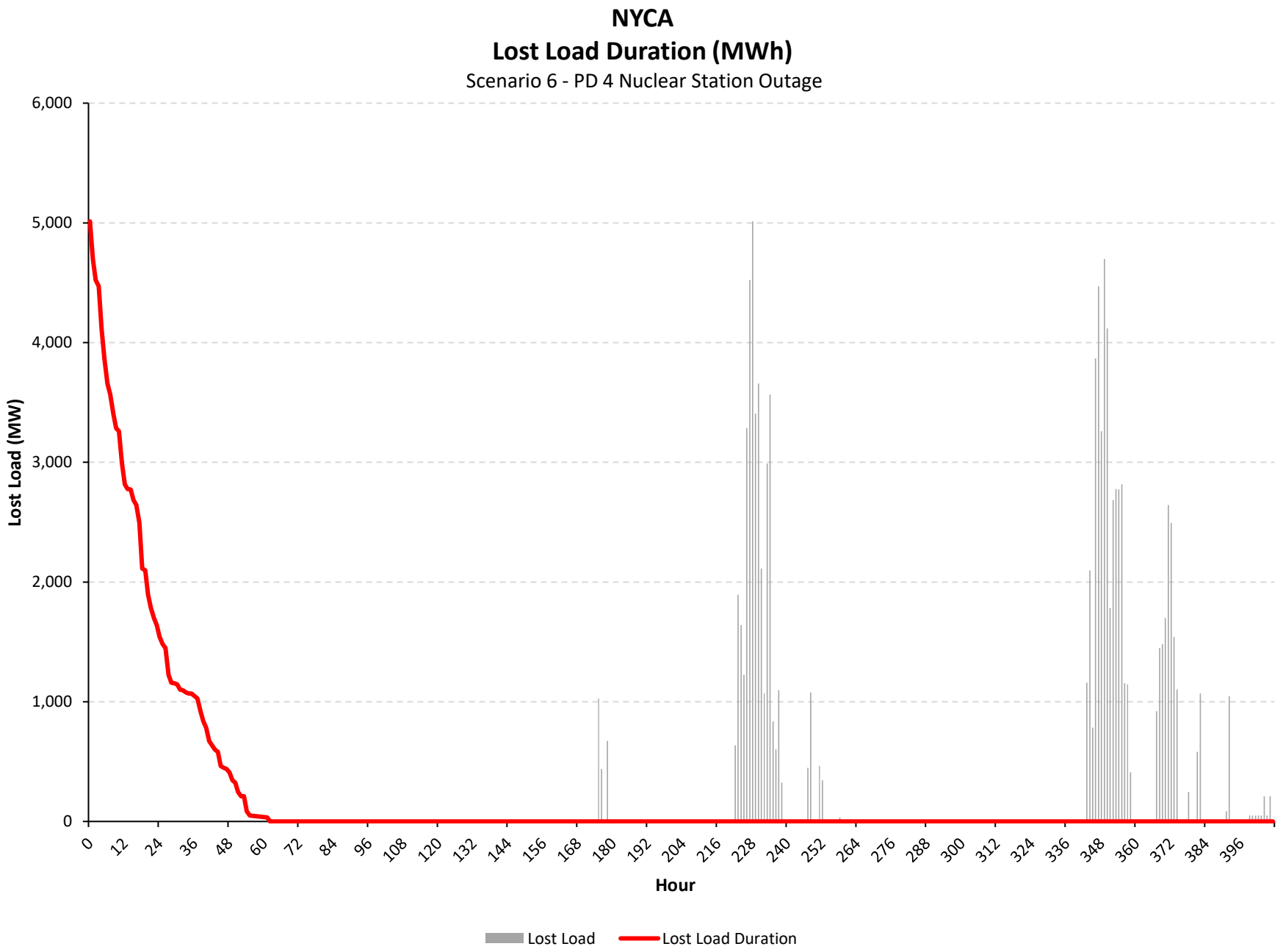
Scenario 6 - PD 4 Nuclear Station Outage





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 6 - PD 4 Nuclear Station Outage
Emergency Actions and Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 6 - PD 4 Nuclear Station Outage
Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

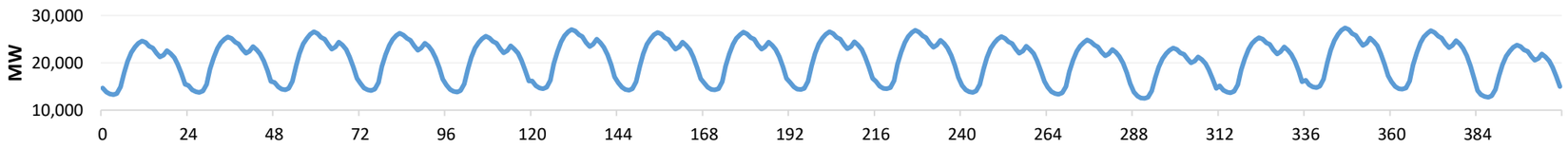
Case: Scenario 6 - PD 5 No Truck Refill (Winter 2026/2027)

Hourly Results Summary

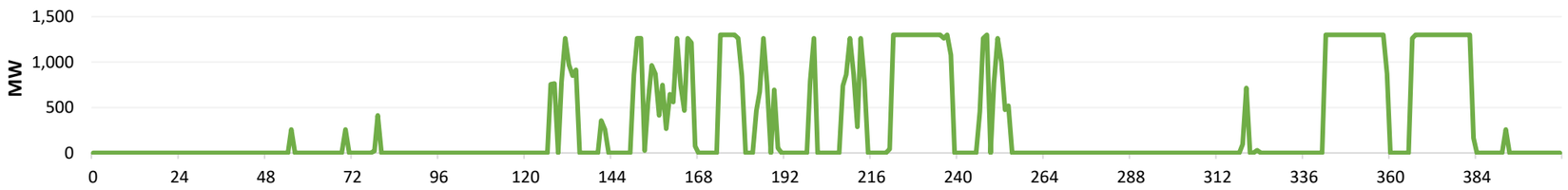
Case Name: Scenario 6 - PD 5 No Truck Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Load During Modeling Period

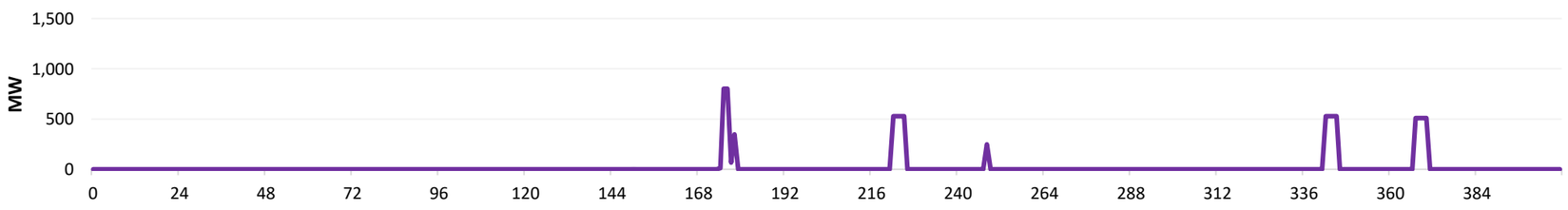


Export to ISO-NE Reduction During Modeling Period



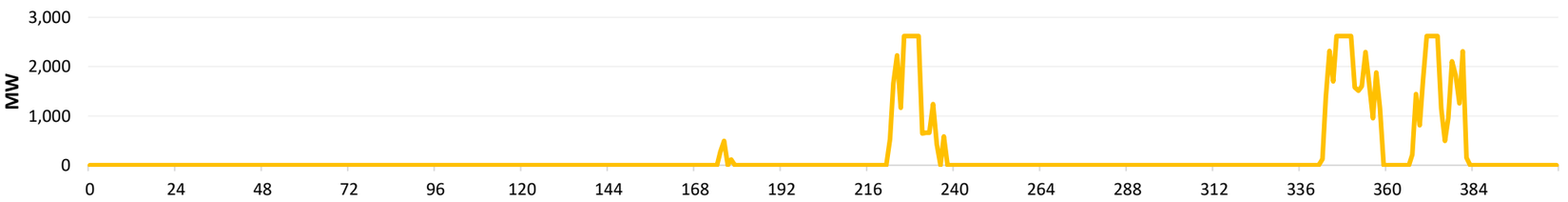
Export Reductions	
Total Hrs.	119
Total MWh	117,149
Avg. MW	287.1

SCR/EDRP Deployed During Modeling Period



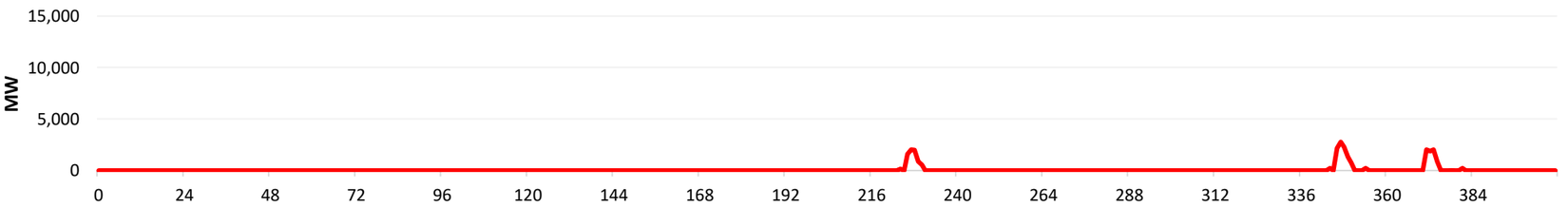
SCR Deployment	
Total Hrs.	18
Total MWh	8,532
Avg. MW	20.9

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	51
Total MWh	79,909
Avg. MW	195.9
First Hour with Viol.	175

Loss of Load During Modeling Period



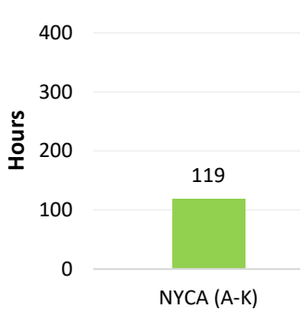
Loss of Load	
Total Hrs.	19
Total MWh	24,119
Avg. MW	59.1
First Hour with Losses	224

Full Period Results Summary

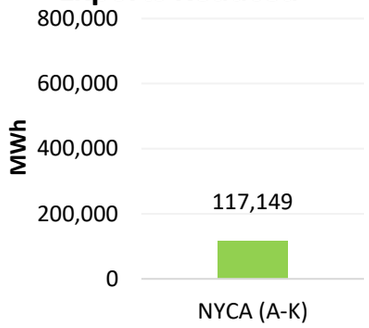
Case Name: Scenario 6 - PD 5 No Truck Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

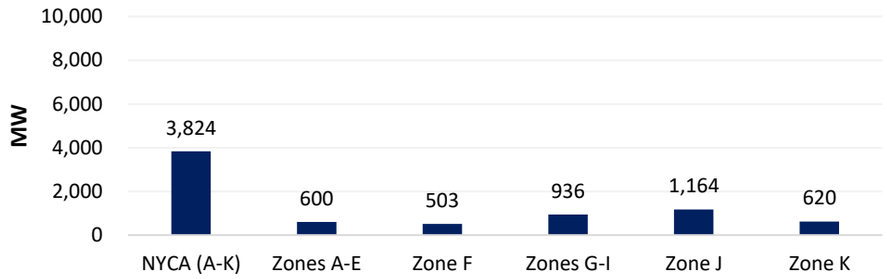
Hours Exports Reduced



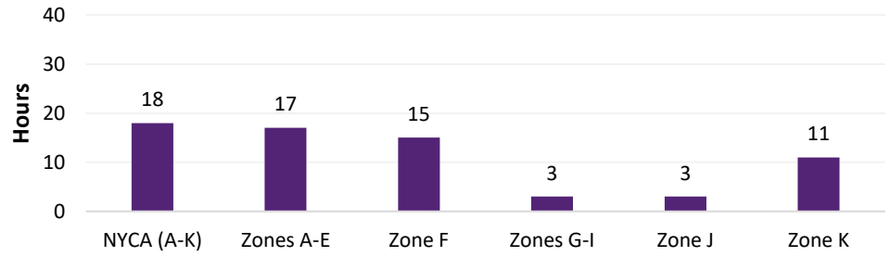
Total MWh of Exports Reduced



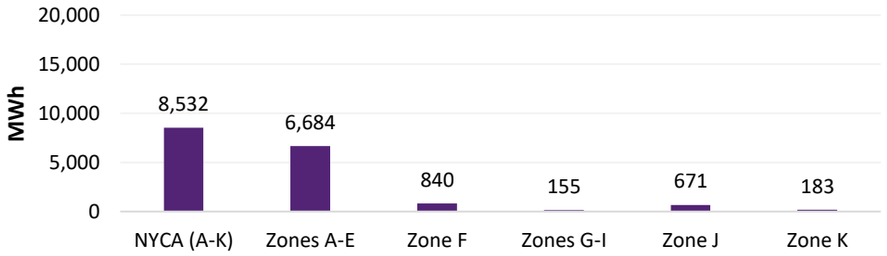
Average Capacity Not Available Due to Exhausted Fuel Inventory



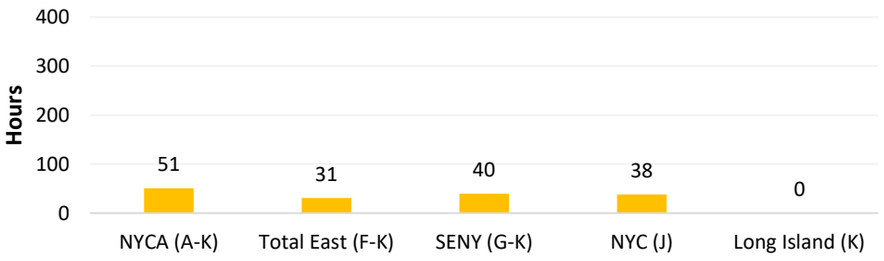
Hours SCR/EDRP Deployed



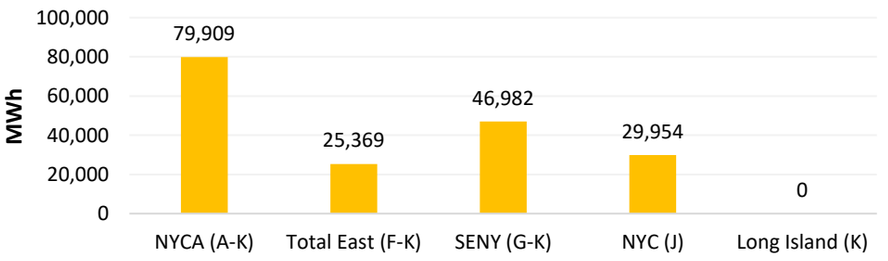
Total MWh SCR/EDRP Deployed



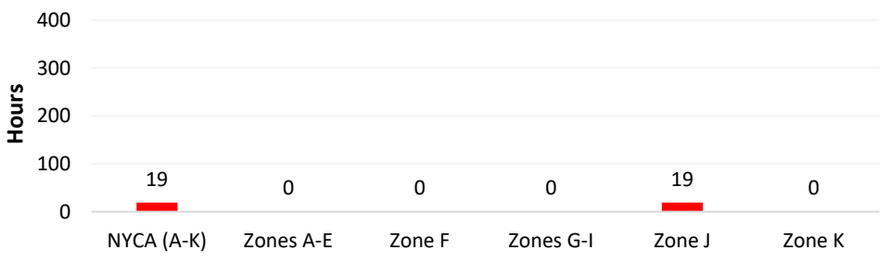
Hours with Reserve Violations



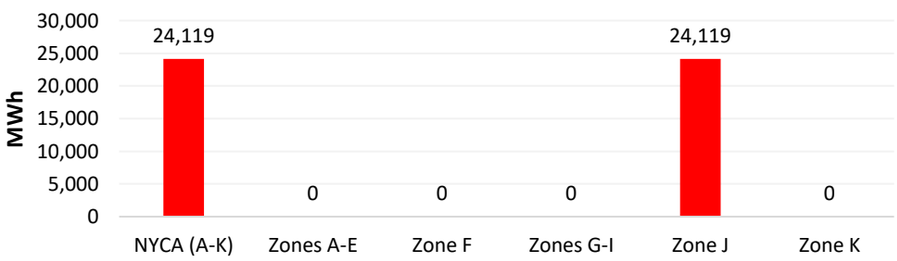
Total MWh of Reserve Violations

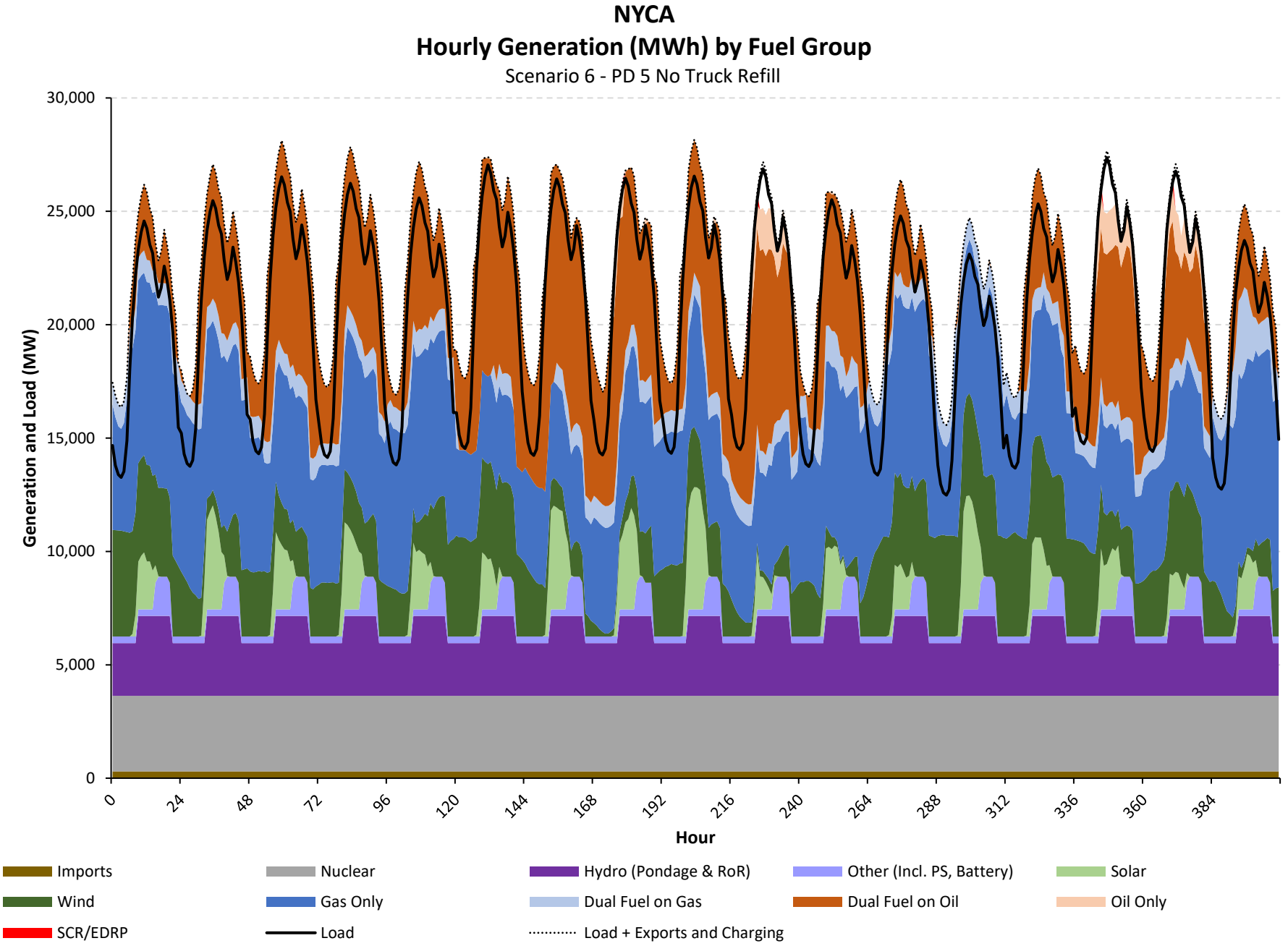


Hours with Loss of Load

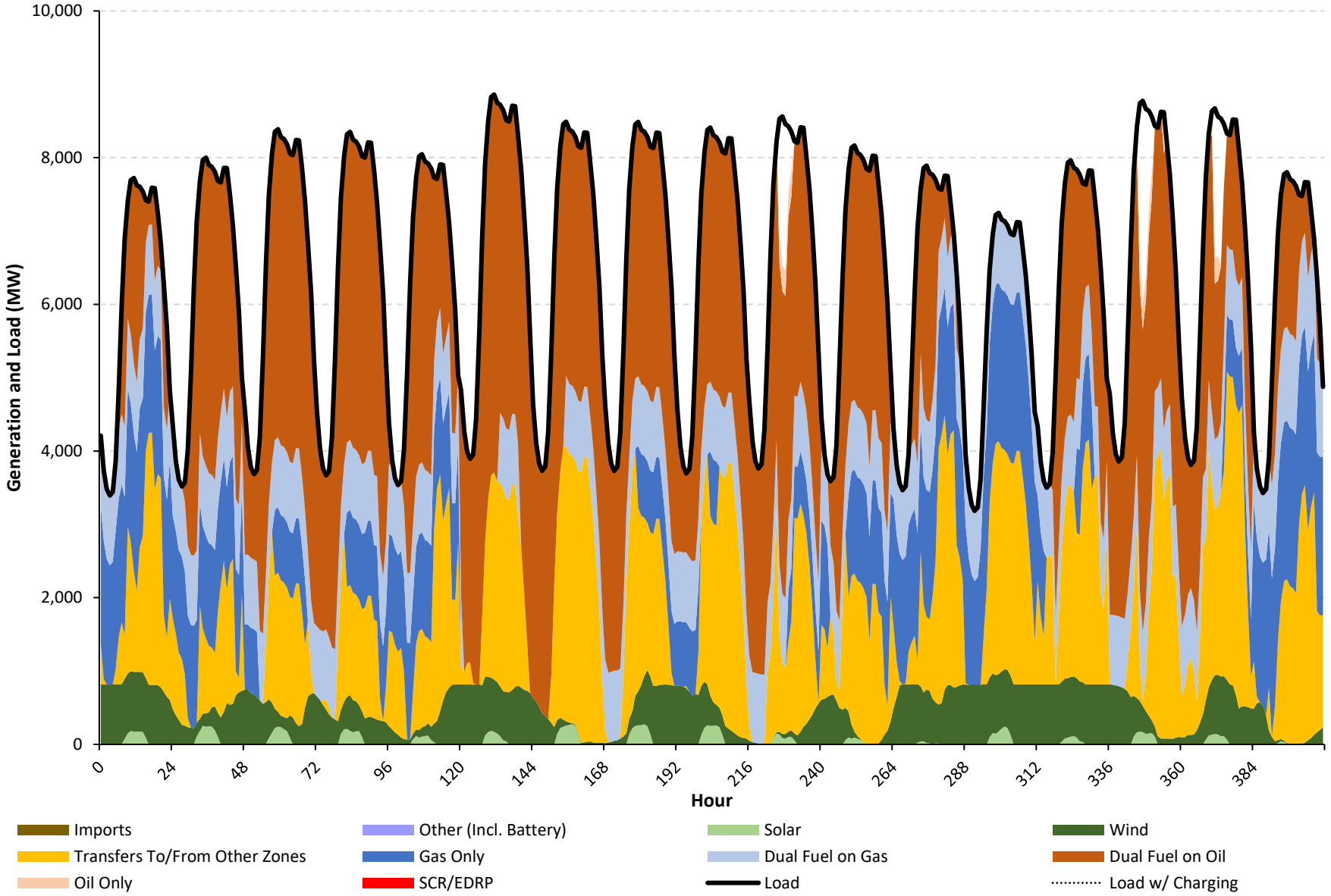


Total MWh of Lost Load

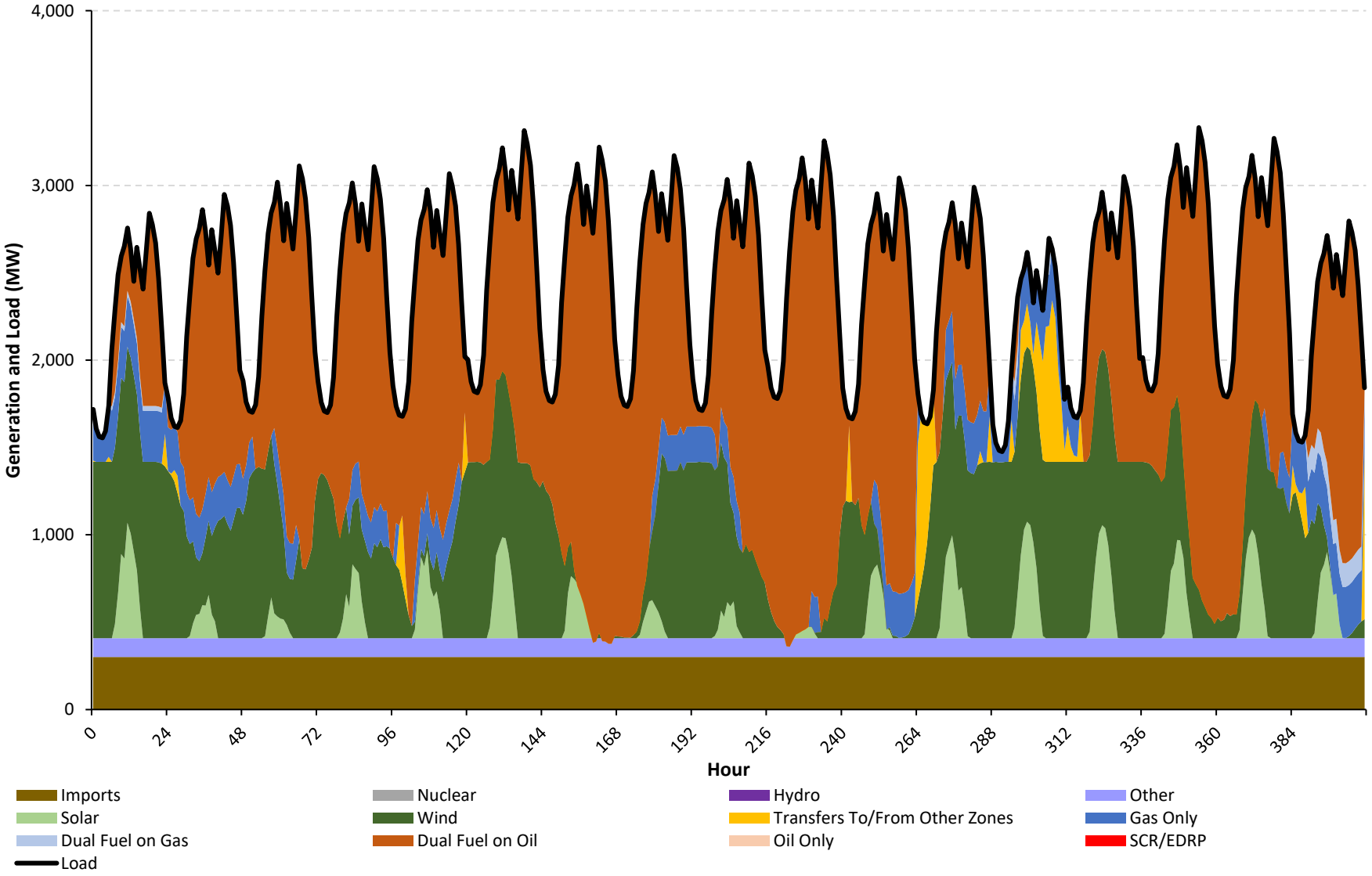


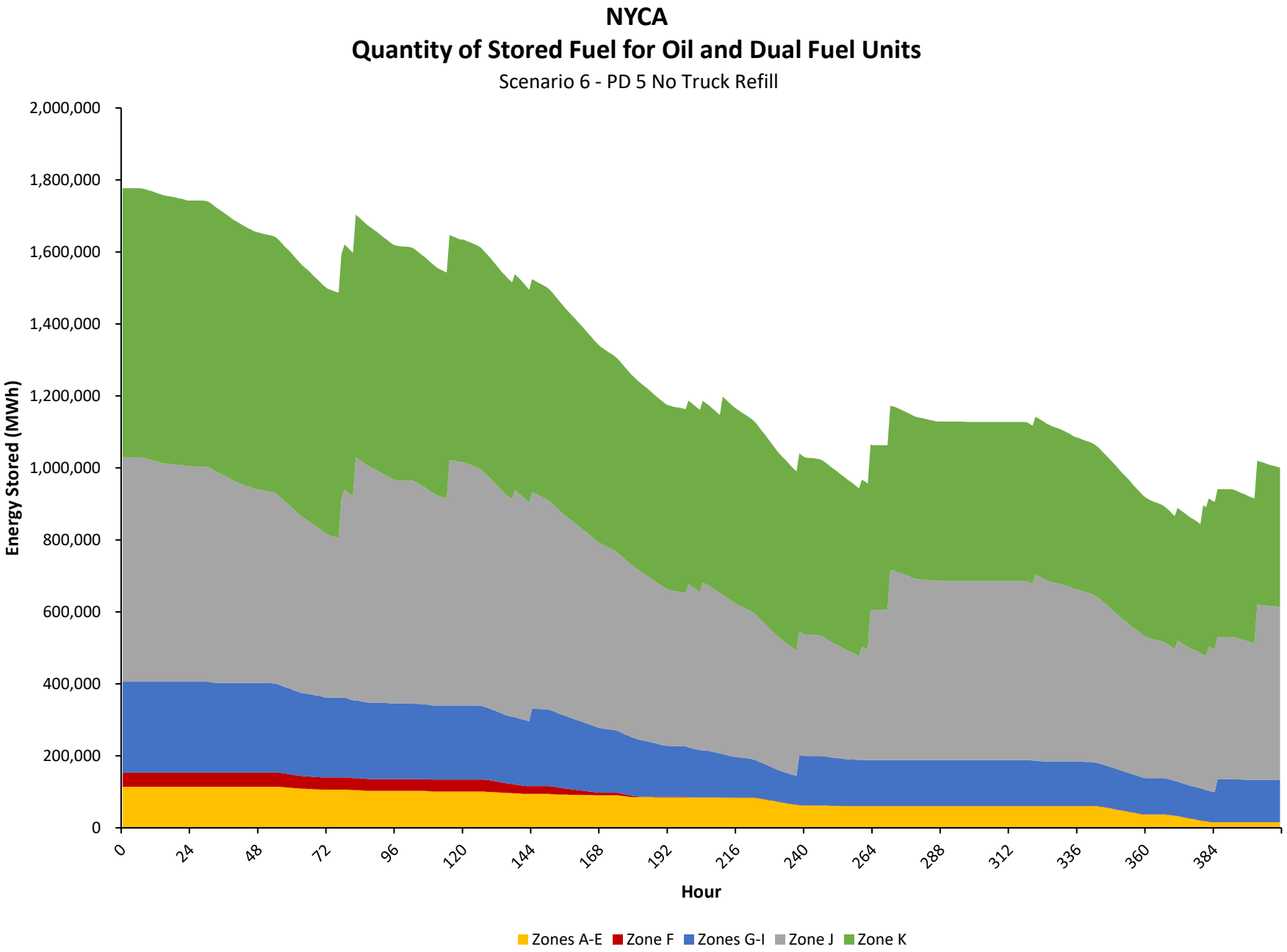

NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 6 - PD 5 No Truck Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

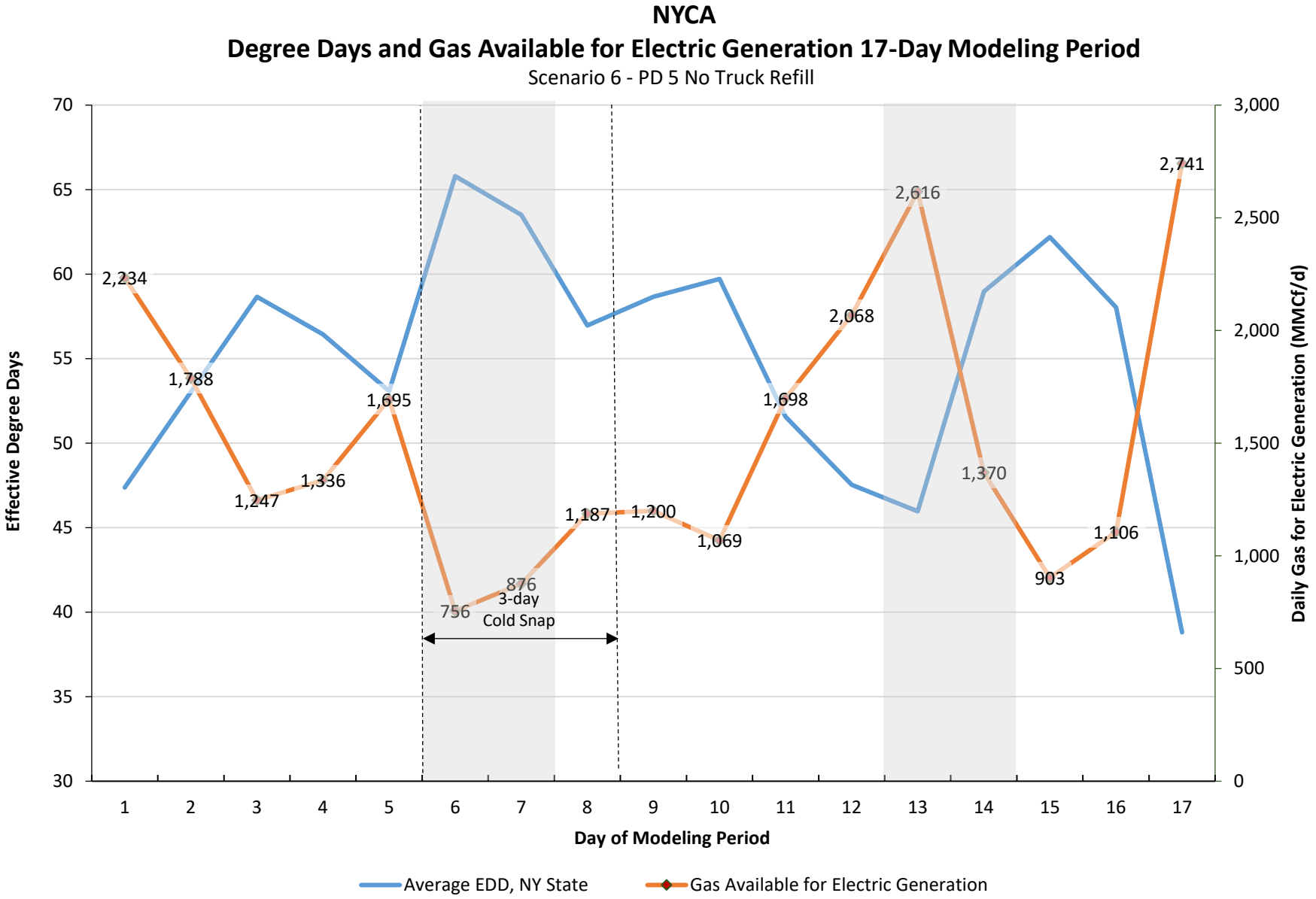
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 5 No Truck Refill



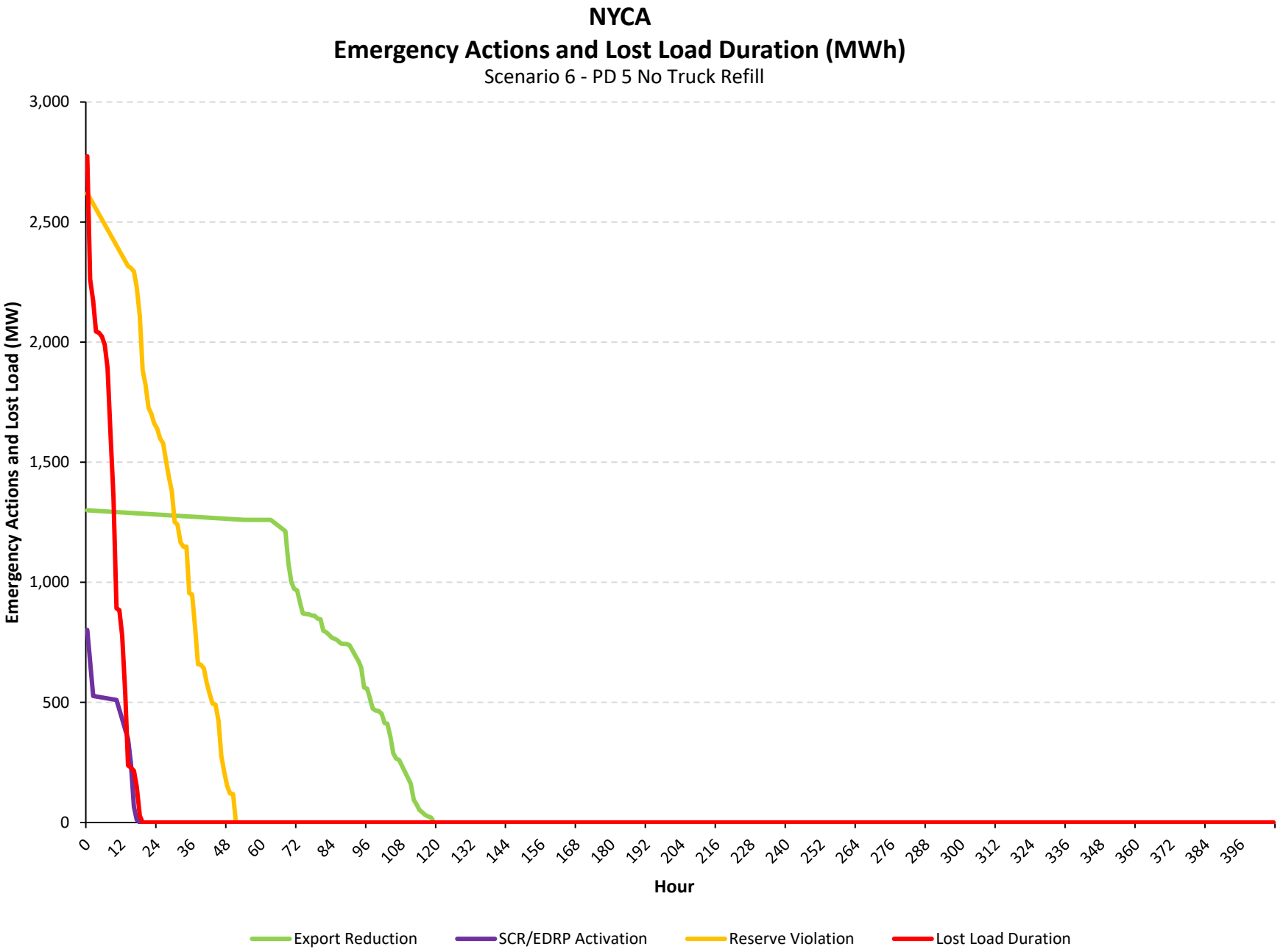
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 5 No Truck Refill

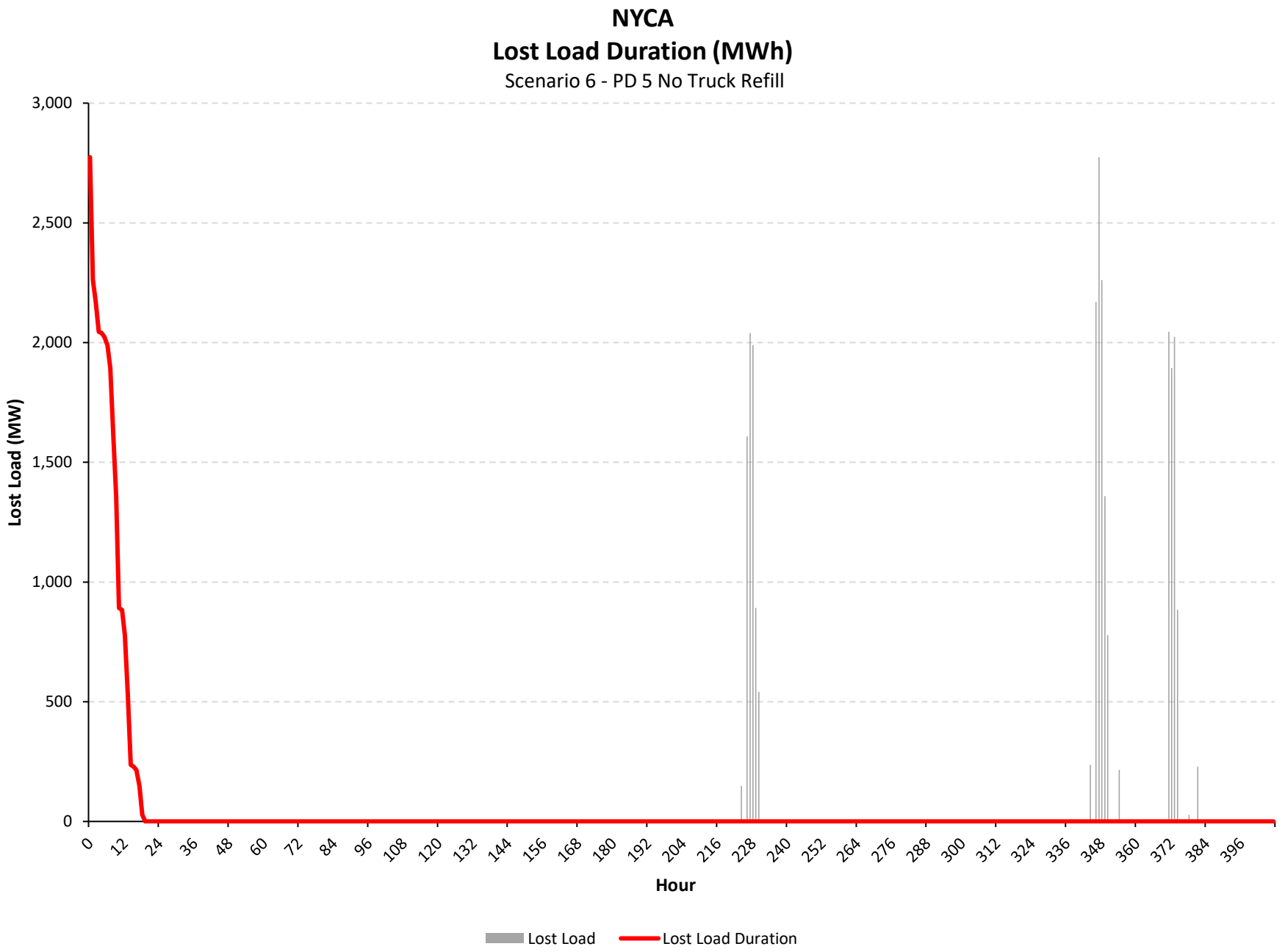



NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 6 - PD 5 No Truck Refill
Energy Stored (MWh)
2,000,000
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Zones A-E
Zone F
Zones G-I
Zone J
Zone K



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 6 - PD 5 No Truck Refill
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 6 - PD 5 No Truck Refill
Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

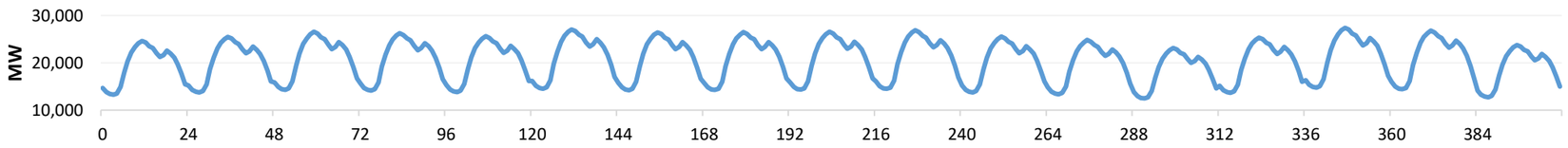
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 6 - PD 6 No Barge Refill (Winter 2026/2027)

Hourly Results Summary

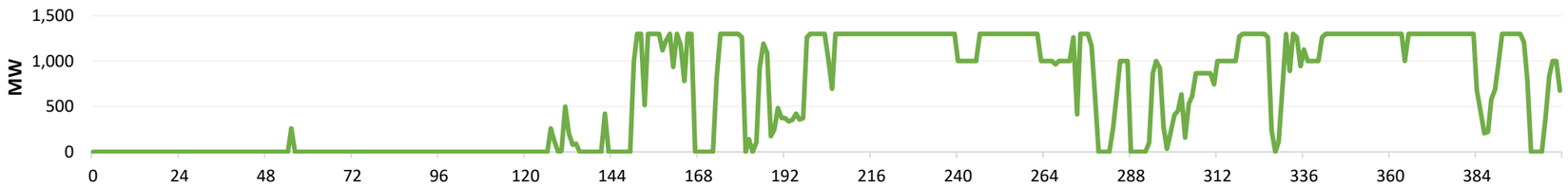
Case Name: Scenario 6 - PD 6 No Barge Refill

Load During Modeling Period



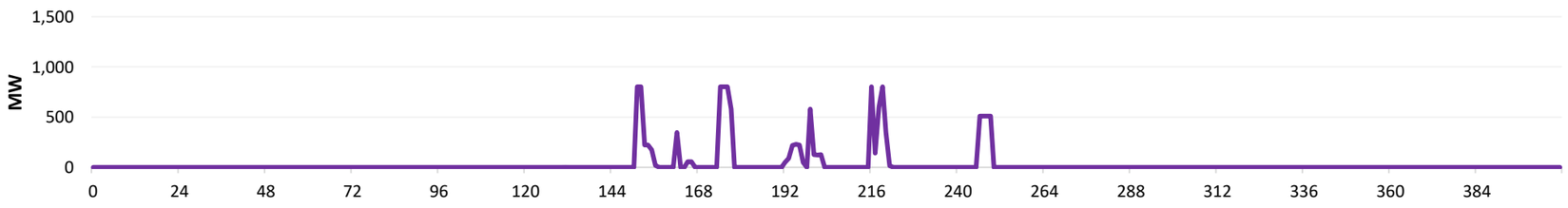
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



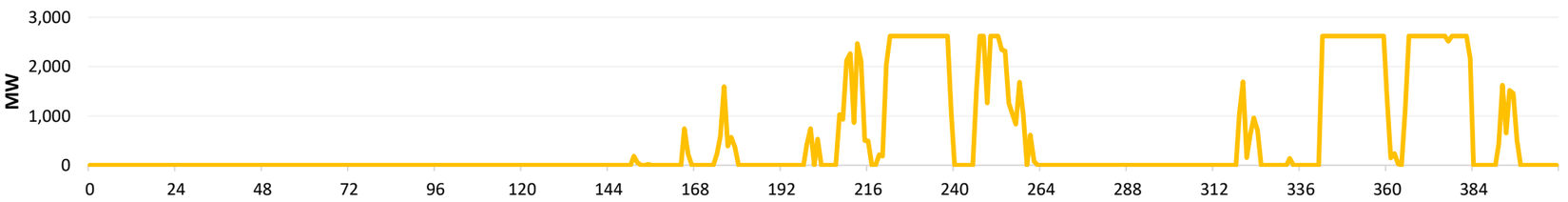
Export Reductions	
Total Hrs.	245
Total MWh	254,333
Avg. MW	623.4

SCR/EDRP Deployed During Modeling Period



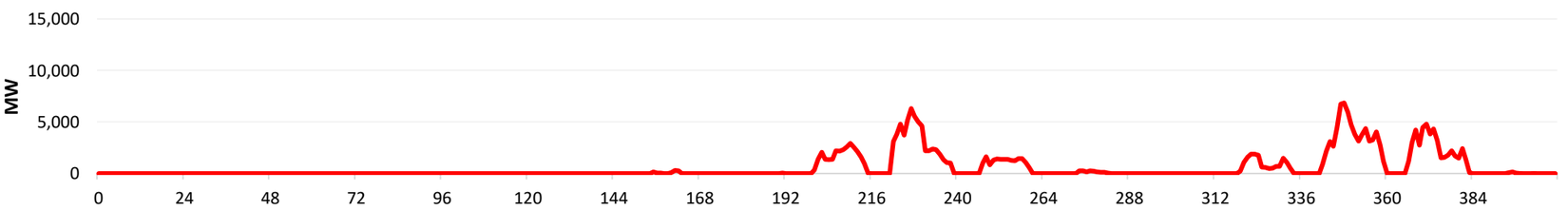
SCR Deployment	
Total Hrs.	33
Total MWh	12,239
Avg. MW	30.0

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	115
Total MWh	202,655
Avg. MW	496.7
First Hour with Viol.	151

Loss of Load During Modeling Period



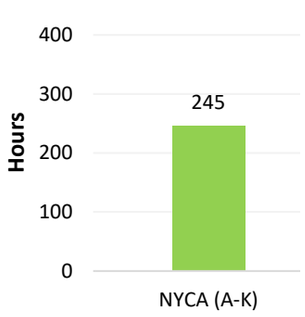
Loss of Load	
Total Hrs.	119
Total MWh	232,158
Avg. MW	569.0
First Hour with Losses	155

Full Period Results Summary

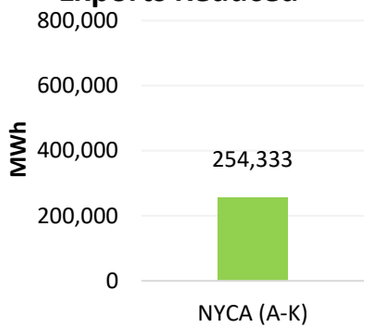
Case Name: Scenario 6 - PD 6 No Barge Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

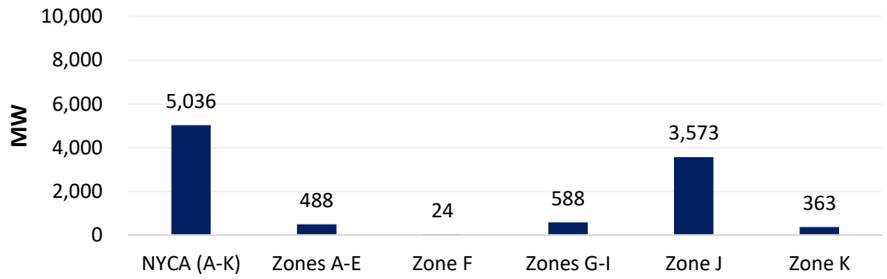
Hours Exports Reduced



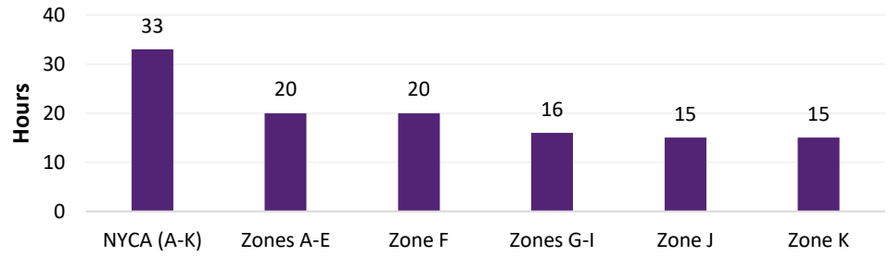
Total MWh of Exports Reduced



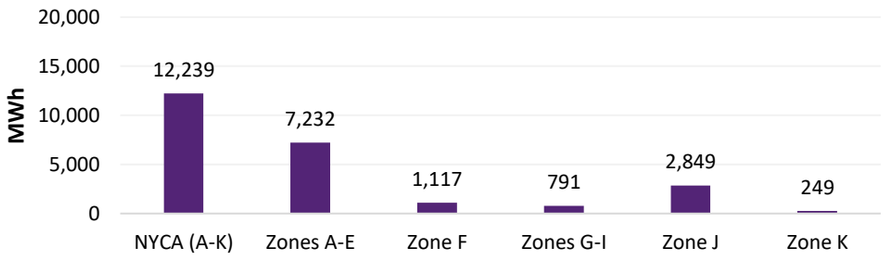
Average Capacity Not Available Due to Exhausted Fuel Inventory



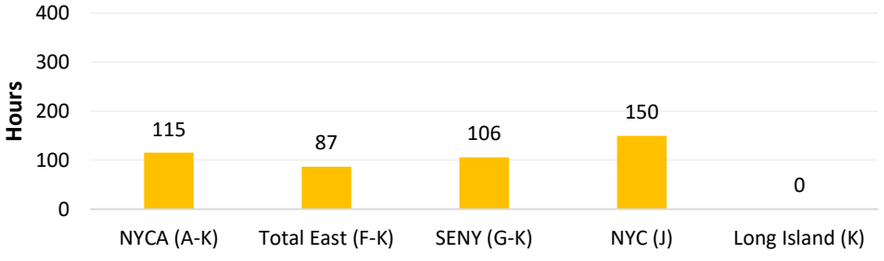
Hours SCR/EDRP Deployed



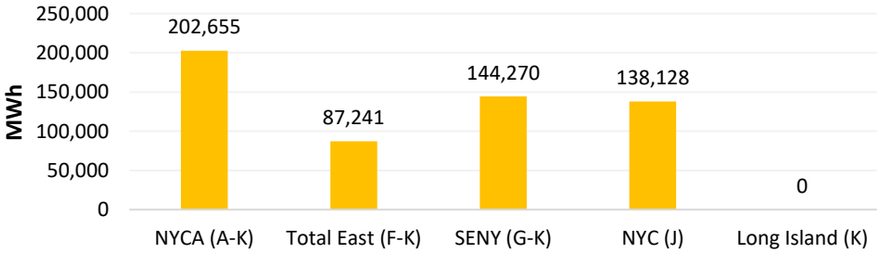
Total MWh SCR/EDRP Deployed



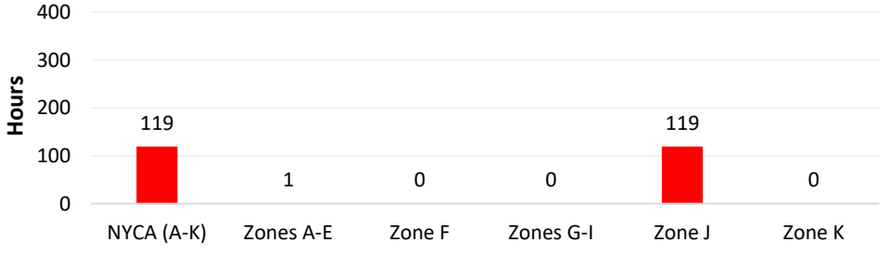
Hours with Reserve Violations



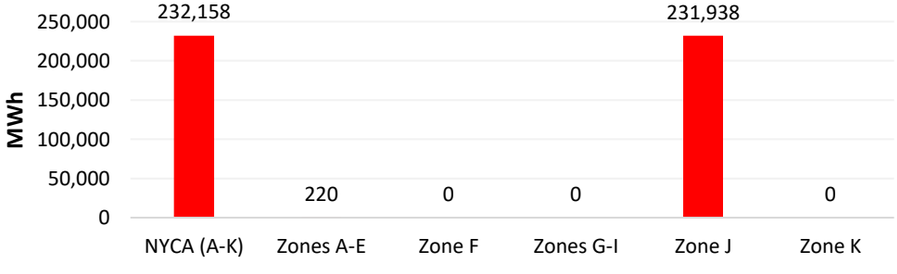
Total MWh of Reserve Violations

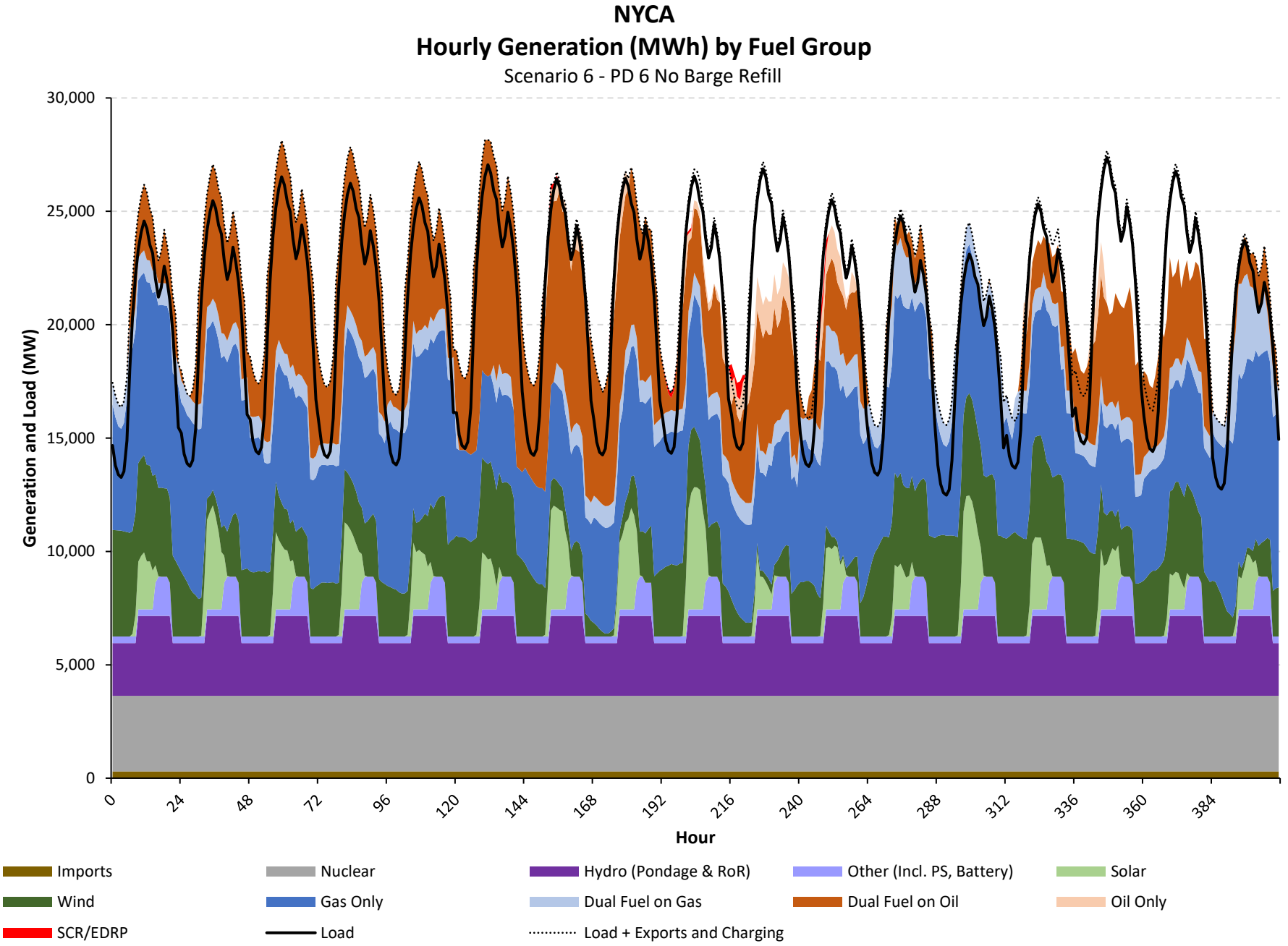


Hours with Loss of Load

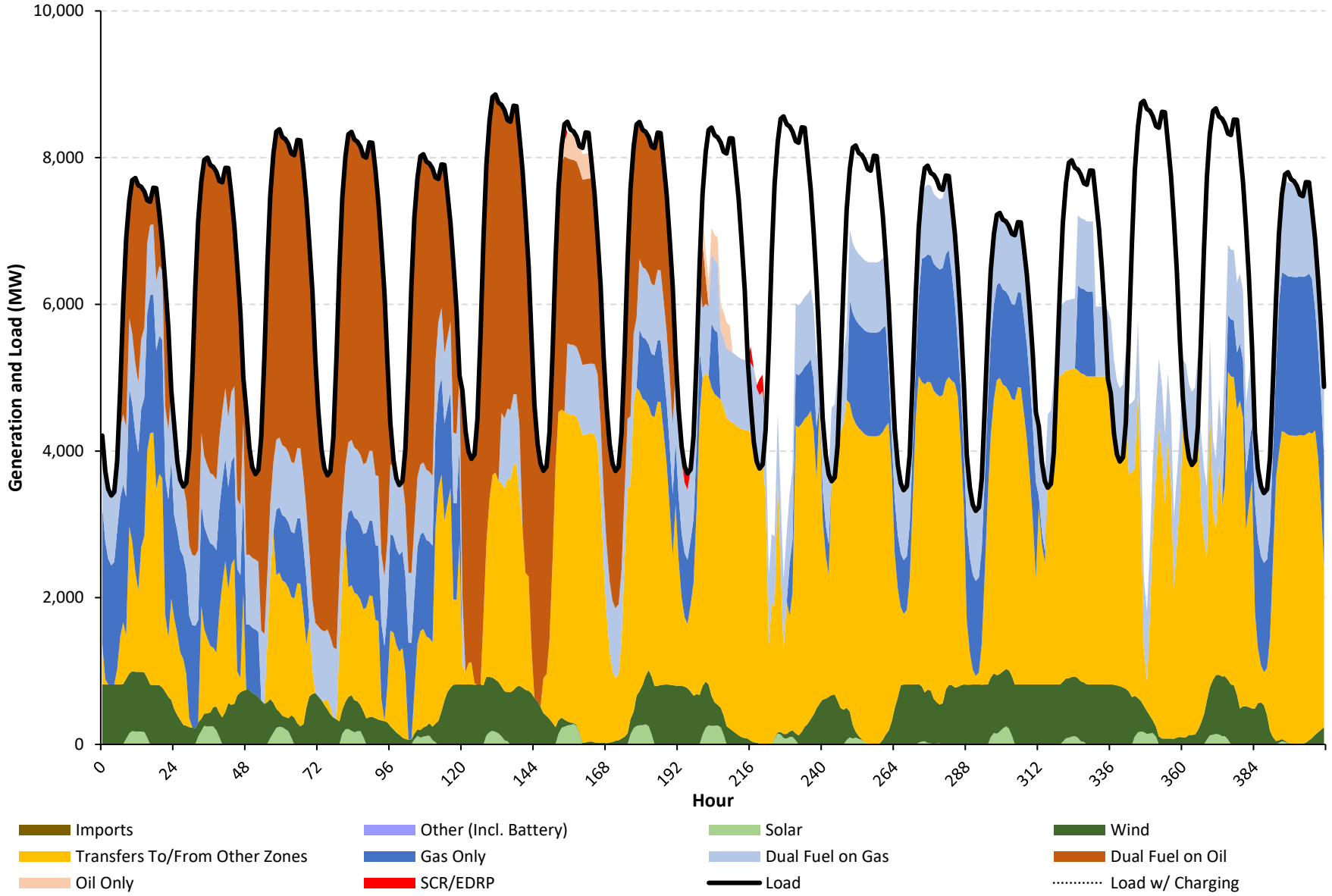


Total MWh of Lost Load

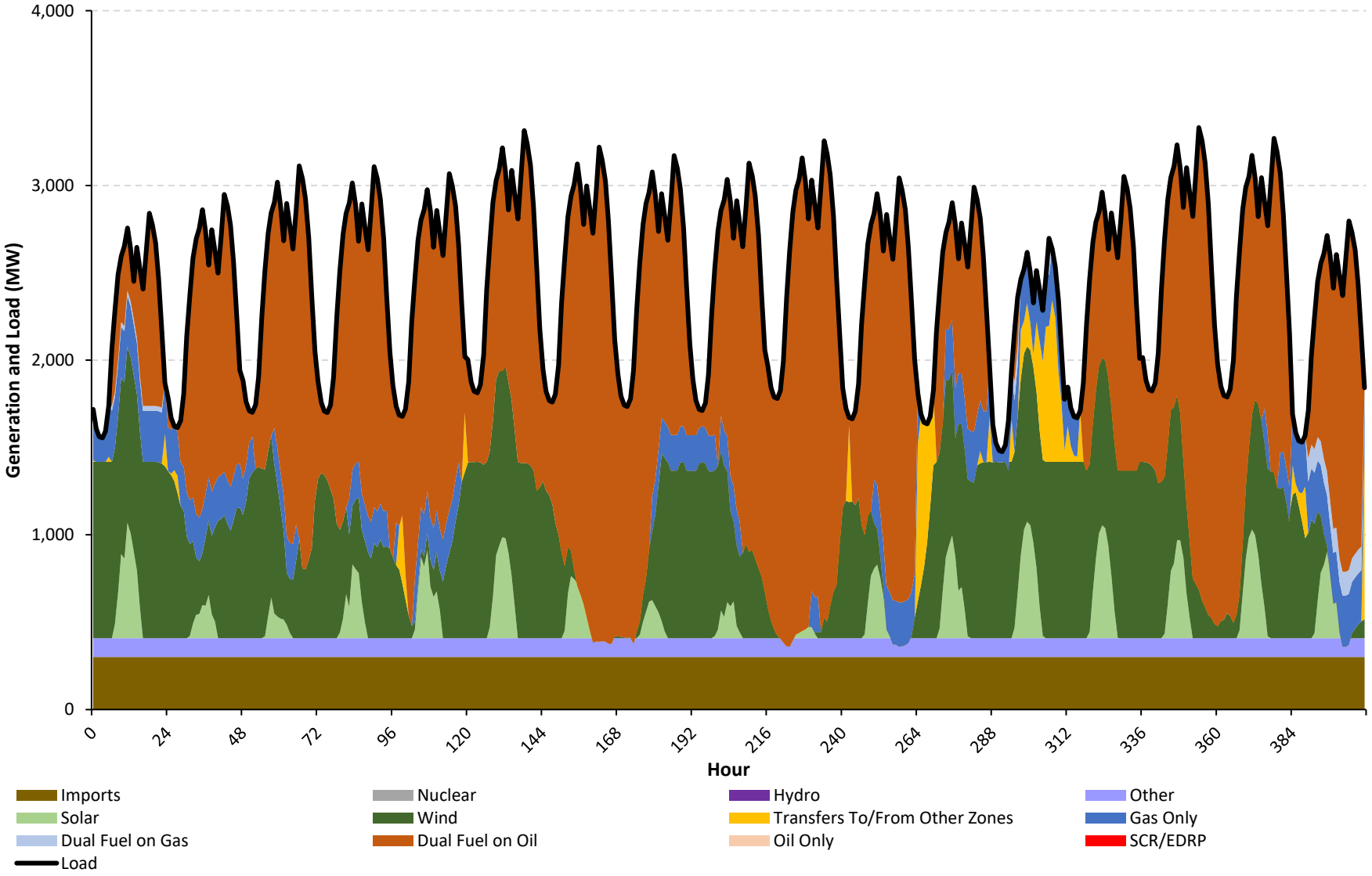


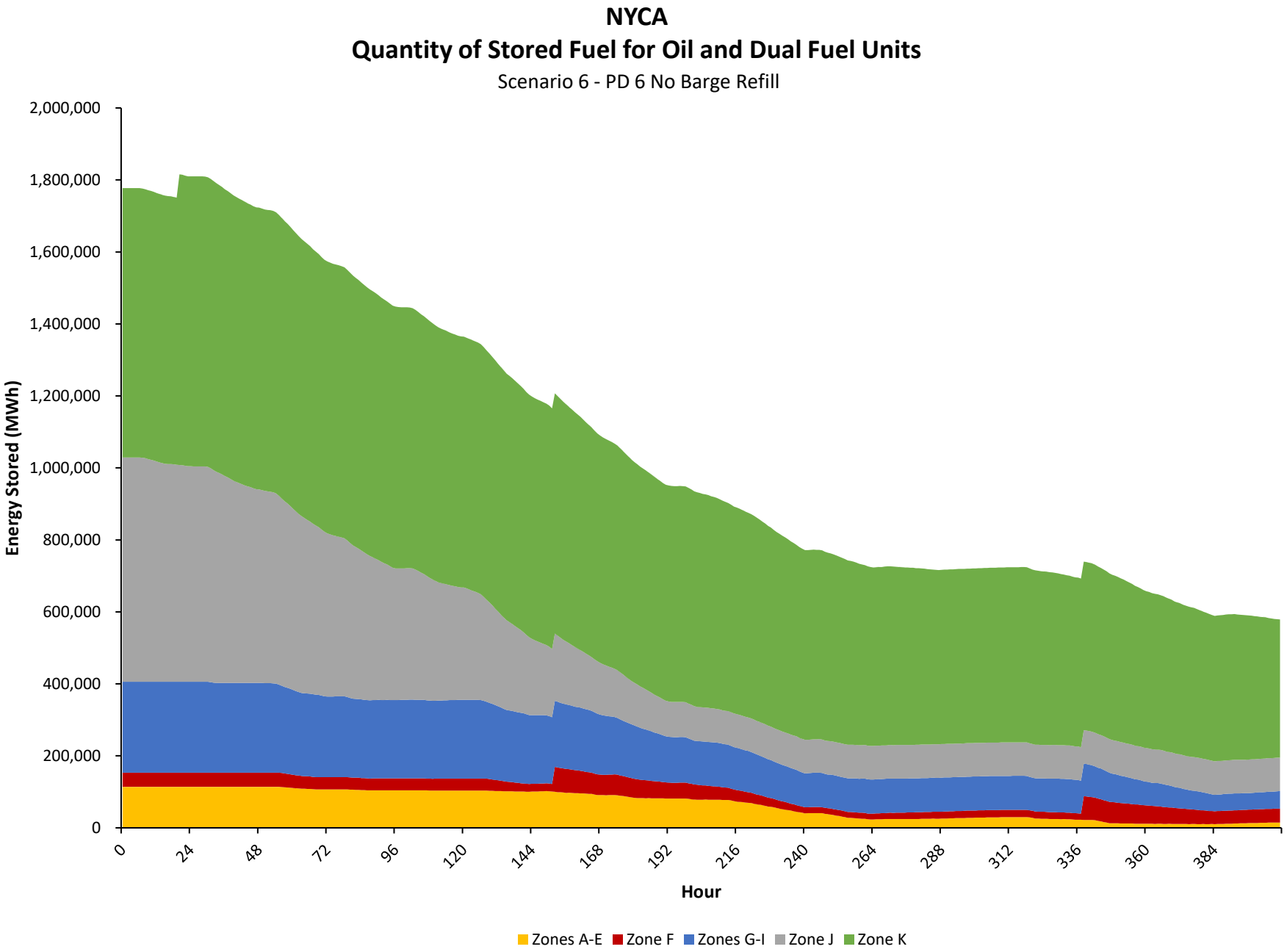

NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 6 - PD 6 No Barge Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

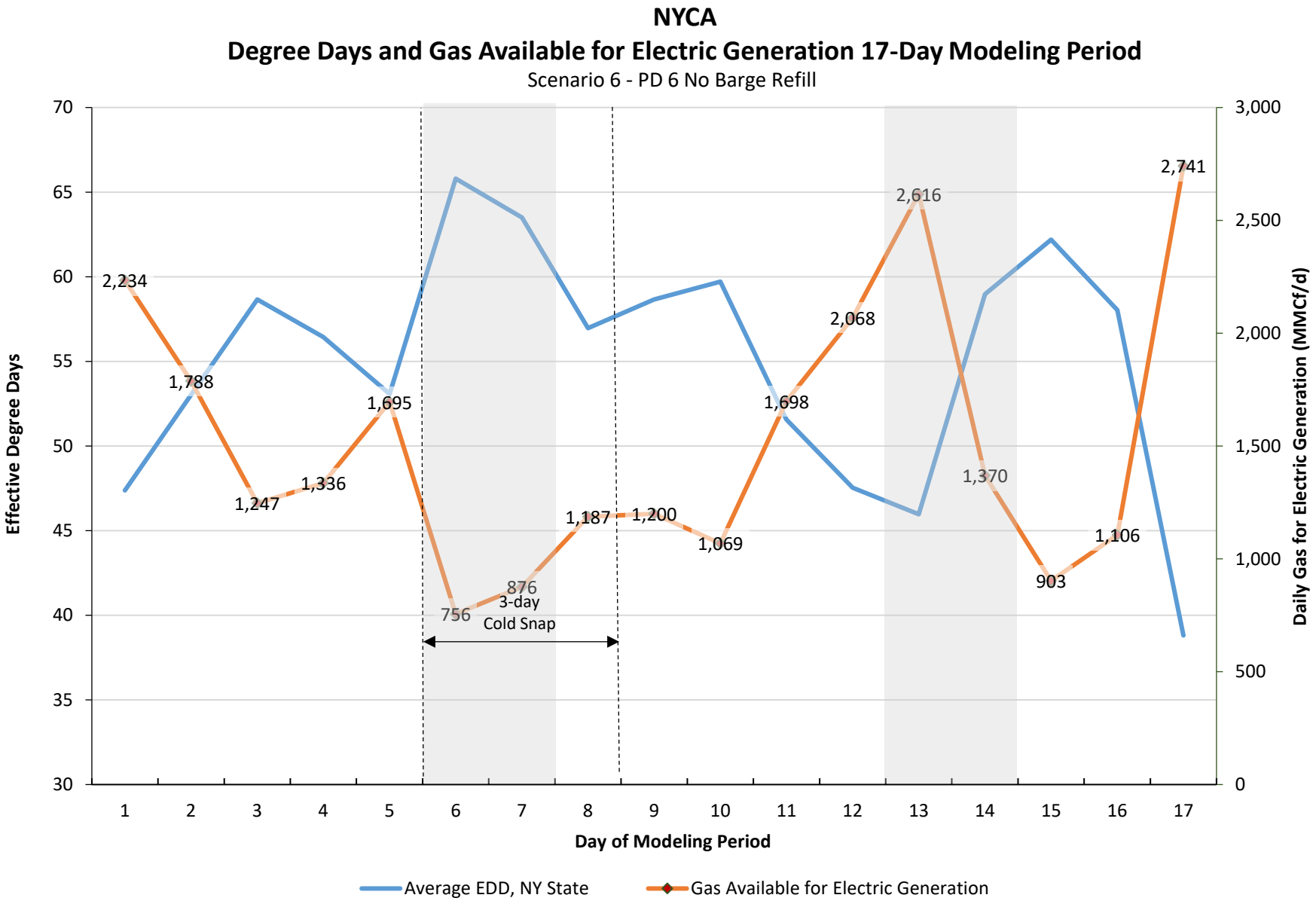
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 6 No Barge Refill



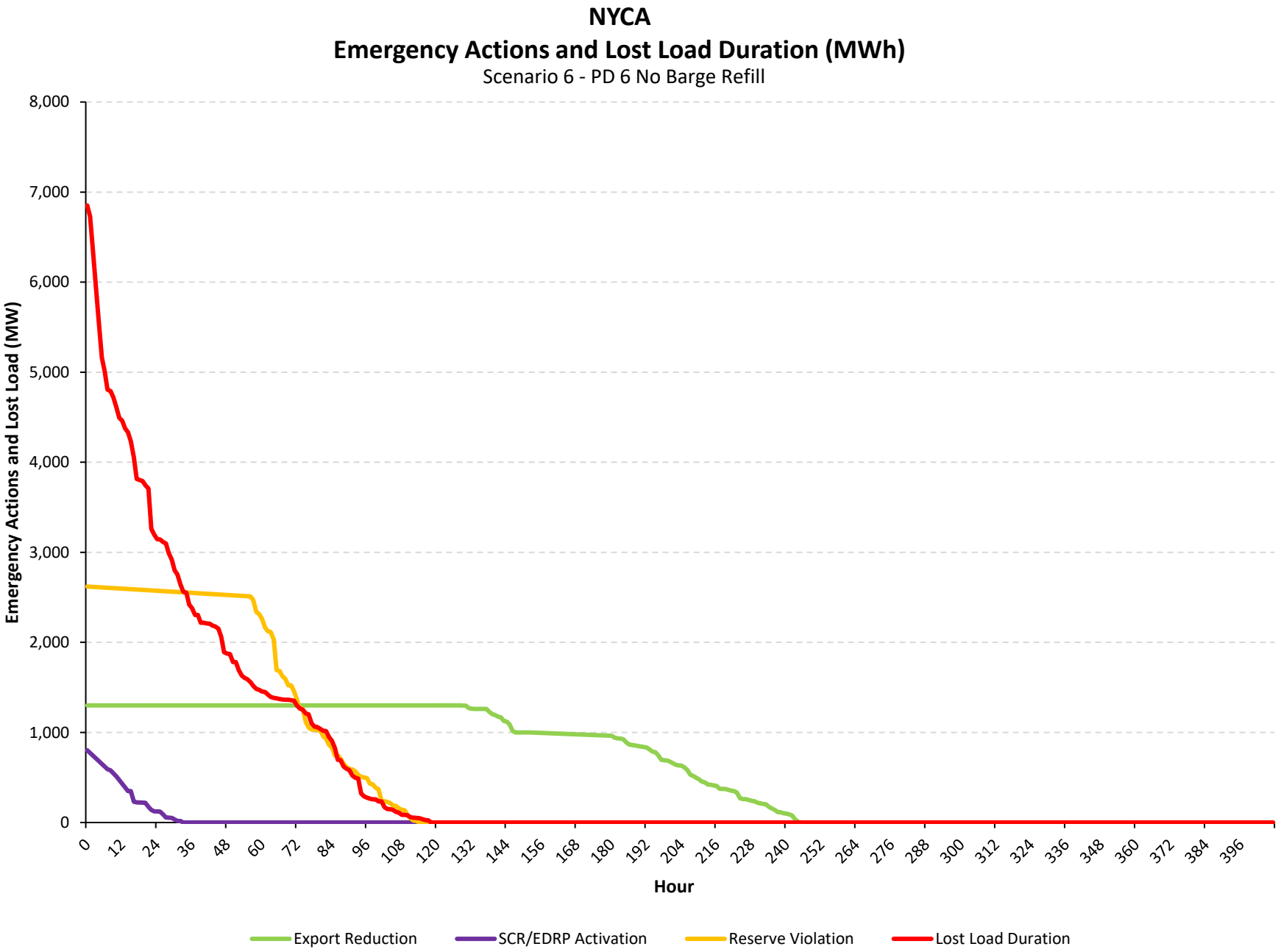
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 6 No Barge Refill

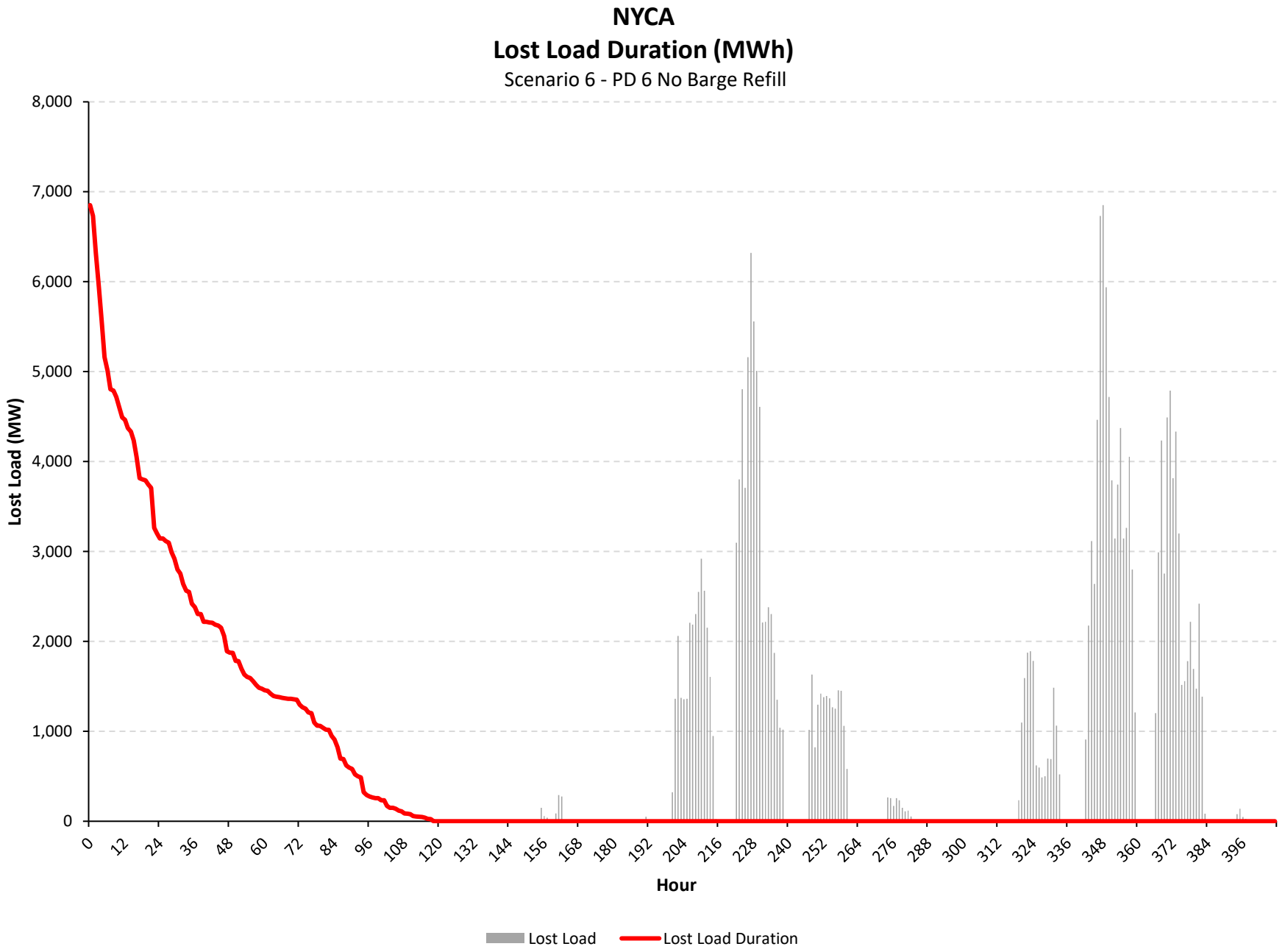



NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 6 - PD 6 No Barge Refill
Energy Stored (MWh)
2,000,000
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Zones A-E
Zone F
Zones G-I
Zone J
Zone K



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 6 - PD 6 No Barge Refill
Emergency Actions and Lost Load (MW)
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 6 - PD 6 No Barge Refill
Lost Load (MW)
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

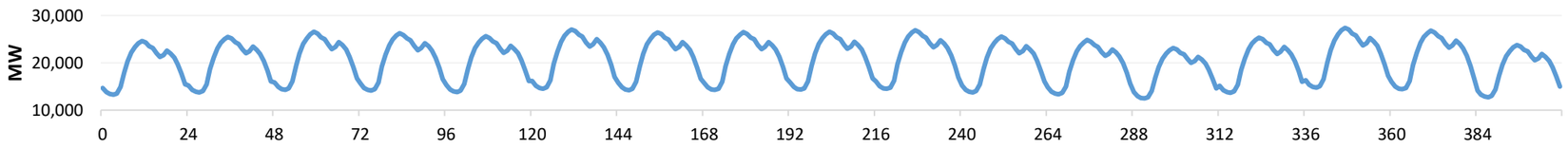
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 6 - PD 7 No Refill (Winter 2026/2027)

Hourly Results Summary

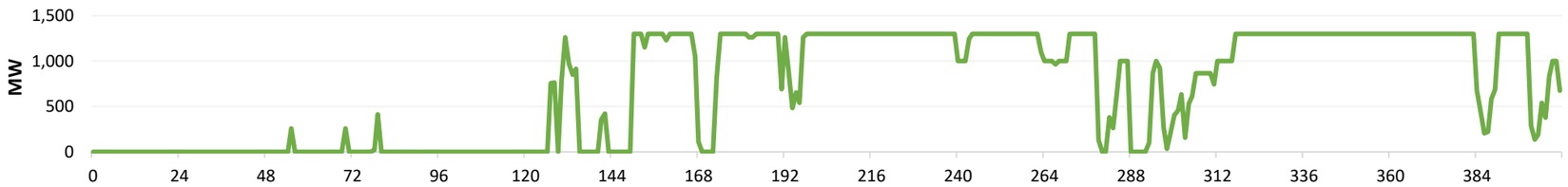
Case Name: Scenario 6 - PD 7 No Refill

Load During Modeling Period



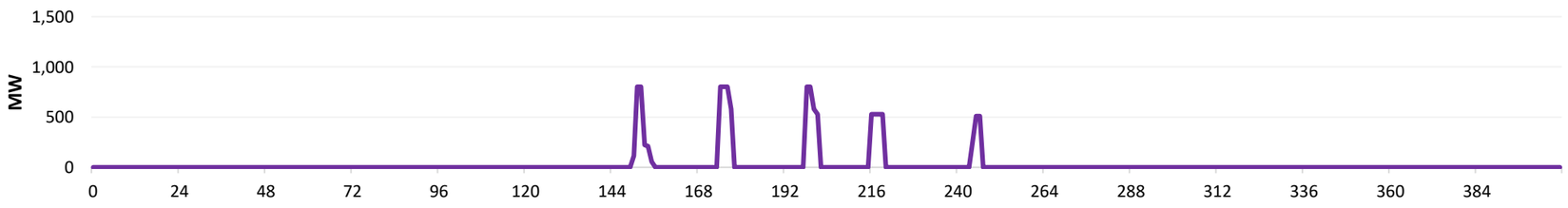
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



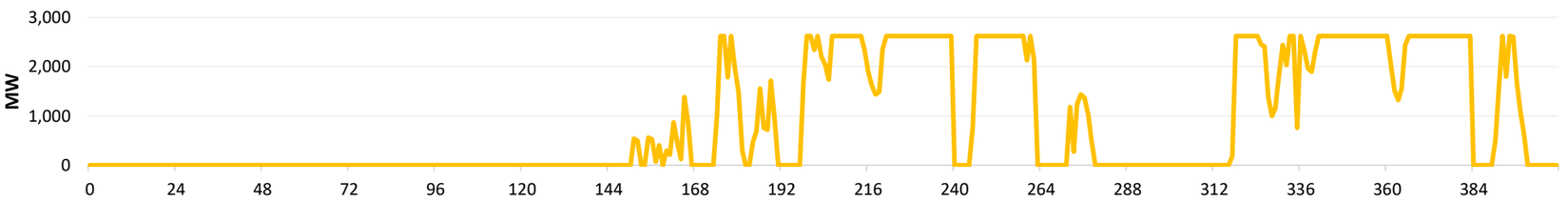
Export Reductions	
Total Hrs.	260
Total MWh	289,020
Avg. MW	708.4

SCR/EDRP Deployed During Modeling Period



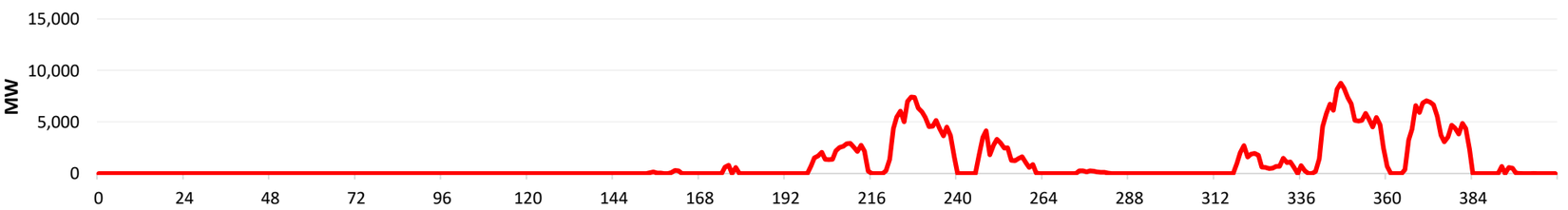
SCR Deployment	
Total Hrs.	21
Total MWh	11,272
Avg. MW	27.6

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	172
Total MWh	355,540
Avg. MW	871.4
First Hour with Viol.	151

Loss of Load During Modeling Period



Loss of Load	
Total Hrs.	138
Total MWh	385,991
Avg. MW	946.1
First Hour with Losses	154

Full Period Results Summary

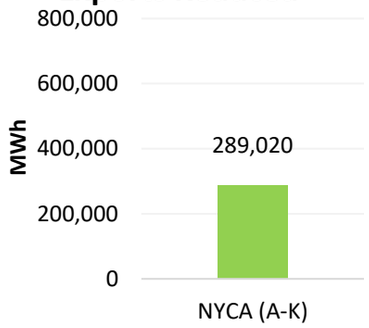
Case Name: Scenario 6 - PD 7 No Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

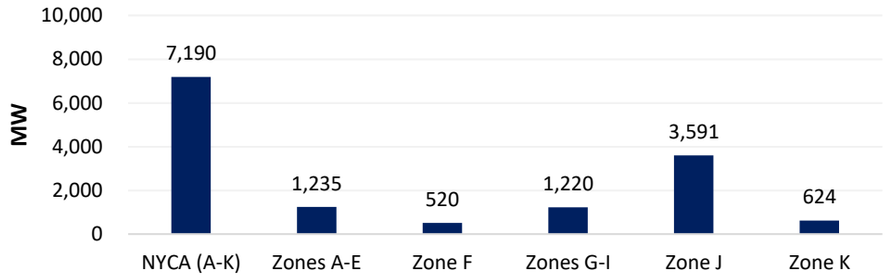
Hours Exports Reduced



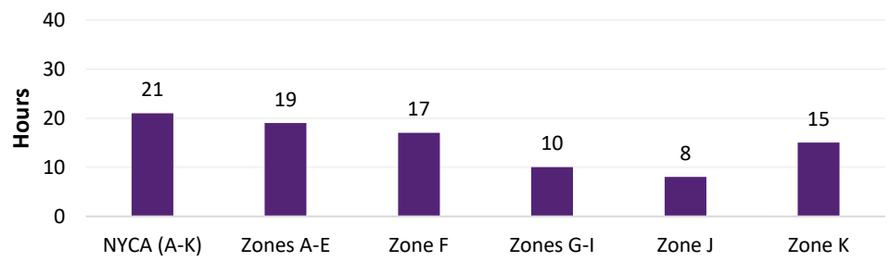
Total MWh of Exports Reduced



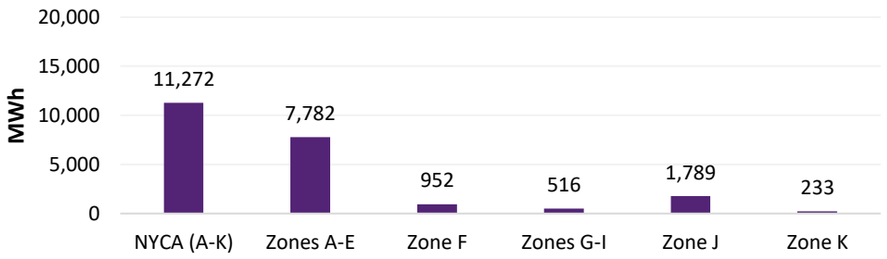
Average Capacity Not Available Due to Exhausted Fuel Inventory



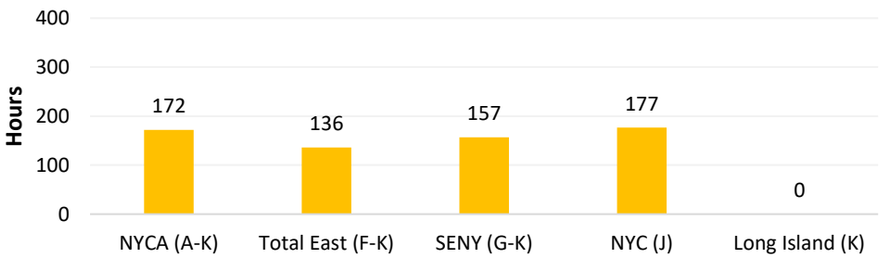
Hours SCR/EDRP Deployed



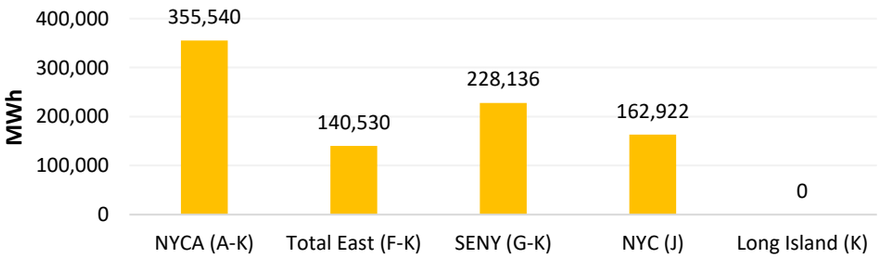
Total MWh SCR/EDRP Deployed



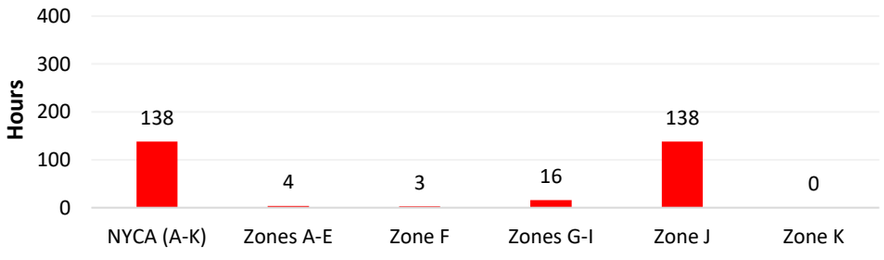
Hours with Reserve Violations



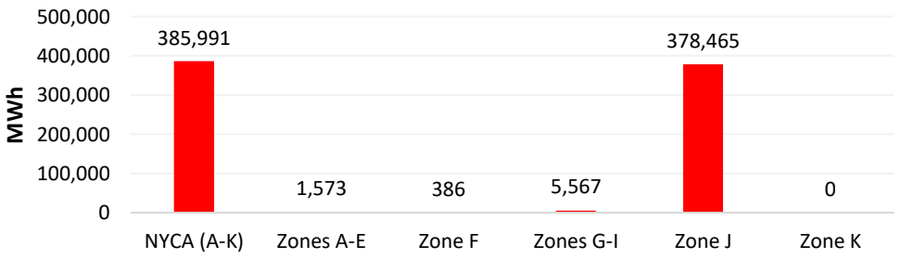
Total MWh of Reserve Violations

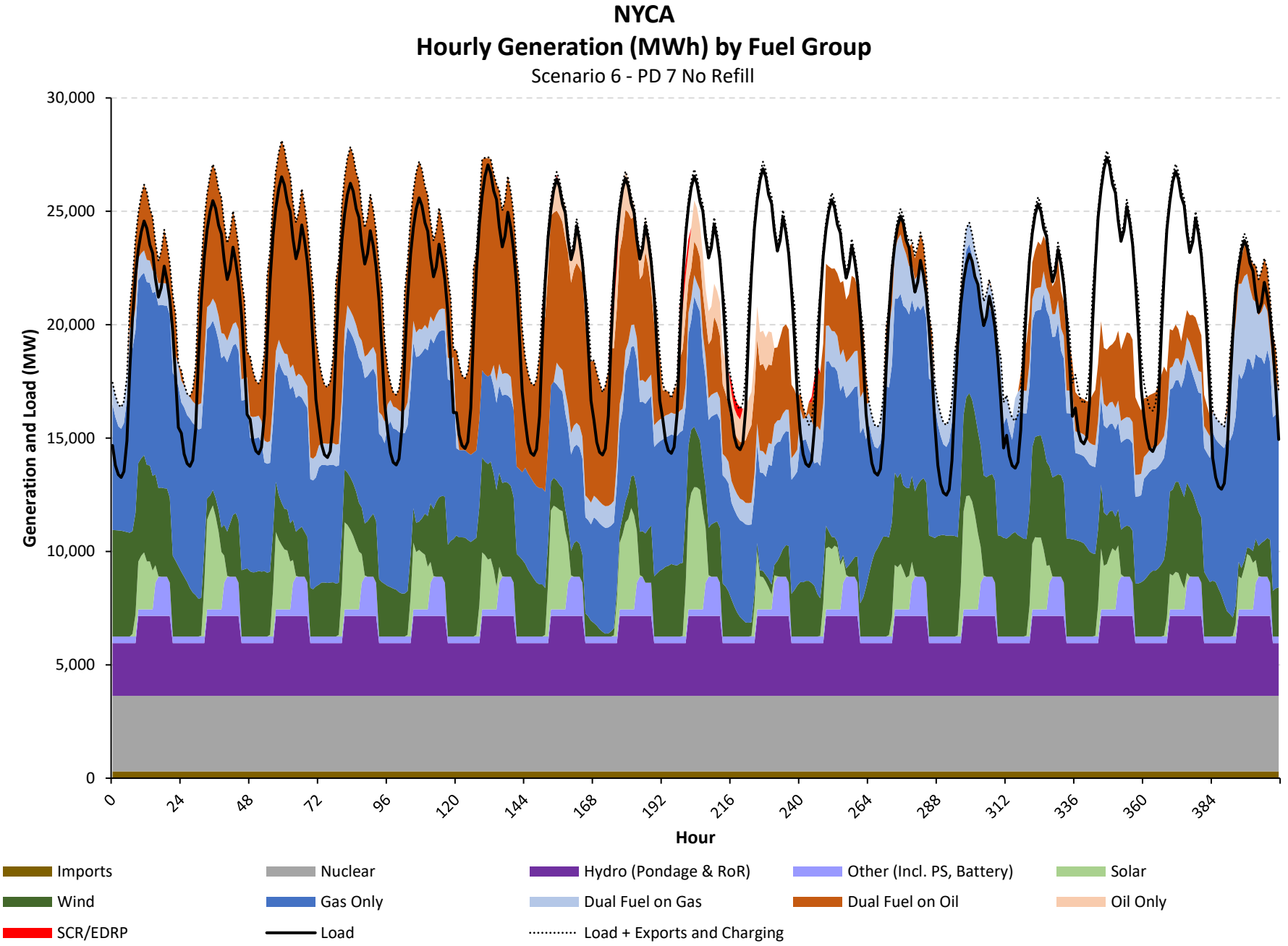


Hours with Loss of Load

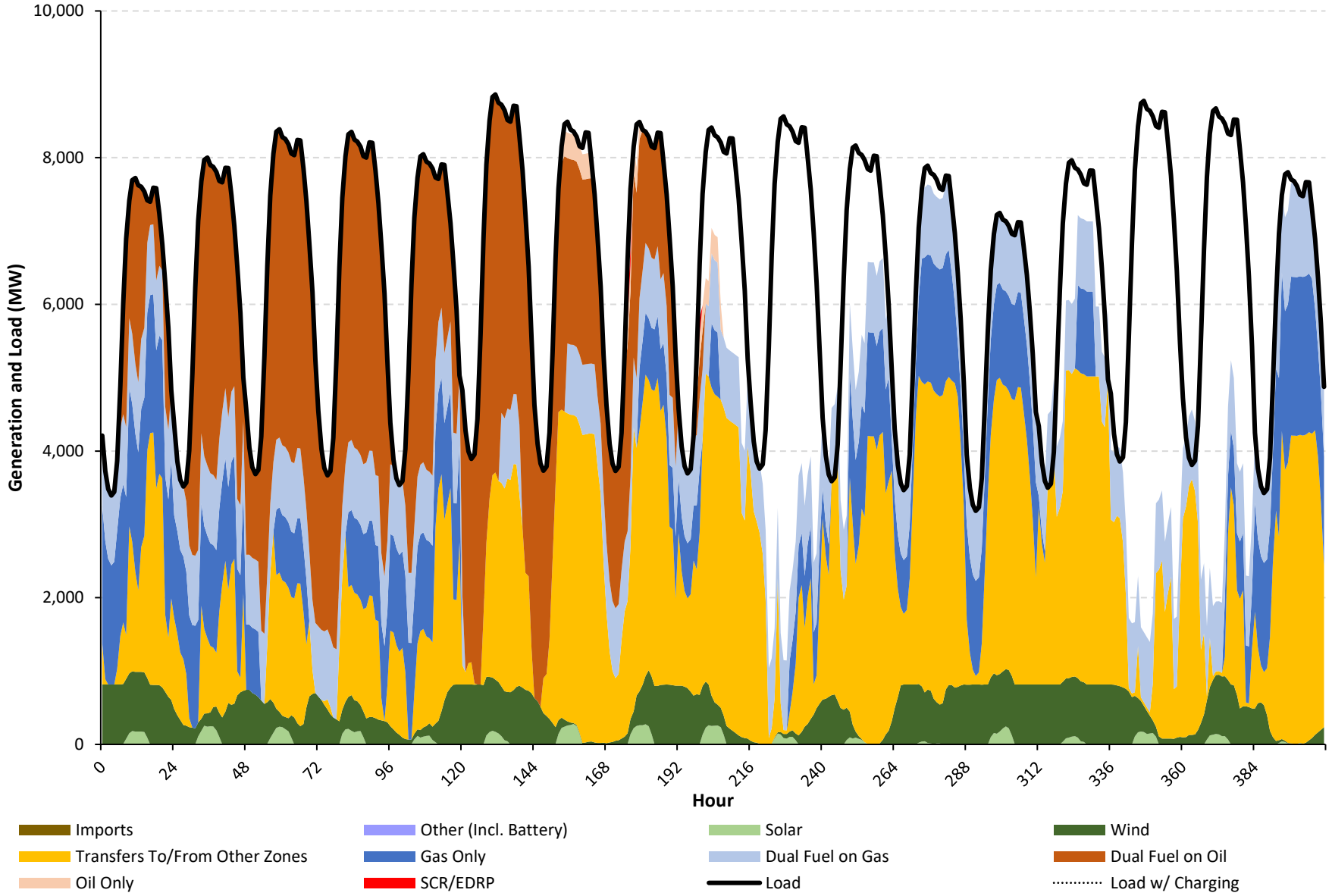


Total MWh of Lost Load

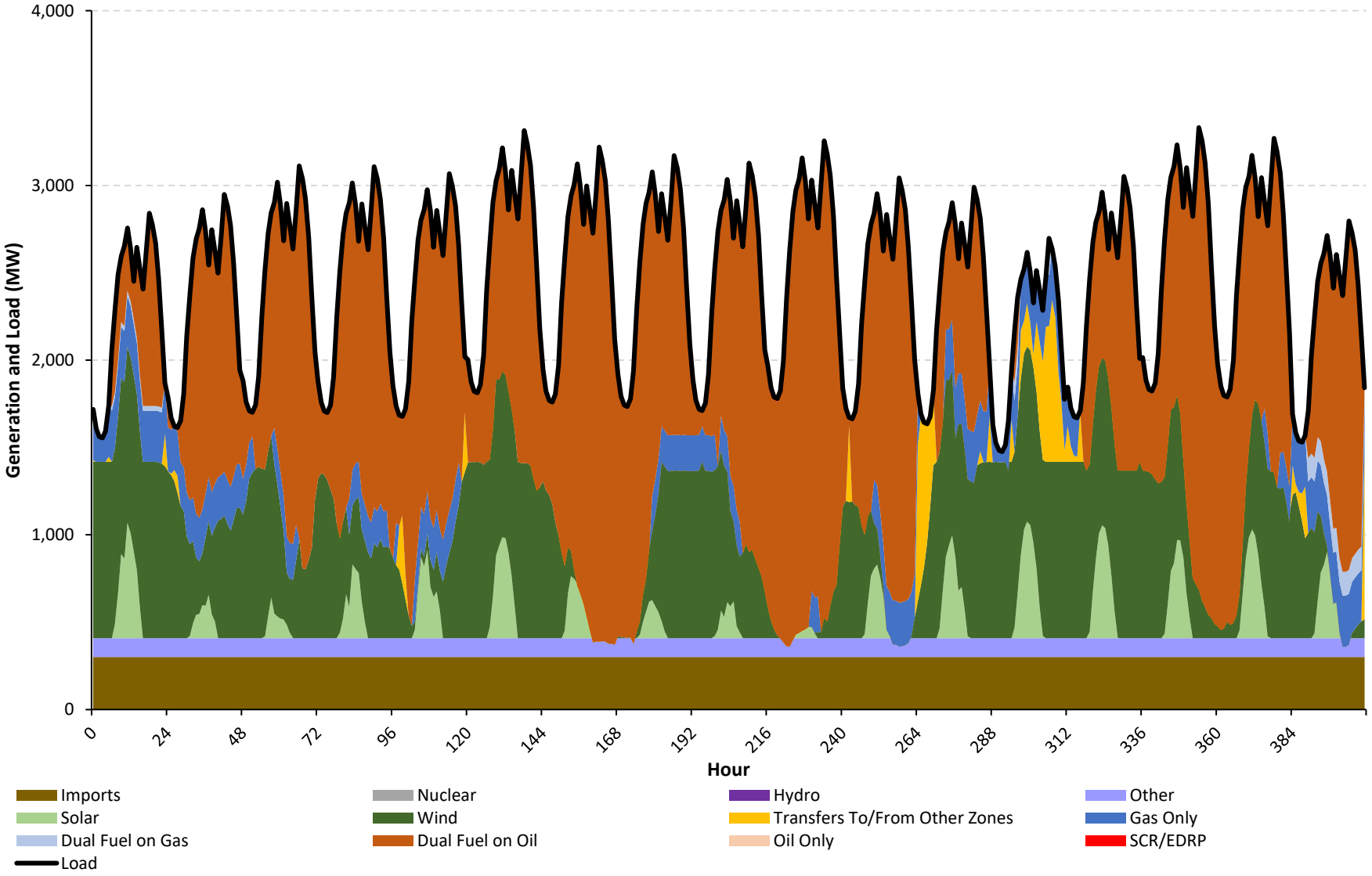


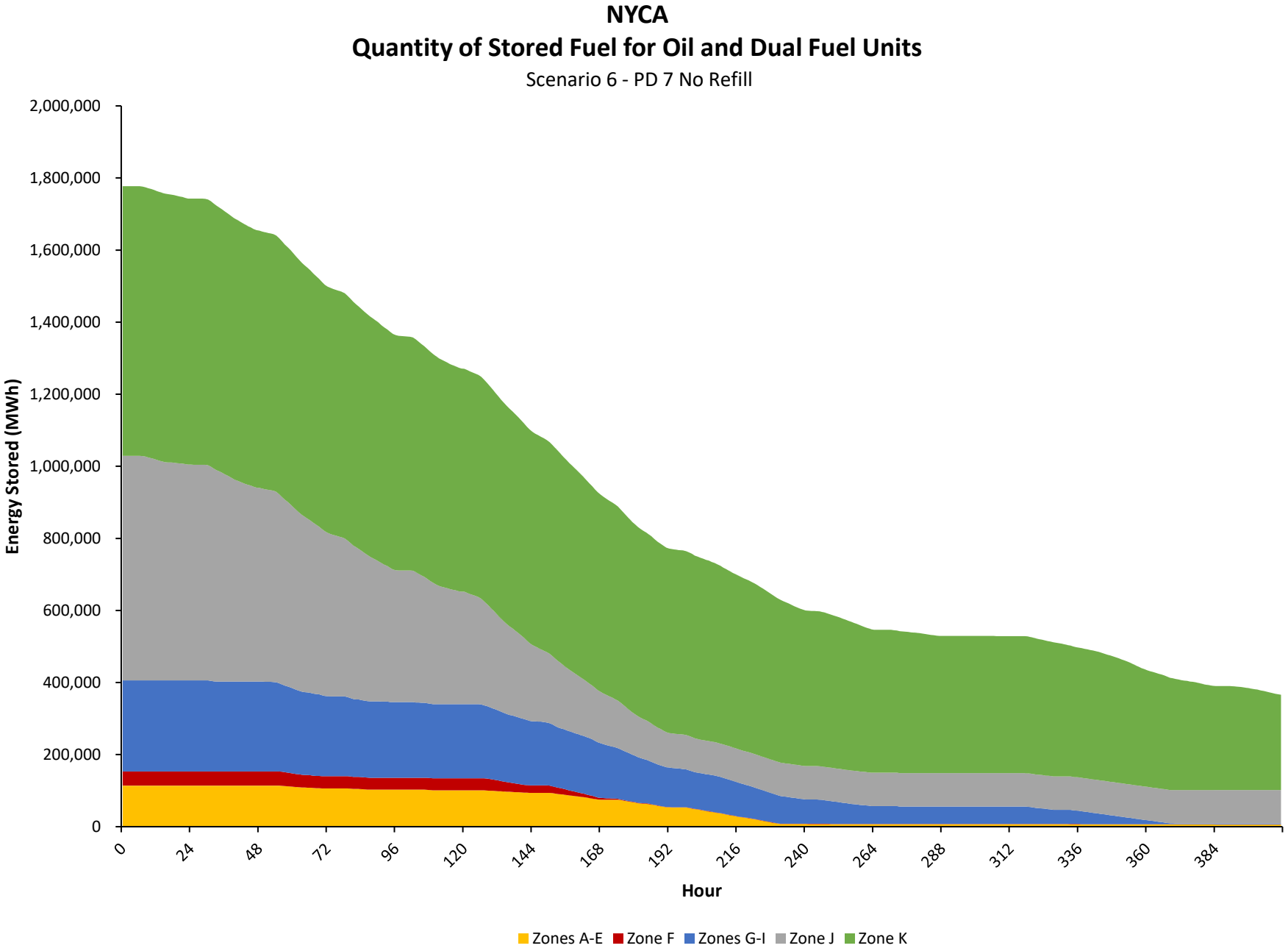

NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 6 - PD 7 No Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

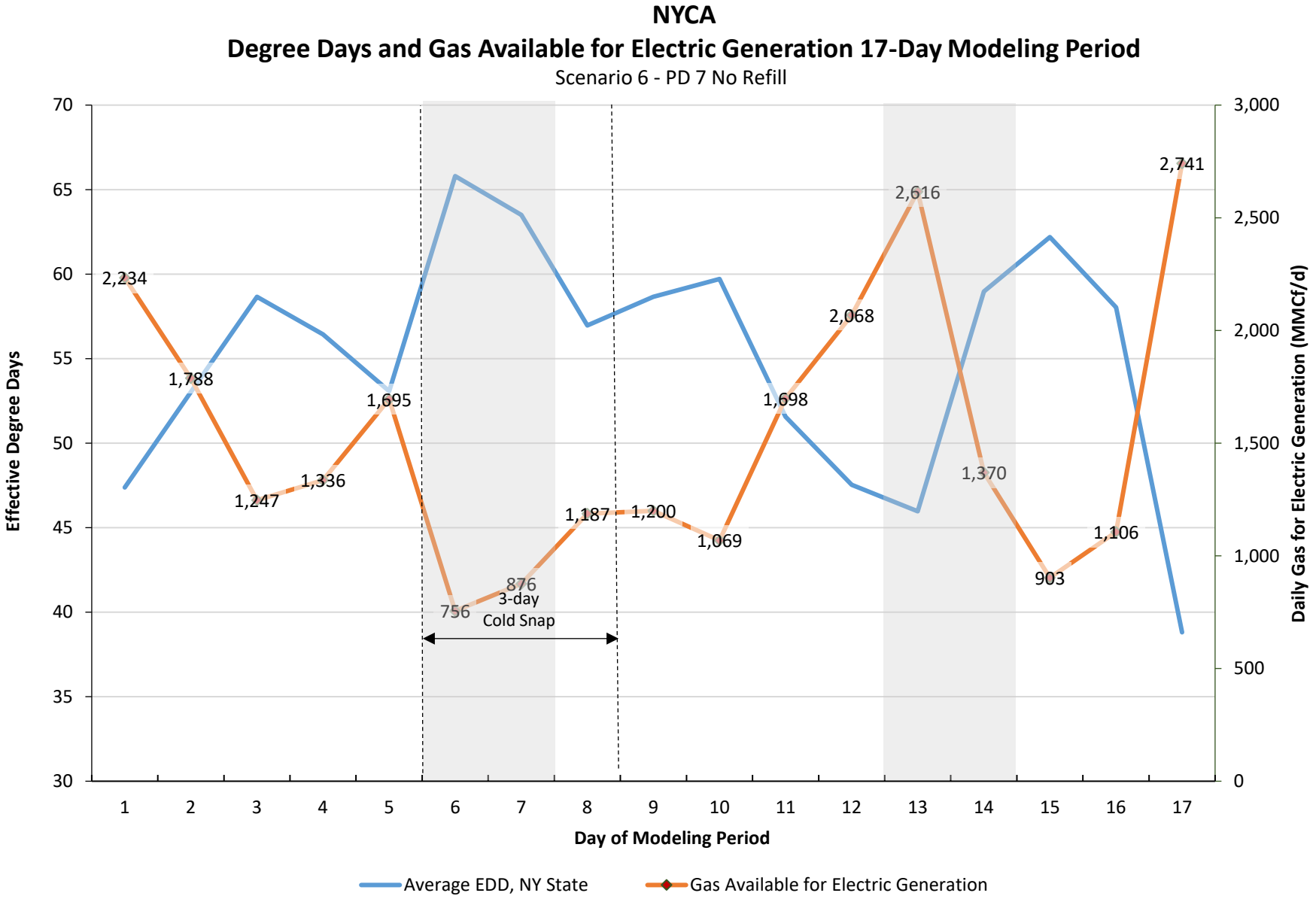
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 7 No Refill



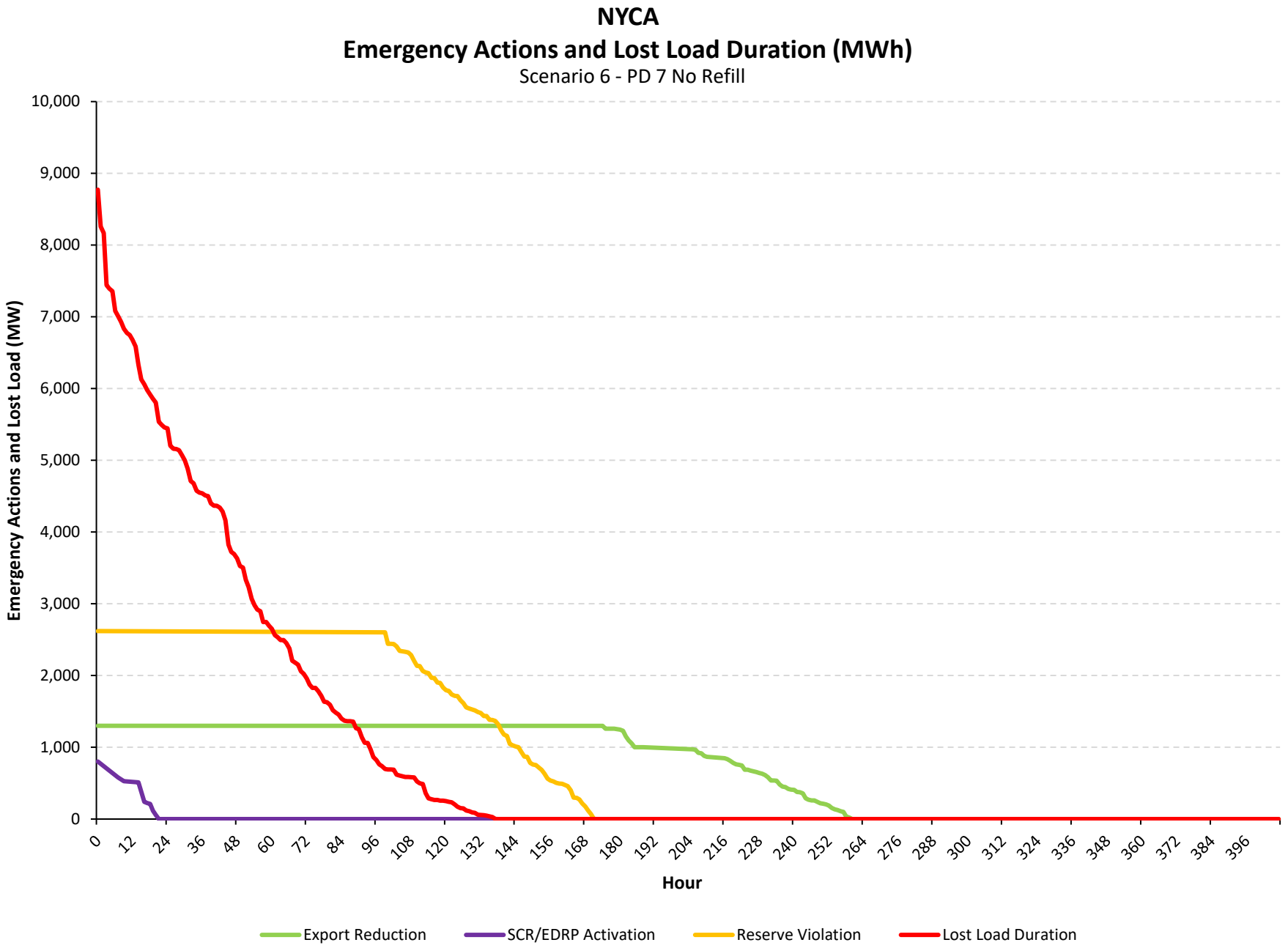
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 7 No Refill

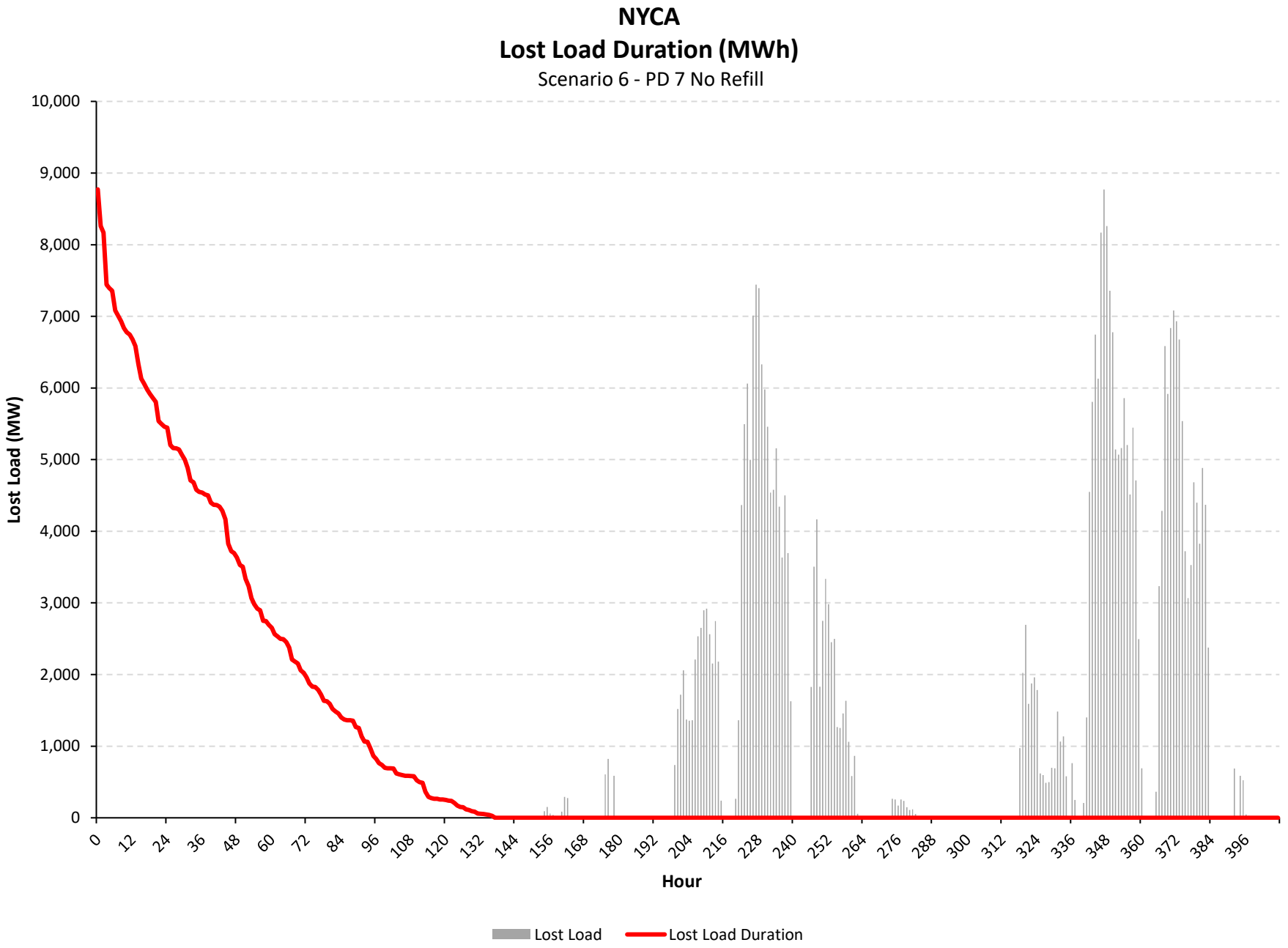



NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 6 - PD 7 No Refill
Energy Stored (MWh)
2,000,000
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Zones A-E
Zone F
Zones G-I
Zone J
Zone K



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 6 - PD 7 No Refill
Emergency Actions and Lost Load (MW)
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 6 - PD 7 No Refill
Lost Load (MW)
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

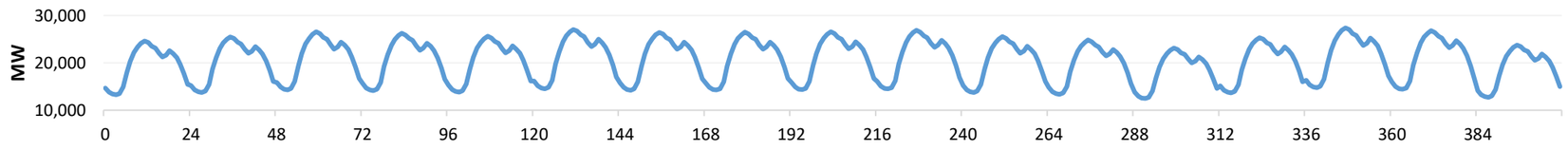
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 6 - PD 8 Non-Firm Gas Unavailable (F-K) (Winter 2026/2027)

Hourly Results Summary

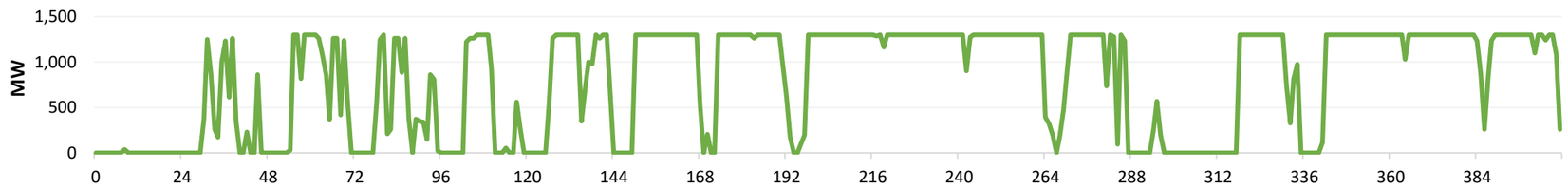
Case Name: Scenario 6 - PD 8 Non-Firm Gas Unavailable (F-K)

Load During Modeling Period



Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period

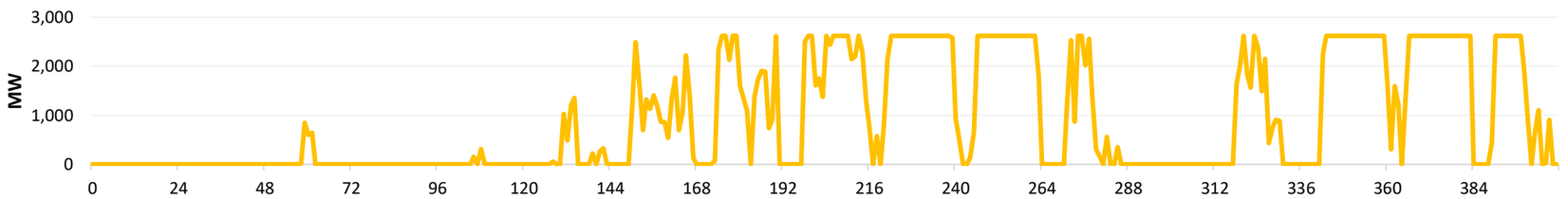


Export Reductions	
Total Hrs.	295
Total MWh	326,460
Avg. MW	800.1

SCR/EDRP Deployed During Modeling Period

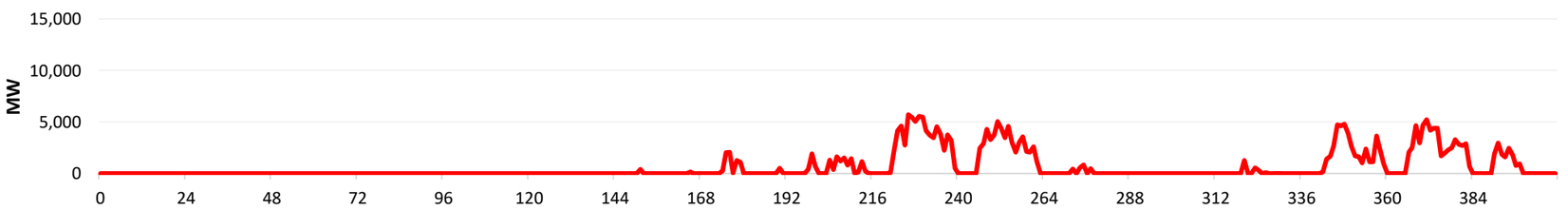
SCR Deployment	
Total Hrs.	15
Total MWh	6,387
Avg. MW	15.7

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	192
Total MWh	366,188
Avg. MW	897.5
First Hour with Viol.	58

Loss of Load During Modeling Period



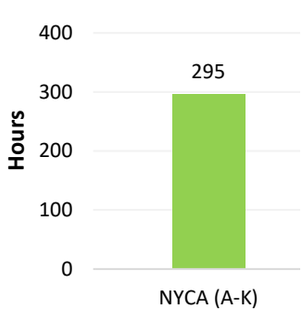
Loss of Load	
Total Hrs.	114
Total MWh	262,262
Avg. MW	642.8
First Hour with Losses	151

Full Period Results Summary

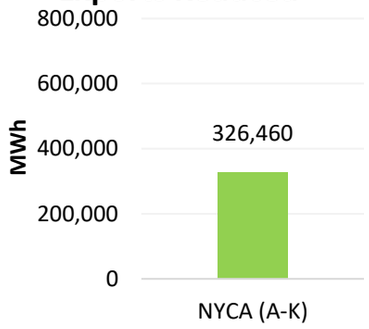
Case Name: Scenario 6 - PD 8 Non-Firm Gas Unavailable (F-K)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

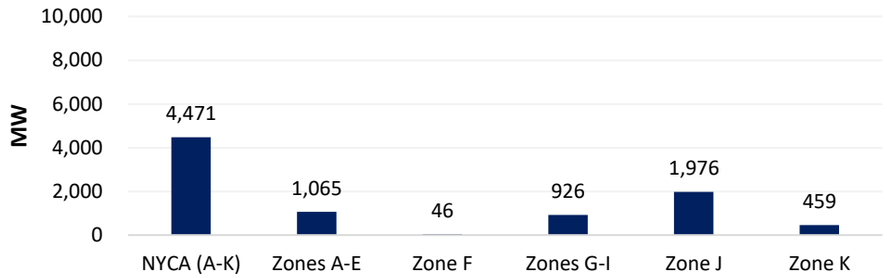
Hours Exports Reduced



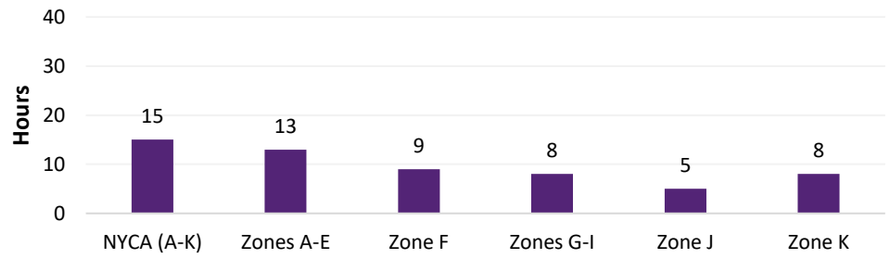
Total MWh of Exports Reduced



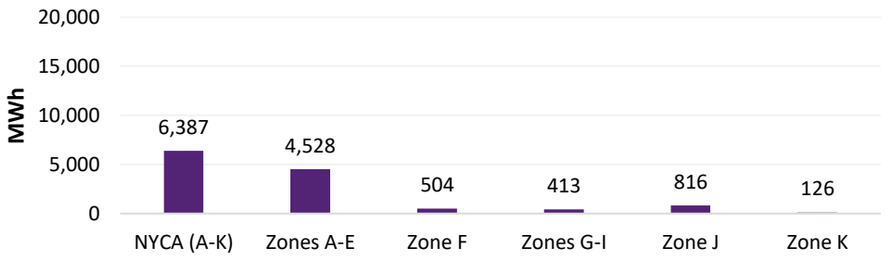
Average Capacity Not Available Due to Exhausted Fuel Inventory



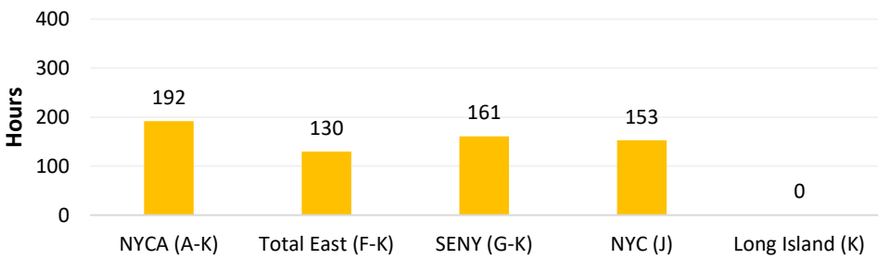
Hours SCR/EDRP Deployed



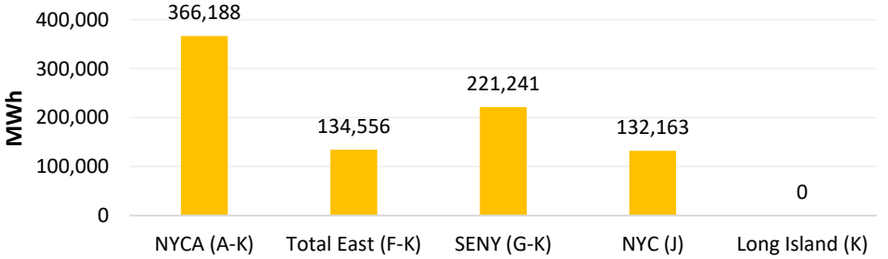
Total MWh SCR/EDRP Deployed



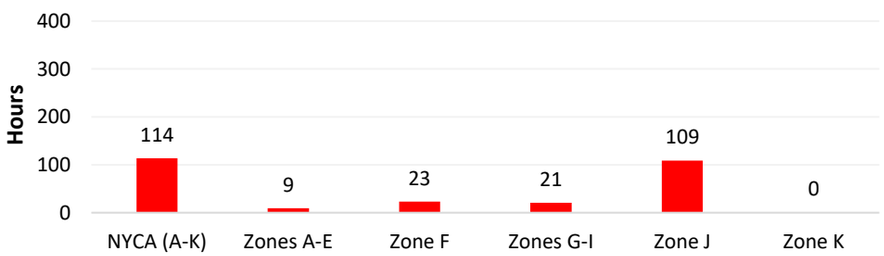
Hours with Reserve Violations



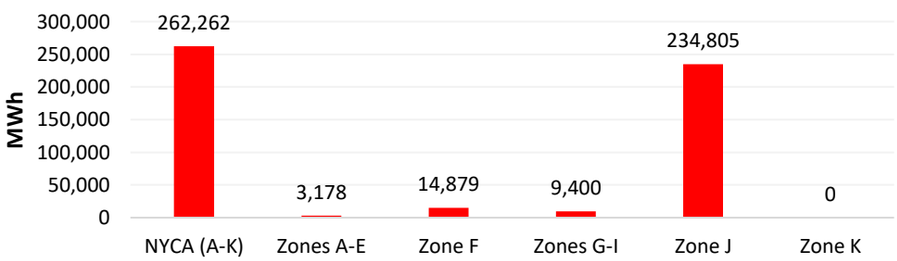
Total MWh of Reserve Violations

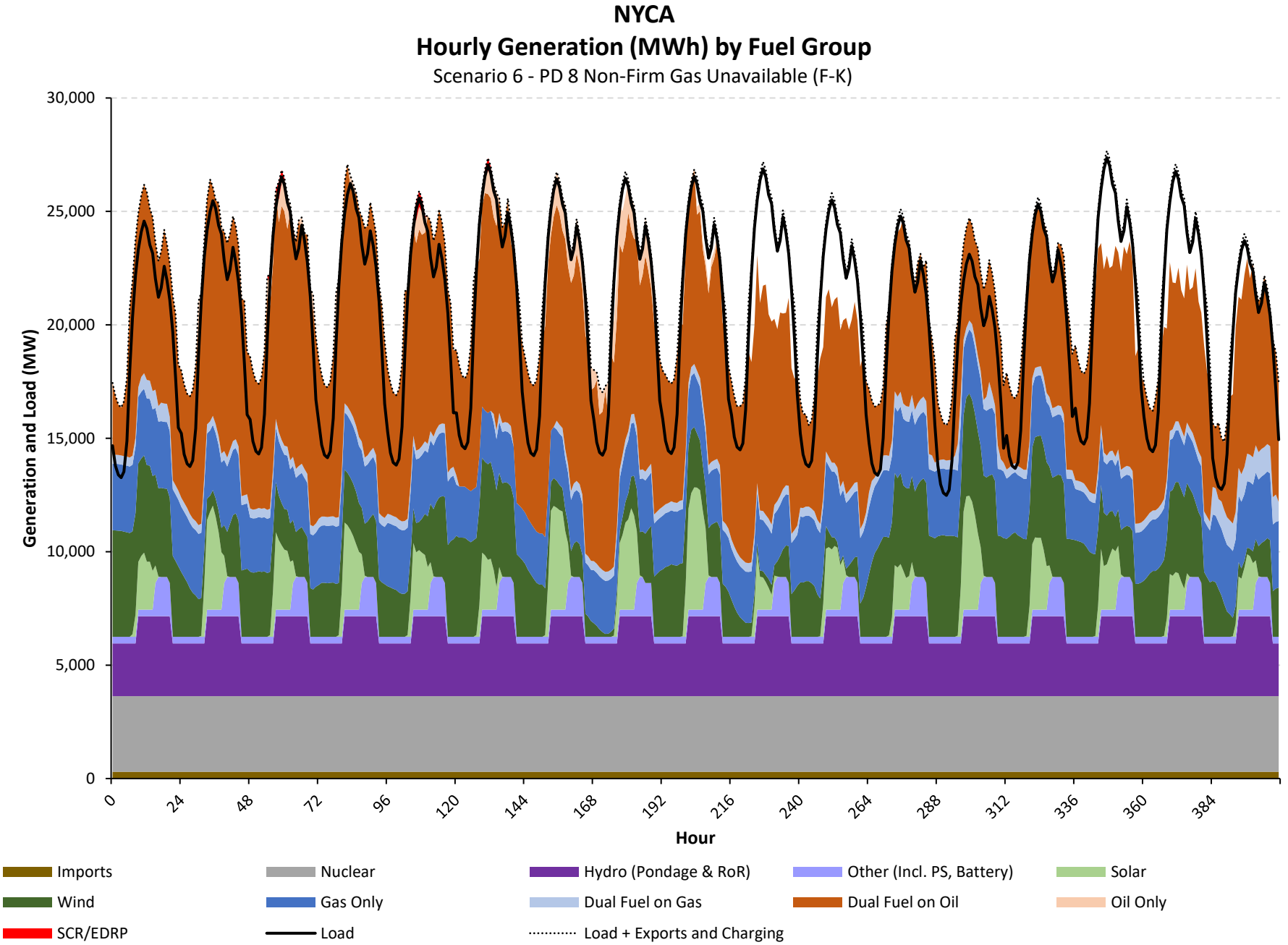


Hours with Loss of Load

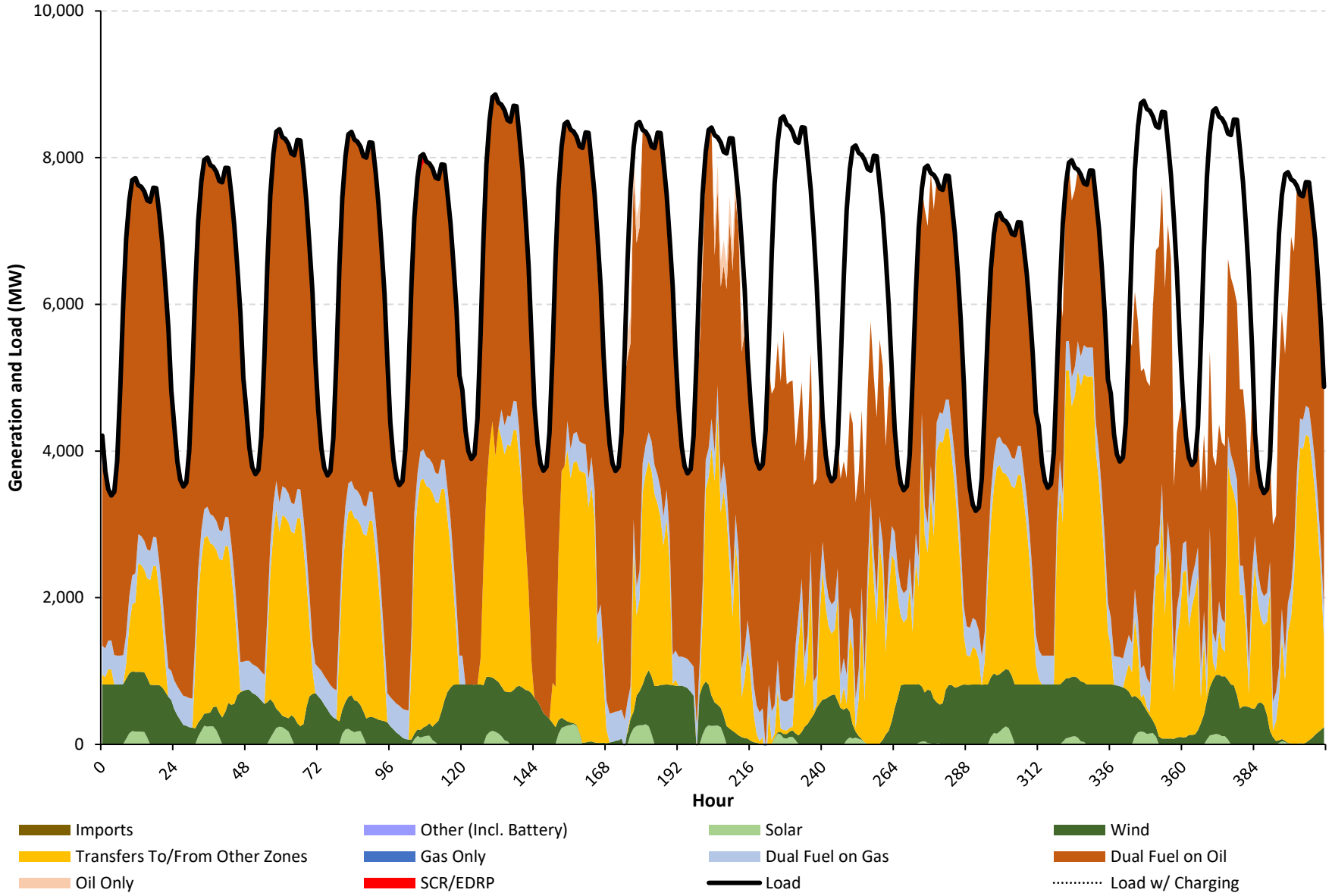


Total MWh of Lost Load

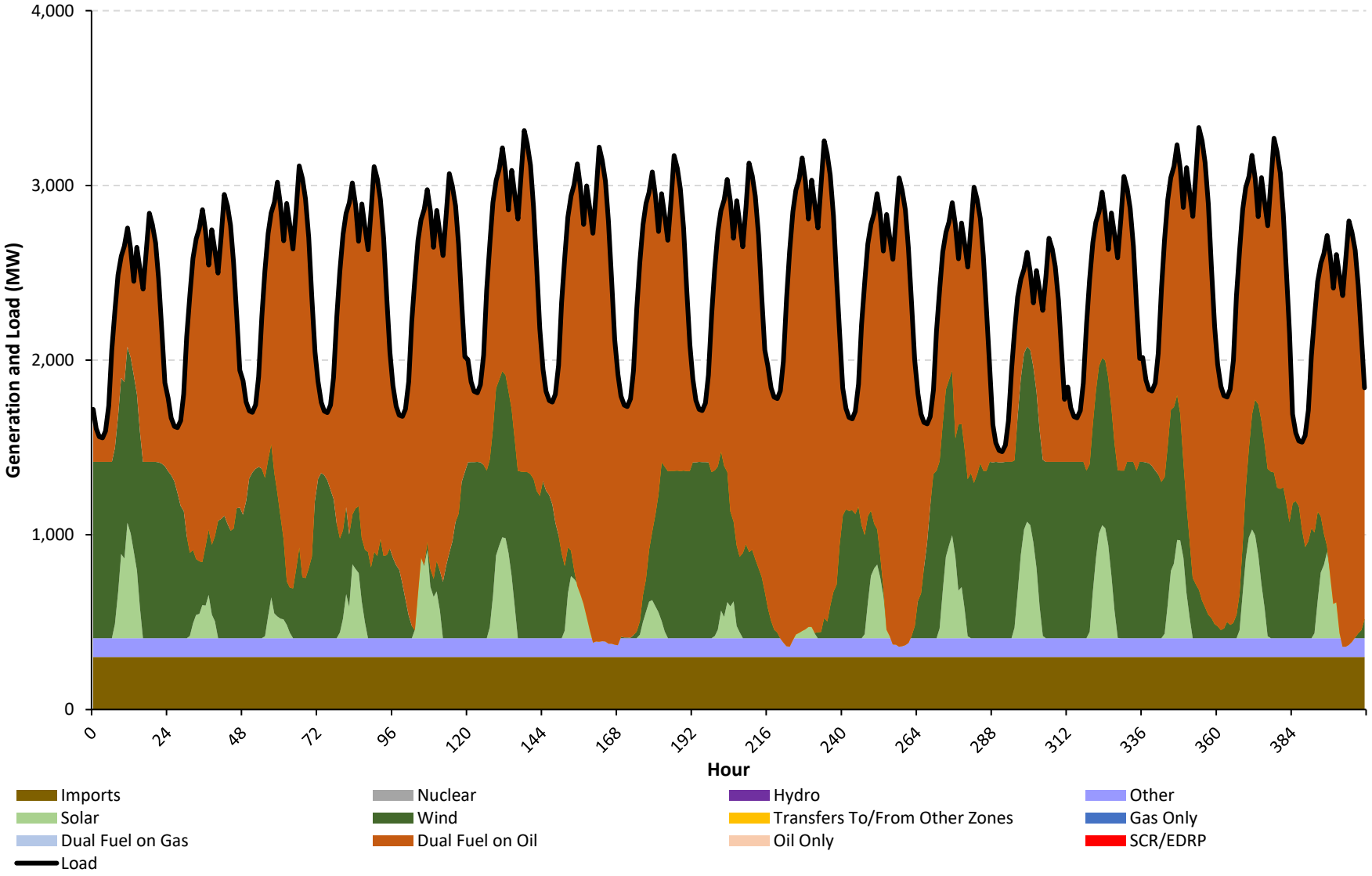



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 6 - PD 8 Non-Firm Gas Unavailable (F-K)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 8 Non-Firm Gas Unavailable (F-K)



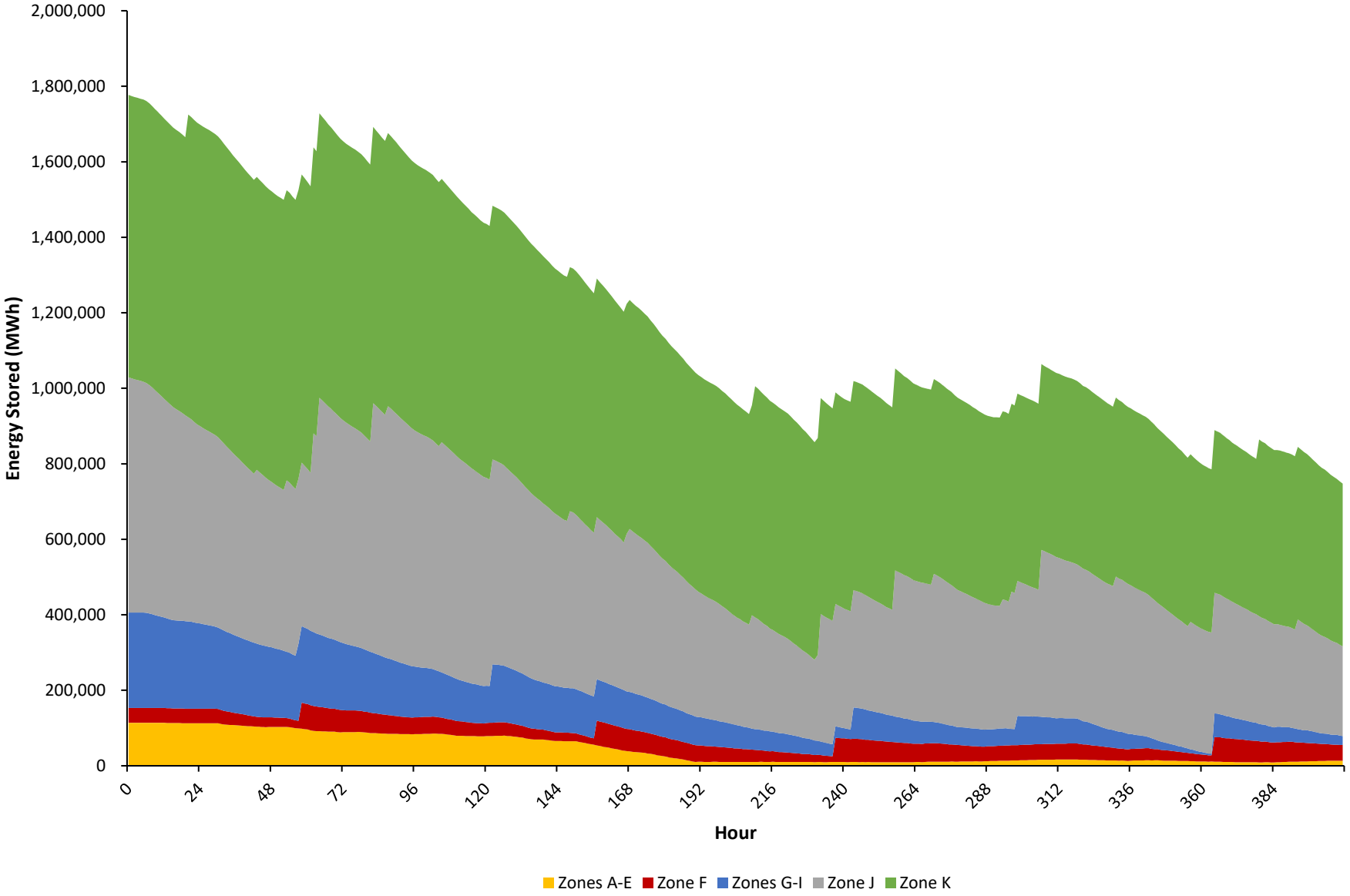
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 8 Non-Firm Gas Unavailable (F-K)



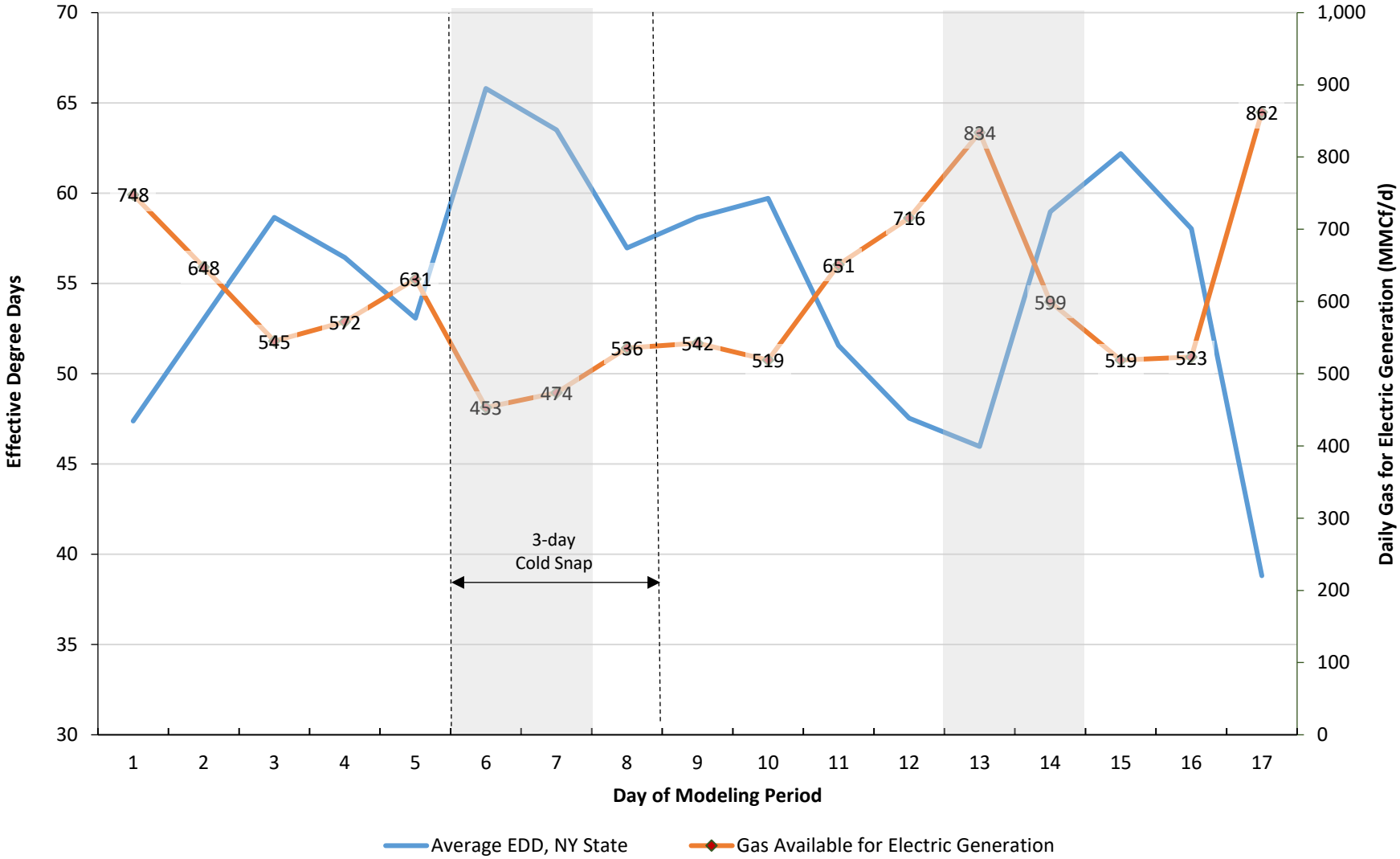
NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

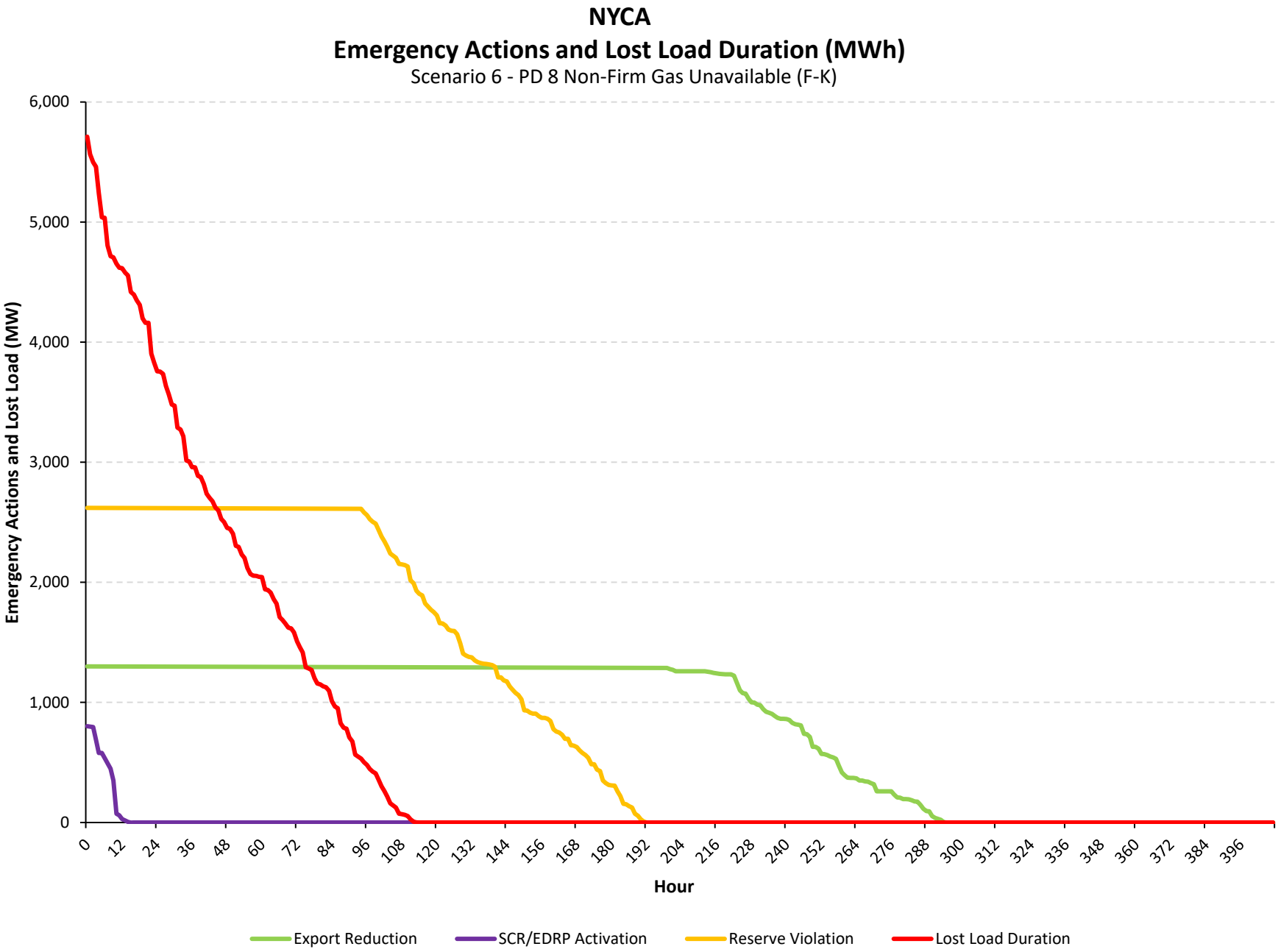
Scenario 6 - PD 8 Non-Firm Gas Unavailable (F-K)

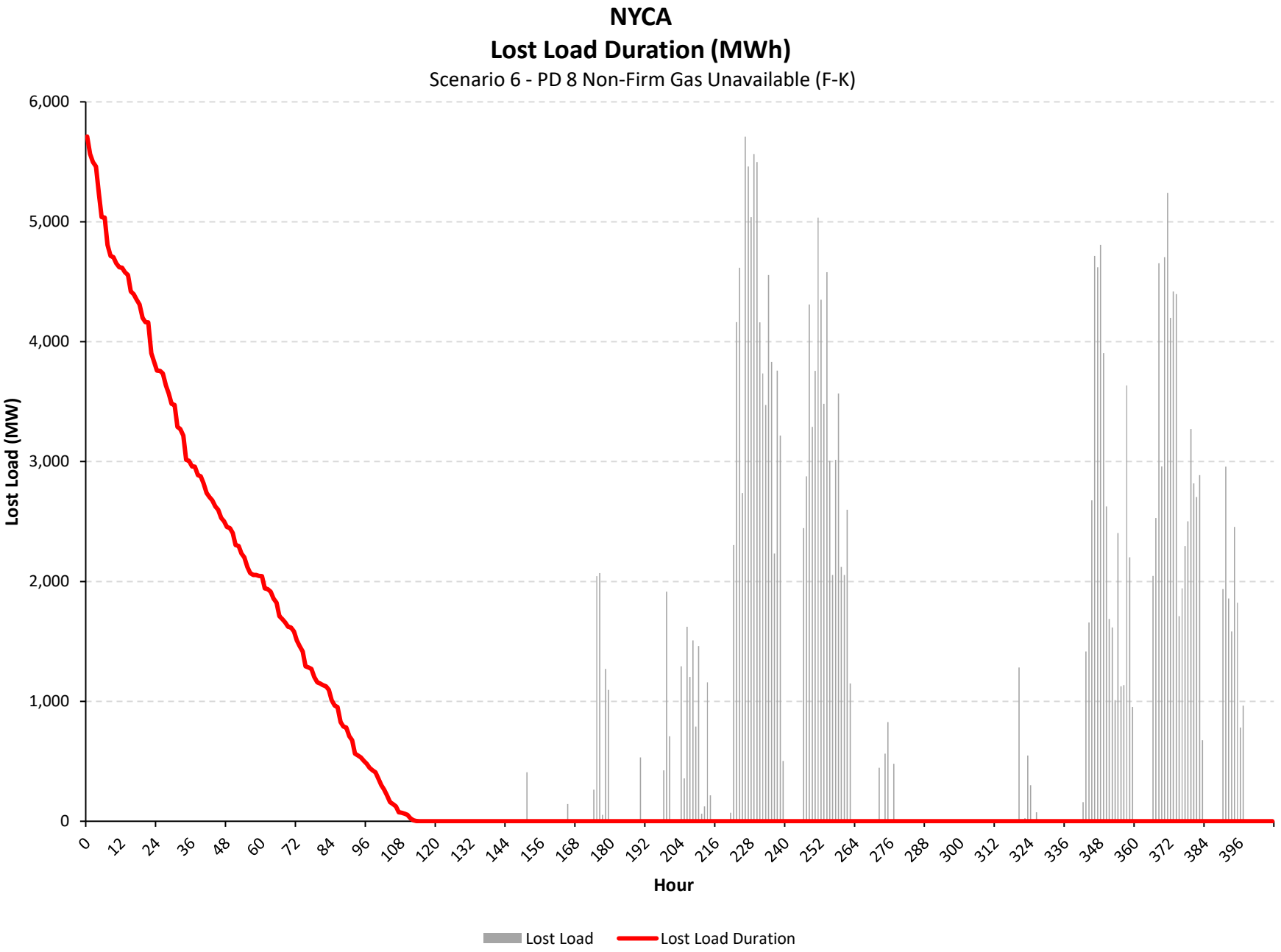


NYCA
Degree Days and Gas Available for Electric Generation 17-Day Modeling Period
Scenario 6 - PD 8 Non-Firm Gas Unavailable (F-K)



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 6 - PD 8 Non-Firm Gas Unavailable (F-K)
Emergency Actions and Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 6 - PD 8 Non-Firm Gas Unavailable (F-K)
Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

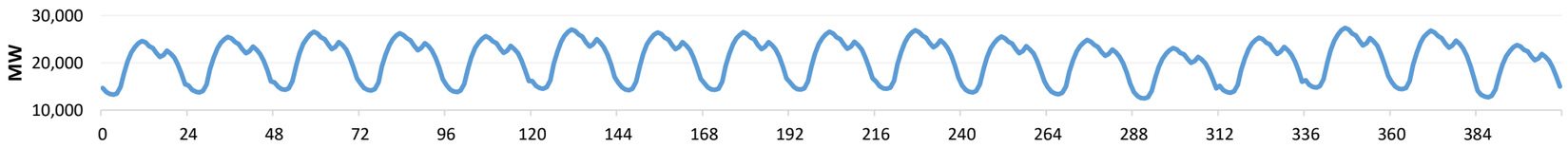
Case: Scenario 6 - PD 9 Non-Firm Gas Unavailable (NYCA) (Winter 2026/2027)

Hourly Results Summary

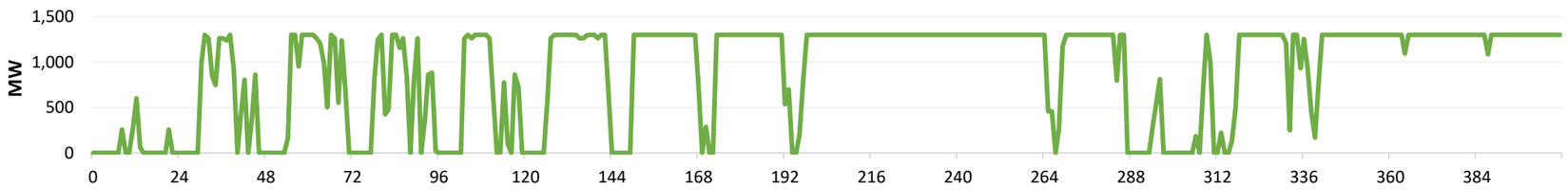
Case Name: Scenario 6 - PD 9 Non-Firm Gas Unavailable (NYCA)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Load During Modeling Period

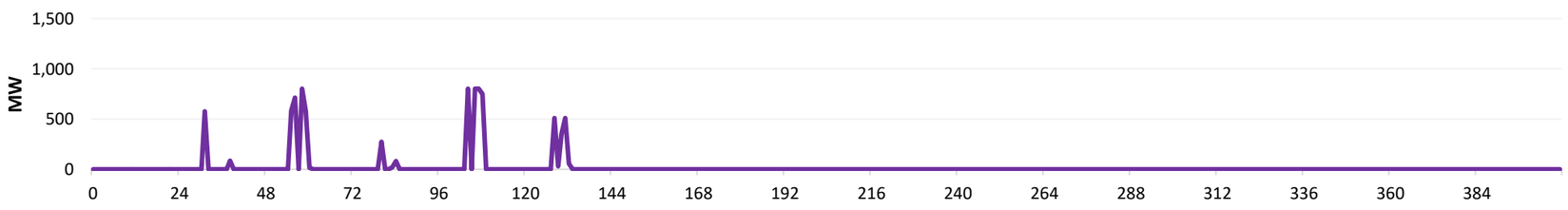


Export to ISO-NE Reduction During Modeling Period



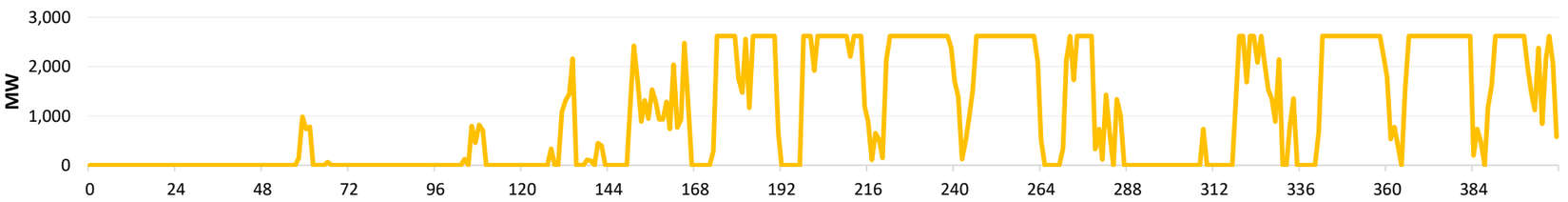
Export Reductions	
Total Hrs.	315
Total MWh	362,655
Avg. MW	888.9

SCR/EDRP Deployed During Modeling Period



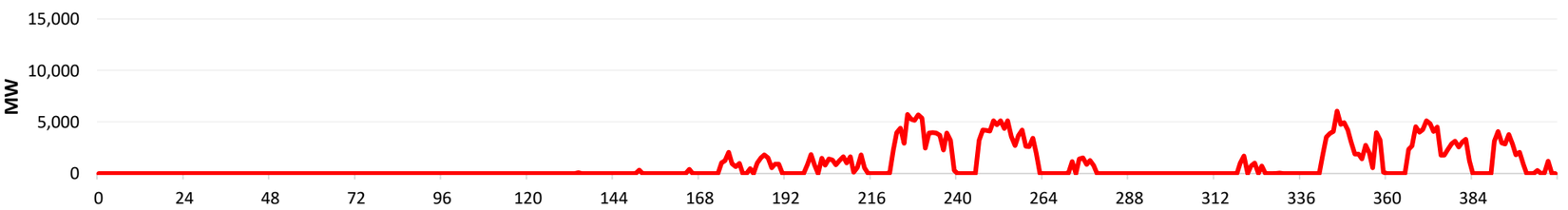
SCR Deployment	
Total Hrs.	19
Total MWh	8,339
Avg. MW	20.4

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	219
Total MWh	424,065
Avg. MW	1,039.4
First Hour with Viol.	58

Loss of Load During Modeling Period



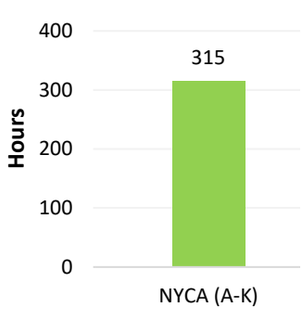
Loss of Load	
Total Hrs.	133
Total MWh	319,356
Avg. MW	782.7
First Hour with Losses	134

Full Period Results Summary

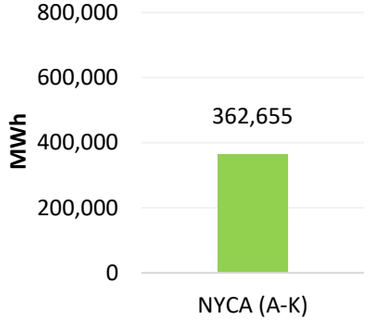
Case Name: Scenario 6 - PD 9 Non-Firm Gas Unavailable (NYCA)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

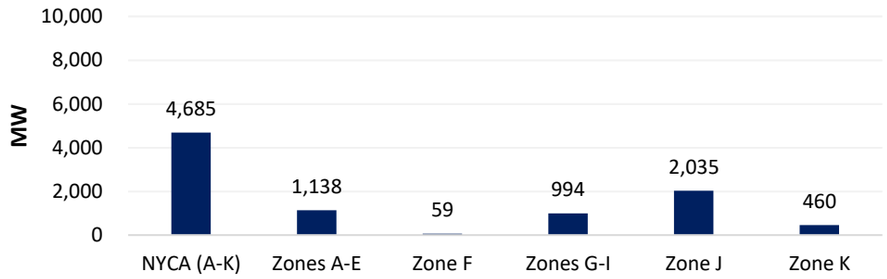
Hours Exports Reduced



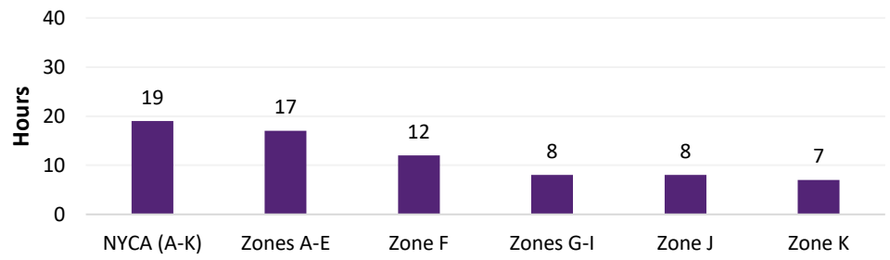
Total MWh of Exports Reduced



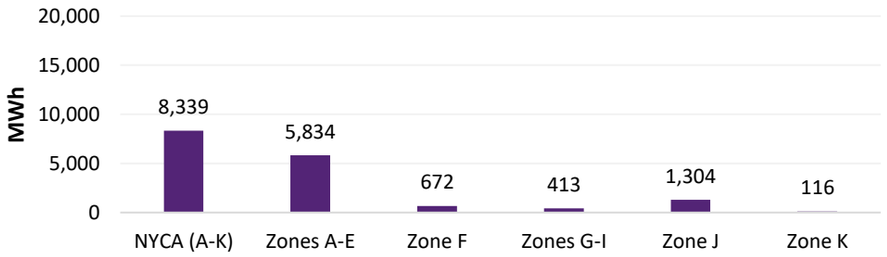
Average Capacity Not Available Due to Exhausted Fuel Inventory



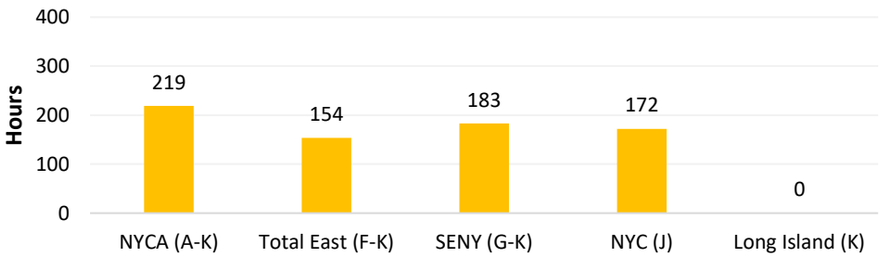
Hours SCR/EDRP Deployed



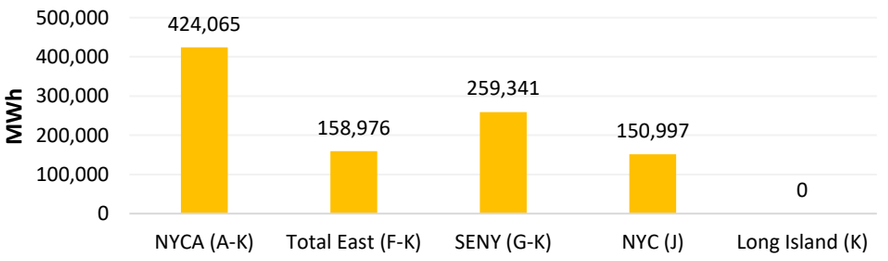
Total MWh SCR/EDRP Deployed



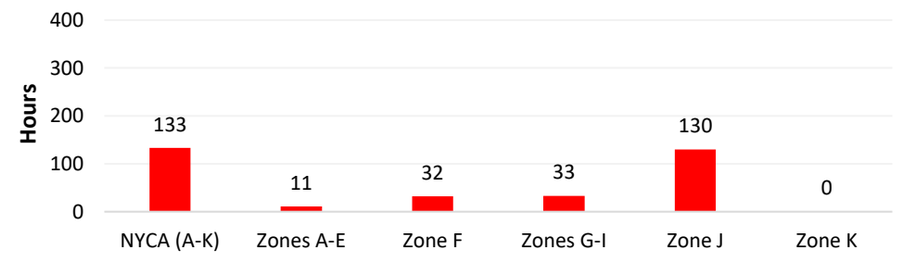
Hours with Reserve Violations



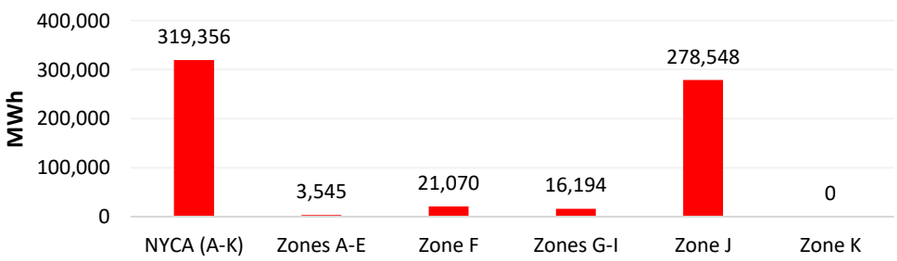
Total MWh of Reserve Violations

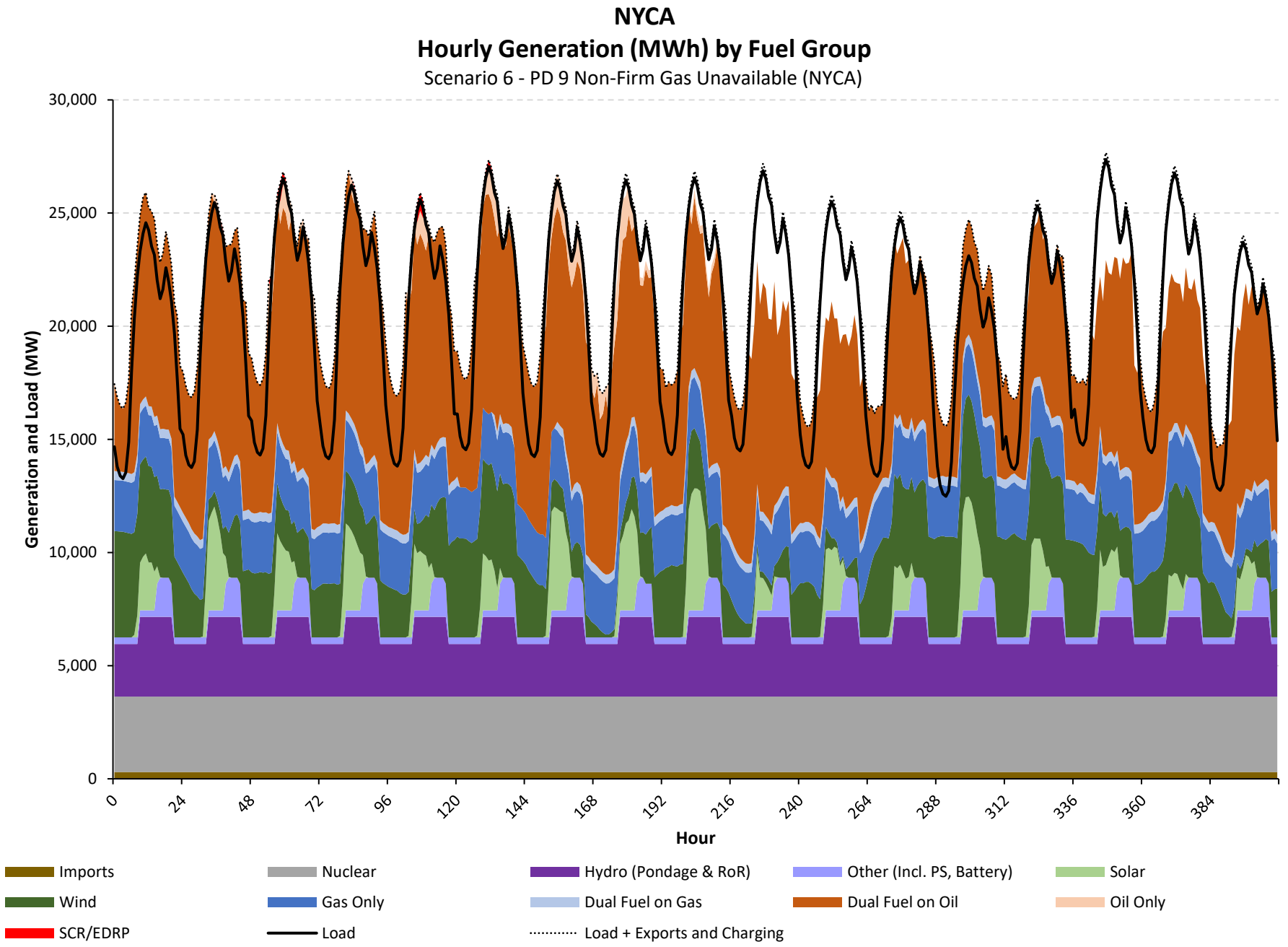


Hours with Loss of Load

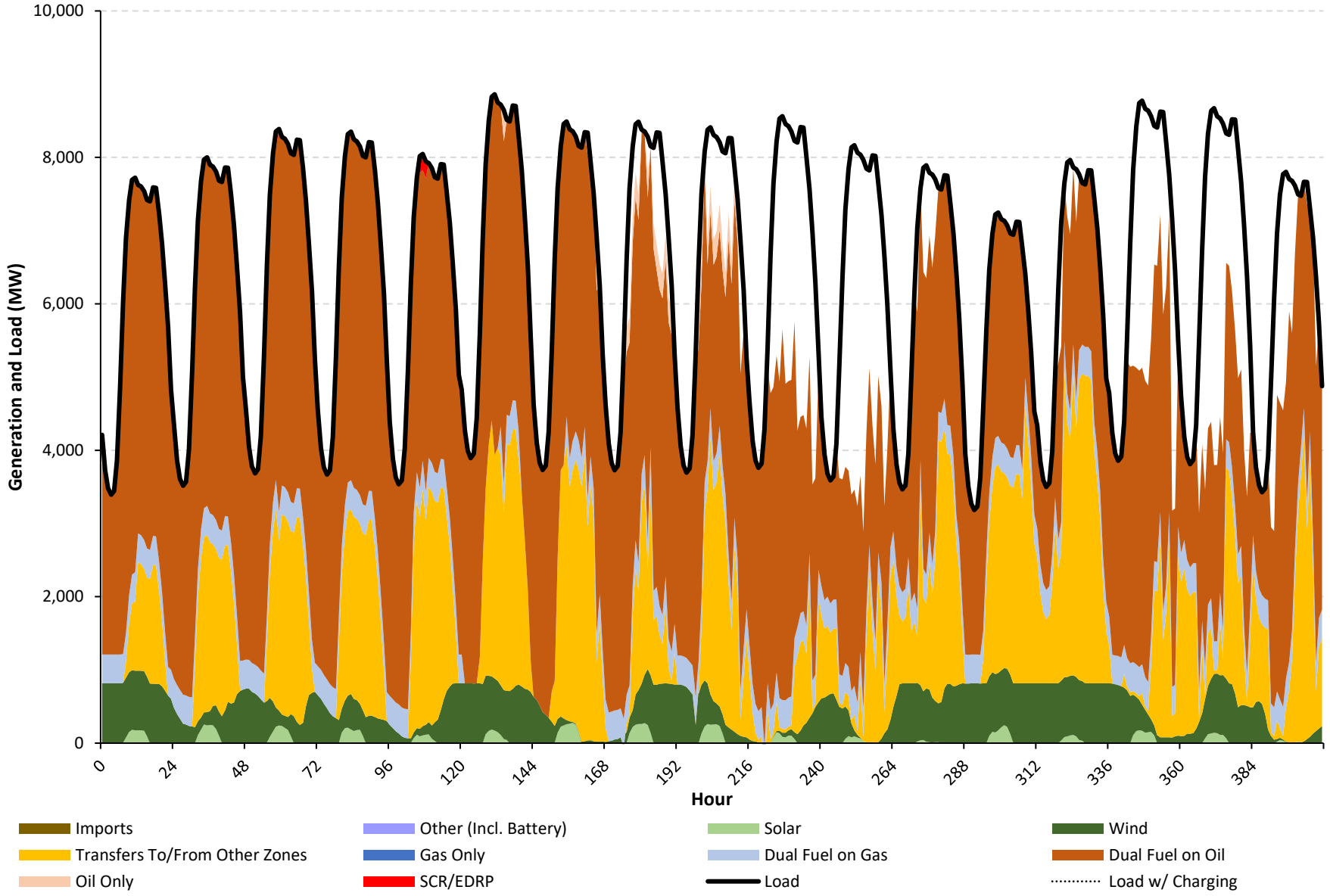


Total MWh of Lost Load

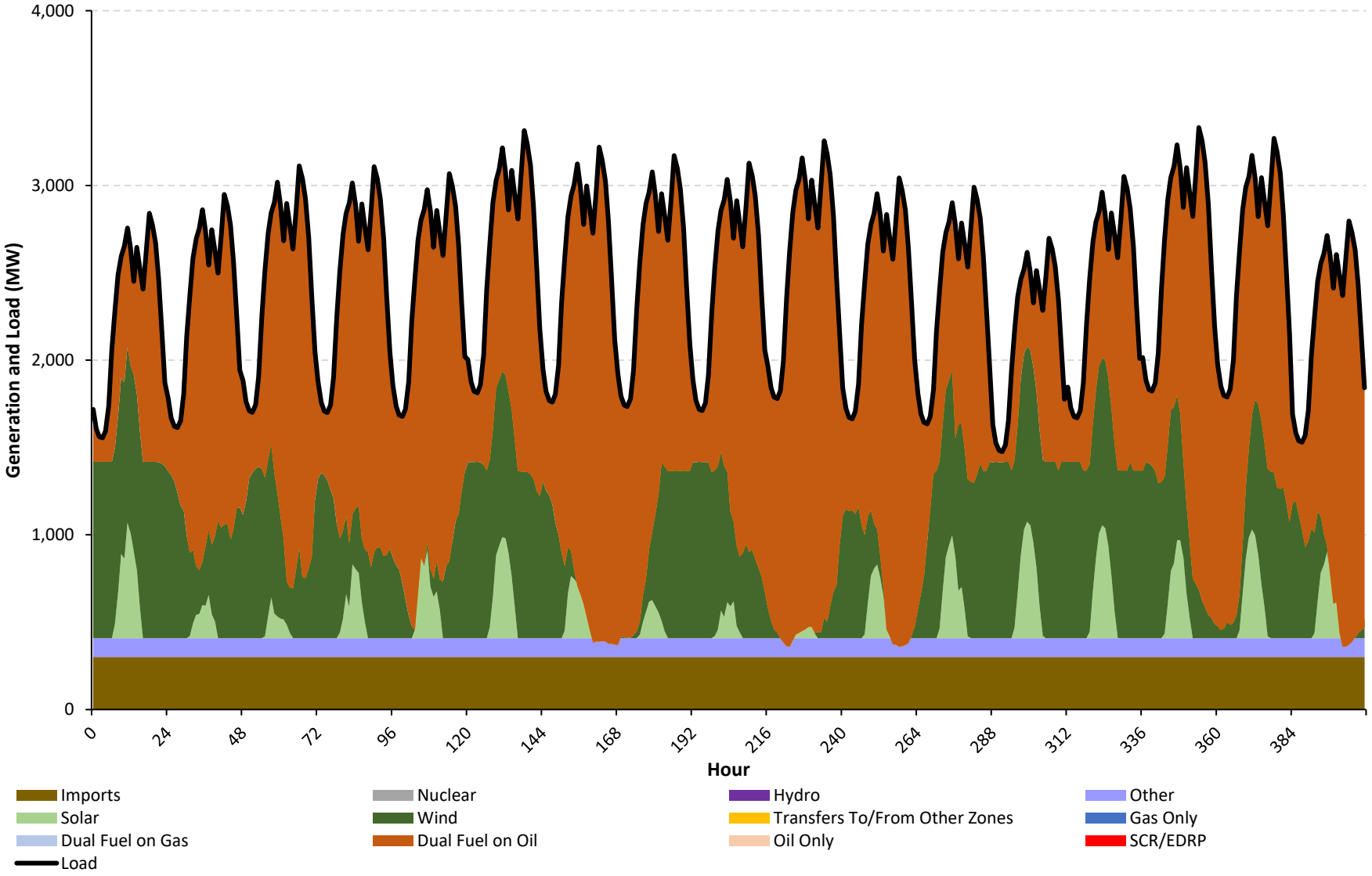



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 6 - PD 9 Non-Firm Gas Unavailable (NYCA)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 9 Non-Firm Gas Unavailable (NYCA)



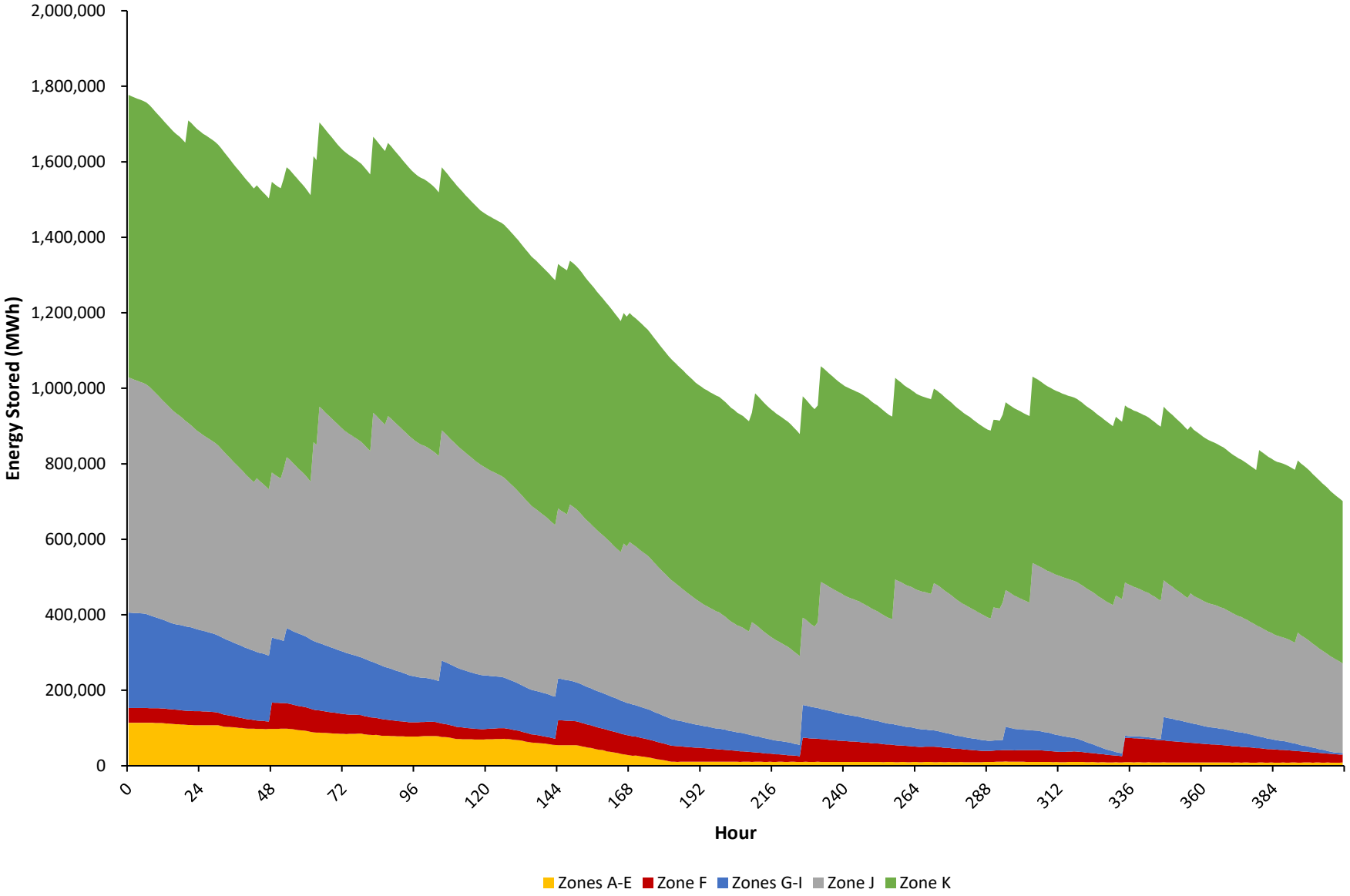
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 9 Non-Firm Gas Unavailable (NYCA)

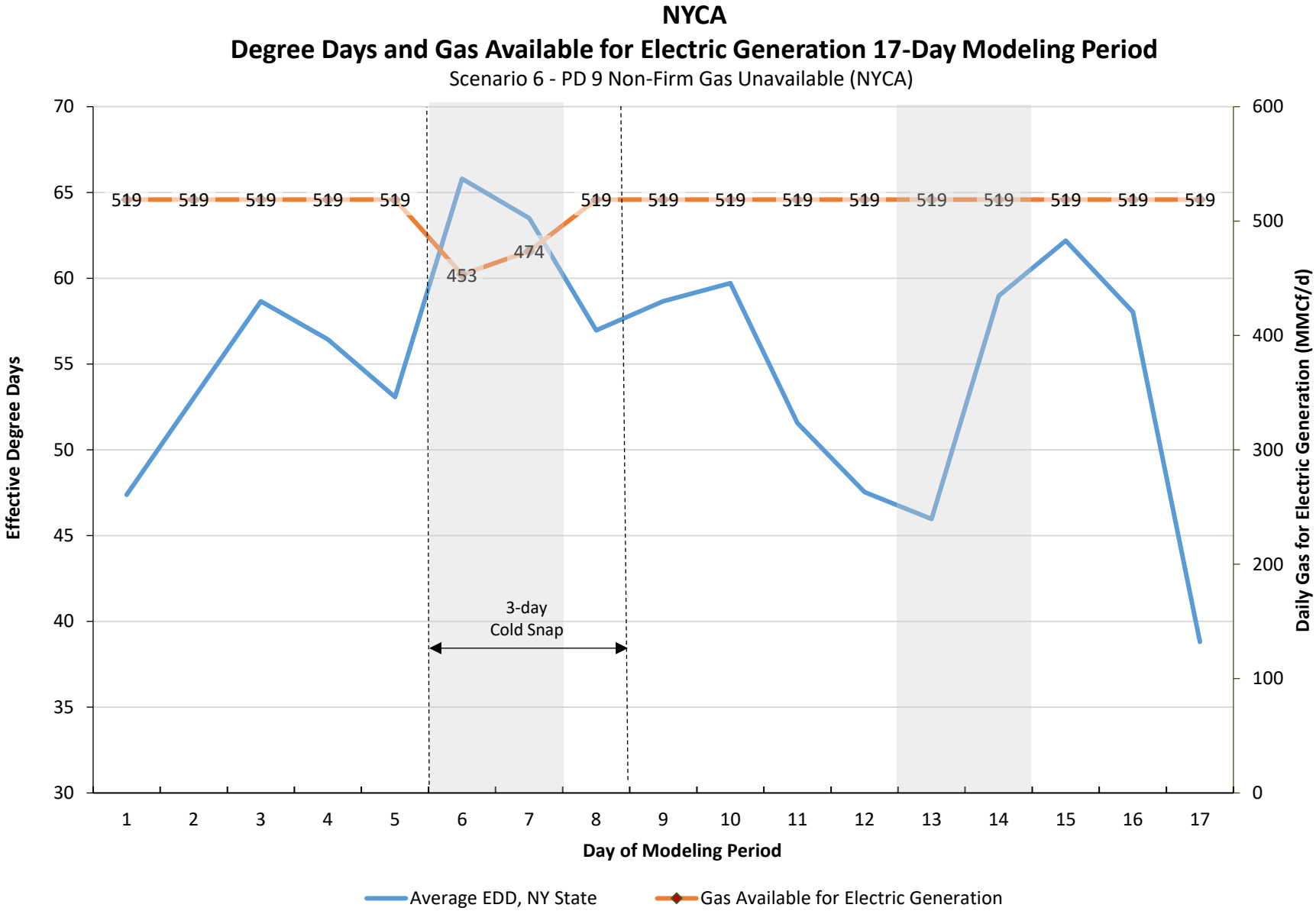


NYCA

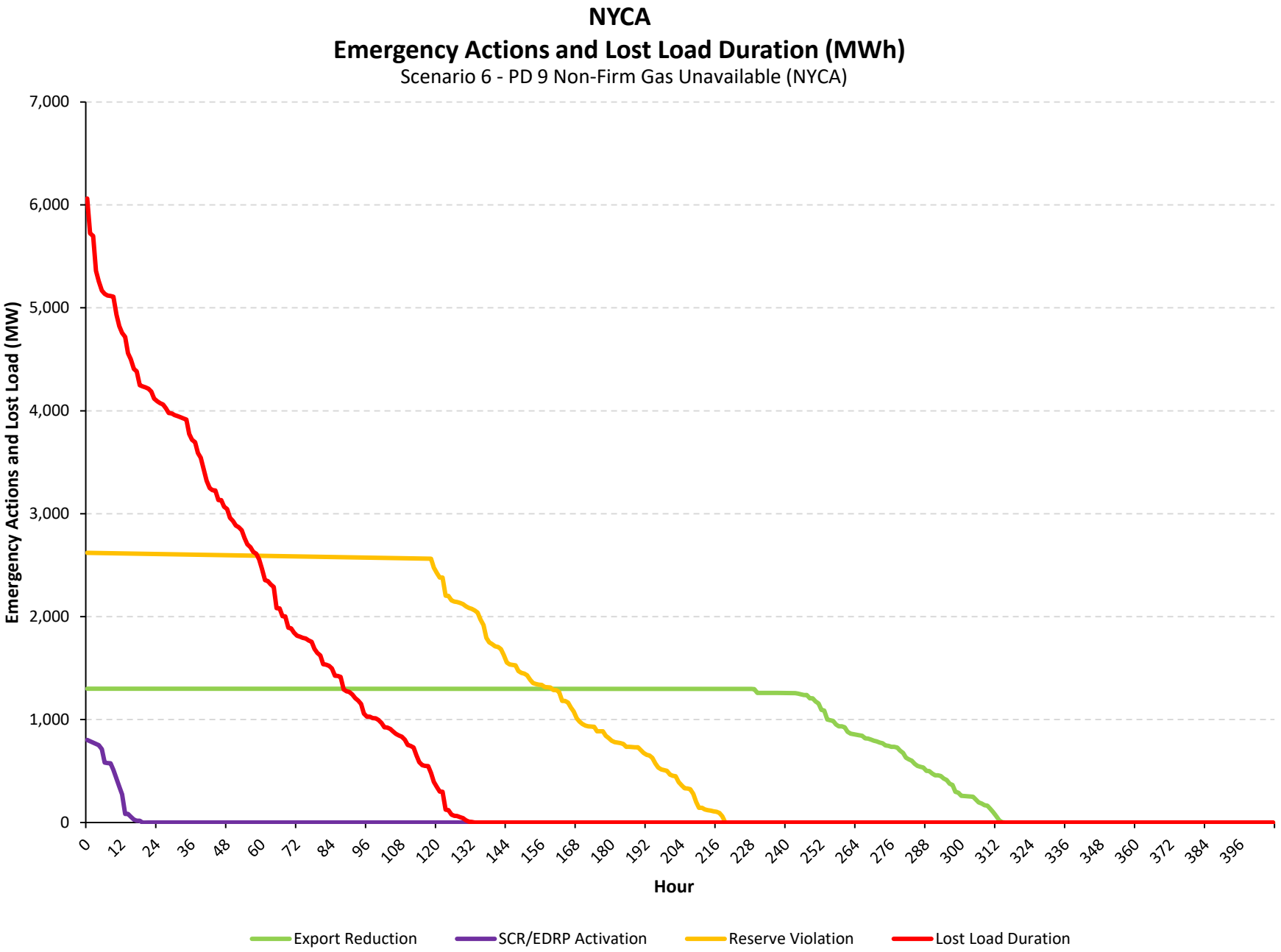
Quantity of Stored Fuel for Oil and Dual Fuel Units

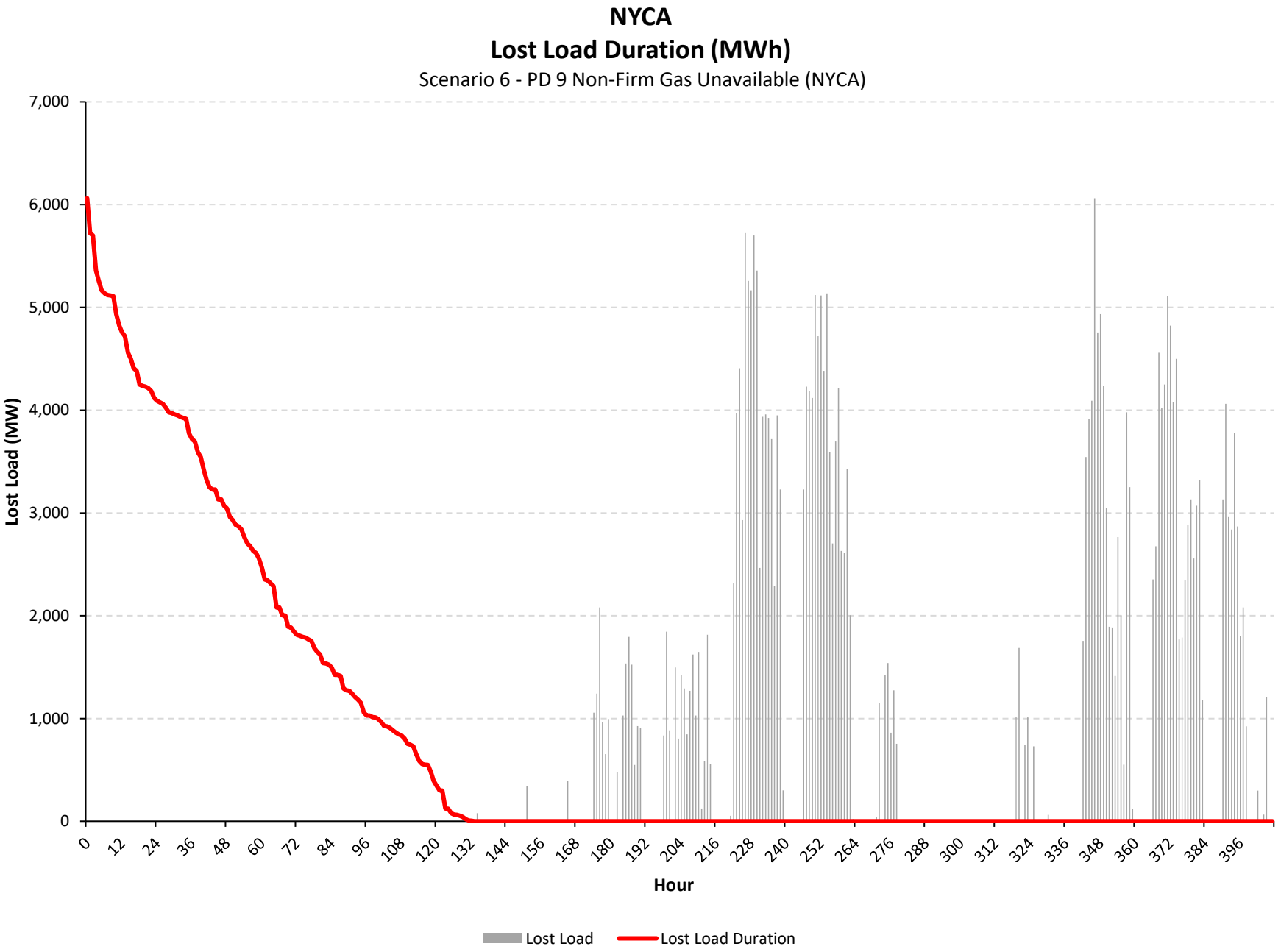
Scenario 6 - PD 9 Non-Firm Gas Unavailable (NYCA)





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 6 - PD 9 Non-Firm Gas Unavailable (NYCA)
Emergency Actions and Lost Load (MW)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 6 - PD 9 Non-Firm Gas Unavailable (NYCA)
Lost Load (MW)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

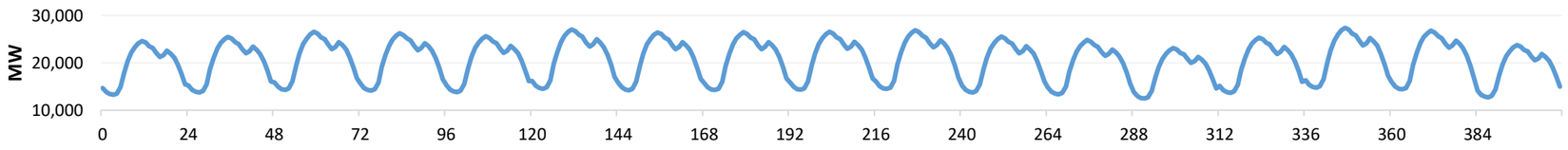
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 6 - PD 10 Non-Firm Gas Unavailable (4 days) (Winter 2026/2027)

Hourly Results Summary

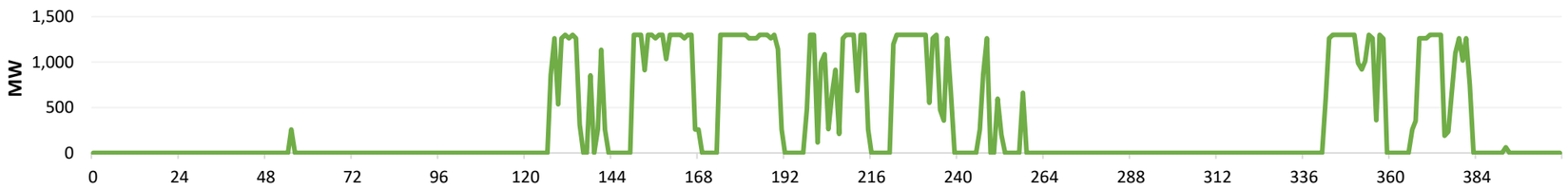
Case Name: Scenario 6 - PD 10 Non-Firm Gas Unavailable (4 days)

Load During Modeling Period



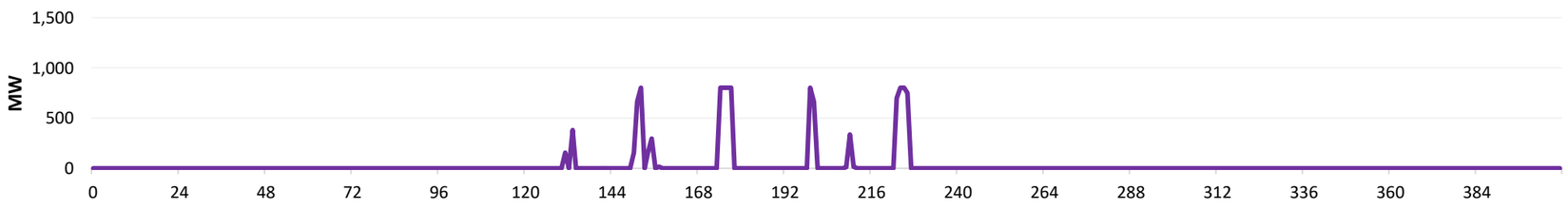
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



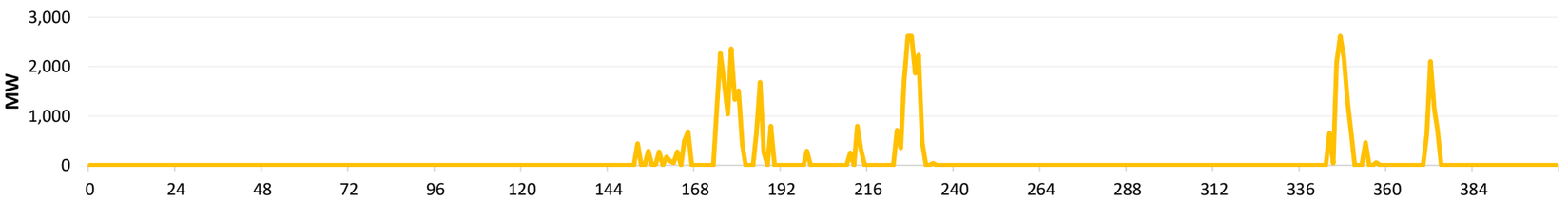
Export Reductions	
Total Hrs.	127
Total MWh	130,135
Avg. MW	319.0

SCR/EDRP Deployed During Modeling Period



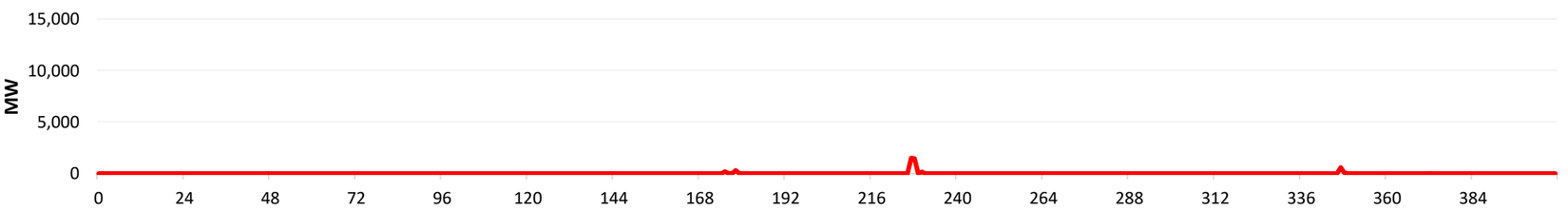
SCR Deployment	
Total Hrs.	21
Total MWh	10,719
Avg. MW	26.3

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	48
Total MWh	46,895
Avg. MW	114.9
First Hour with Viol.	152

Loss of Load During Modeling Period



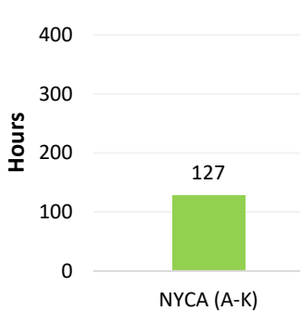
Loss of Load	
Total Hrs.	8
Total MWh	4,302
Avg. MW	10.5
First Hour with Losses	175

Full Period Results Summary

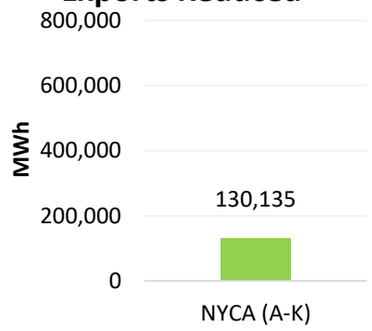
Case Name: Scenario 6 - PD 10 Non-Firm Gas Unavailable (4 days)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

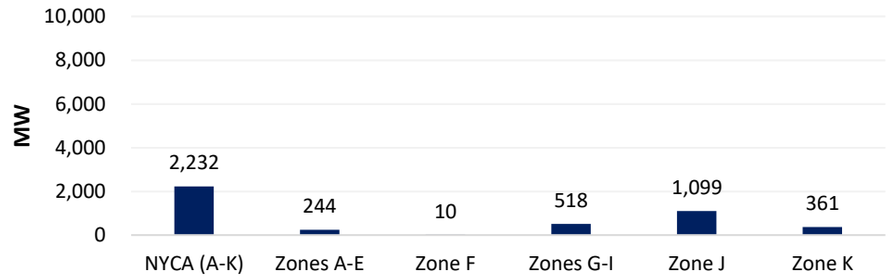
Hours Exports Reduced



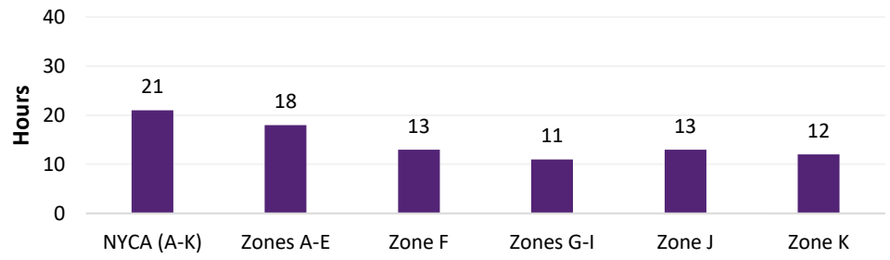
Total MWh of Exports Reduced



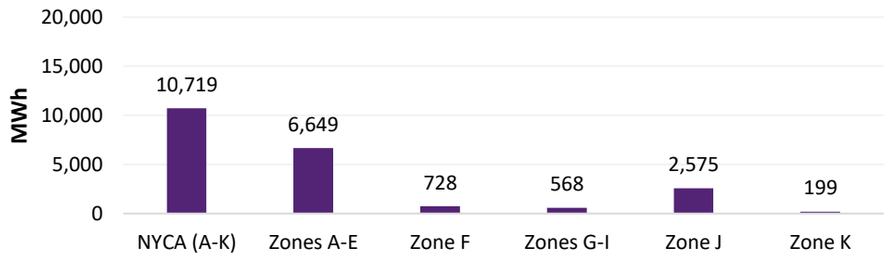
Average Capacity Not Available Due to Exhausted Fuel Inventory



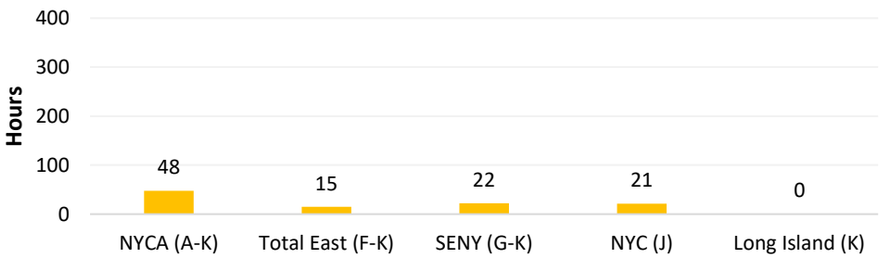
Hours SCR/EDRP Deployed



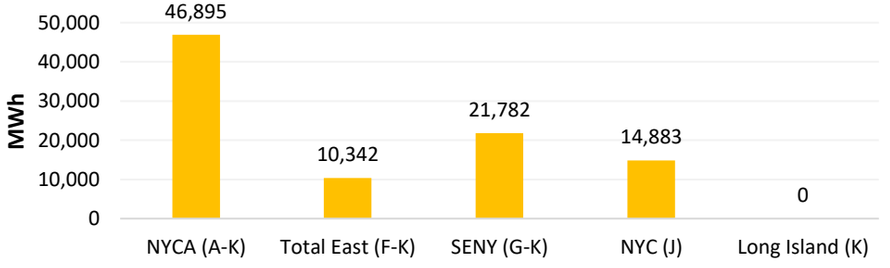
Total MWh SCR/EDRP Deployed



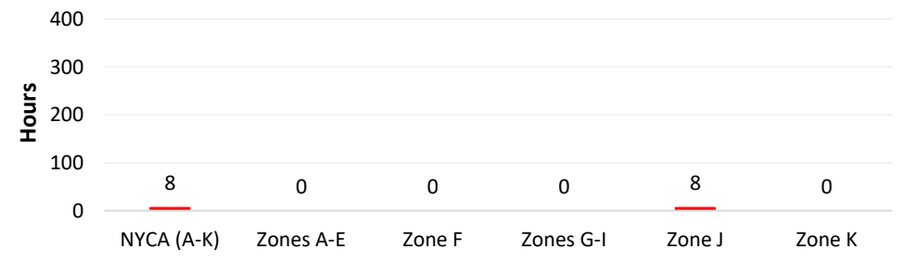
Hours with Reserve Violations



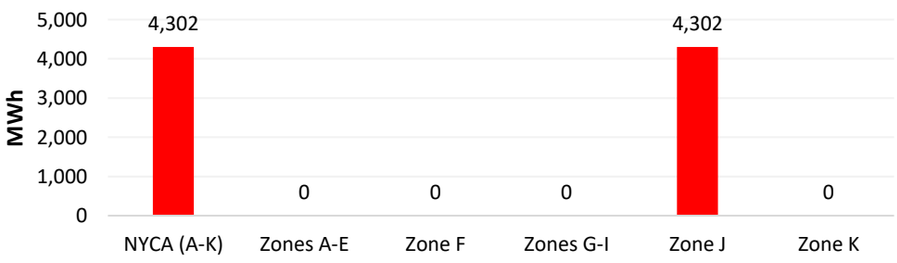
Total MWh of Reserve Violations

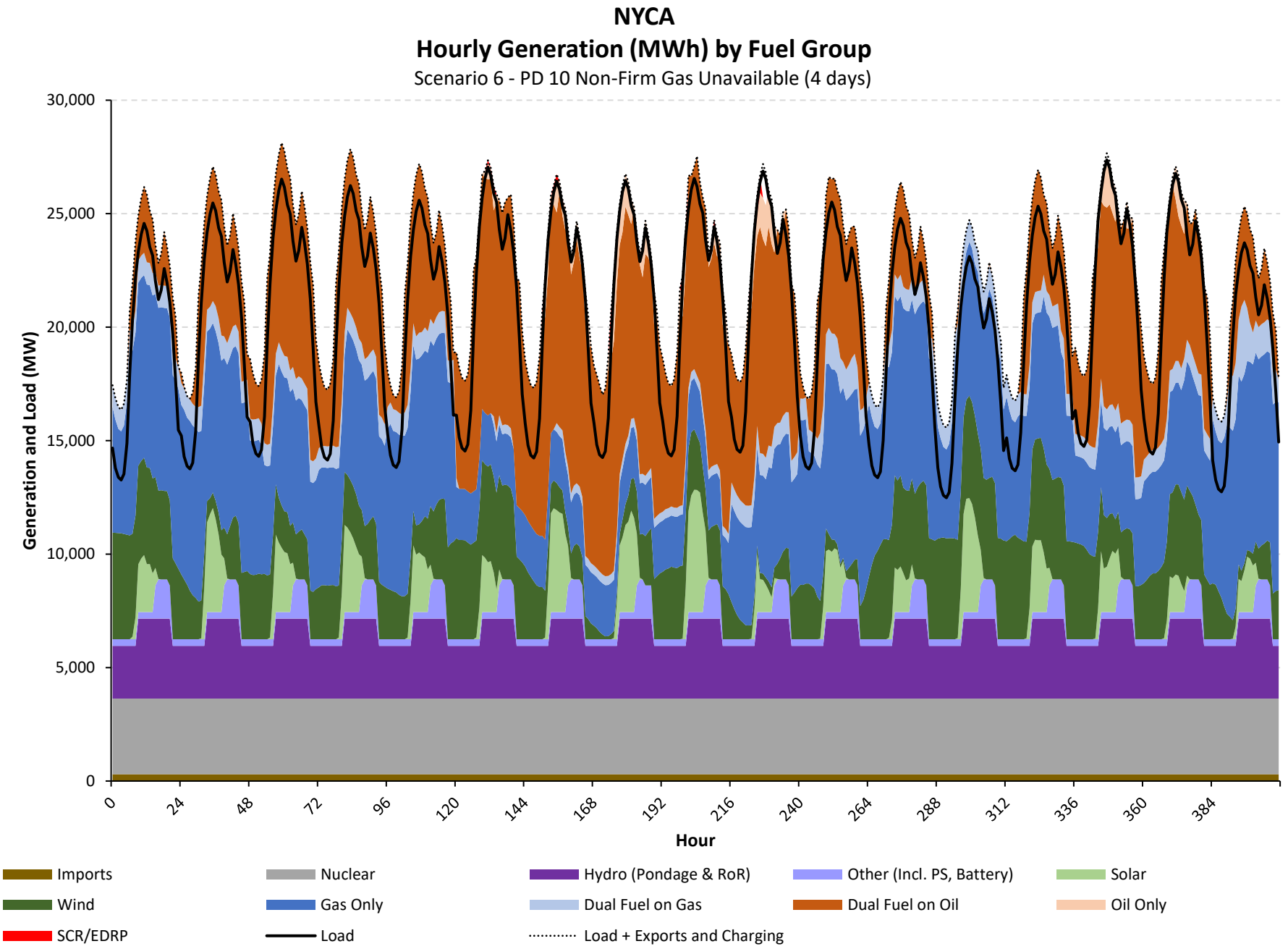


Hours with Loss of Load

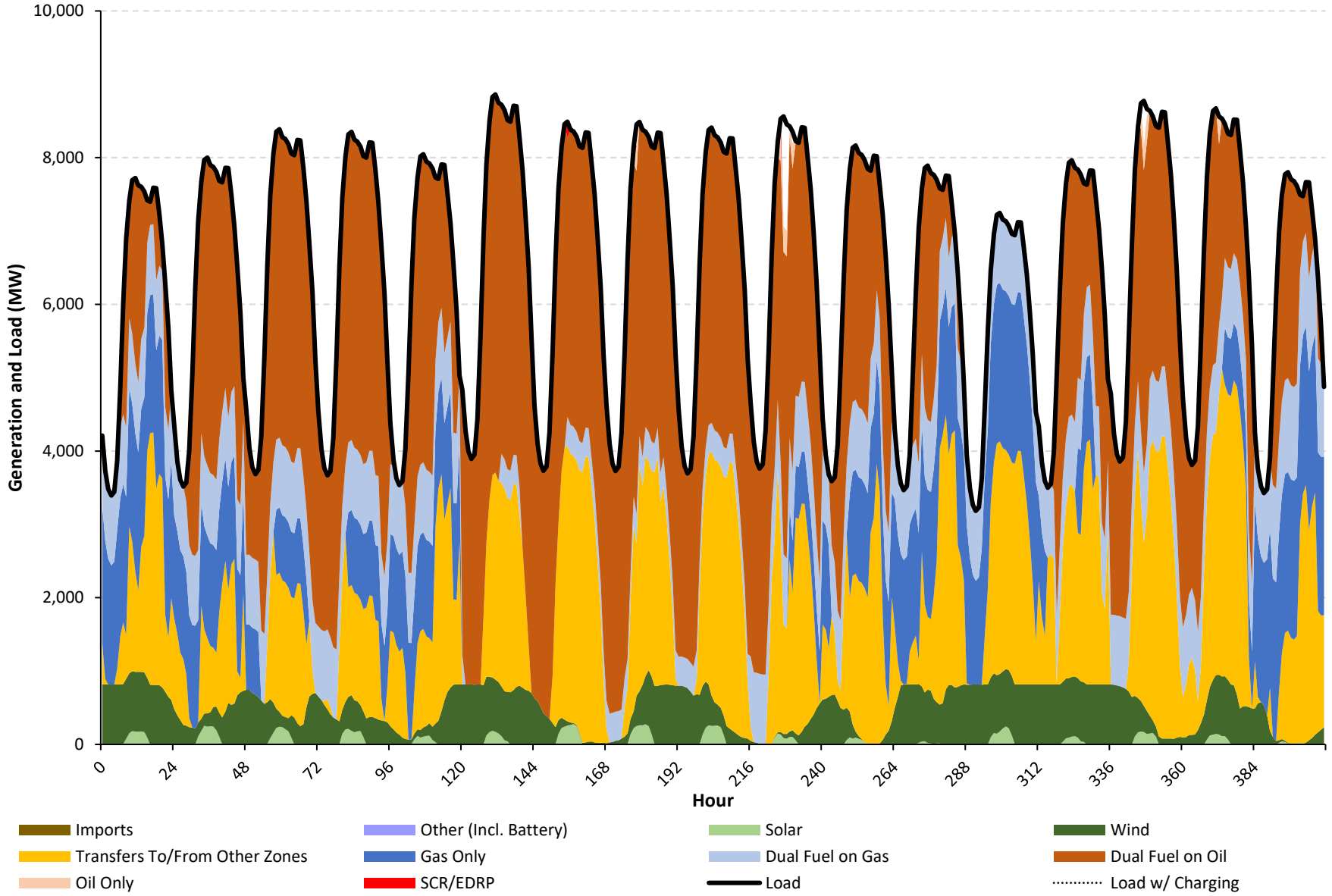


Total MWh of Lost Load

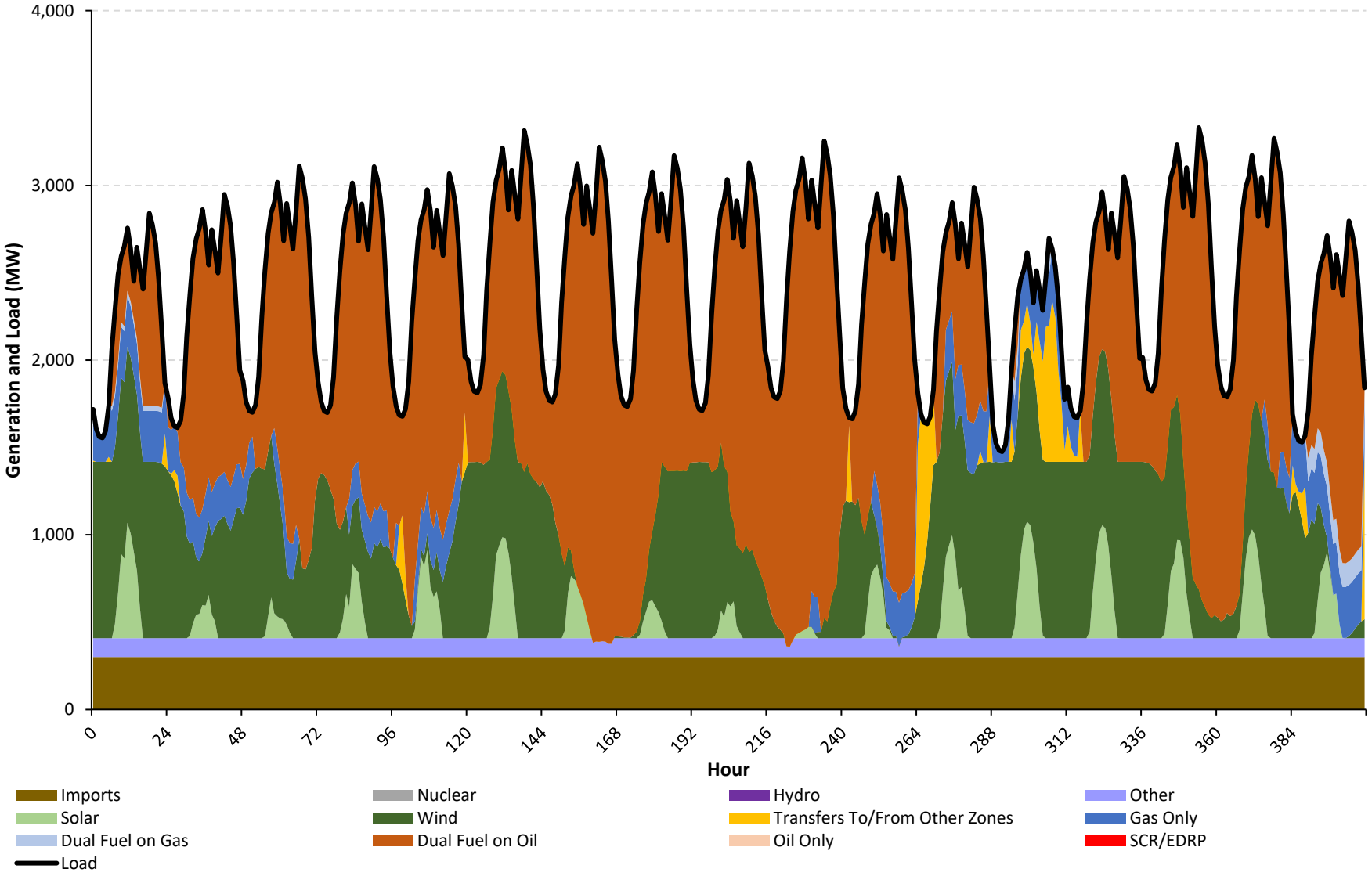



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 6 - PD 10 Non-Firm Gas Unavailable (4 days)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 10 Non-Firm Gas Unavailable (4 days)



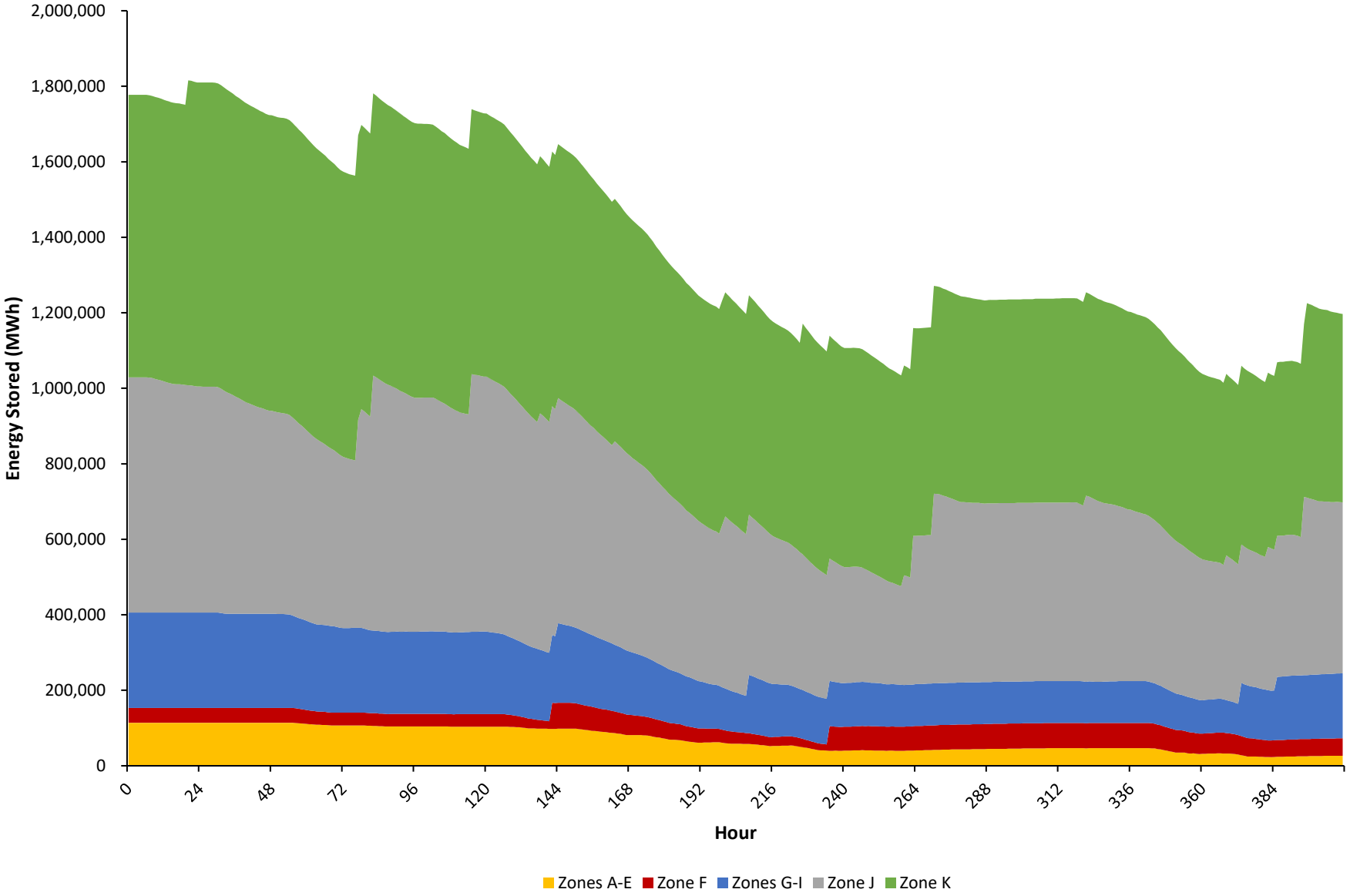
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 10 Non-Firm Gas Unavailable (4 days)

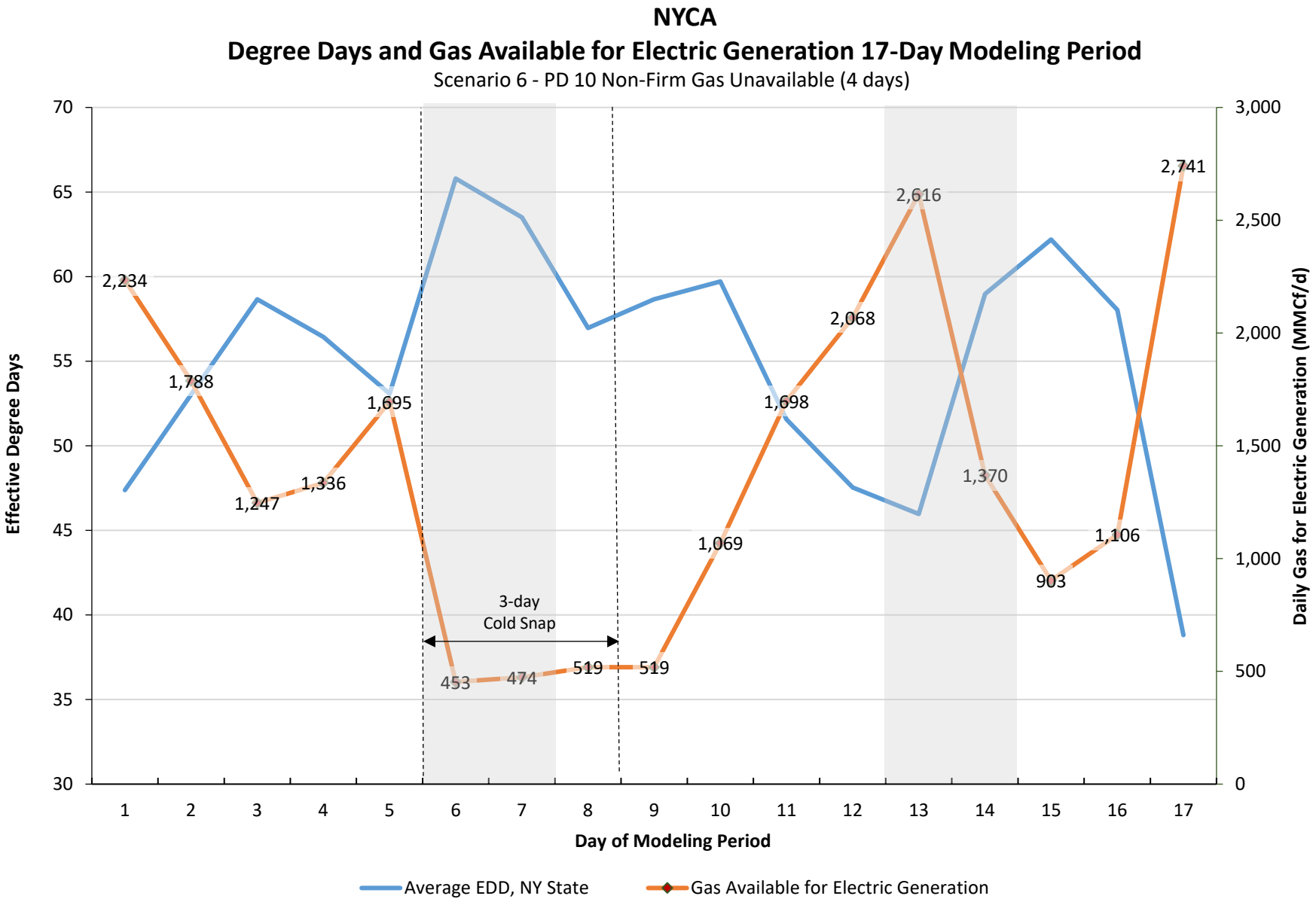


NYCA

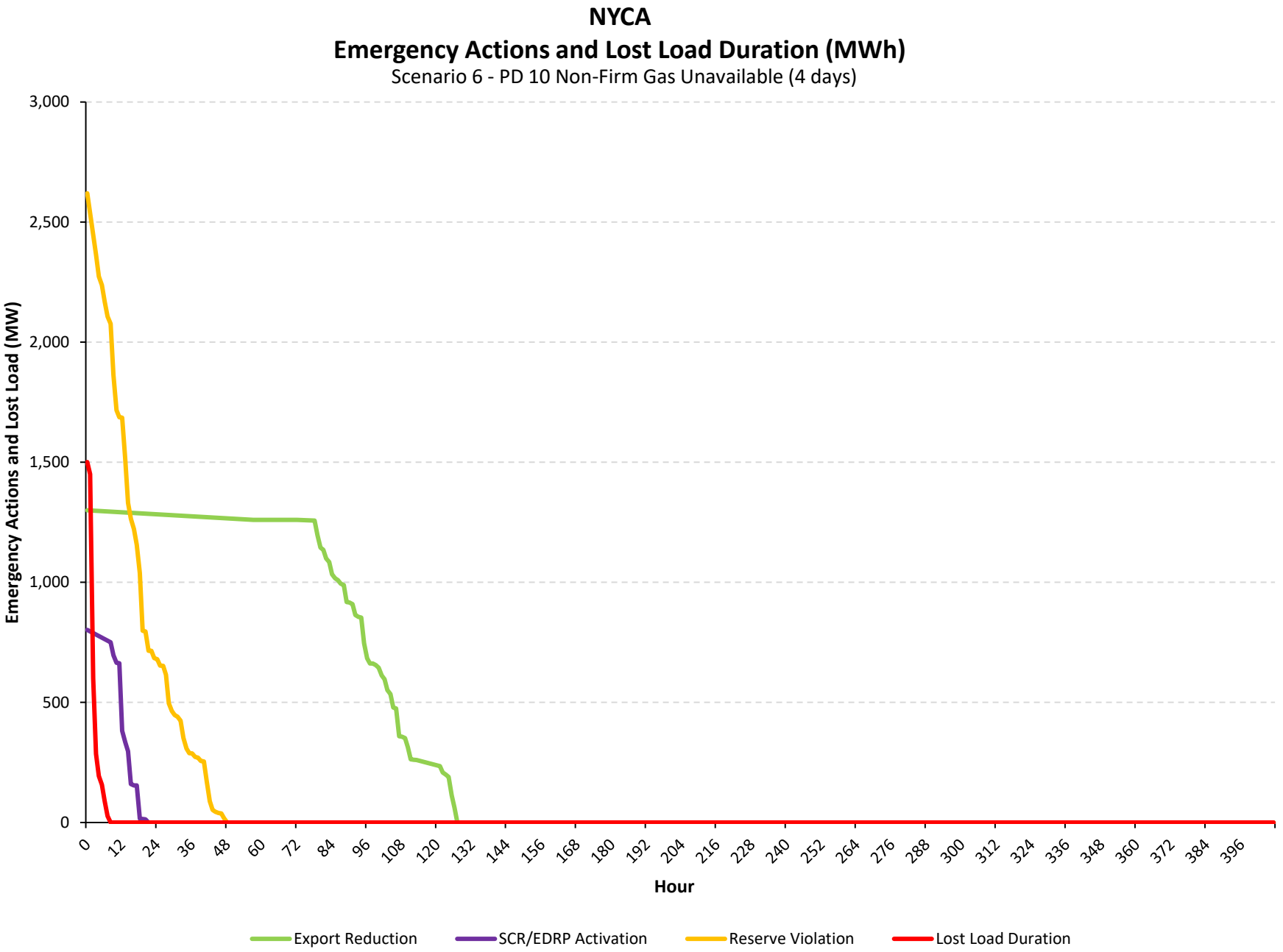
Quantity of Stored Fuel for Oil and Dual Fuel Units

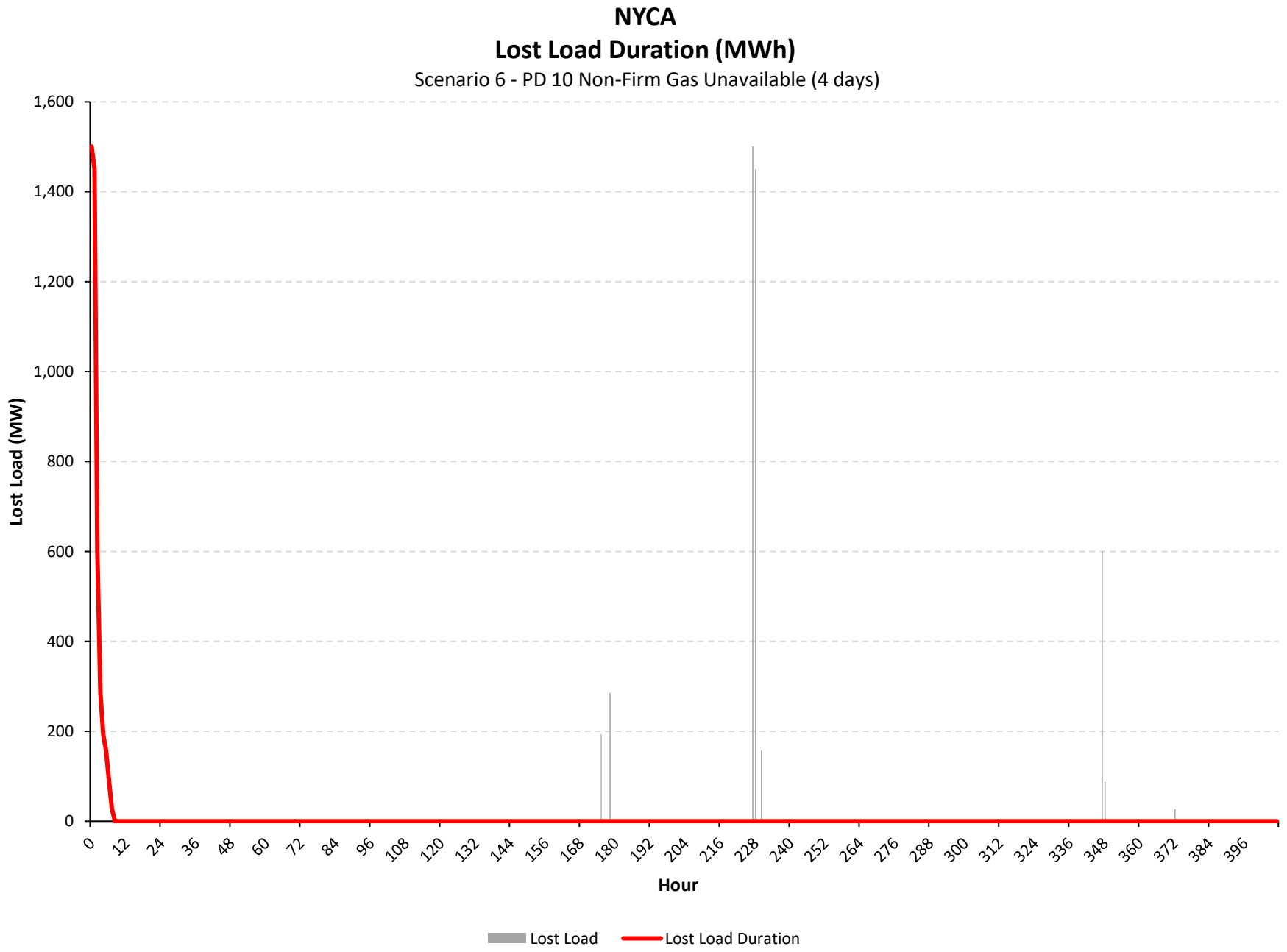
Scenario 6 - PD 10 Non-Firm Gas Unavailable (4 days)





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 6 - PD 10 Non-Firm Gas Unavailable (4 days)
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 6 - PD 10 Non-Firm Gas Unavailable (4 days)
Lost Load (MW)
1,600
1,400
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

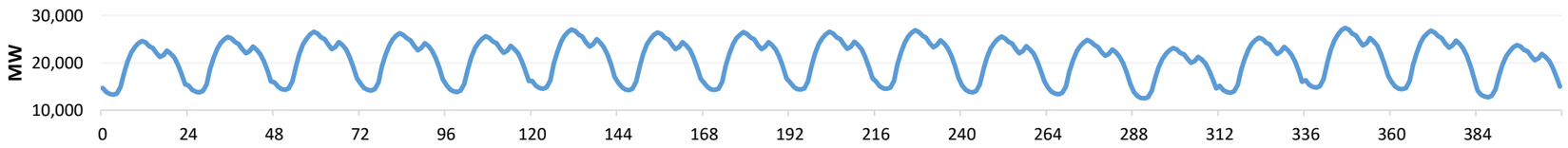
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 6 - PD 11 Combination Disruption (Winter 2026/2027)

Hourly Results Summary

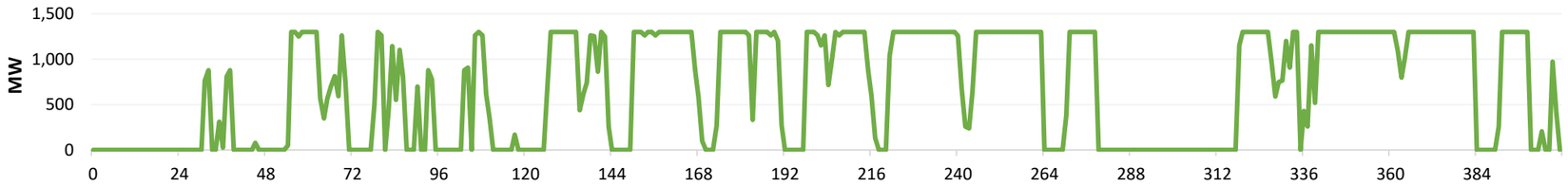
Case Name: Scenario 6 - PD 11 Combination Disruption

Load During Modeling Period



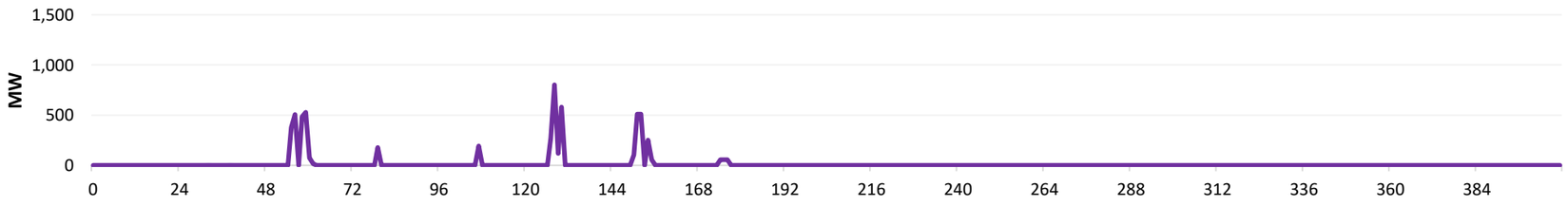
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



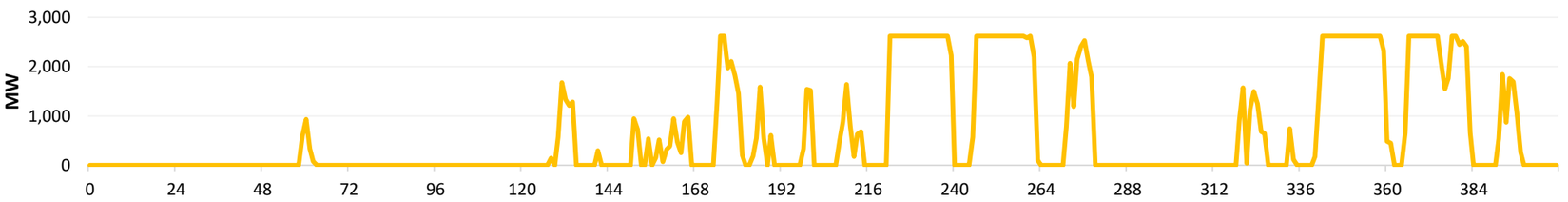
Export Reductions	
Total Hrs.	249
Total MWh	275,770
Avg. MW	675.9

SCR/EDRP Deployed During Modeling Period



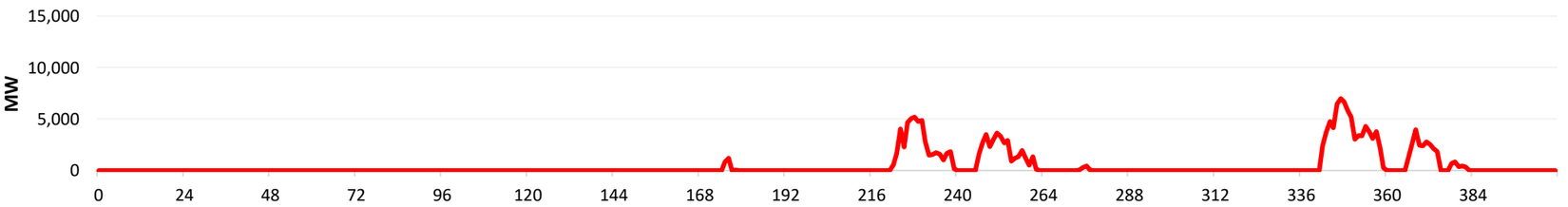
SCR Deployment	
Total Hrs.	20
Total MWh	5,719
Avg. MW	14.0

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	150
Total MWh	257,170
Avg. MW	630.3
First Hour with Viol.	59

Loss of Load During Modeling Period

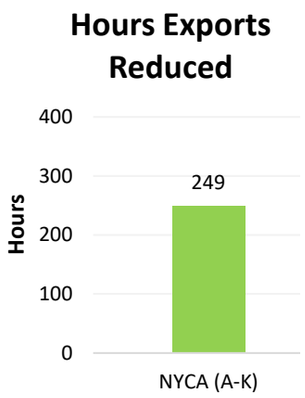


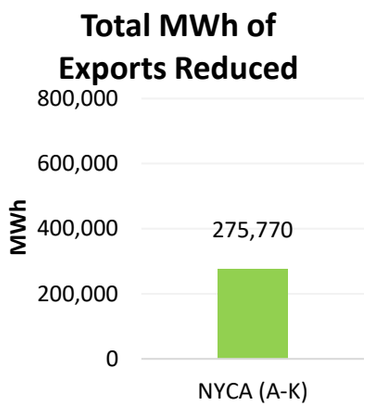
Loss of Load	
Total Hrs.	74
Total MWh	182,305
Avg. MW	446.8
First Hour with Losses	175

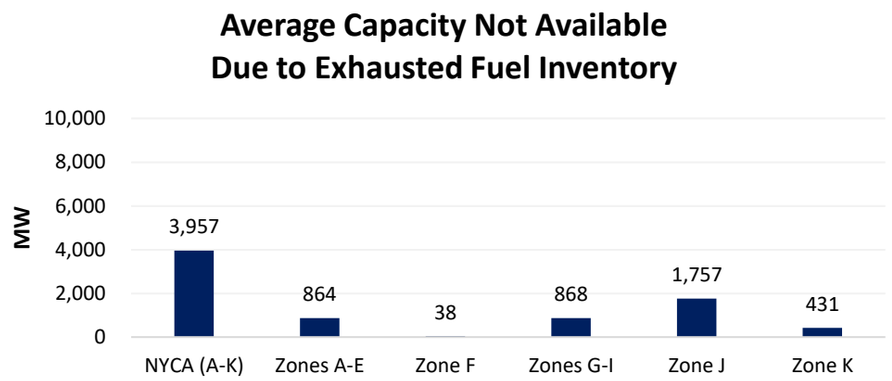
Full Period Results Summary

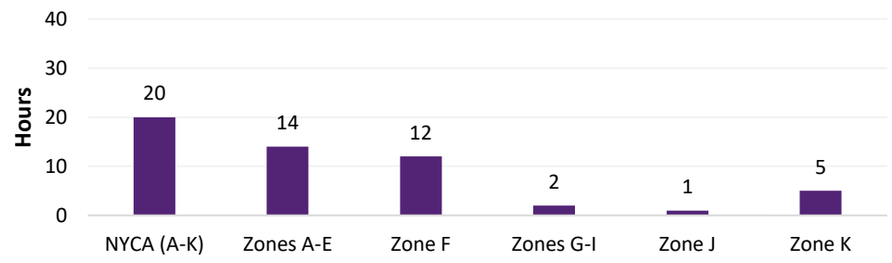
Case Name: Scenario 6 - PD 11 Combination Disruption

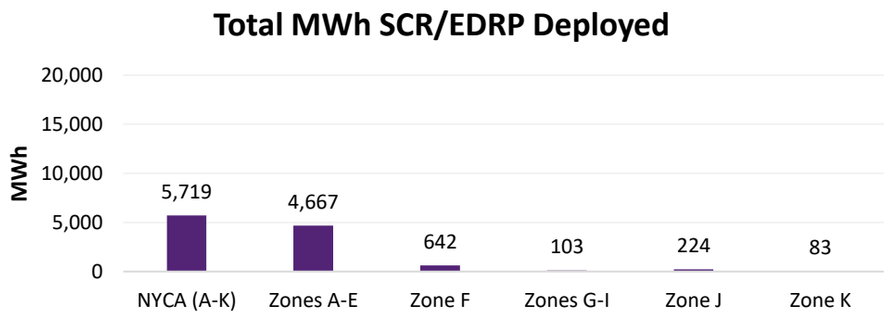
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	Historical
Renewables:	Delayed
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

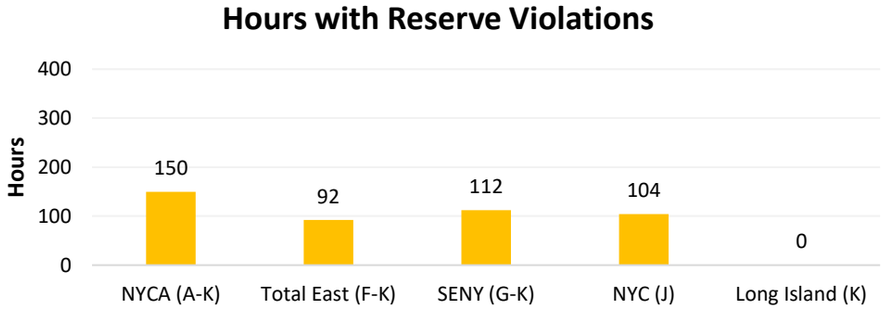


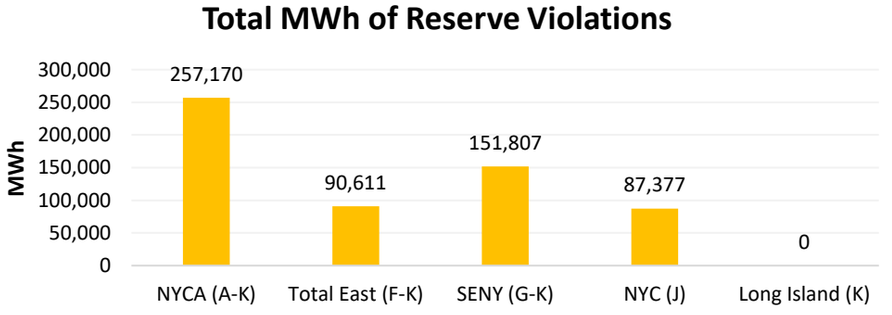


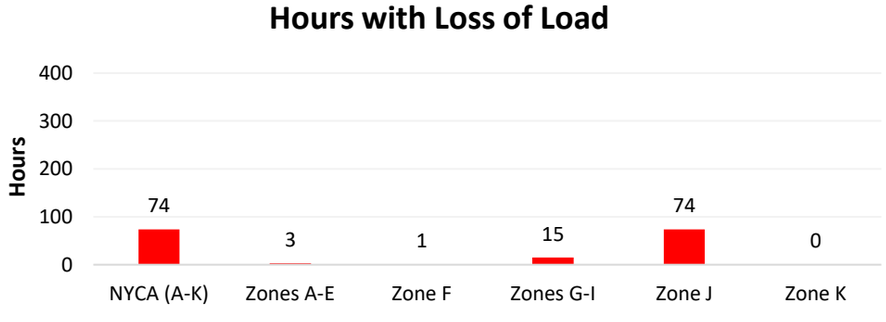


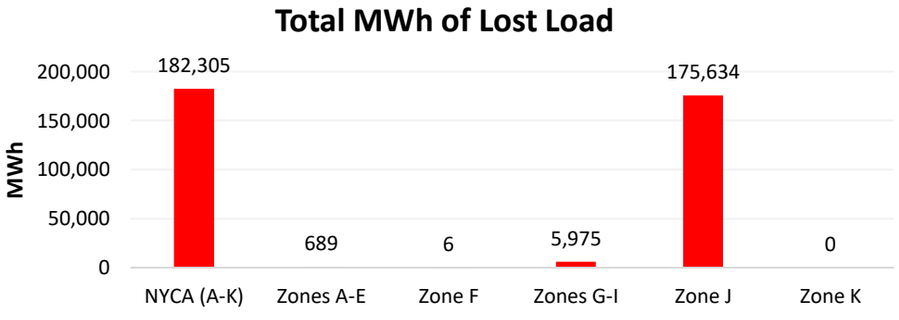


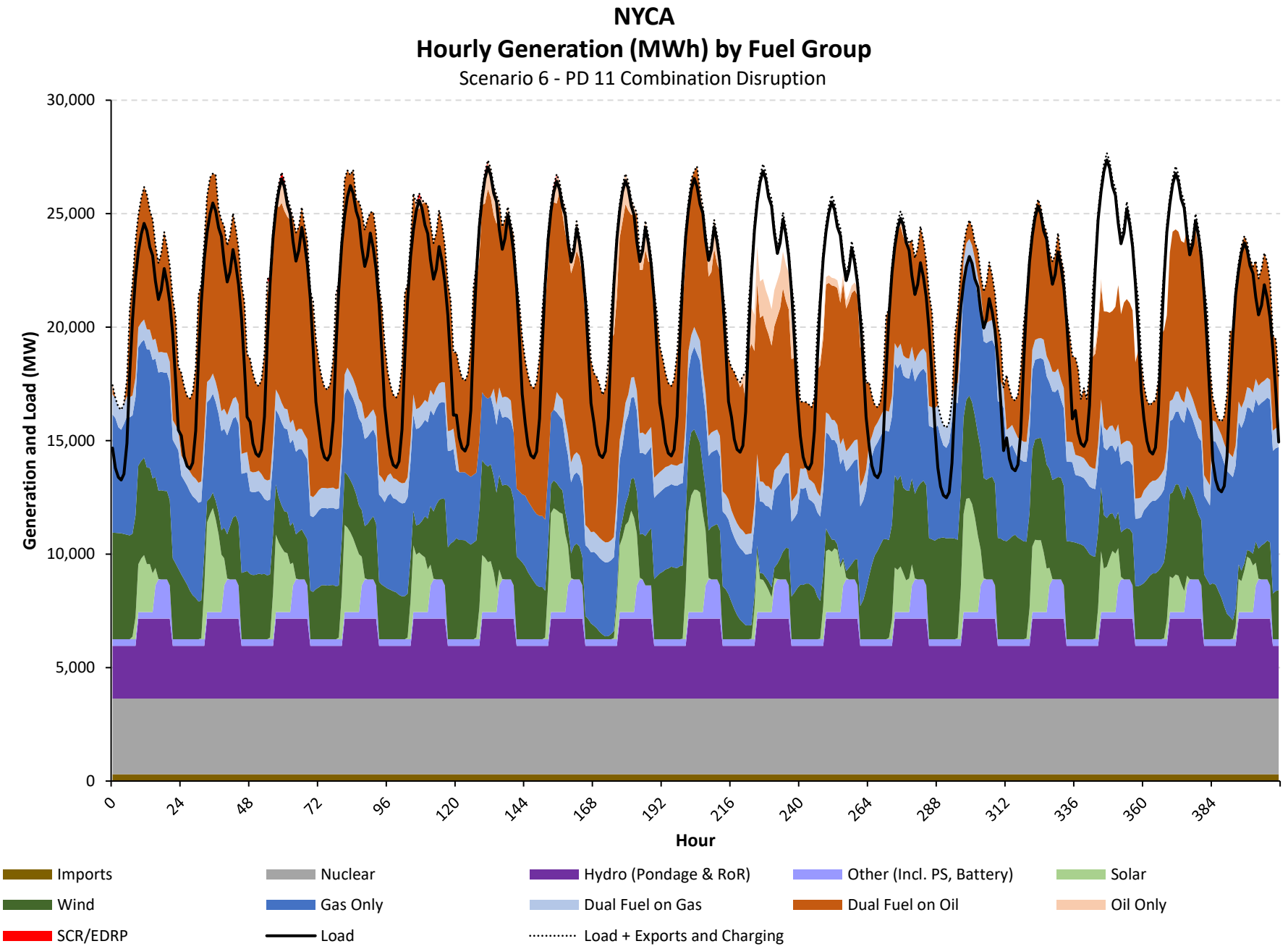




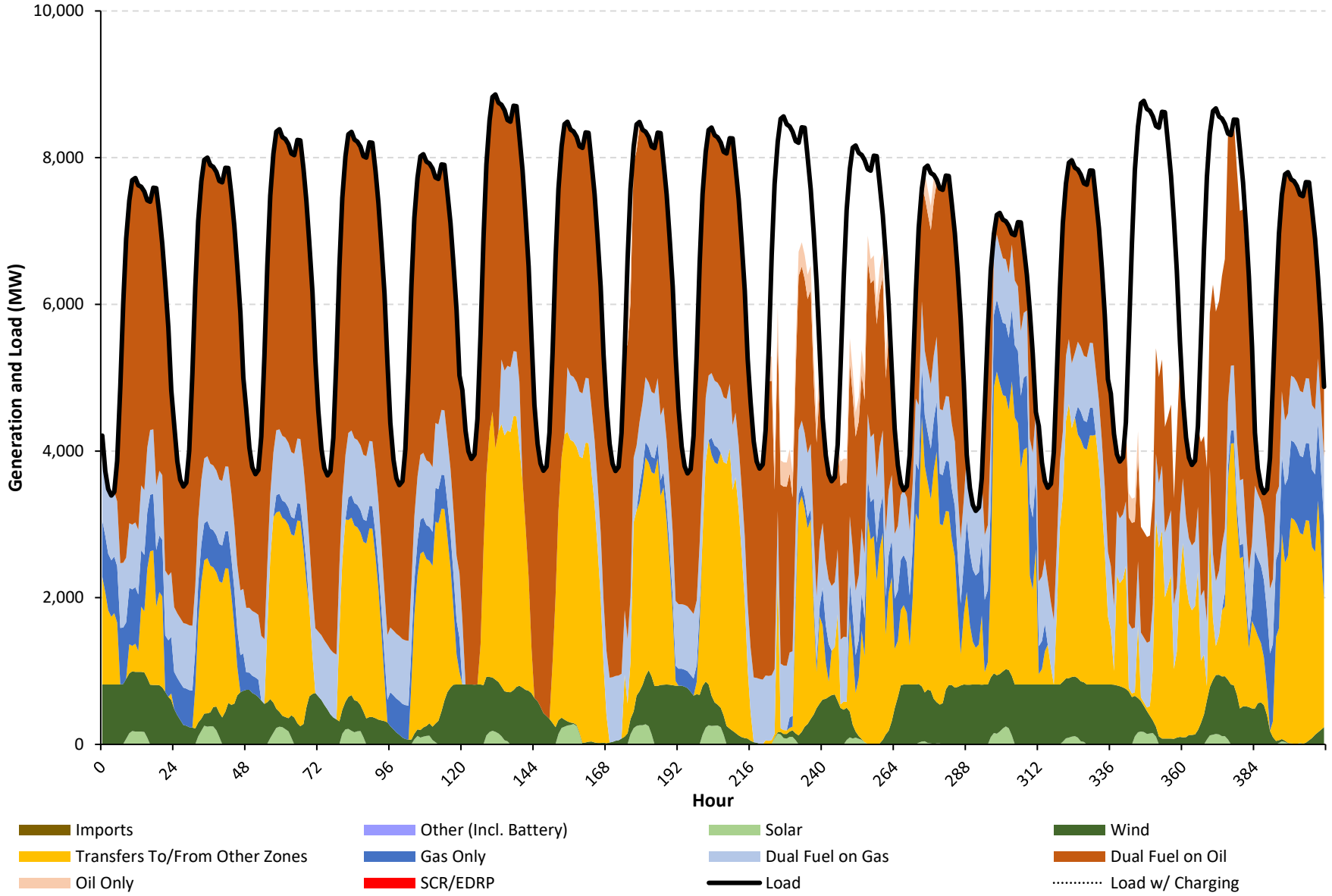




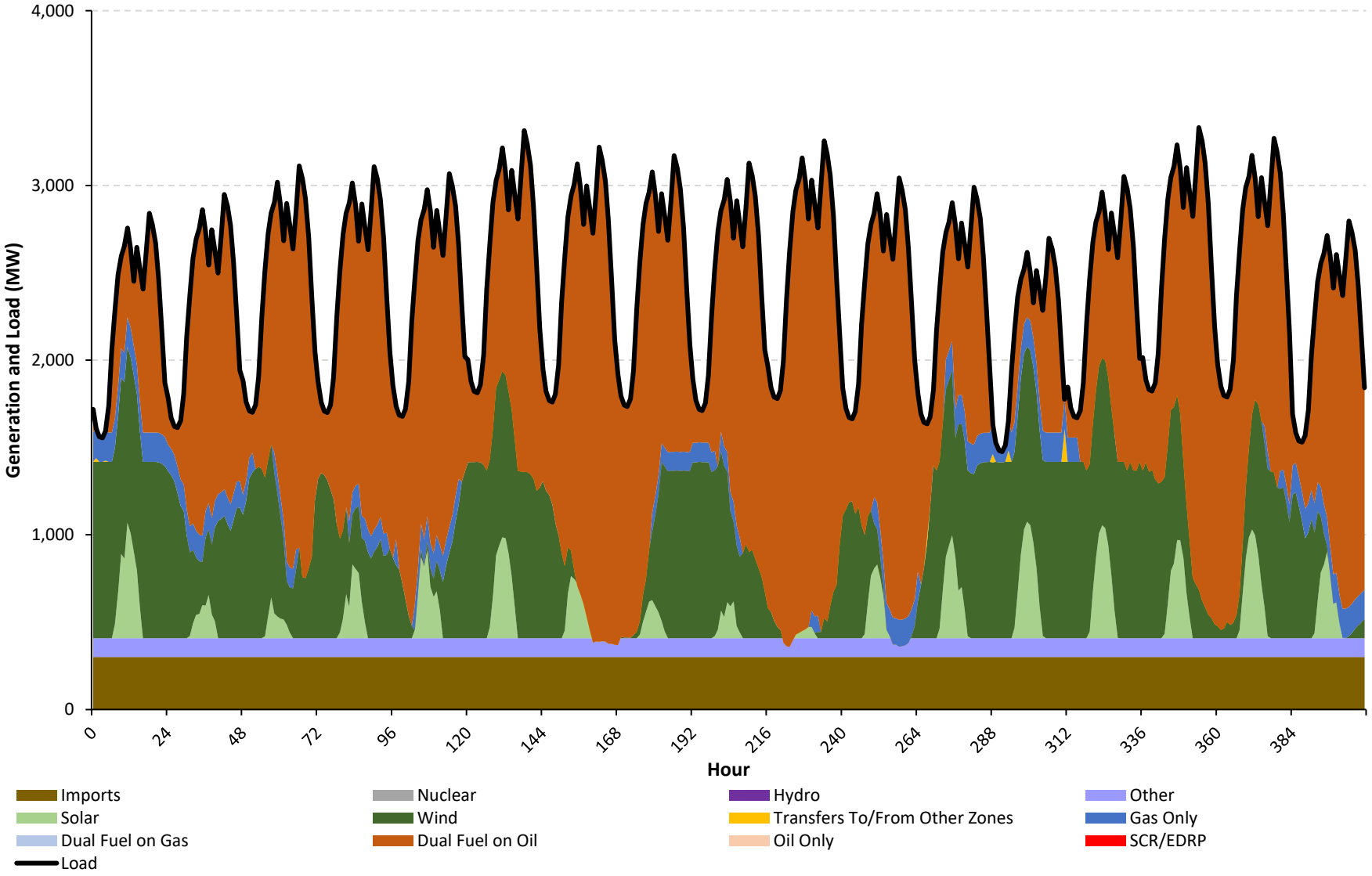



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 6 - PD 11 Combination Disruption
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 11 Combination Disruption



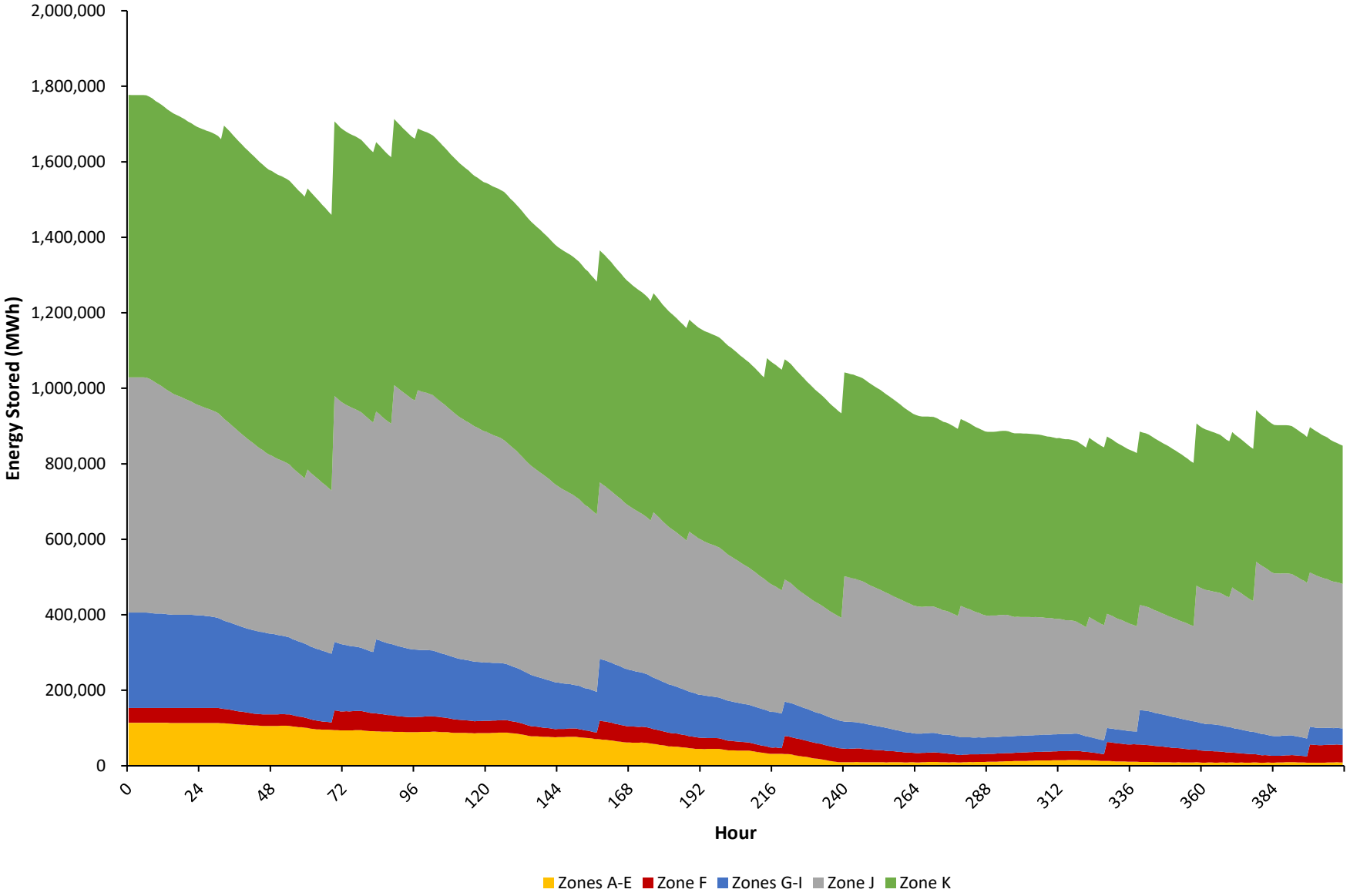
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 6 - PD 11 Combination Disruption



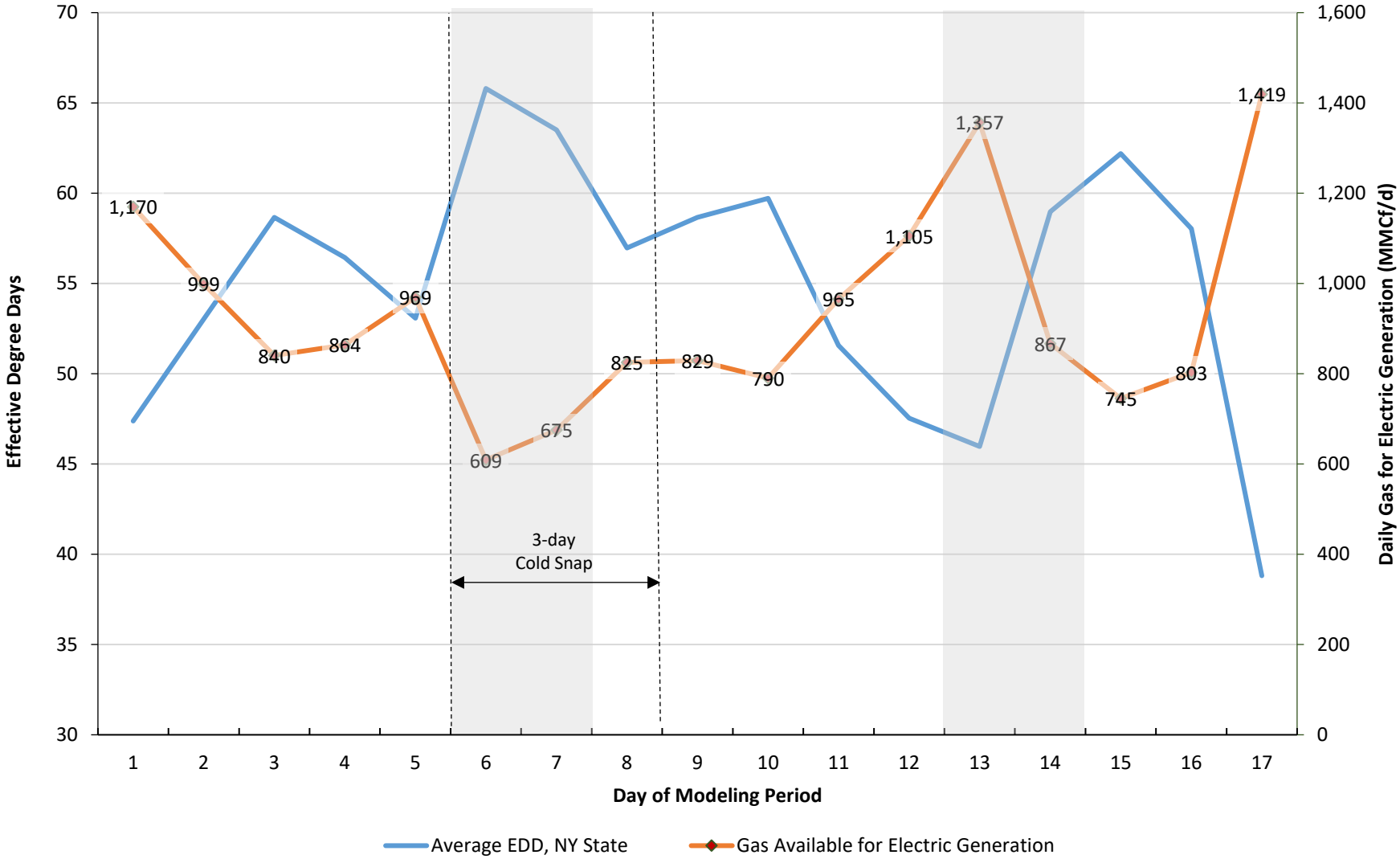
NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

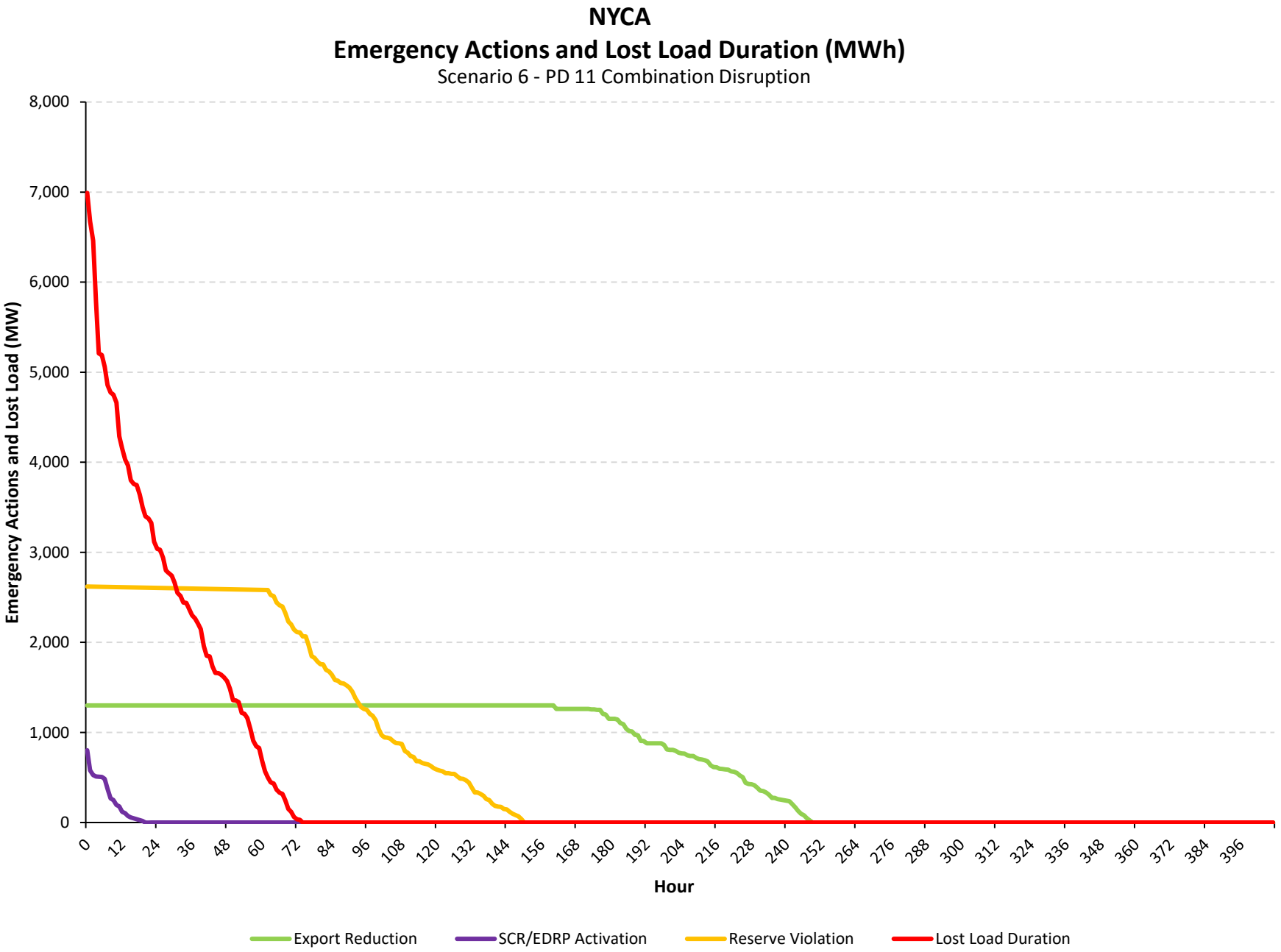
Scenario 6 - PD 11 Combination Disruption

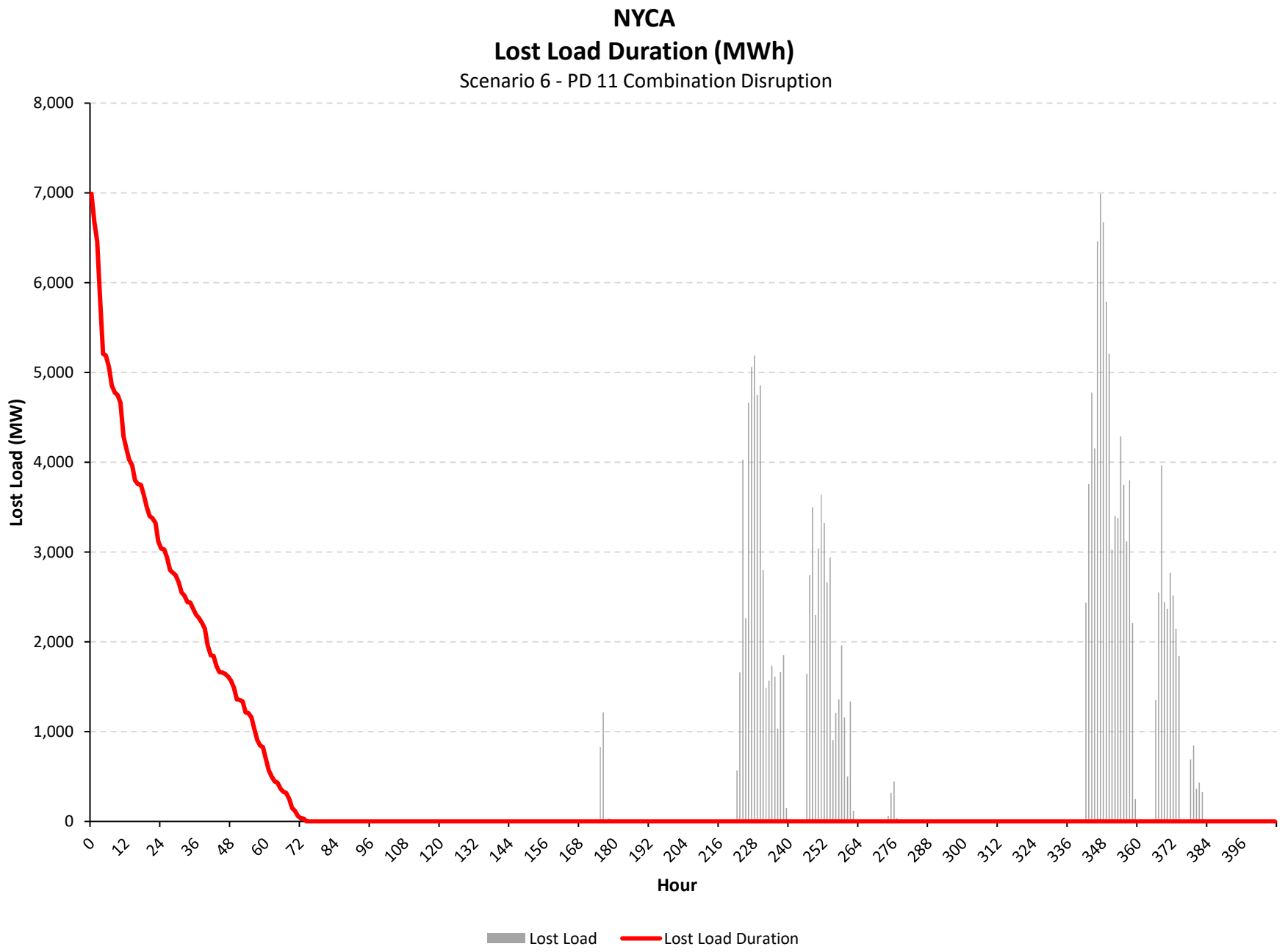


NYCA
Degree Days and Gas Available for Electric Generation 17-Day Modeling Period
Scenario 6 - PD 11 Combination Disruption



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 6 - PD 11 Combination Disruption
Emergency Actions and Lost Load (MW)
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 6 - PD 11 Combination Disruption
Lost Load (MW)
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

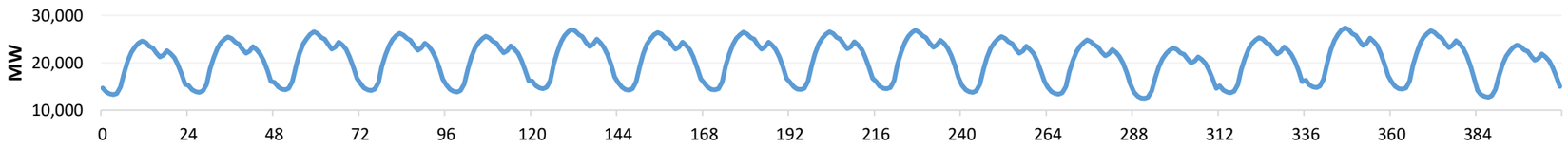
Case: Scenario 7 - PD 1 No Disruptions (Winter 2026/2027)

Hourly Results Summary

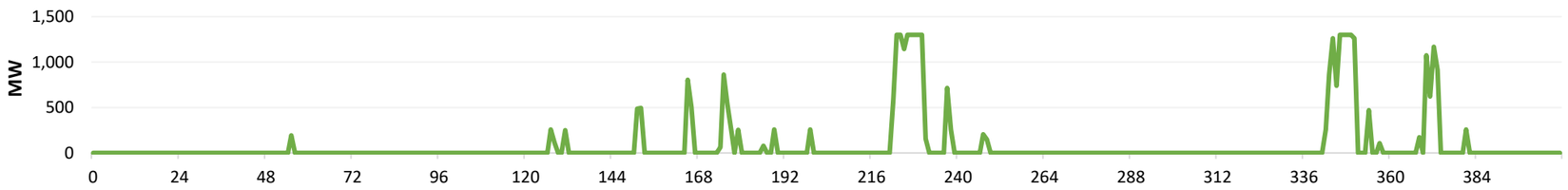
Case Name: Scenario 7 - PD 1 No Disruptions

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Load During Modeling Period

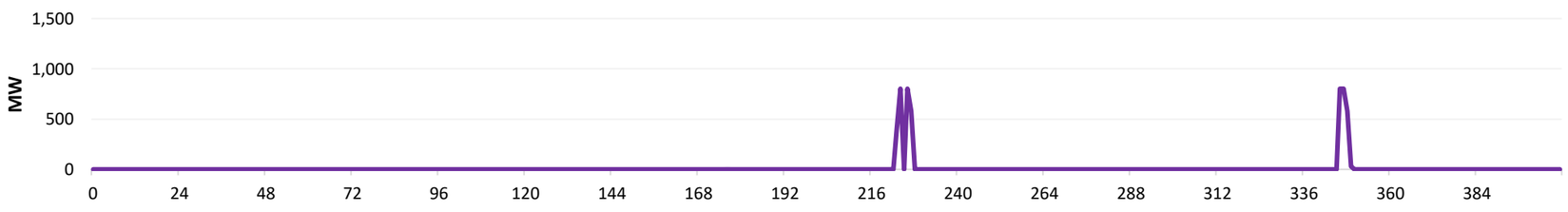


Export to ISO-NE Reduction During Modeling Period



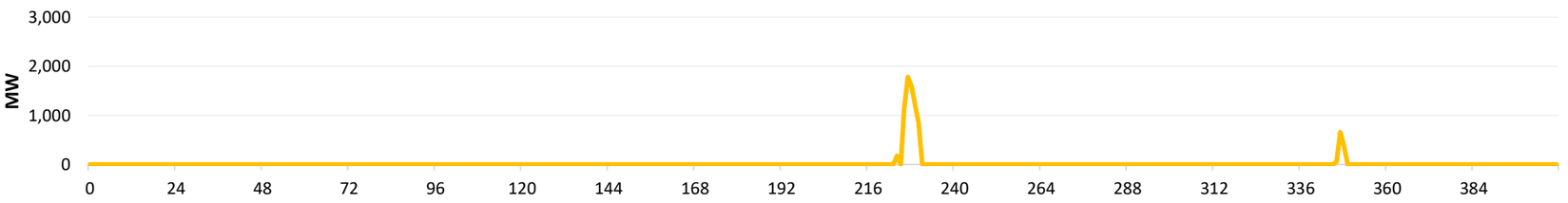
Export Reductions	
Total Hrs.	47
Total MWh	32,356
Avg. MW	79.3

SCR/EDRP Deployed During Modeling Period



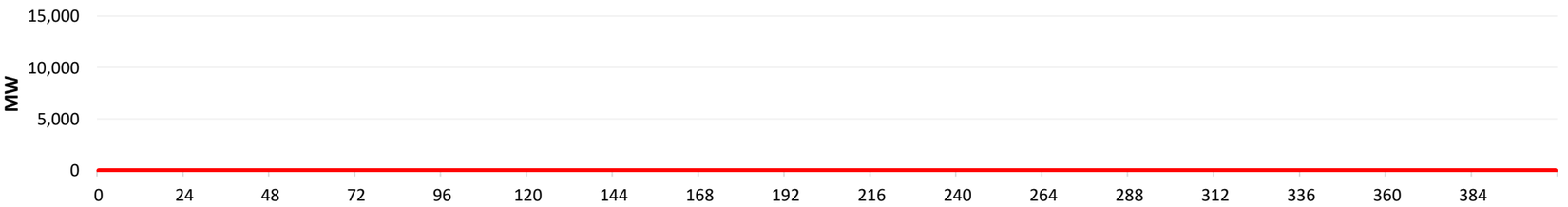
SCR Deployment	
Total Hrs.	8
Total MWh	4,791
Avg. MW	11.7

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	9
Total MWh	7,810
Avg. MW	19.1
First Hour with Viol.	224

Loss of Load During Modeling Period



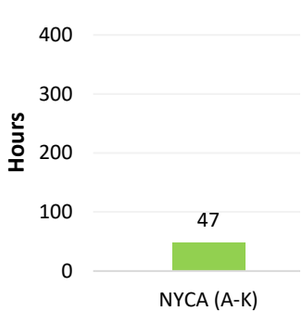
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

Full Period Results Summary

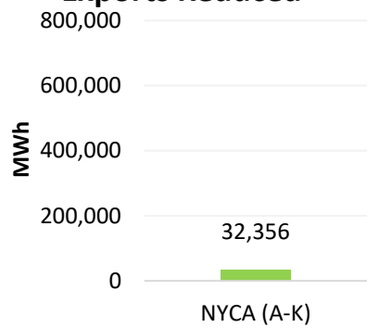
Case Name: Scenario 7 - PD 1 No Disruptions

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

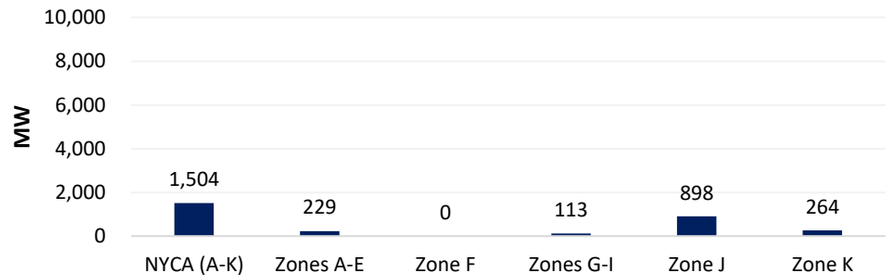
Hours Exports Reduced



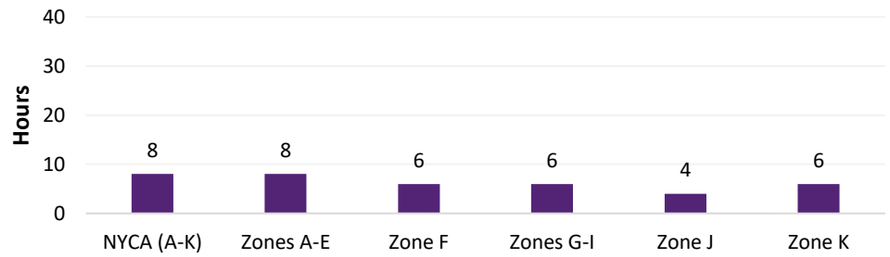
Total MWh of Exports Reduced



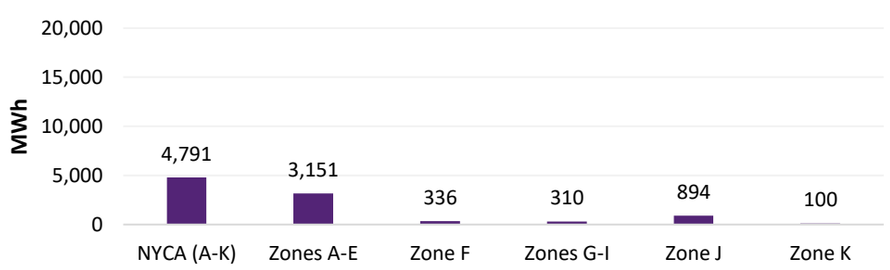
Average Capacity Not Available Due to Exhausted Fuel Inventory



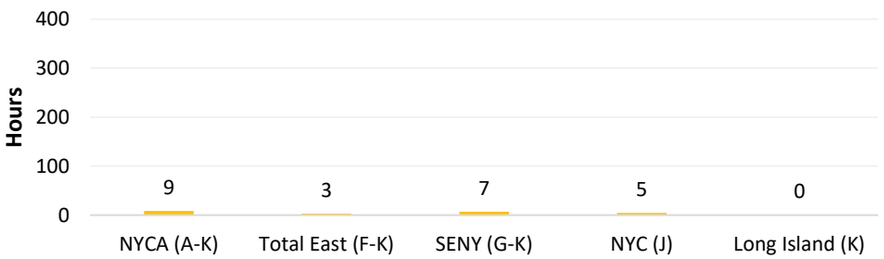
Hours SCR/EDRP Deployed



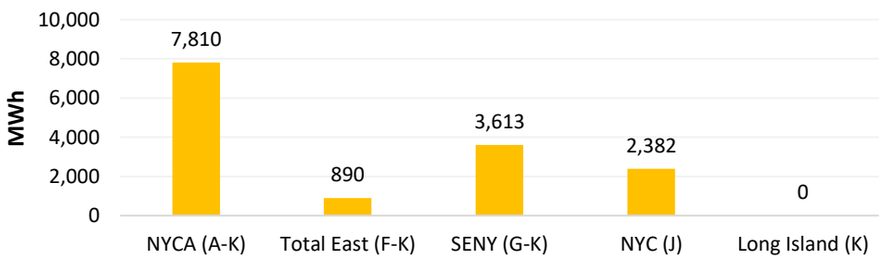
Total MWh SCR/EDRP Deployed



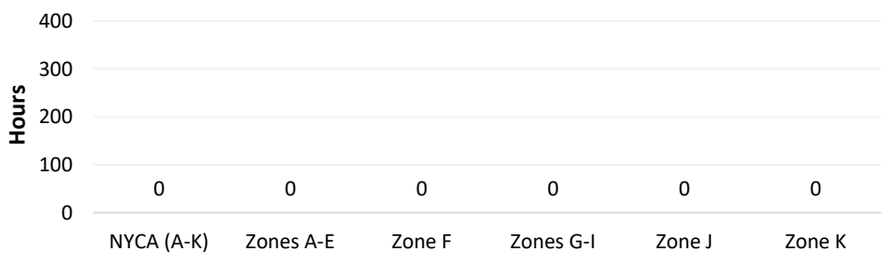
Hours with Reserve Violations



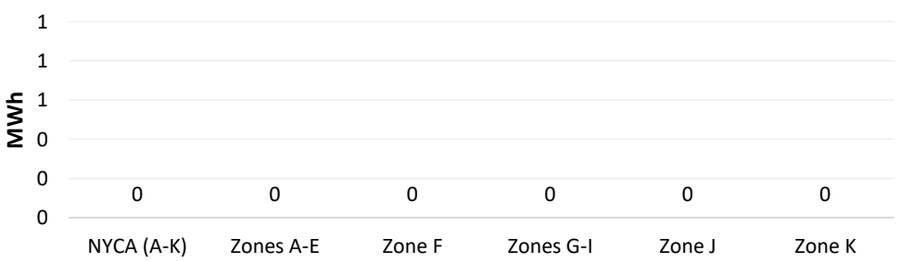
Total MWh of Reserve Violations

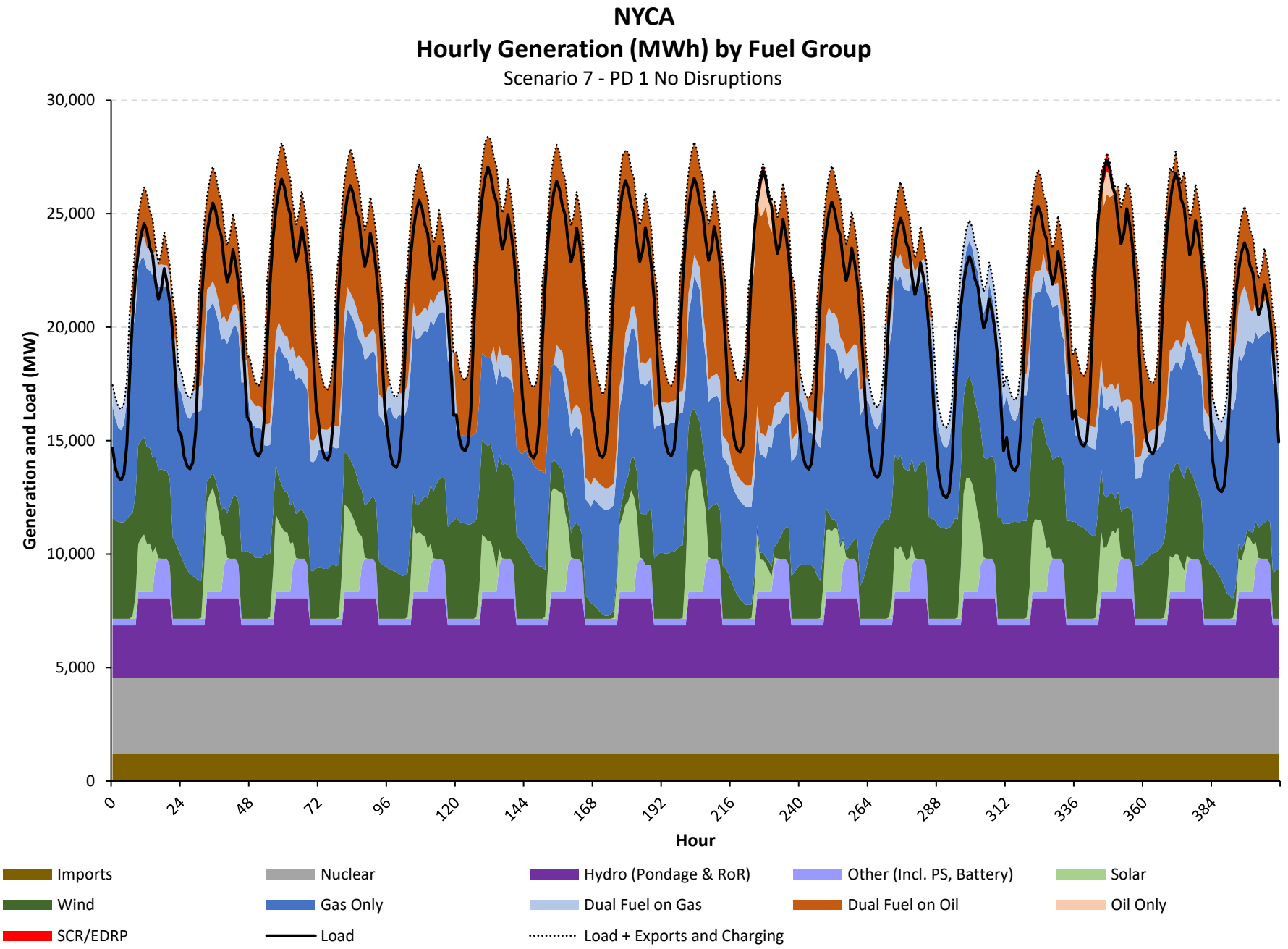


Hours with Loss of Load

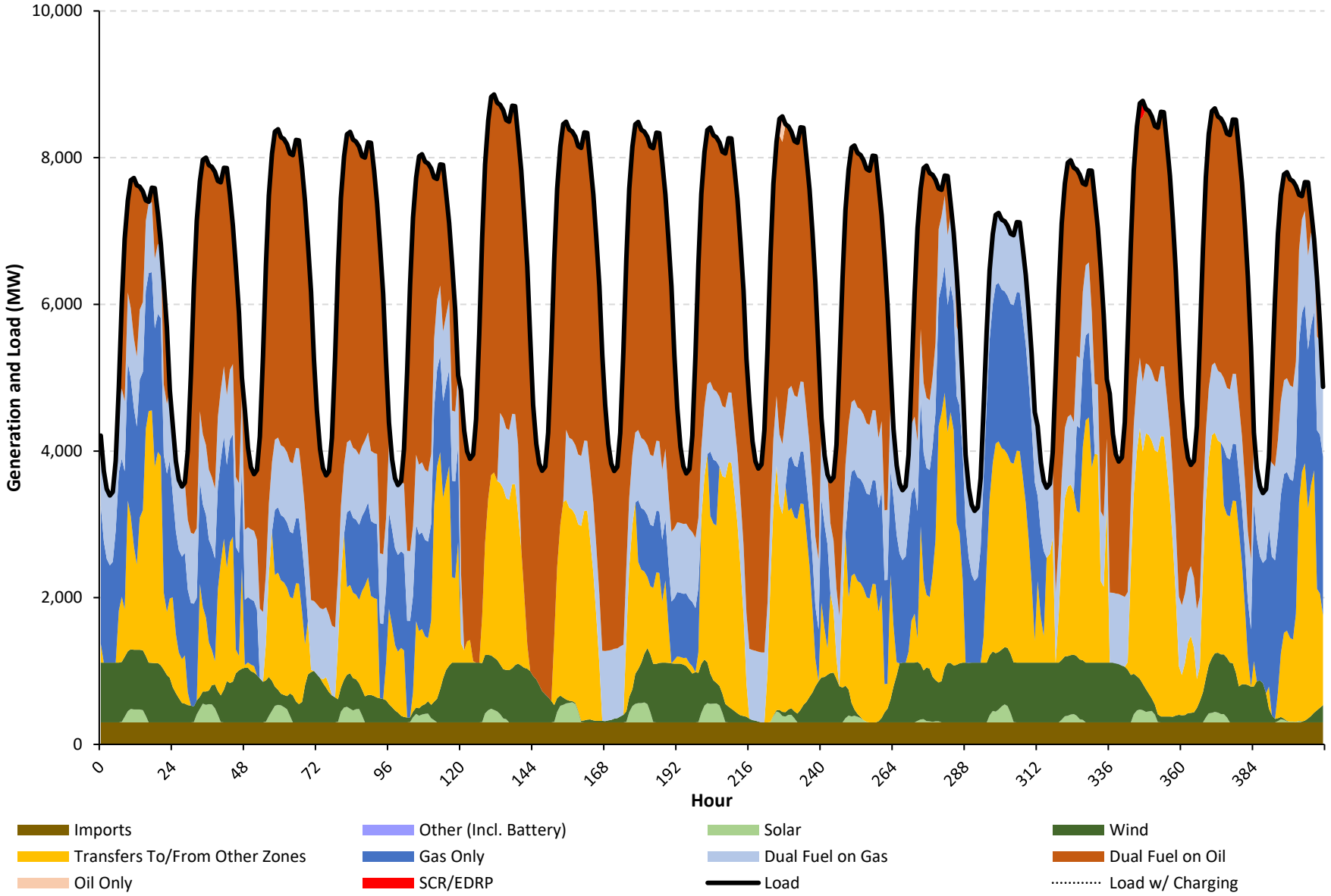


Total MWh of Lost Load

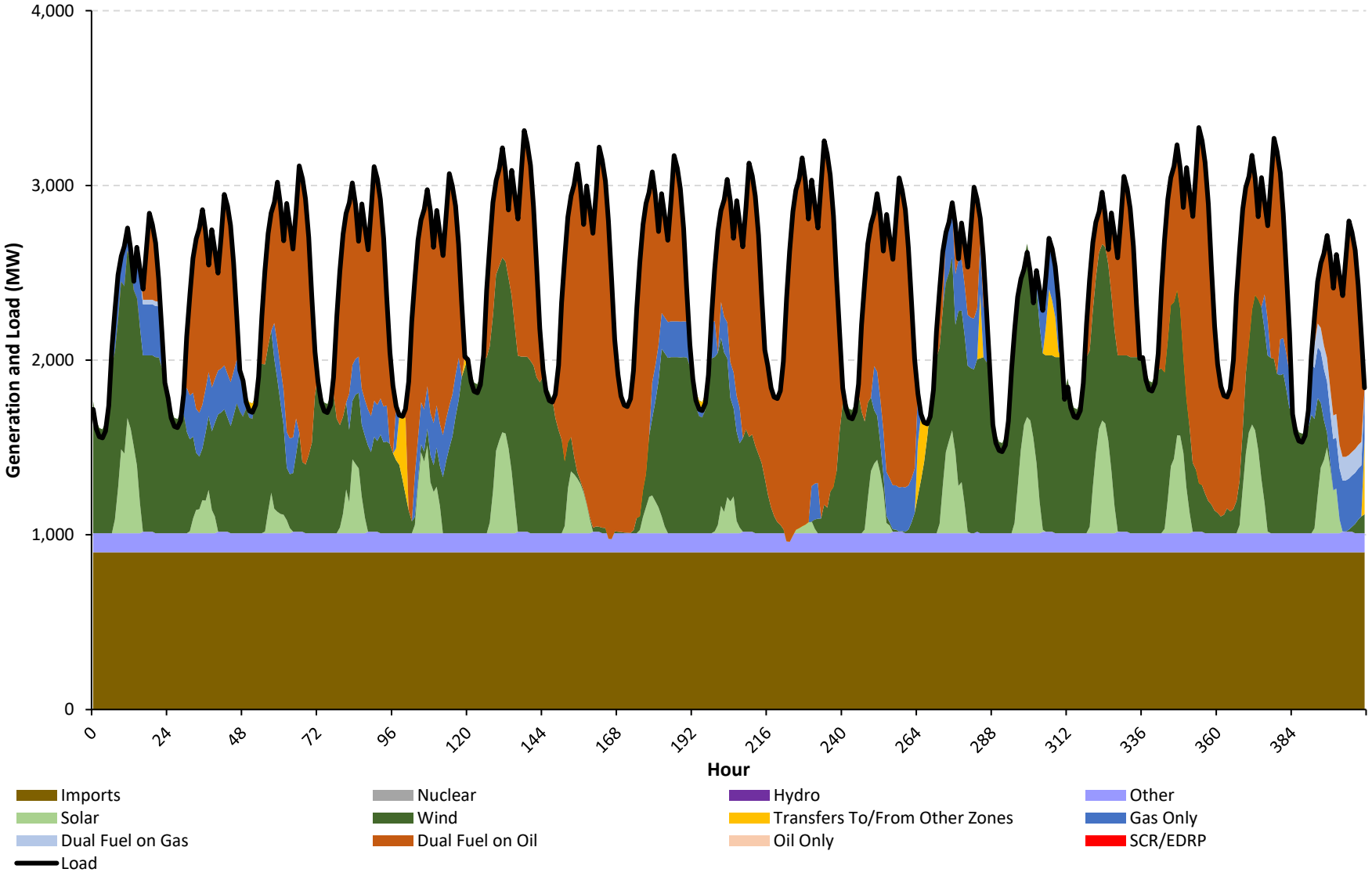


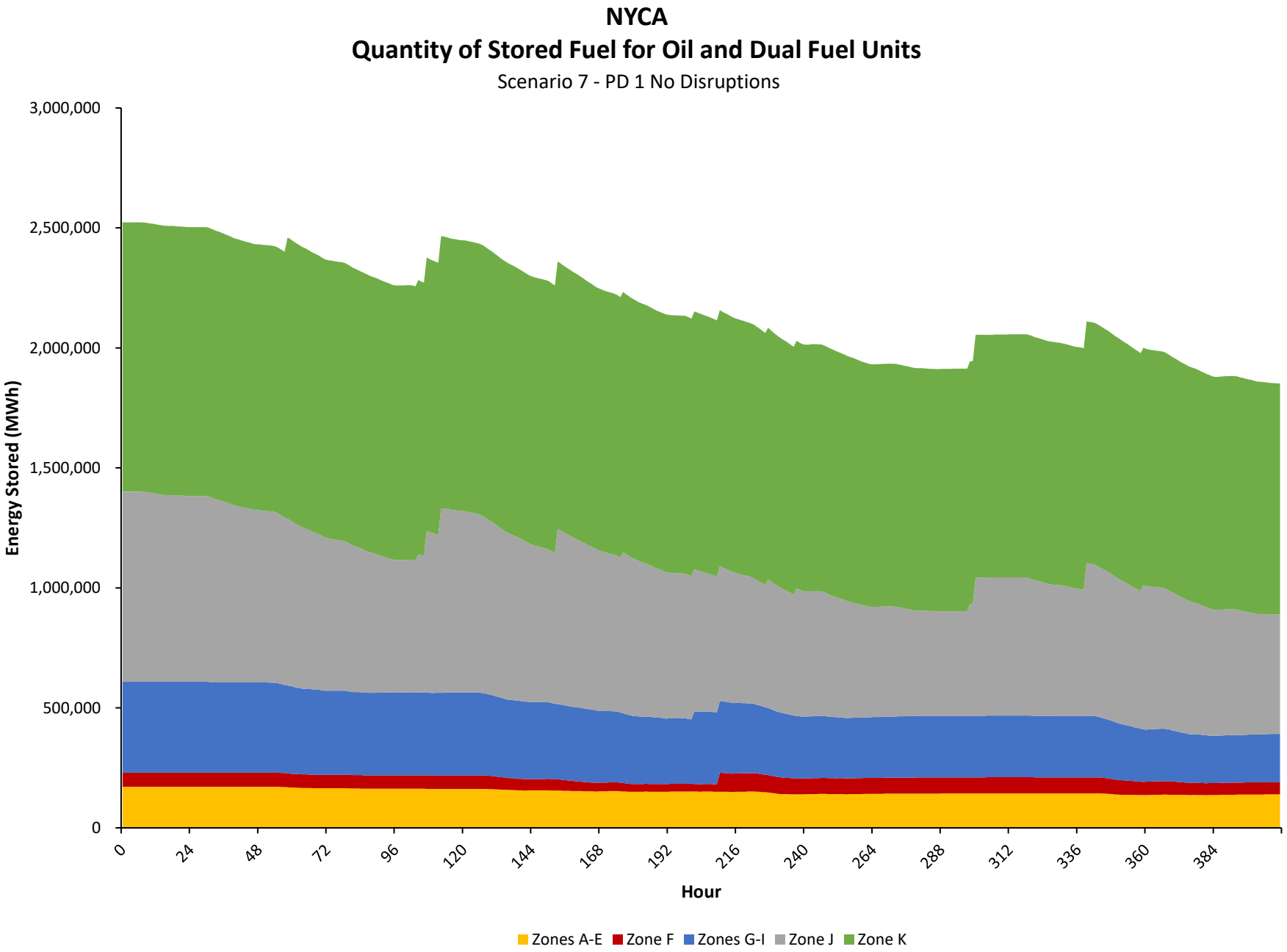

NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 7 - PD 1 No Disruptions
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

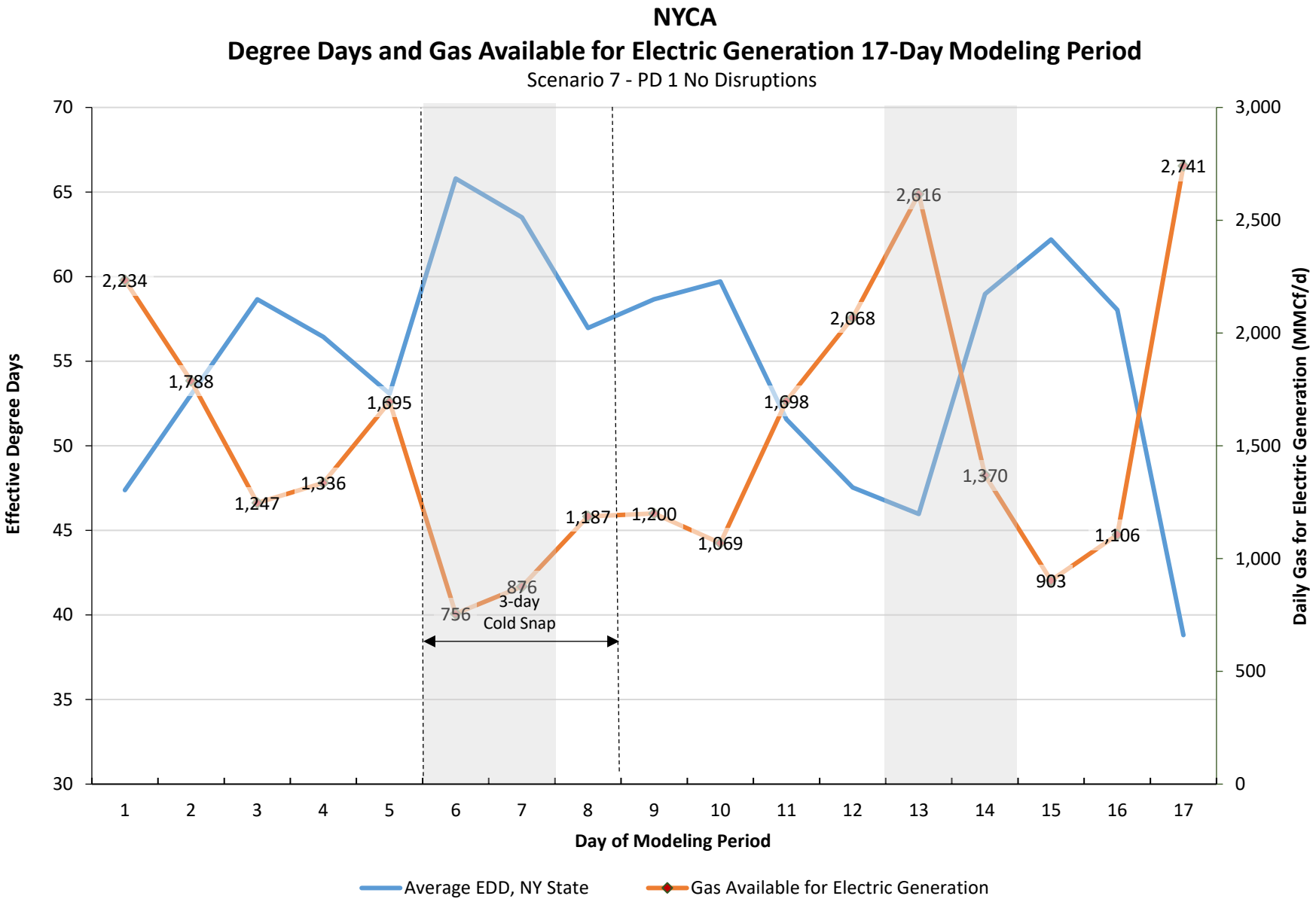
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 1 No Disruptions



Zone K
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 1 No Disruptions




NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 7 - PD 1 No Disruptions
Energy Stored (MWh)
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Zones A-E
Zone F
Zones G-I
Zone J
Zone K

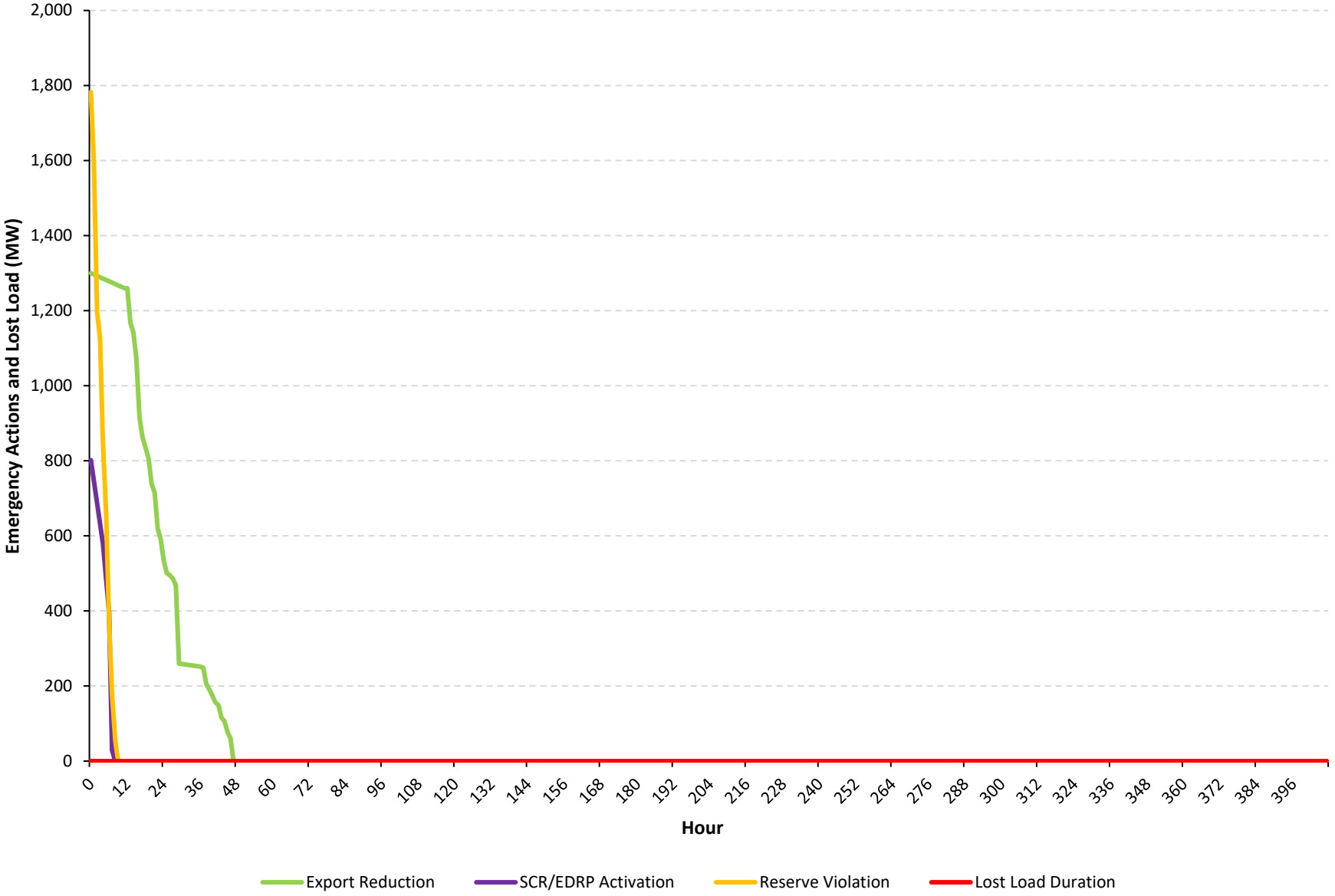


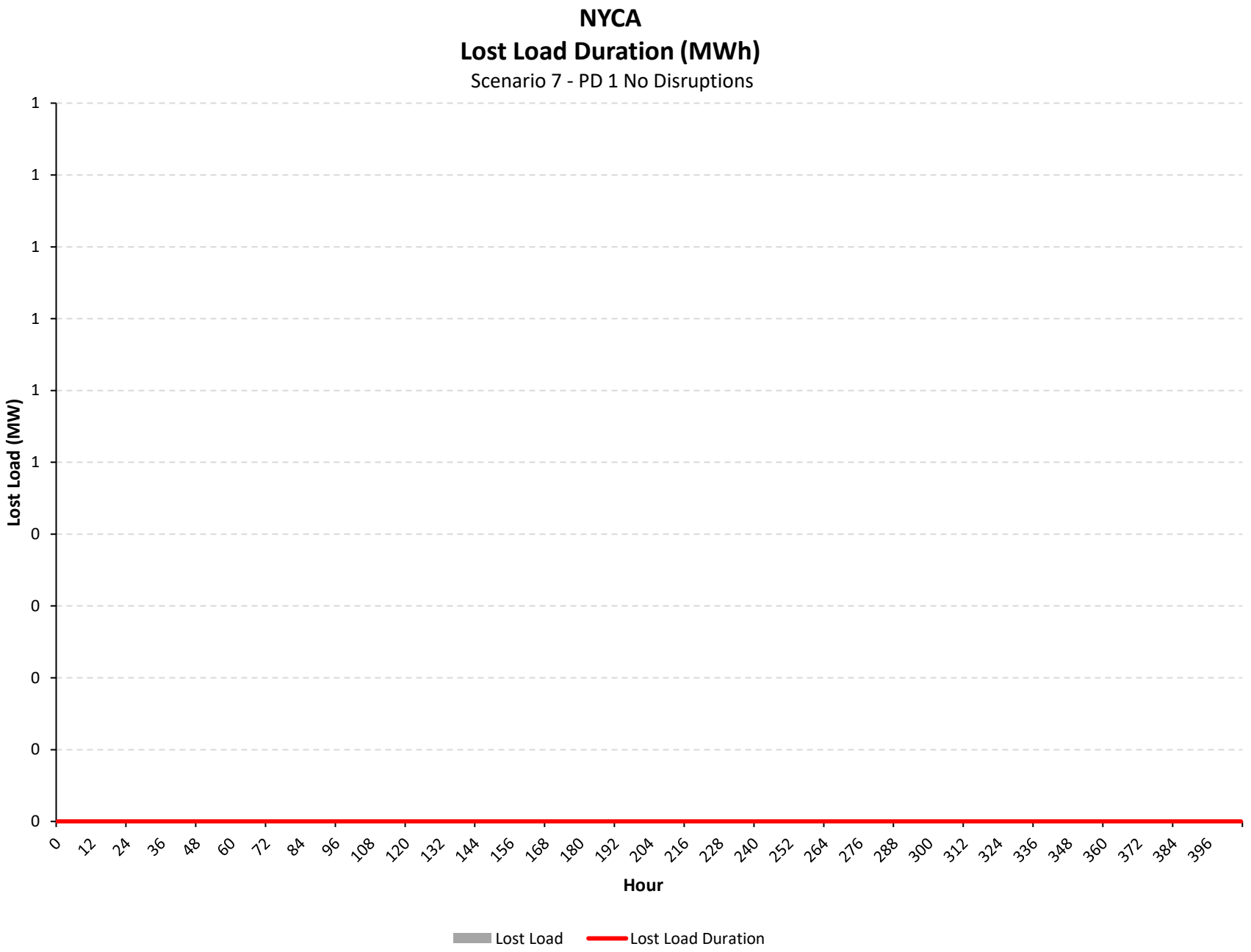
Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.

NYCA

Emergency Actions and Lost Load Duration (MWh)

Scenario 7 - PD 1 No Disruptions




NYCA
Lost Load Duration (MWh)
Scenario 7 - PD 1 No Disruptions
Lost Load (MW)
1
1
1
1
1
1
0
0
0
0
0
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

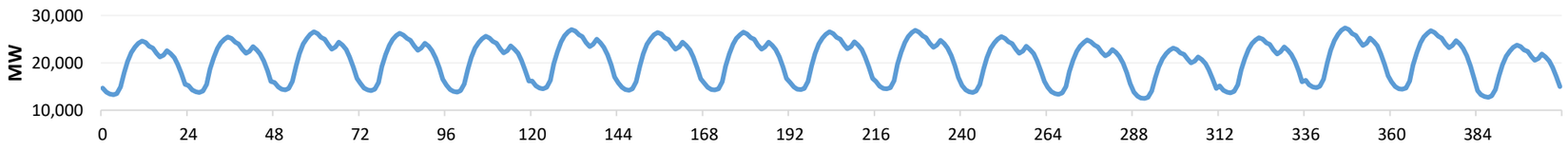
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 7 - PD 2 High Outage (Winter 2026/2027)

Hourly Results Summary

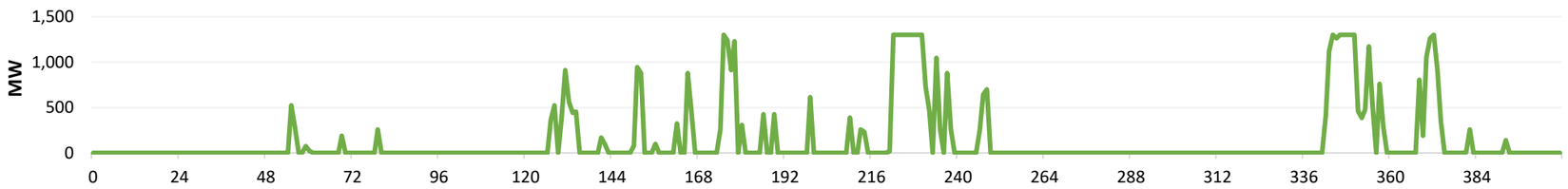
Case Name: Scenario 7 - PD 2 High Outage

Load During Modeling Period



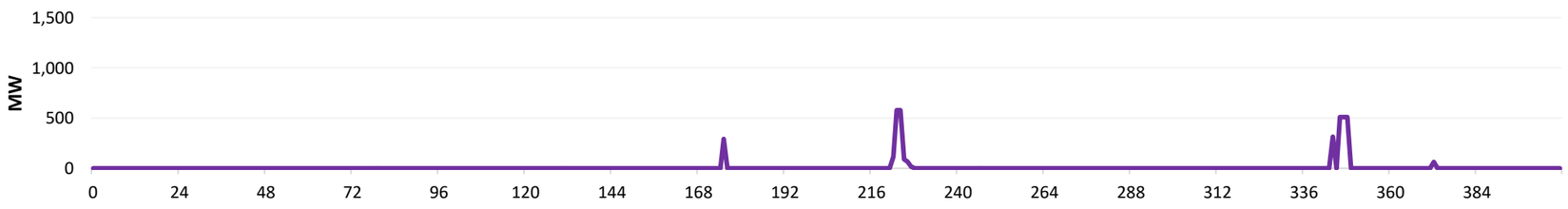
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



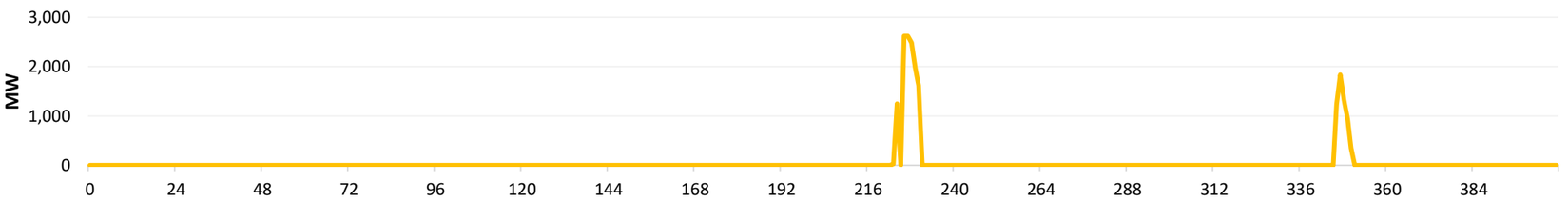
Export Reductions	
Total Hrs.	79
Total MWh	54,341
Avg. MW	133.2

SCR/EDRP Deployed During Modeling Period



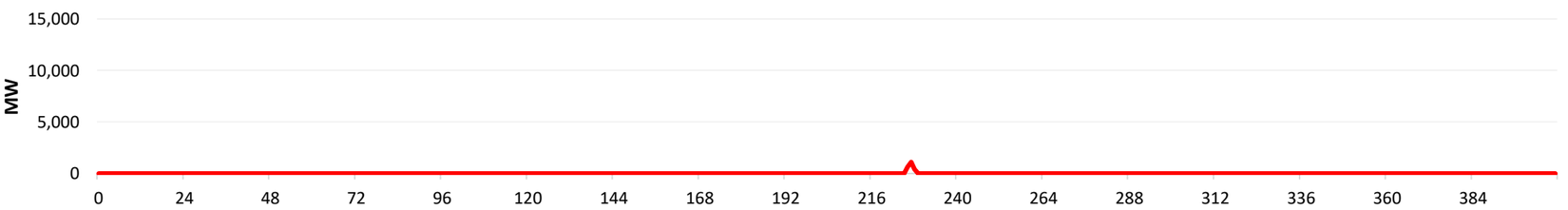
SCR Deployment	
Total Hrs.	12
Total MWh	3,646
Avg. MW	8.9

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	12
Total MWh	18,235
Avg. MW	44.7
First Hour with Viol.	223

Loss of Load During Modeling Period



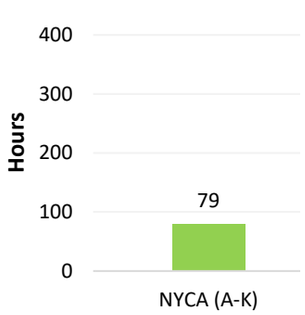
Loss of Load	
Total Hrs.	3
Total MWh	2,141
Avg. MW	5.2
First Hour with Losses	226

Full Period Results Summary

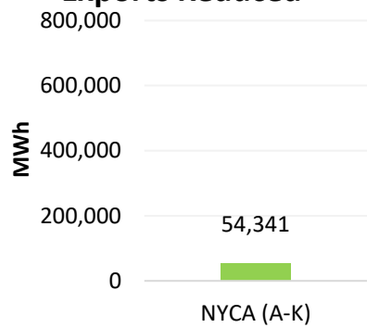
Case Name: Scenario 7 - PD 2 High Outage

Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

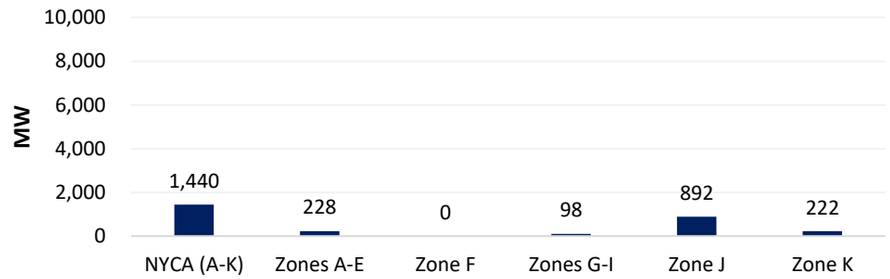
Hours Exports Reduced



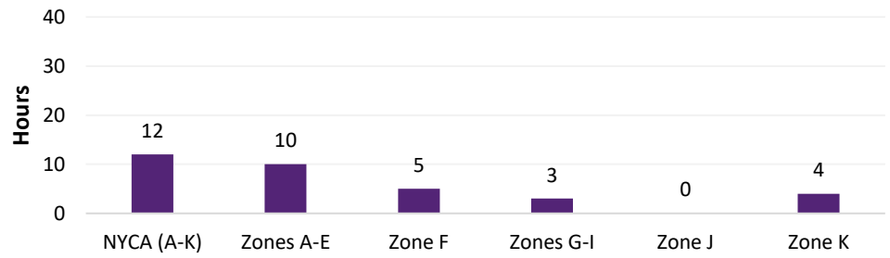
Total MWh of Exports Reduced



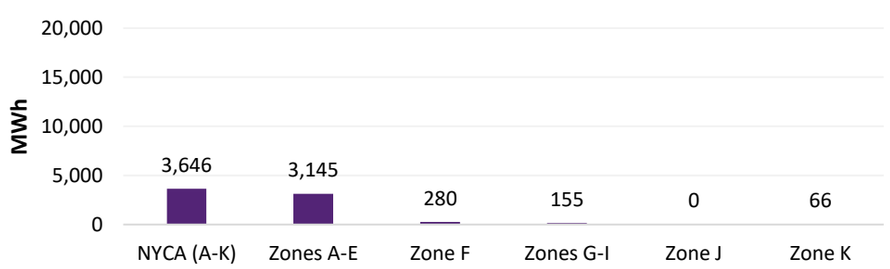
Average Capacity Not Available Due to Exhausted Fuel Inventory



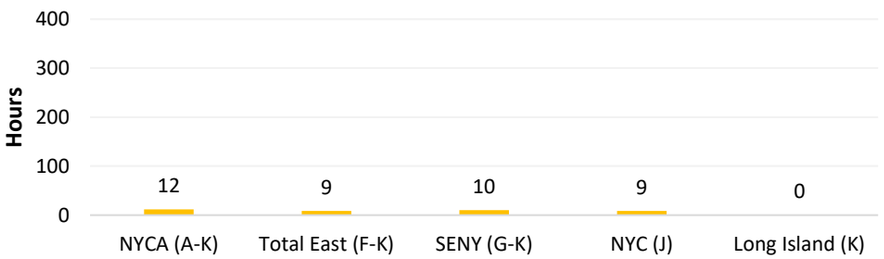
Hours SCR/EDRP Deployed



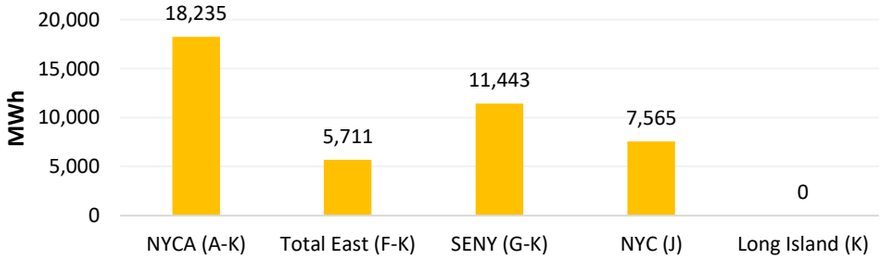
Total MWh SCR/EDRP Deployed



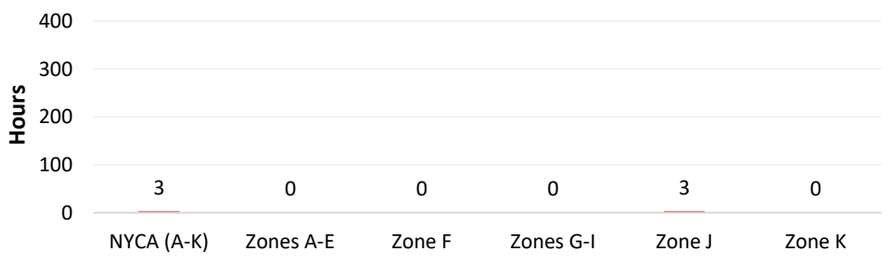
Hours with Reserve Violations



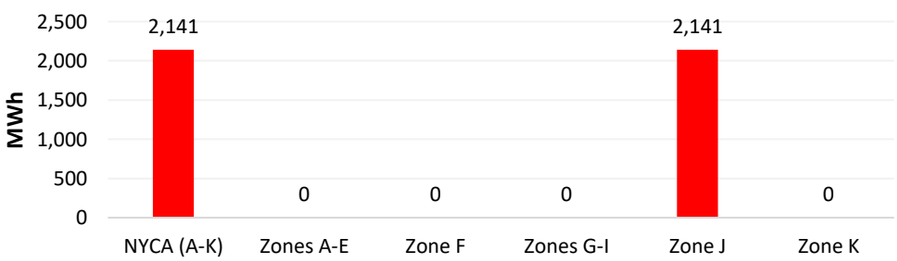
Total MWh of Reserve Violations

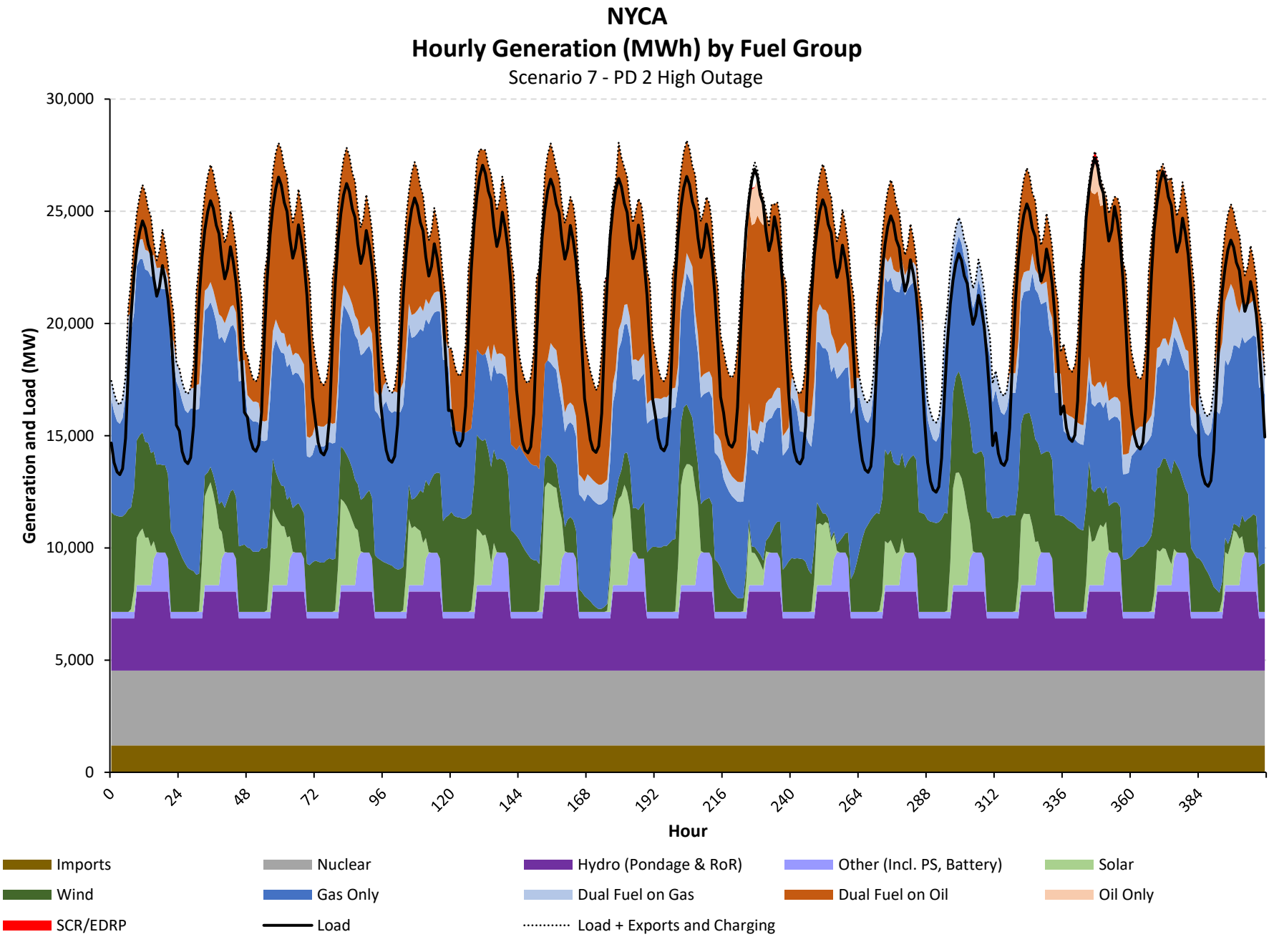


Hours with Loss of Load

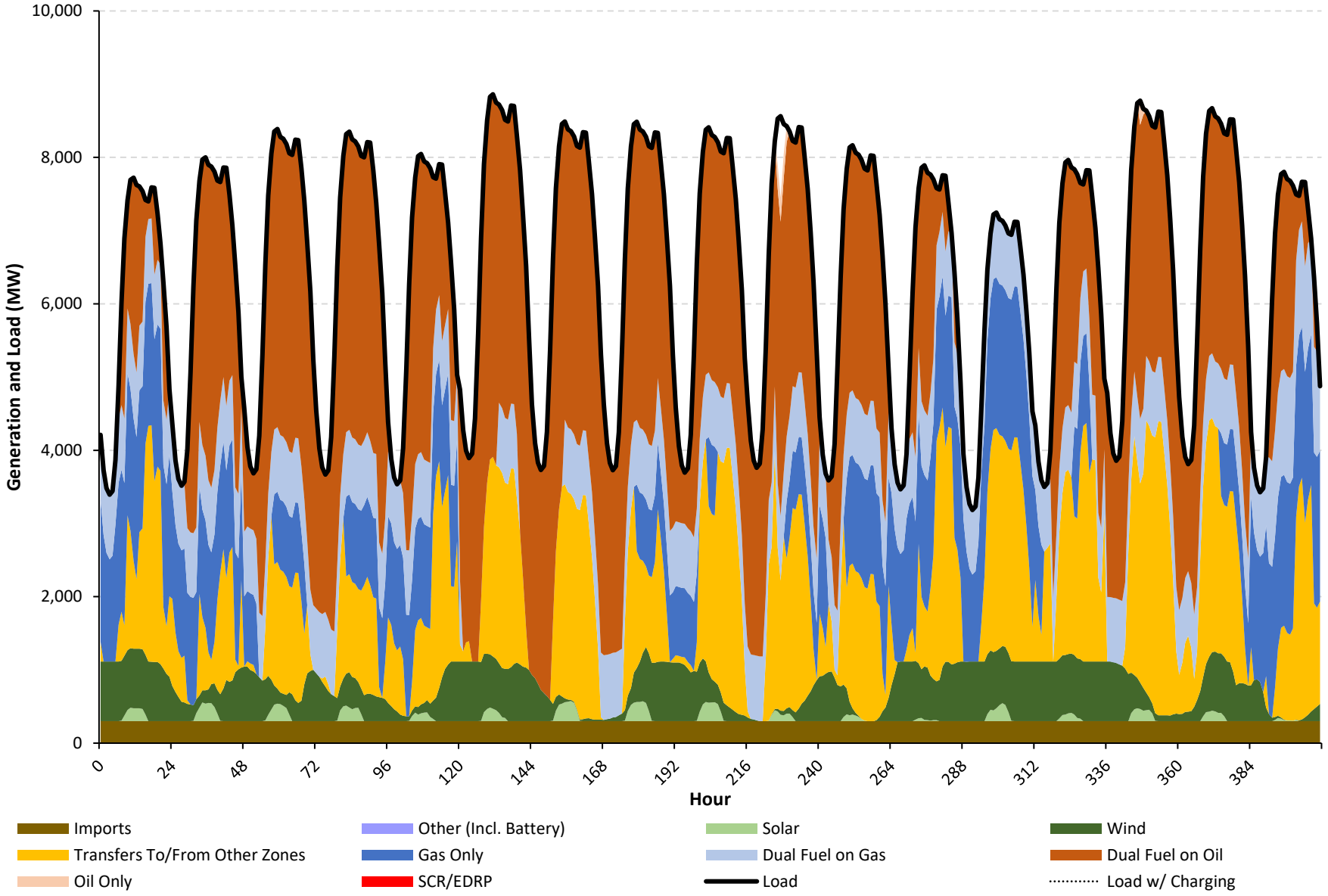


Total MWh of Lost Load

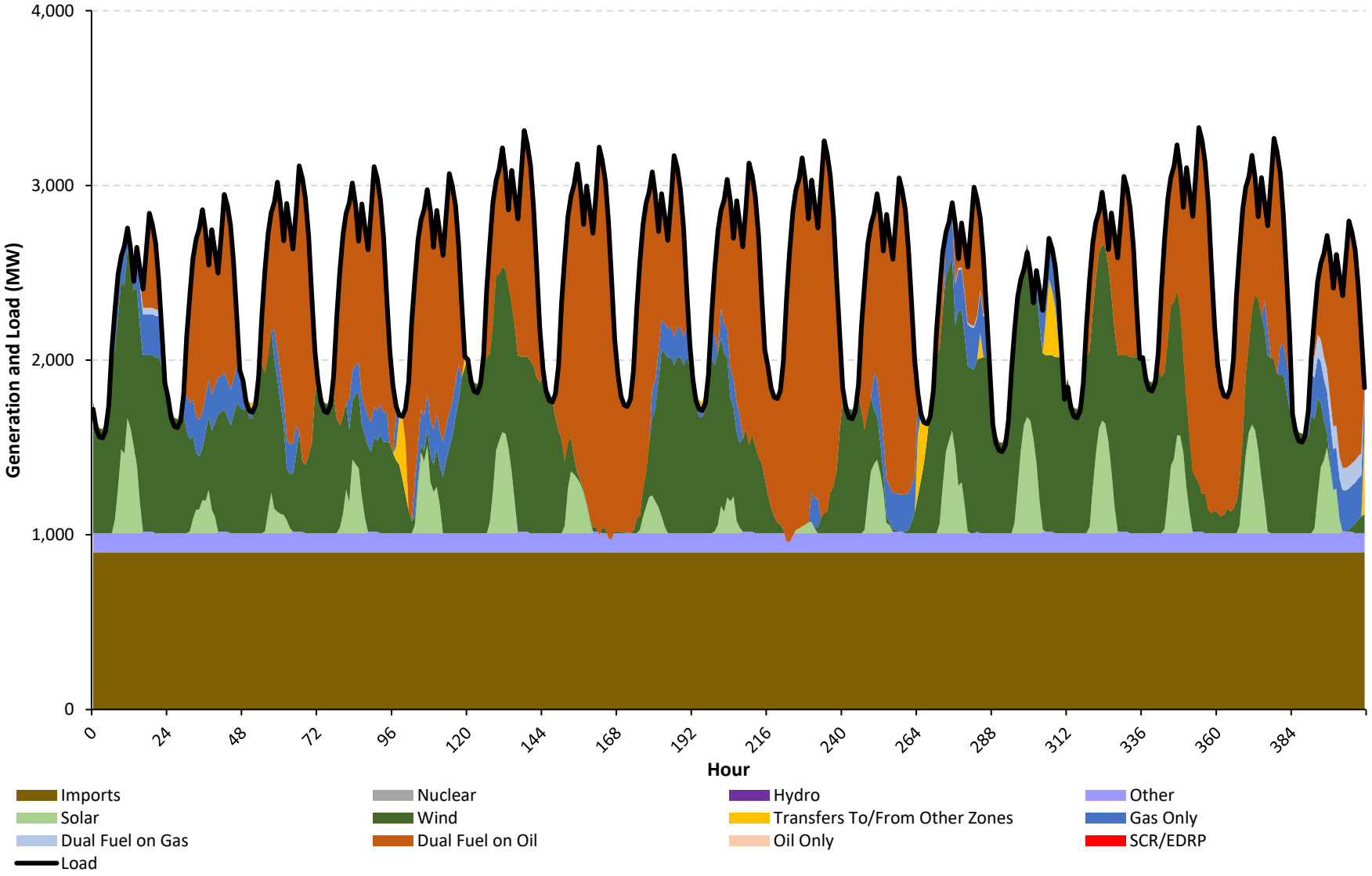



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 7 - PD 2 High Outage
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

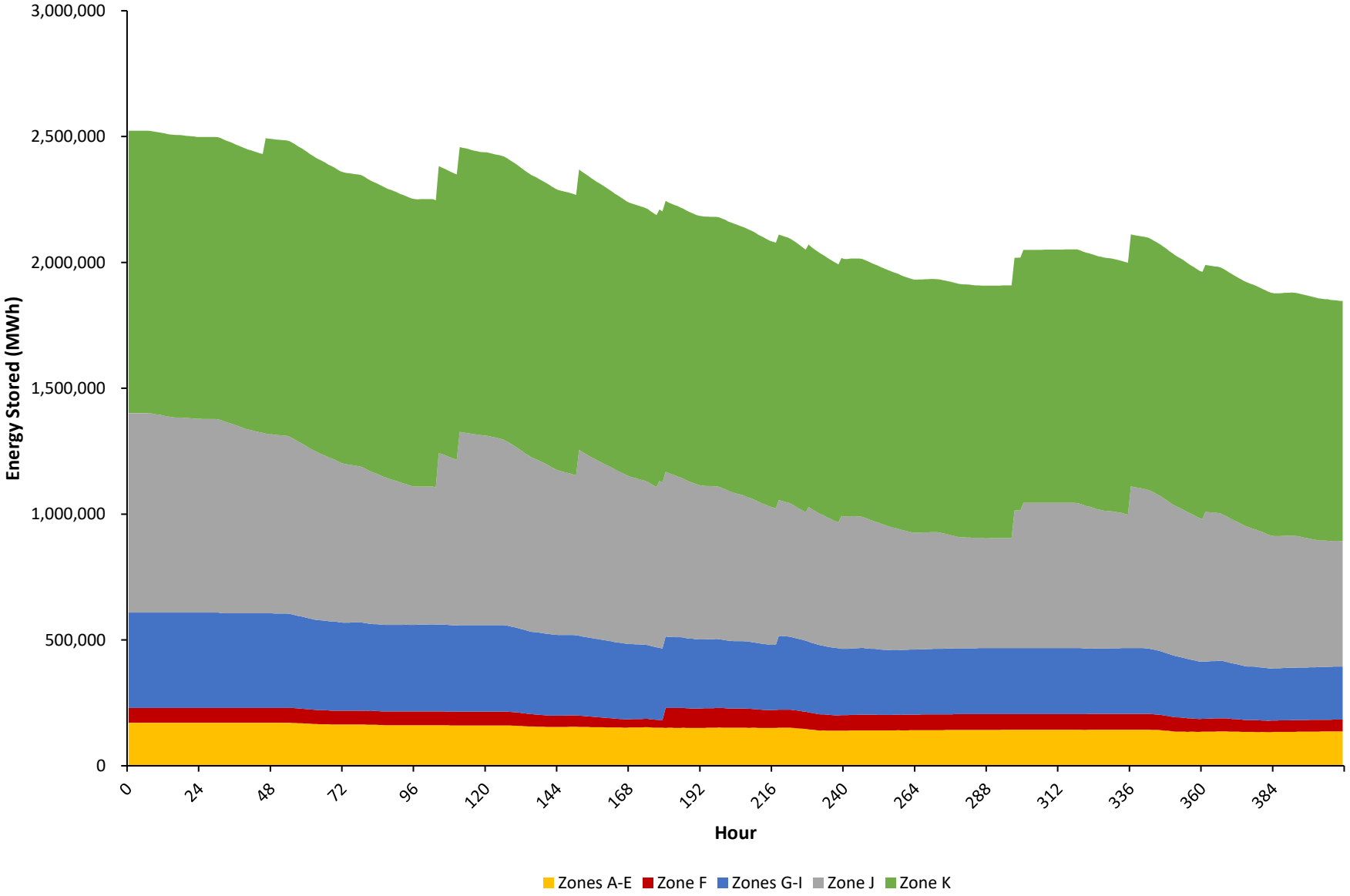
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 2 High Outage

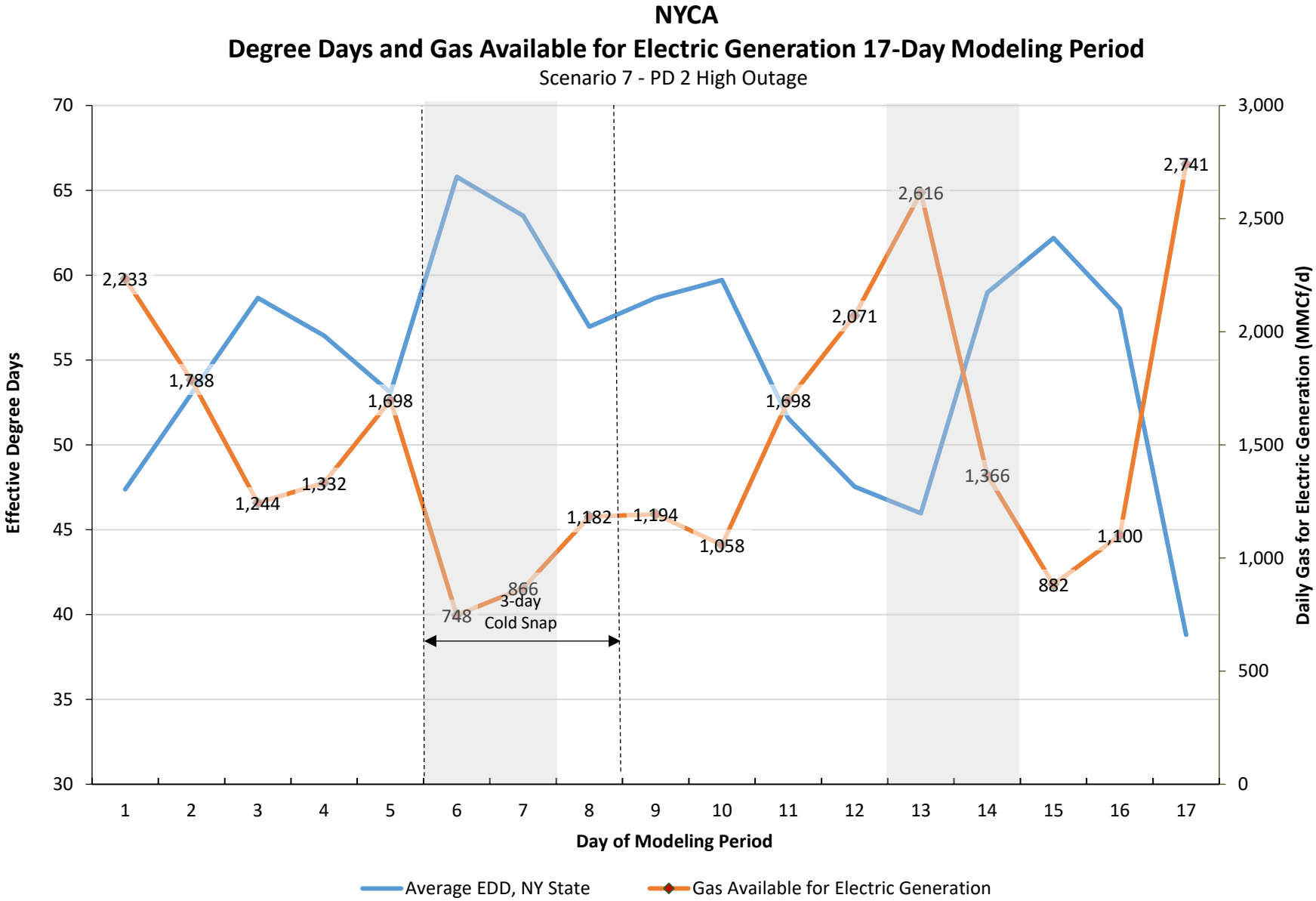


Zone K
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 2 High Outage

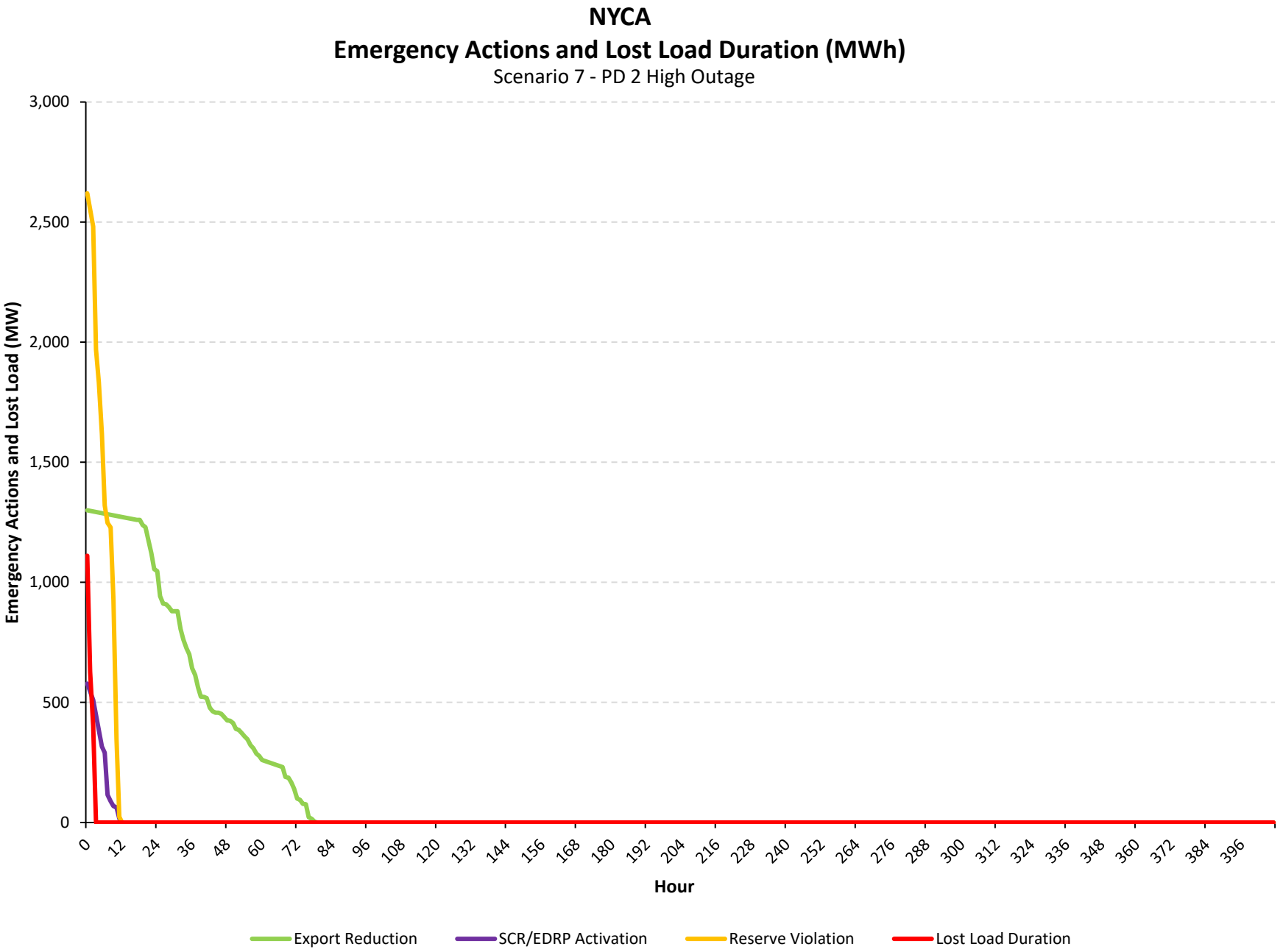


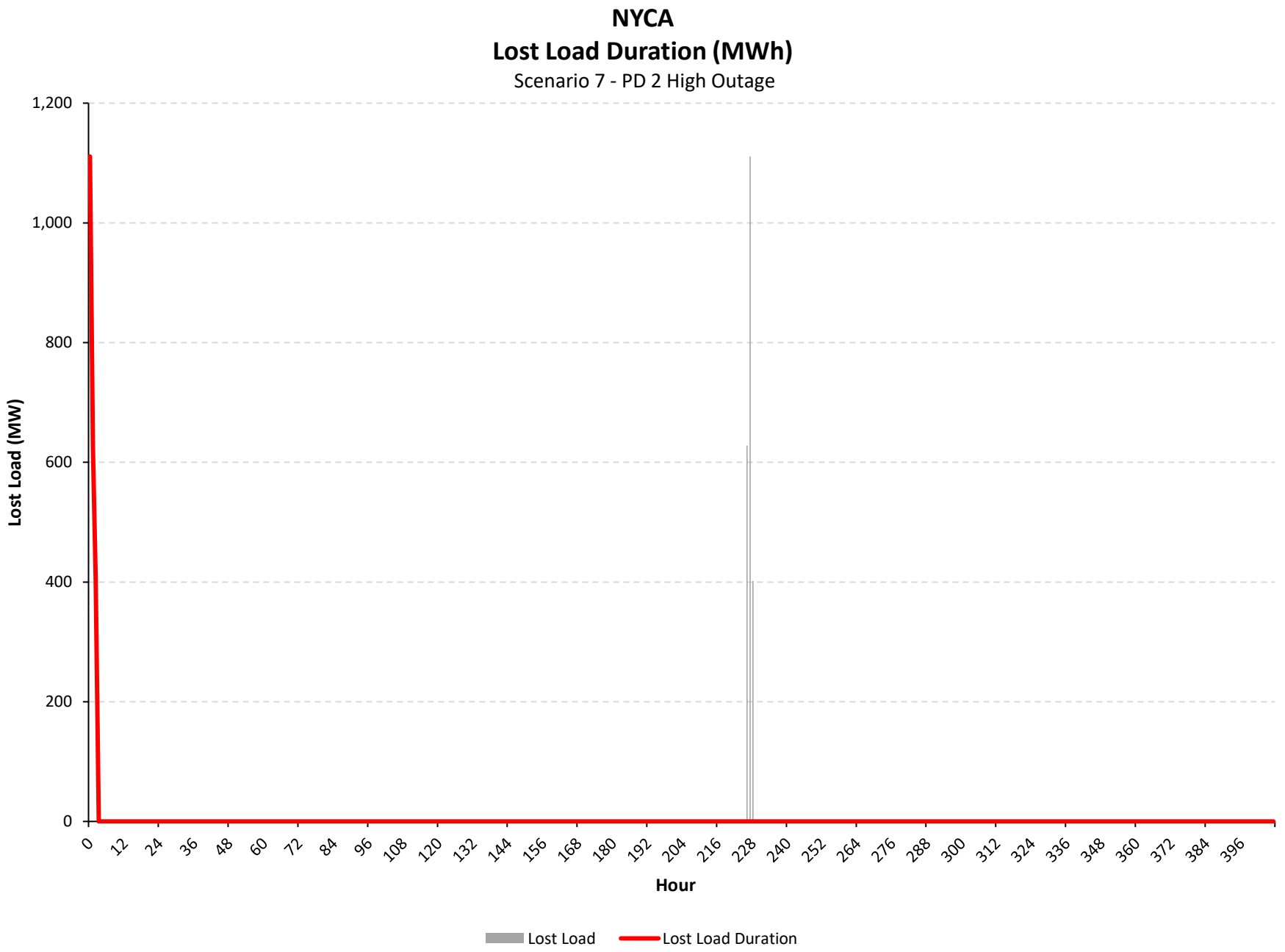
NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 7 - PD 2 High Outage





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 7 - PD 2 High Outage
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 7 - PD 2 High Outage
Lost Load (MW)
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

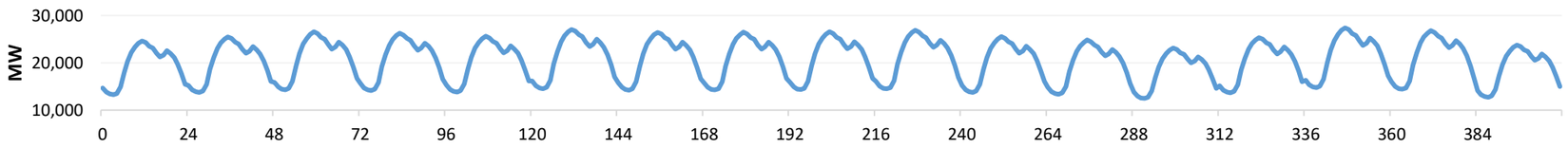
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 7 - PD 3 SENY Deactivation (Winter 2026/2027)

Hourly Results Summary

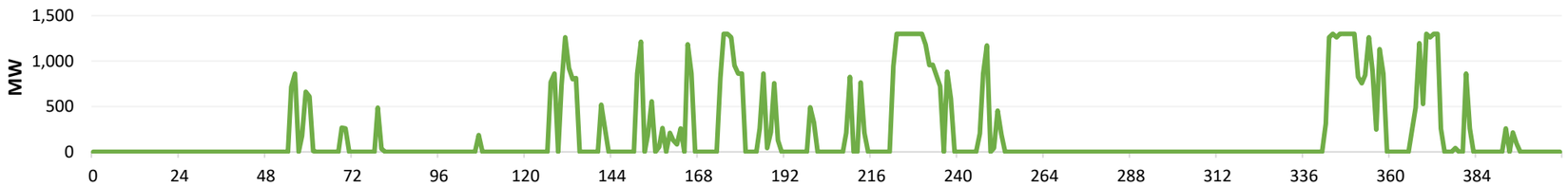
Case Name: Scenario 7 - PD 3 SENY Deactivation

Load During Modeling Period



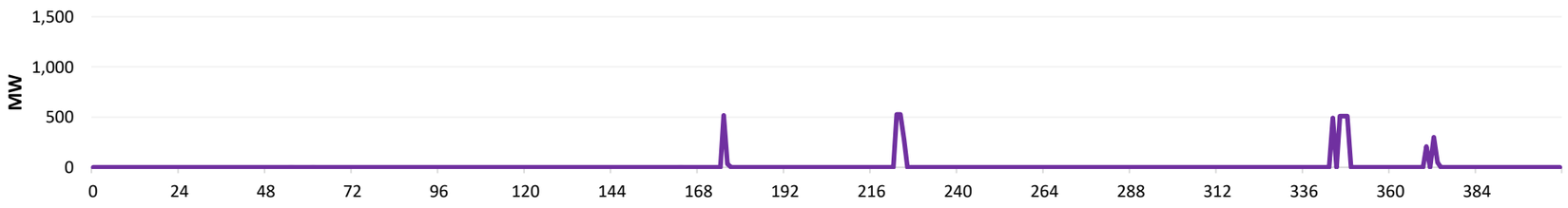
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



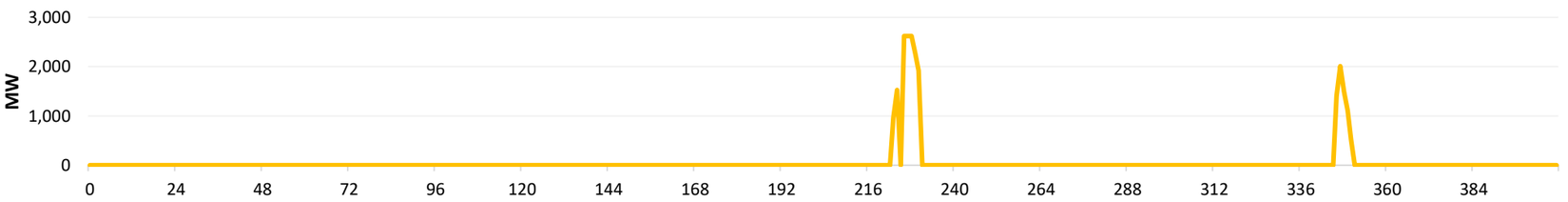
Export Reductions	
Total Hrs.	105
Total MWh	76,994
Avg. MW	188.7

SCR/EDRP Deployed During Modeling Period



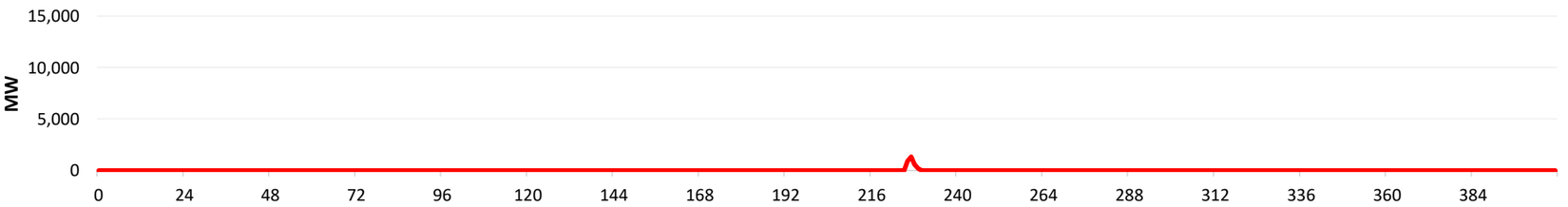
SCR Deployment	
Total Hrs.	12
Total MWh	4,457
Avg. MW	10.9

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	12
Total MWh	21,058
Avg. MW	51.6
First Hour with Viol.	223

Loss of Load During Modeling Period



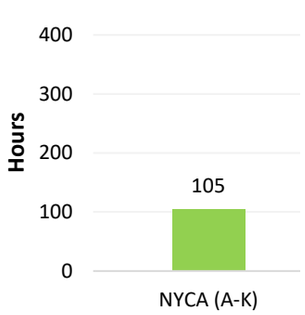
Loss of Load	
Total Hrs.	4
Total MWh	3,020
Avg. MW	7.4
First Hour with Losses	226

Full Period Results Summary

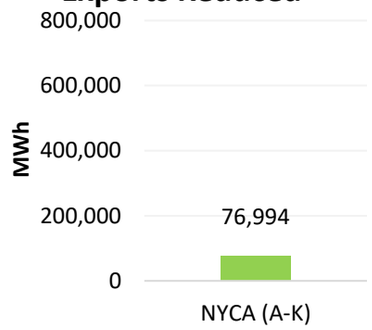
Case Name: Scenario 7 - PD 3 SENY Deactivation

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	All

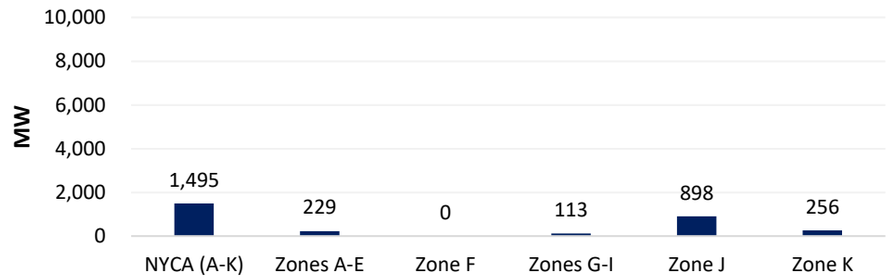
Hours Exports Reduced



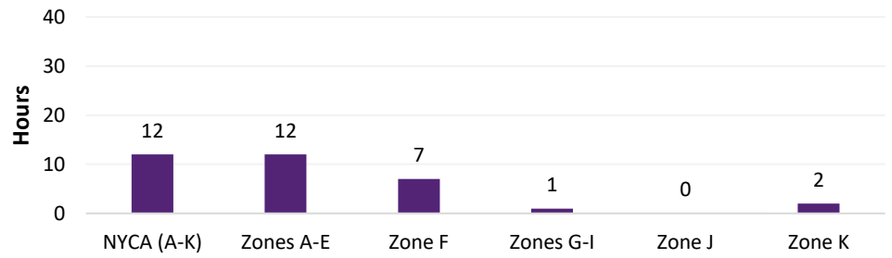
Total MWh of Exports Reduced



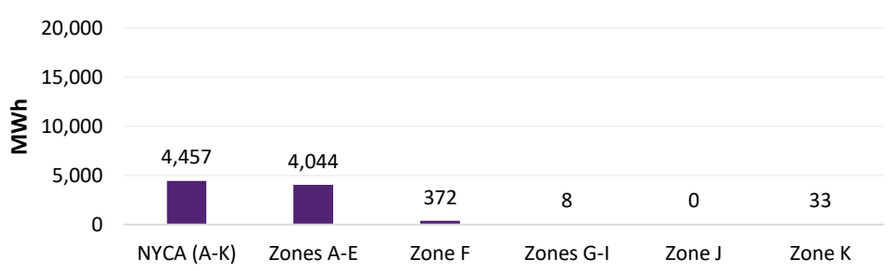
Average Capacity Not Available Due to Exhausted Fuel Inventory



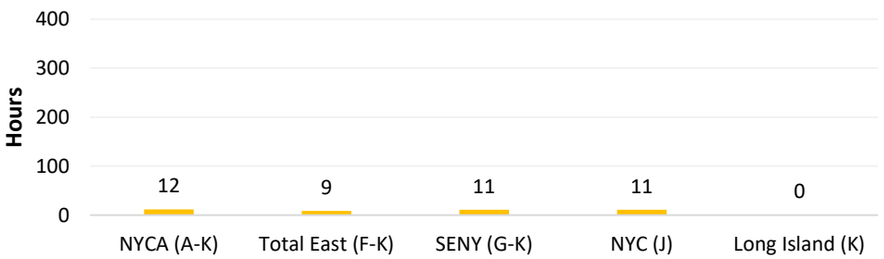
Hours SCR/EDRP Deployed



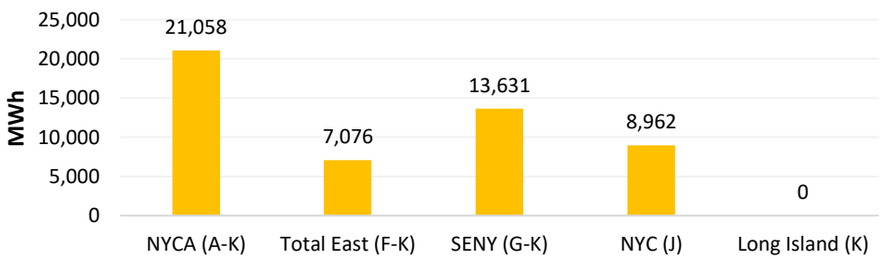
Total MWh SCR/EDRP Deployed



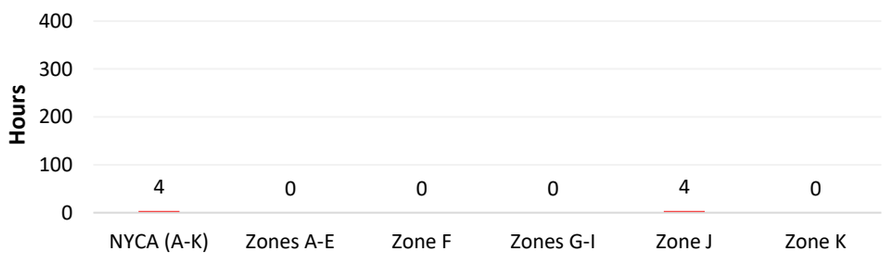
Hours with Reserve Violations



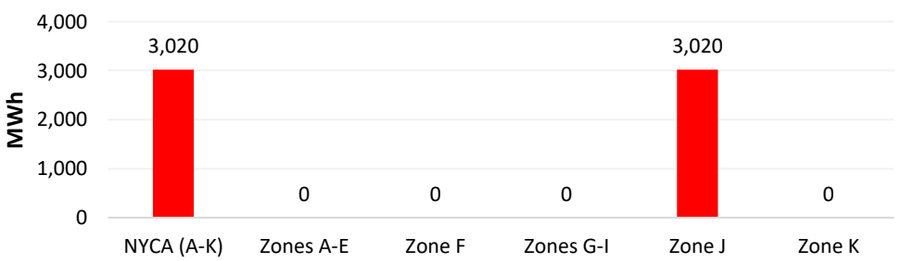
Total MWh of Reserve Violations

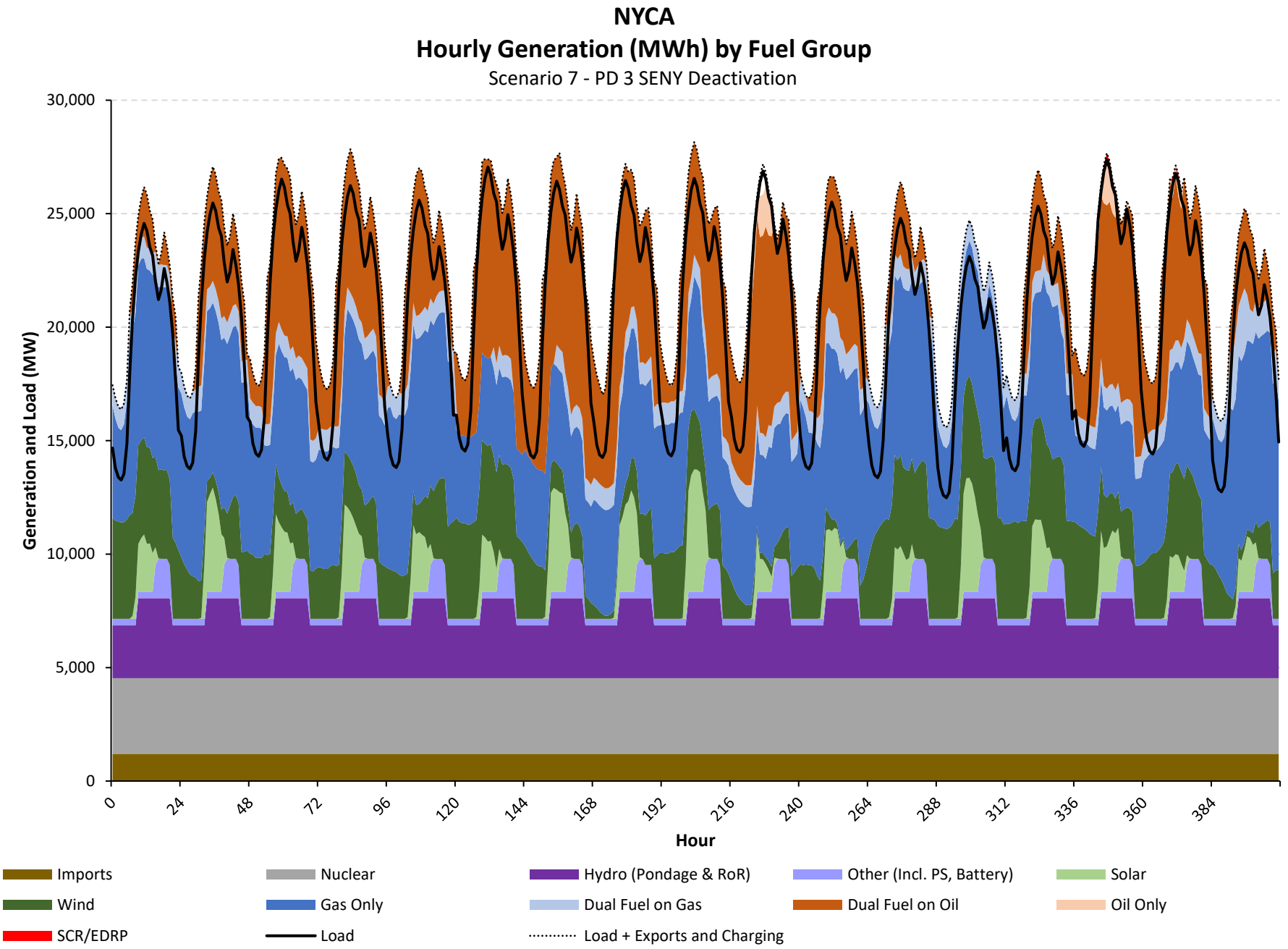


Hours with Loss of Load

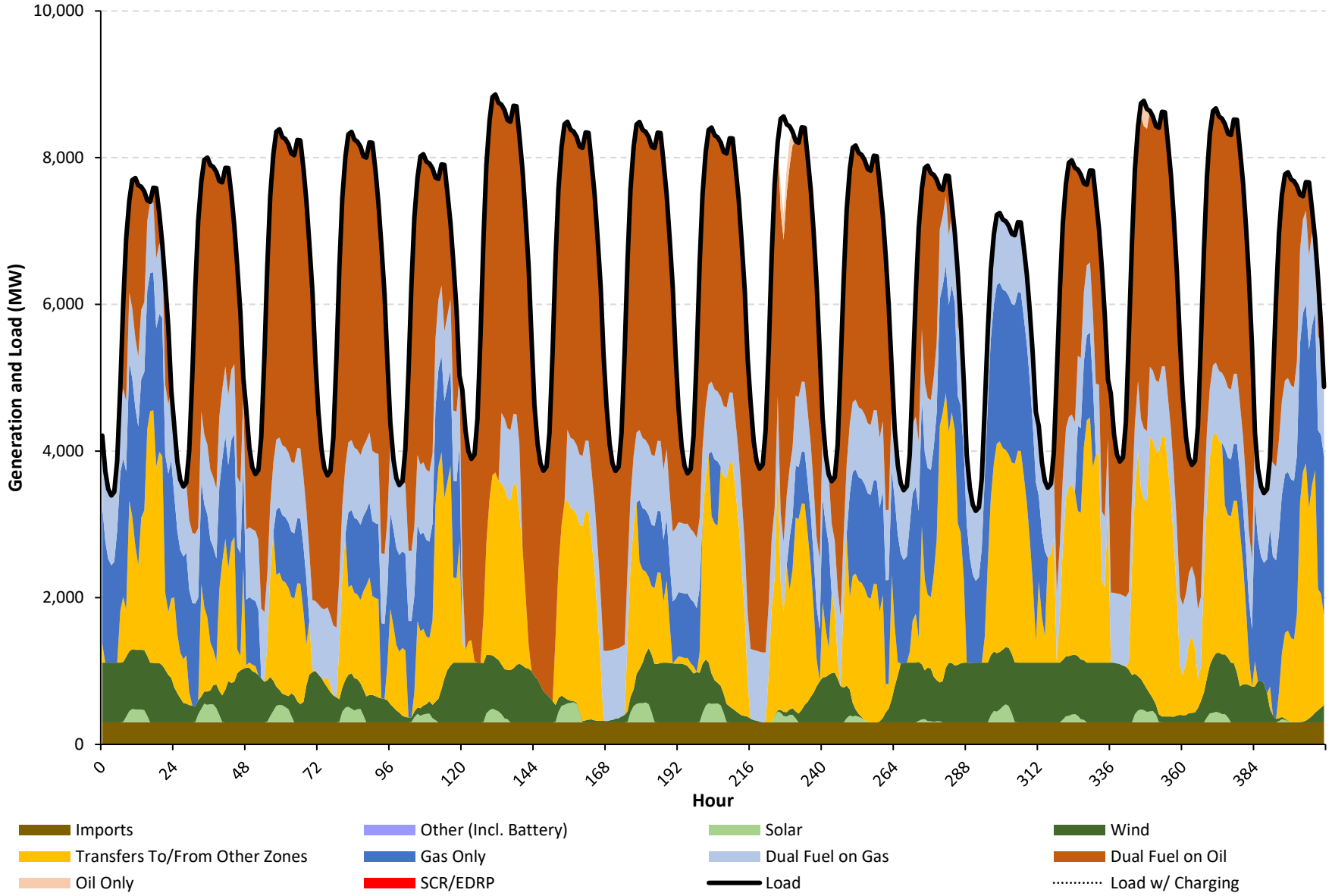


Total MWh of Lost Load

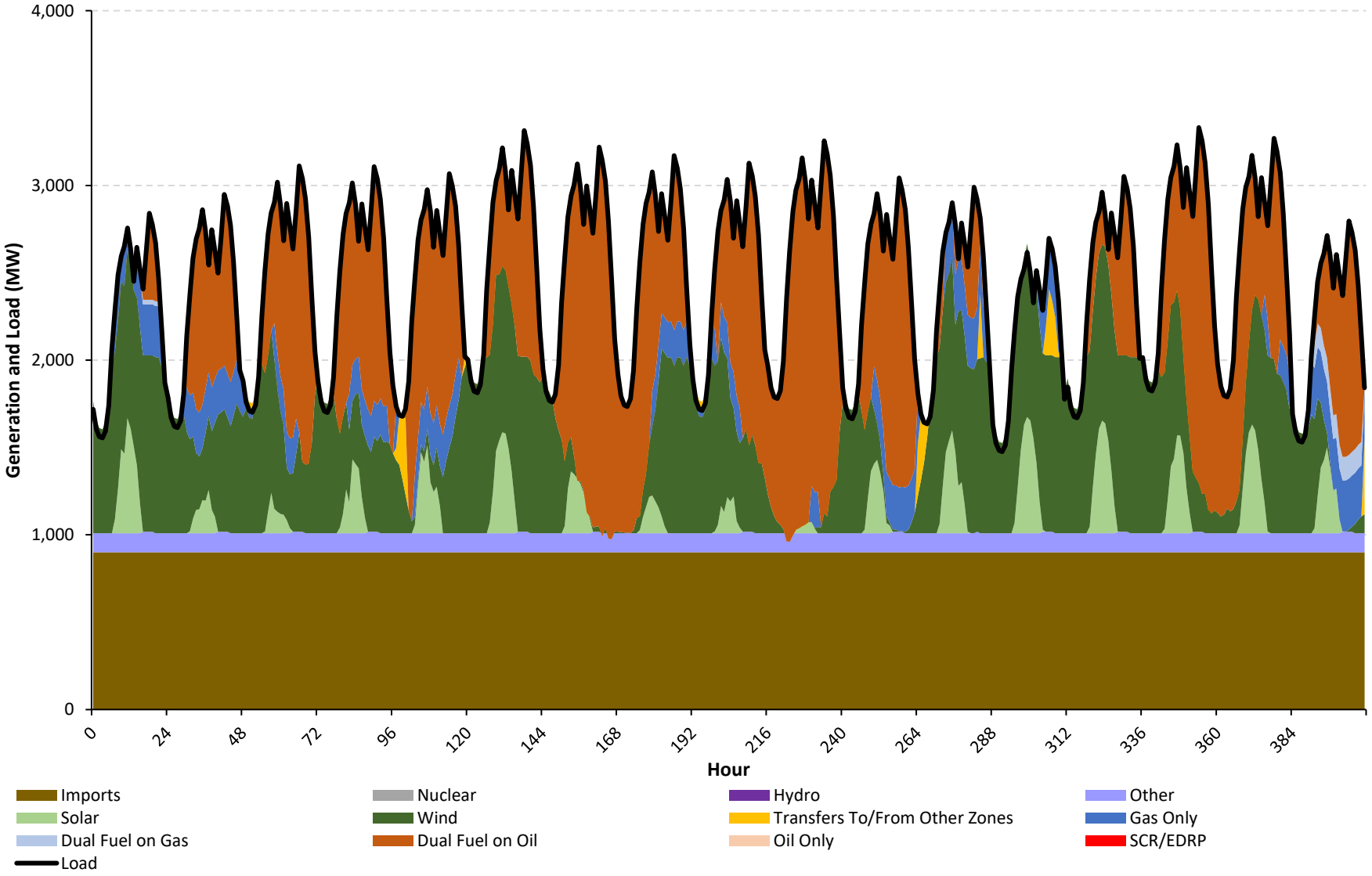



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 7 - PD 3 SENY Deactivation
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 3 SENY Deactivation



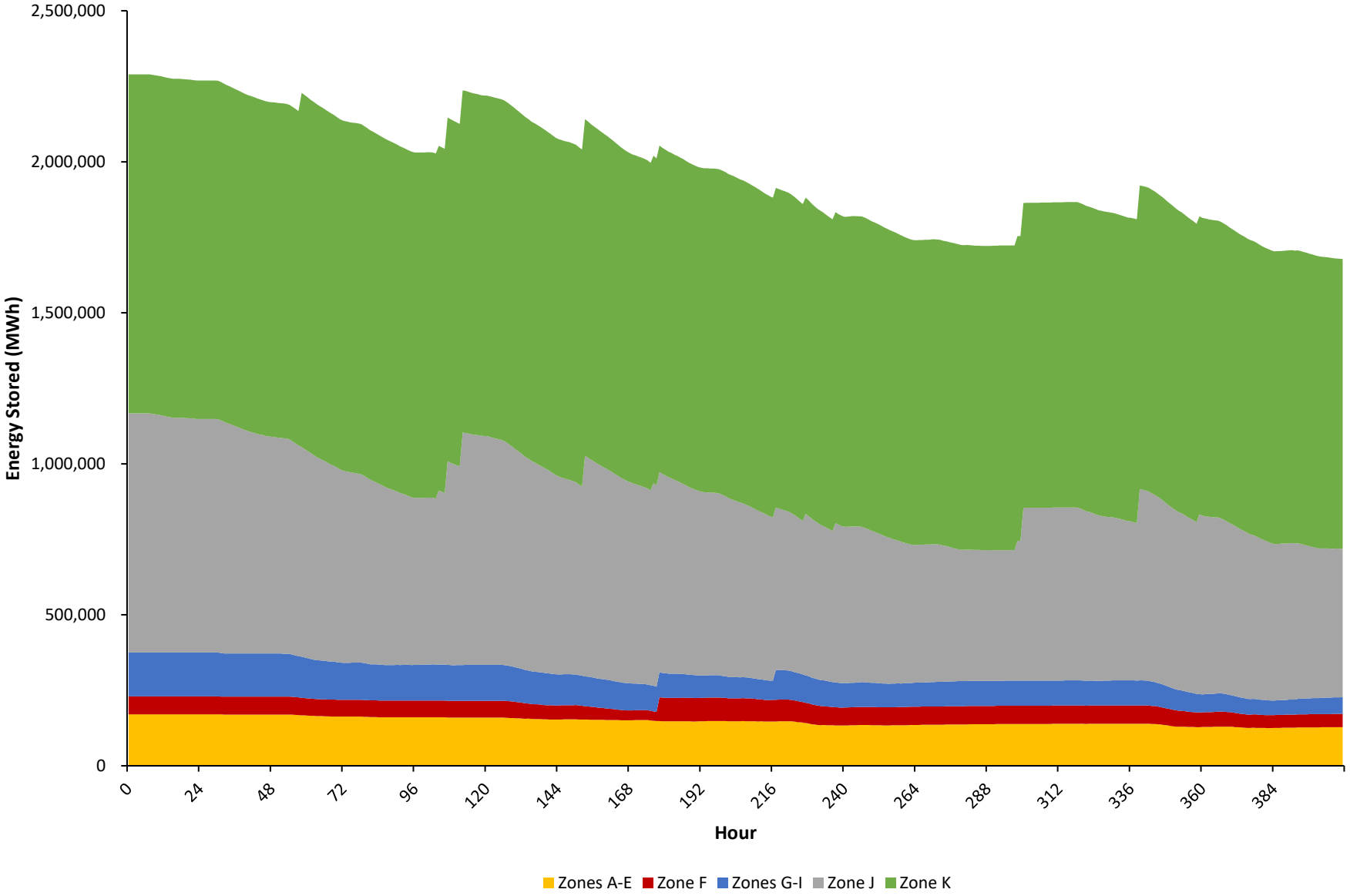
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 3 SENY Deactivation

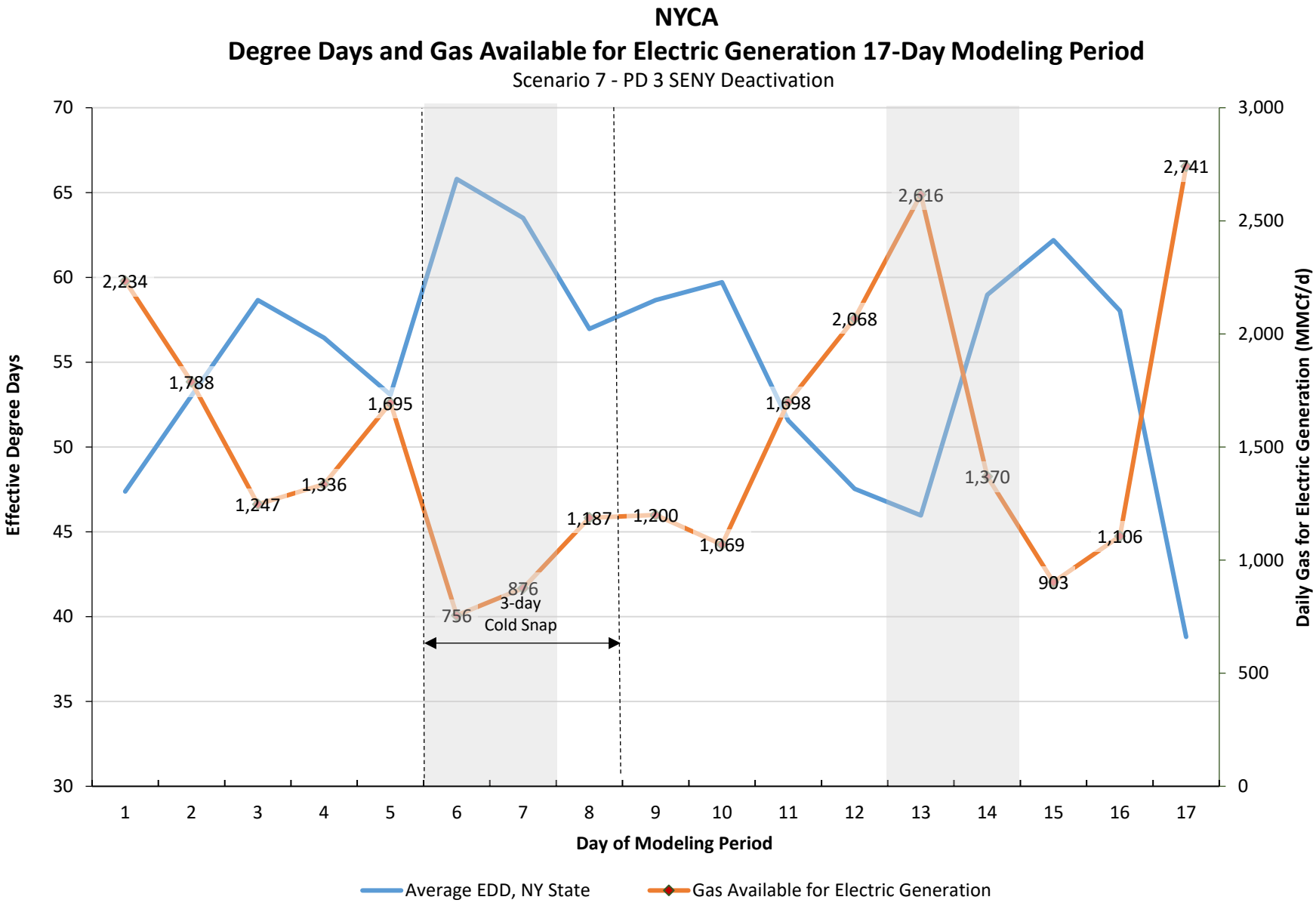


NYCA

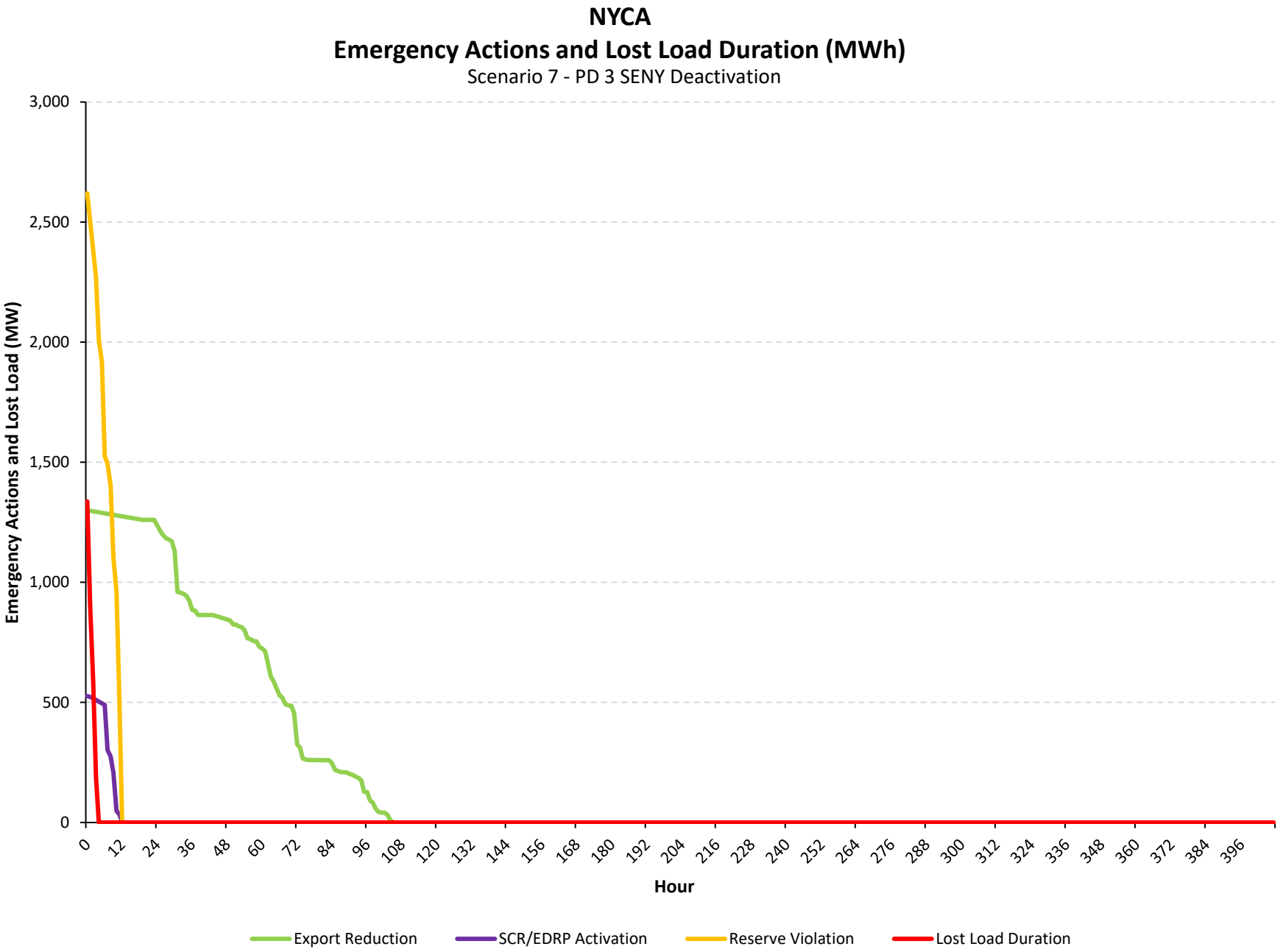
Quantity of Stored Fuel for Oil and Dual Fuel Units

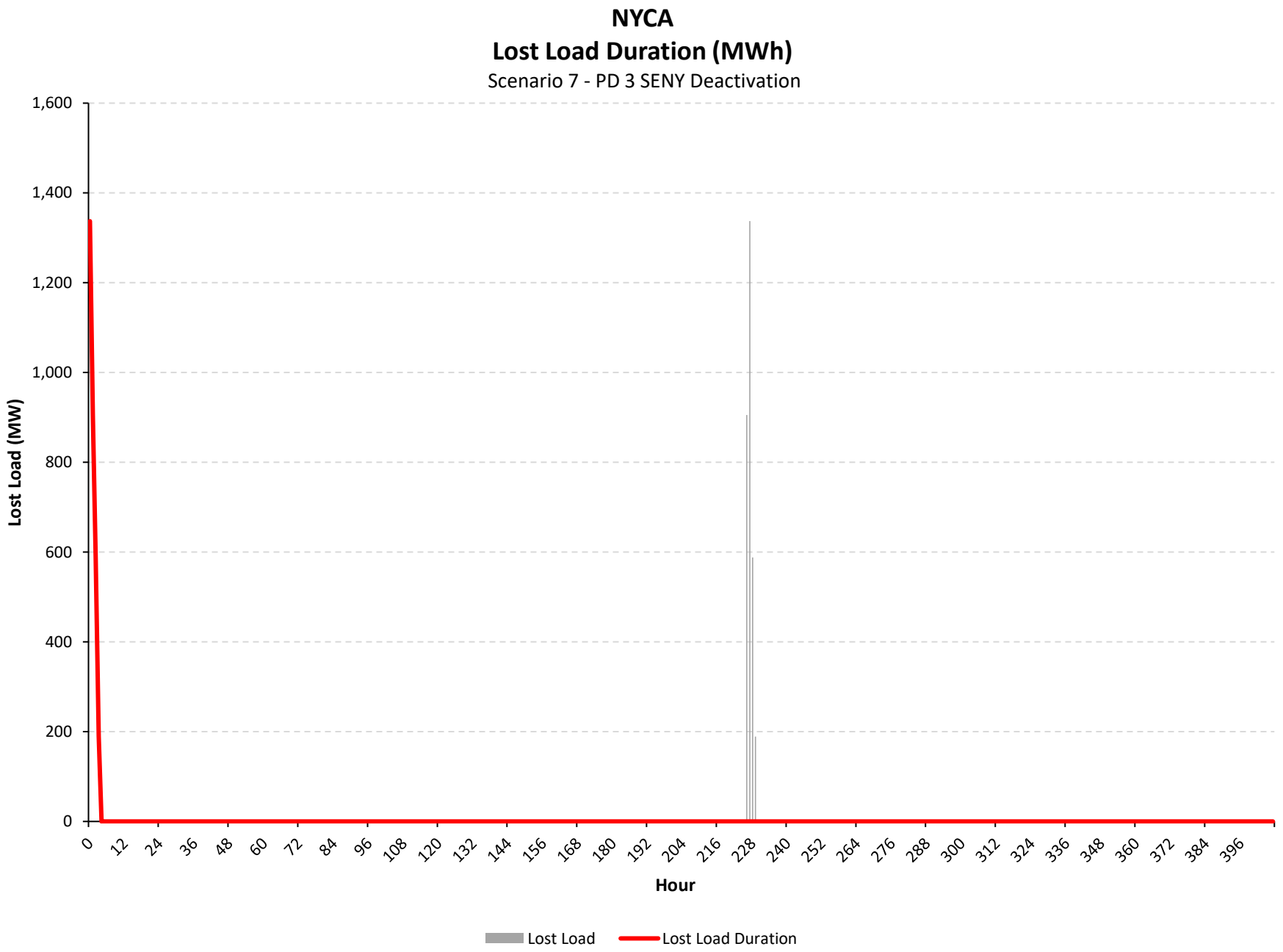
Scenario 7 - PD 3 SENY Deactivation





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 7 - PD 3 SENY Deactivation
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 7 - PD 3 SENY Deactivation
Lost Load (MW)
1,600
1,400
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

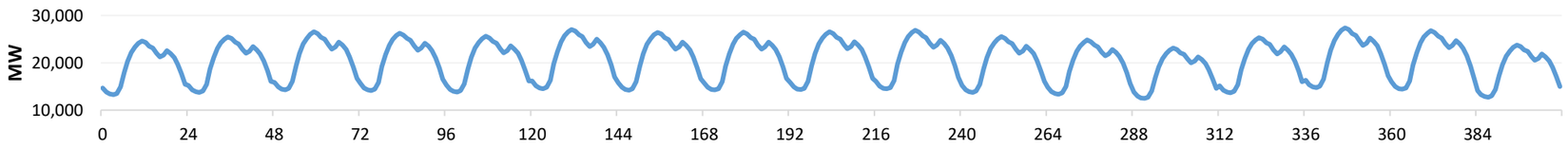
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 7 - PD 4 Nuclear Station Outage (Winter 2026/2027)

Hourly Results Summary

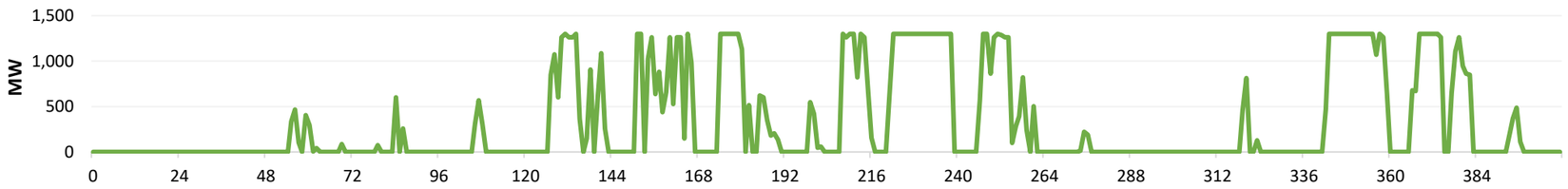
Case Name: Scenario 7 - PD 4 Nuclear Station Outage

Load During Modeling Period



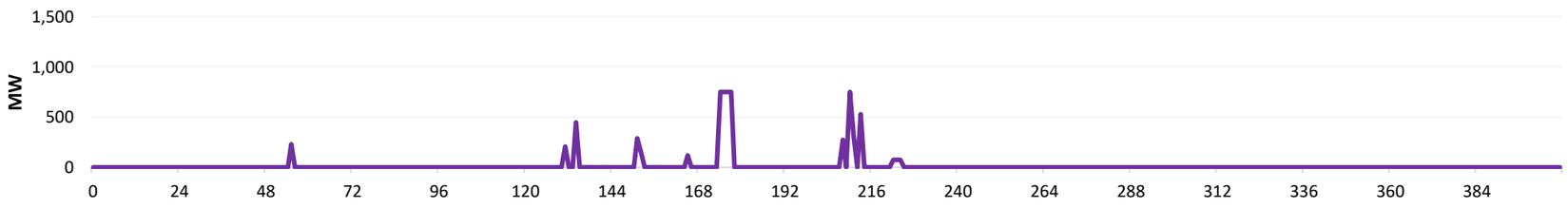
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



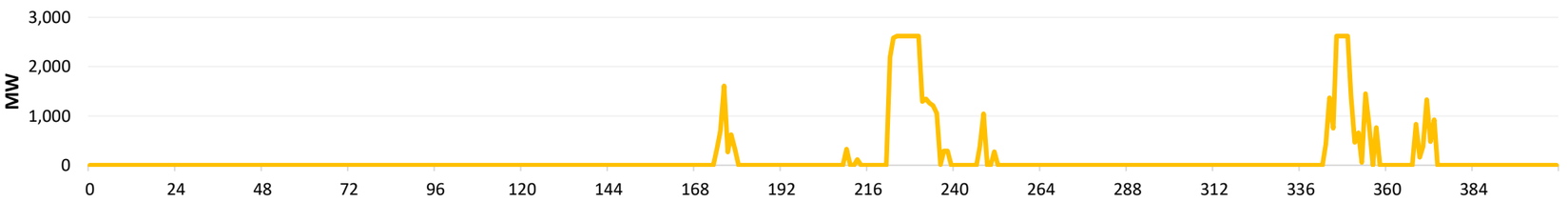
Export Reductions	
Total Hrs.	146
Total MWh	128,553
Avg. MW	315.1

SCR/EDRP Deployed During Modeling Period



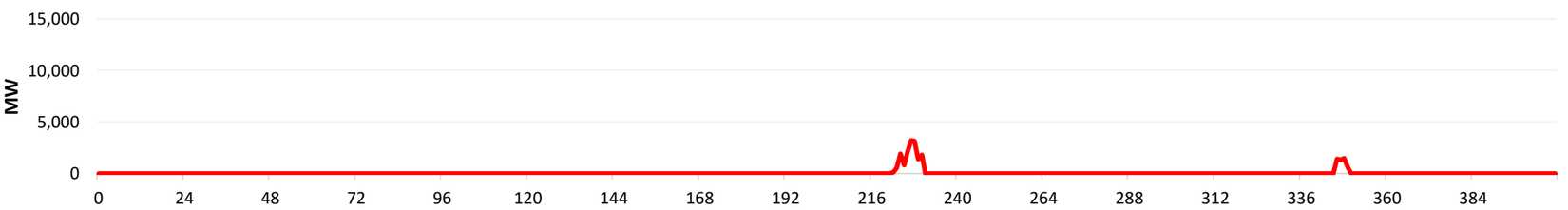
SCR Deployment	
Total Hrs.	17
Total MWh	6,522
Avg. MW	16.0

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	48
Total MWh	58,583
Avg. MW	143.6
First Hour with Viol.	174

Loss of Load During Modeling Period



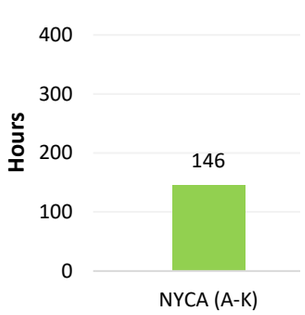
Loss of Load	
Total Hrs.	13
Total MWh	19,885
Avg. MW	48.7
First Hour with Losses	222

Full Period Results Summary

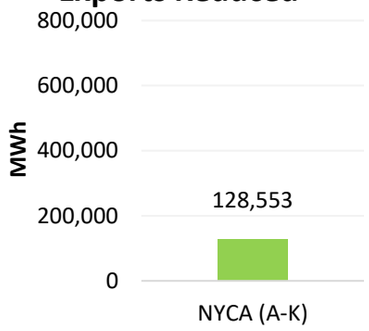
Case Name: Scenario 7 - PD 4 Nuclear Station Outage

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	All

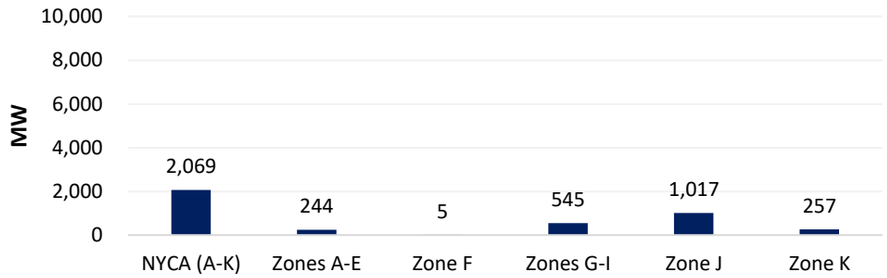
Hours Exports Reduced



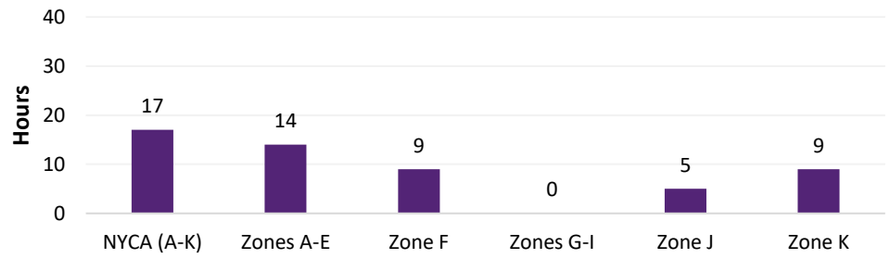
Total MWh of Exports Reduced



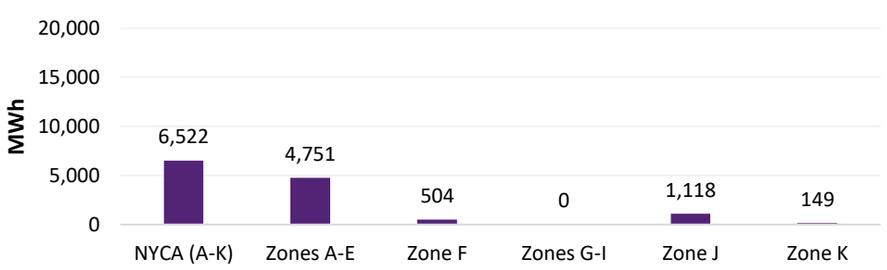
Average Capacity Not Available Due to Exhausted Fuel Inventory



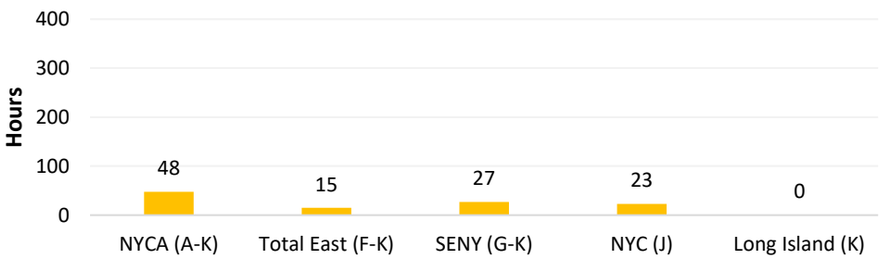
Hours SCR/EDRP Deployed



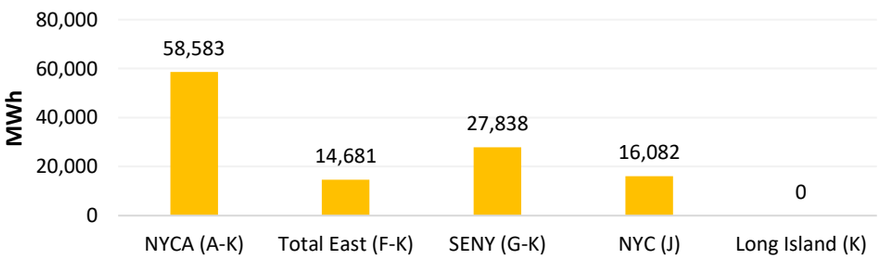
Total MWh SCR/EDRP Deployed



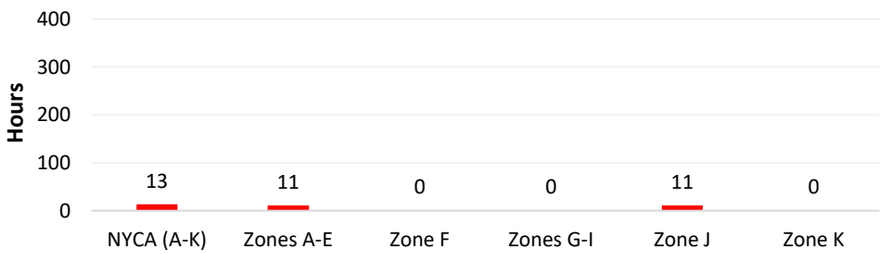
Hours with Reserve Violations



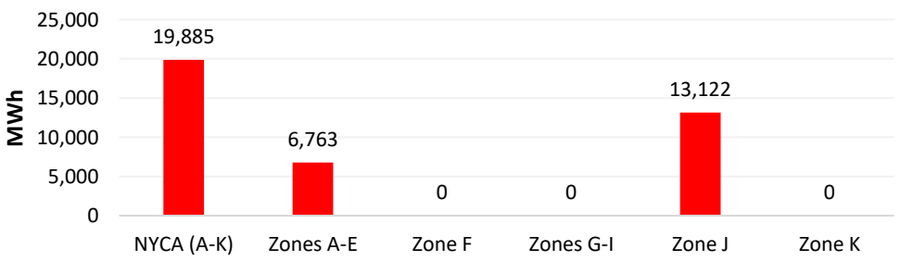
Total MWh of Reserve Violations

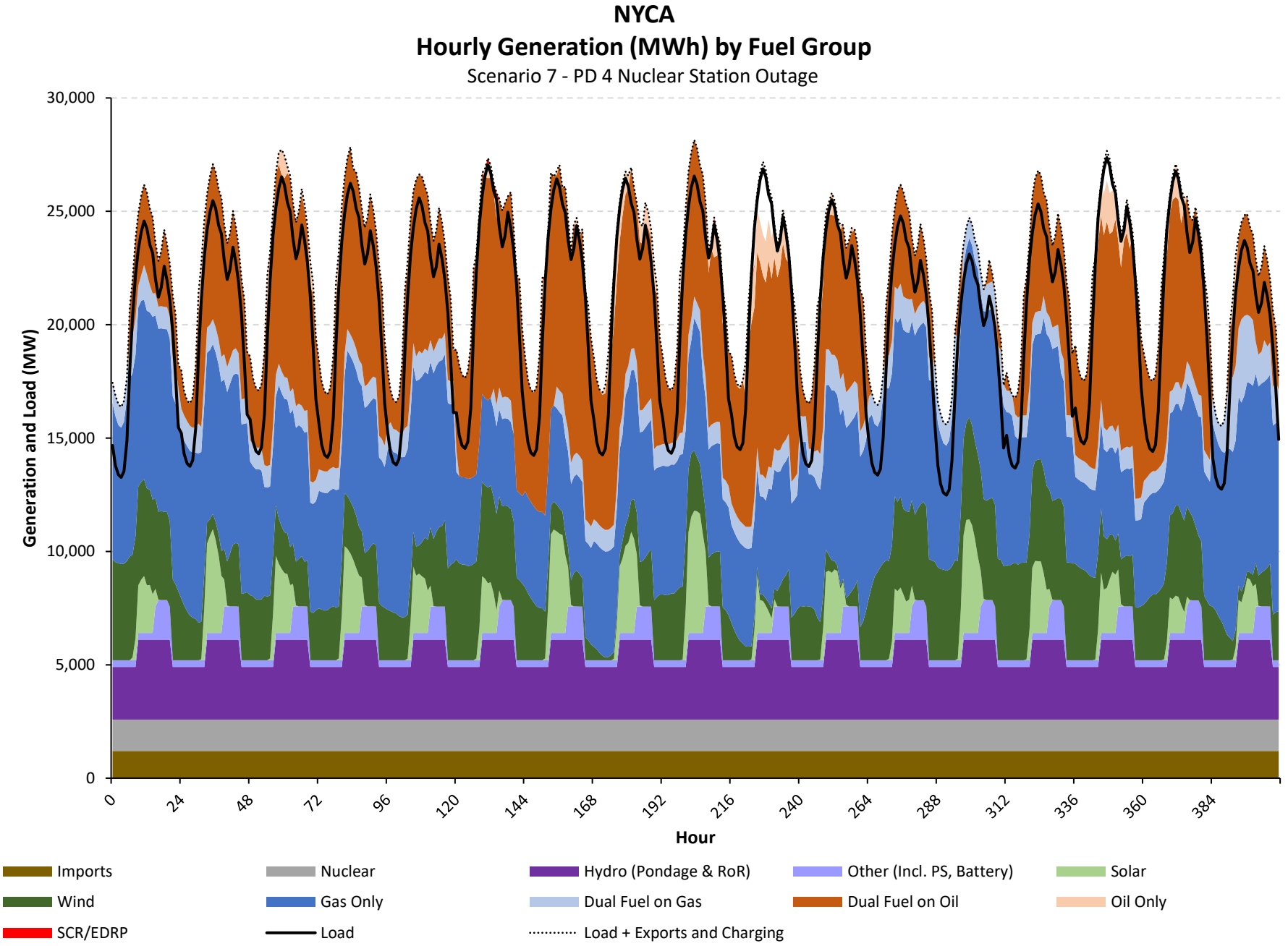


Hours with Loss of Load

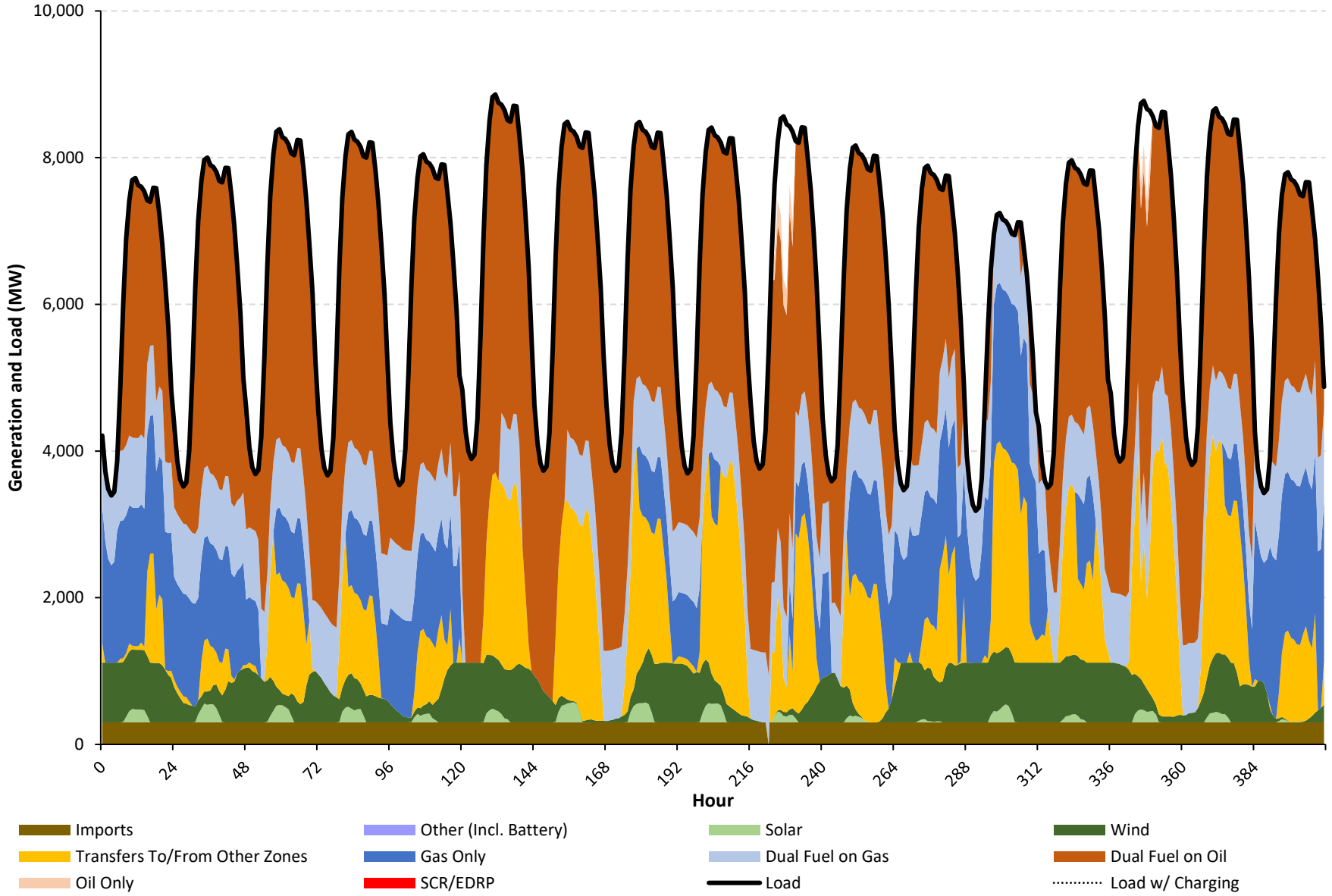


Total MWh of Lost Load

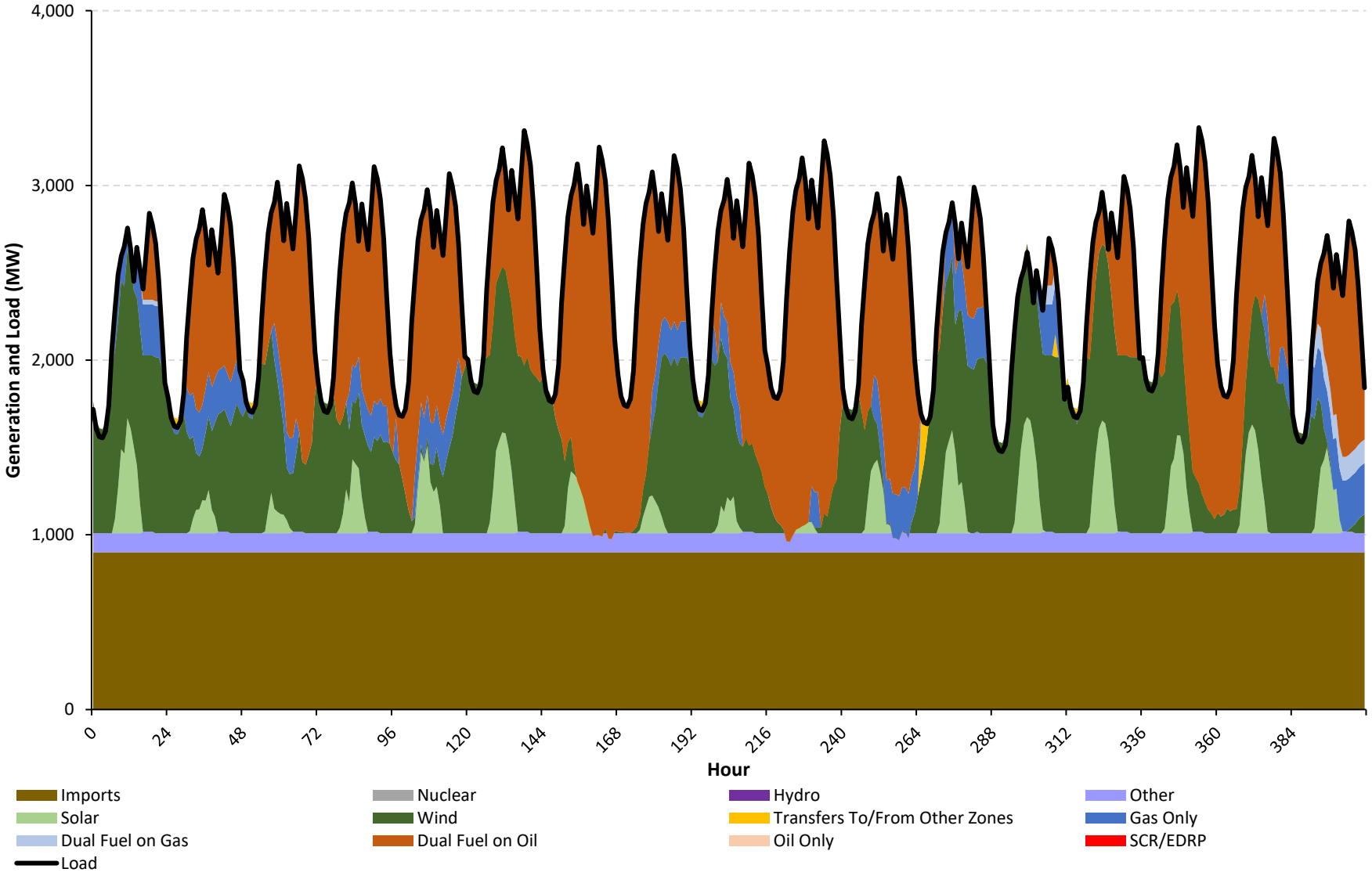



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 7 - PD 4 Nuclear Station Outage
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 4 Nuclear Station Outage



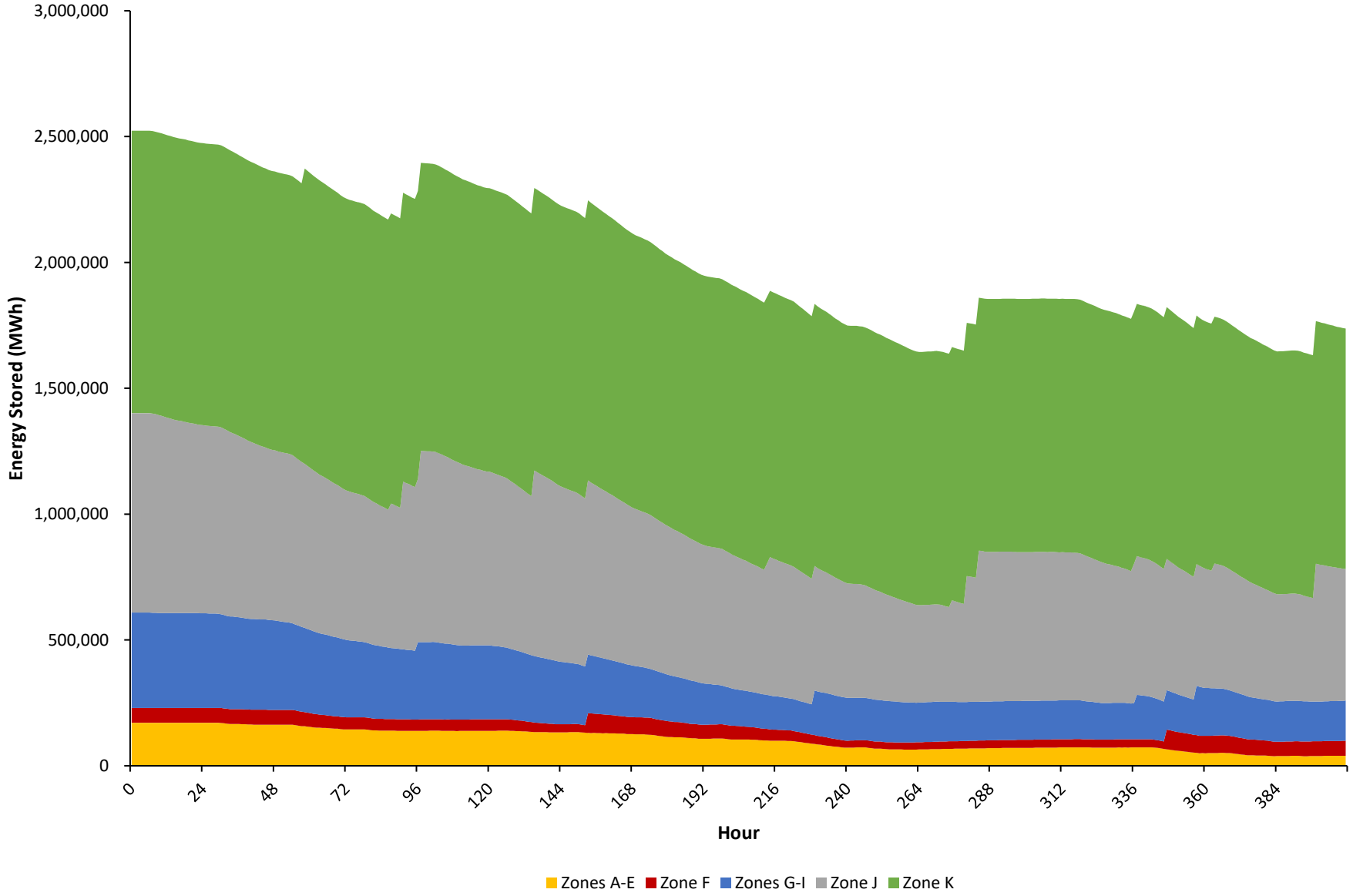
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 4 Nuclear Station Outage

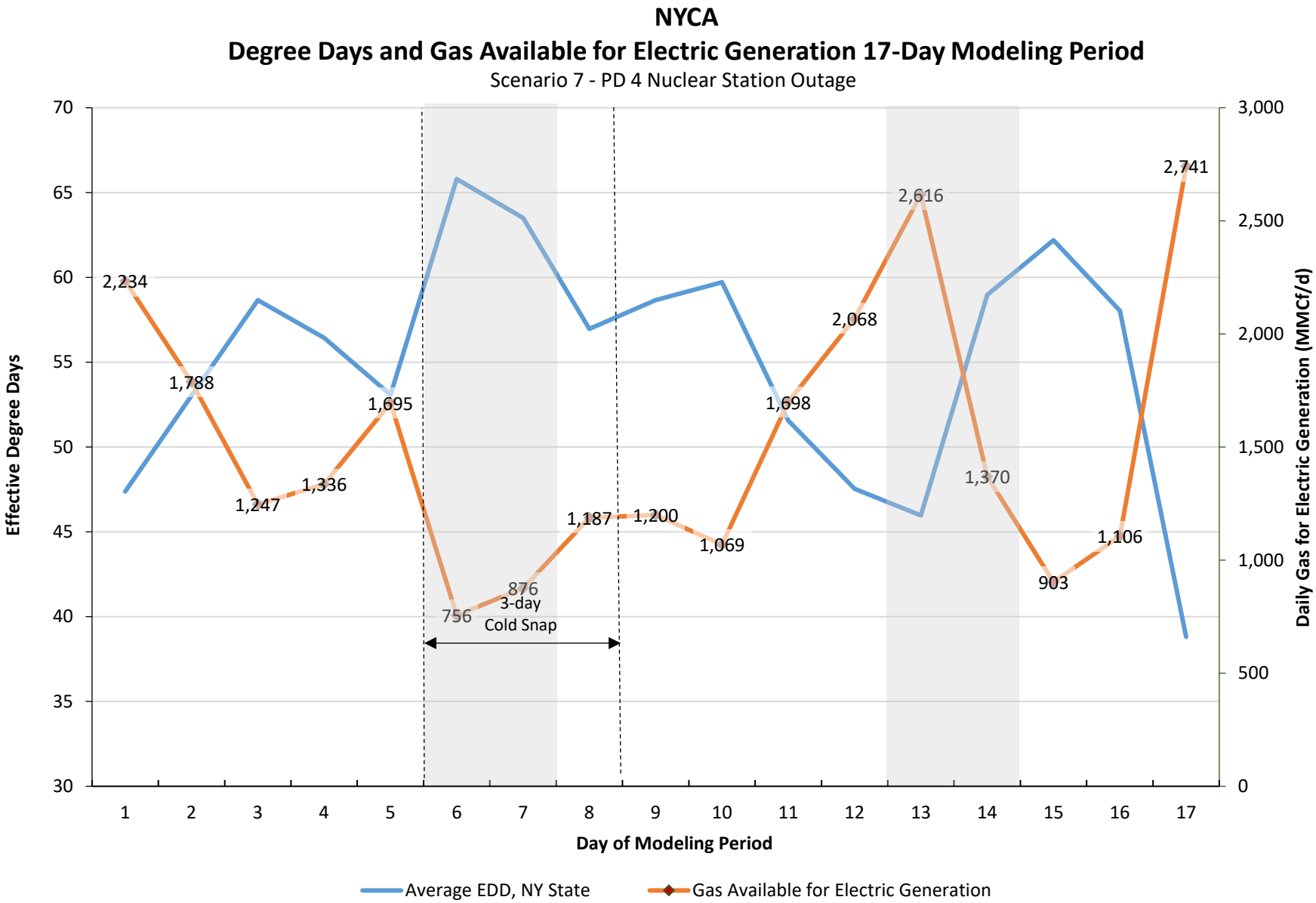


NYCA

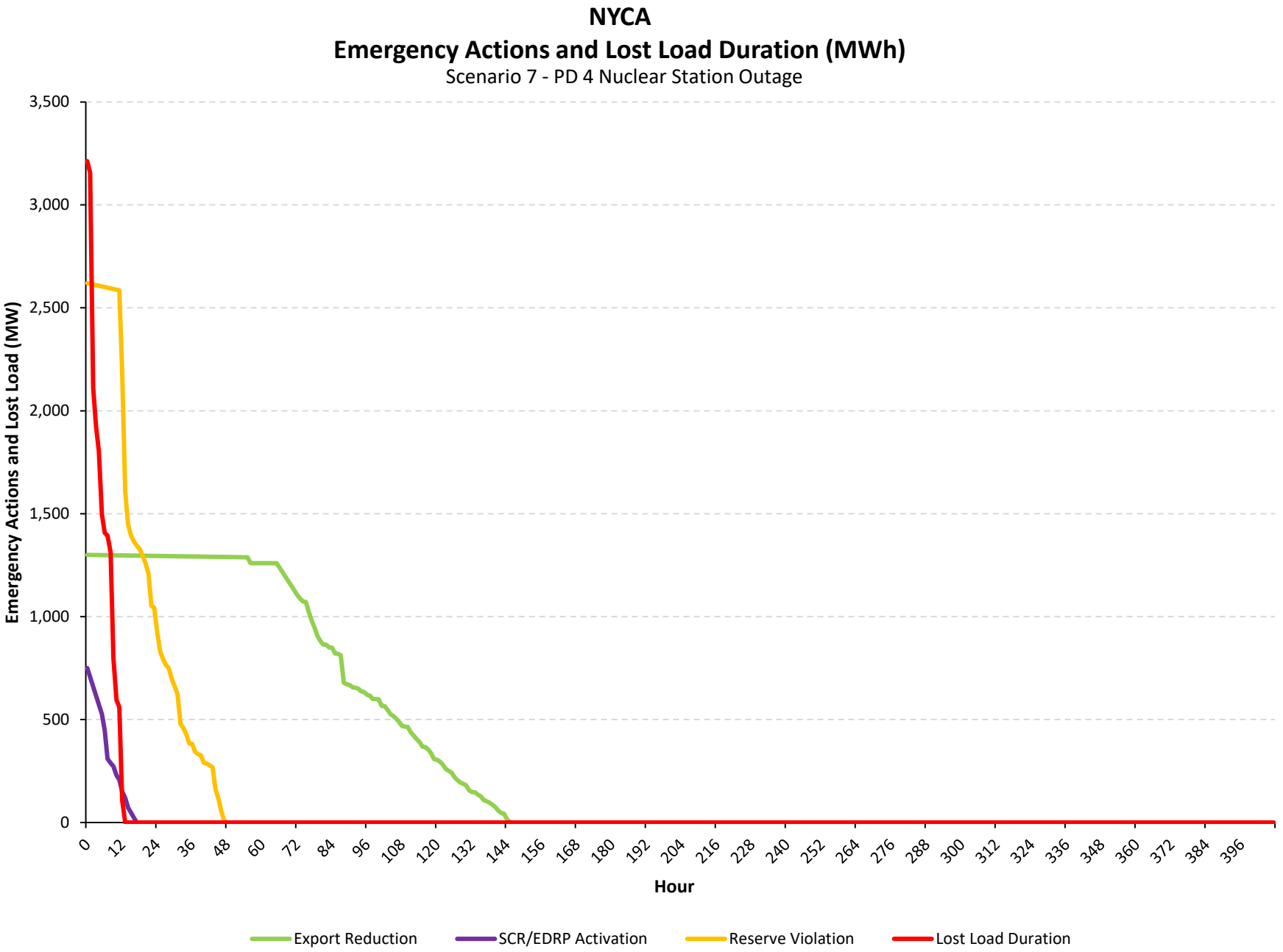
Quantity of Stored Fuel for Oil and Dual Fuel Units

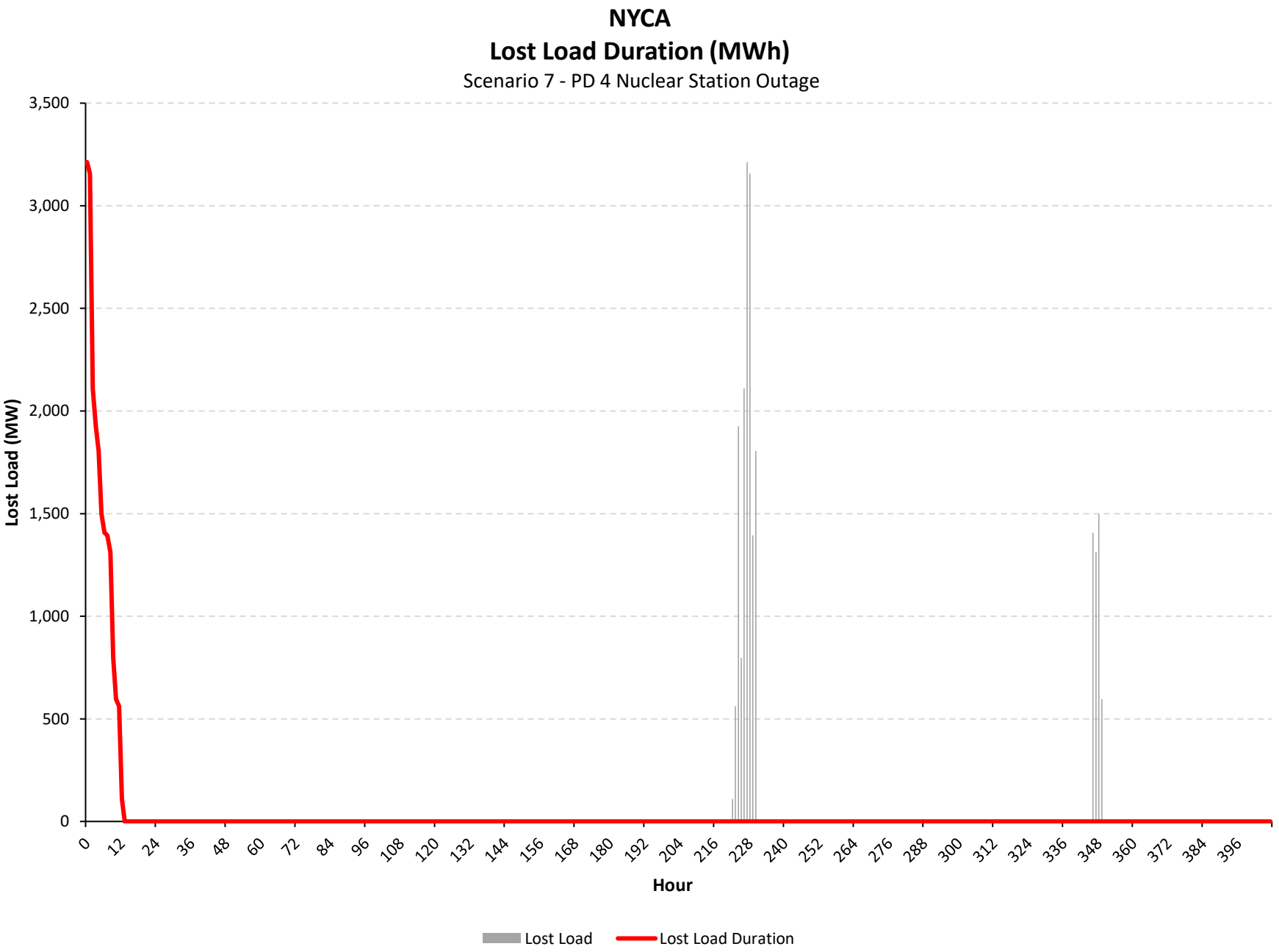
Scenario 7 - PD 4 Nuclear Station Outage





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 7 - PD 4 Nuclear Station Outage
Emergency Actions and Lost Load (MW)
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 7 - PD 4 Nuclear Station Outage
Lost Load (MW)
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

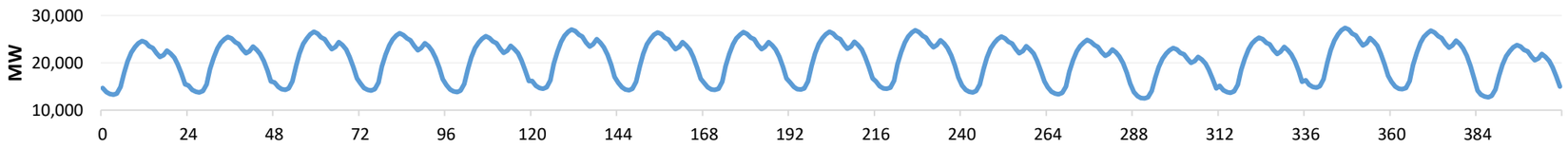
Case: Scenario 7 - PD 5 No Truck Refill (Winter 2026/2027)

Hourly Results Summary

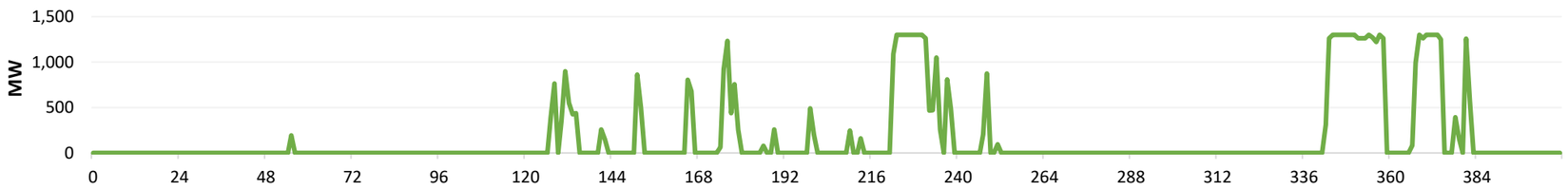
Case Name: Scenario 7 - PD 5 No Truck Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Load During Modeling Period

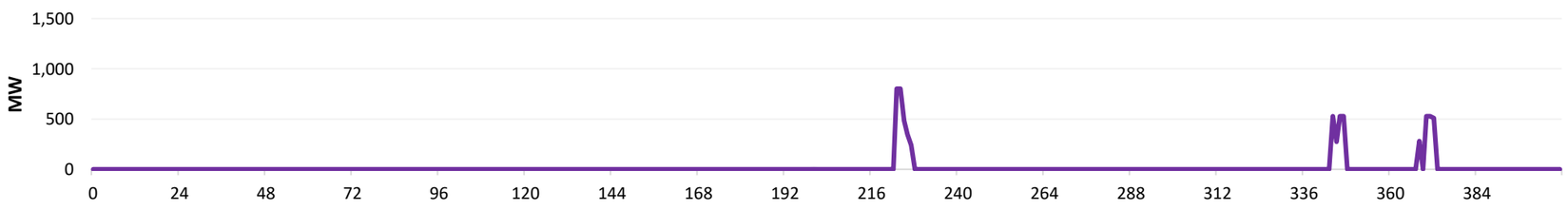


Export to ISO-NE Reduction During Modeling Period



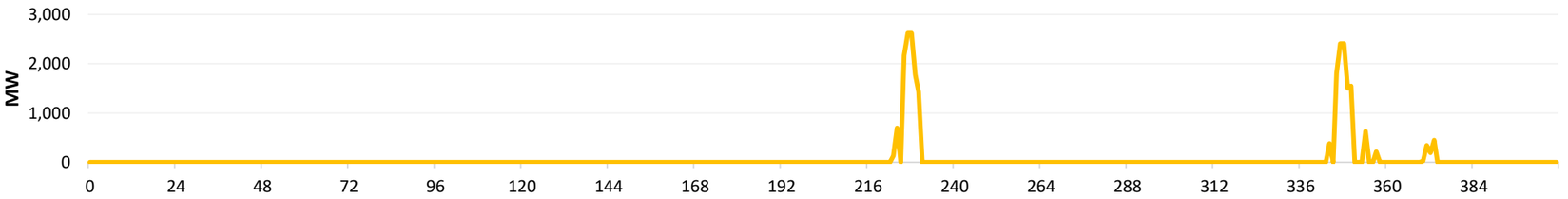
Export Reductions	
Total Hrs.	75
Total MWh	63,110
Avg. MW	154.7

SCR/EDRP Deployed During Modeling Period



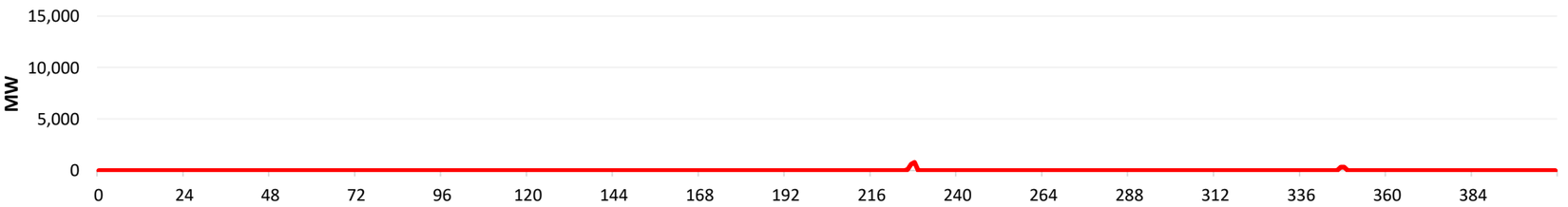
SCR Deployment	
Total Hrs.	13
Total MWh	6,377
Avg. MW	15.6

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	19
Total MWh	23,342
Avg. MW	57.2
First Hour with Viol.	223

Loss of Load During Modeling Period



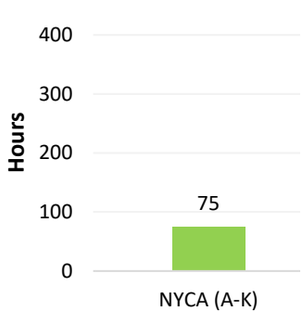
Loss of Load	
Total Hrs.	5
Total MWh	2,157
Avg. MW	5.3
First Hour with Losses	226

Full Period Results Summary

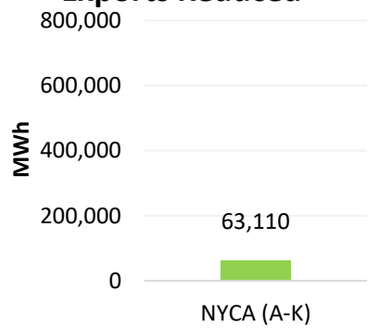
Case Name: Scenario 7 - PD 5 No Truck Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

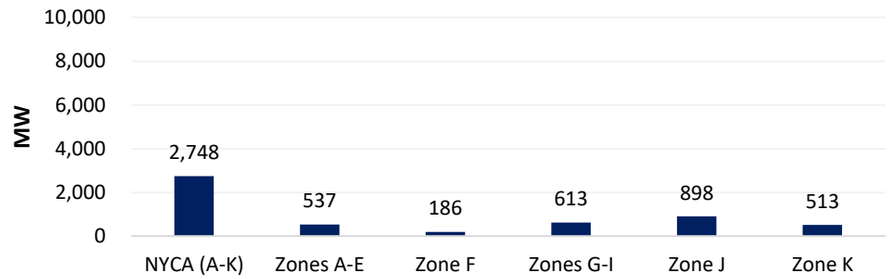
Hours Exports Reduced



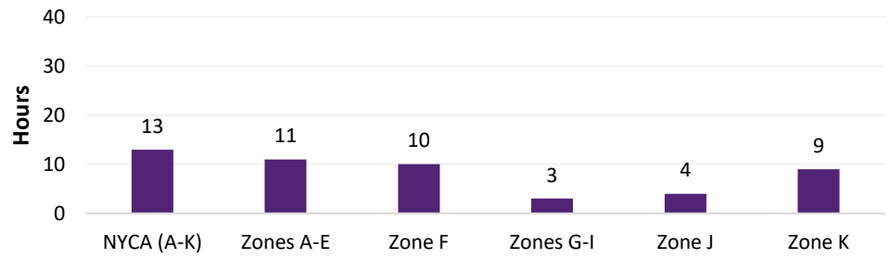
Total MWh of Exports Reduced



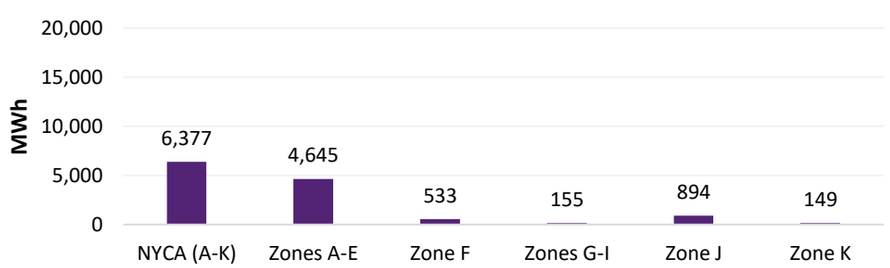
Average Capacity Not Available Due to Exhausted Fuel Inventory



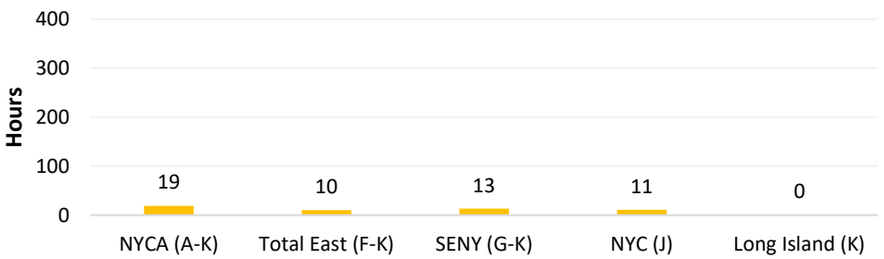
Hours SCR/EDRP Deployed



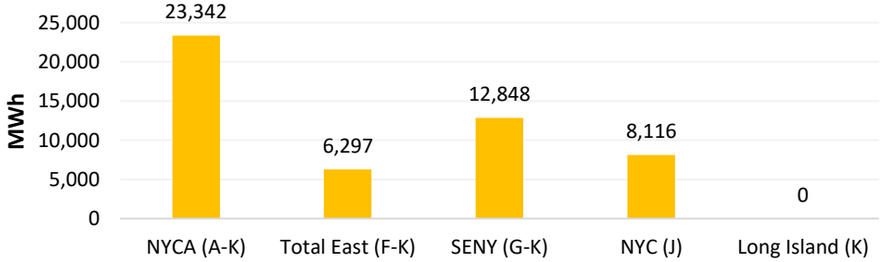
Total MWh SCR/EDRP Deployed



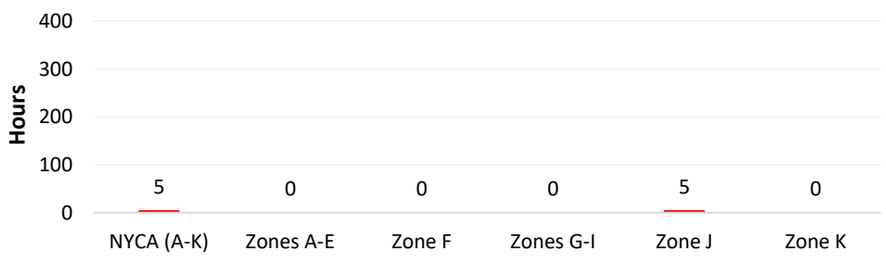
Hours with Reserve Violations



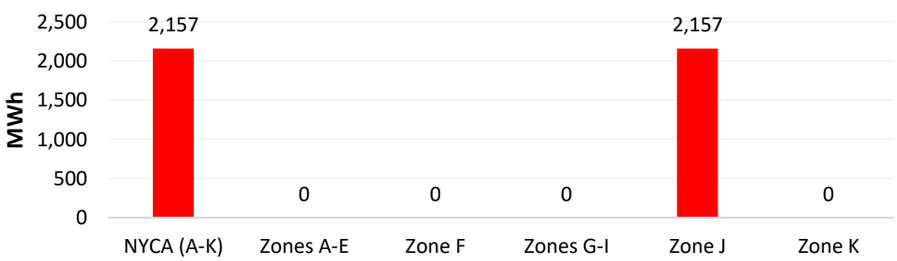
Total MWh of Reserve Violations

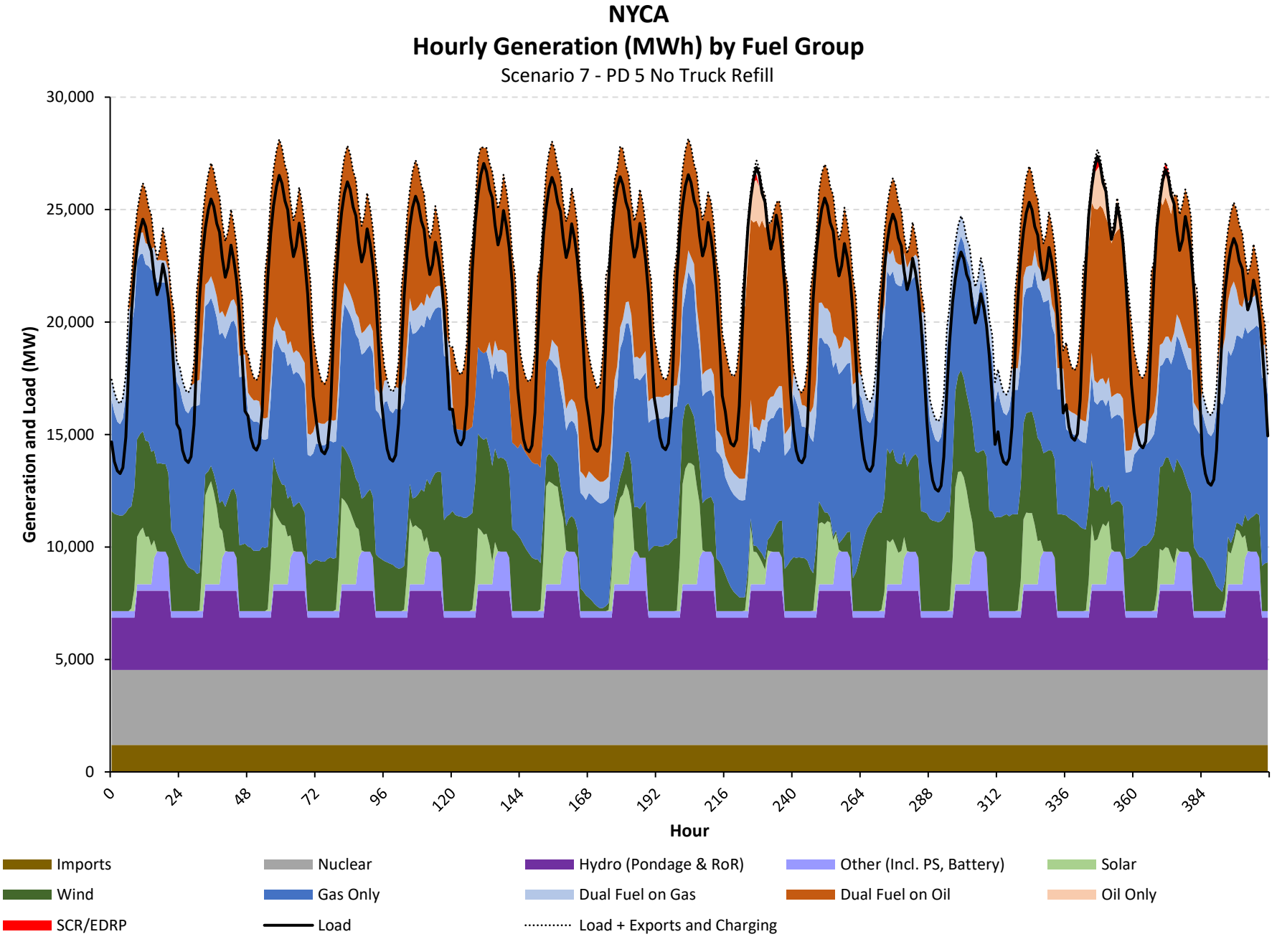


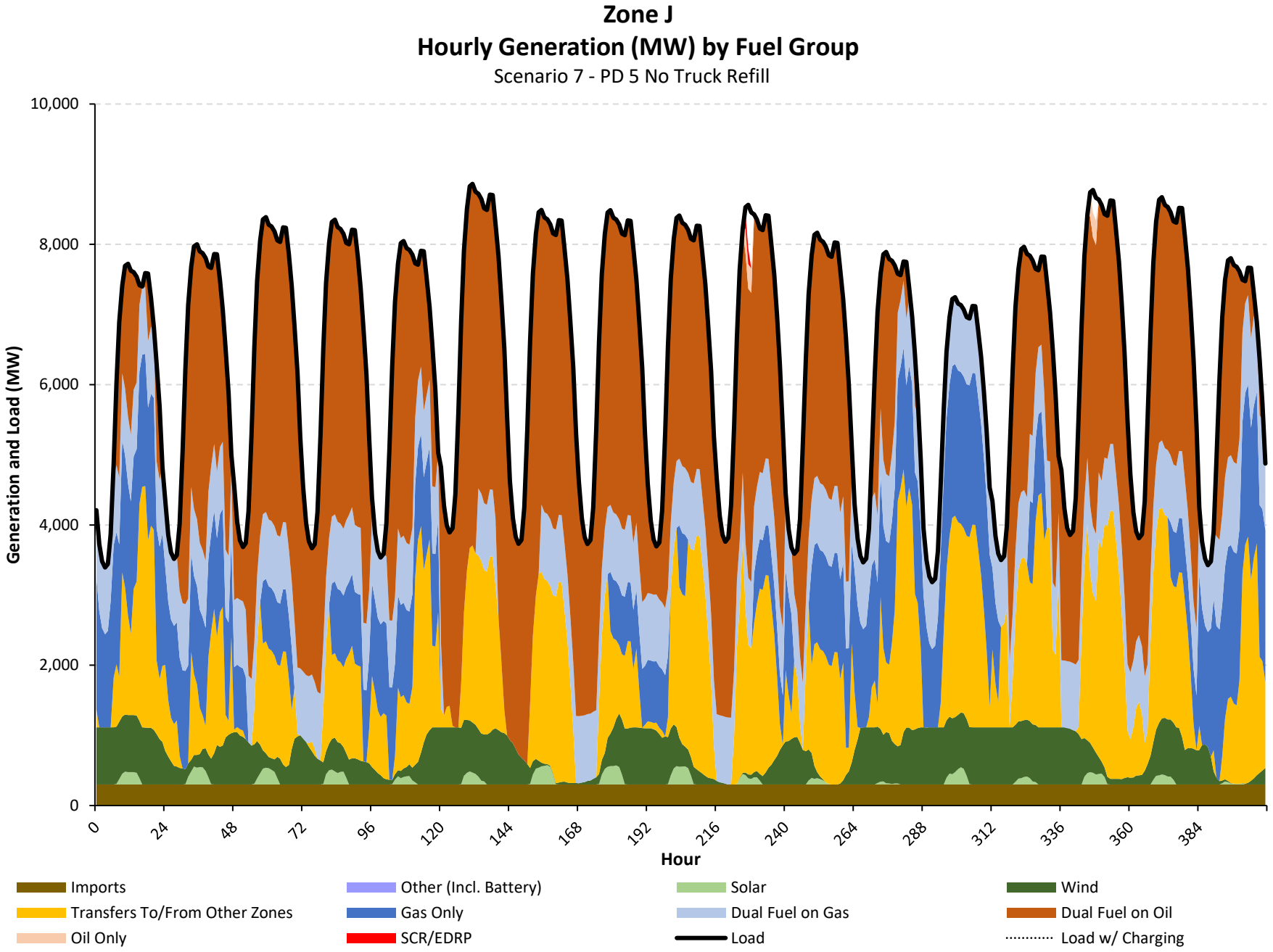
Hours with Loss of Load



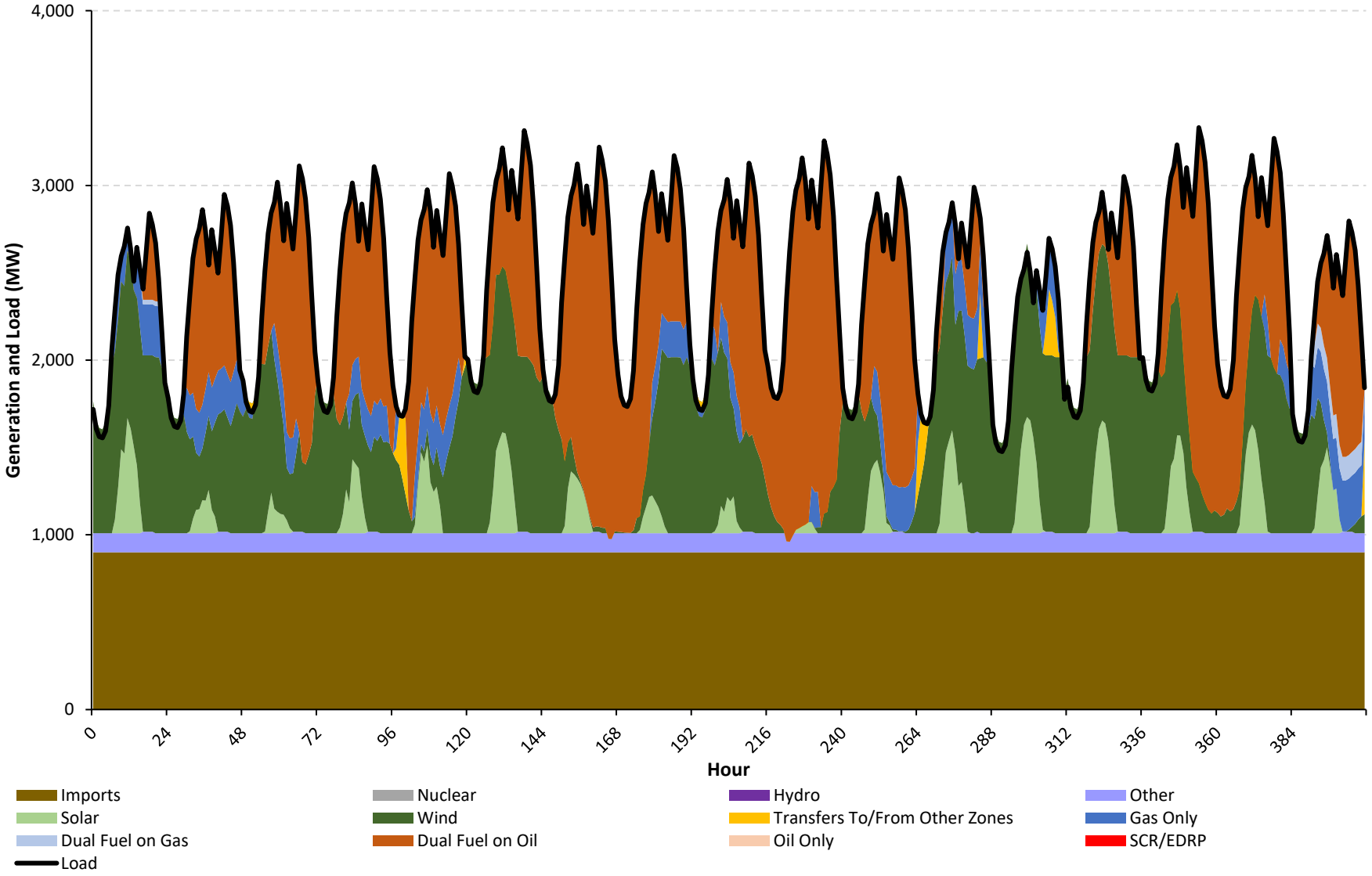
Total MWh of Lost Load




NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 7 - PD 5 No Truck Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging


Zone J
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 5 No Truck Refill
Generation and Load (MW)
10,000
8,000
6,000
4,000
2,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Other (Incl. Battery)
Solar
Wind
Transfers To/From Other Zones
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load w/ Charging

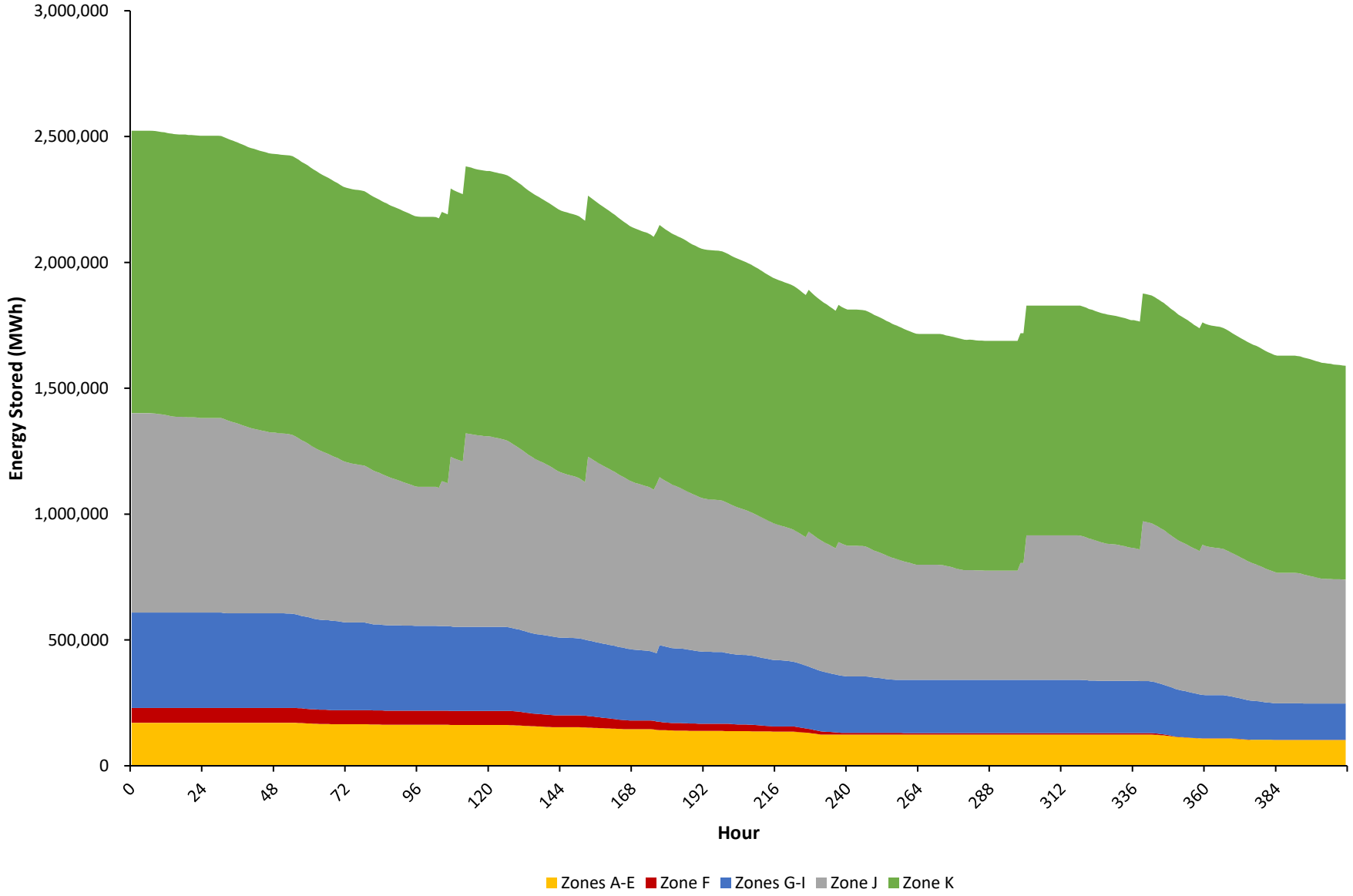
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 5 No Truck Refill

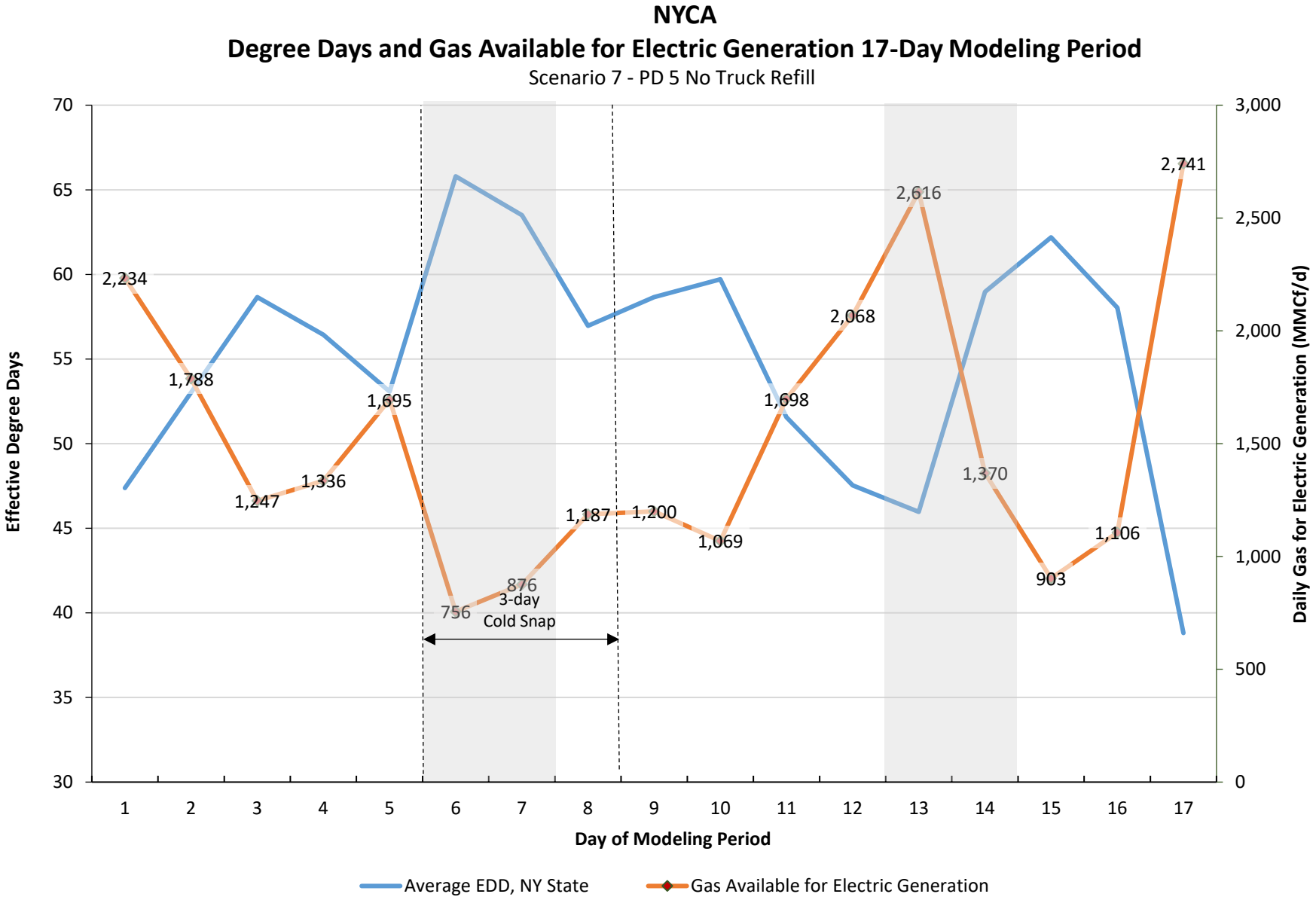


NYCA

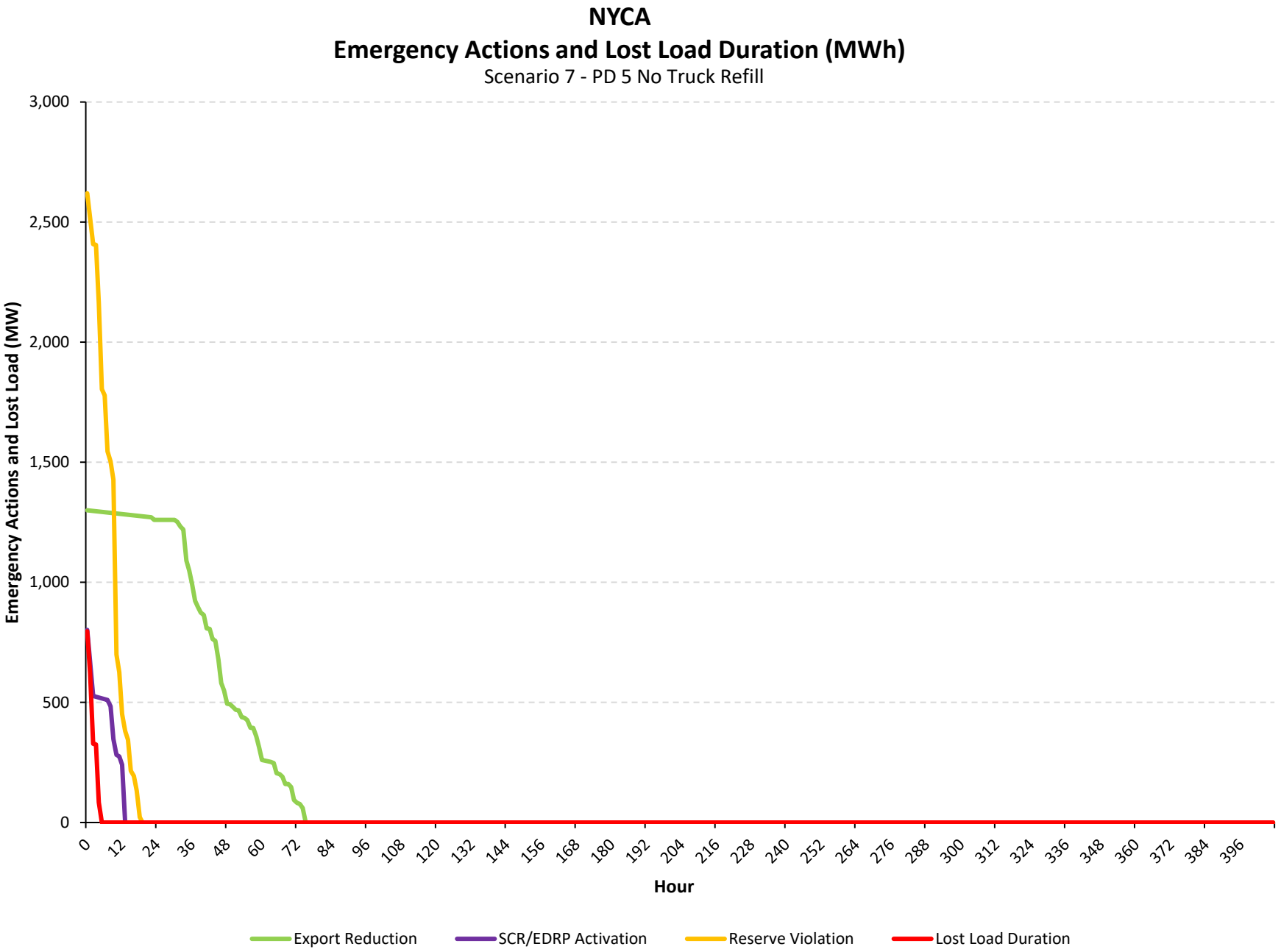
Quantity of Stored Fuel for Oil and Dual Fuel Units

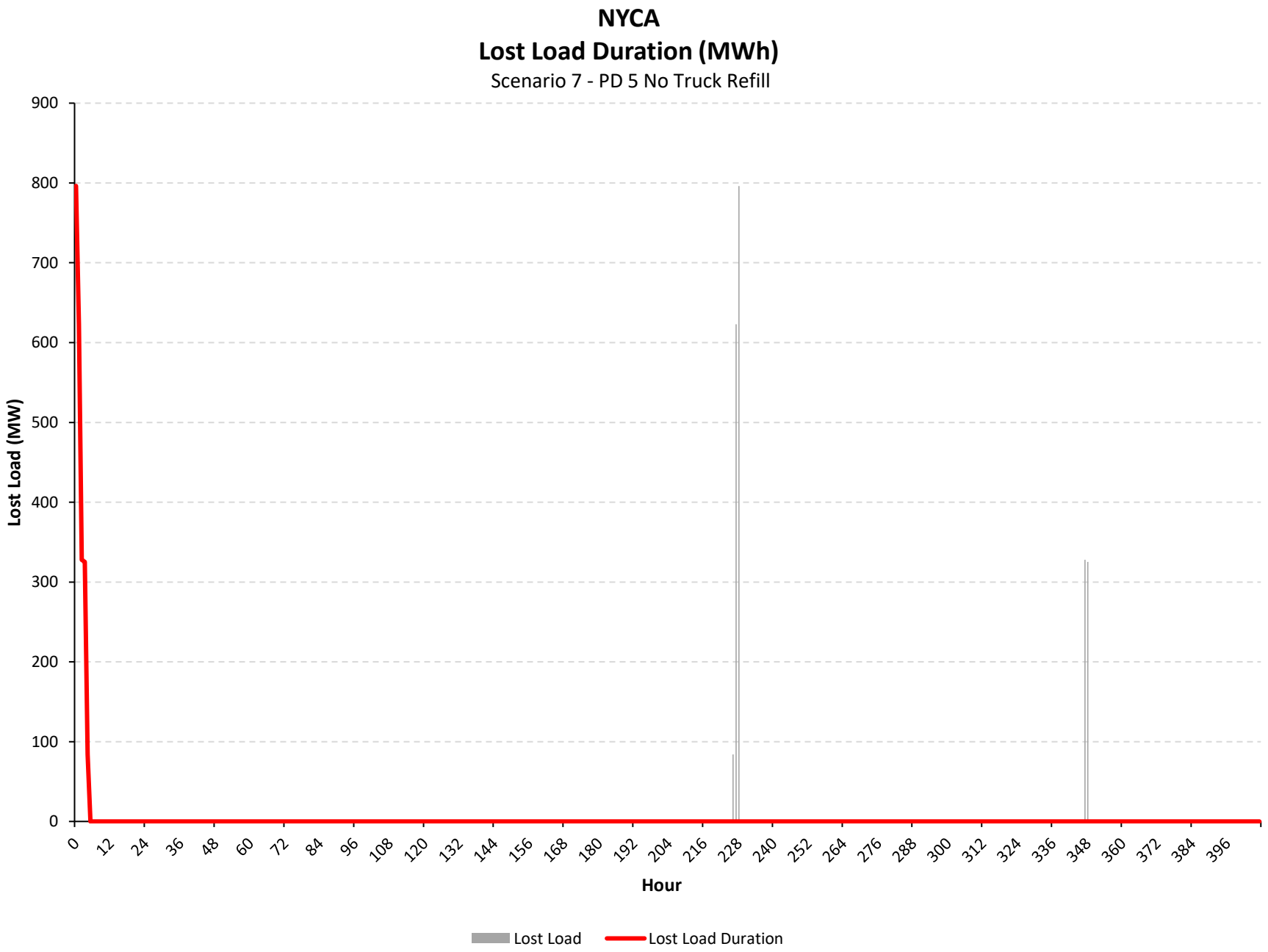
Scenario 7 - PD 5 No Truck Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 7 - PD 5 No Truck Refill
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0
12
24
36
48
60
72
84
96
108
120
132
144
156
168
180
192
204
216
228
240
252
264
276
288
300
312
324
336
348
360
372
384
396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 7 - PD 5 No Truck Refill
Lost Load (MW)
900
800
700
600
500
400
300
200
100
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

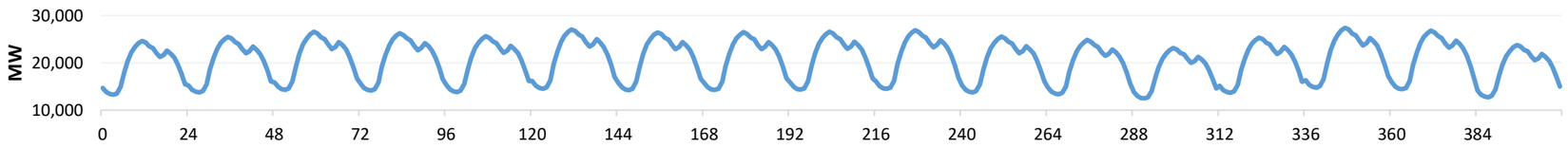
Case: Scenario 7 - PD 6 No Barge Refill (Winter 2026/2027)

Hourly Results Summary

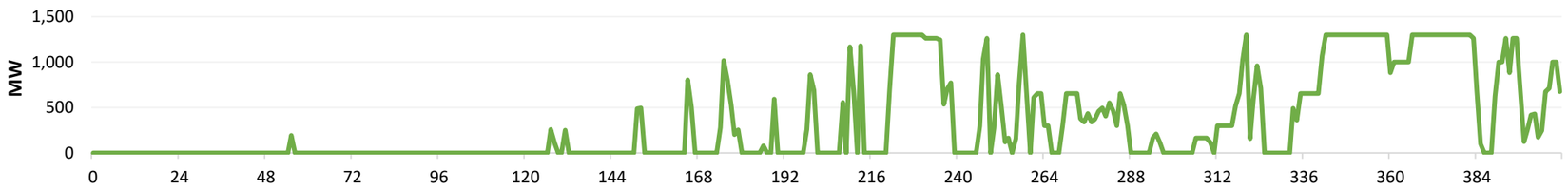
Case Name: Scenario 7 - PD 6 No Barge Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Load During Modeling Period

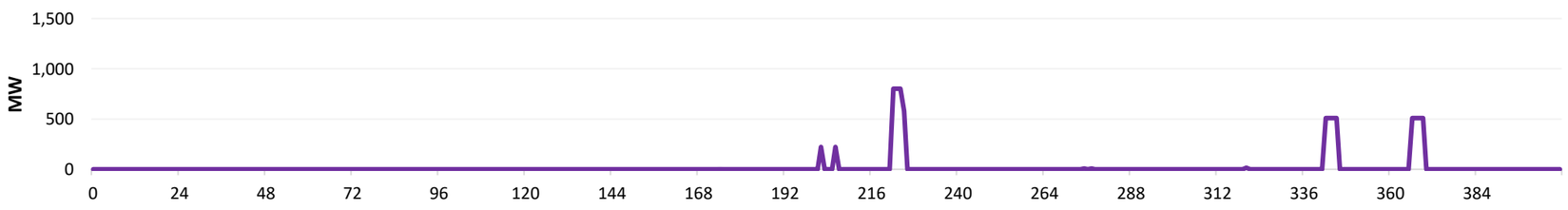


Export to ISO-NE Reduction During Modeling Period



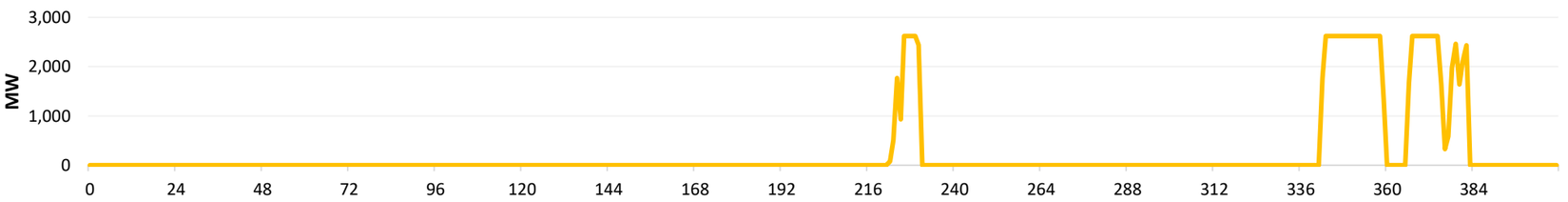
Export Reductions	
Total Hrs.	170
Total MWh	133,404
Avg. MW	327.0

SCR/EDRP Deployed During Modeling Period



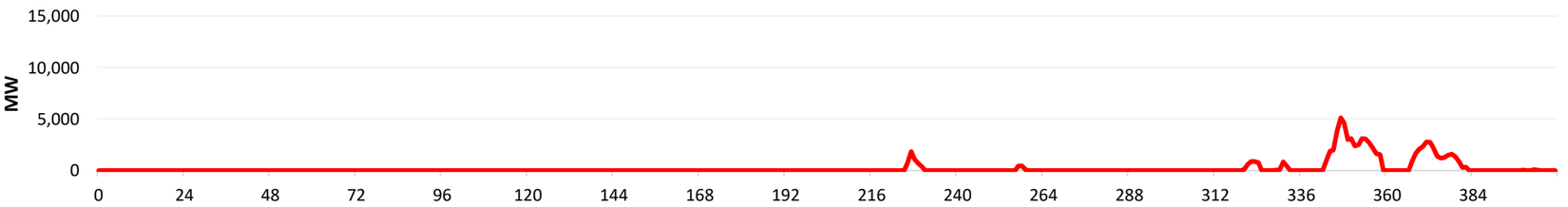
SCR Deployment	
Total Hrs.	17
Total MWh	7,544
Avg. MW	18.5

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	44
Total MWh	97,037
Avg. MW	237.8
First Hour with Viol.	202

Loss of Load During Modeling Period



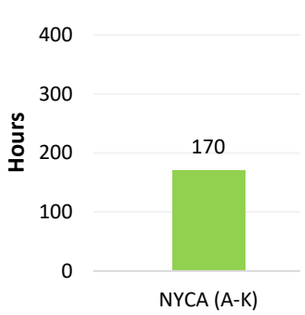
Loss of Load	
Total Hrs.	52
Total MWh	78,638
Avg. MW	192.7
First Hour with Losses	226

Full Period Results Summary

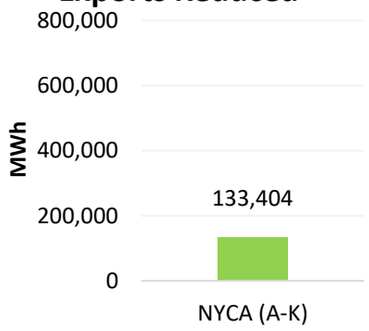
Case Name: Scenario 7 - PD 6 No Barge Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

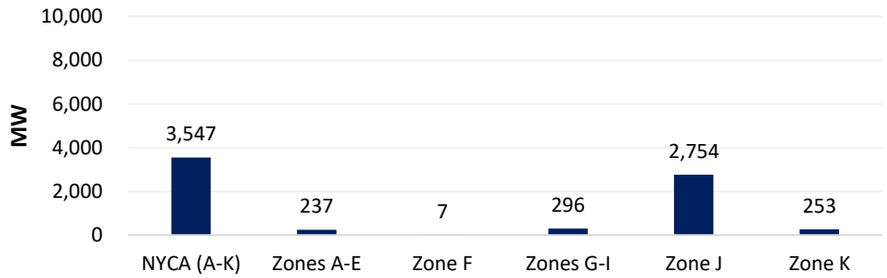
Hours Exports Reduced



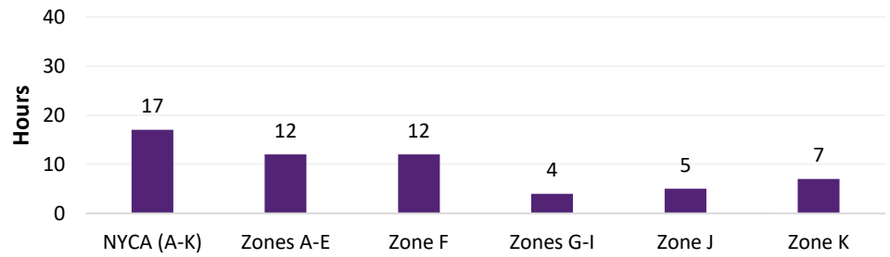
Total MWh of Exports Reduced



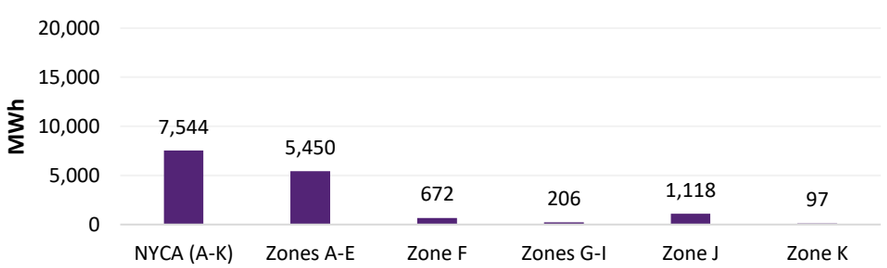
Average Capacity Not Available Due to Exhausted Fuel Inventory



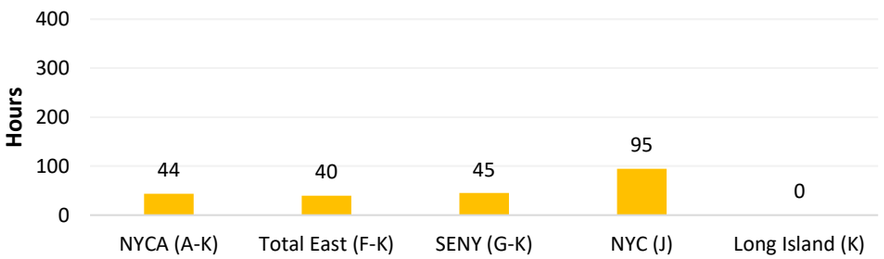
Hours SCR/EDRP Deployed



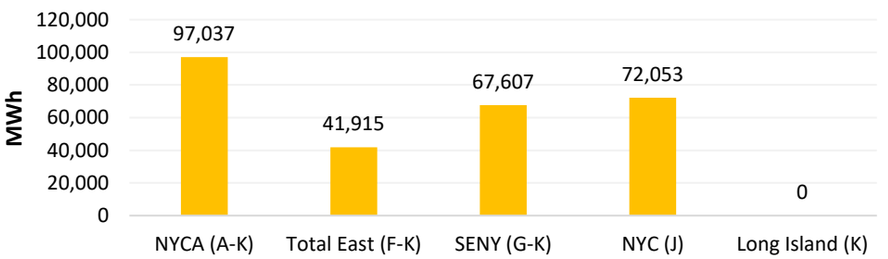
Total MWh SCR/EDRP Deployed



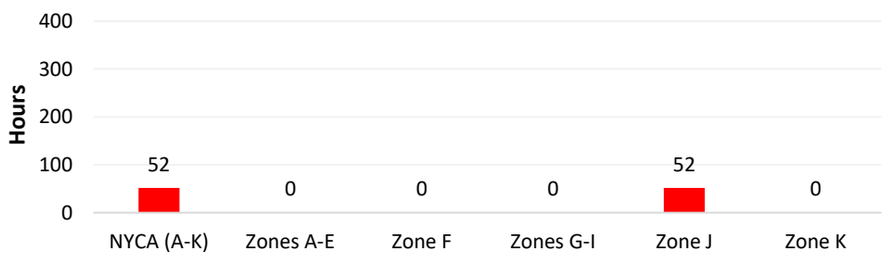
Hours with Reserve Violations



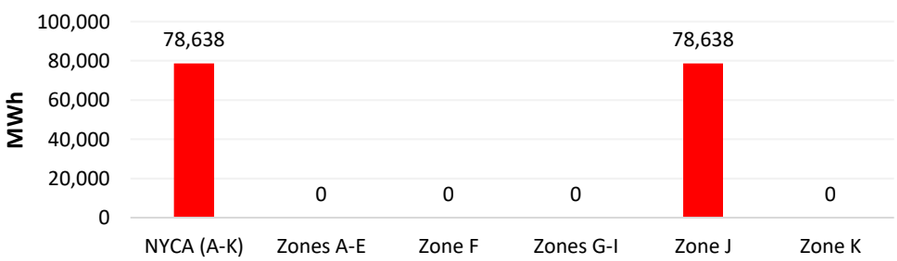
Total MWh of Reserve Violations

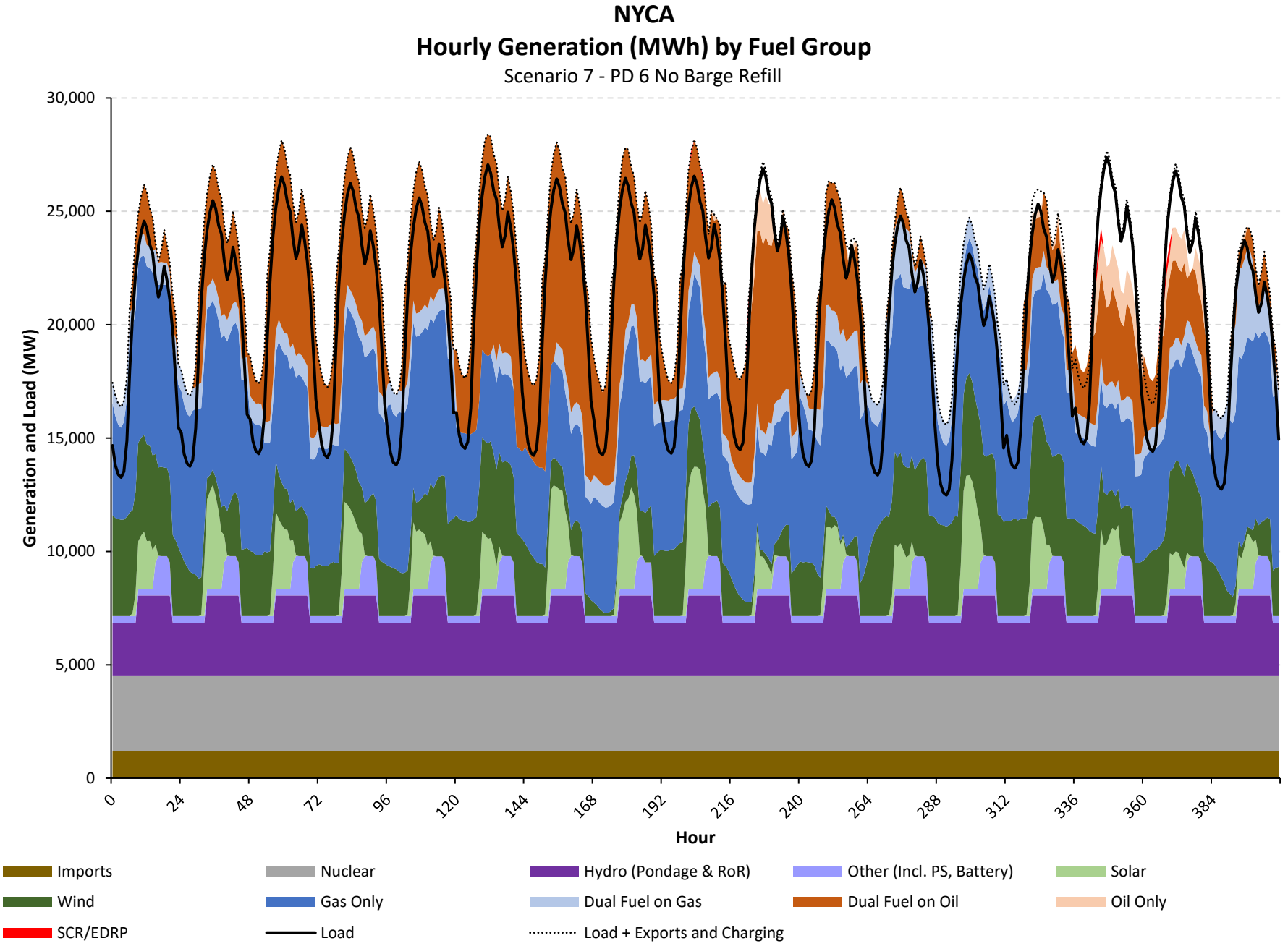


Hours with Loss of Load

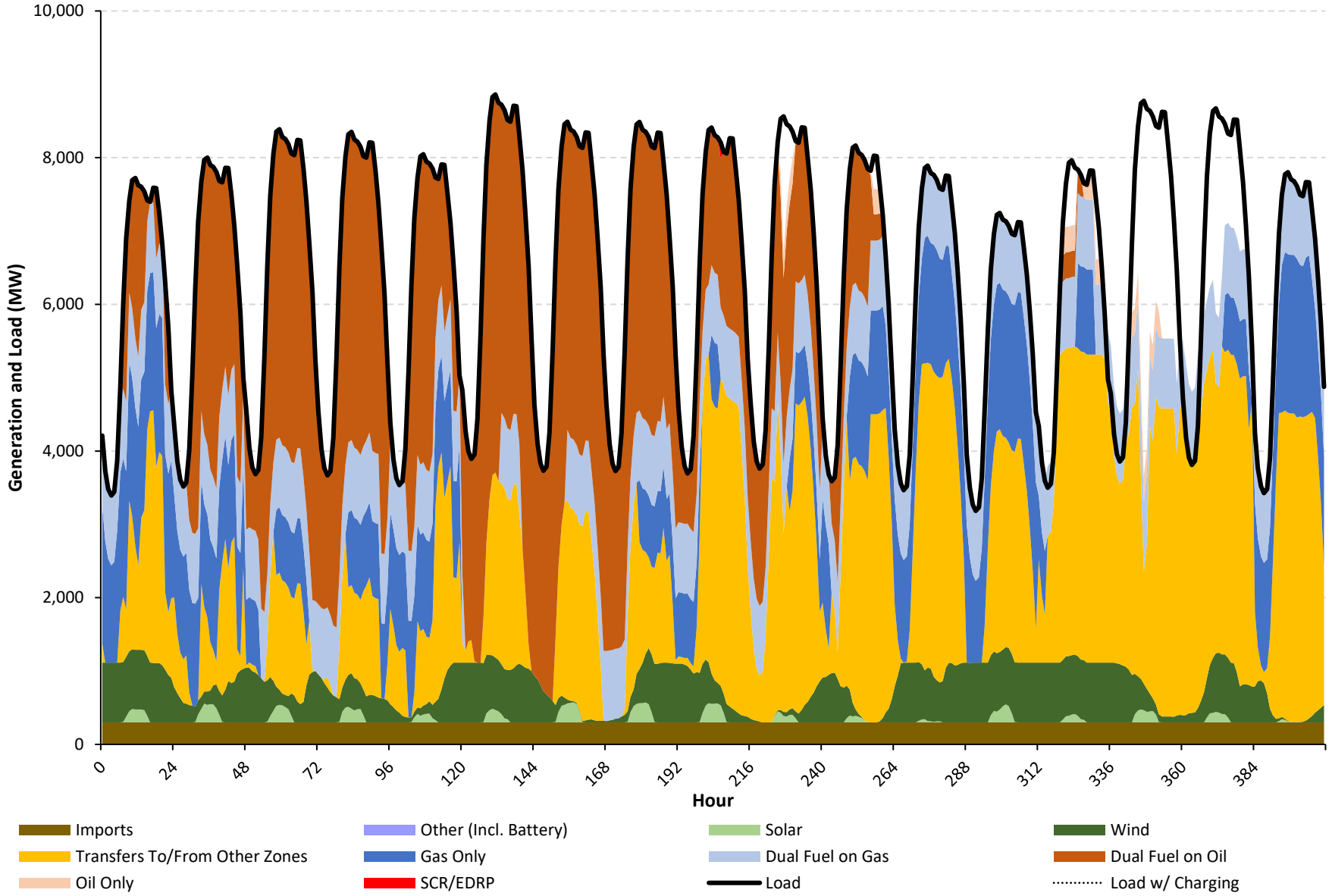


Total MWh of Lost Load

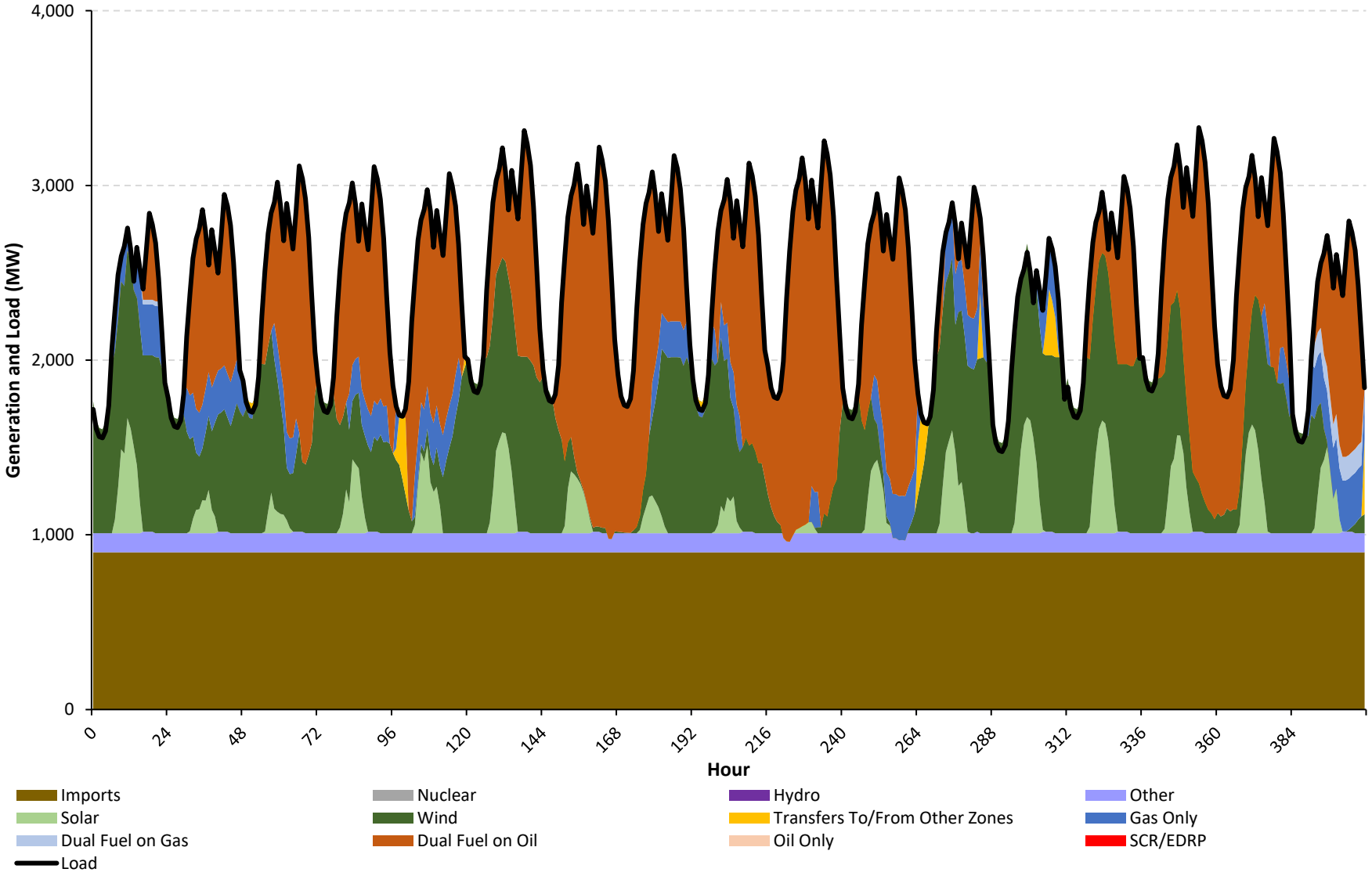



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 7 - PD 6 No Barge Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 6 No Barge Refill



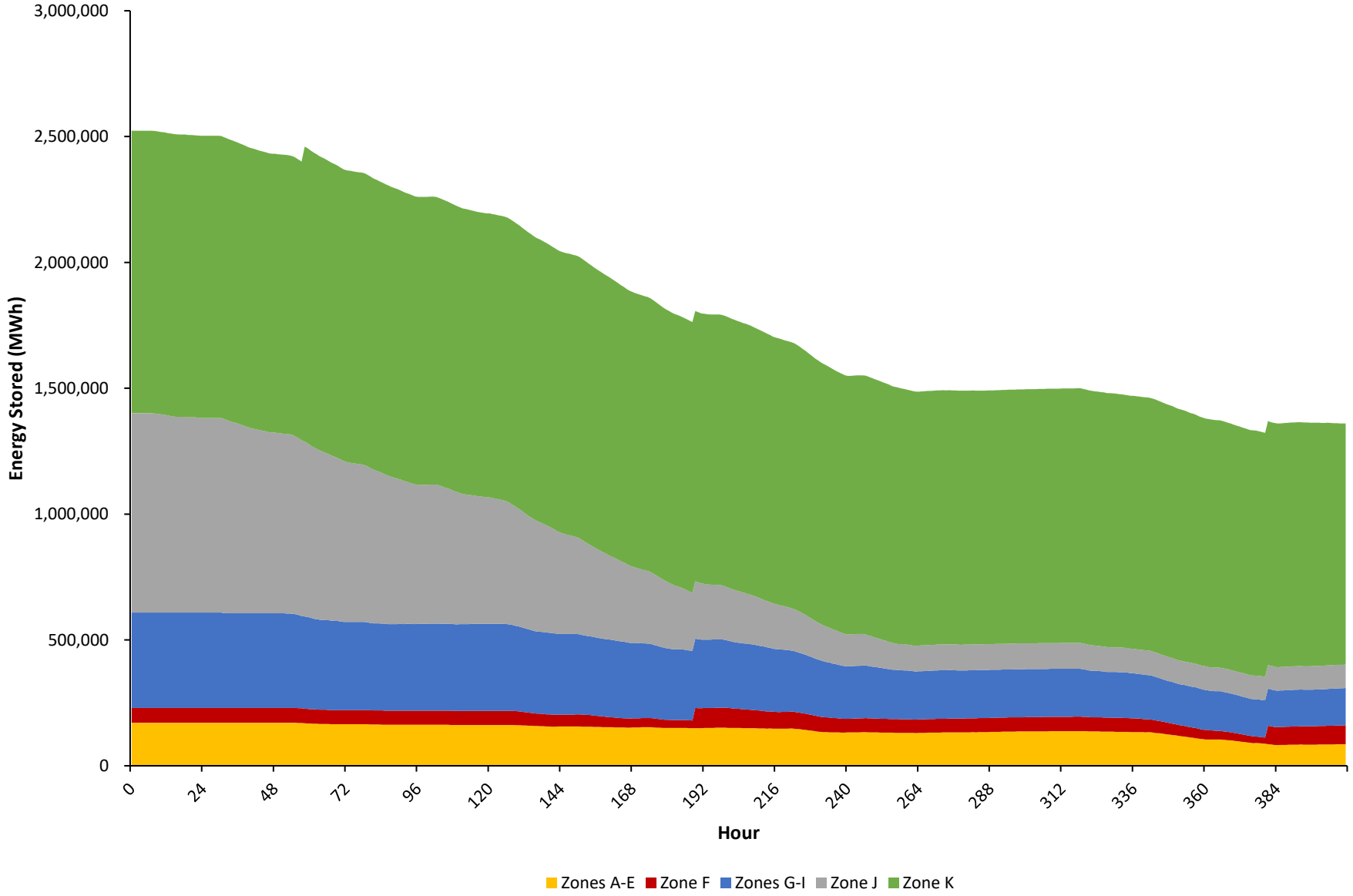
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 6 No Barge Refill

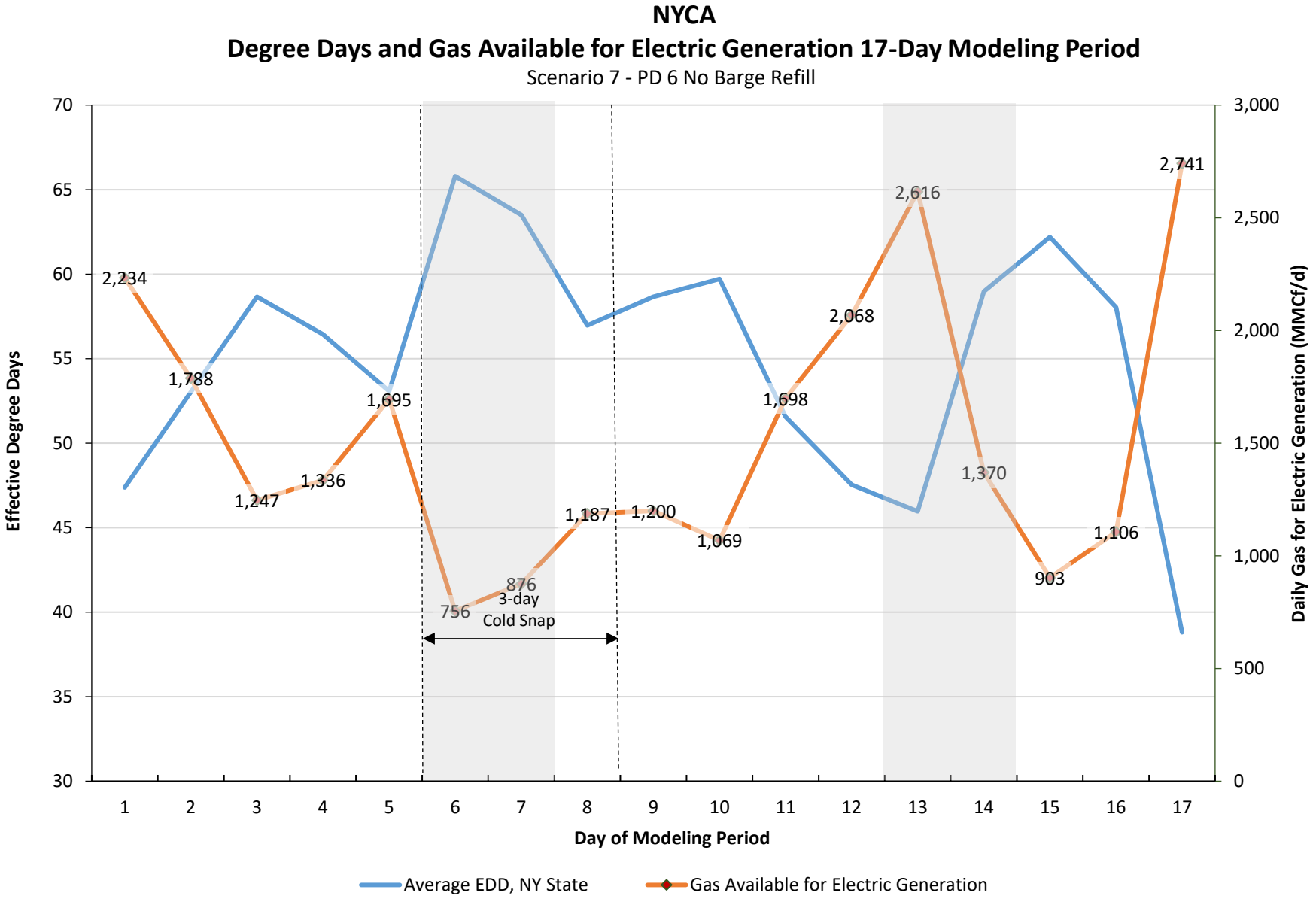


NYCA

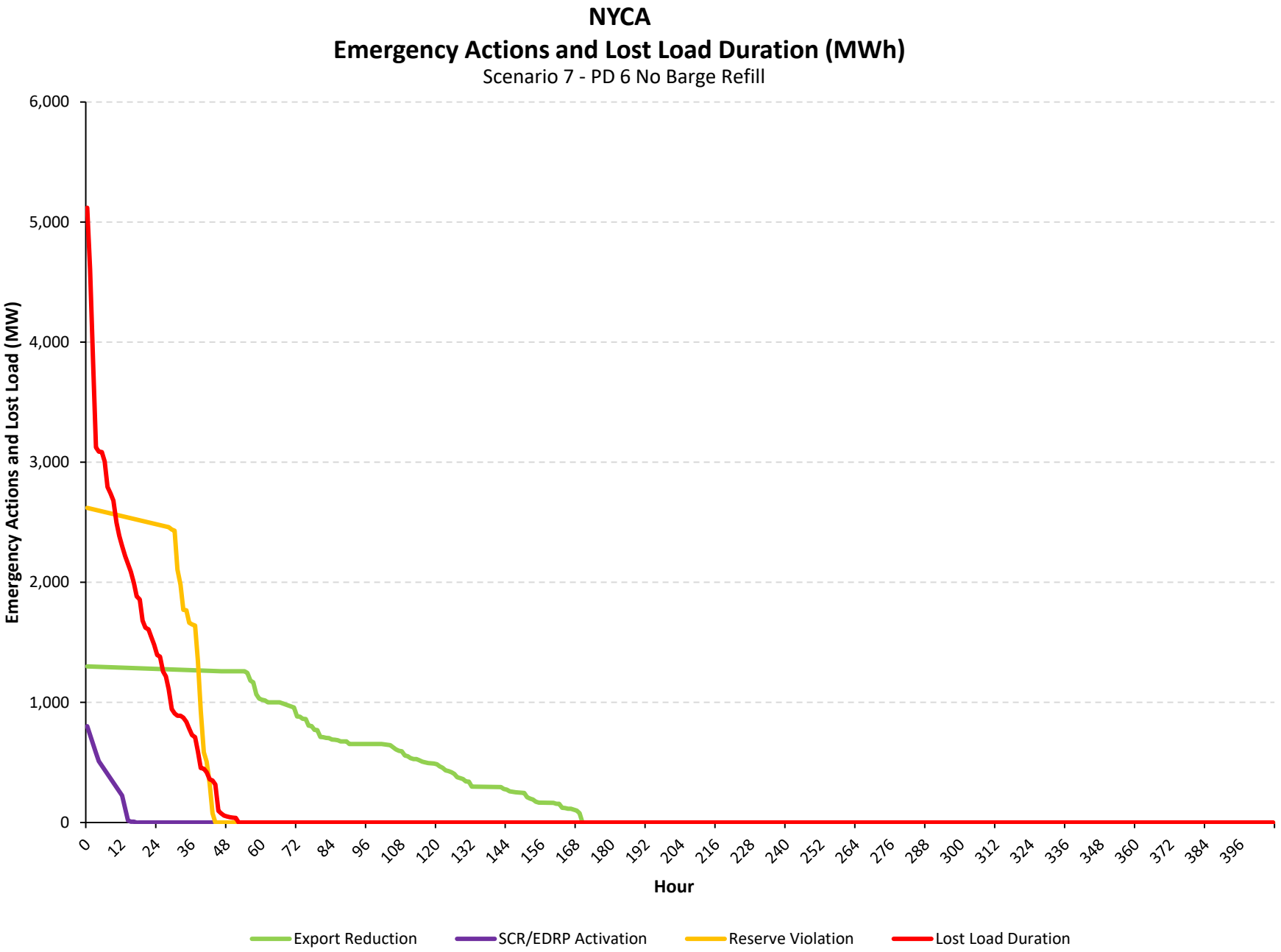
Quantity of Stored Fuel for Oil and Dual Fuel Units

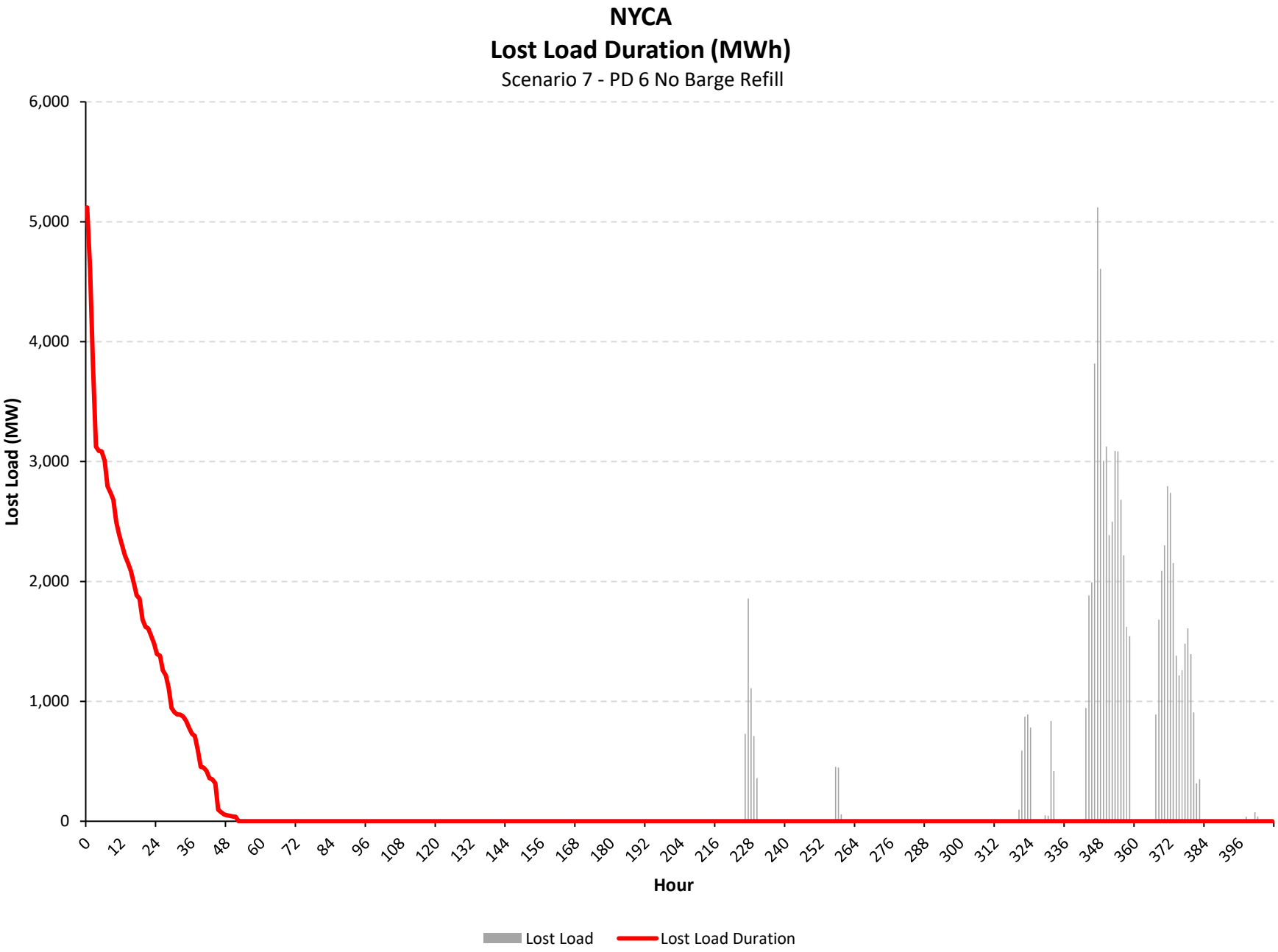
Scenario 7 - PD 6 No Barge Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 7 - PD 6 No Barge Refill
Emergency Actions and Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 7 - PD 6 No Barge Refill
Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

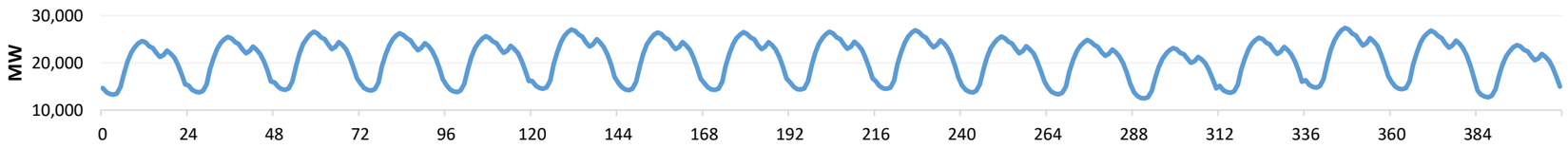
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 7 - PD 7 No Refill (Winter 2026/2027)

Hourly Results Summary

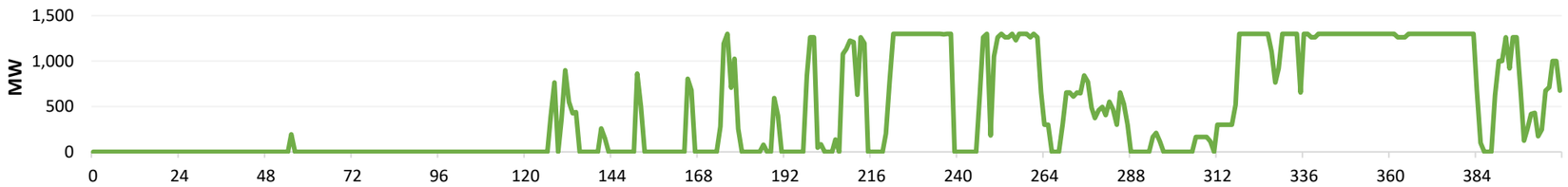
Case Name: Scenario 7 - PD 7 No Refill

Load During Modeling Period



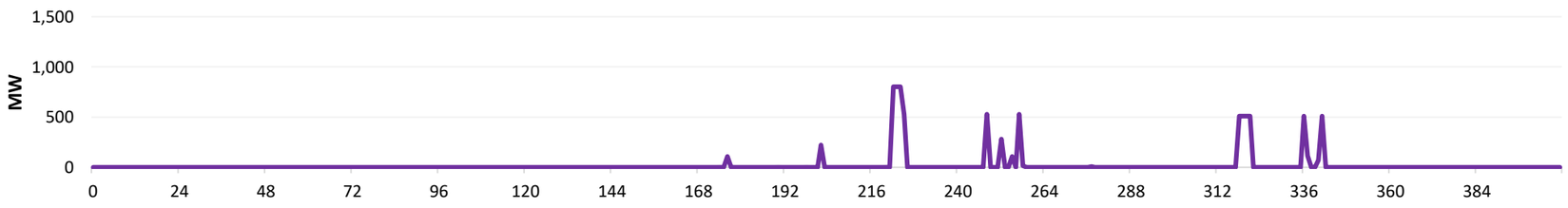
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



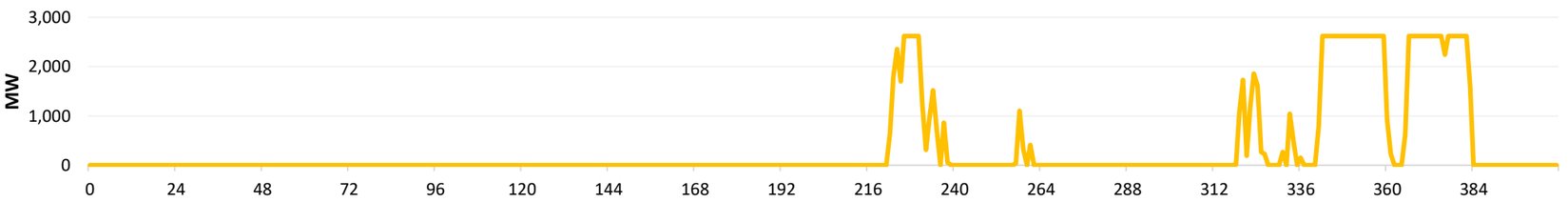
Export Reductions	
Total Hrs.	195
Total MWh	180,313
Avg. MW	441.9

SCR/EDRP Deployed During Modeling Period



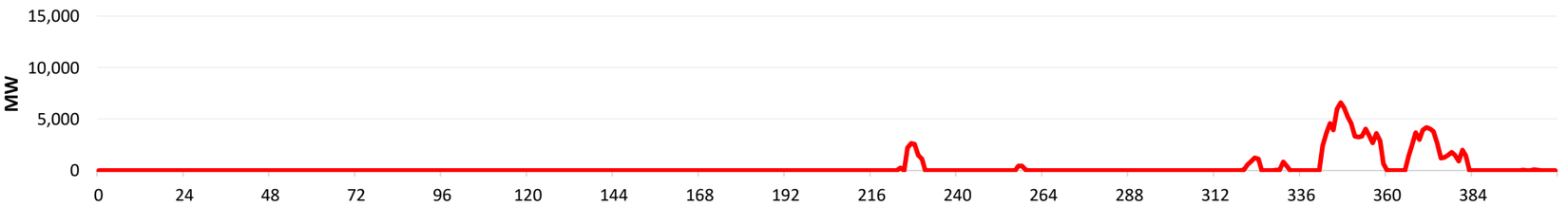
SCR Deployment	
Total Hrs.	20
Total MWh	7,974
Avg. MW	19.5

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	73
Total MWh	132,646
Avg. MW	325.1
First Hour with Viol.	202

Loss of Load During Modeling Period



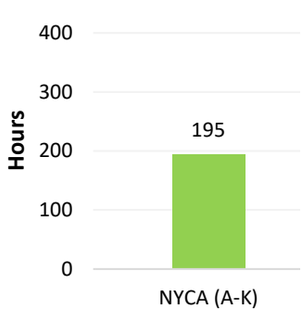
Loss of Load	
Total Hrs.	56
Total MWh	127,484
Avg. MW	312.5
First Hour with Losses	224

Full Period Results Summary

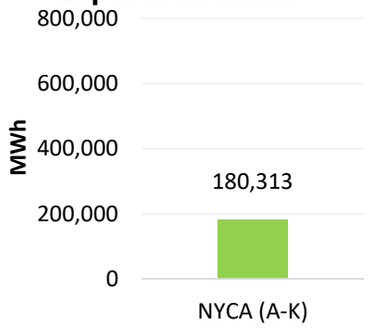
Case Name: Scenario 7 - PD 7 No Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

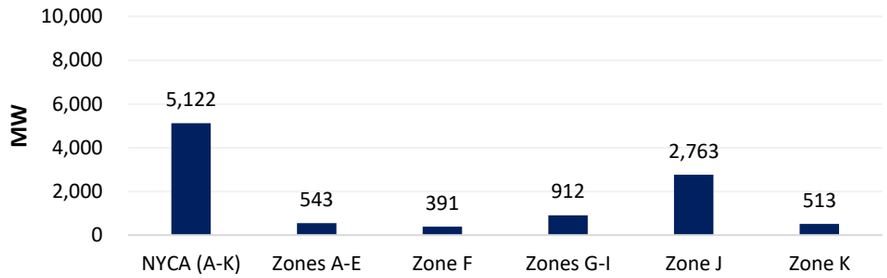
Hours Exports Reduced



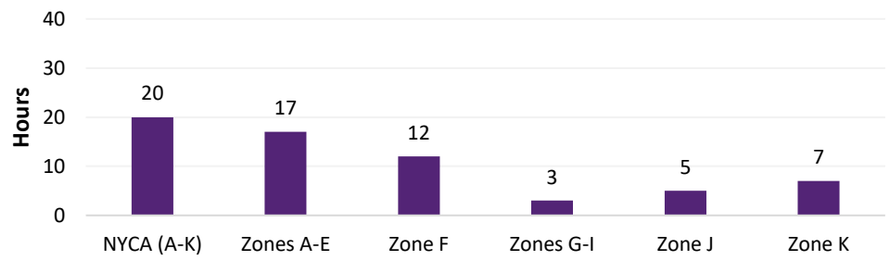
Total MWh of Exports Reduced



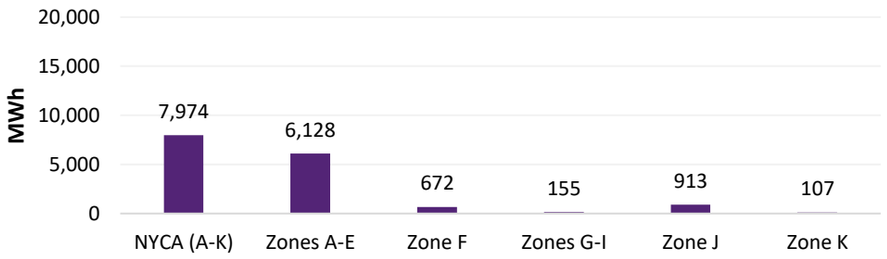
Average Capacity Not Available Due to Exhausted Fuel Inventory



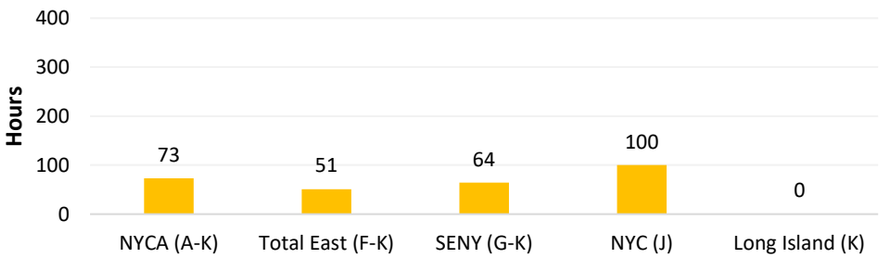
Hours SCR/EDRP Deployed



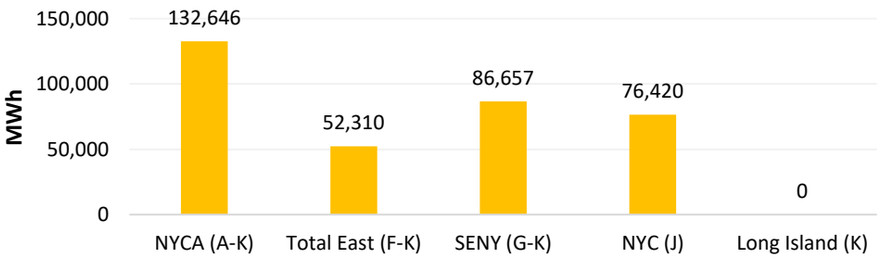
Total MWh SCR/EDRP Deployed



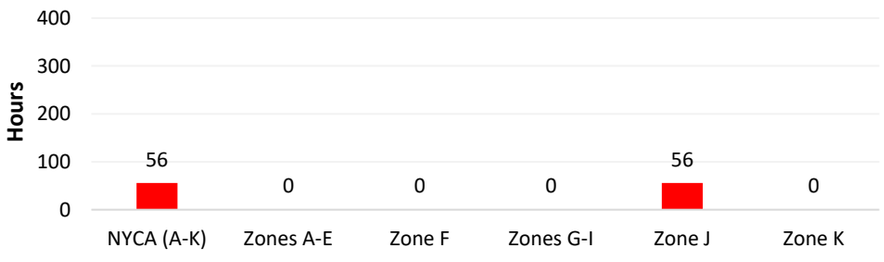
Hours with Reserve Violations



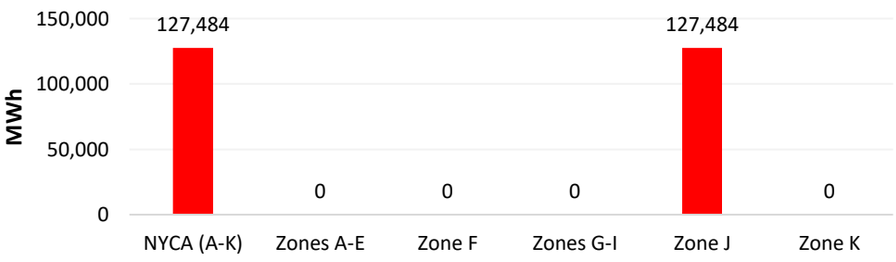
Total MWh of Reserve Violations

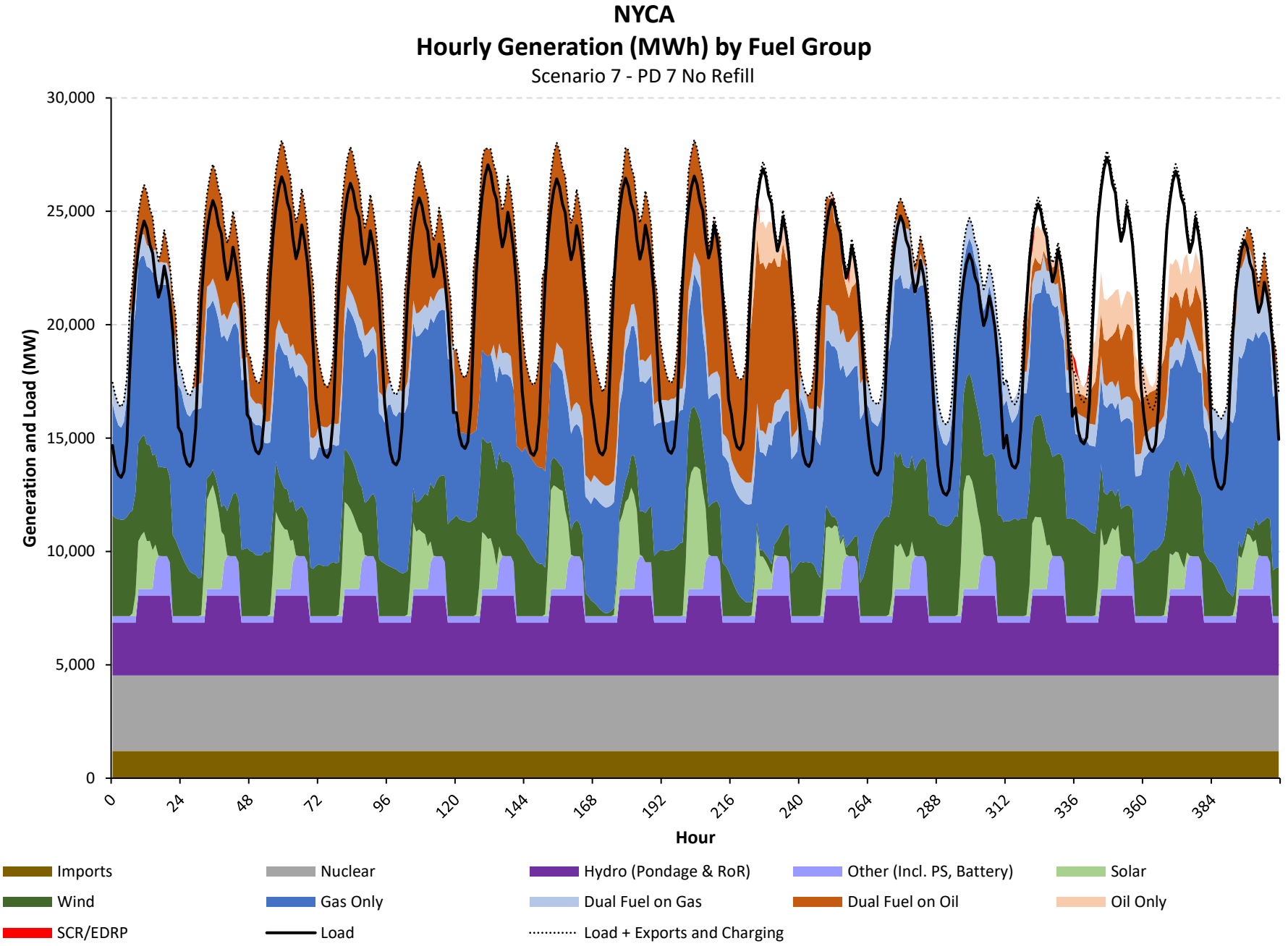


Hours with Loss of Load

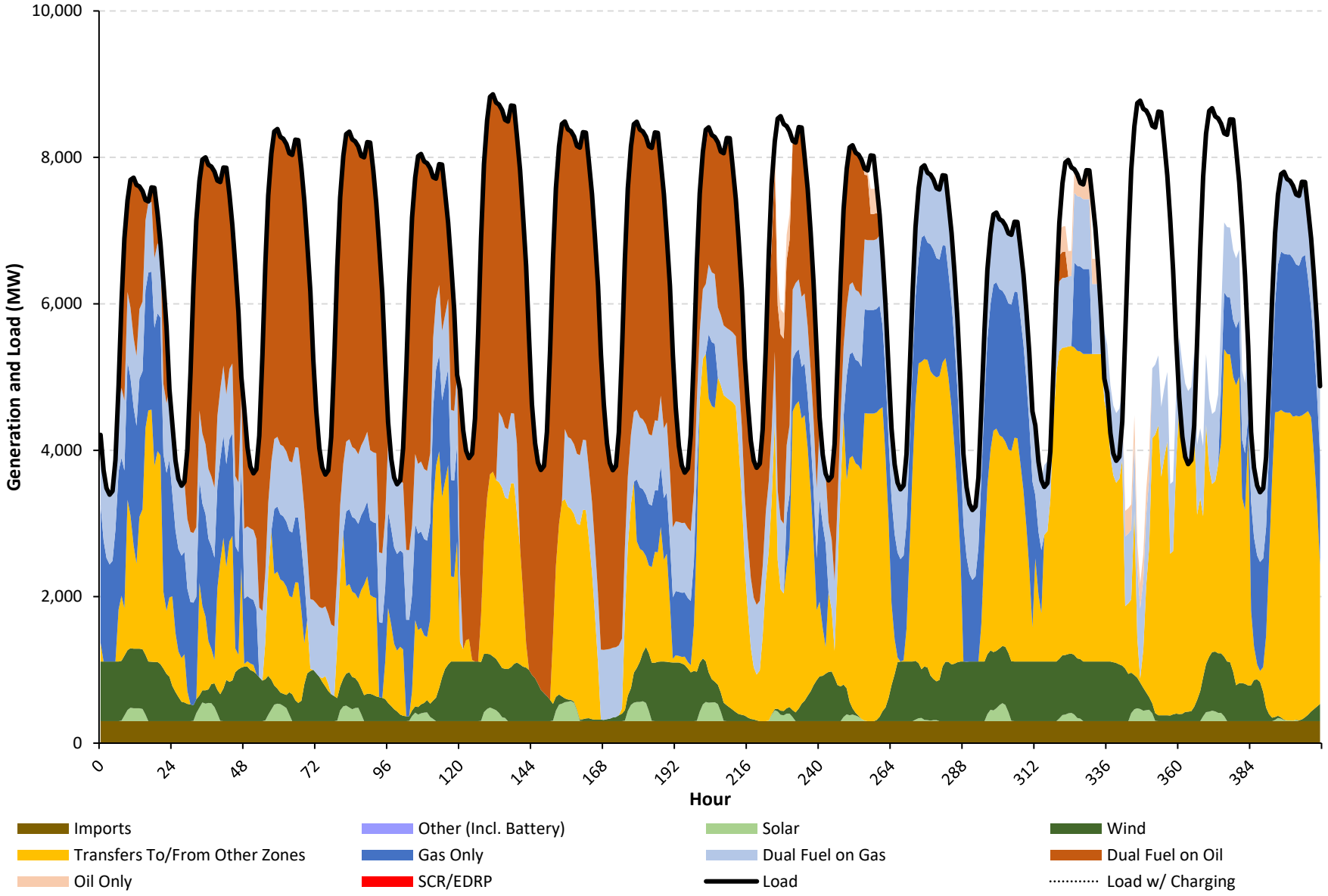


Total MWh of Lost Load

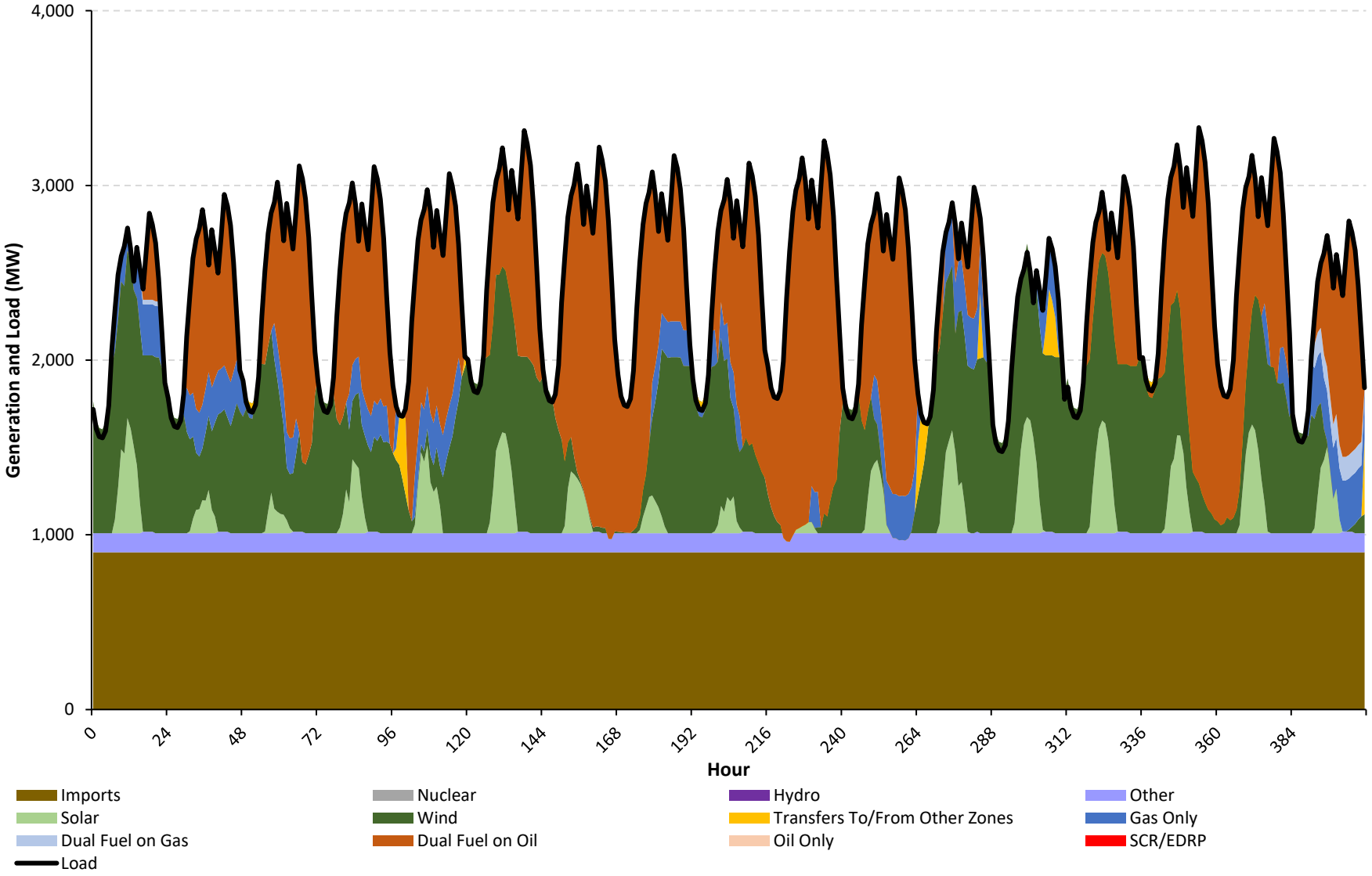



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 7 - PD 7 No Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 7 No Refill



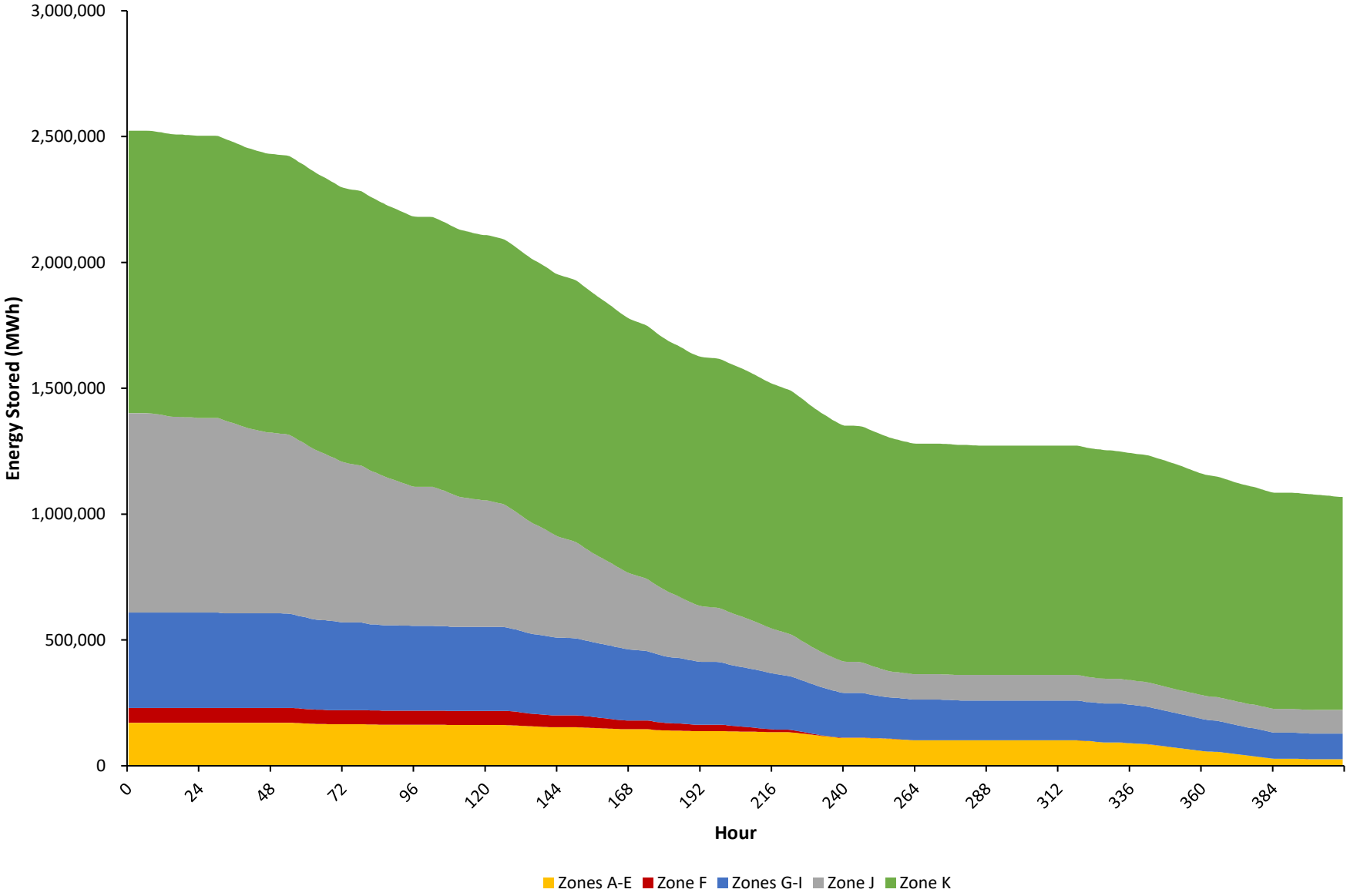
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 7 No Refill

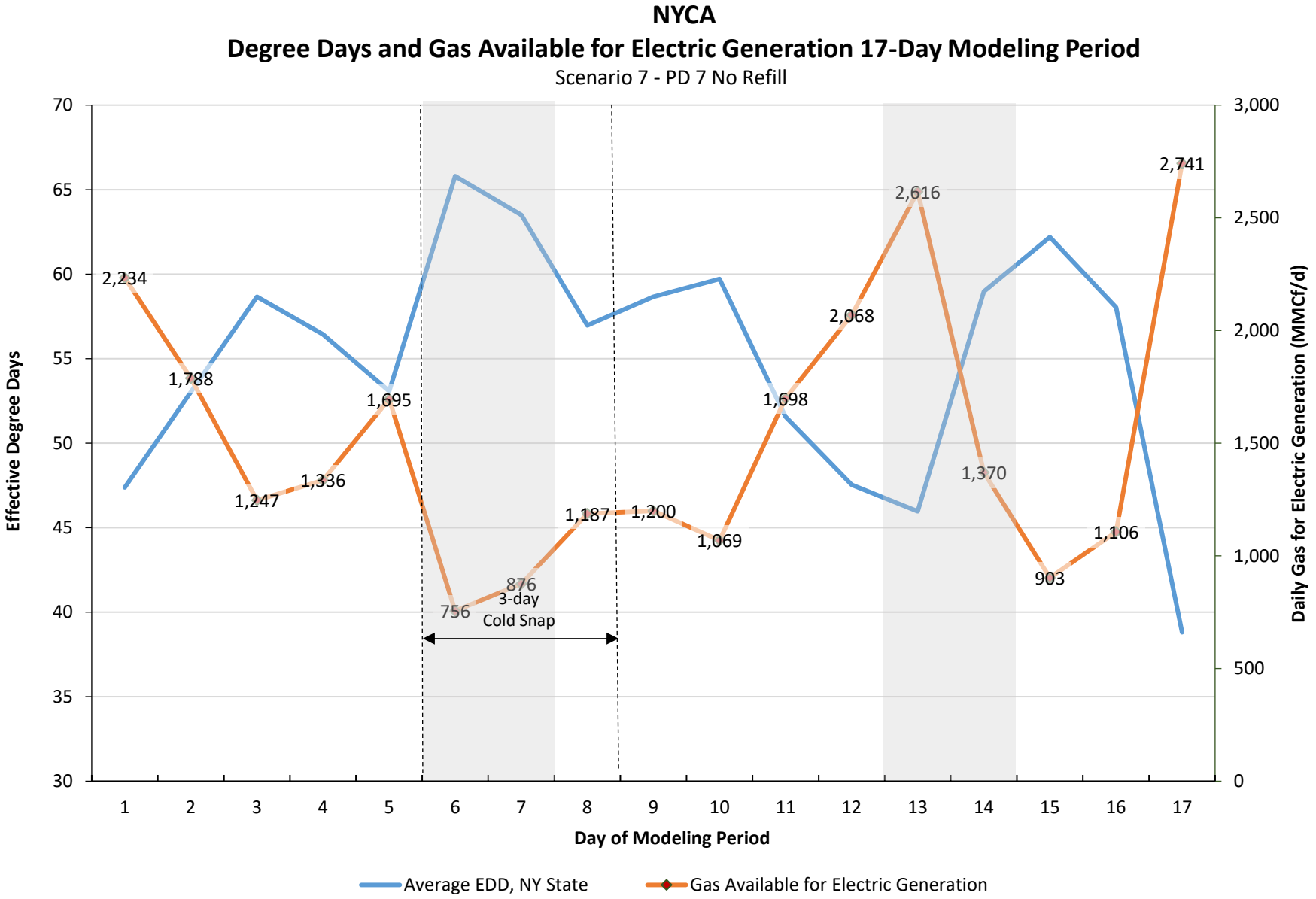


NYCA

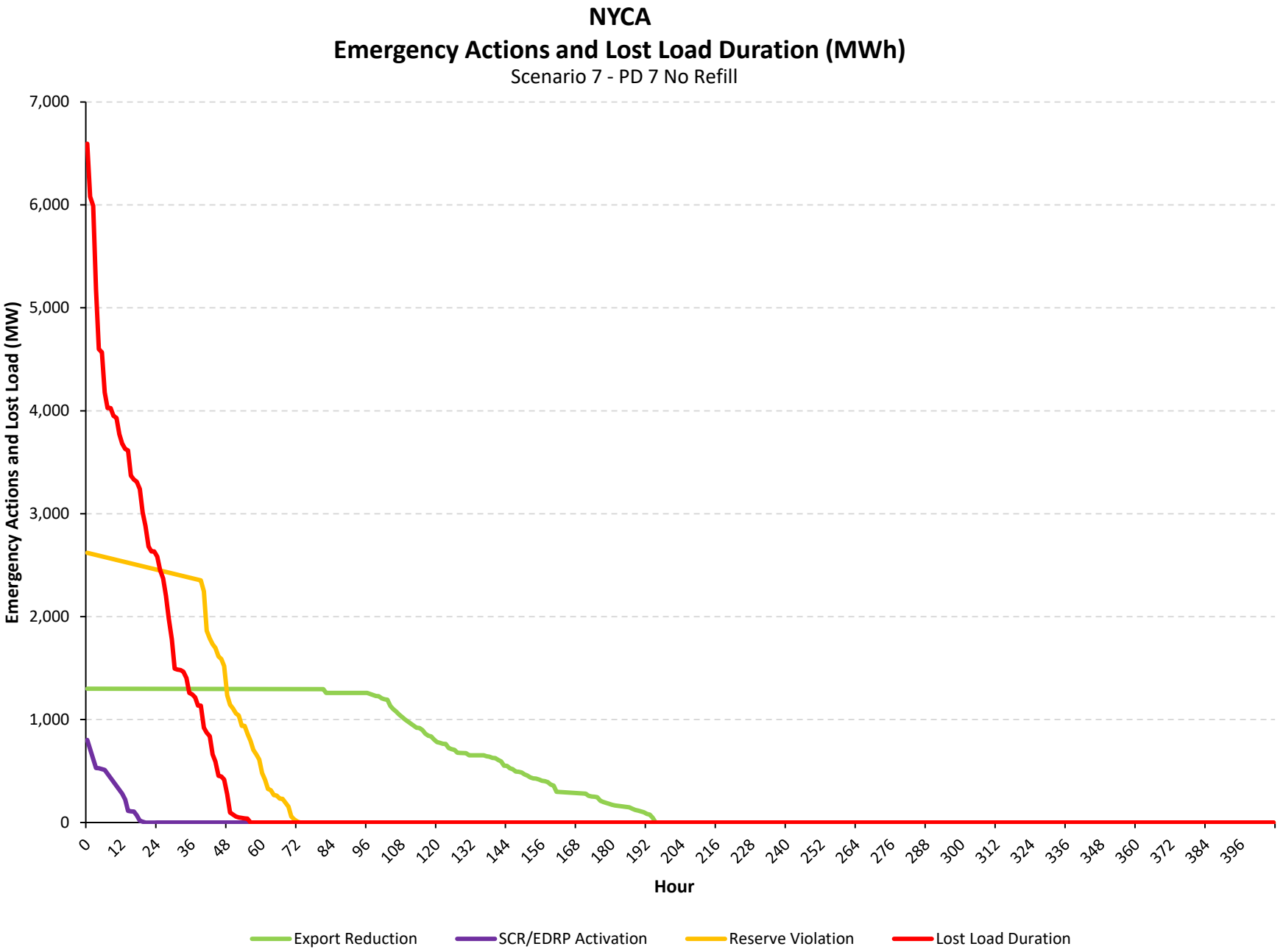
Quantity of Stored Fuel for Oil and Dual Fuel Units

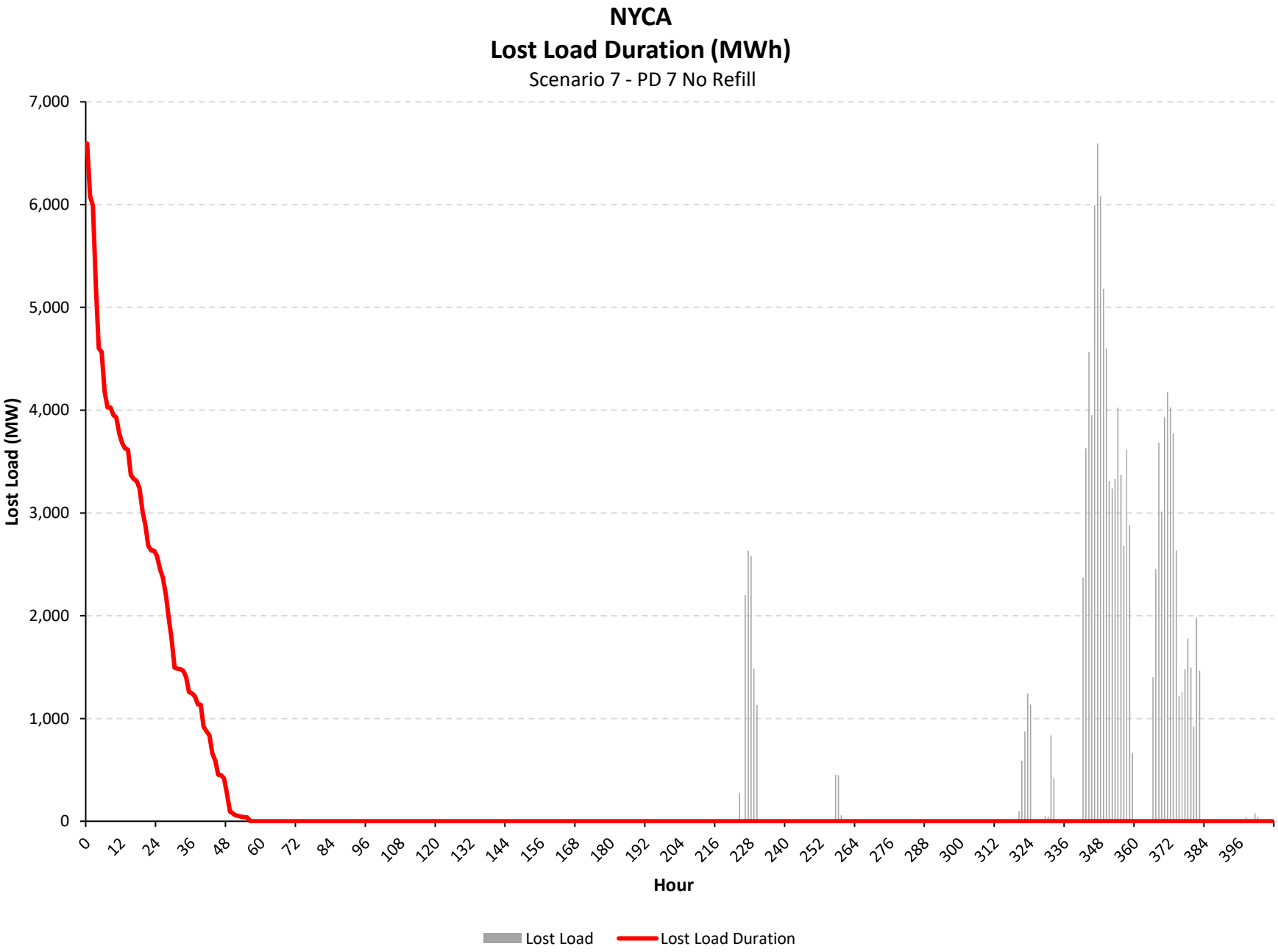
Scenario 7 - PD 7 No Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 7 - PD 7 No Refill
Emergency Actions and Lost Load (MW)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 7 - PD 7 No Refill
Lost Load (MW)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

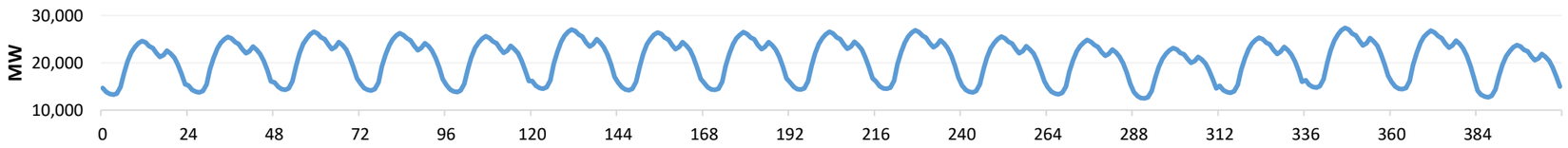
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 7 - PD 8 Non-Firm Gas Unavailable (F-K) (Winter 2026/2027)

Hourly Results Summary

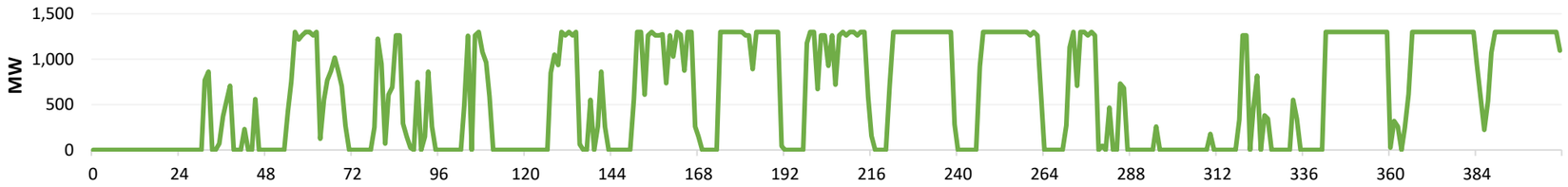
Case Name: Scenario 7 - PD 8 Non-Firm Gas Unavailable (F-K)

Load During Modeling Period



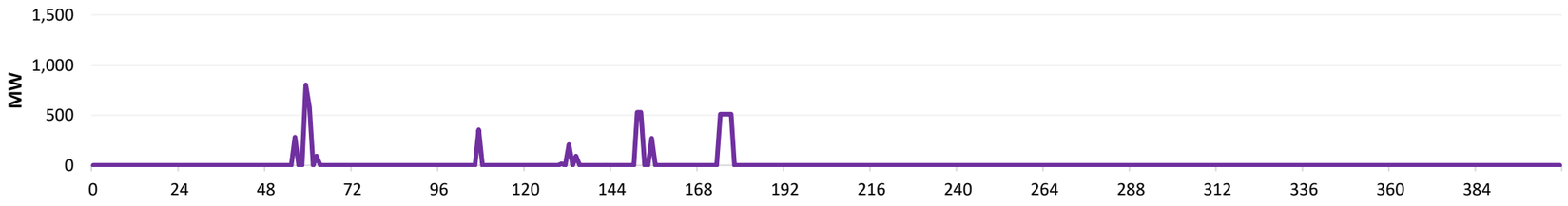
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



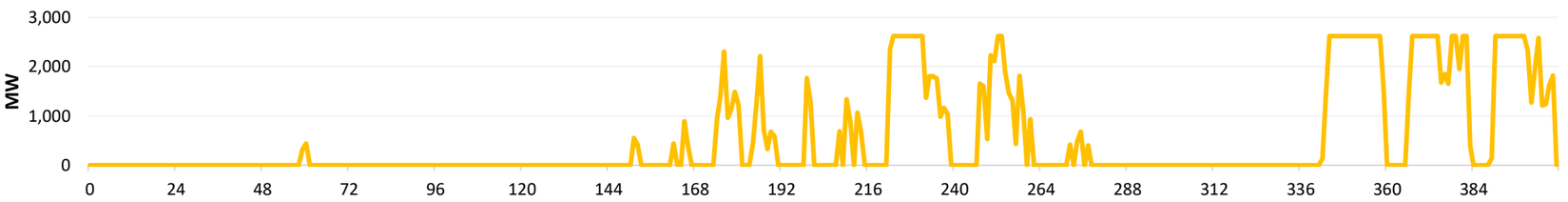
Export Reductions	
Total Hrs.	242
Total MWh	247,922
Avg. MW	607.7

SCR/EDRP Deployed During Modeling Period



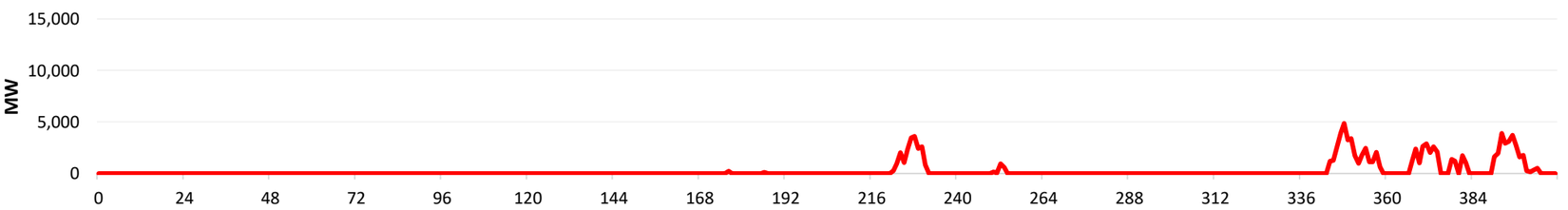
SCR Deployment	
Total Hrs.	15
Total MWh	5,781
Avg. MW	14.2

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	117
Total MWh	207,483
Avg. MW	508.5
First Hour with Viol.	59

Loss of Load During Modeling Period



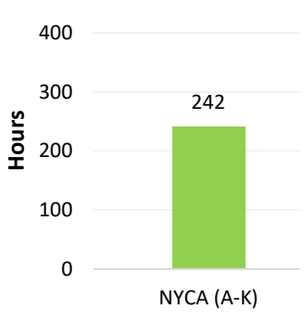
Loss of Load	
Total Hrs.	56
Total MWh	100,900
Avg. MW	247.3
First Hour with Losses	176

Full Period Results Summary

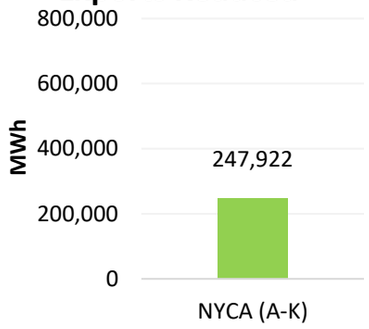
Case Name: Scenario 7 - PD 8 Non-Firm Gas Unavailable (F-K)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

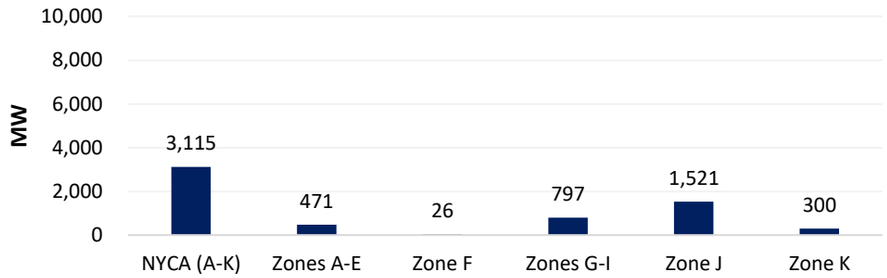
Hours Exports Reduced



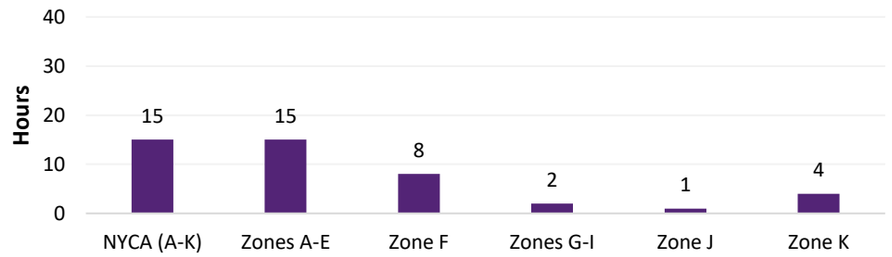
Total MWh of Exports Reduced



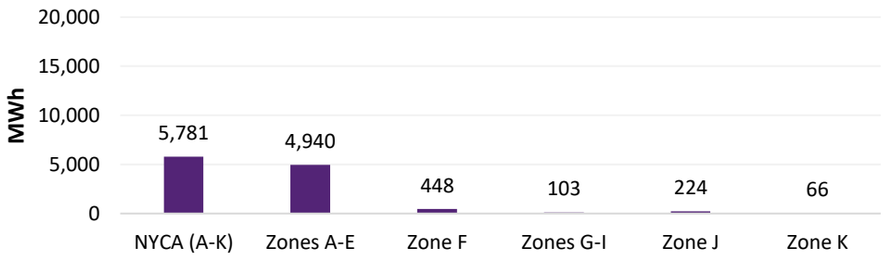
Average Capacity Not Available Due to Exhausted Fuel Inventory



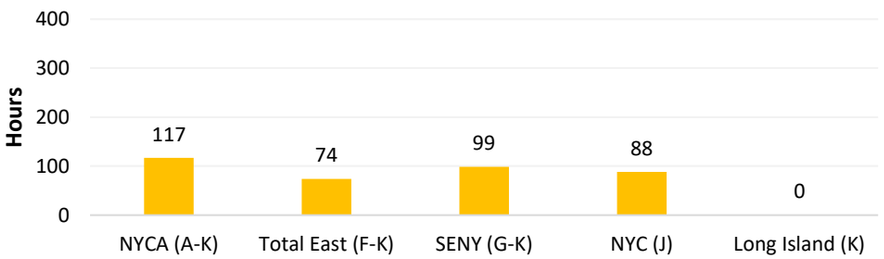
Hours SCR/EDRP Deployed



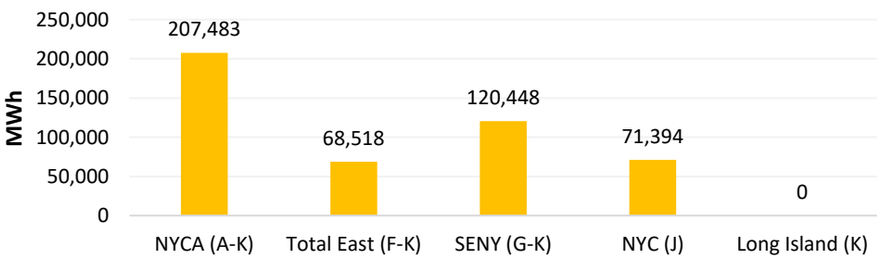
Total MWh SCR/EDRP Deployed



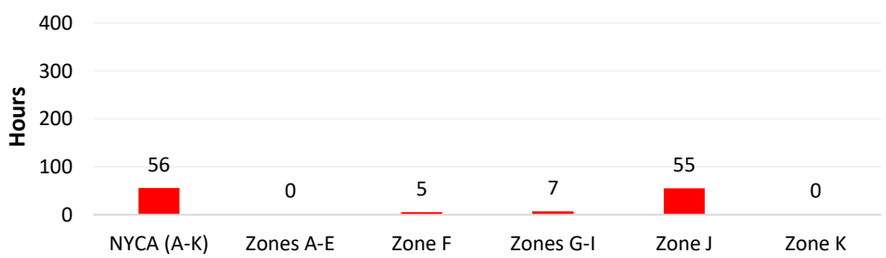
Hours with Reserve Violations



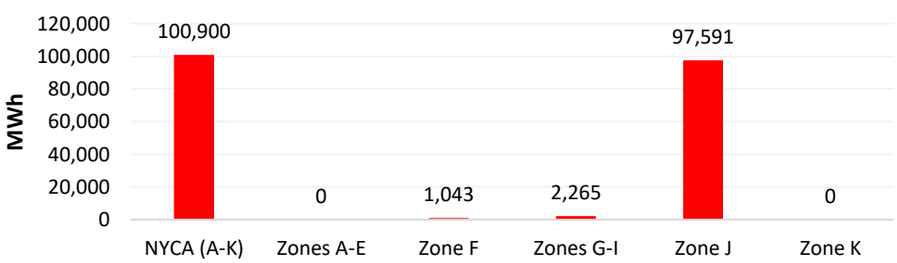
Total MWh of Reserve Violations

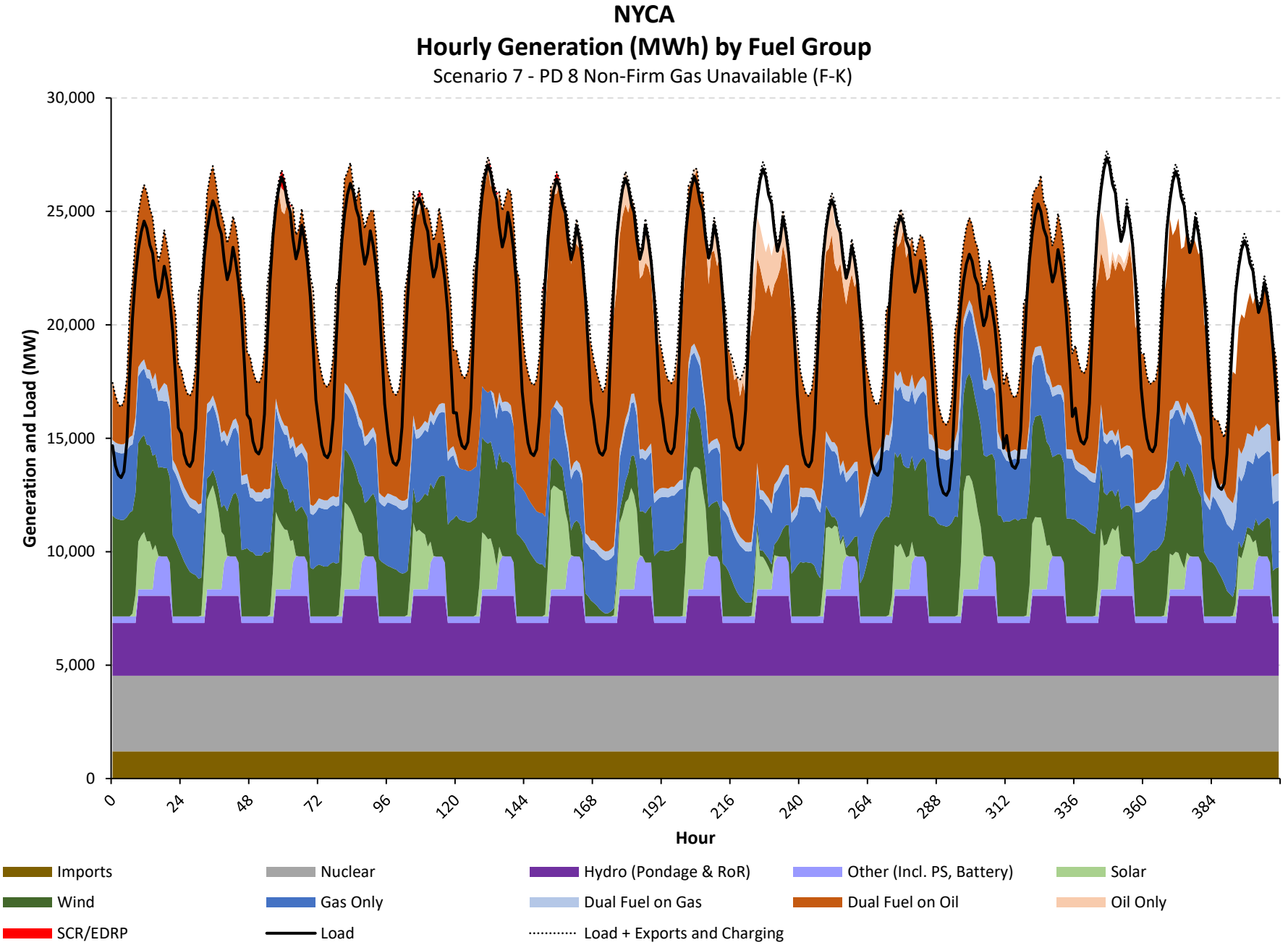


Hours with Loss of Load

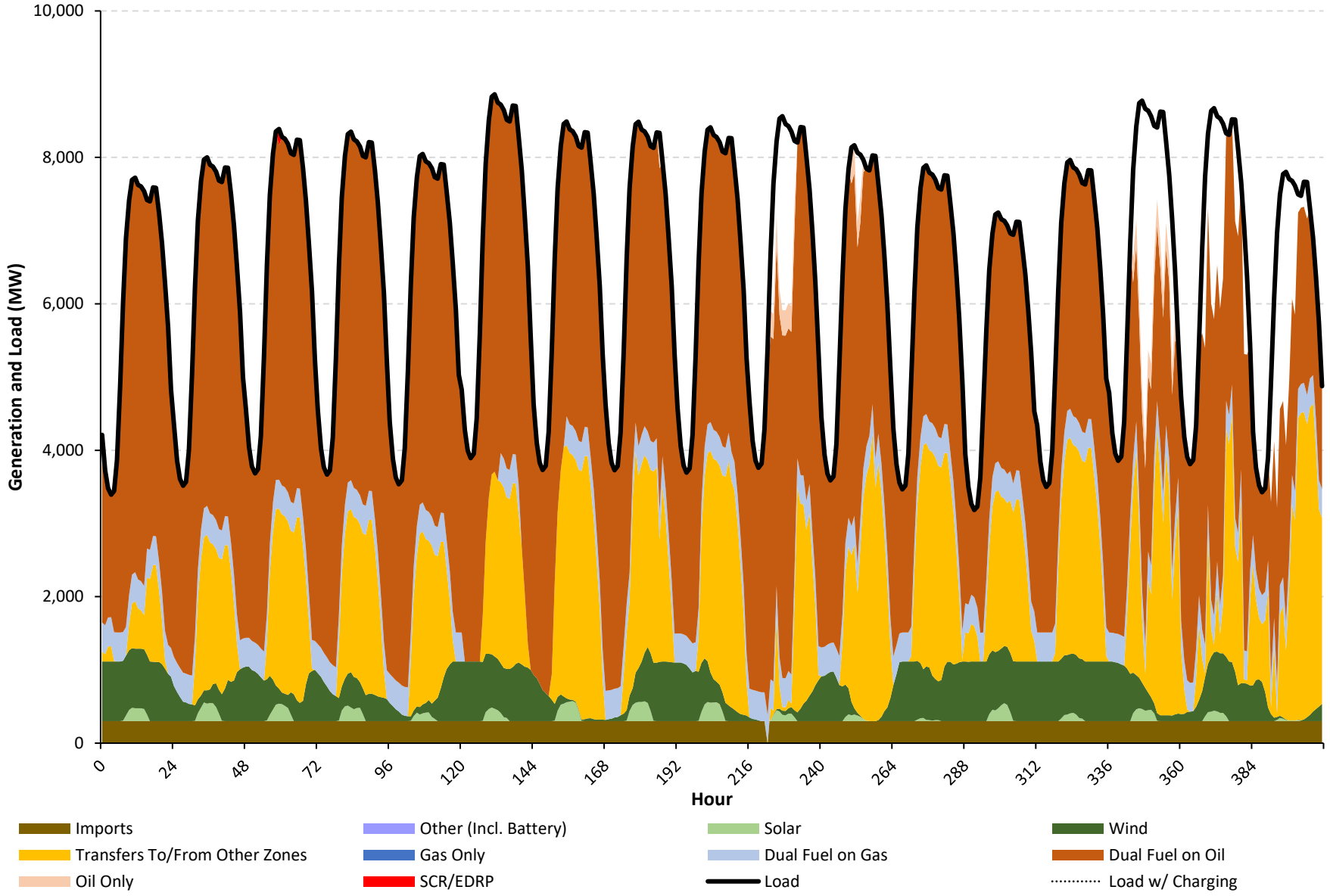


Total MWh of Lost Load

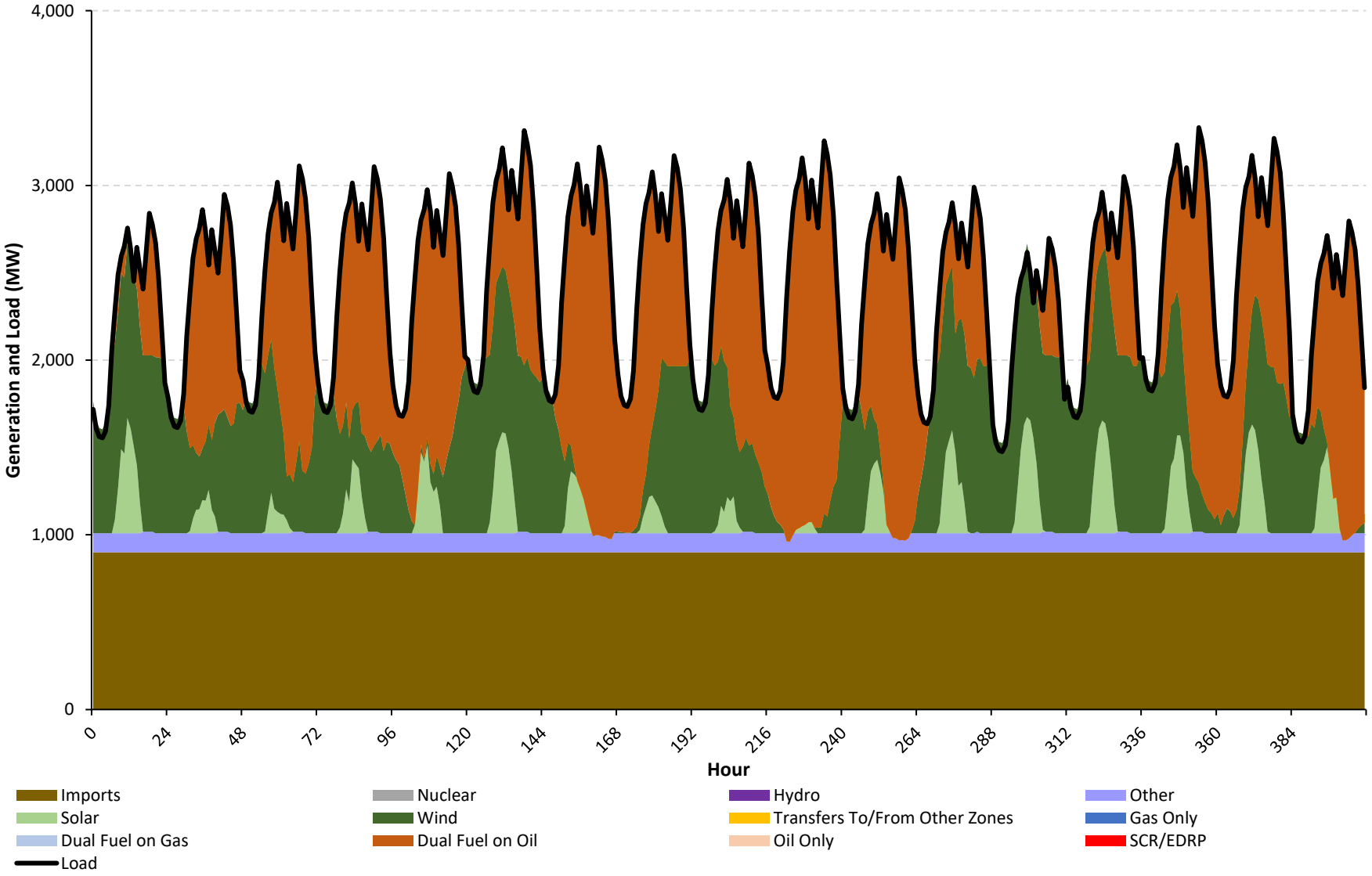



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 7 - PD 8 Non-Firm Gas Unavailable (F-K)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 8 Non-Firm Gas Unavailable (F-K)



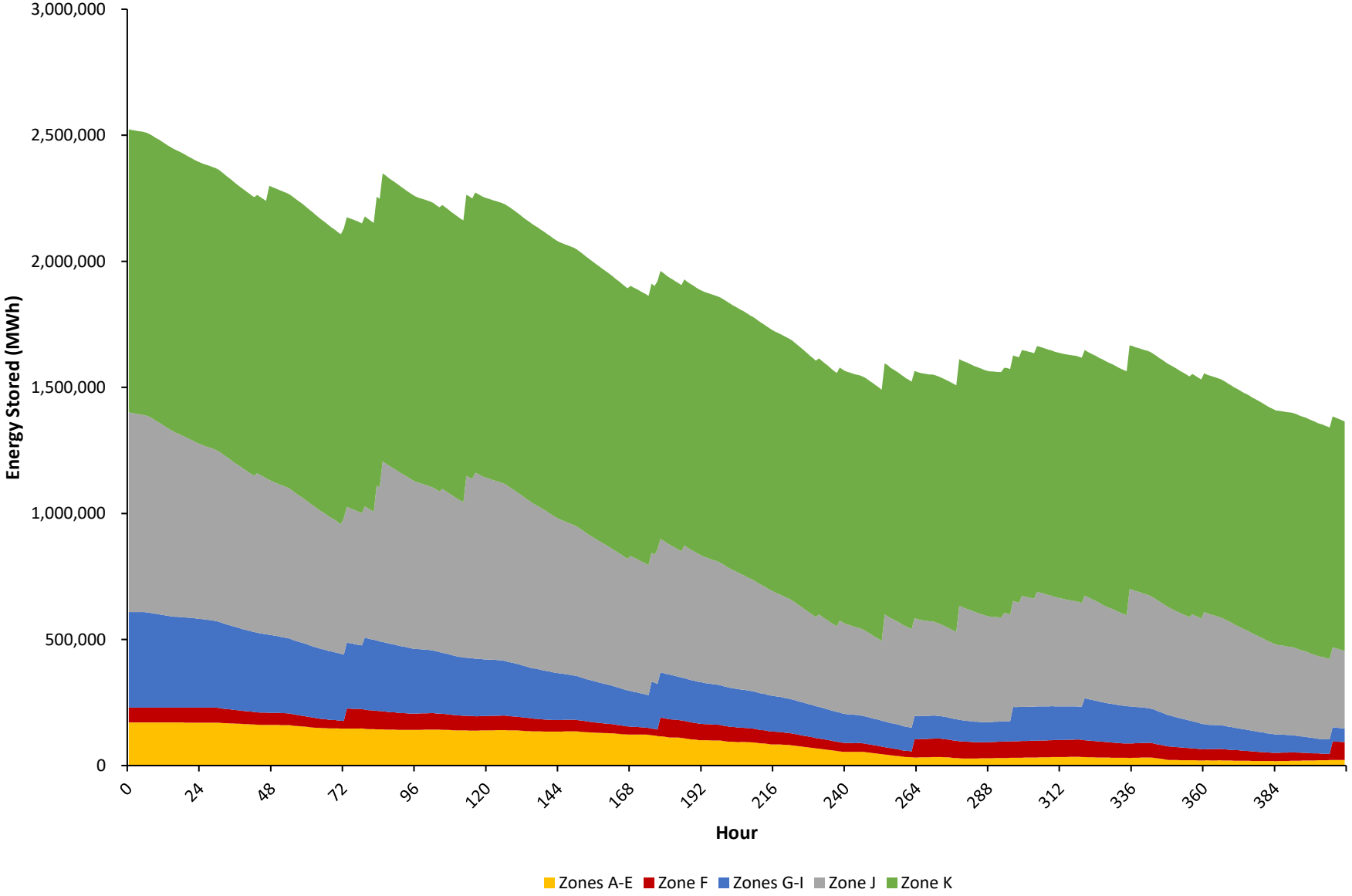
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 8 Non-Firm Gas Unavailable (F-K)

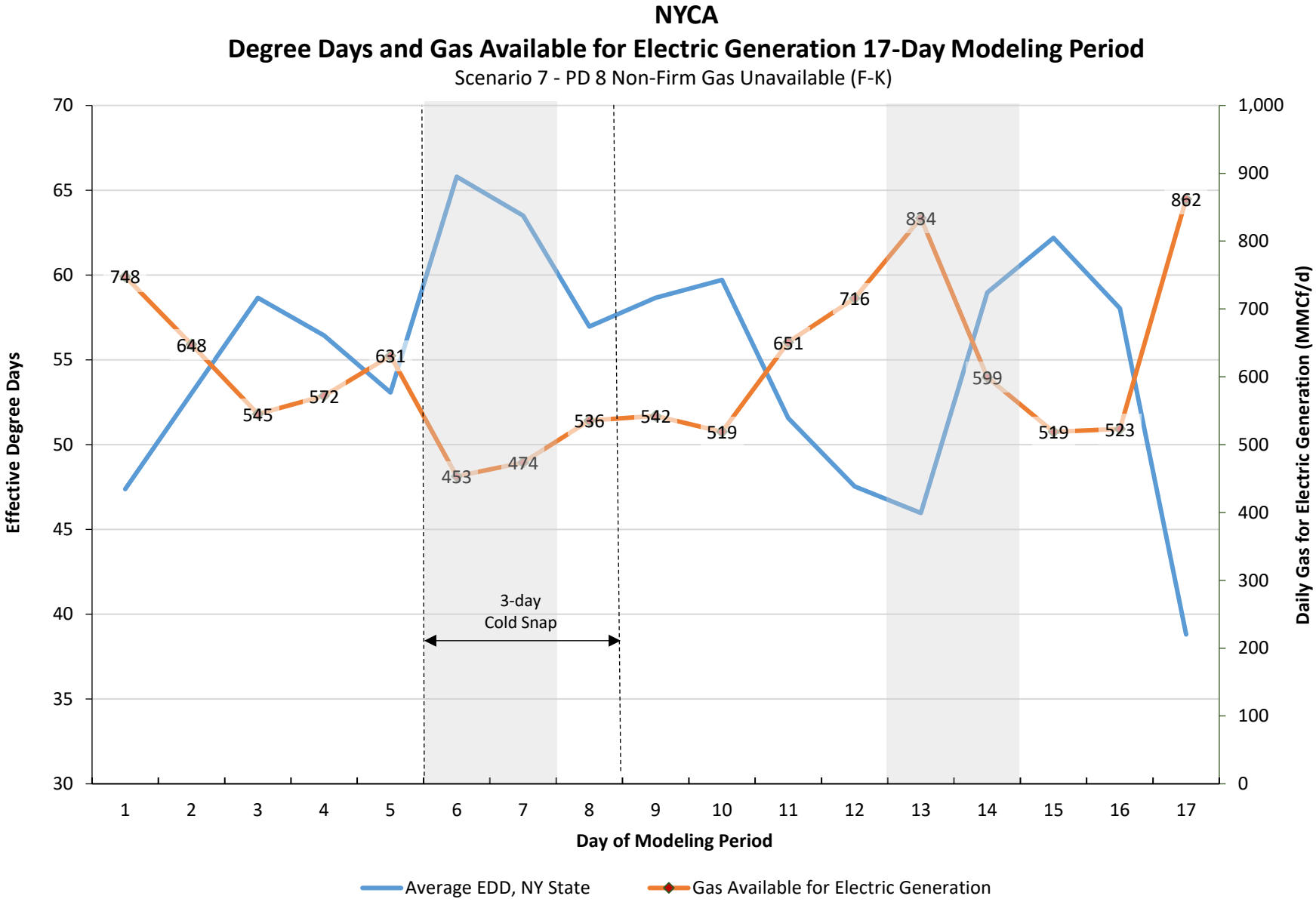


NYCA

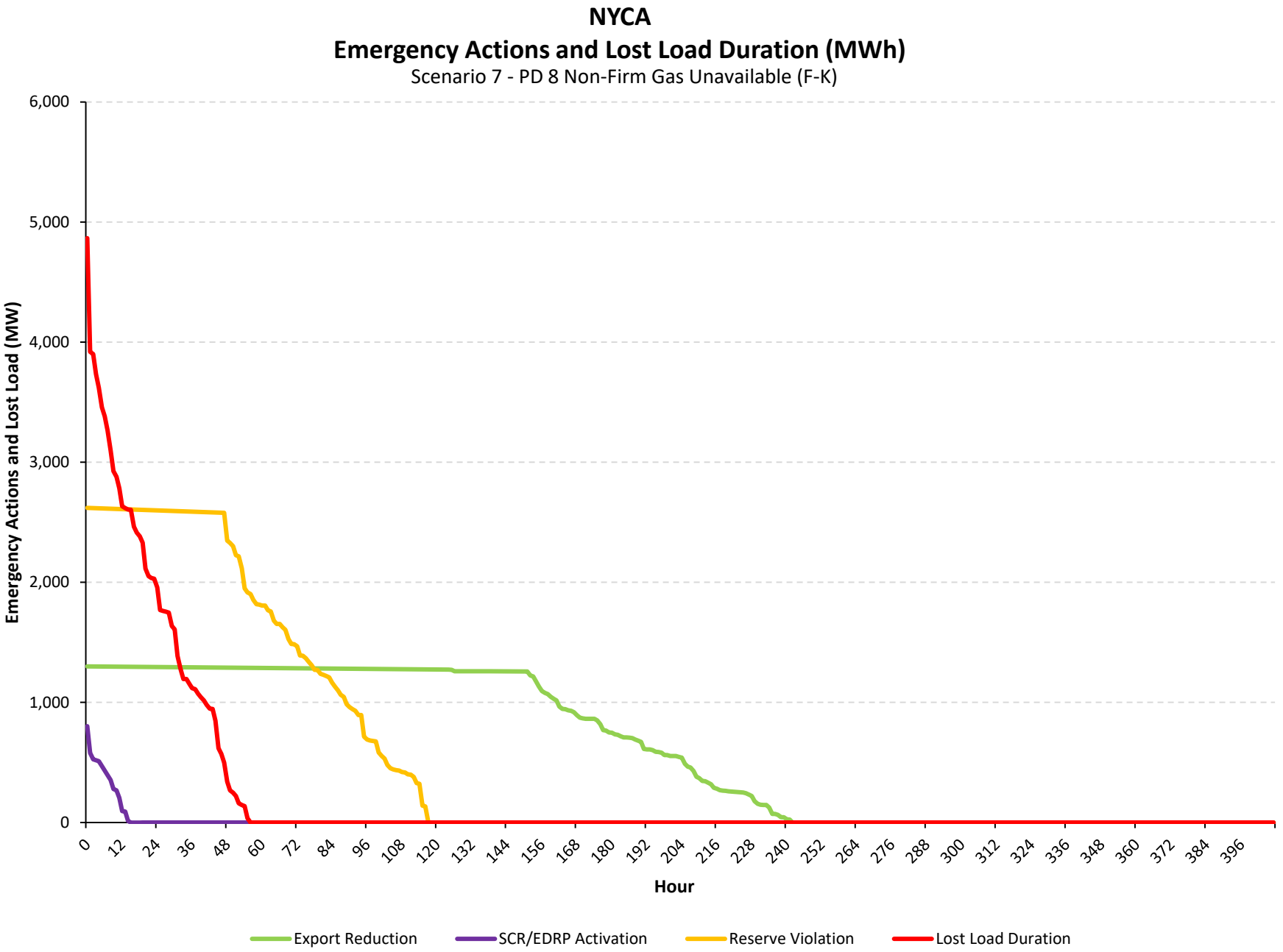
Quantity of Stored Fuel for Oil and Dual Fuel Units

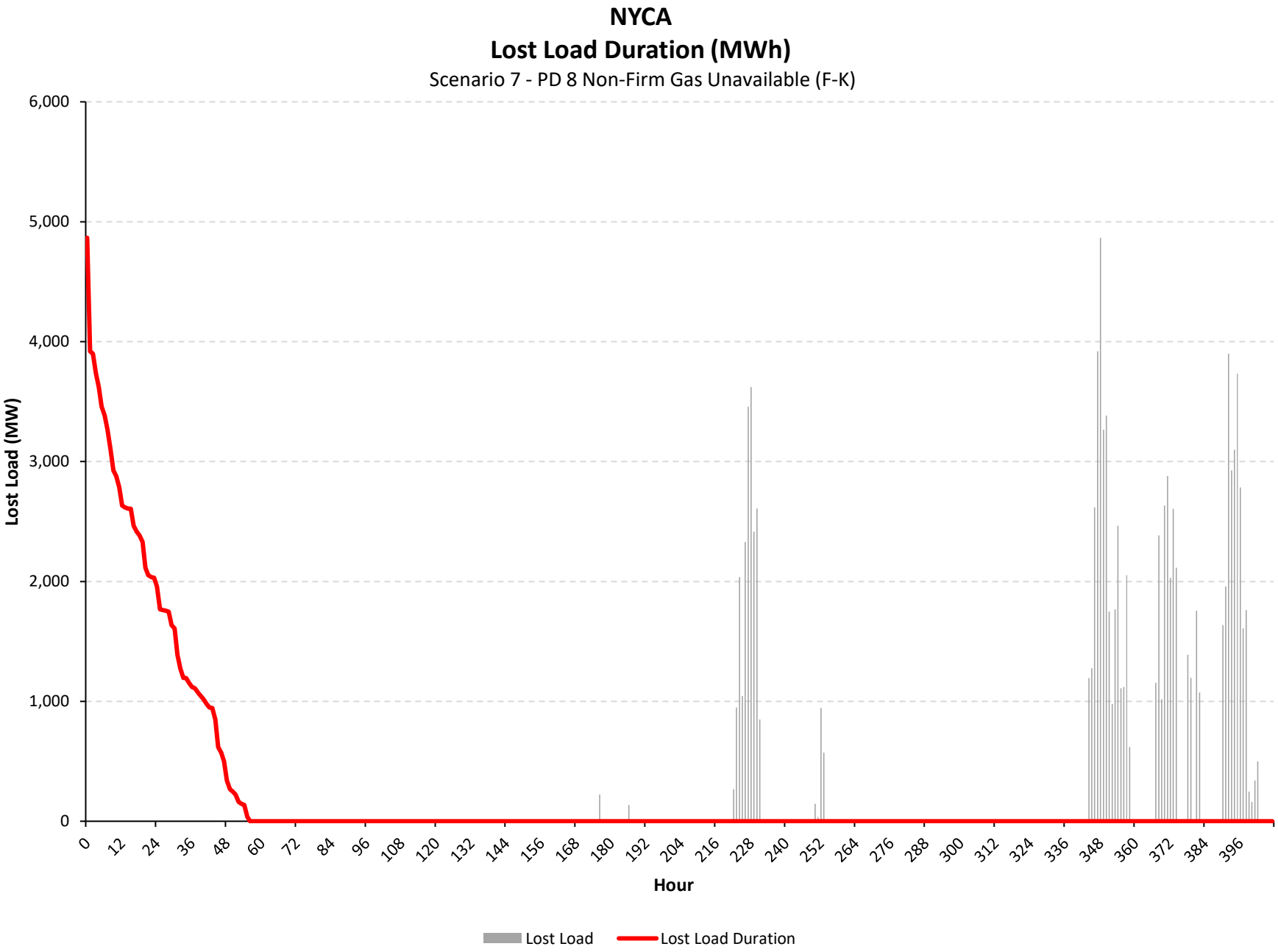
Scenario 7 - PD 8 Non-Firm Gas Unavailable (F-K)





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 7 - PD 8 Non-Firm Gas Unavailable (F-K)
Emergency Actions and Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 7 - PD 8 Non-Firm Gas Unavailable (F-K)
Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

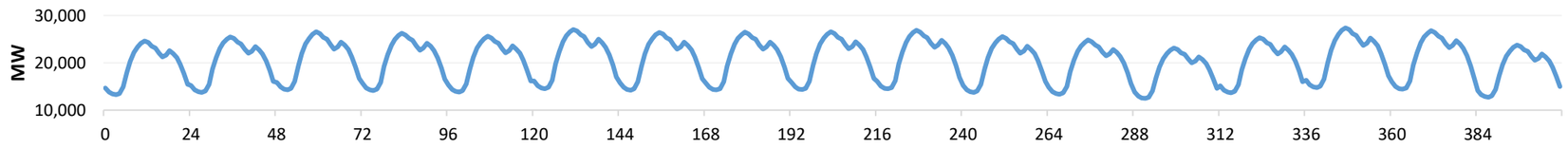
Case: Scenario 7 - PD 9 Non-Firm Gas Unavailable (NYCA) (Winter 2026/2027)

Hourly Results Summary

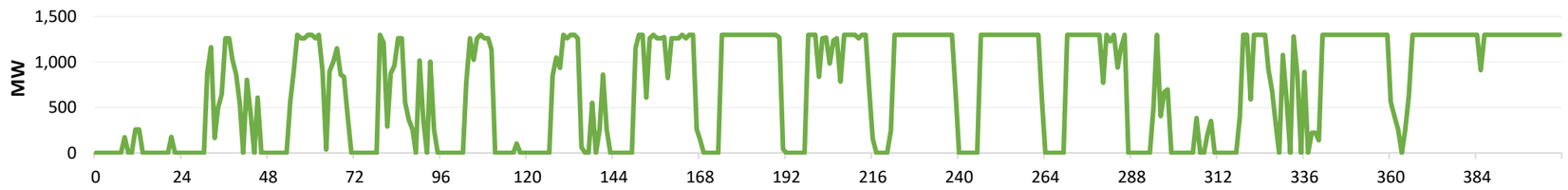
Case Name: Scenario 7 - PD 9 Non-Firm Gas Unavailable (NYCA)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Load During Modeling Period

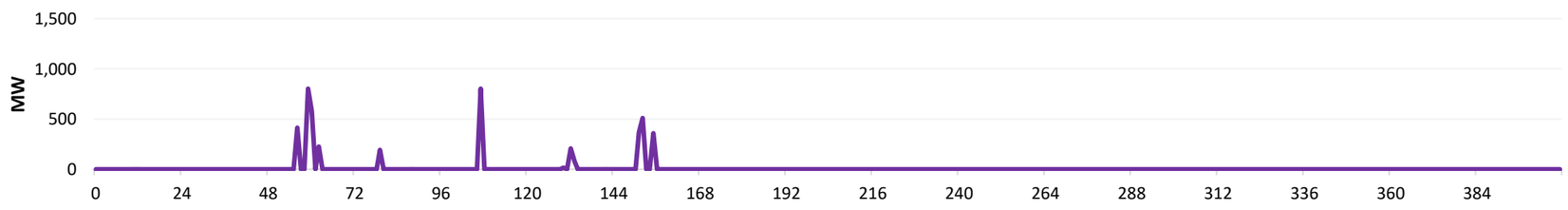


Export to ISO-NE Reduction During Modeling Period



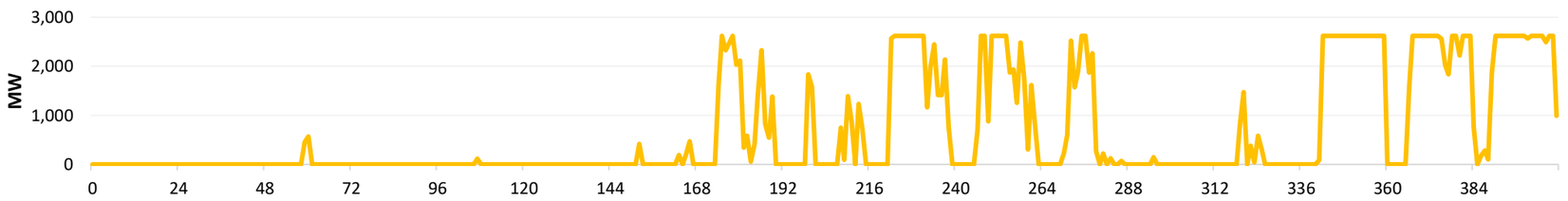
Export Reductions	
Total Hrs.	273
Total MWh	291,762
Avg. MW	715.1

SCR/EDRP Deployed During Modeling Period



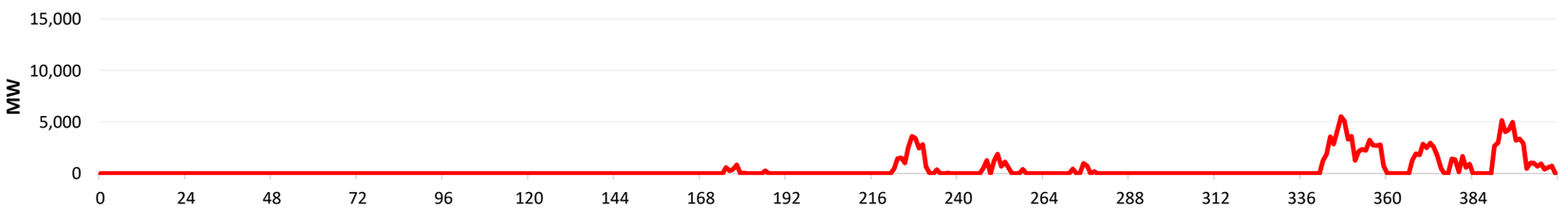
SCR Deployment	
Total Hrs.	12
Total MWh	4,550
Avg. MW	11.2

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	146
Total MWh	264,679
Avg. MW	648.7
First Hour with Viol.	59

Loss of Load During Modeling Period



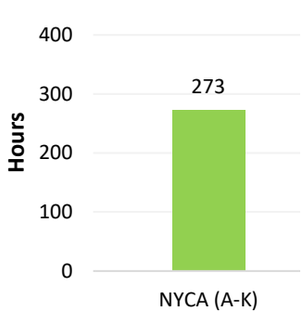
Loss of Load	
Total Hrs.	80
Total MWh	147,935
Avg. MW	362.6
First Hour with Losses	175

Full Period Results Summary

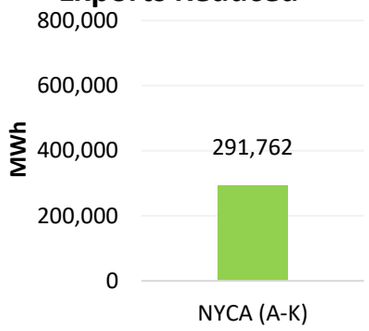
Case Name: Scenario 7 - PD 9 Non-Firm Gas Unavailable (NYCA)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

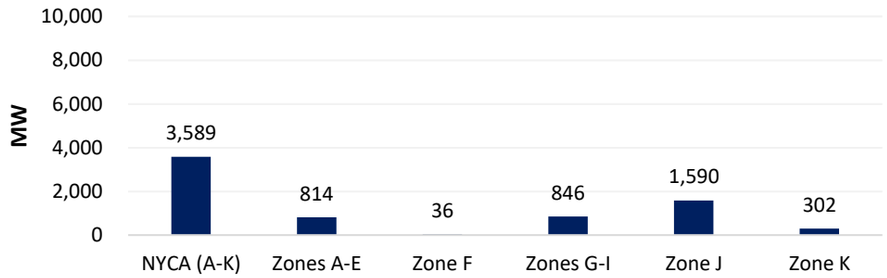
Hours Exports Reduced



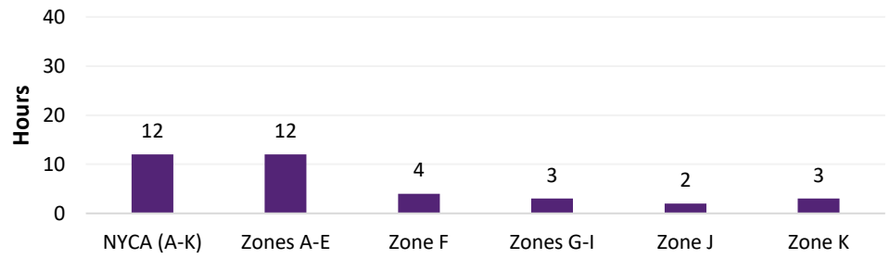
Total MWh of Exports Reduced



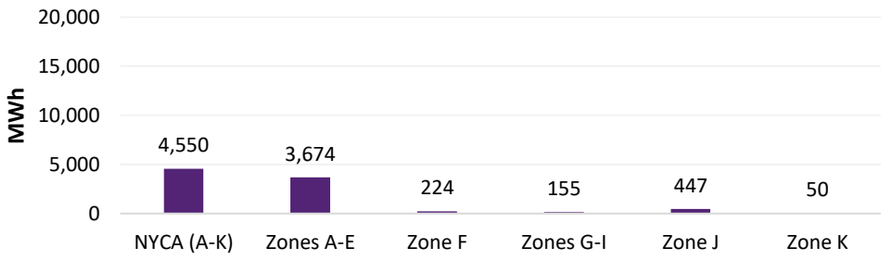
Average Capacity Not Available Due to Exhausted Fuel Inventory



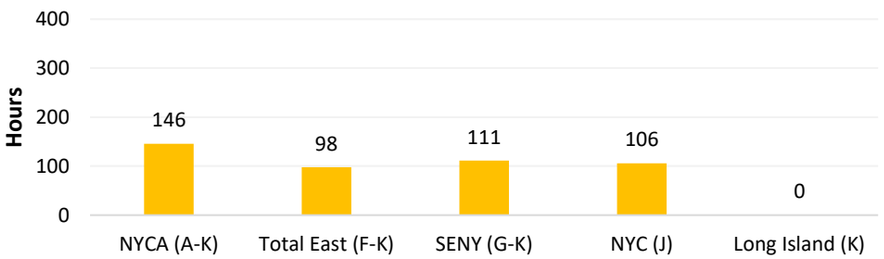
Hours SCR/EDRP Deployed



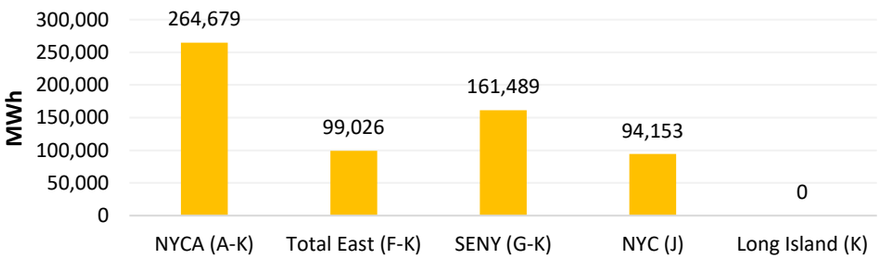
Total MWh SCR/EDRP Deployed



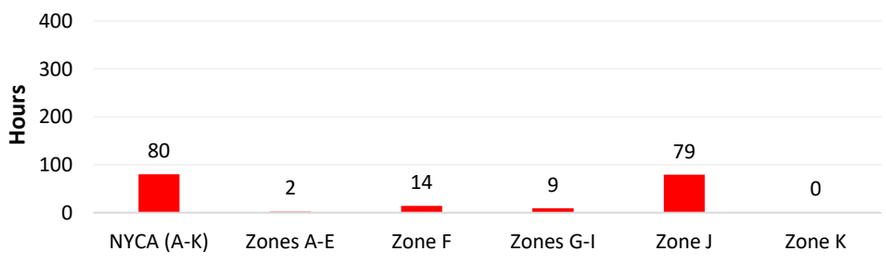
Hours with Reserve Violations



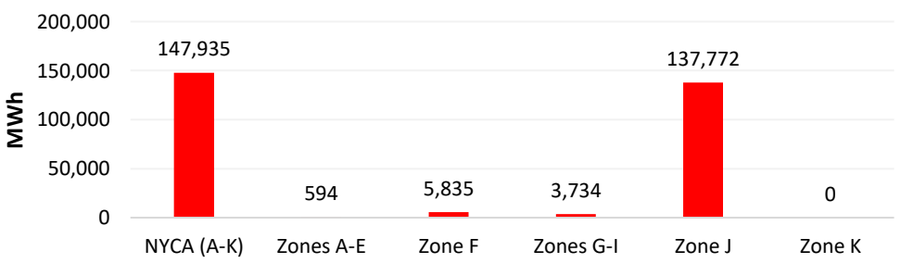
Total MWh of Reserve Violations

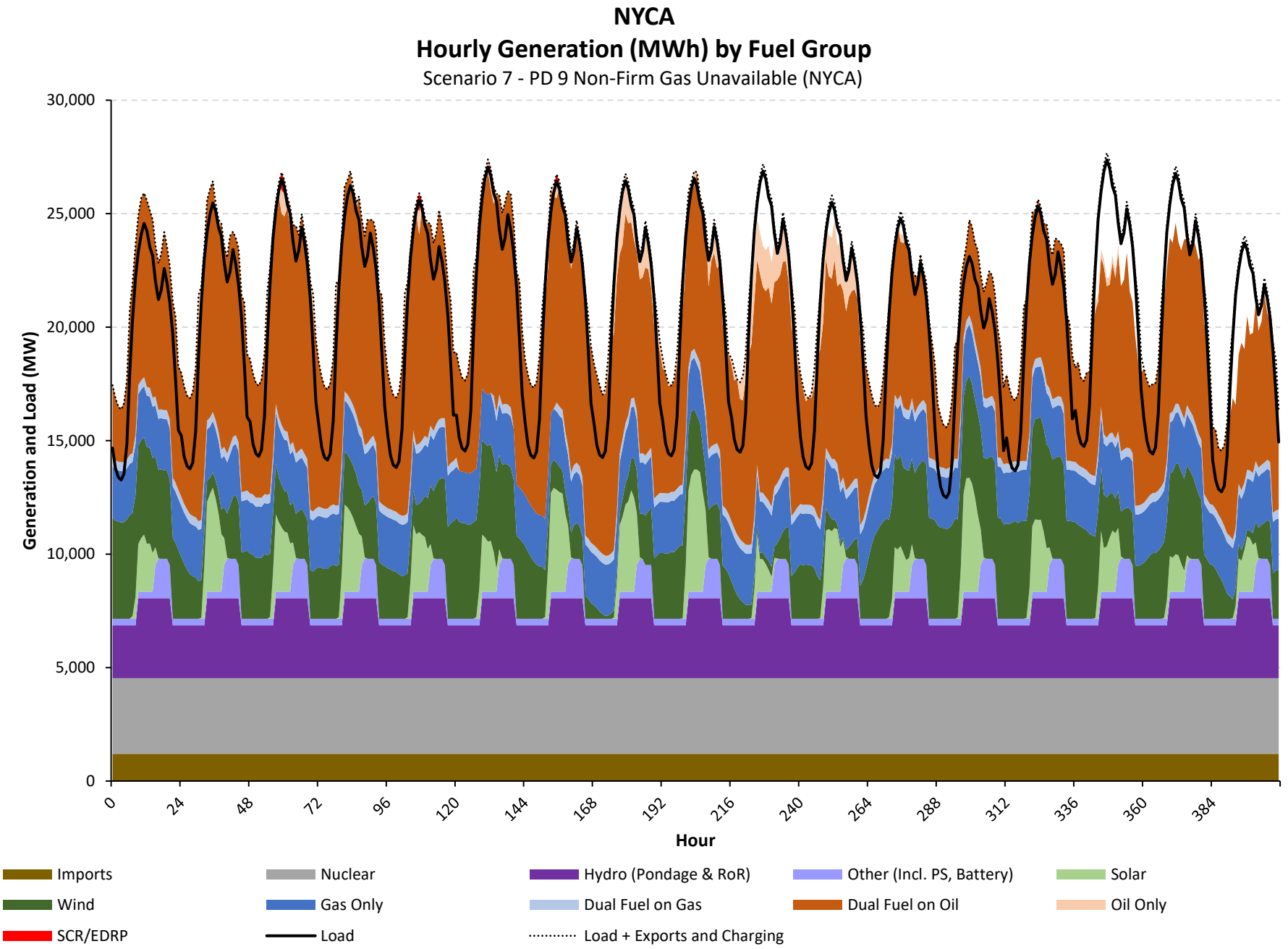


Hours with Loss of Load

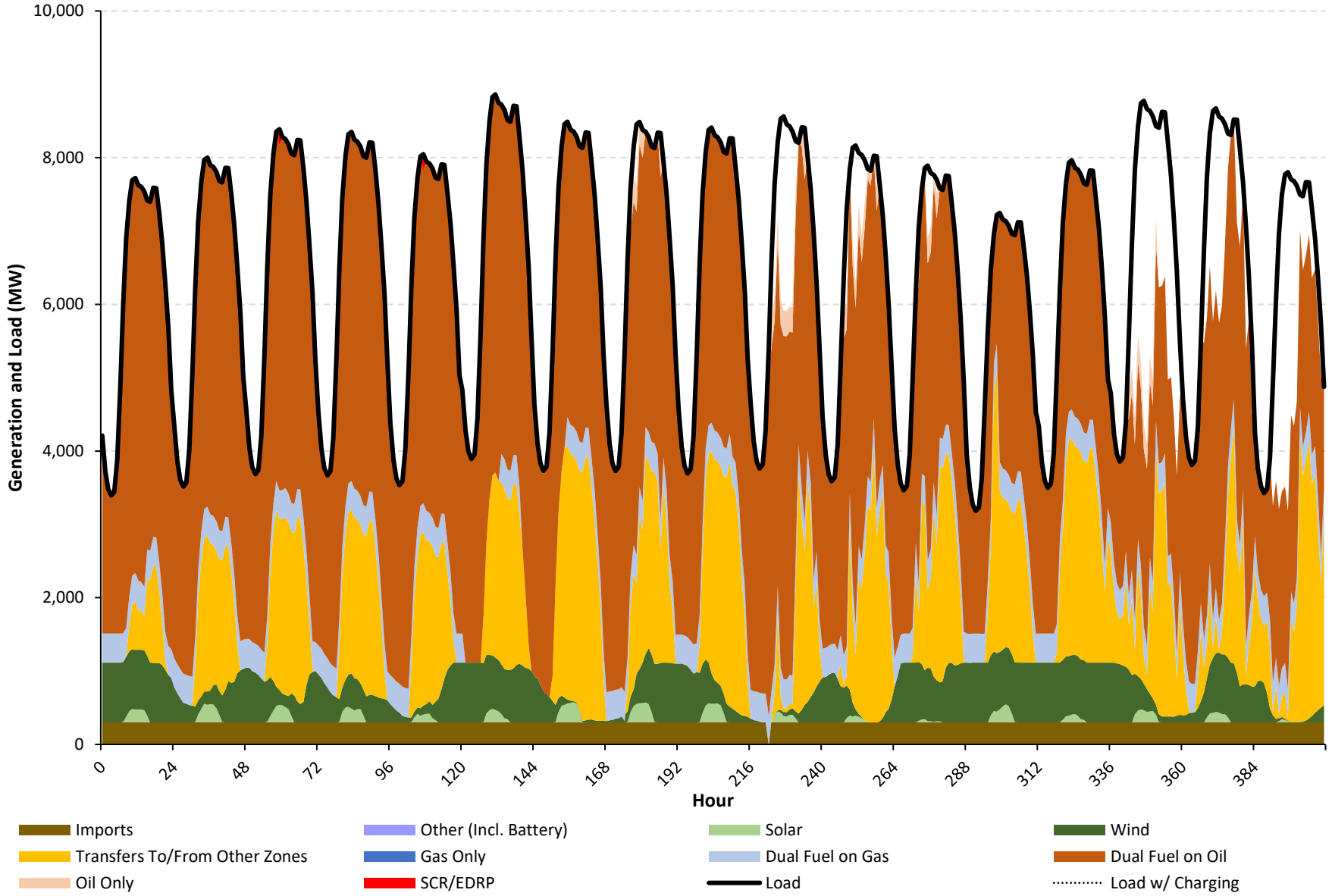


Total MWh of Lost Load

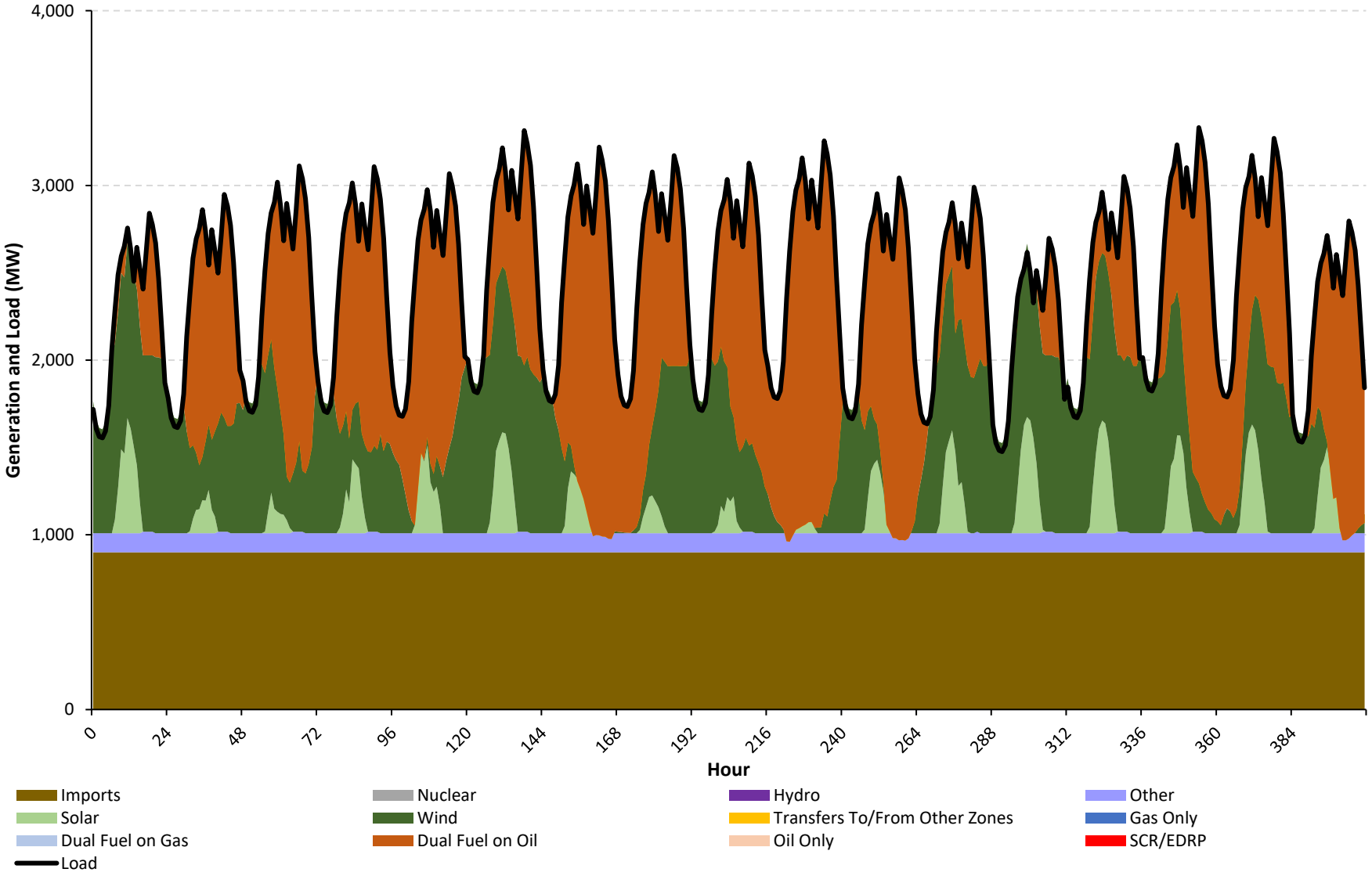



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 7 - PD 9 Non-Firm Gas Unavailable (NYCA)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 9 Non-Firm Gas Unavailable (NYCA)



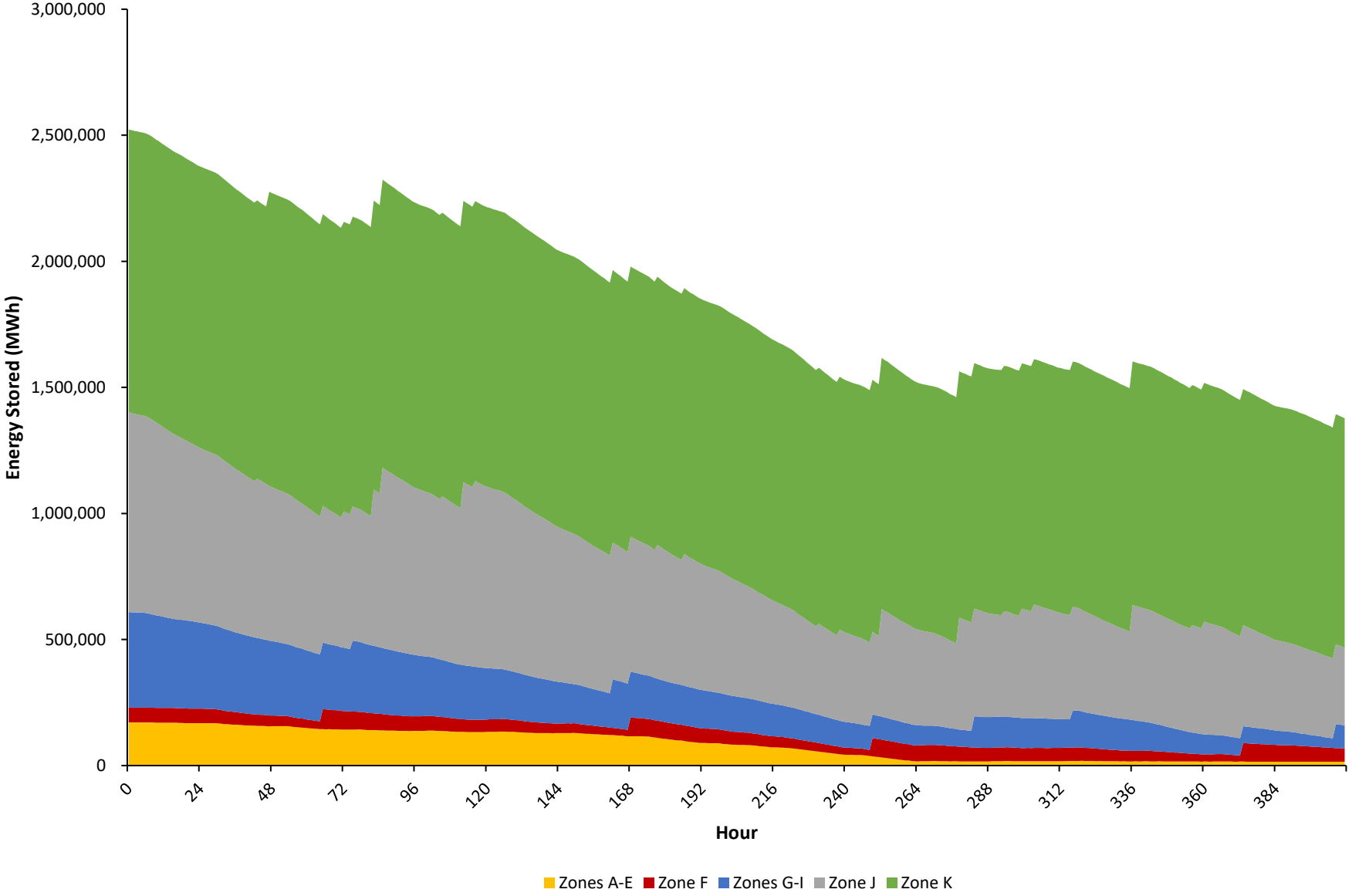
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 9 Non-Firm Gas Unavailable (NYCA)



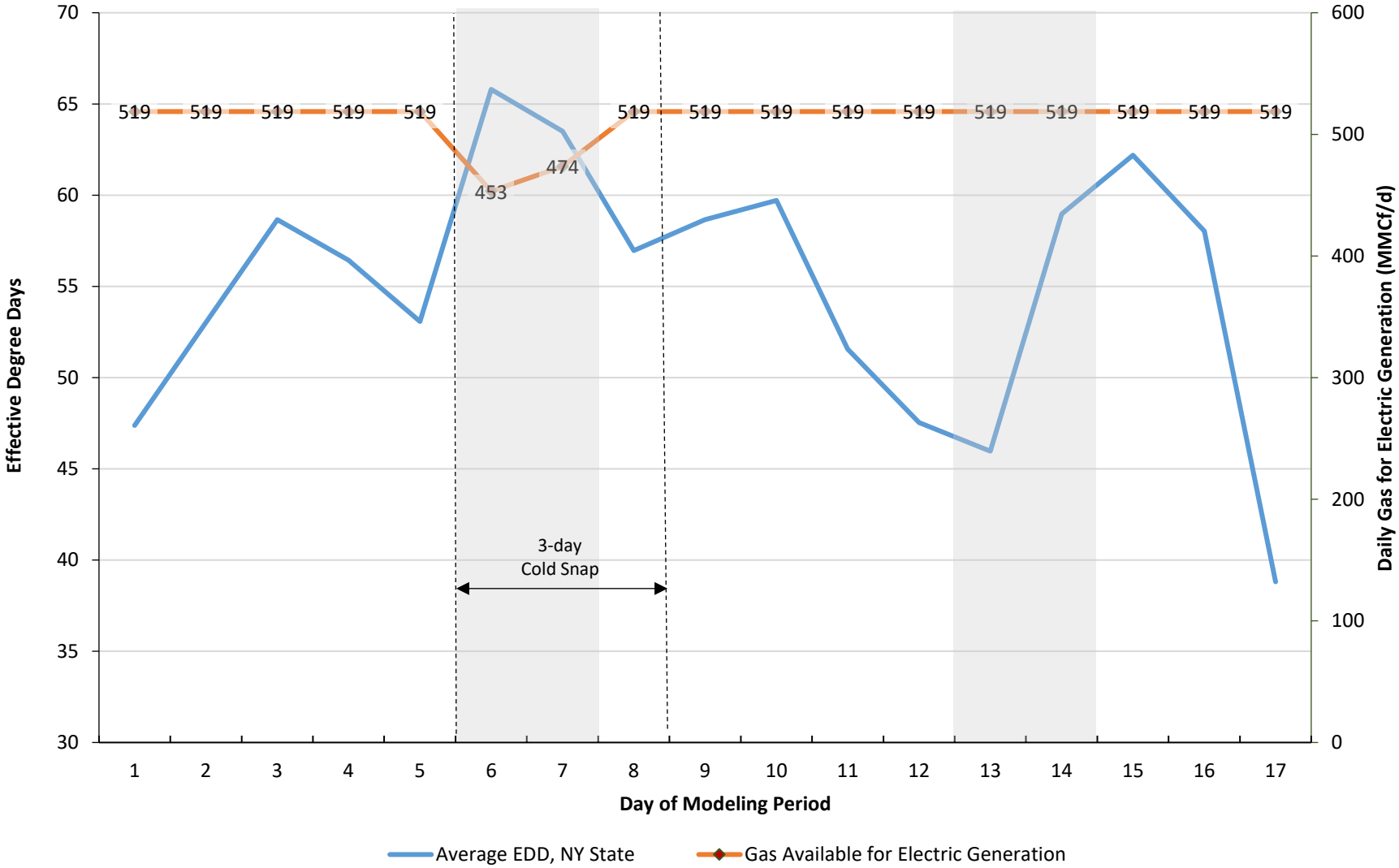
NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

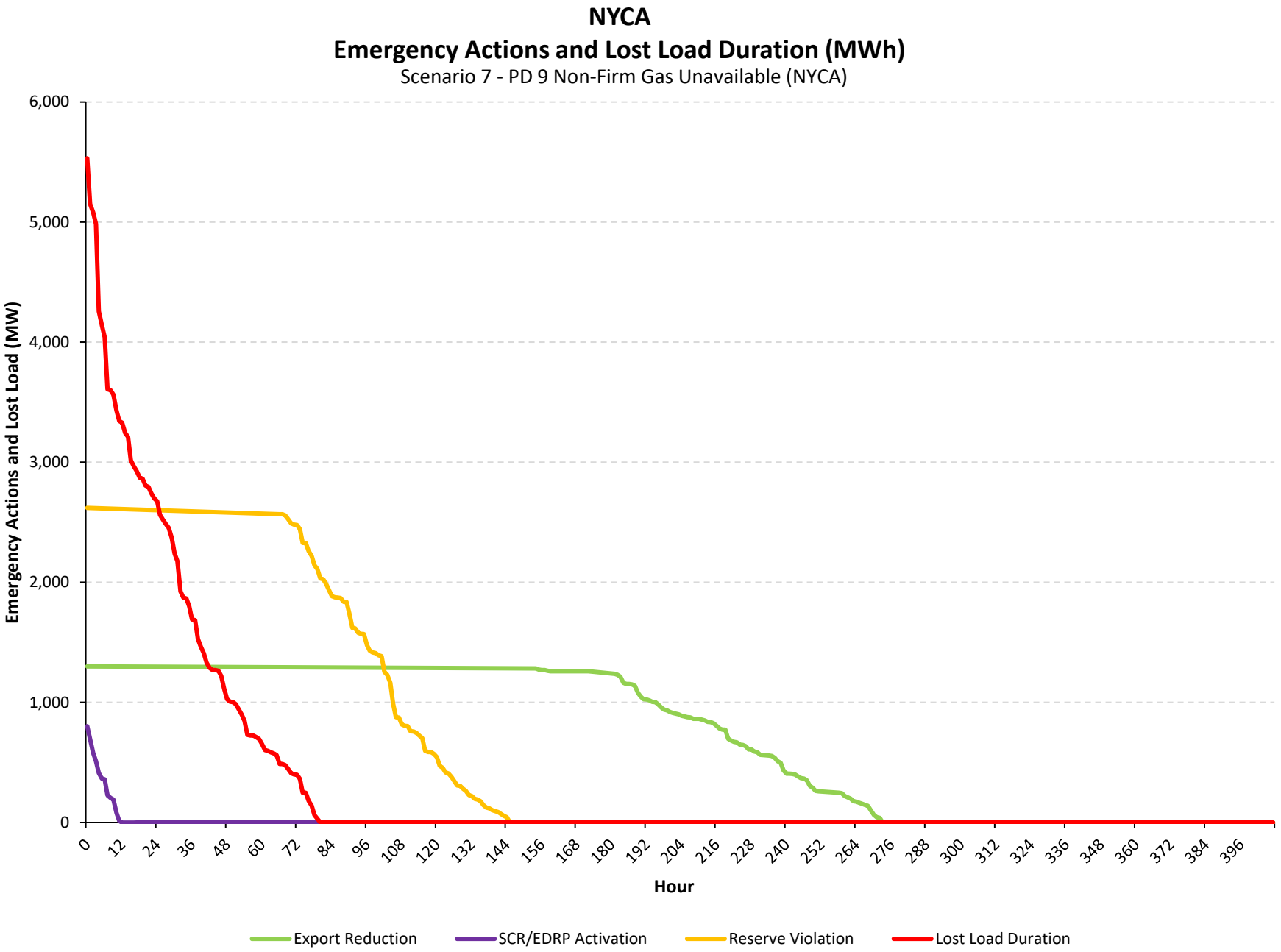
Scenario 7 - PD 9 Non-Firm Gas Unavailable (NYCA)

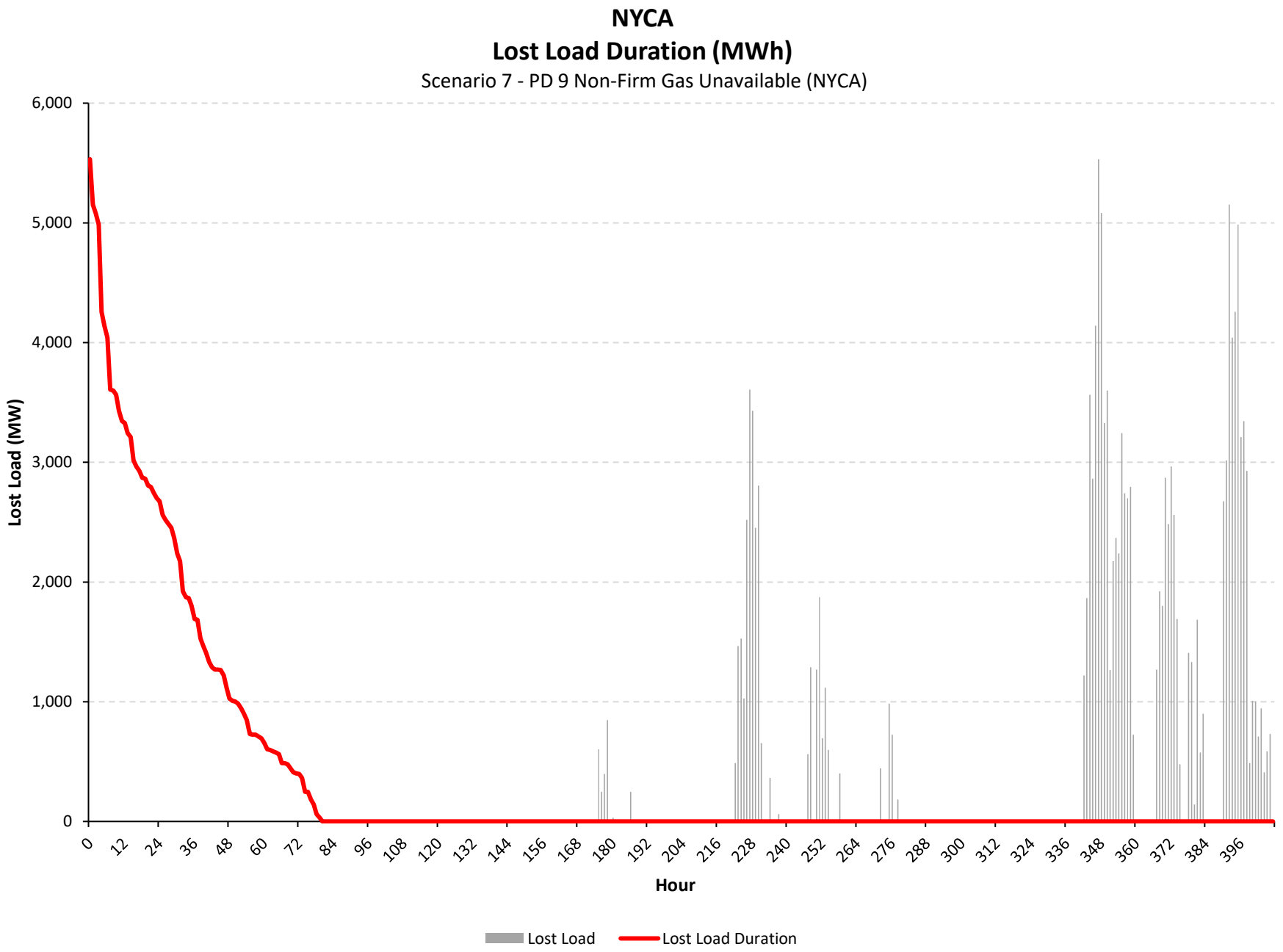


NYCA
Degree Days and Gas Available for Electric Generation 17-Day Modeling Period
Scenario 7 - PD 9 Non-Firm Gas Unavailable (NYCA)



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 7 - PD 9 Non-Firm Gas Unavailable (NYCA)
Emergency Actions and Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 7 - PD 9 Non-Firm Gas Unavailable (NYCA)
Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

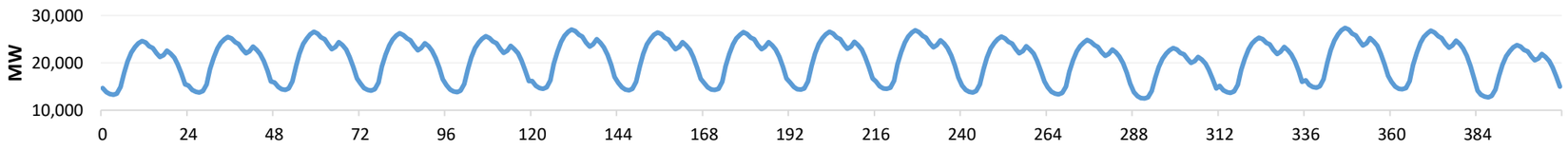
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 7 - PD 10 Non-Firm Gas Unavailable (4 days) (Winter 2026/2027)

Hourly Results Summary

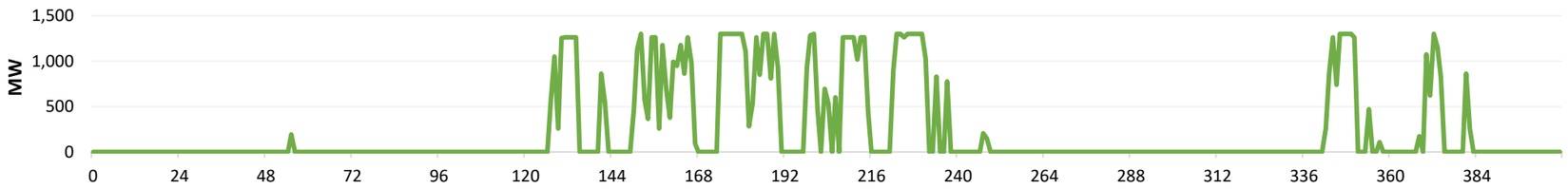
Case Name: Scenario 7 - PD 10 Non-Firm Gas Unavailable (4 days)

Load During Modeling Period



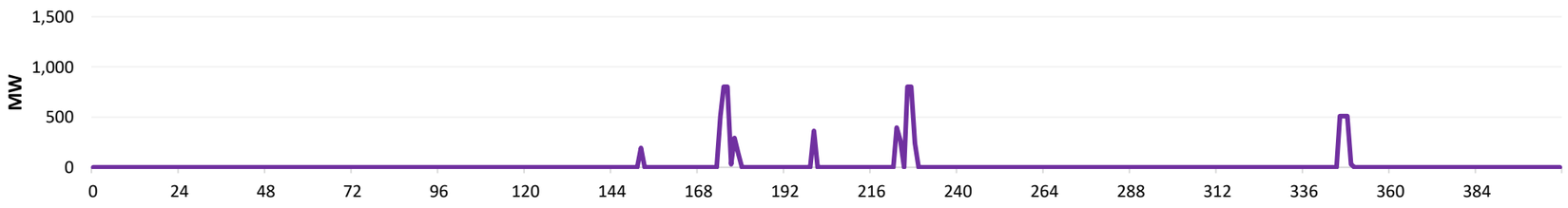
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



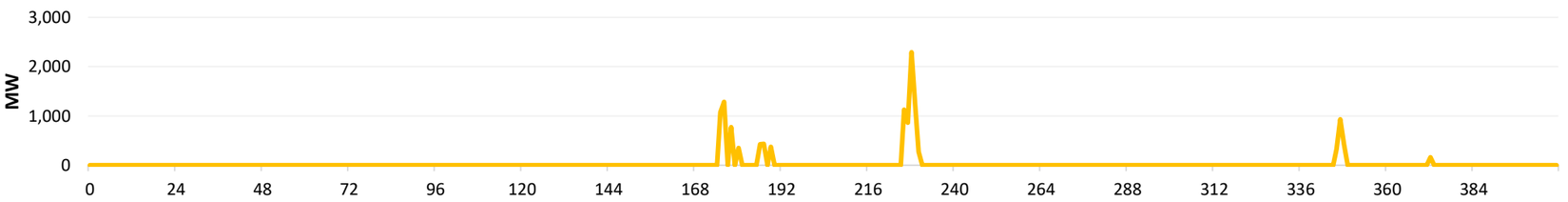
Export Reductions	
Total Hrs.	94
Total MWh	89,195
Avg. MW	218.6

SCR/EDRP Deployed During Modeling Period



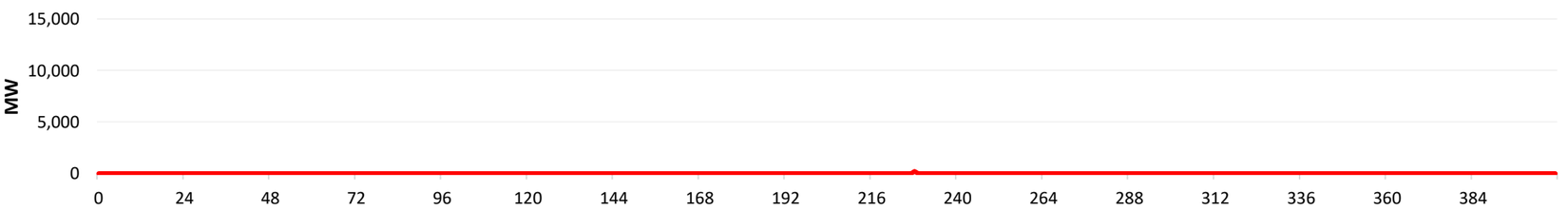
SCR Deployment	
Total Hrs.	17
Total MWh	7,197
Avg. MW	17.6

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	16
Total MWh	12,319
Avg. MW	30.2
First Hour with Viol.	175

Loss of Load During Modeling Period



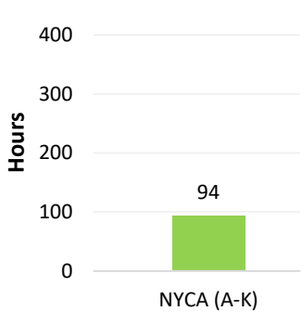
Loss of Load	
Total Hrs.	1
Total MWh	212
Avg. MW	0.5
First Hour with Losses	228

Full Period Results Summary

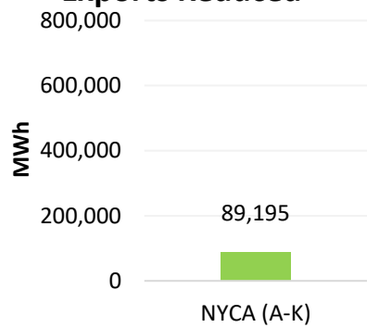
Case Name: Scenario 7 - PD 10 Non-Firm Gas Unavailable (4 days)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

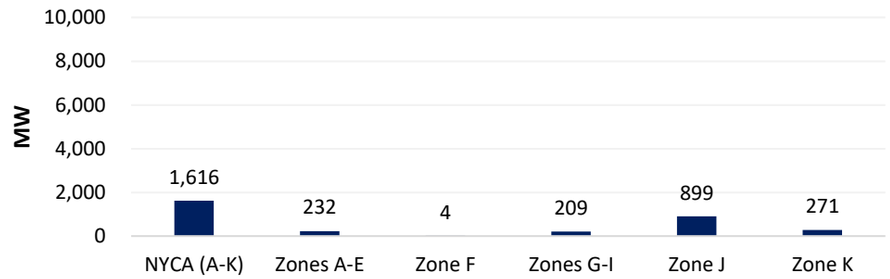
Hours Exports Reduced



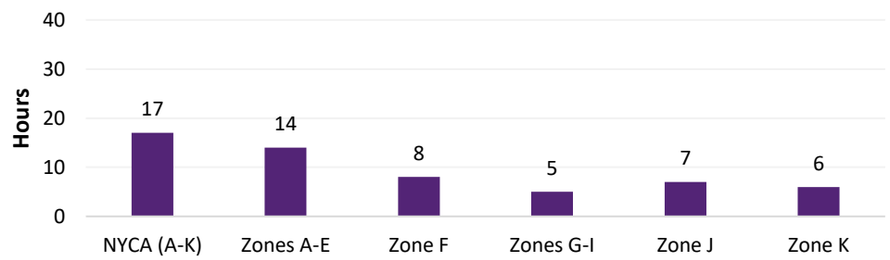
Total MWh of Exports Reduced



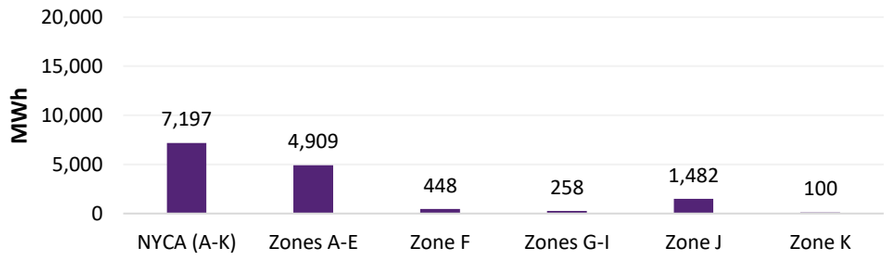
Average Capacity Not Available Due to Exhausted Fuel Inventory



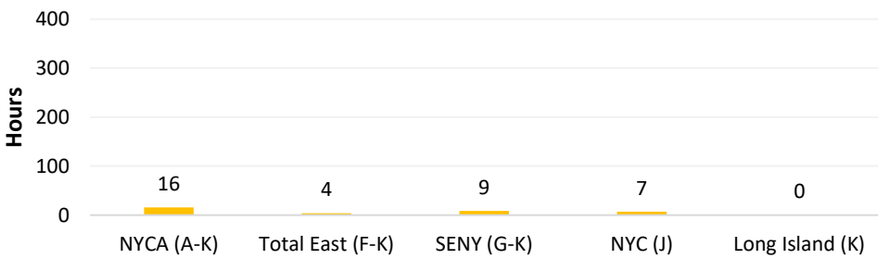
Hours SCR/EDRP Deployed



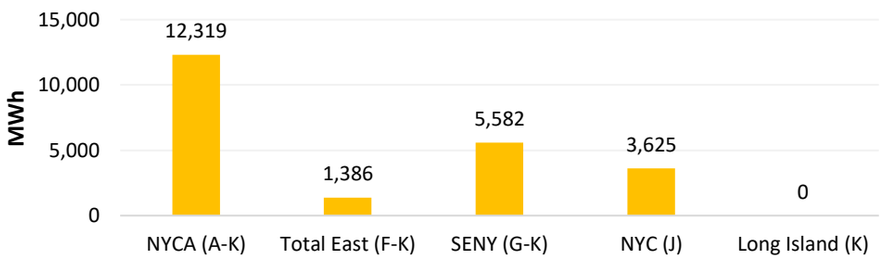
Total MWh SCR/EDRP Deployed



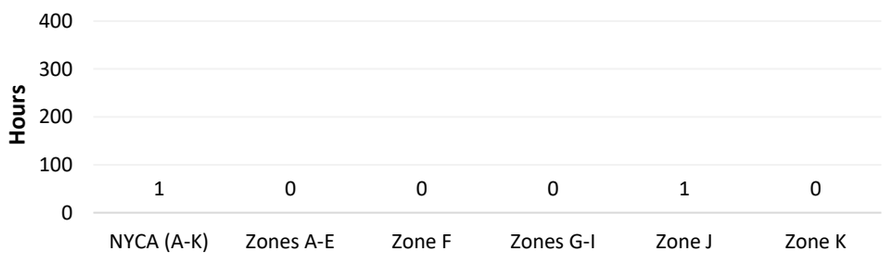
Hours with Reserve Violations



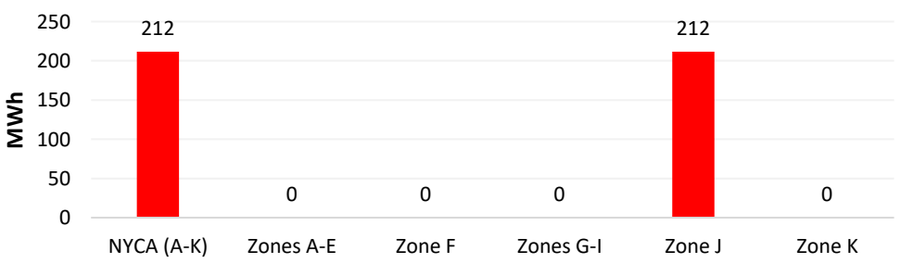
Total MWh of Reserve Violations

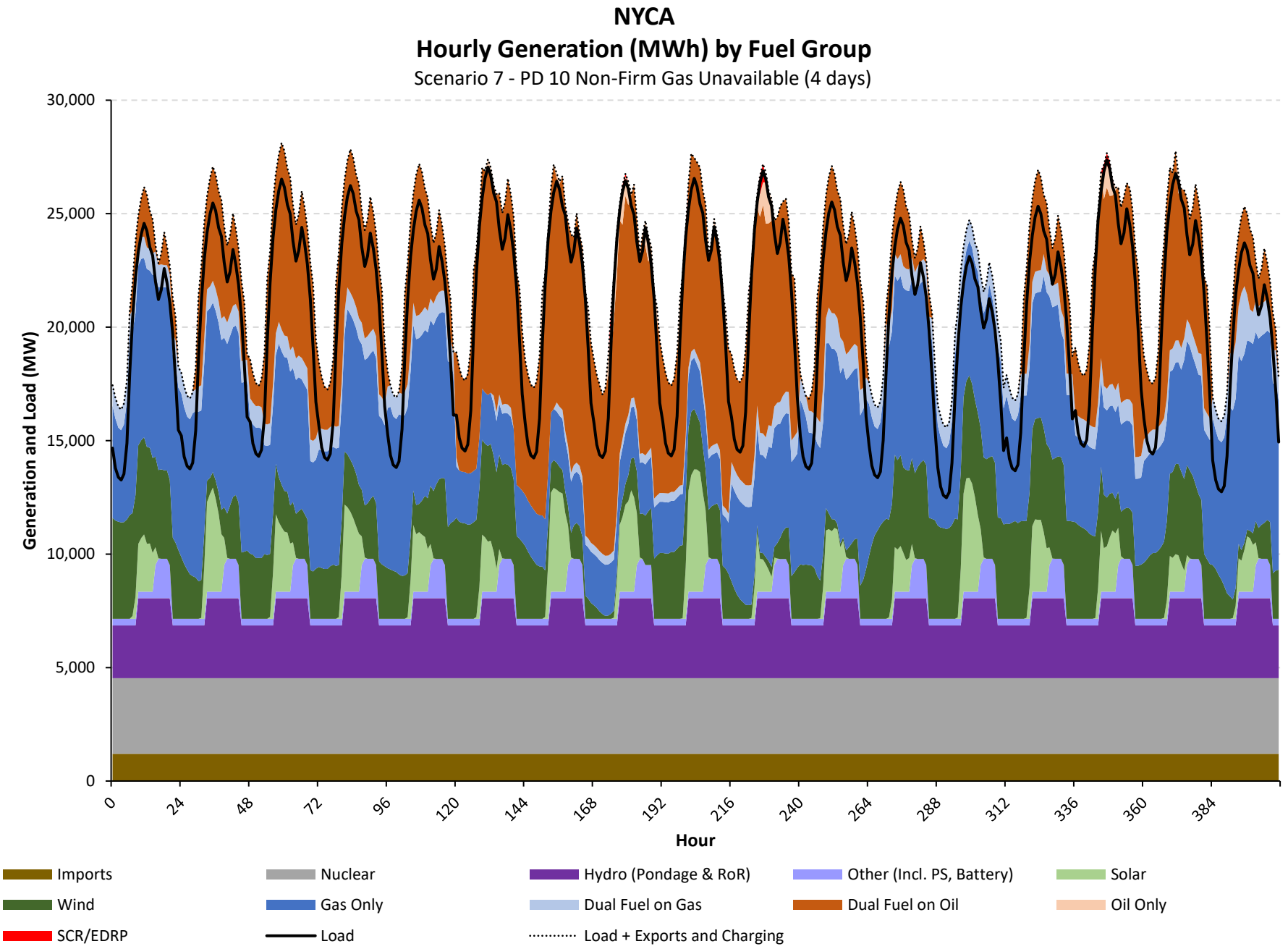


Hours with Loss of Load

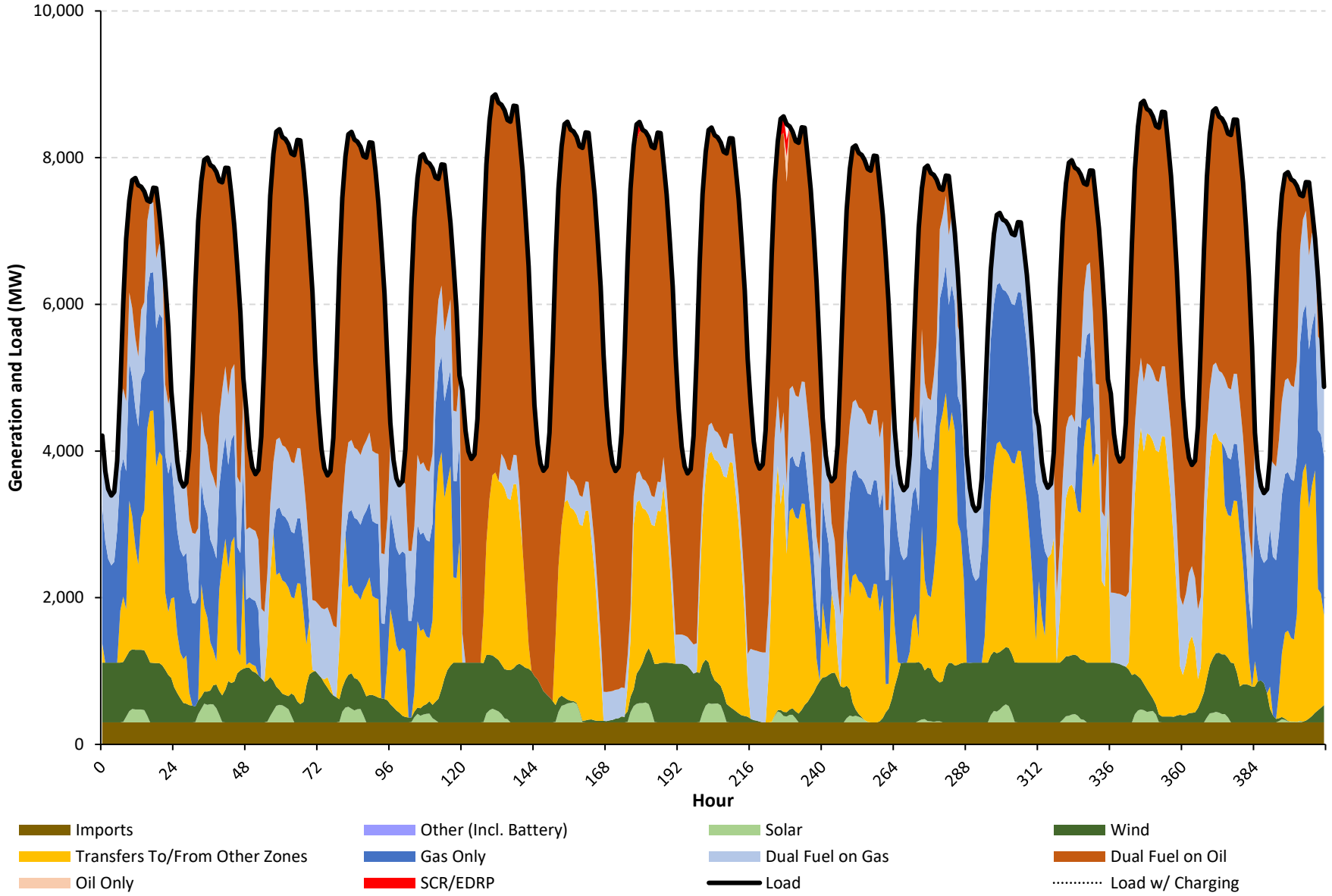


Total MWh of Lost Load

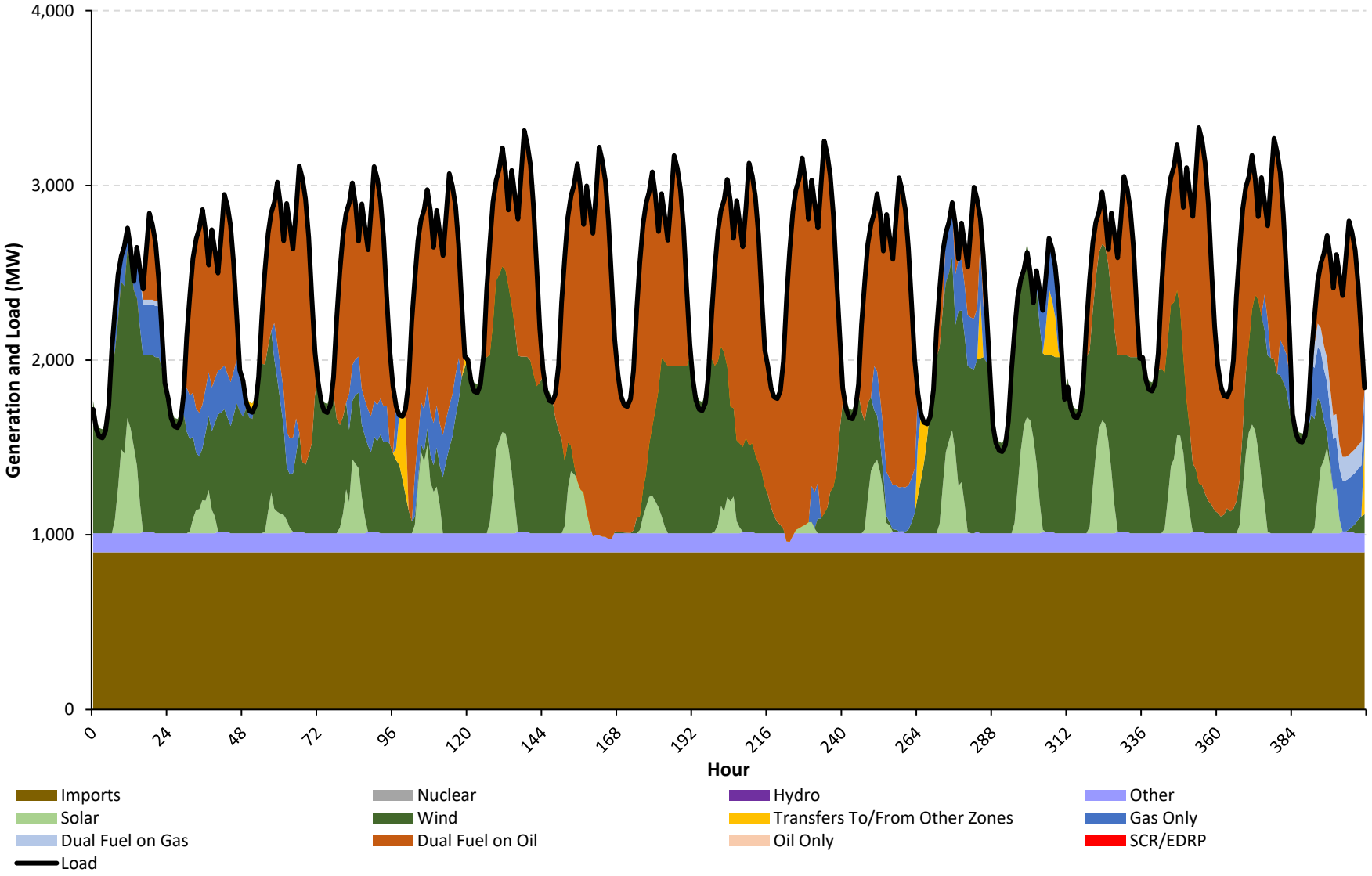



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 7 - PD 10 Non-Firm Gas Unavailable (4 days)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 10 Non-Firm Gas Unavailable (4 days)



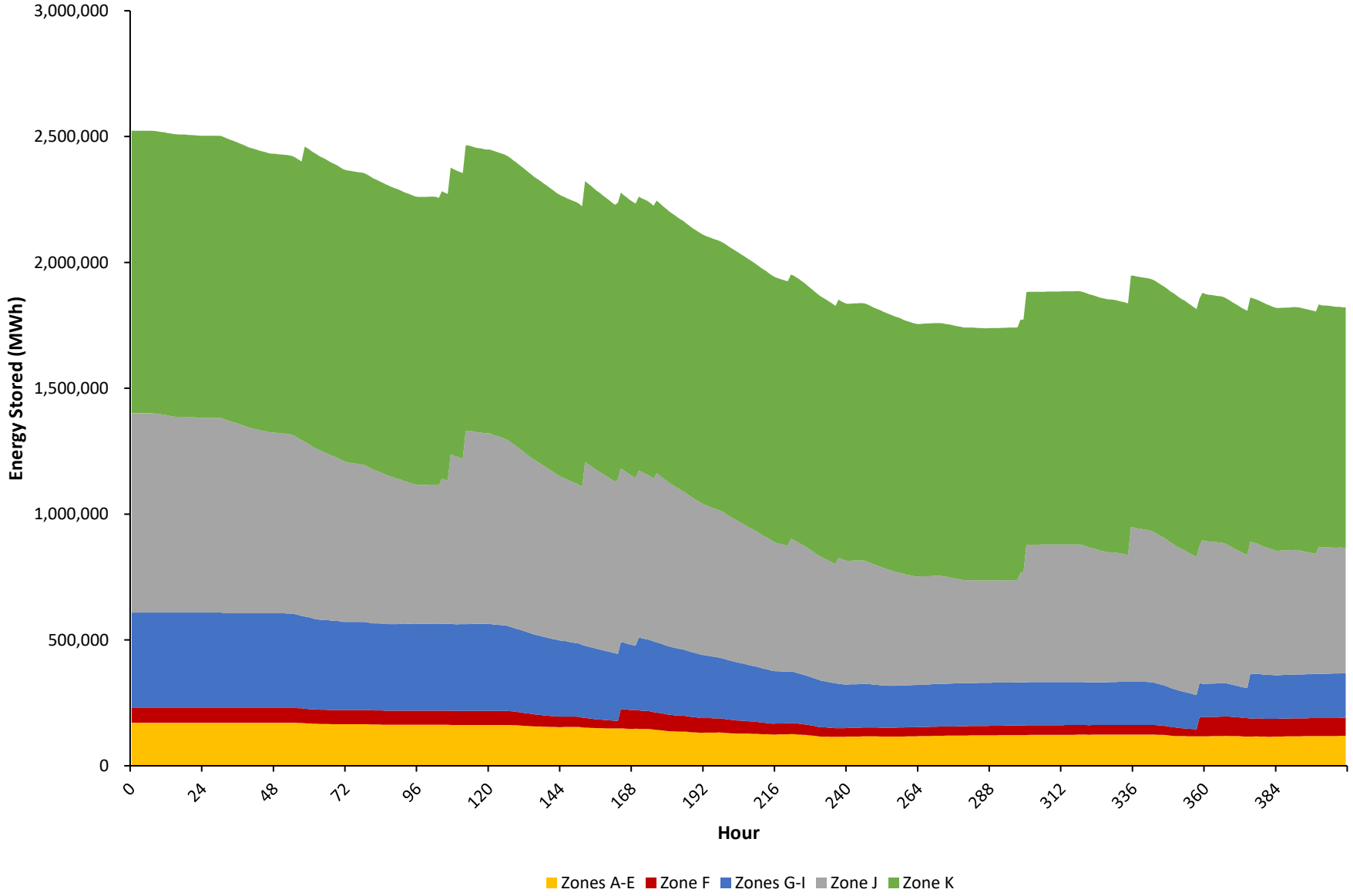
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 10 Non-Firm Gas Unavailable (4 days)

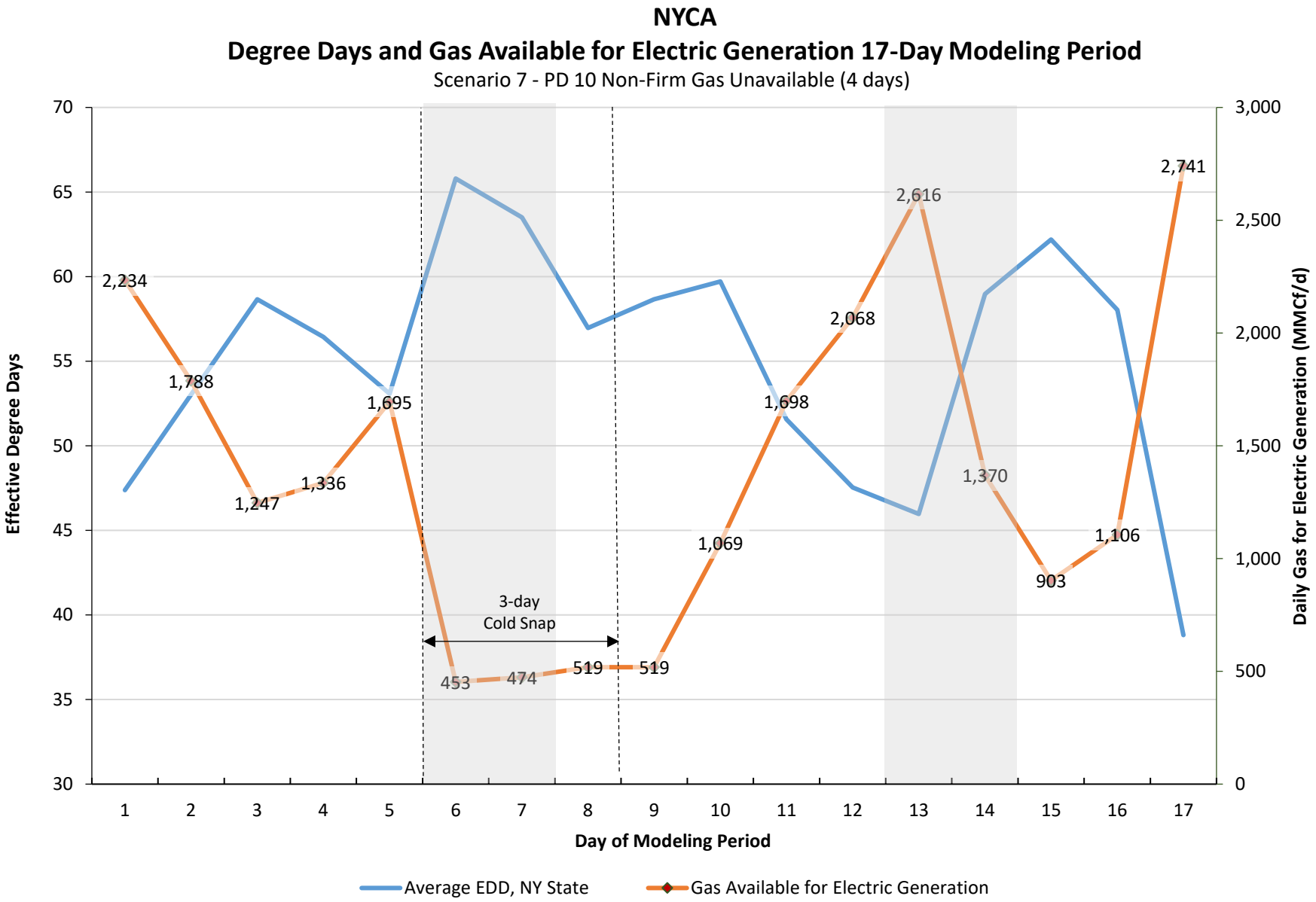


NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

Scenario 7 - PD 10 Non-Firm Gas Unavailable (4 days)



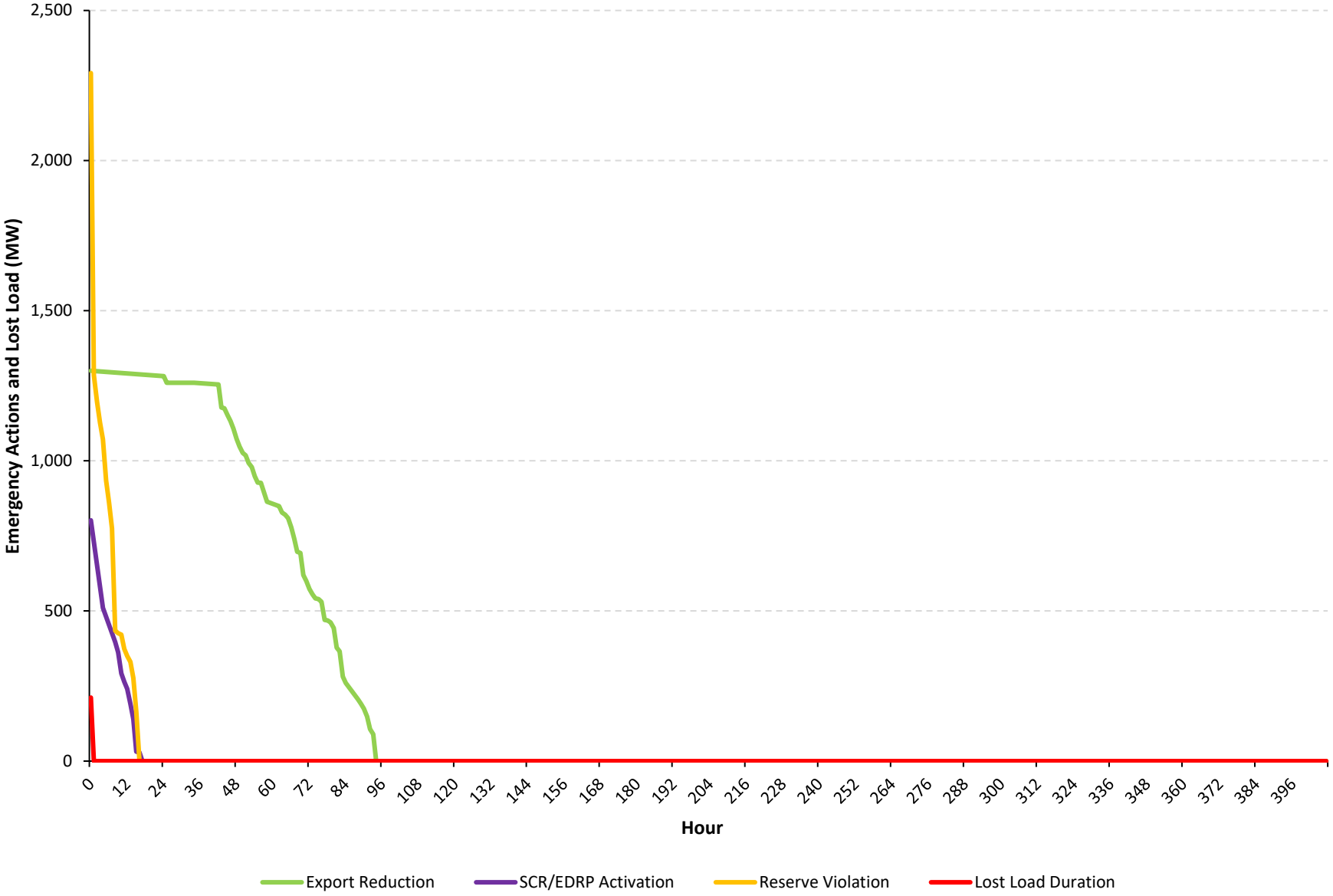


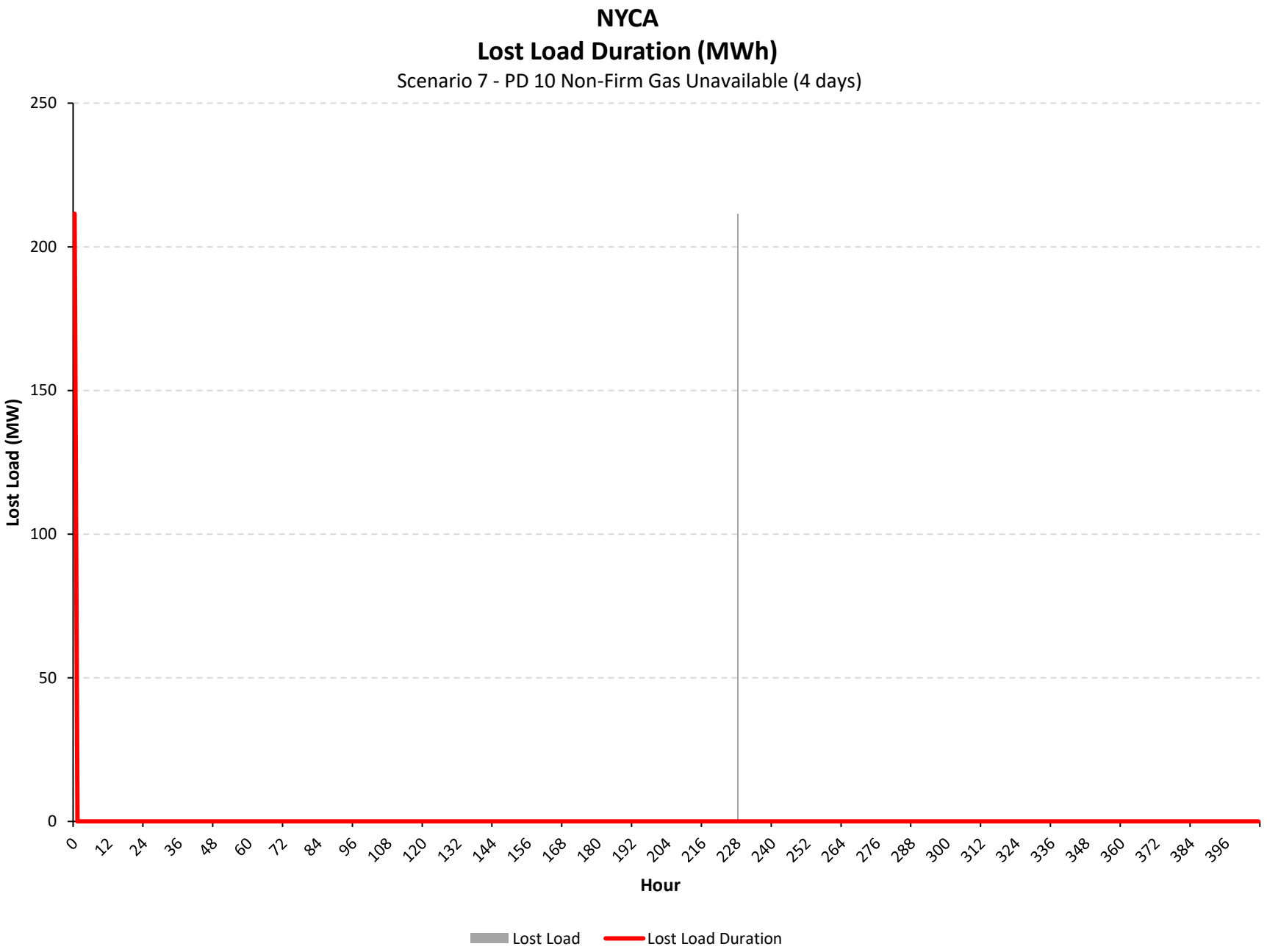
Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.

NYCA

Emergency Actions and Lost Load Duration (MWh)

Scenario 7 - PD 10 Non-Firm Gas Unavailable (4 days)




NYCA
Lost Load Duration (MWh)
Scenario 7 - PD 10 Non-Firm Gas Unavailable (4 days)
Lost Load (MW)
250
200
150
100
50
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

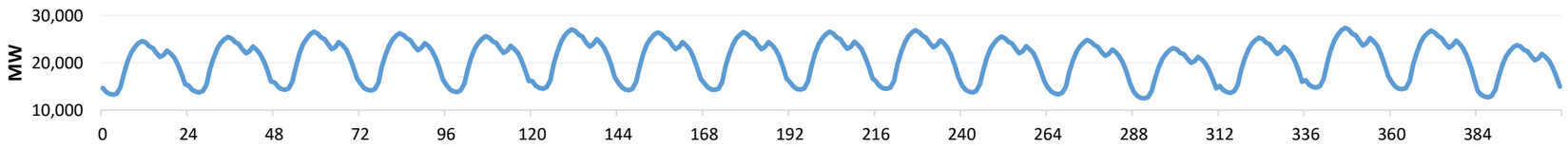
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 7 - PD 11 Combination Disruption (Winter 2026/2027)

Hourly Results Summary

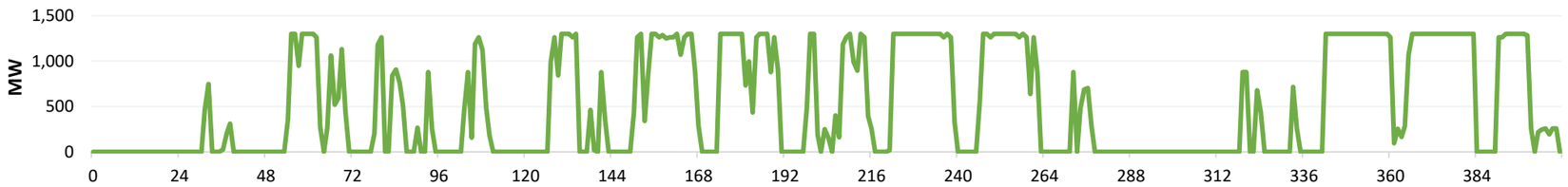
Case Name: Scenario 7 - PD 11 Combination Disruption

Load During Modeling Period



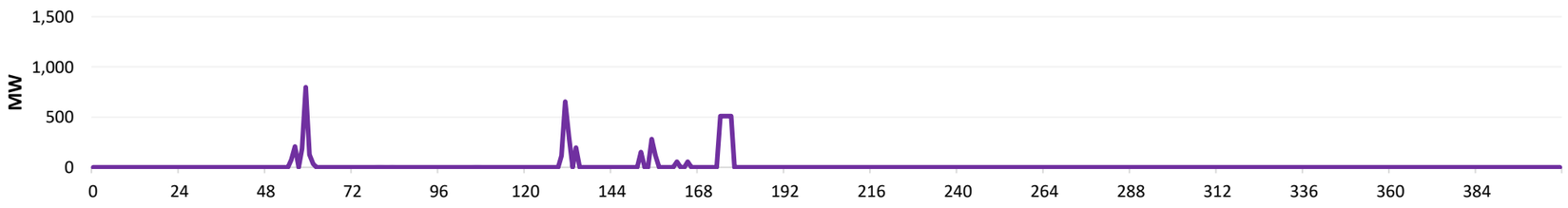
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

Export to ISO-NE Reduction During Modeling Period



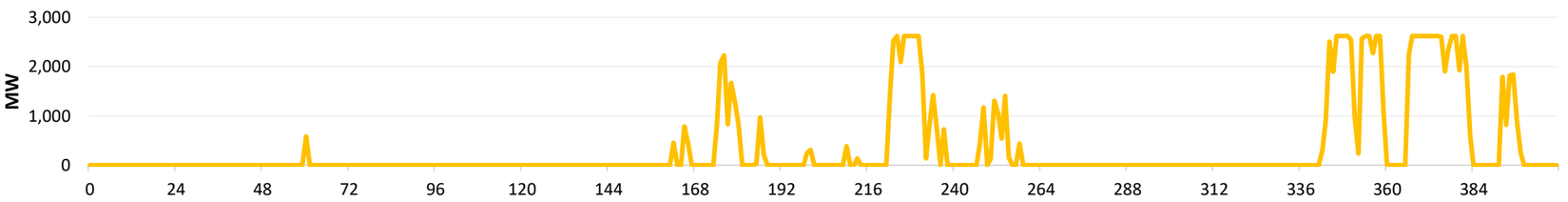
Export Reductions	
Total Hrs.	209
Total MWh	206,072
Avg. MW	505.1

SCR/EDRP Deployed During Modeling Period



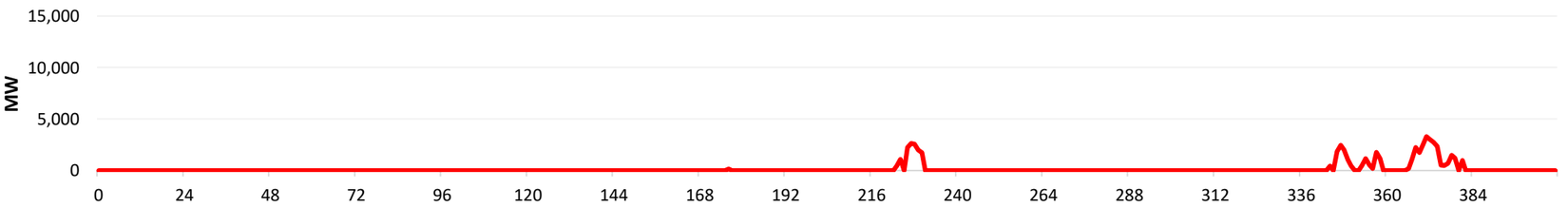
SCR Deployment	
Total Hrs.	19
Total MWh	5,392
Avg. MW	13.2

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	85
Total MWh	134,508
Avg. MW	329.7
First Hour with Viol.	59

Loss of Load During Modeling Period



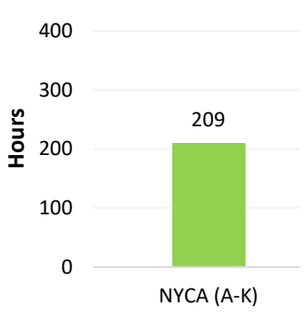
Loss of Load	
Total Hrs.	36
Total MWh	50,969
Avg. MW	124.9
First Hour with Losses	176

Full Period Results Summary

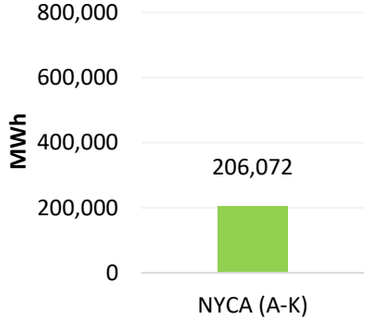
Case Name: Scenario 7 - PD 11 Combination Disruption

Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

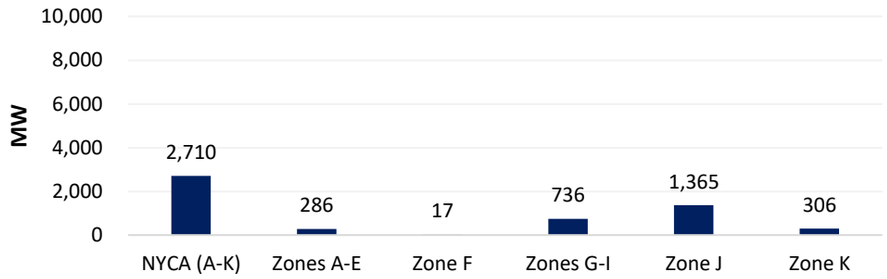
Hours Exports Reduced



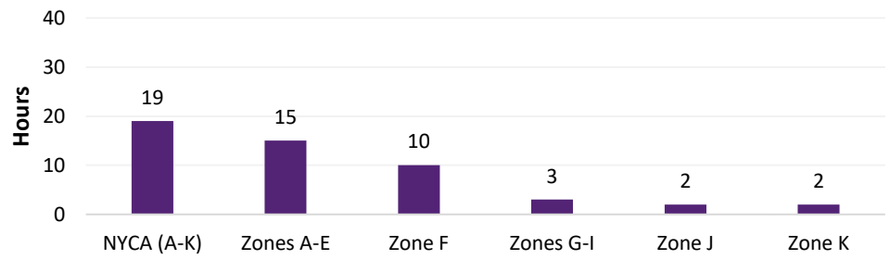
Total MWh of Exports Reduced



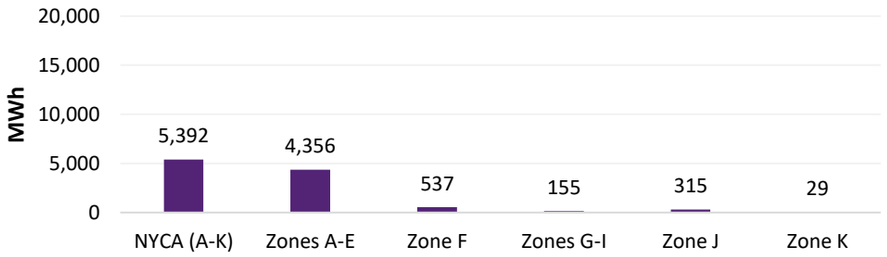
Average Capacity Not Available Due to Exhausted Fuel Inventory



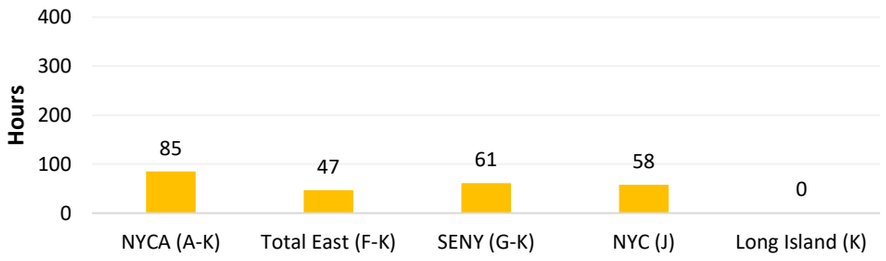
Hours SCR/EDRP Deployed



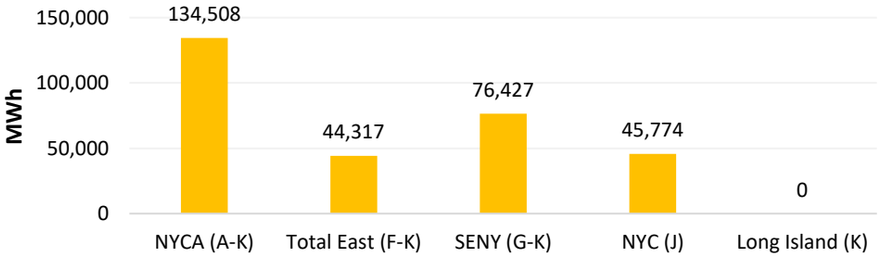
Total MWh SCR/EDRP Deployed



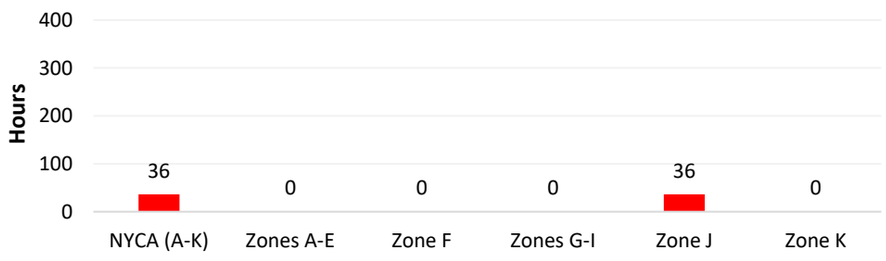
Hours with Reserve Violations



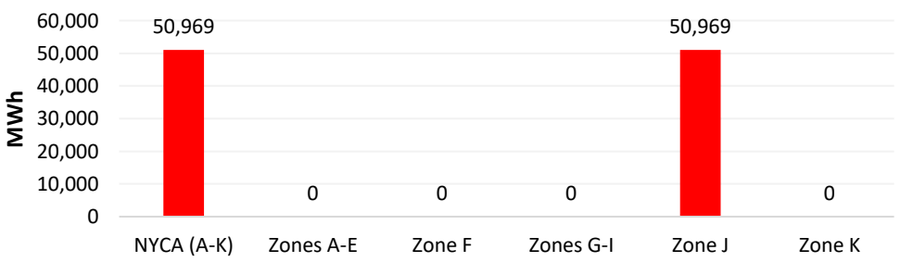
Total MWh of Reserve Violations

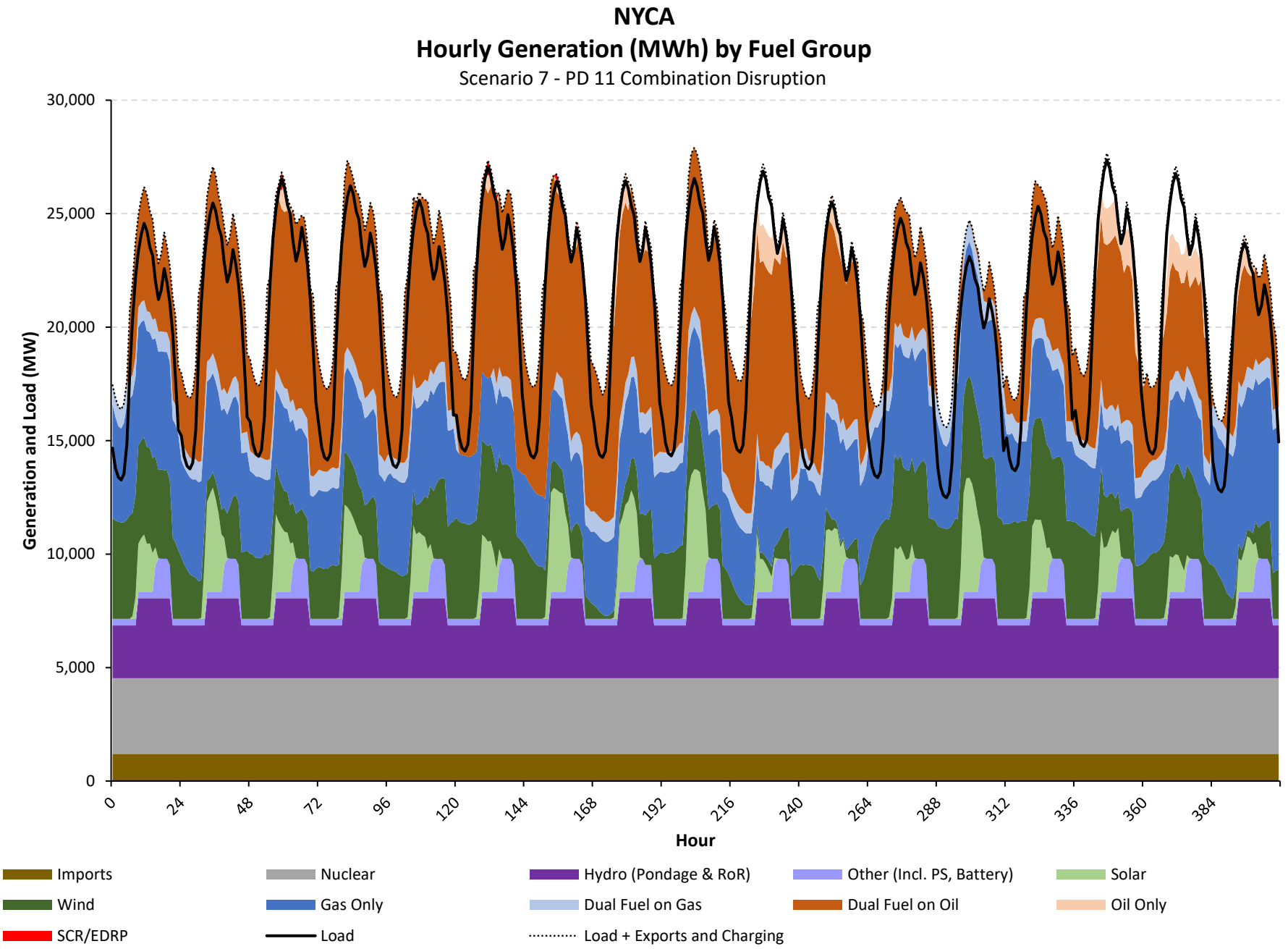


Hours with Loss of Load

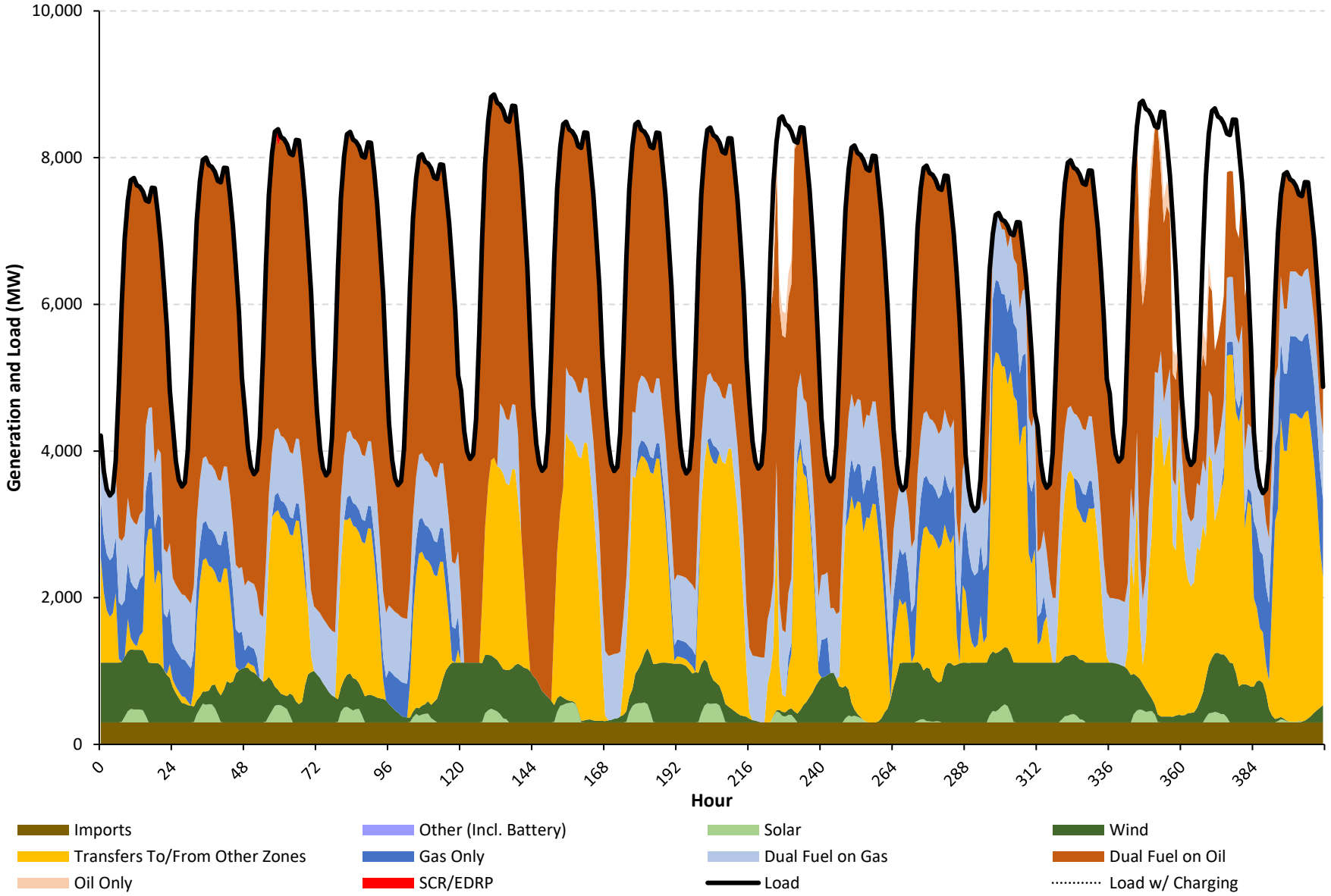


Total MWh of Lost Load

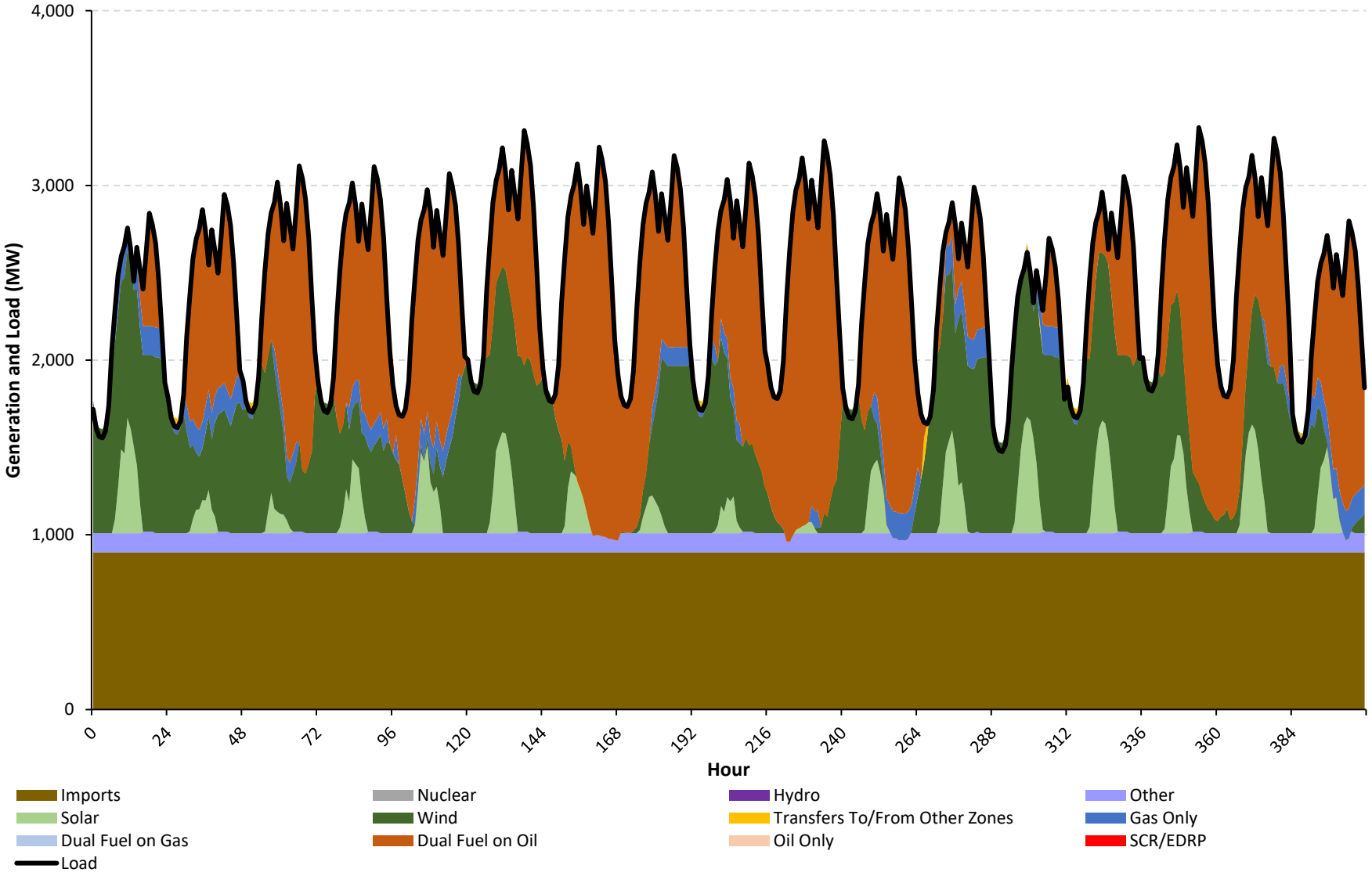



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 7 - PD 11 Combination Disruption
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 11 Combination Disruption



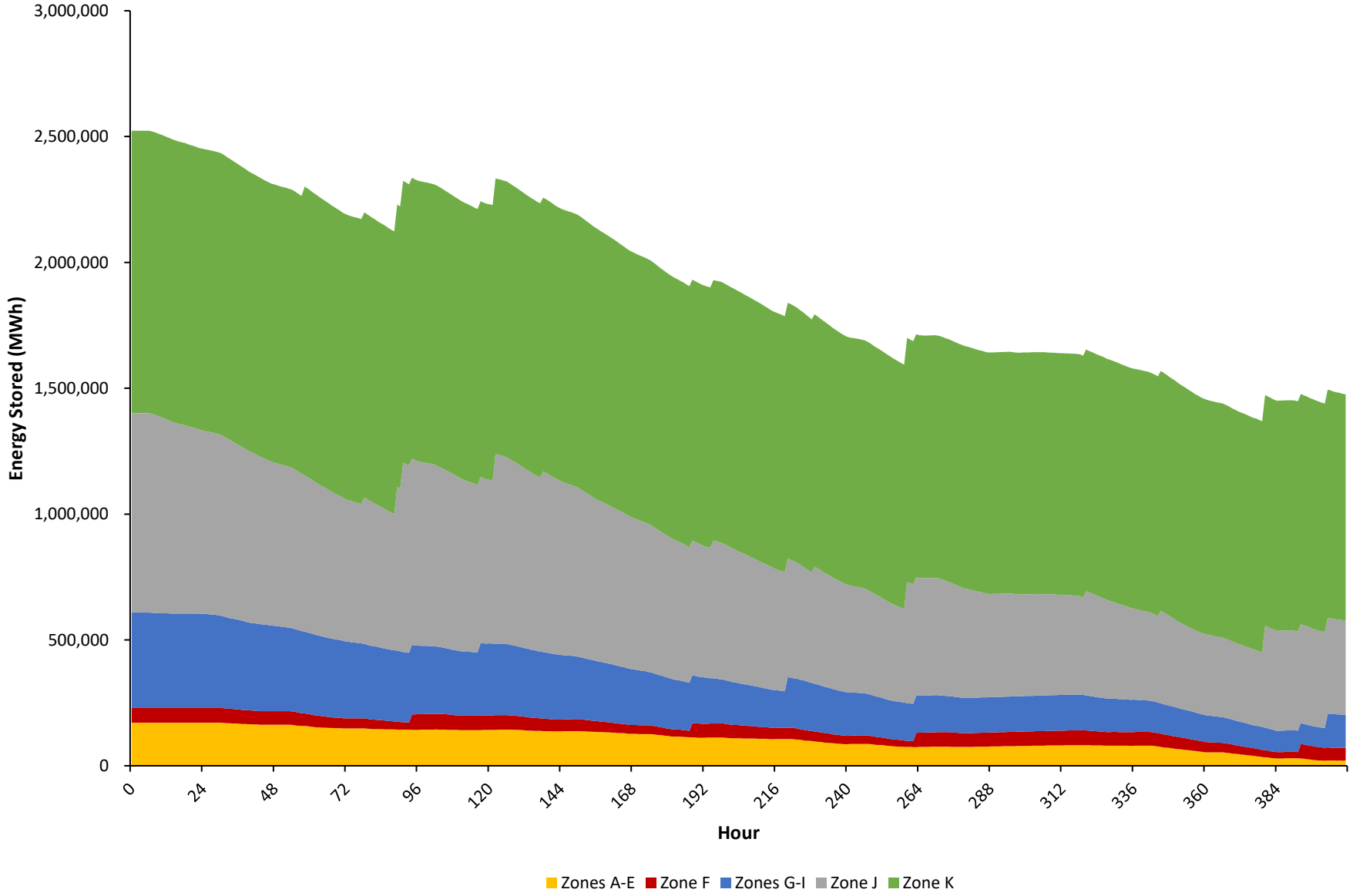
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 7 - PD 11 Combination Disruption



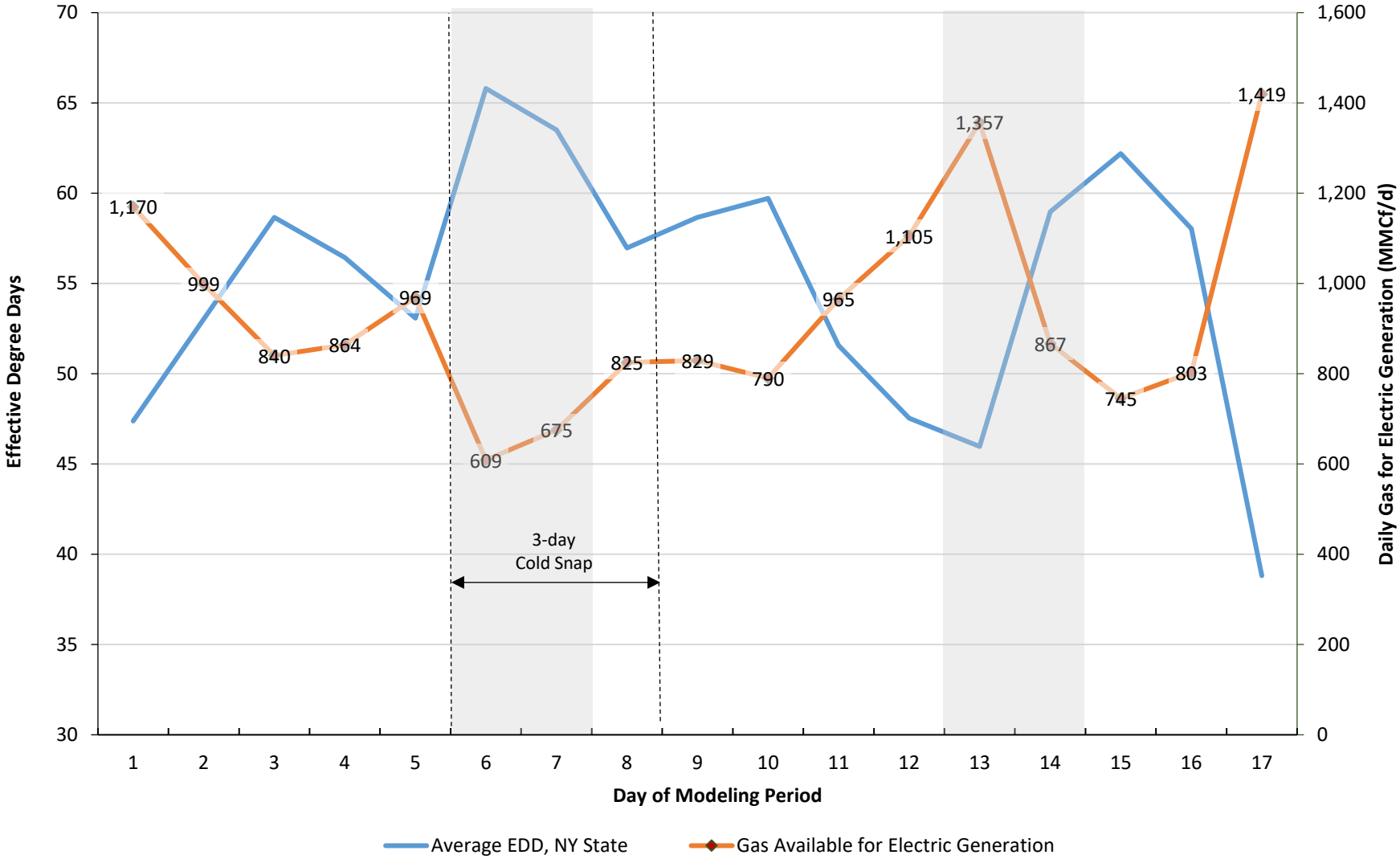
NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

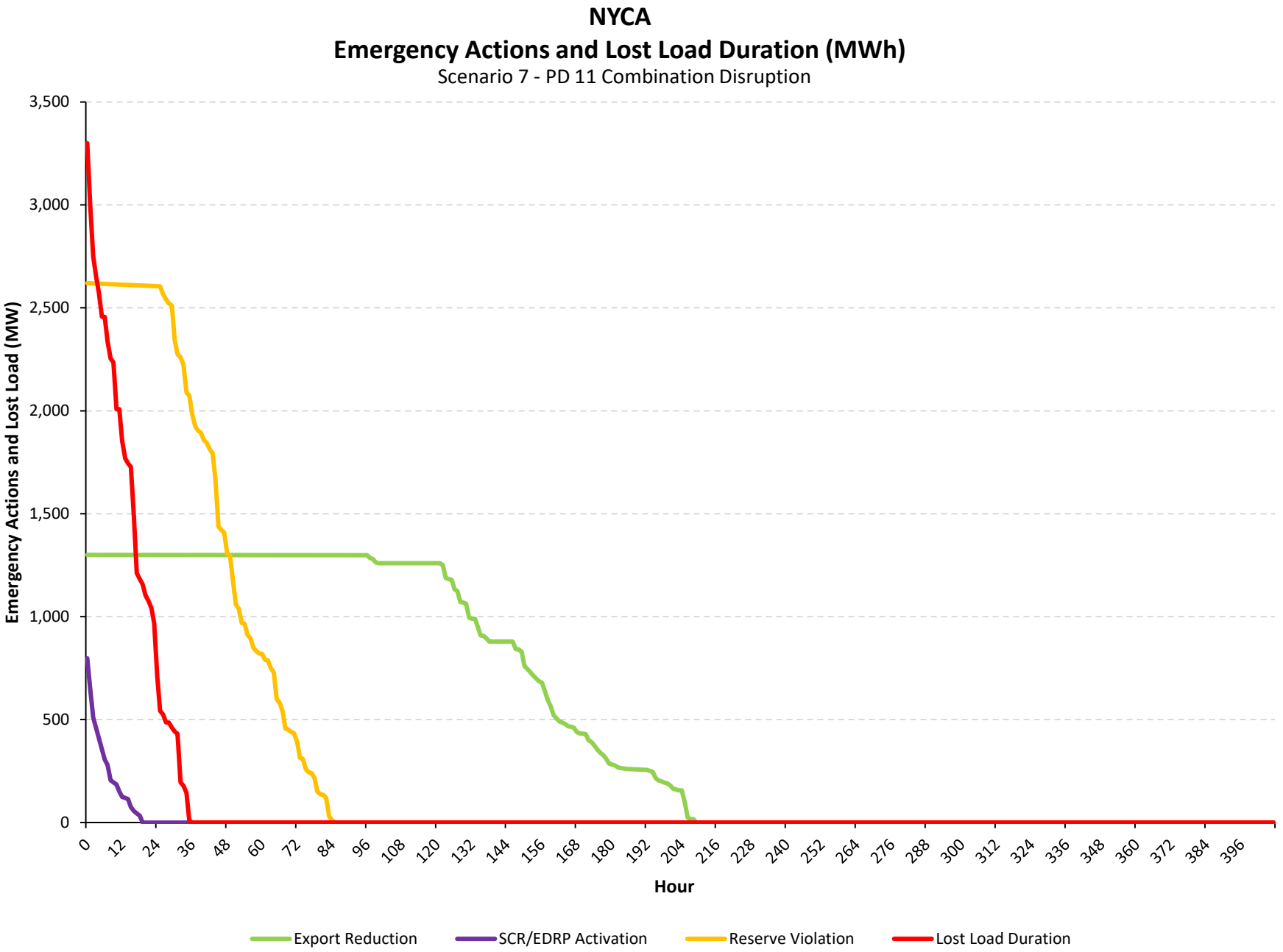
Scenario 7 - PD 11 Combination Disruption

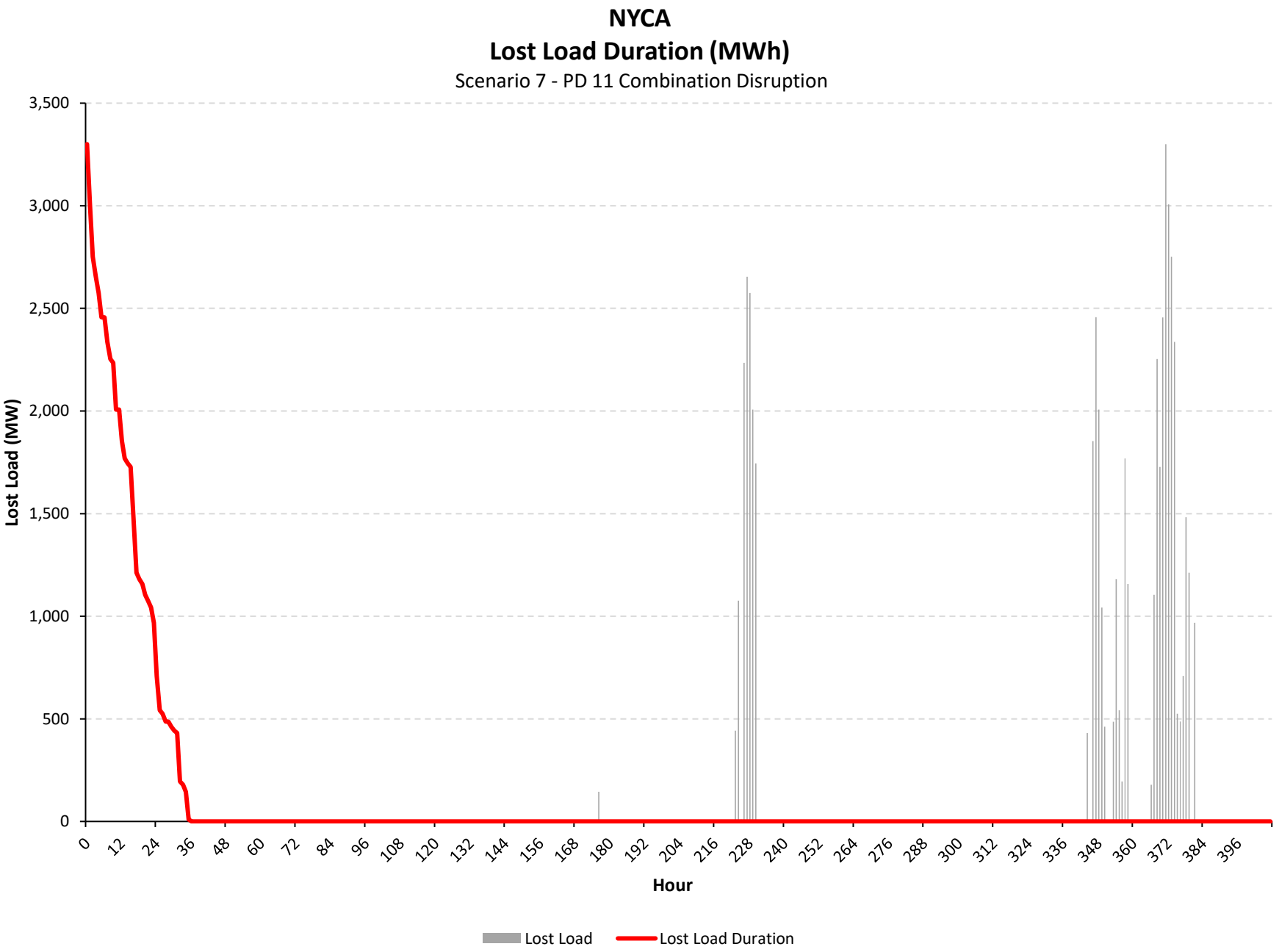


NYCA
Degree Days and Gas Available for Electric Generation 17-Day Modeling Period
Scenario 7 - PD 11 Combination Disruption



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 7 - PD 11 Combination Disruption
Emergency Actions and Lost Load (MW)
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 7 - PD 11 Combination Disruption
Lost Load (MW)
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

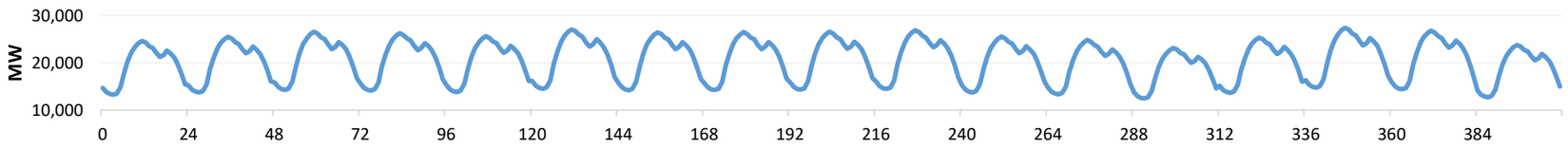
Case: Scenario 8 - PD 1 No Disruptions (Winter 2026/2027)

Hourly Results Summary

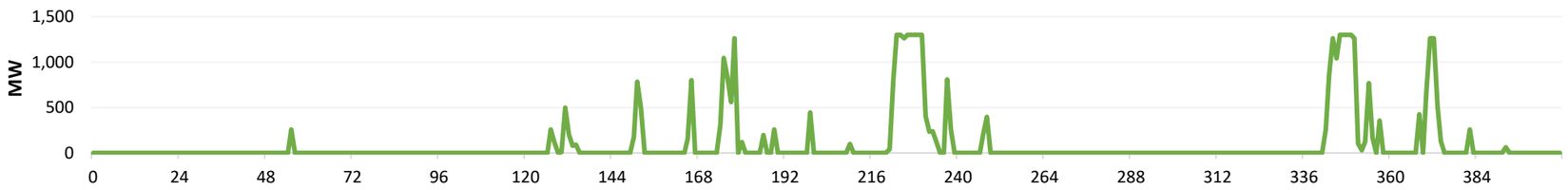
Case Name: Scenario 8 - PD 1 No Disruptions

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Load During Modeling Period

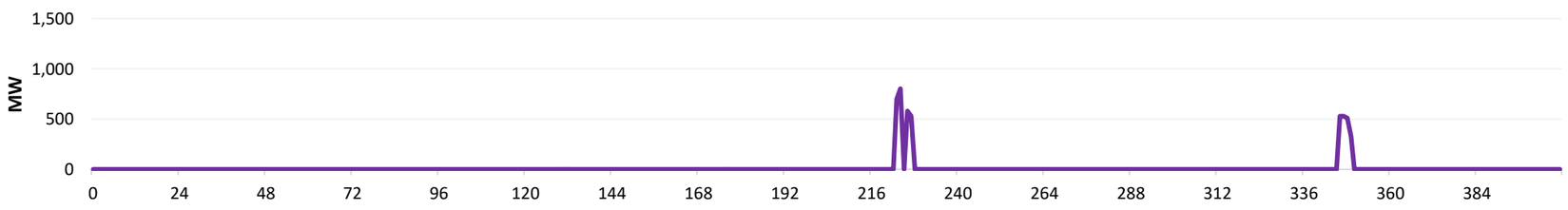


Export to ISO-NE Reduction During Modeling Period



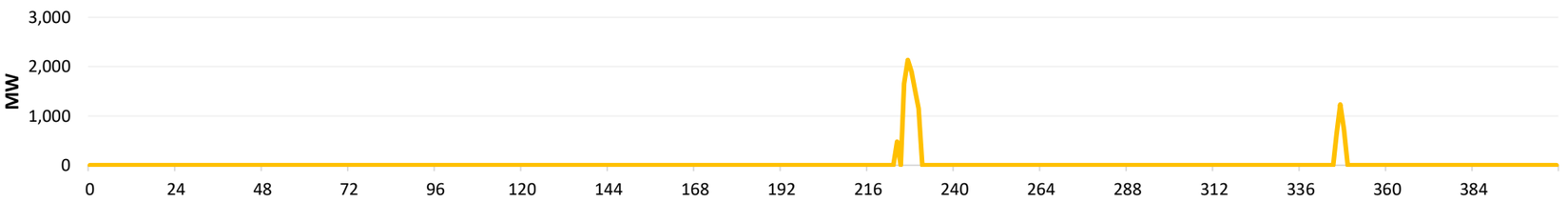
Export Reductions	
Total Hrs.	65
Total MWh	38,956
Avg. MW	95.5

SCR/EDRP Deployed During Modeling Period



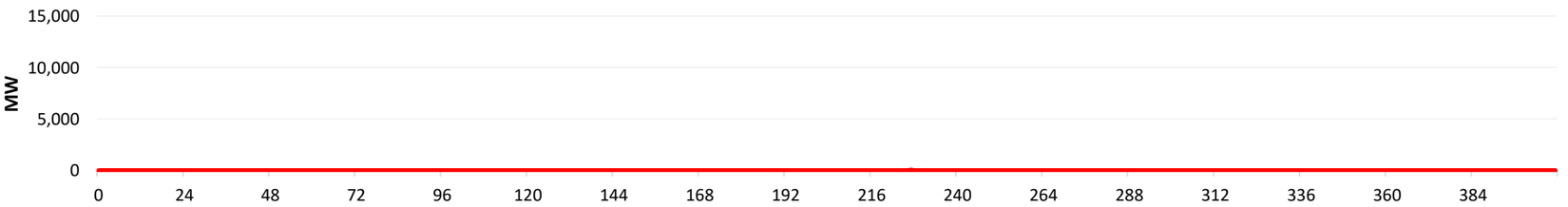
SCR Deployment	
Total Hrs.	8
Total MWh	4,497
Avg. MW	11.0

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	9
Total MWh	11,387
Avg. MW	27.9
First Hour with Viol.	224

Loss of Load During Modeling Period



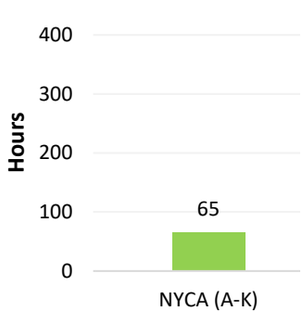
Loss of Load	
Total Hrs.	1
Total MWh	54
Avg. MW	0.1
First Hour with Losses	227

Full Period Results Summary

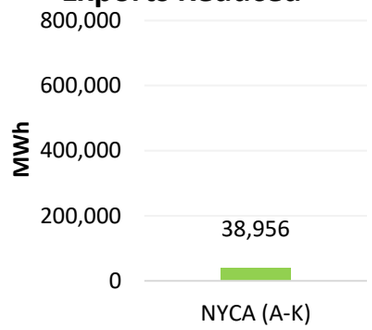
Case Name: Scenario 8 - PD 1 No Disruptions

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

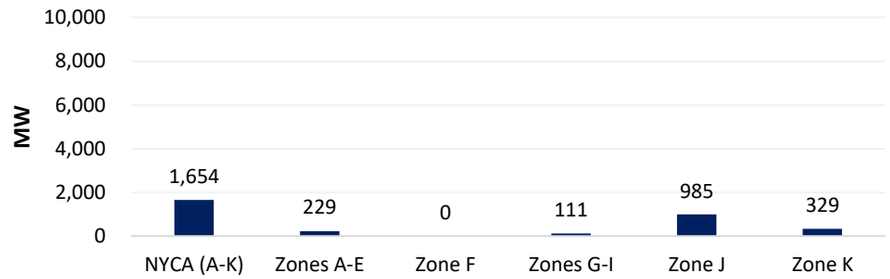
Hours Exports Reduced



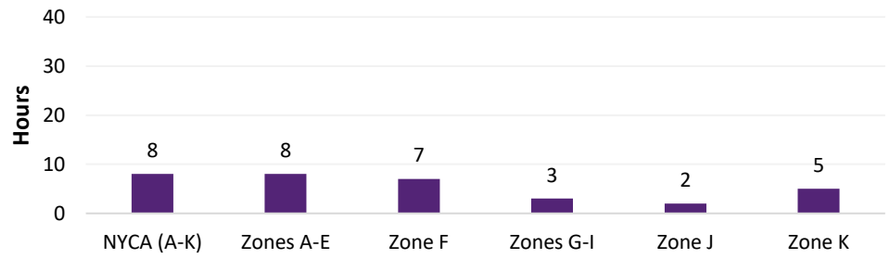
Total MWh of Exports Reduced



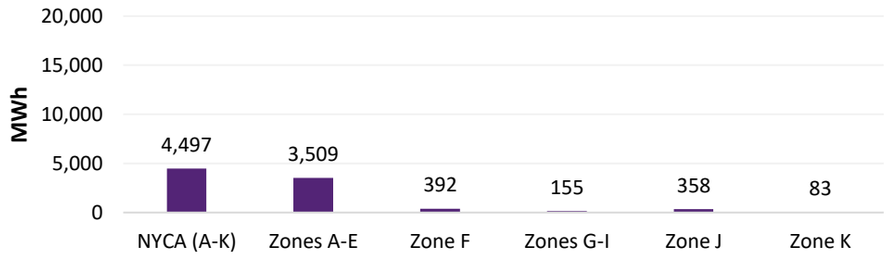
Average Capacity Not Available Due to Exhausted Fuel Inventory



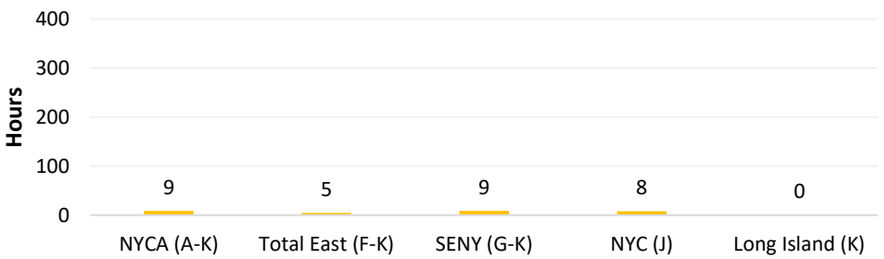
Hours SCR/EDRP Deployed



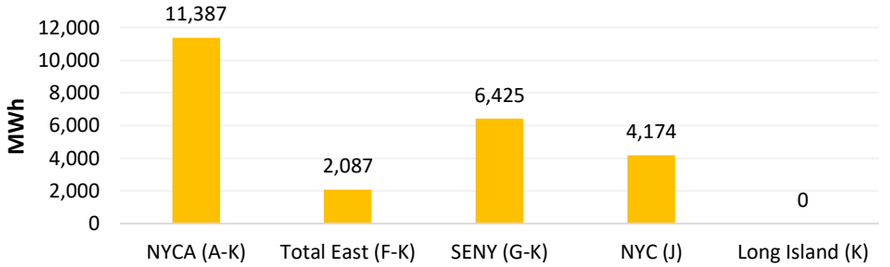
Total MWh SCR/EDRP Deployed



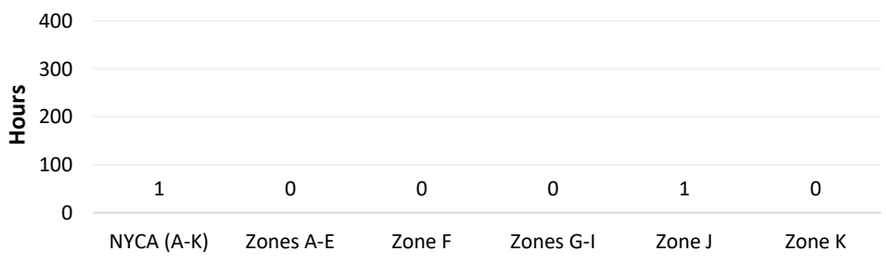
Hours with Reserve Violations



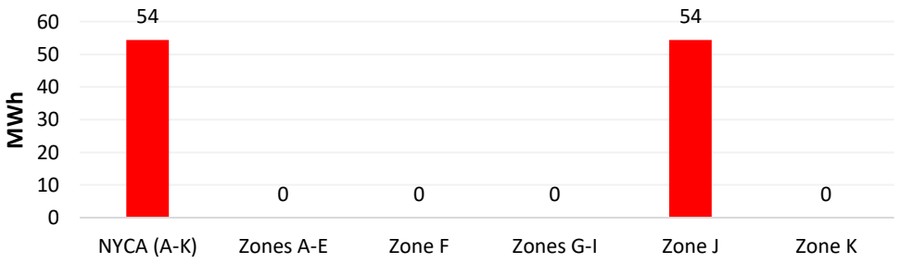
Total MWh of Reserve Violations

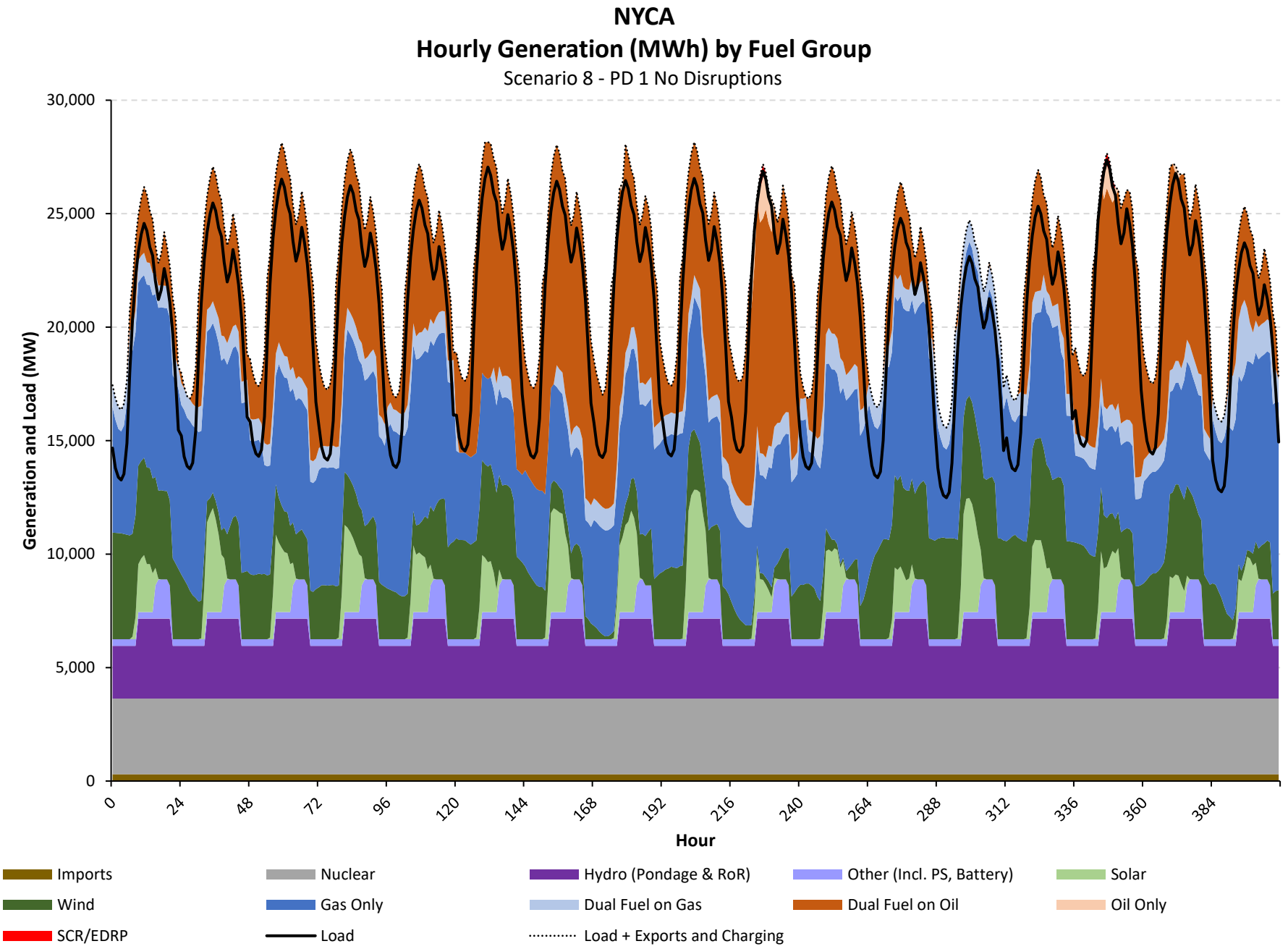


Hours with Loss of Load

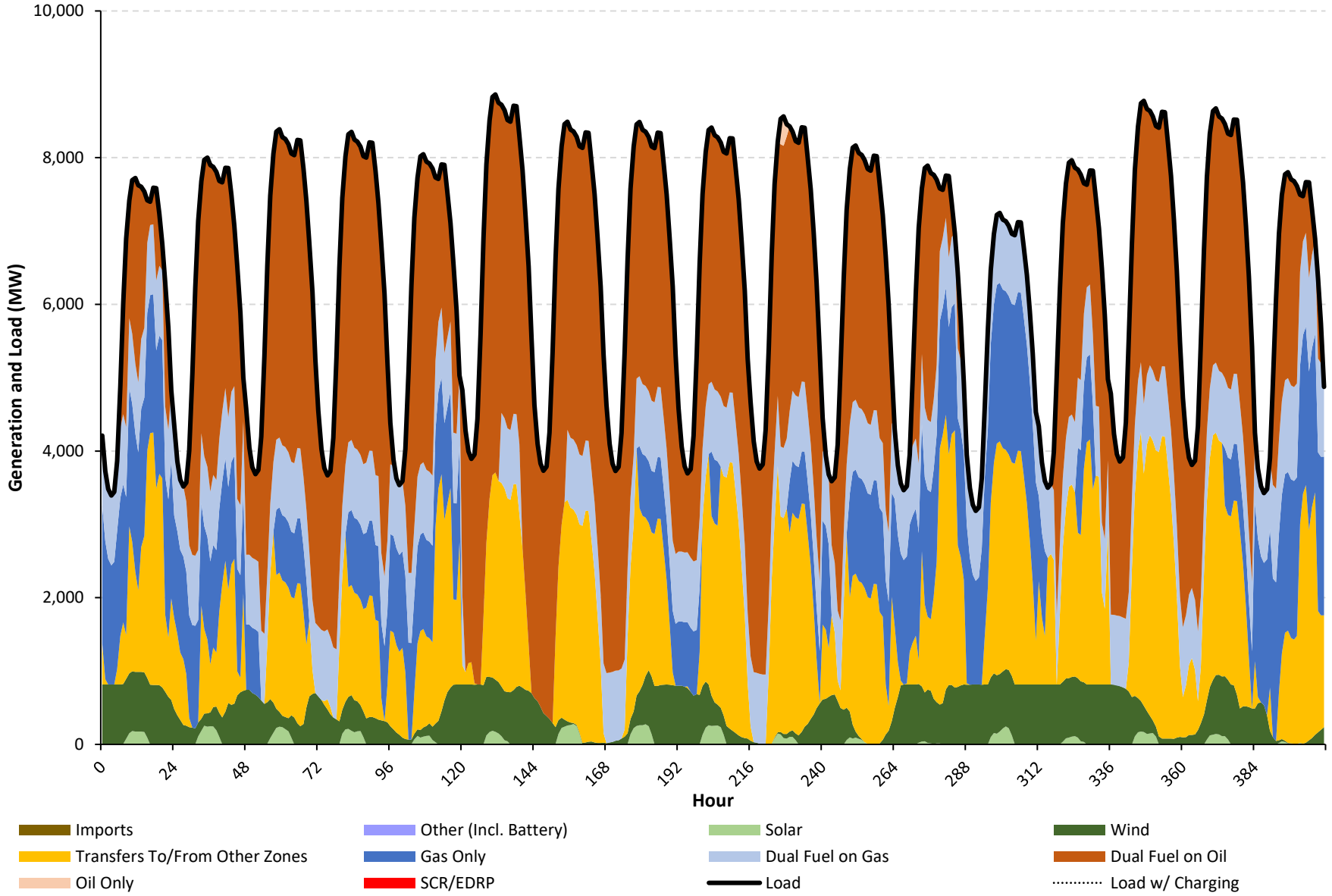


Total MWh of Lost Load

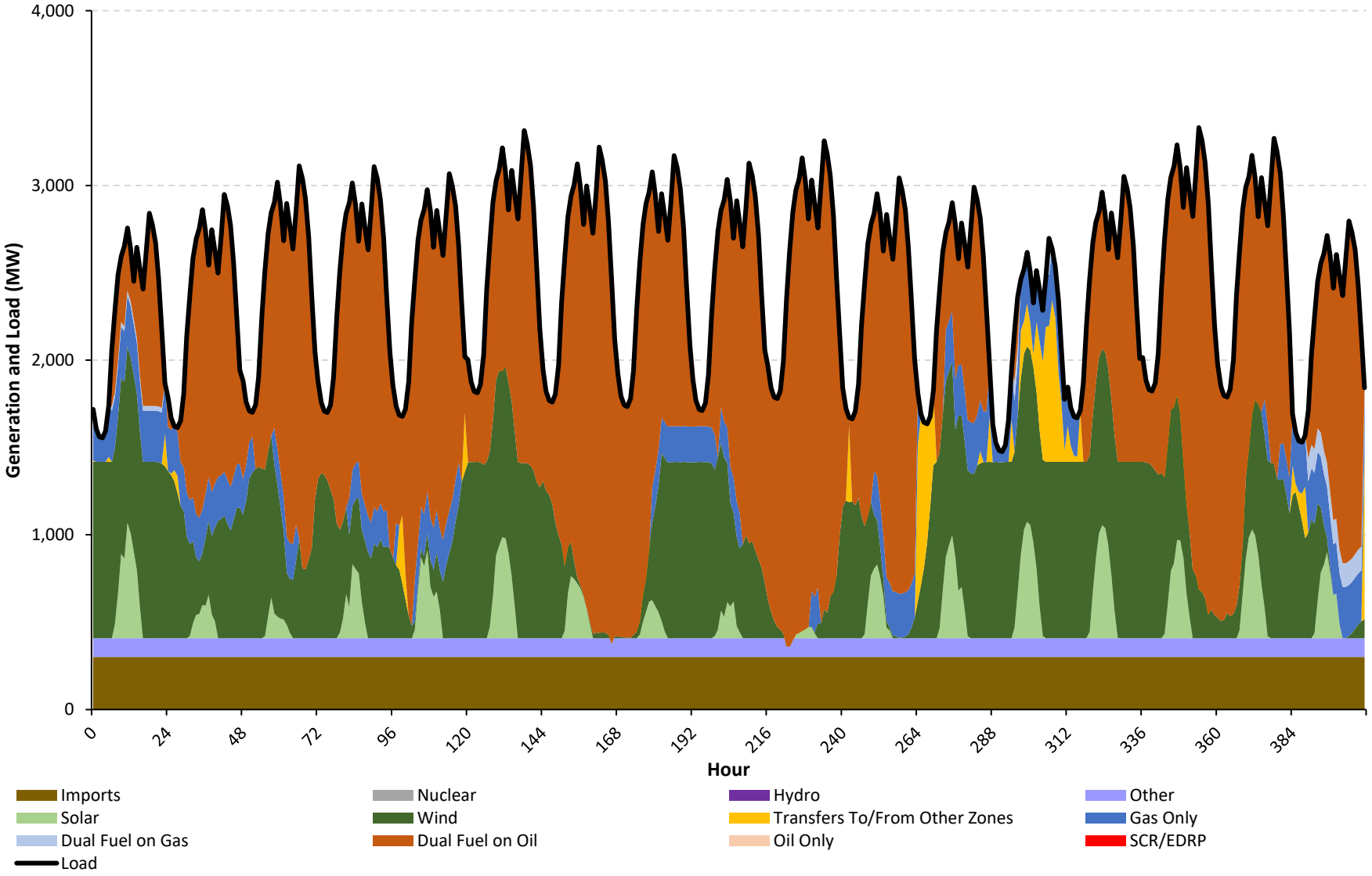



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 8 - PD 1 No Disruptions
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

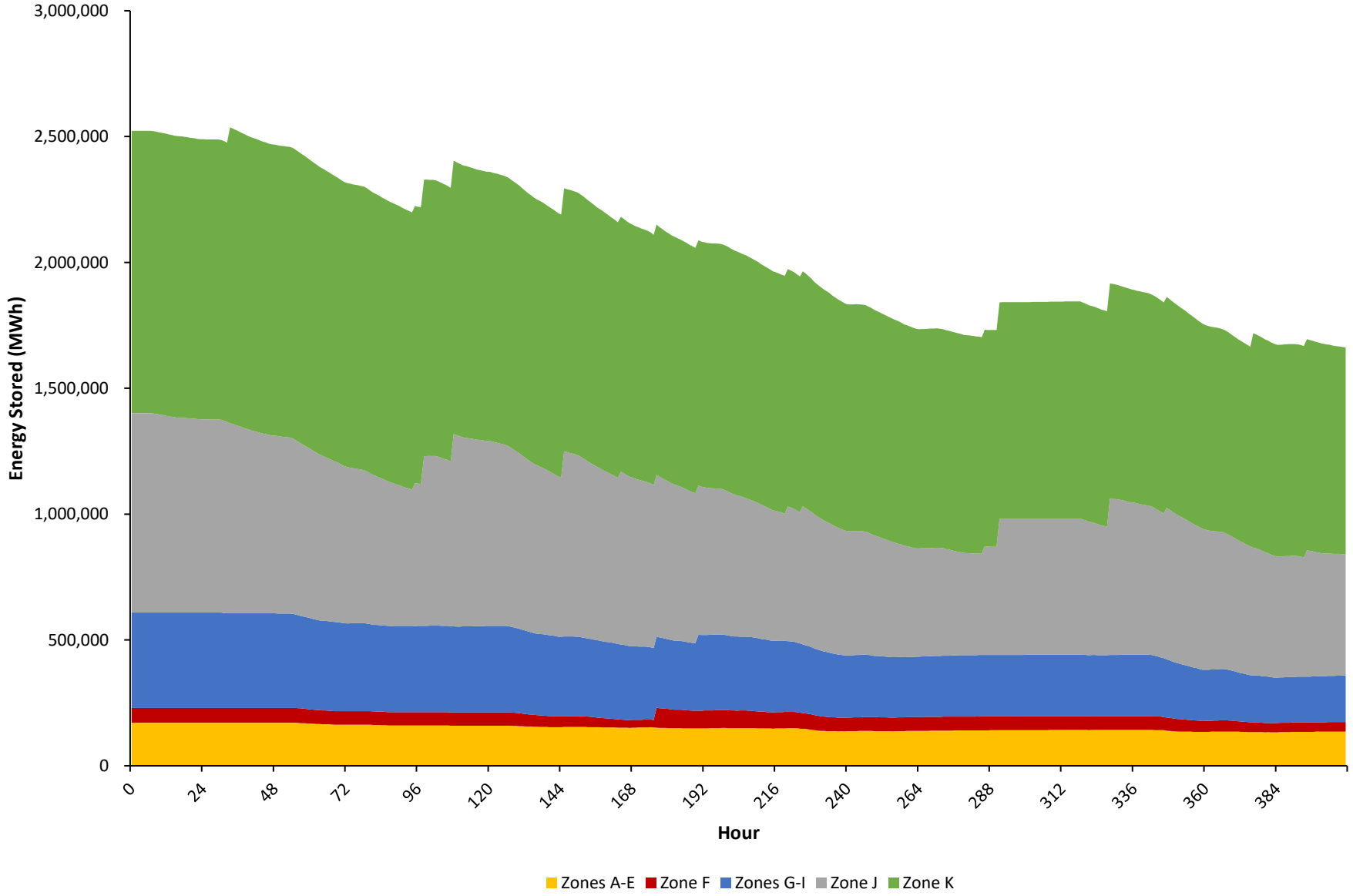
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 1 No Disruptions

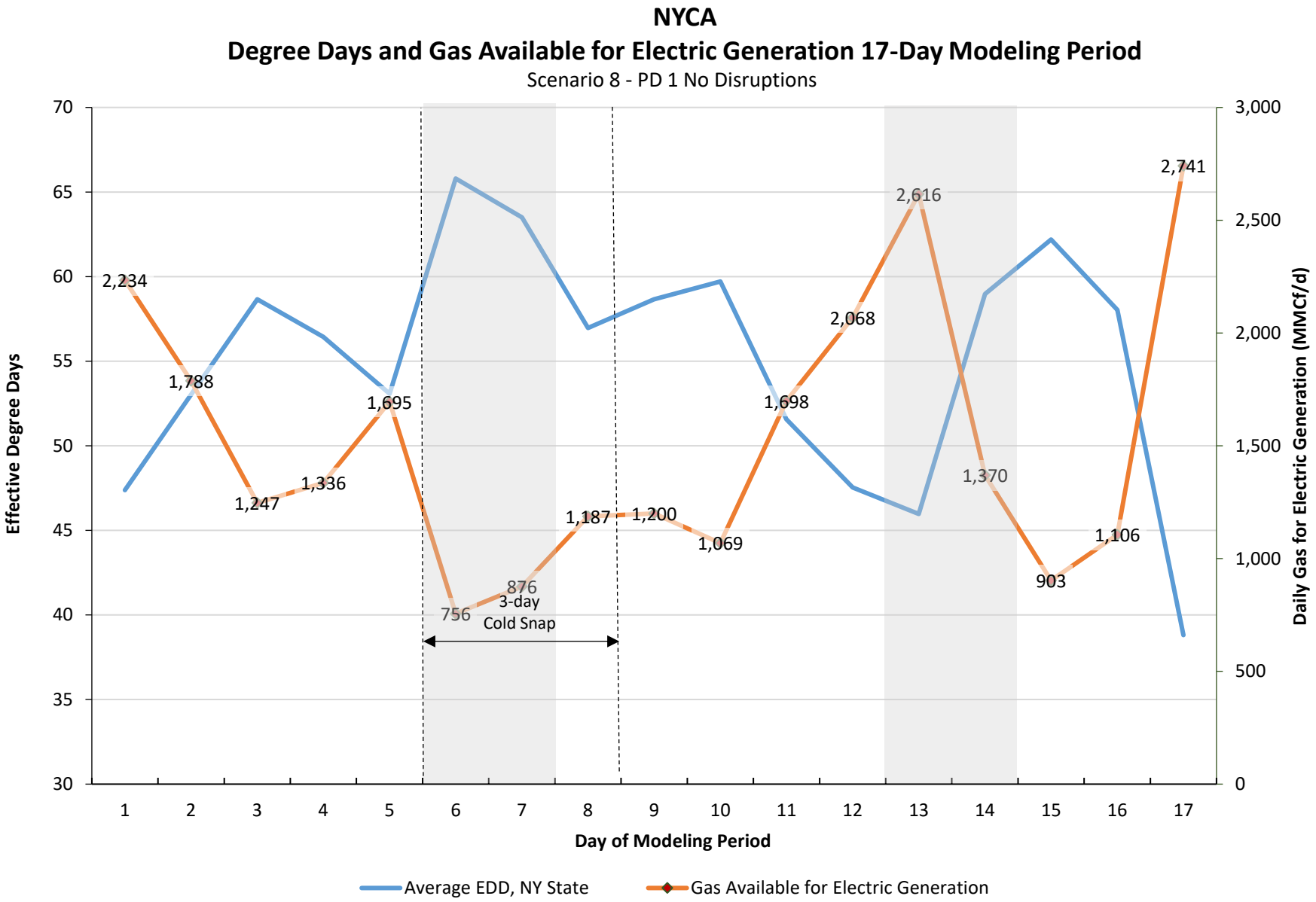


Zone K
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 1 No Disruptions

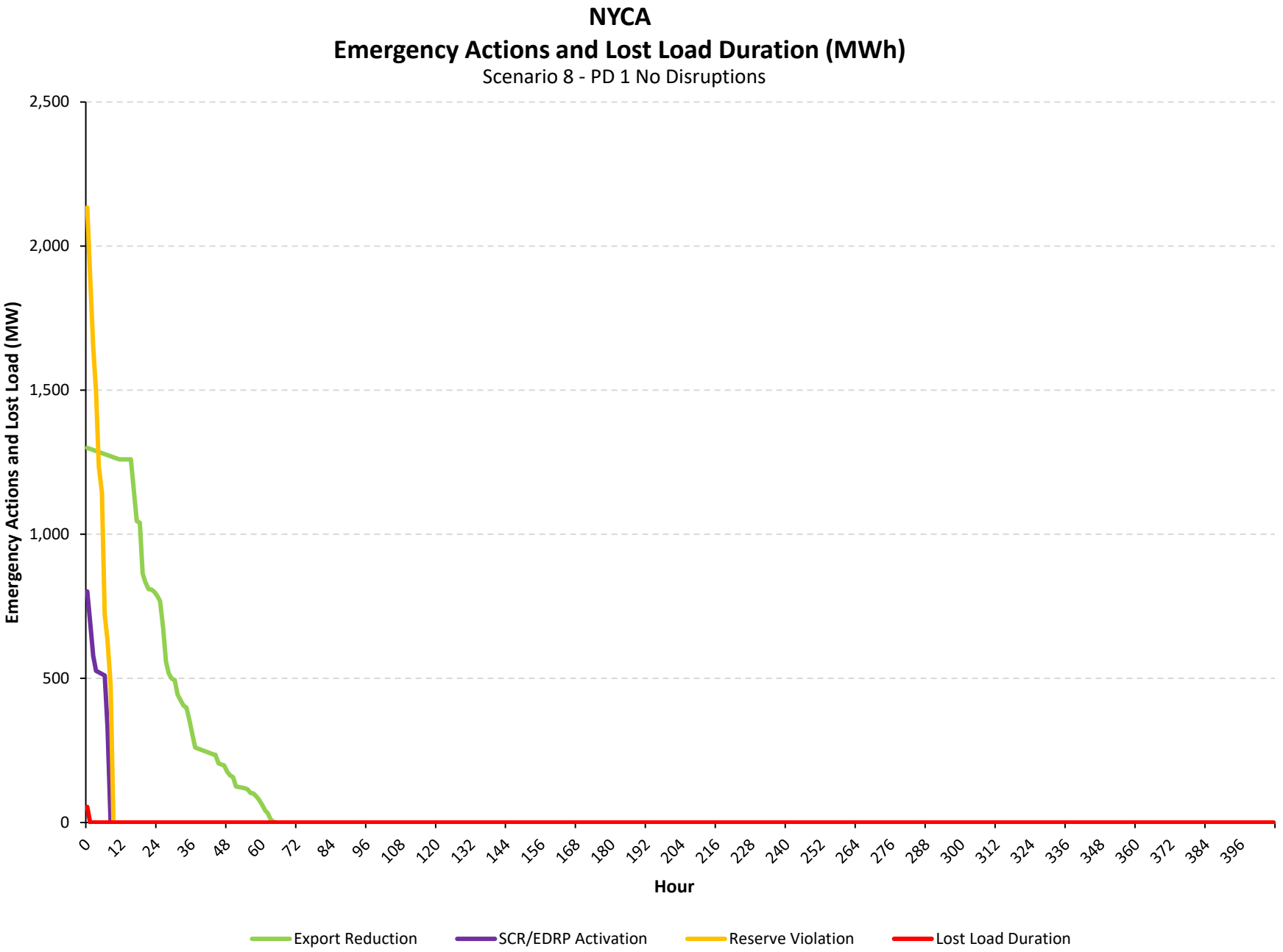


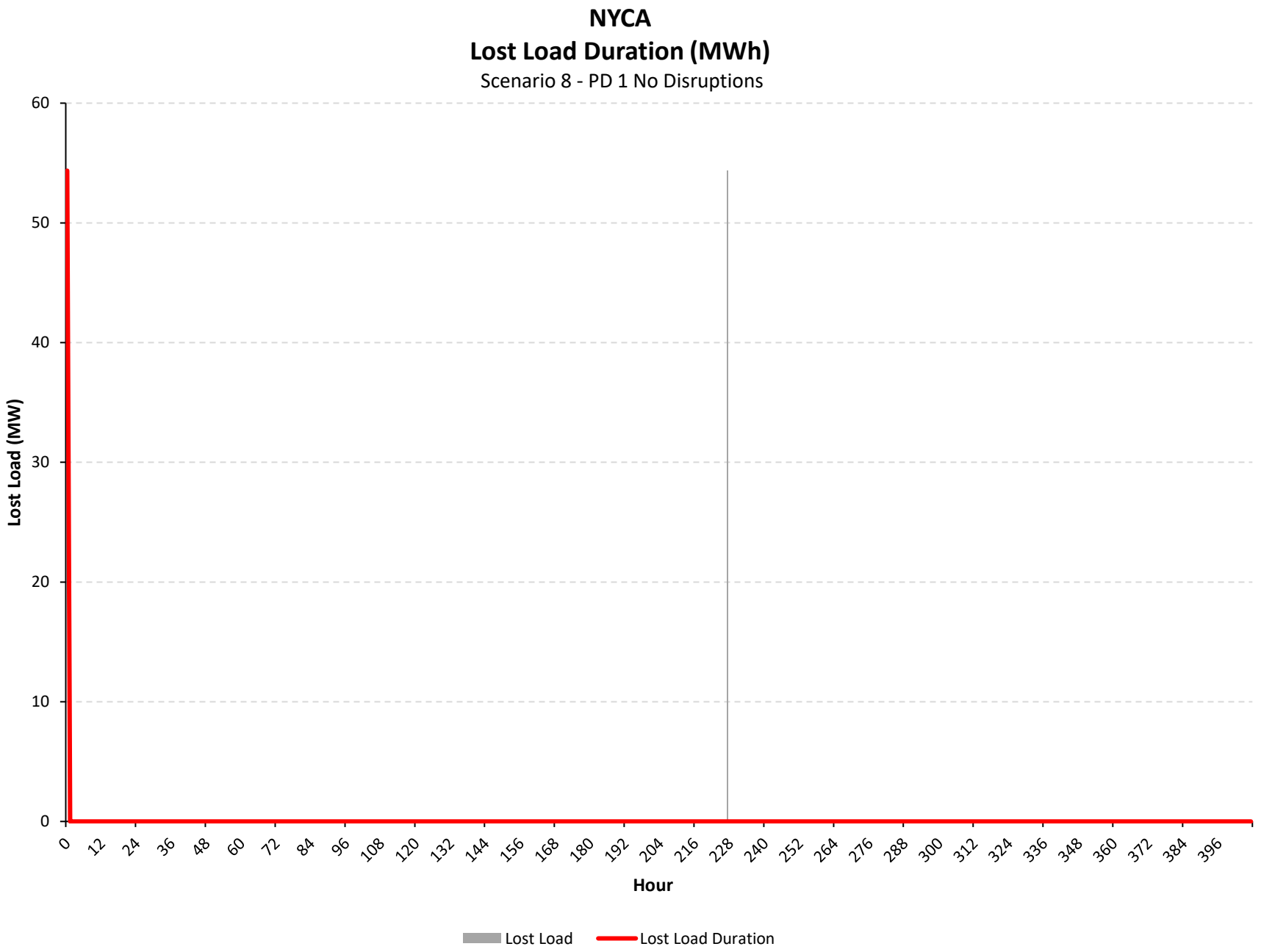
NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 8 - PD 1 No Disruptions





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 8 - PD 1 No Disruptions
Emergency Actions and Lost Load (MW)
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 8 - PD 1 No Disruptions
Lost Load (MW)
60
50
40
30
20
10
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

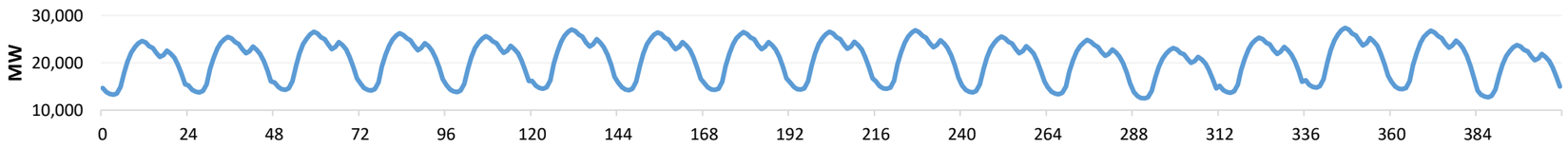
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 8 - PD 2 High Outage (Winter 2026/2027)

Hourly Results Summary

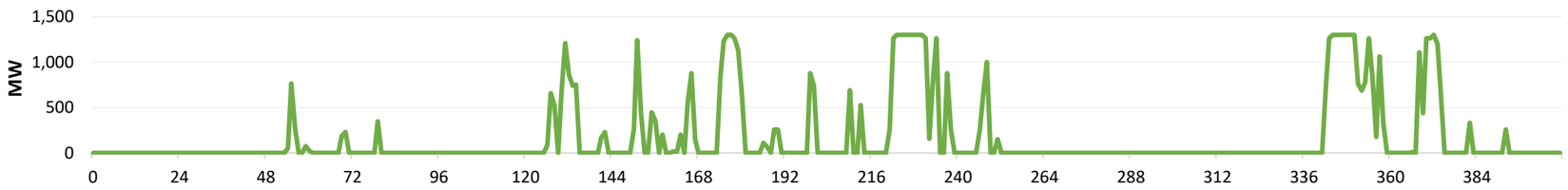
Case Name: Scenario 8 - PD 2 High Outage

Load During Modeling Period



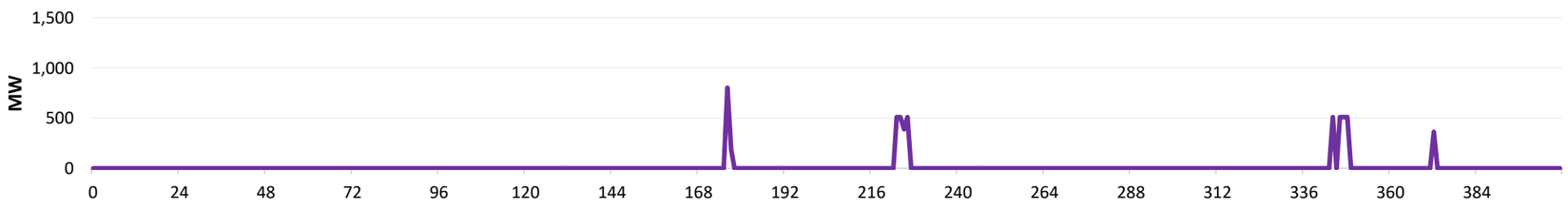
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



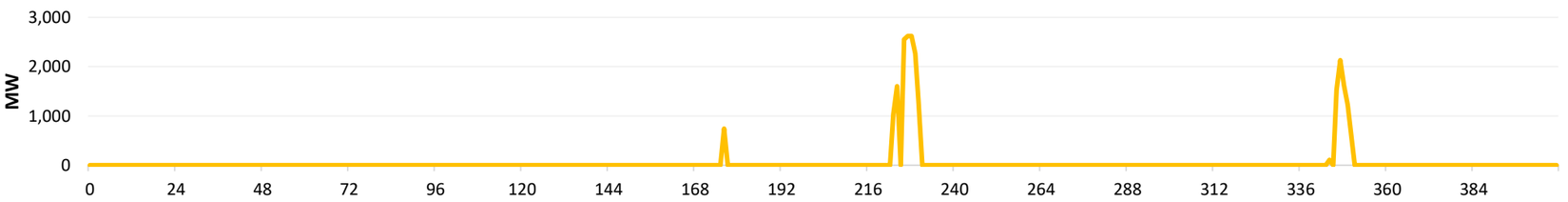
Export Reductions	
Total Hrs.	93
Total MWh	67,159
Avg. MW	164.6

SCR/EDRP Deployed During Modeling Period



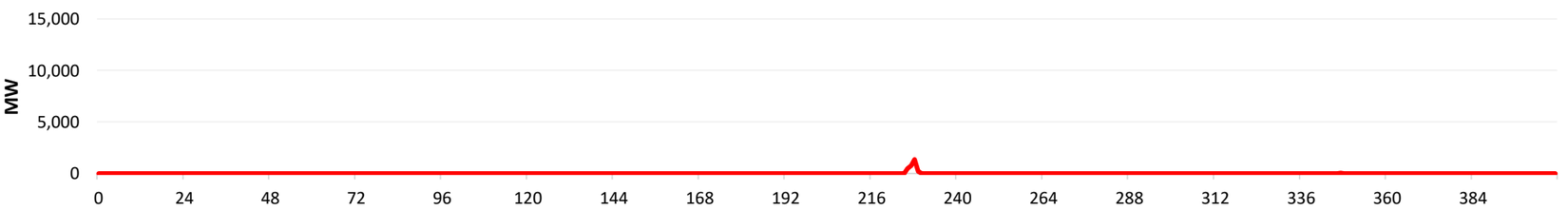
SCR Deployment	
Total Hrs.	11
Total MWh	5,313
Avg. MW	13.0

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	14
Total MWh	21,953
Avg. MW	53.8
First Hour with Viol.	176

Loss of Load During Modeling Period



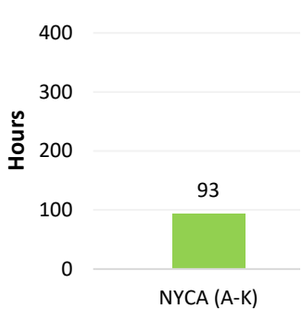
Loss of Load	
Total Hrs.	5
Total MWh	2,823
Avg. MW	6.9
First Hour with Losses	226

Full Period Results Summary

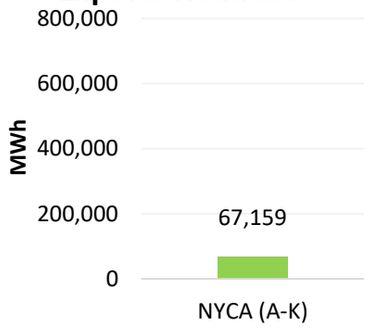
Case Name: Scenario 8 - PD 2 High Outage

Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

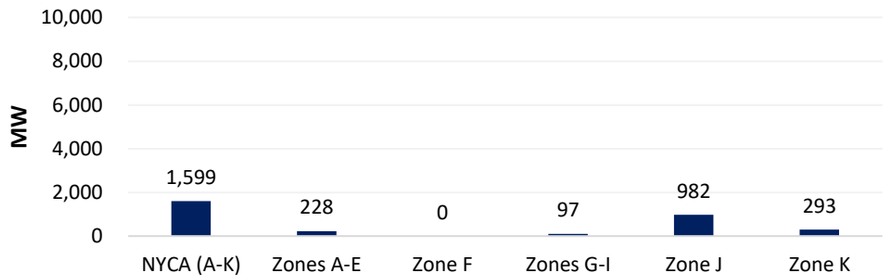
Hours Exports Reduced



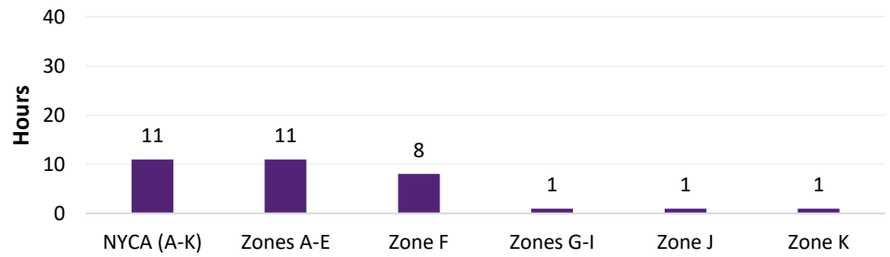
Total MWh of Exports Reduced



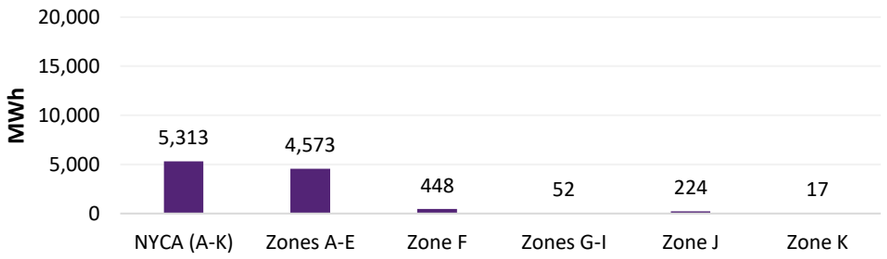
Average Capacity Not Available Due to Exhausted Fuel Inventory



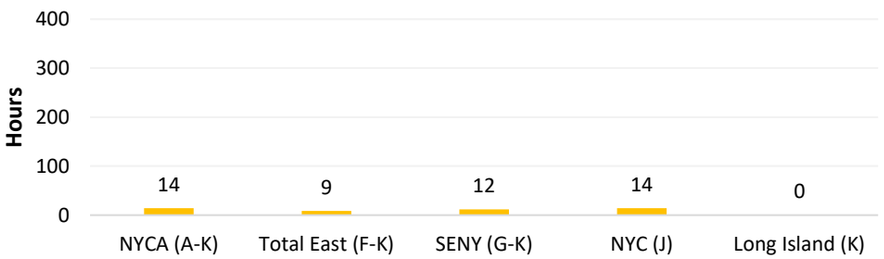
Hours SCR/EDRP Deployed



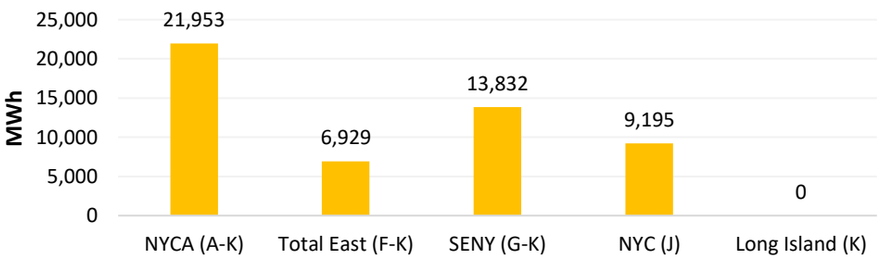
Total MWh SCR/EDRP Deployed



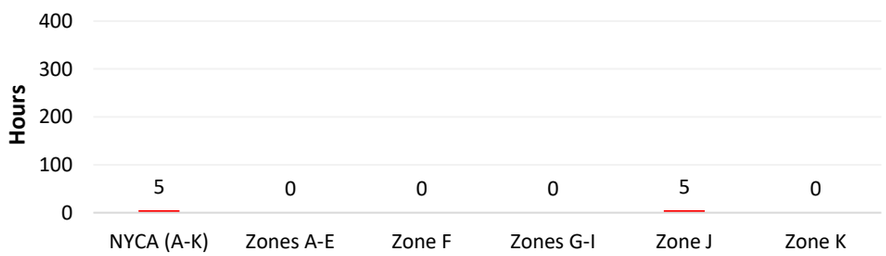
Hours with Reserve Violations



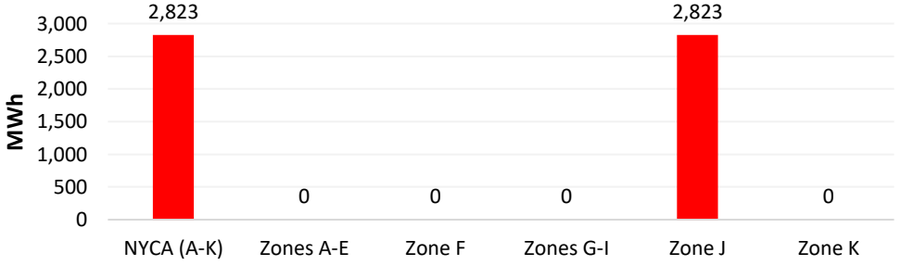
Total MWh of Reserve Violations

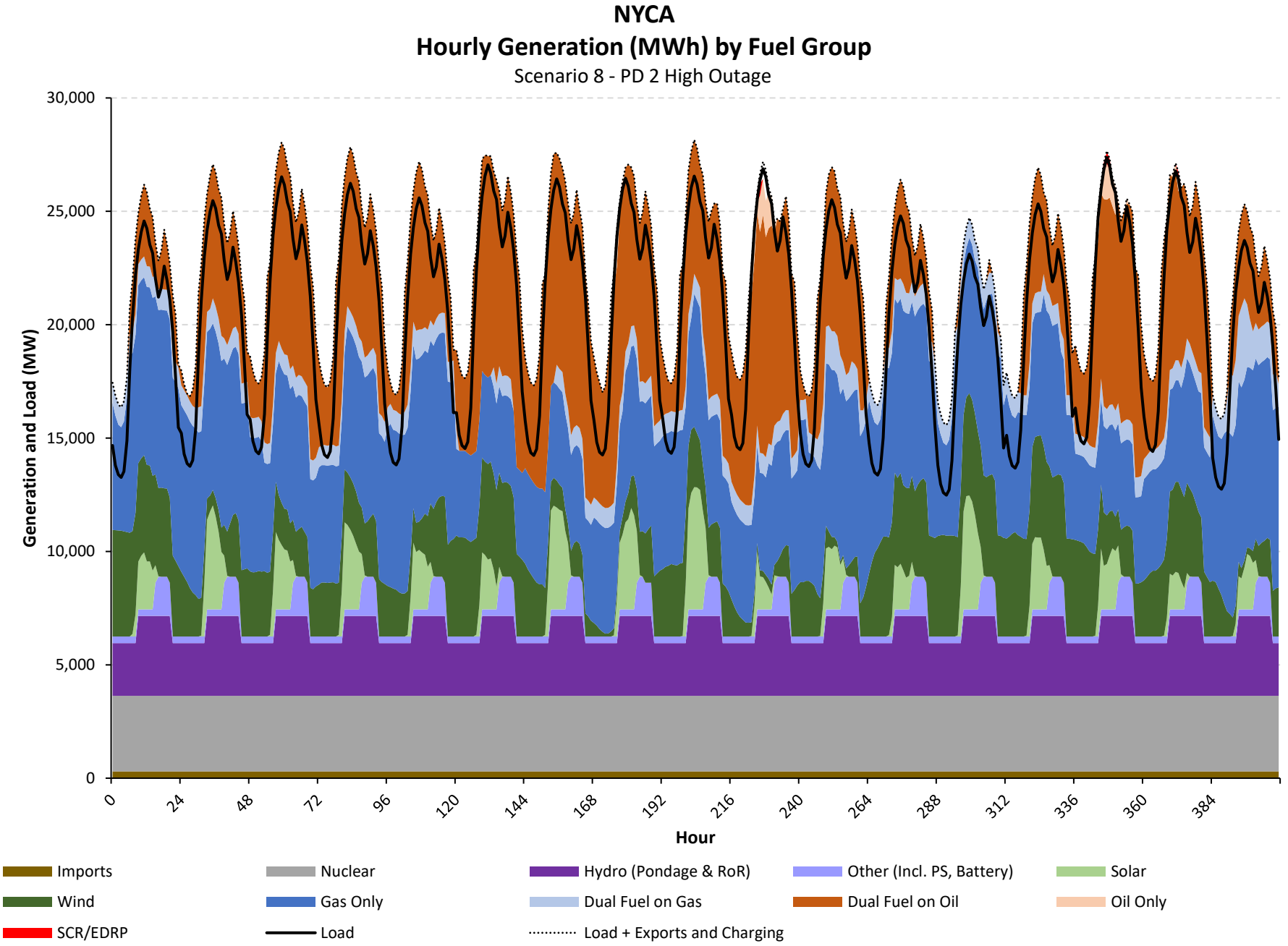


Hours with Loss of Load

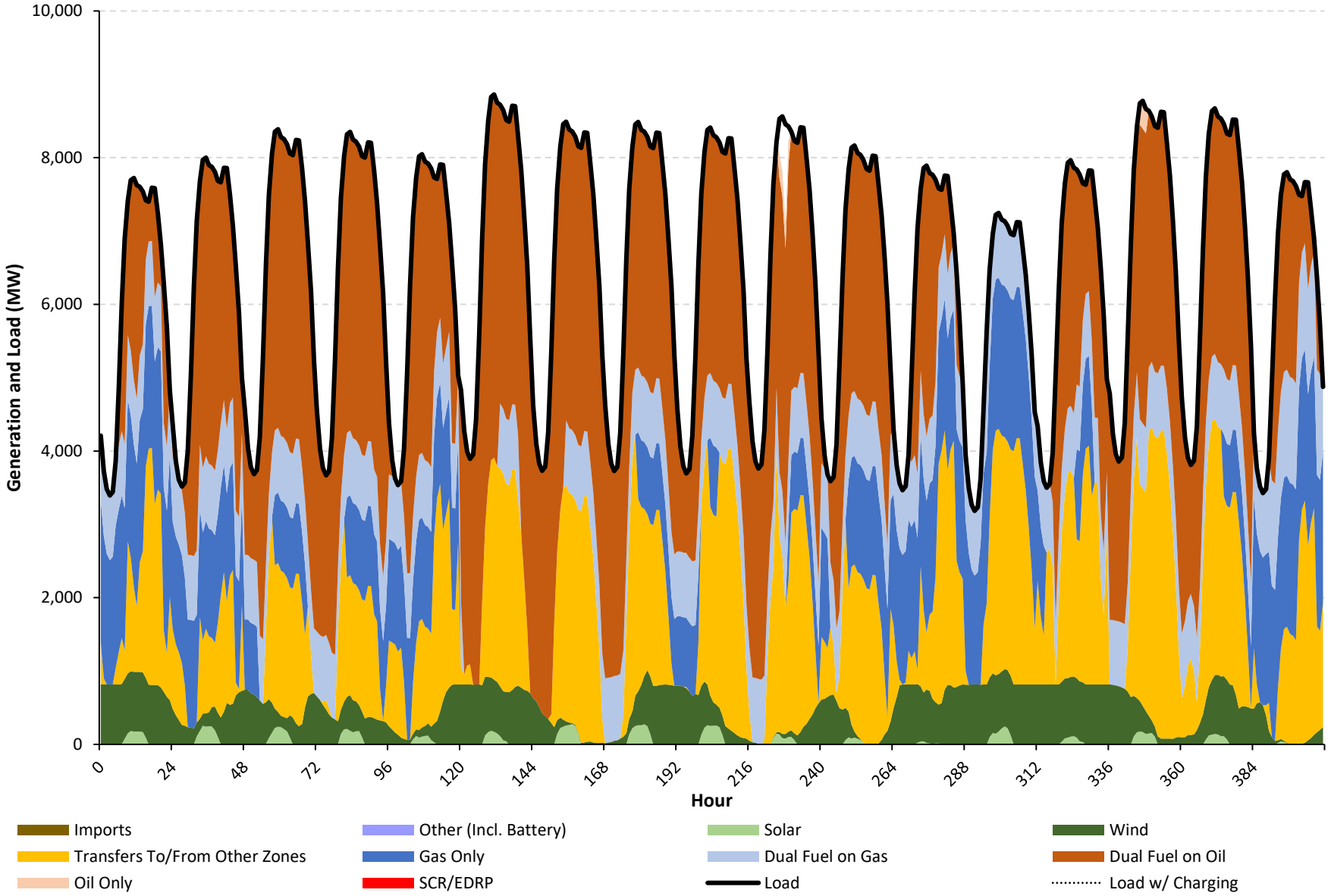


Total MWh of Lost Load

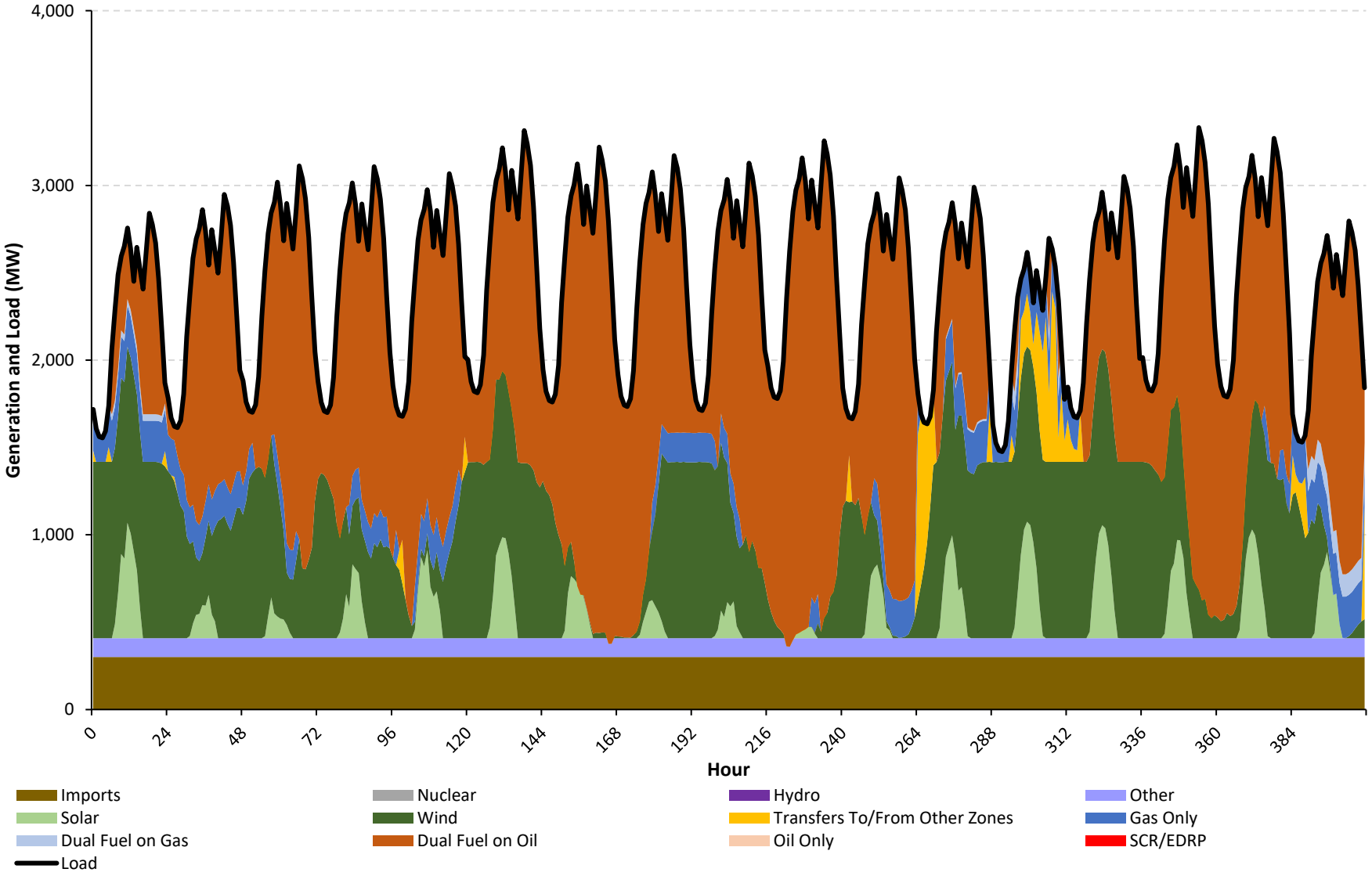



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 8 - PD 2 High Outage
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 2 High Outage



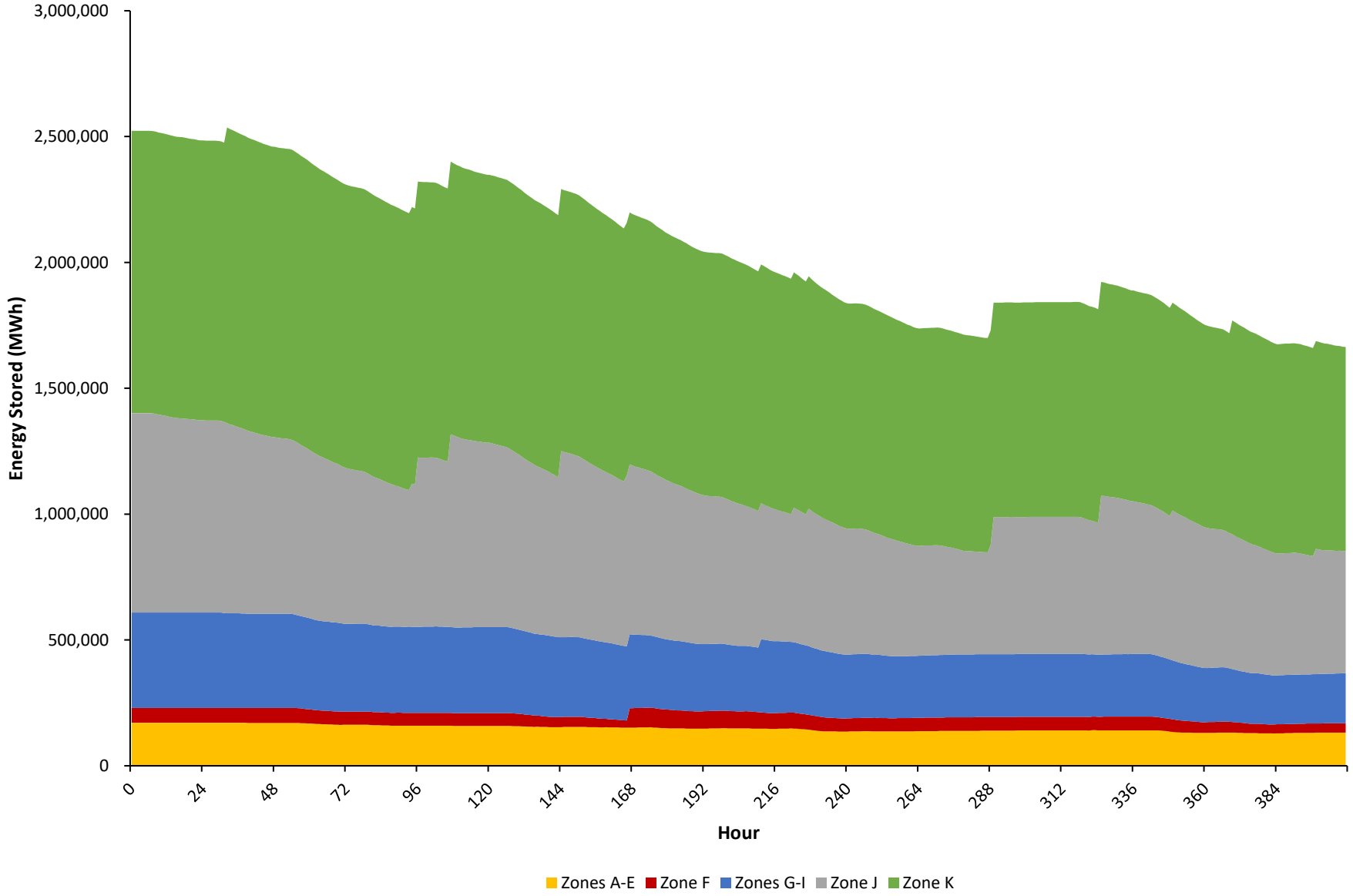
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 2 High Outage

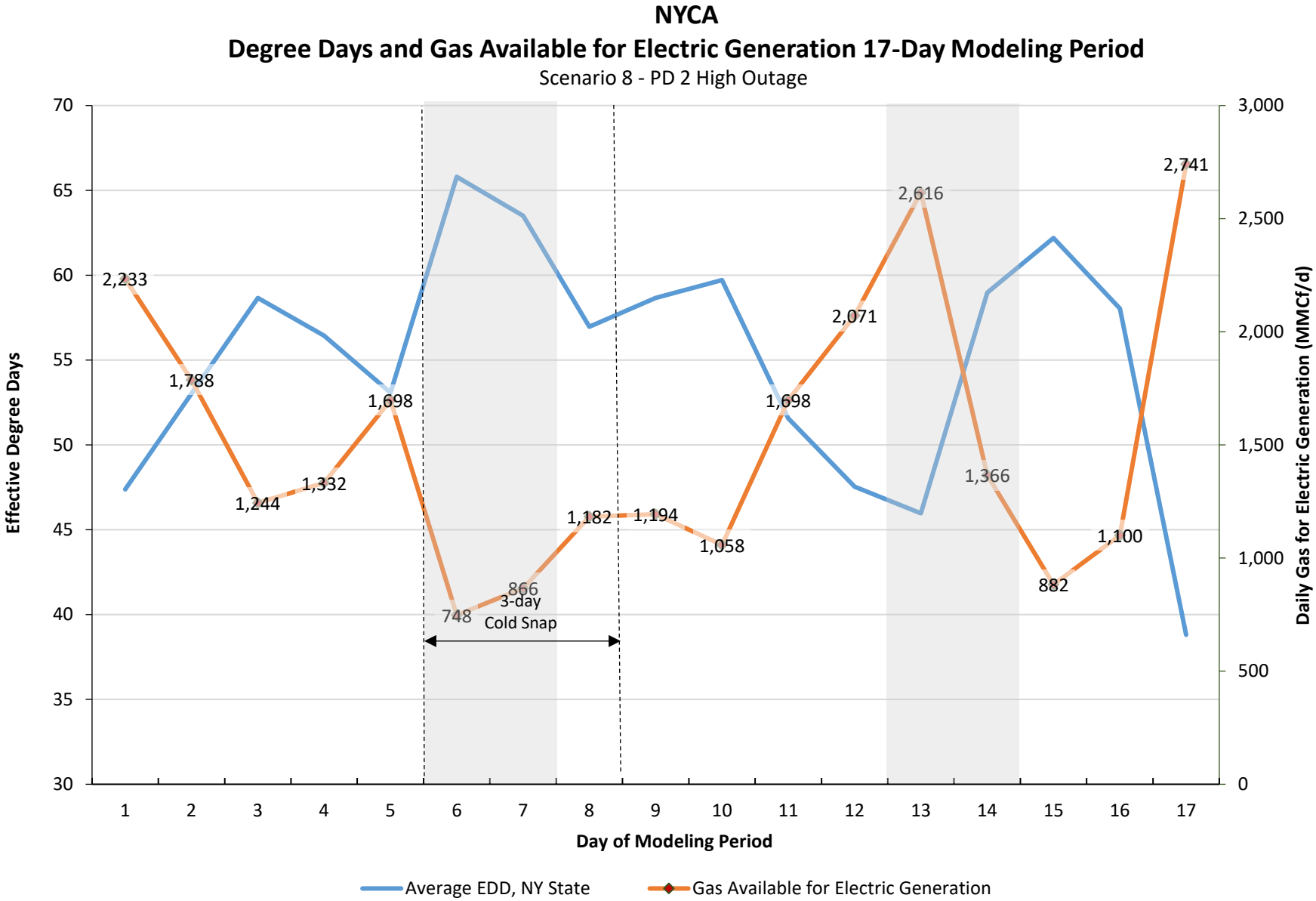


NYCA

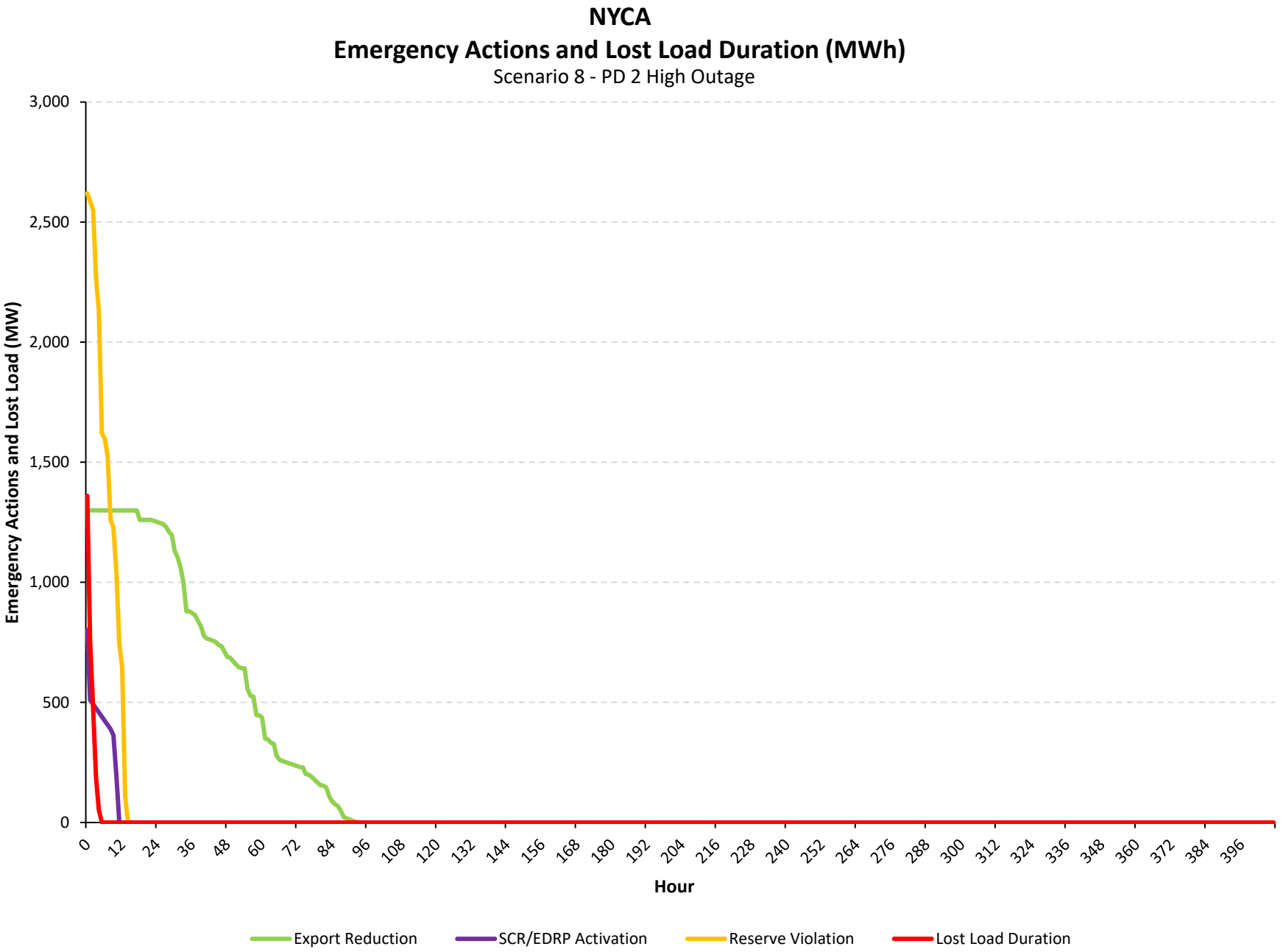
Quantity of Stored Fuel for Oil and Dual Fuel Units

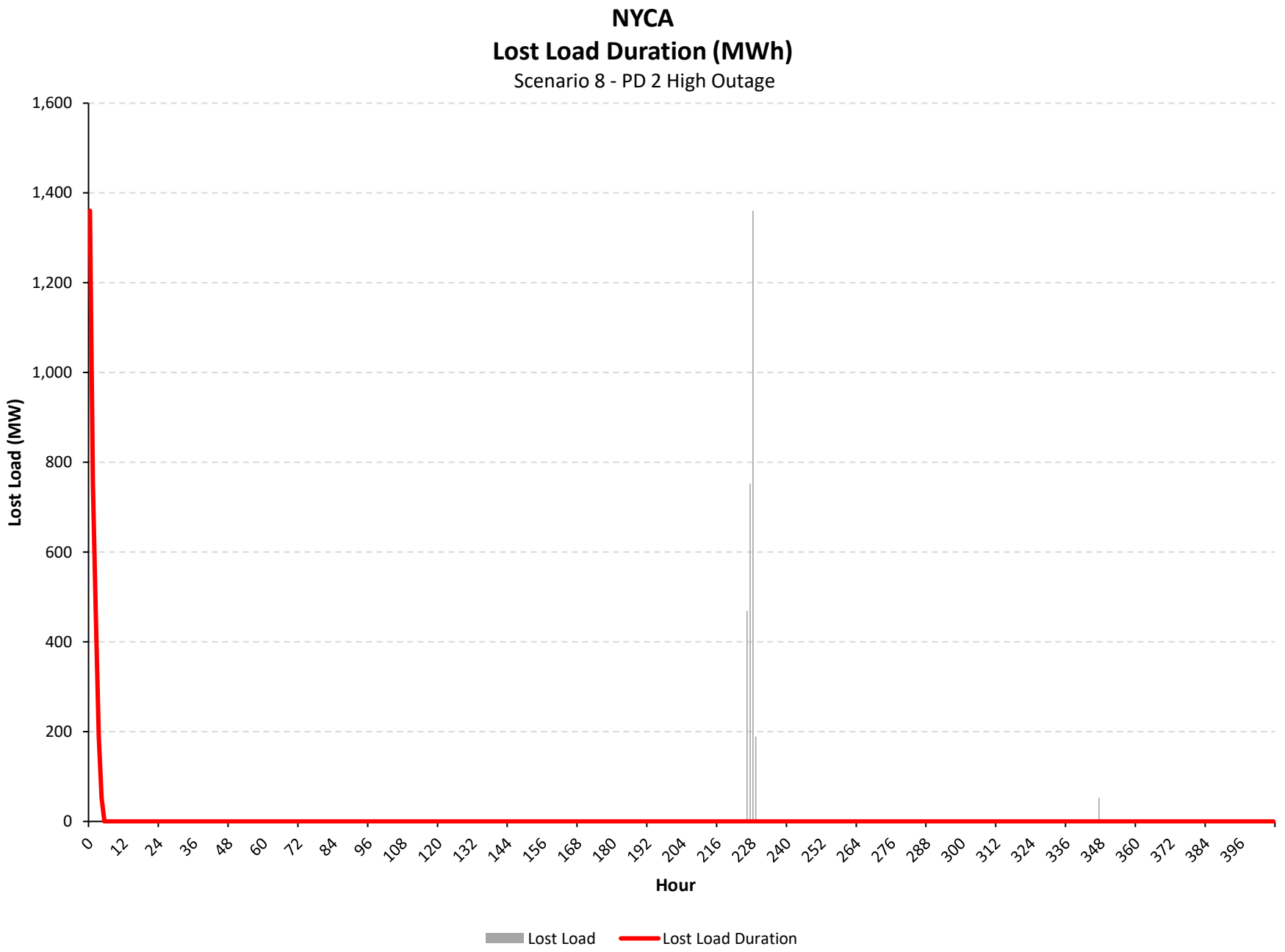
Scenario 8 - PD 2 High Outage





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 8 - PD 2 High Outage
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0
12
24
36
48
60
72
84
96
108
120
132
144
156
168
180
192
204
216
228
240
252
264
276
288
300
312
324
336
348
360
372
384
396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 8 - PD 2 High Outage
Lost Load (MW)
1,600
1,400
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

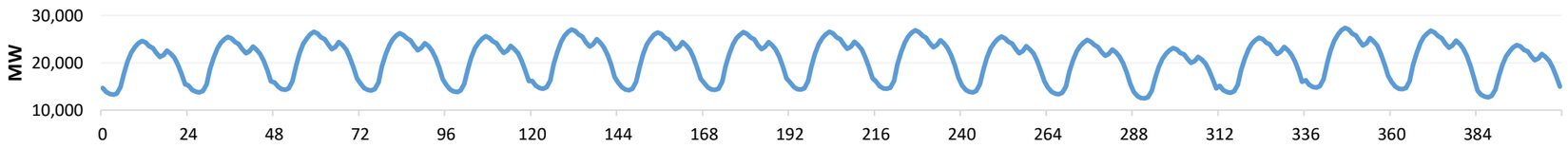
Case: Scenario 8 - PD 3 SENY Deactivation (Winter 2026/2027)

Hourly Results Summary

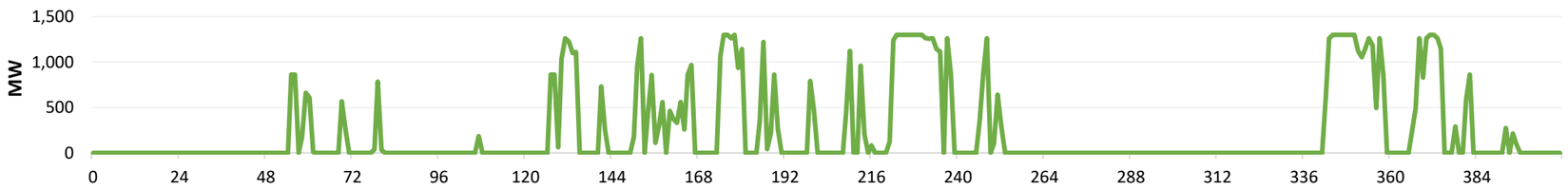
Case Name: Scenario 8 - PD 3 SENY Deactivation

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	Net Zero

Load During Modeling Period

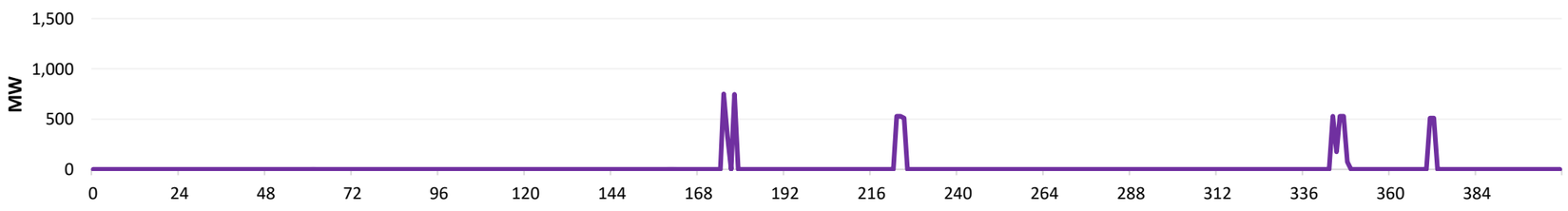


Export to ISO-NE Reduction During Modeling Period



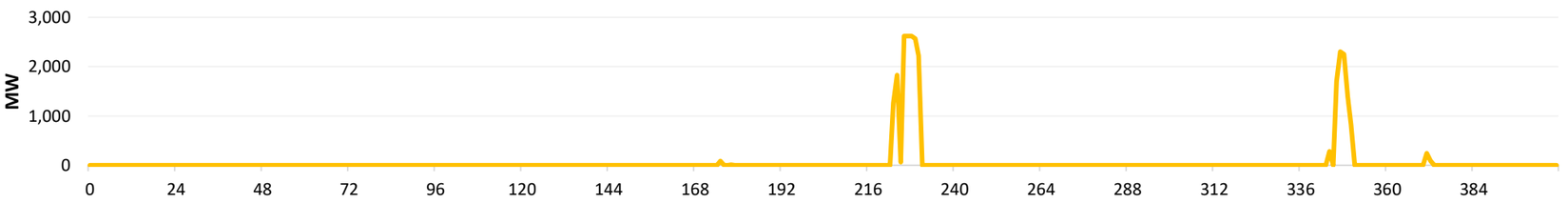
Export Reductions	
Total Hrs.	112
Total MWh	91,662
Avg. MW	224.7

SCR/EDRP Deployed During Modeling Period



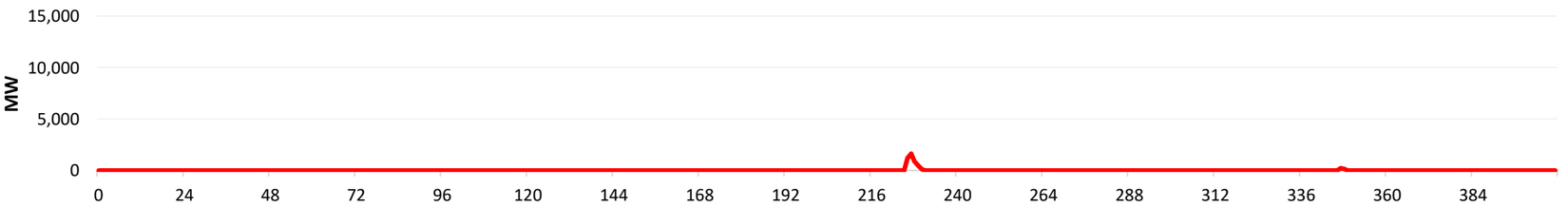
SCR Deployment	
Total Hrs.	13
Total MWh	6,242
Avg. MW	15.3

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	18
Total MWh	24,987
Avg. MW	61.2
First Hour with Viol.	175

Loss of Load During Modeling Period



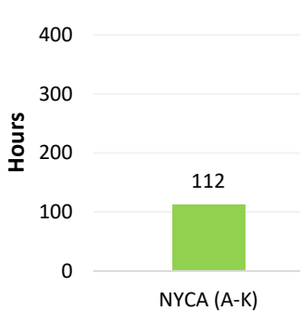
Loss of Load	
Total Hrs.	7
Total MWh	4,752
Avg. MW	11.6
First Hour with Losses	226

Full Period Results Summary

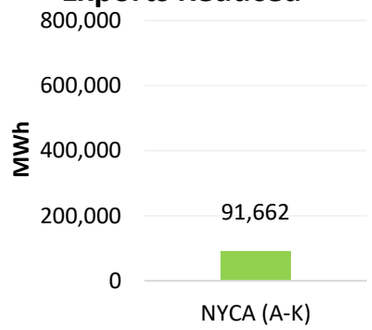
Case Name: Scenario 8 - PD 3 SENY Deactivation

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	Net Zero

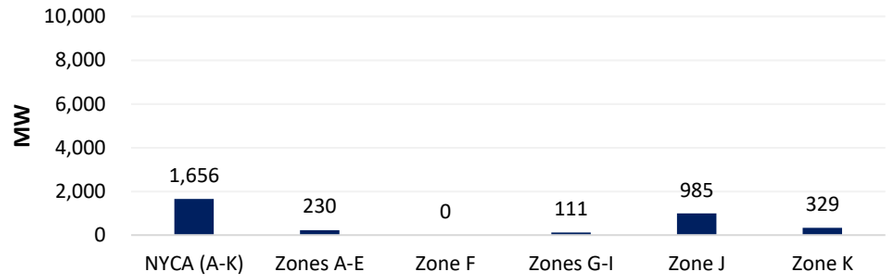
Hours Exports Reduced



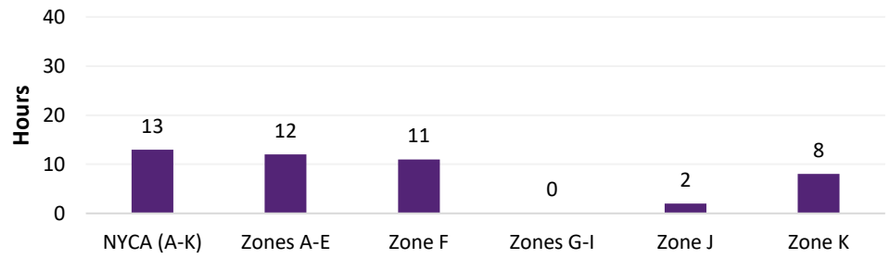
Total MWh of Exports Reduced



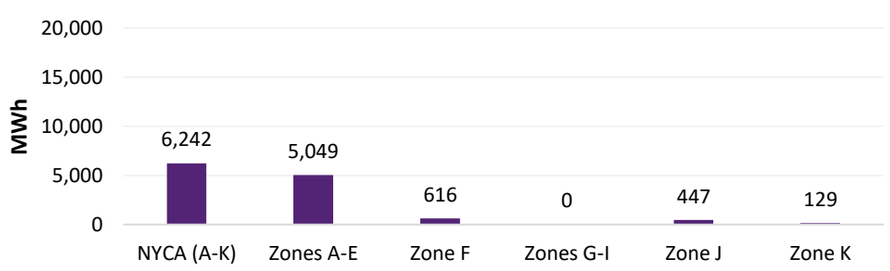
Average Capacity Not Available Due to Exhausted Fuel Inventory



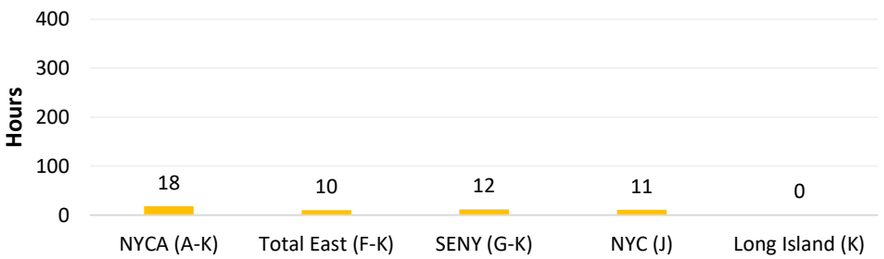
Hours SCR/EDRP Deployed



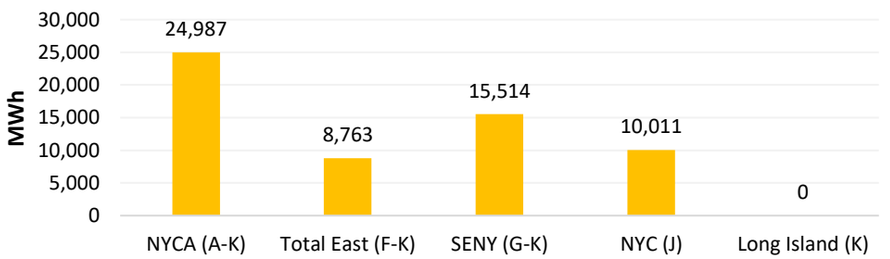
Total MWh SCR/EDRP Deployed



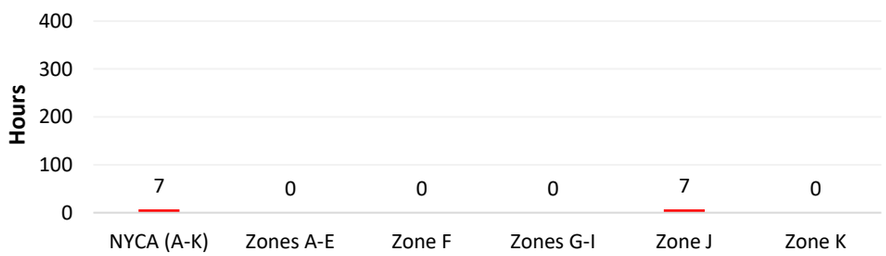
Hours with Reserve Violations



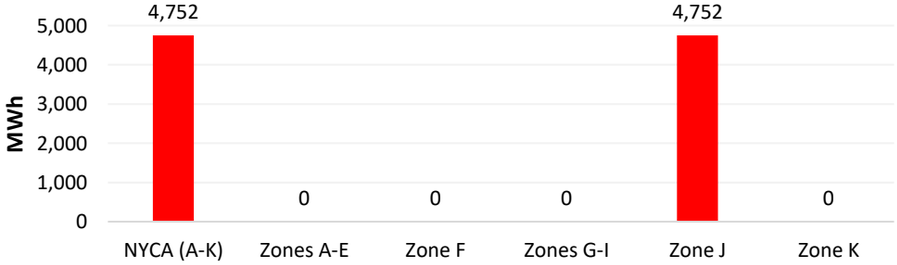
Total MWh of Reserve Violations

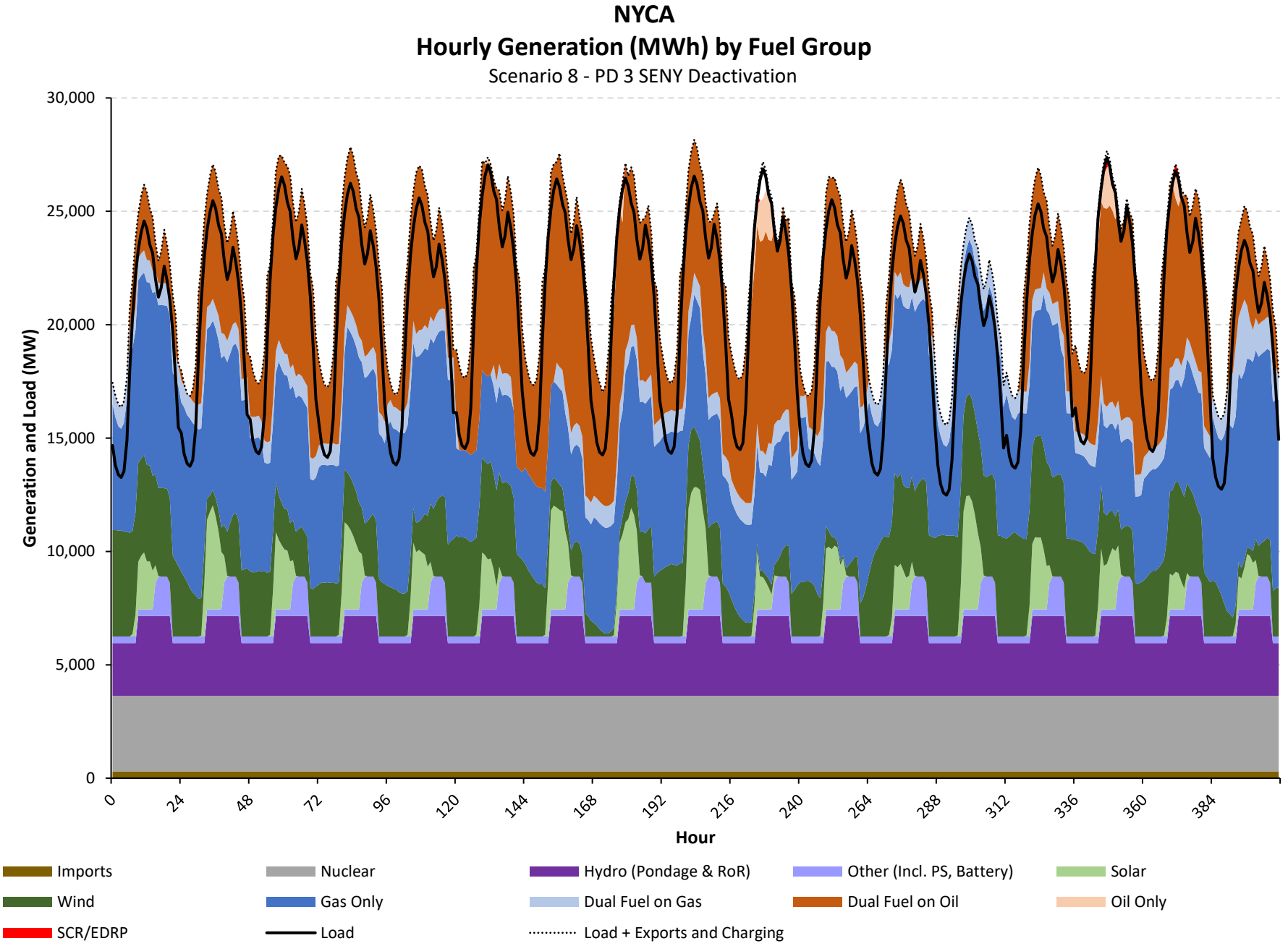


Hours with Loss of Load

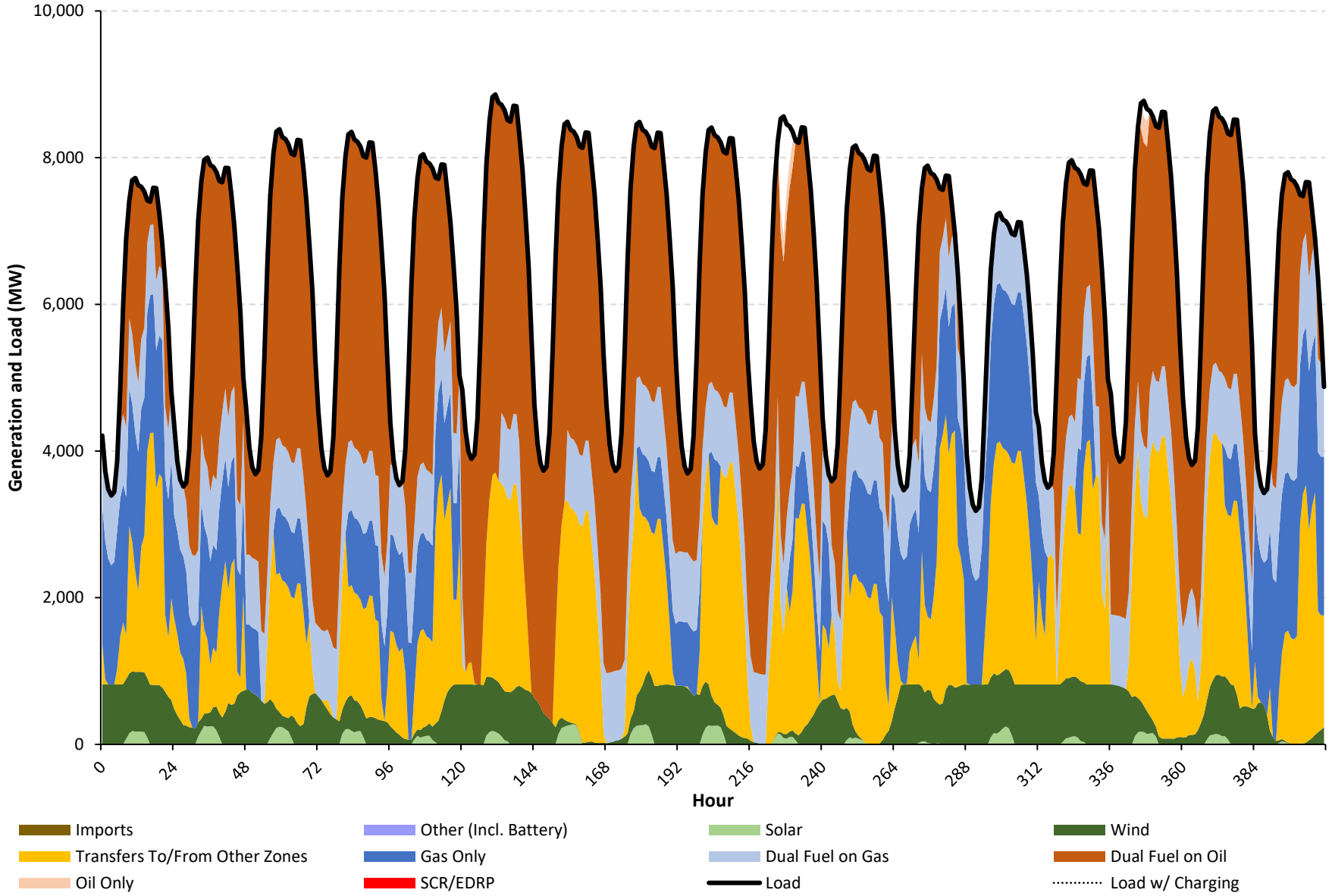


Total MWh of Lost Load

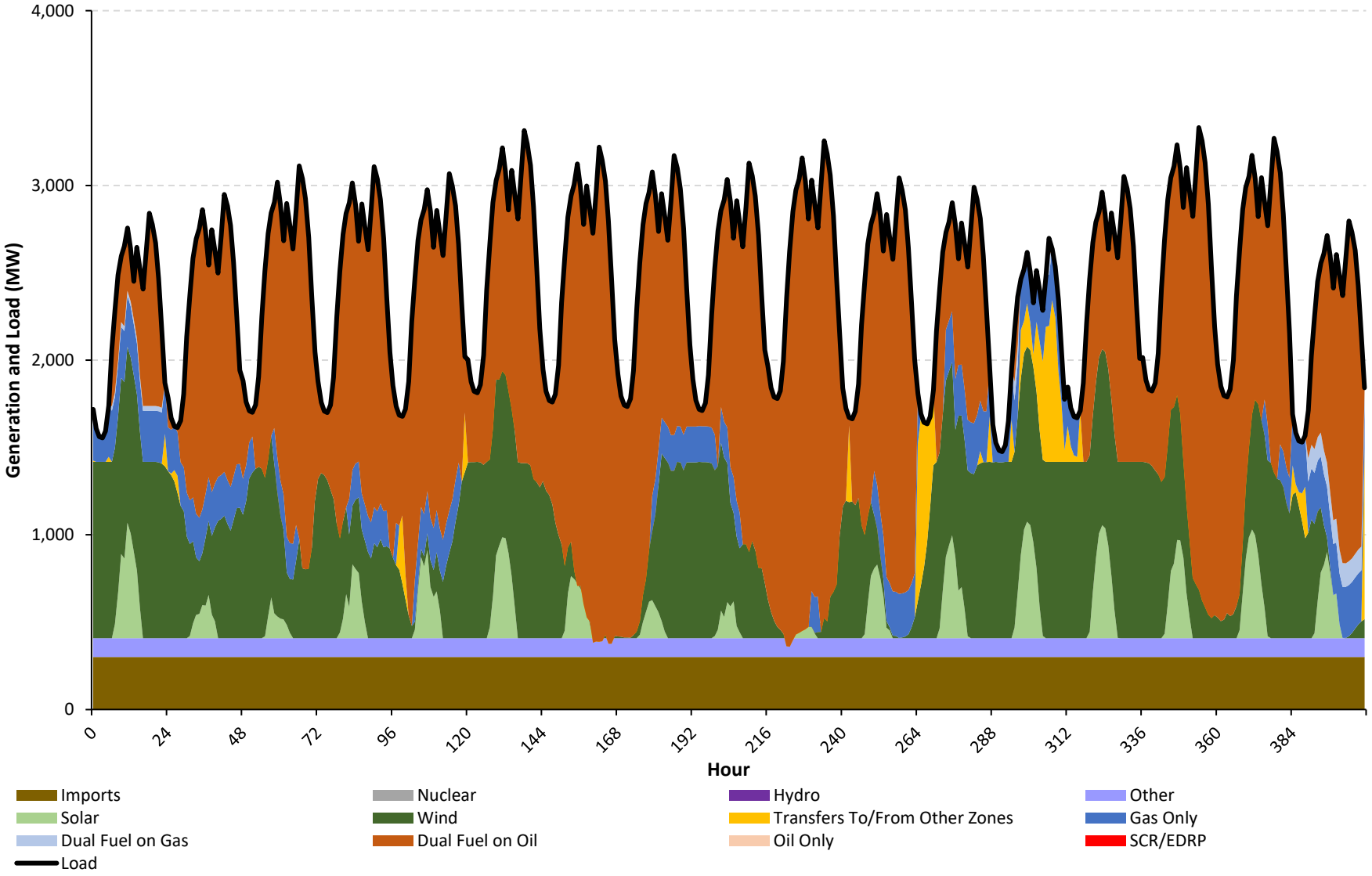



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 8 - PD 3 SENY Deactivation
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 3 SENY Deactivation



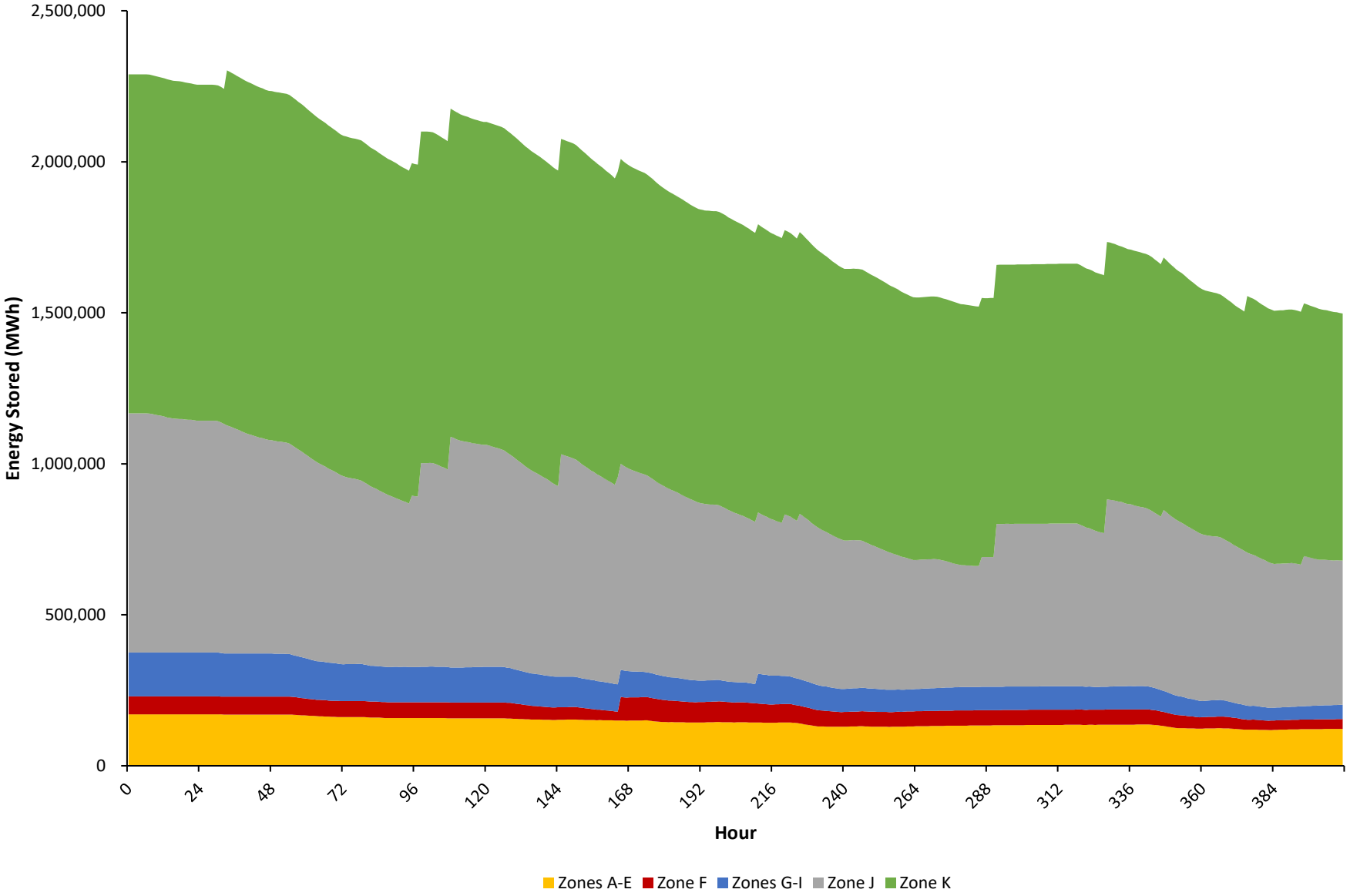
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 3 SENY Deactivation

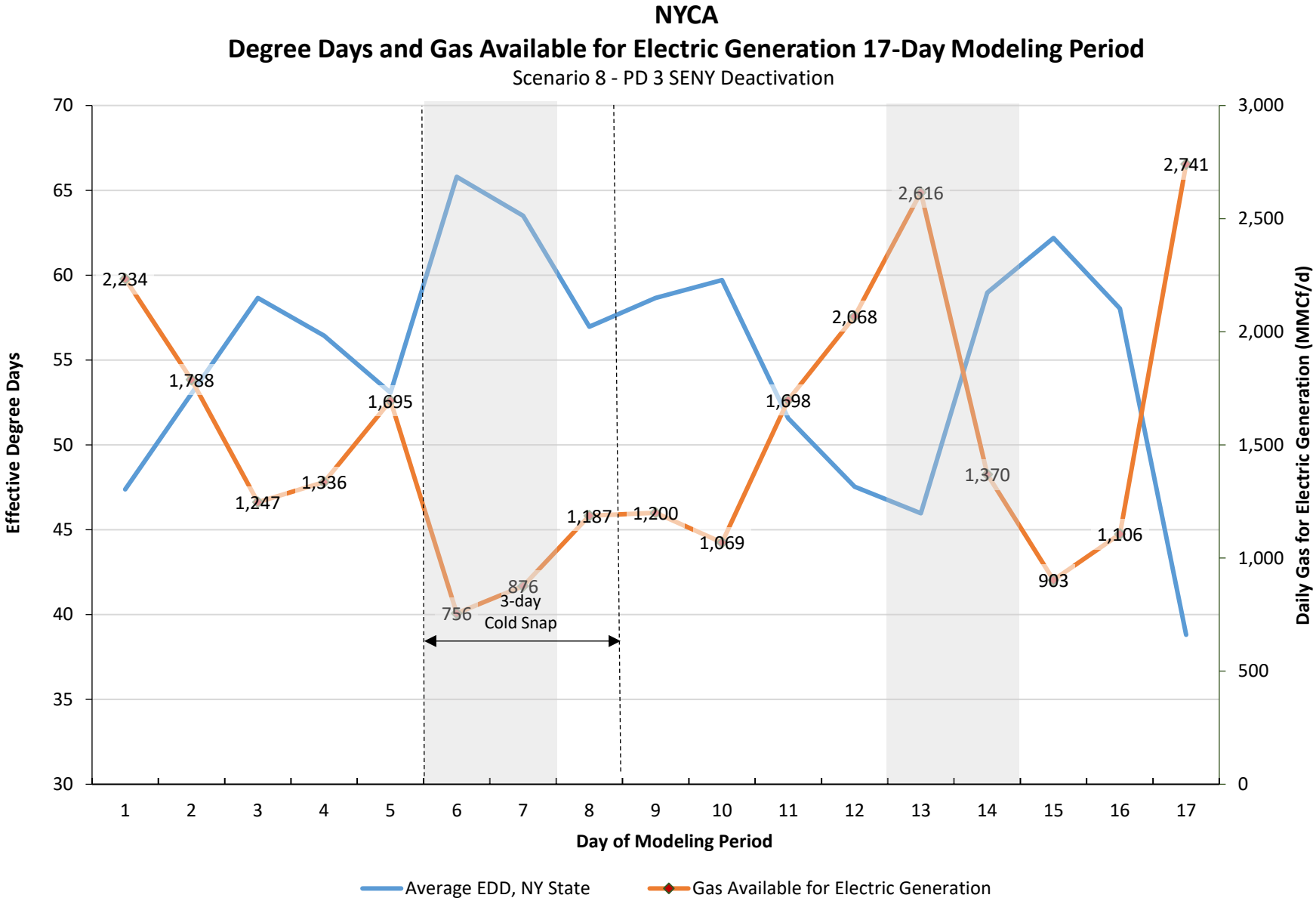


NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

Scenario 8 - PD 3 SENY Deactivation



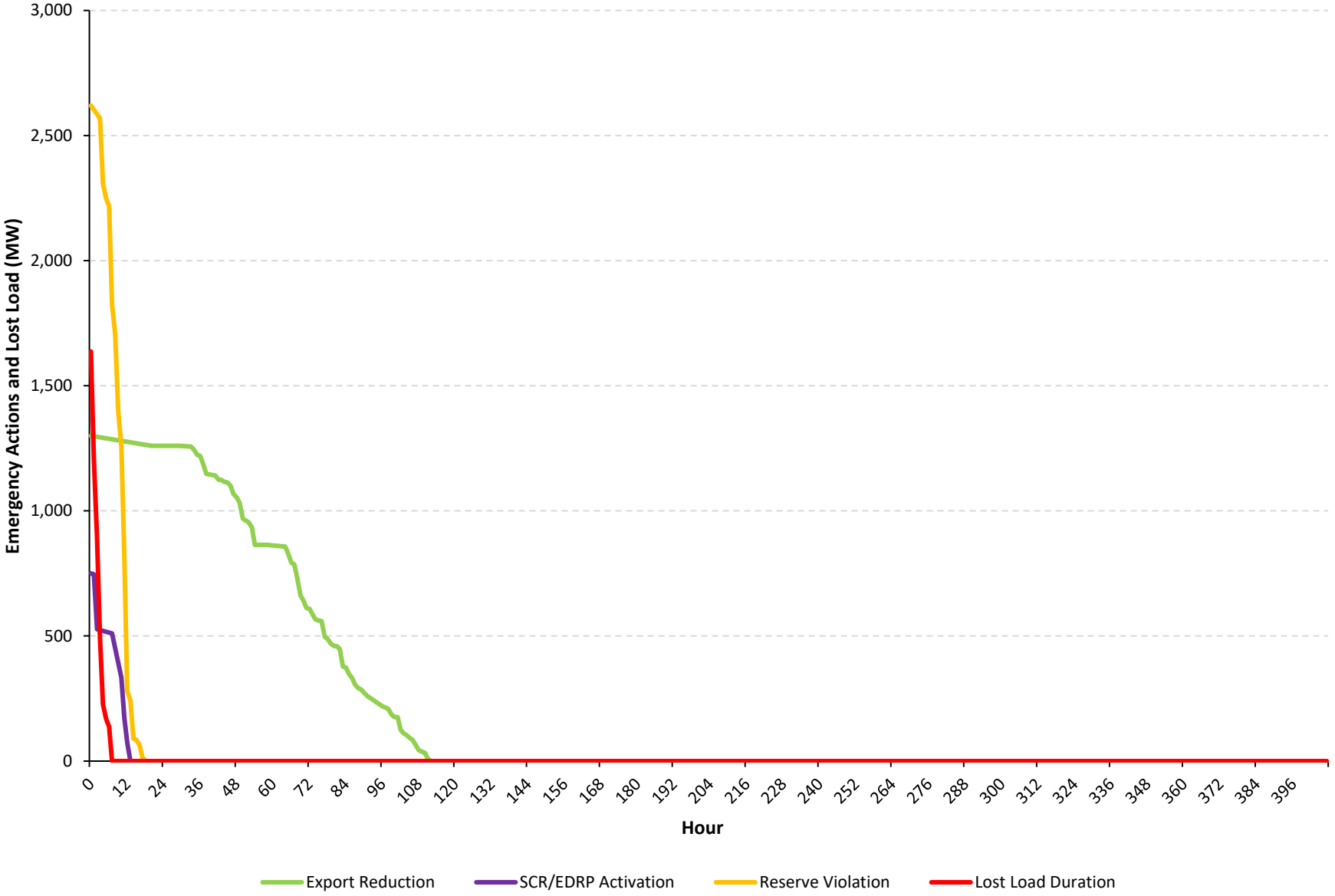


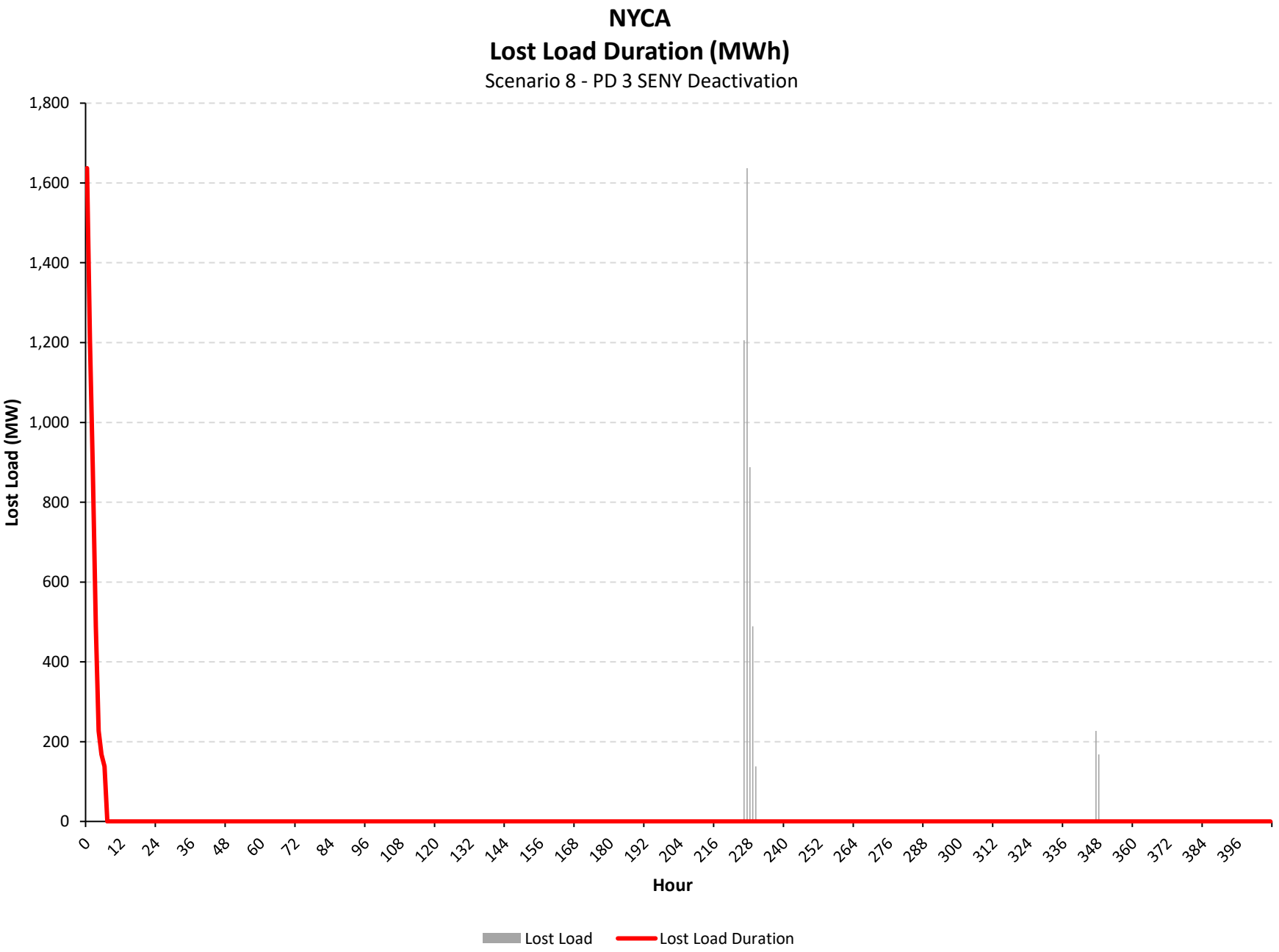
Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.

NYCA

Emergency Actions and Lost Load Duration (MWh)

Scenario 8 - PD 3 SENY Deactivation




NYCA
Lost Load Duration (MWh)
Scenario 8 - PD 3 SENY Deactivation
Lost Load (MW)
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

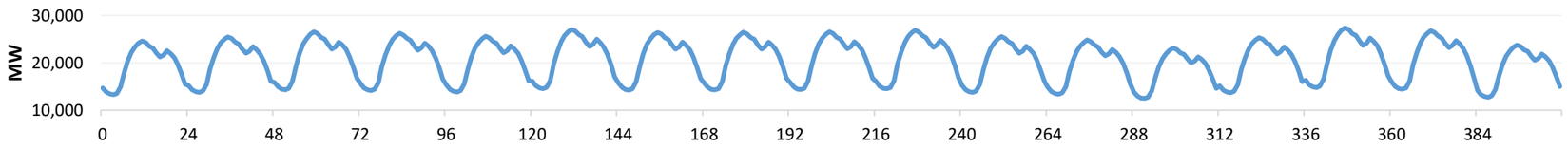
Case: Scenario 8 - PD 4 Nuclear Station Outage (Winter 2026/2027)

Hourly Results Summary

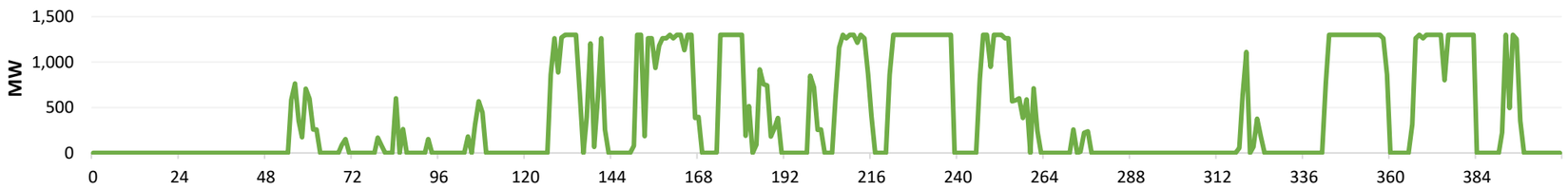
Case Name: Scenario 8 - PD 4 Nuclear Station Outage

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	Net Zero

Load During Modeling Period

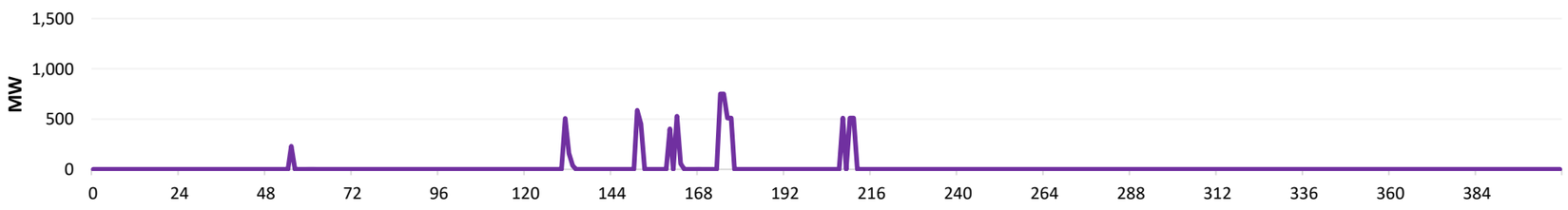


Export to ISO-NE Reduction During Modeling Period



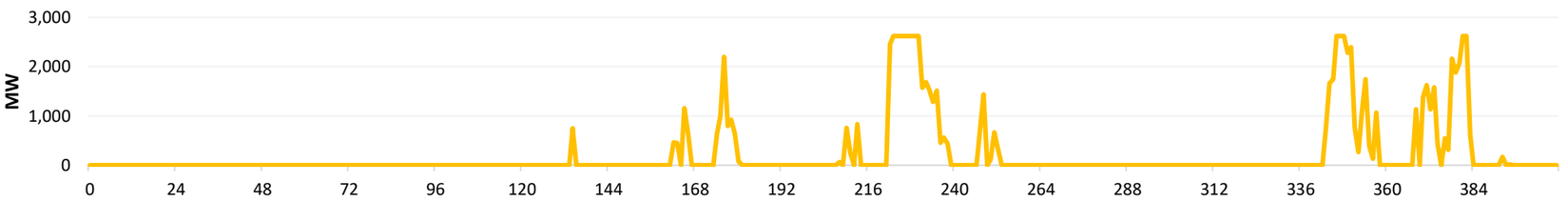
Export Reductions	
Total Hrs.	171
Total MWh	157,294
Avg. MW	385.5

SCR/EDRP Deployed During Modeling Period



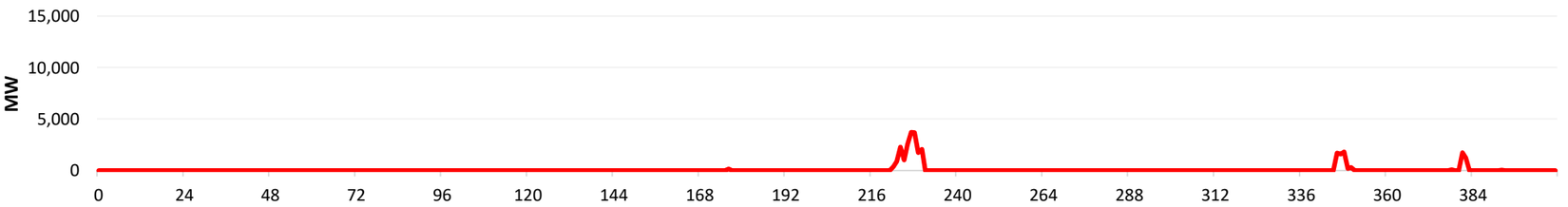
SCR Deployment	
Total Hrs.	16
Total MWh	7,012
Avg. MW	17.2

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	69
Total MWh	89,689
Avg. MW	219.8
First Hour with Viol.	134

Loss of Load During Modeling Period



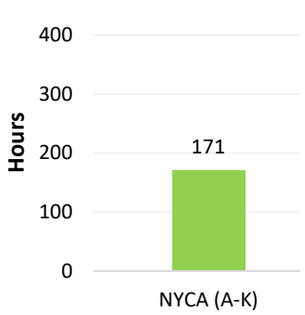
Loss of Load	
Total Hrs.	19
Total MWh	27,191
Avg. MW	66.6
First Hour with Losses	176

Full Period Results Summary

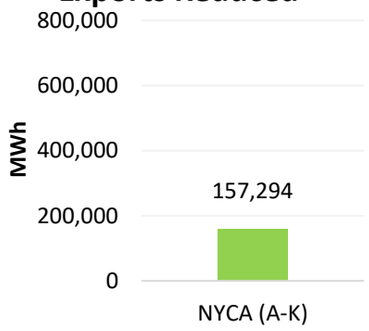
Case Name: Scenario 8 - PD 4 Nuclear Station Outage

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	Net Zero

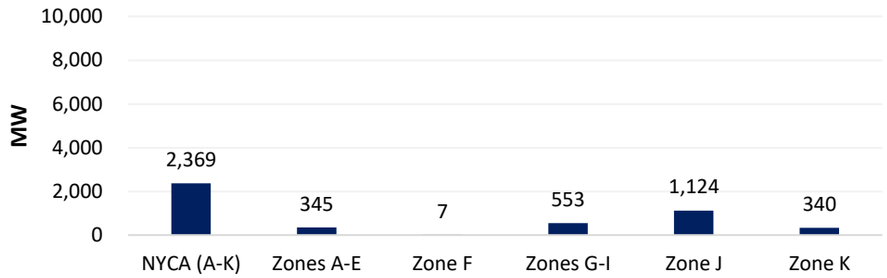
Hours Exports Reduced



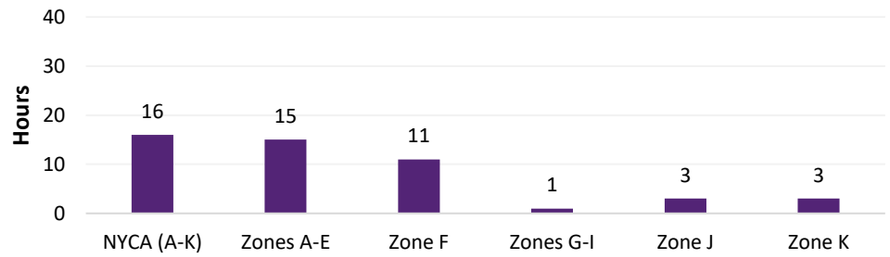
Total MWh of Exports Reduced



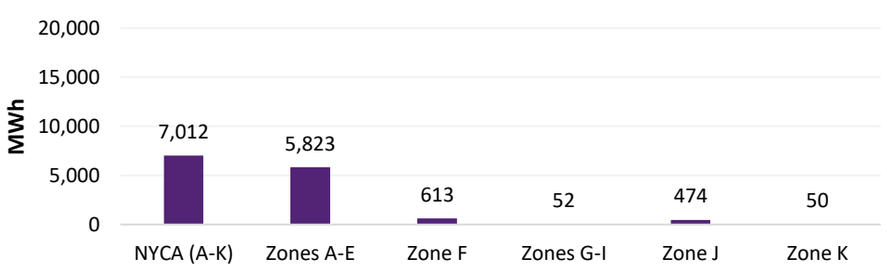
Average Capacity Not Available Due to Exhausted Fuel Inventory



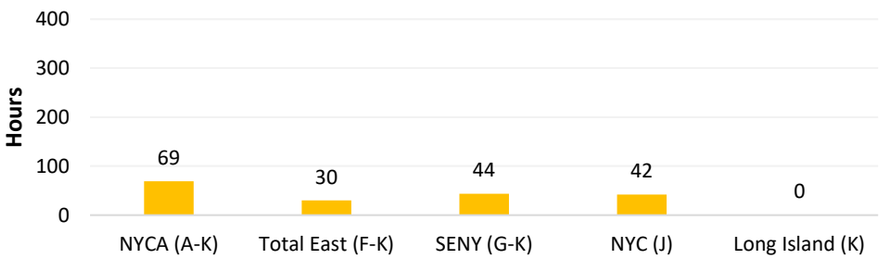
Hours SCR/EDRP Deployed



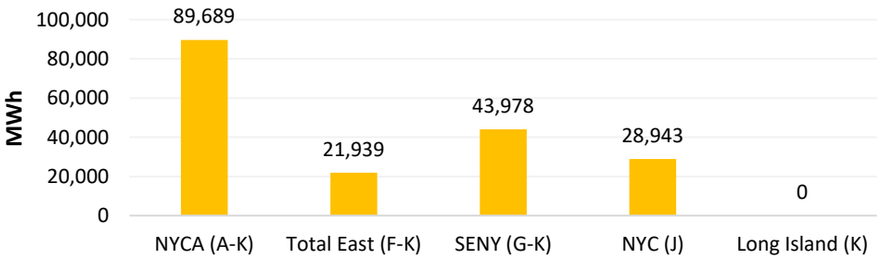
Total MWh SCR/EDRP Deployed



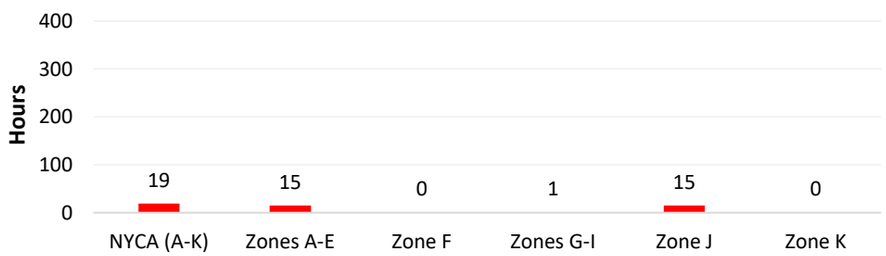
Hours with Reserve Violations



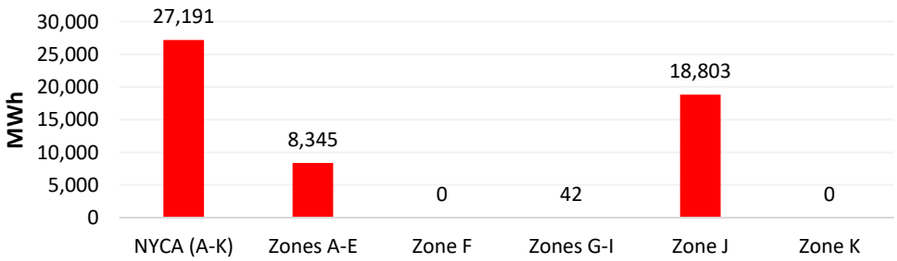
Total MWh of Reserve Violations

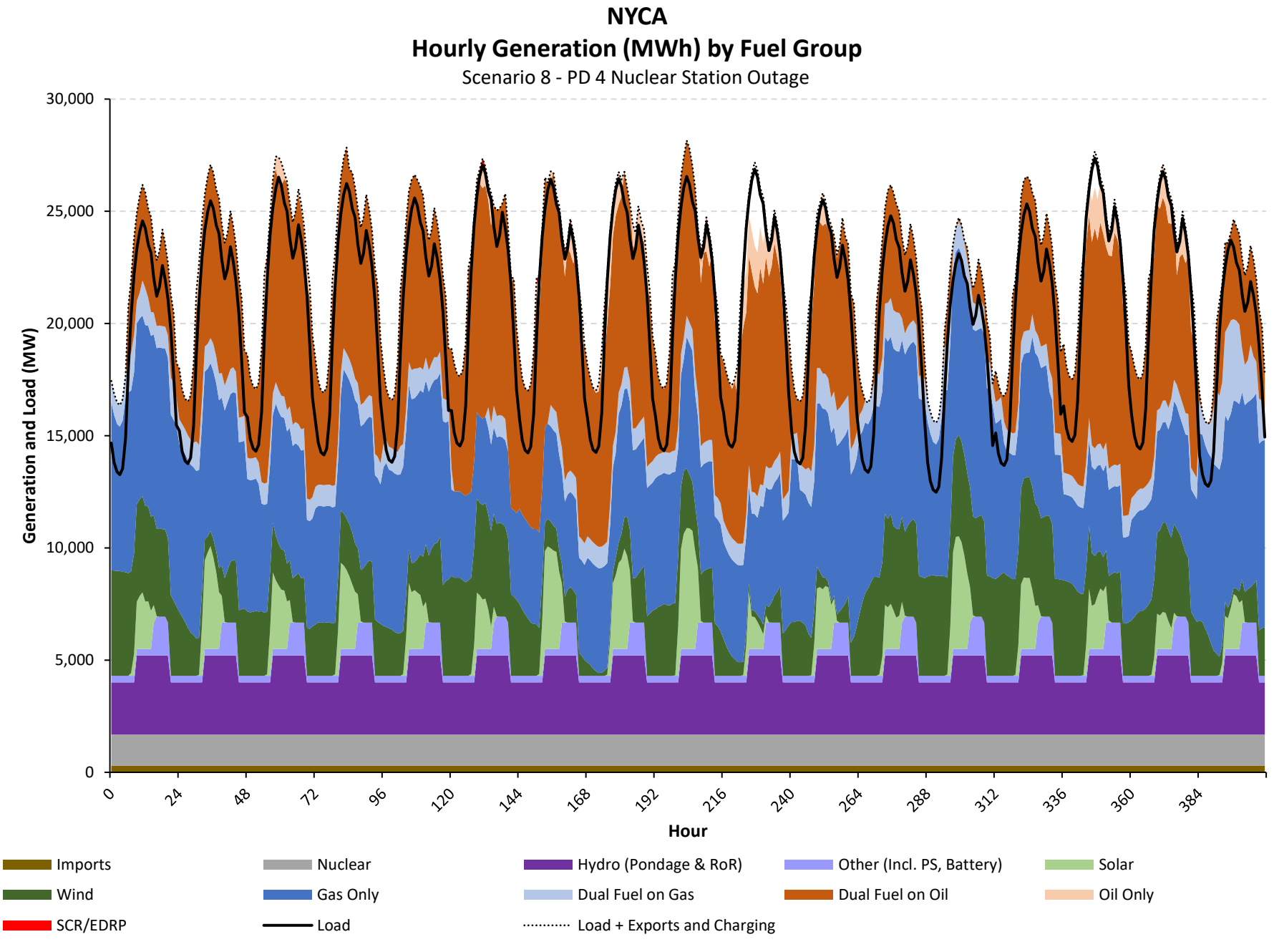


Hours with Loss of Load

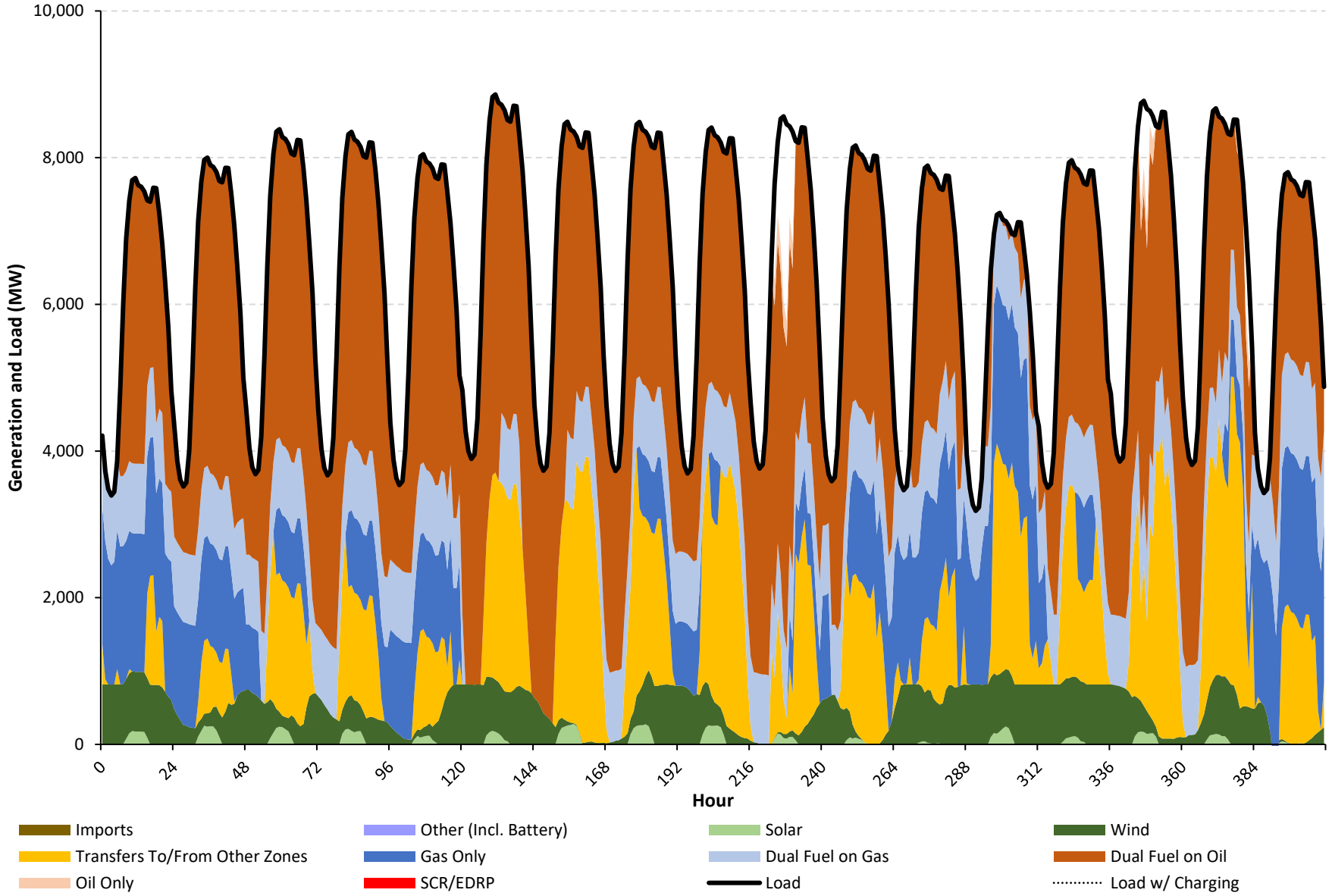


Total MWh of Lost Load

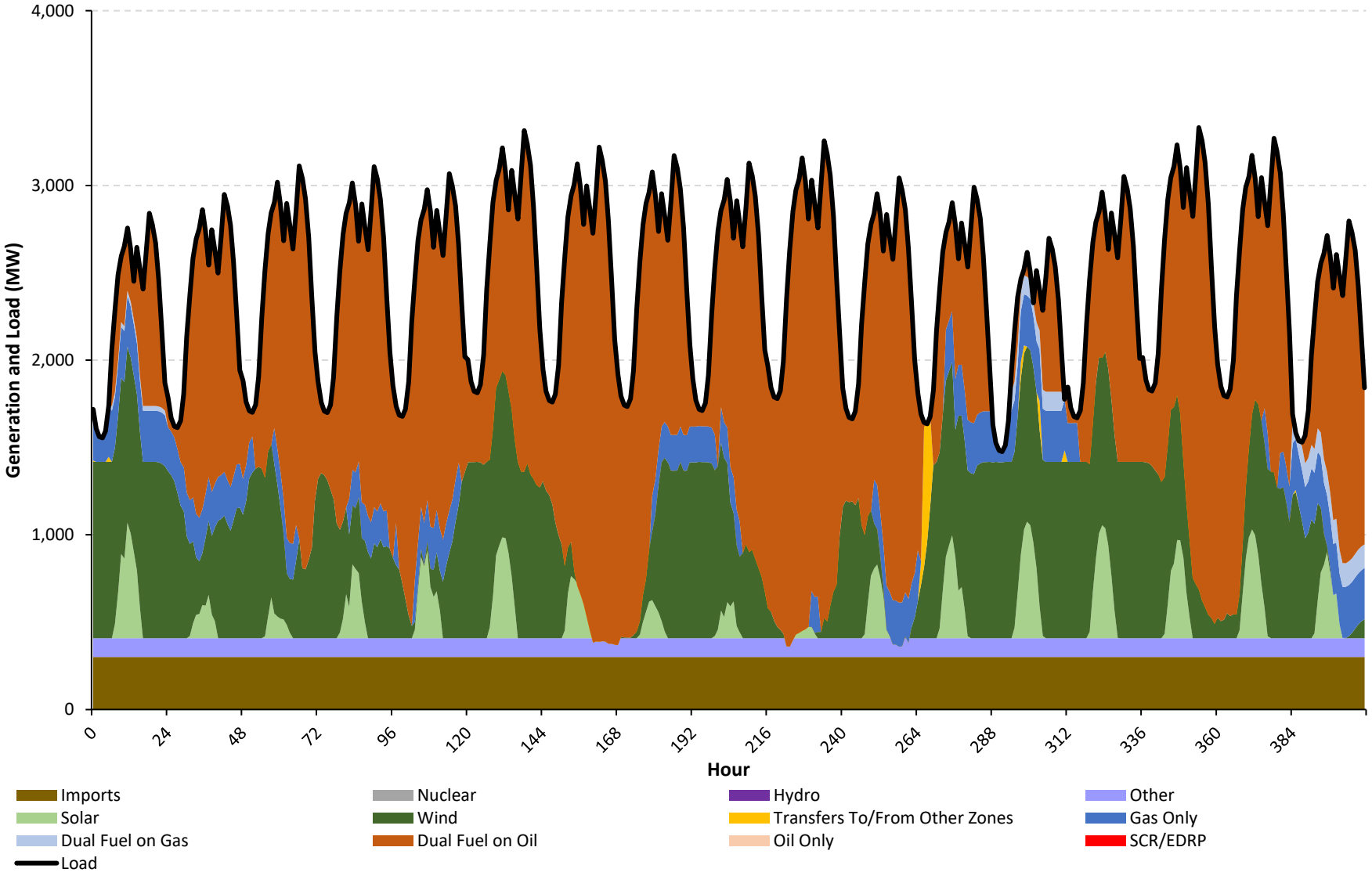



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 8 - PD 4 Nuclear Station Outage
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 4 Nuclear Station Outage



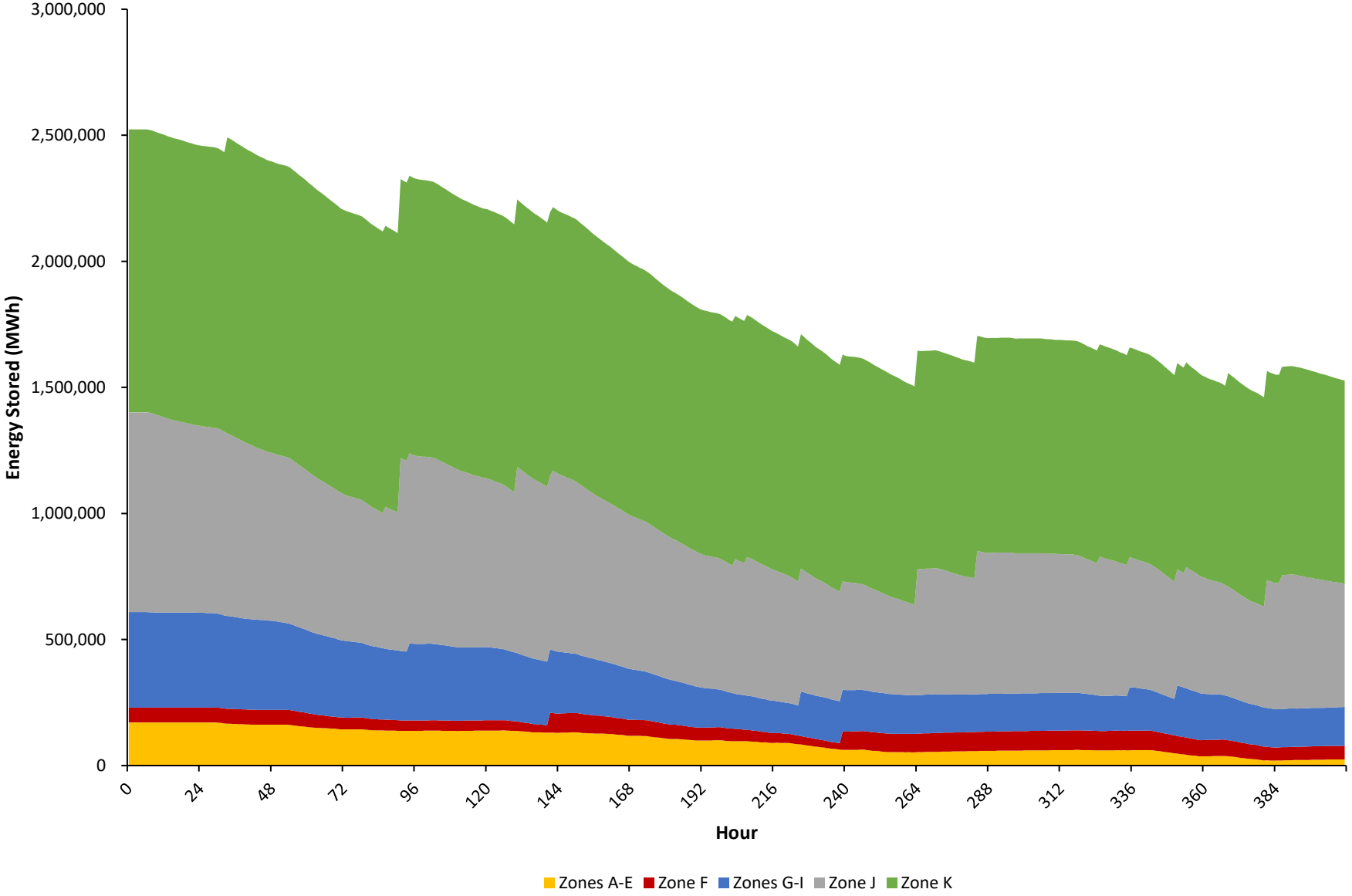
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 4 Nuclear Station Outage

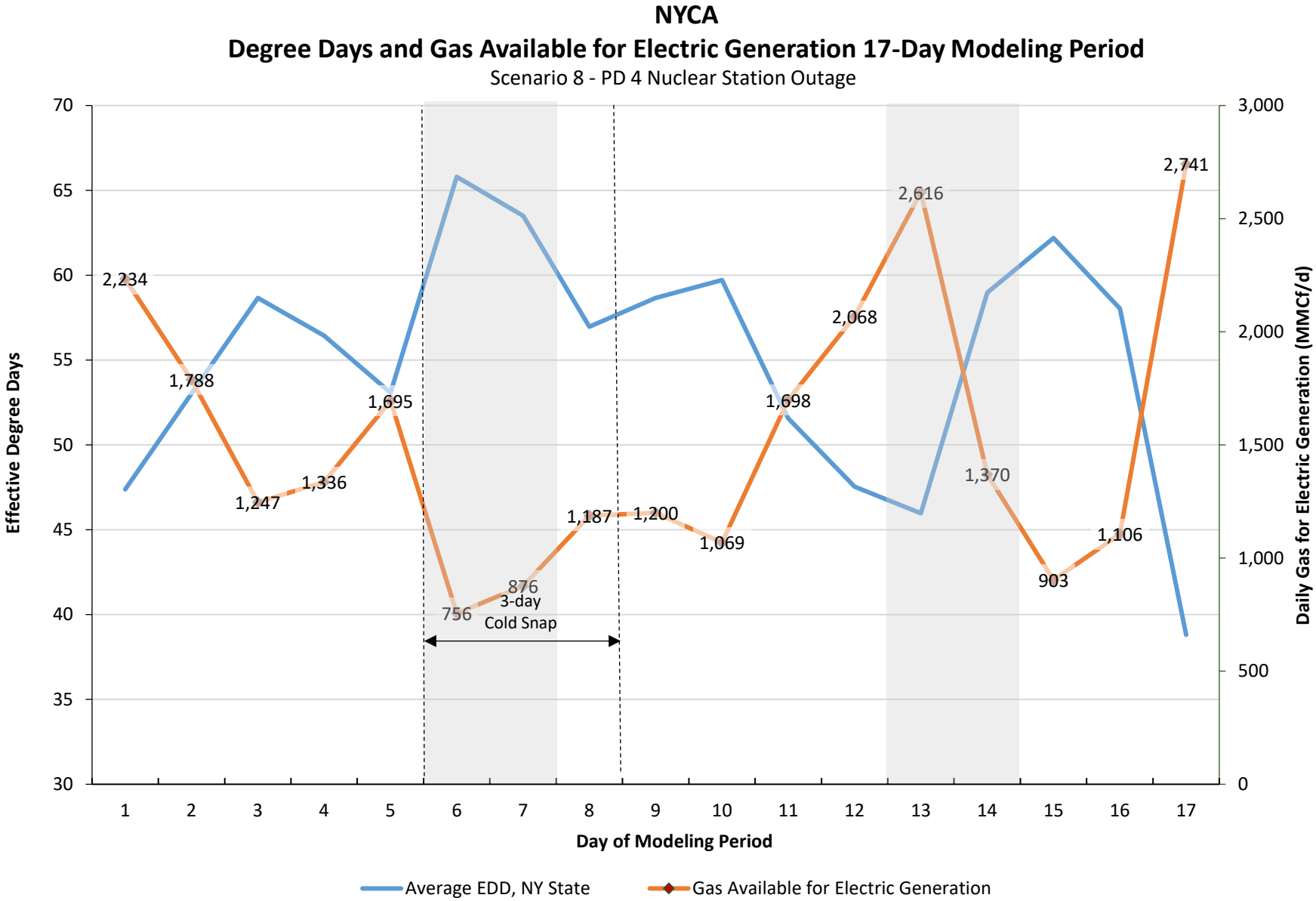


NYCA

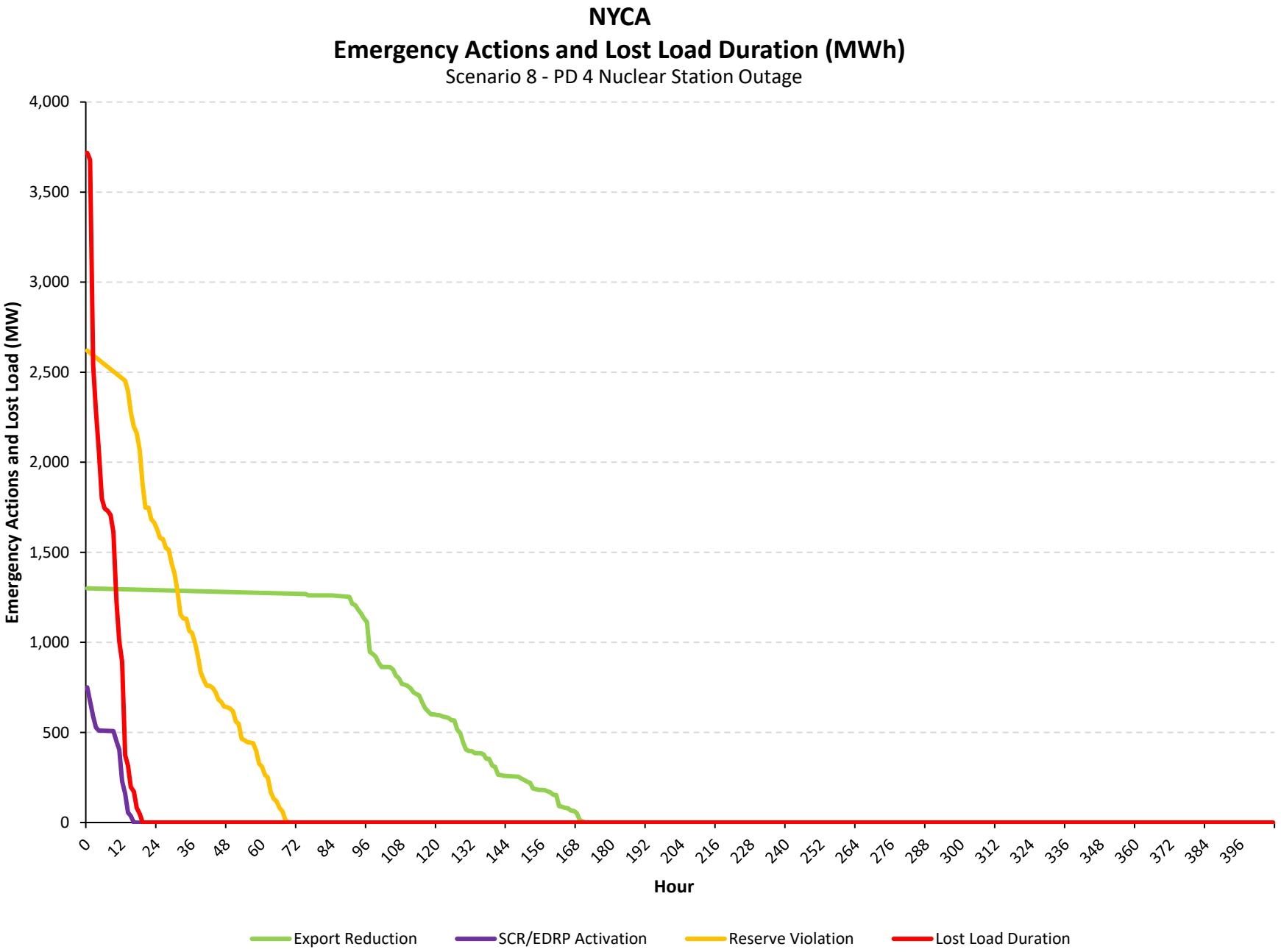
Quantity of Stored Fuel for Oil and Dual Fuel Units

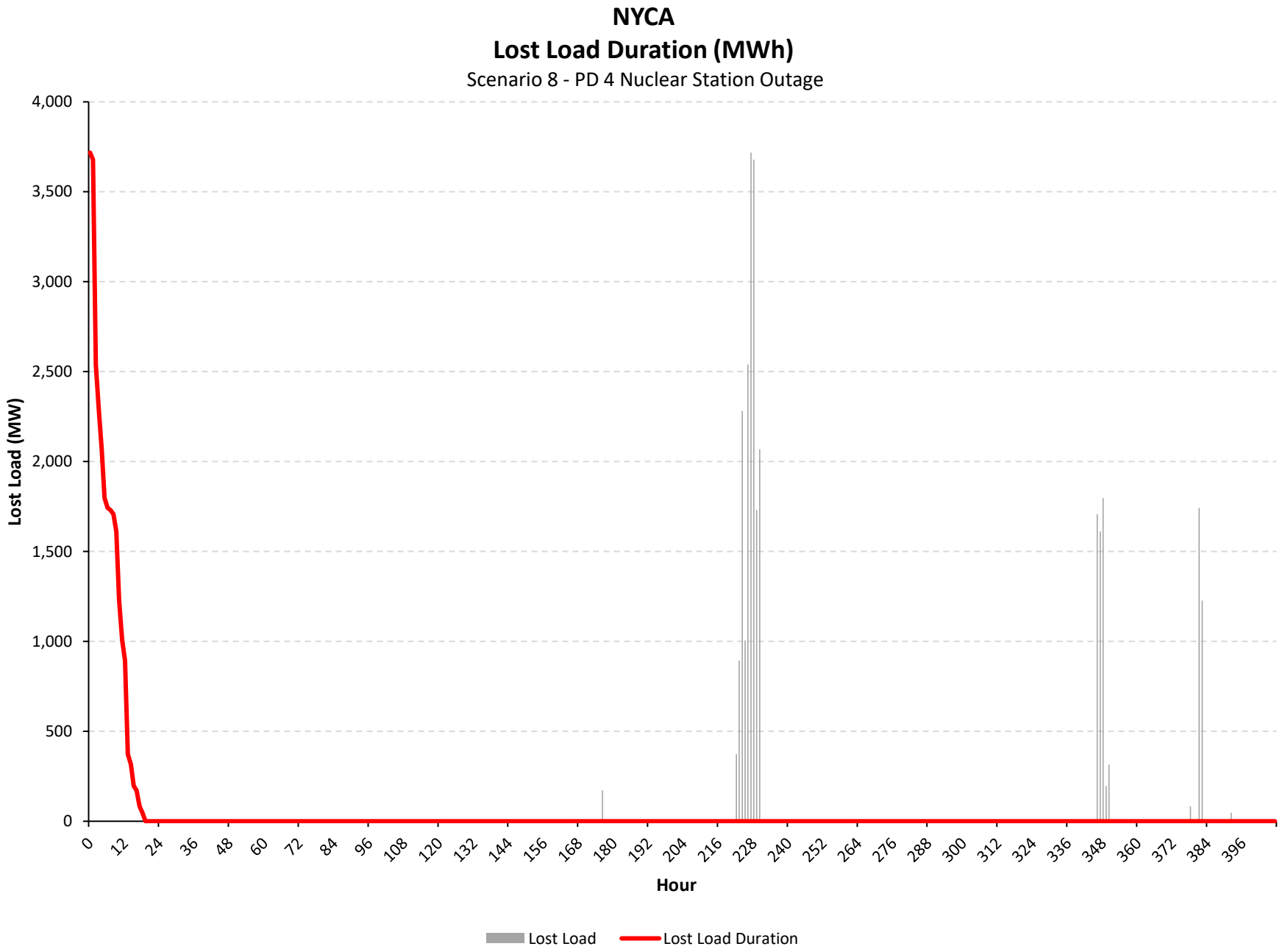
Scenario 8 - PD 4 Nuclear Station Outage





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 8 - PD 4 Nuclear Station Outage
Emergency Actions and Lost Load (MW)
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 8 - PD 4 Nuclear Station Outage
Lost Load (MW)
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

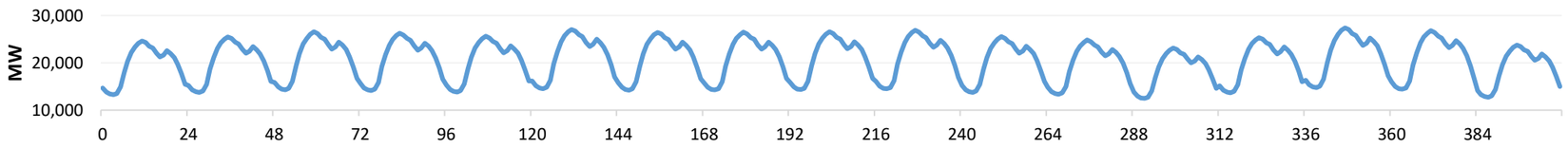
Case: Scenario 8 - PD 5 No Truck Refill (Winter 2026/2027)

Hourly Results Summary

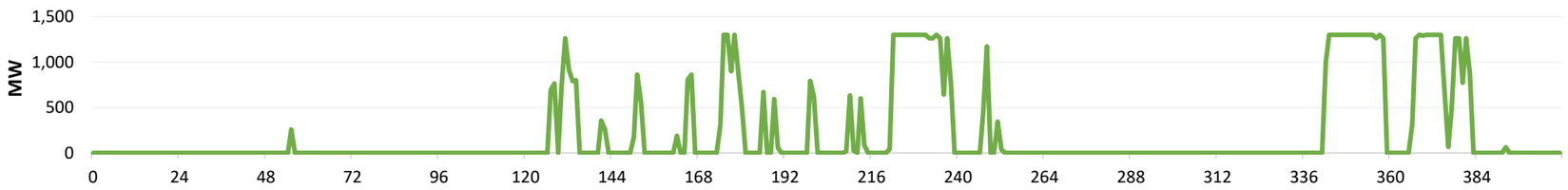
Case Name: Scenario 8 - PD 5 No Truck Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Load During Modeling Period

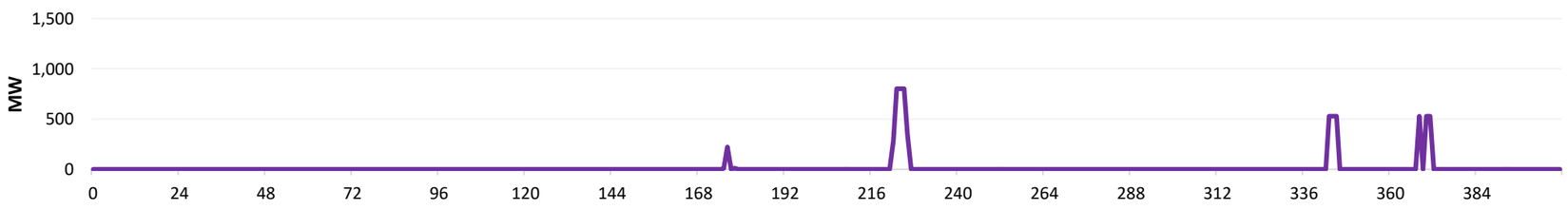


Export to ISO-NE Reduction During Modeling Period



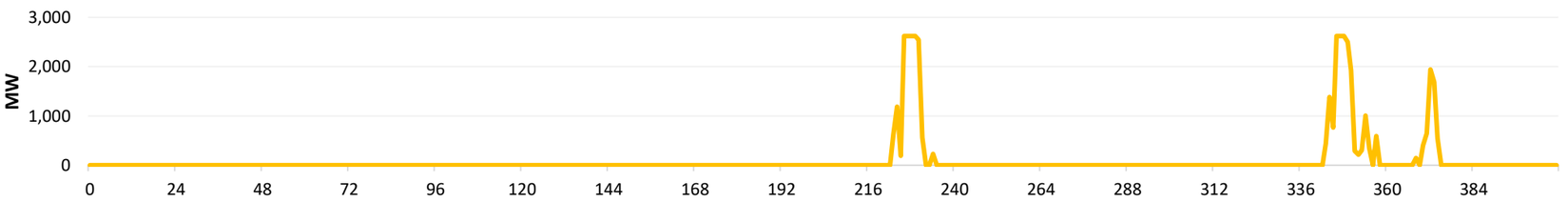
Export Reductions	
Total Hrs.	90
Total MWh	82,766
Avg. MW	202.9

SCR/EDRP Deployed During Modeling Period



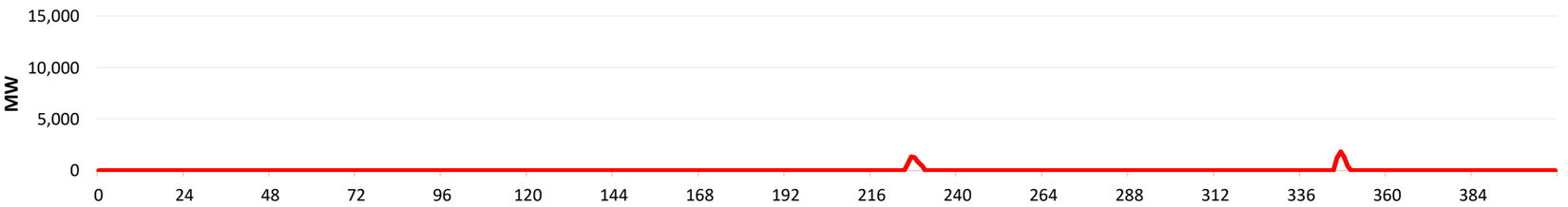
SCR Deployment	
Total Hrs.	14
Total MWh	6,439
Avg. MW	15.8

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	30
Total MWh	38,813
Avg. MW	95.1
First Hour with Viol.	223

Loss of Load During Modeling Period



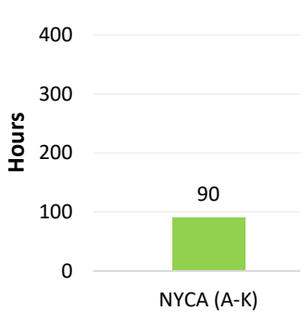
Loss of Load	
Total Hrs.	9
Total MWh	9,306
Avg. MW	22.8
First Hour with Losses	226

Full Period Results Summary

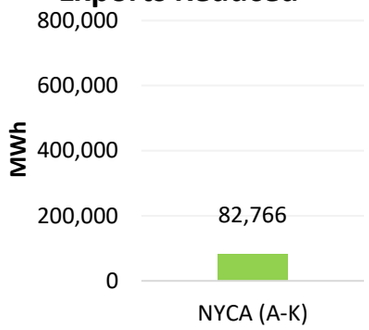
Case Name: Scenario 8 - PD 5 No Truck Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

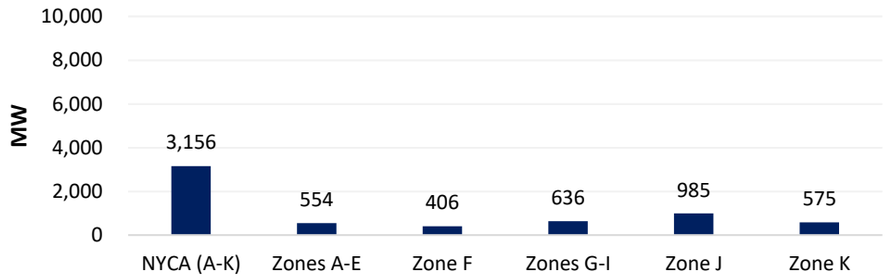
Hours Exports Reduced



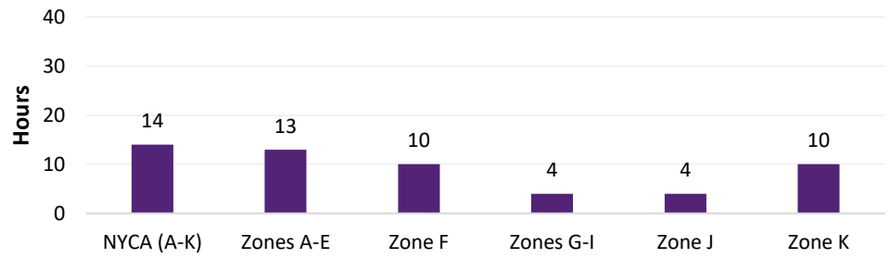
Total MWh of Exports Reduced



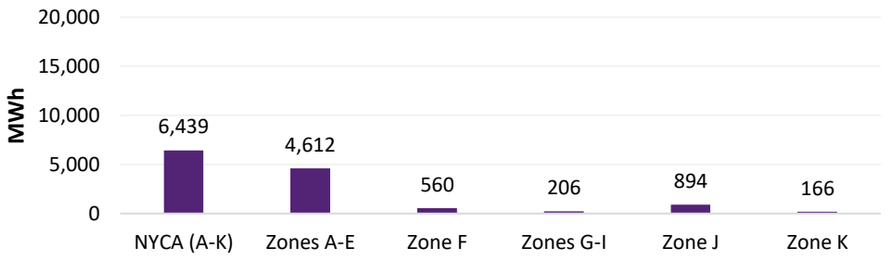
Average Capacity Not Available Due to Exhausted Fuel Inventory



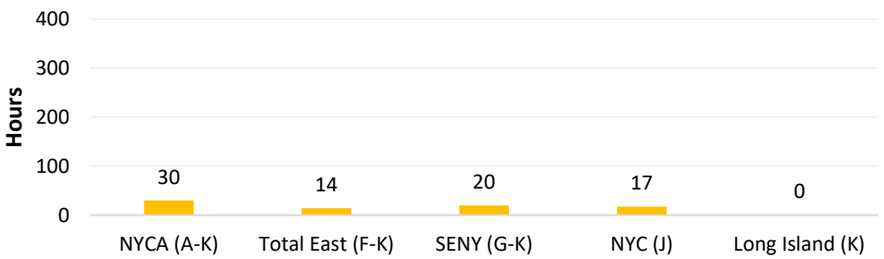
Hours SCR/EDRP Deployed



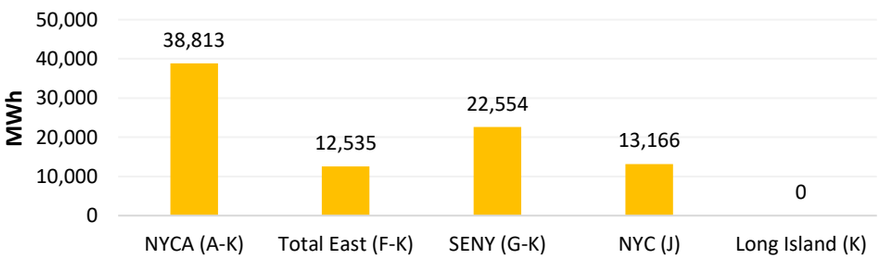
Total MWh SCR/EDRP Deployed



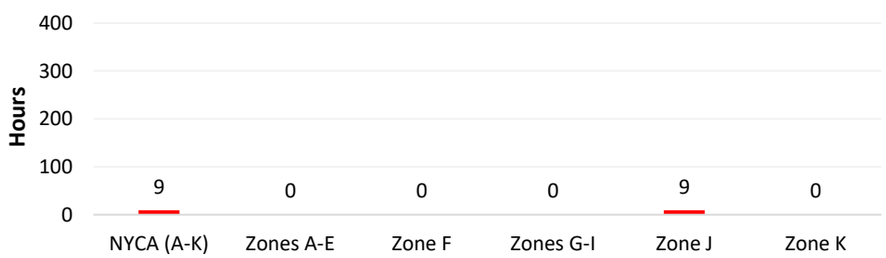
Hours with Reserve Violations



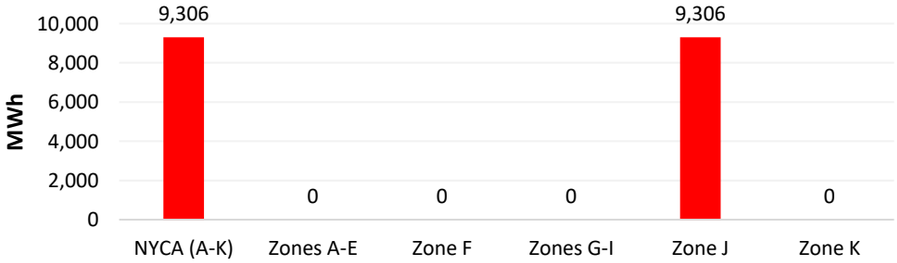
Total MWh of Reserve Violations

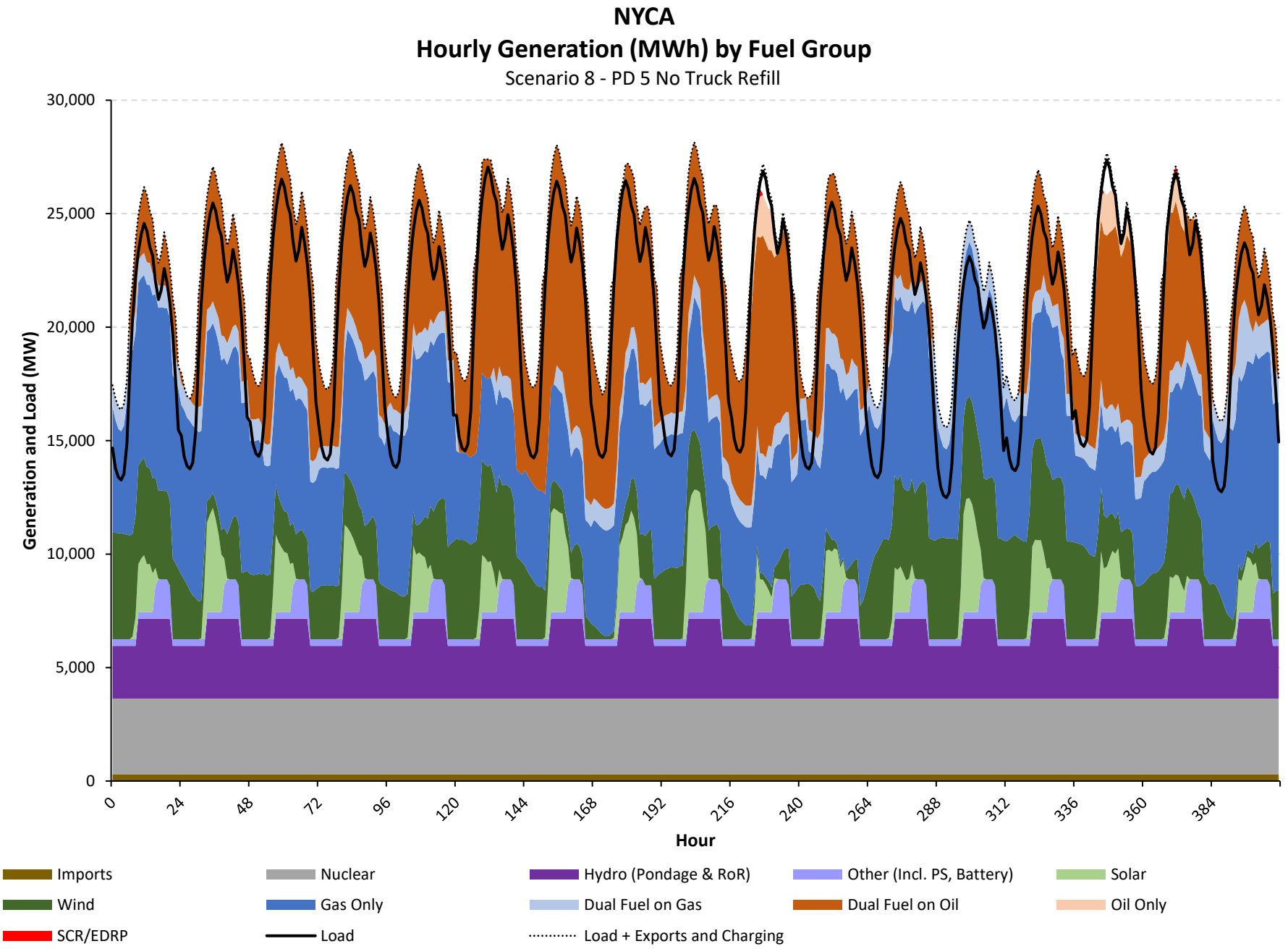


Hours with Loss of Load

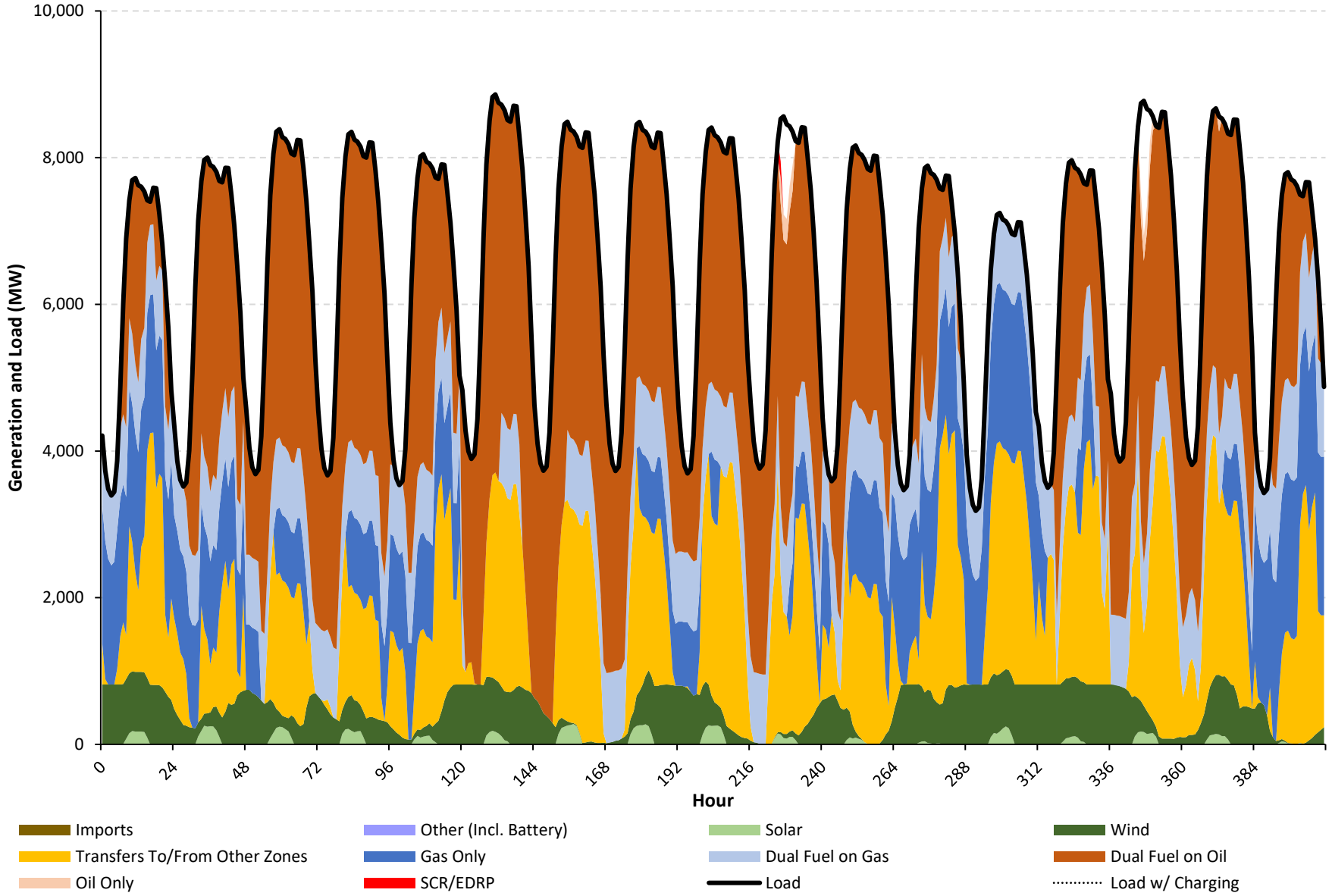


Total MWh of Lost Load

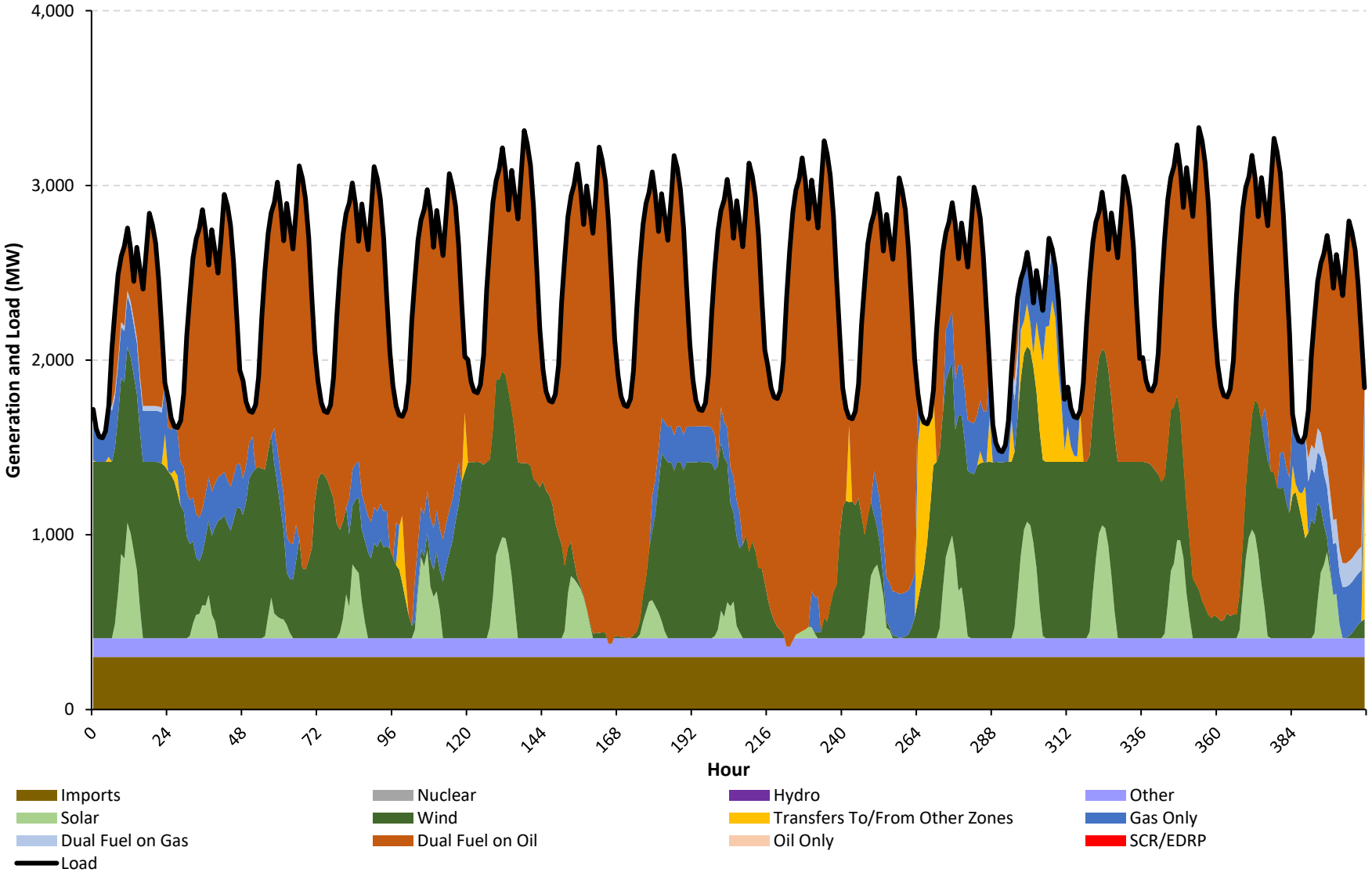



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 8 - PD 5 No Truck Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 5 No Truck Refill



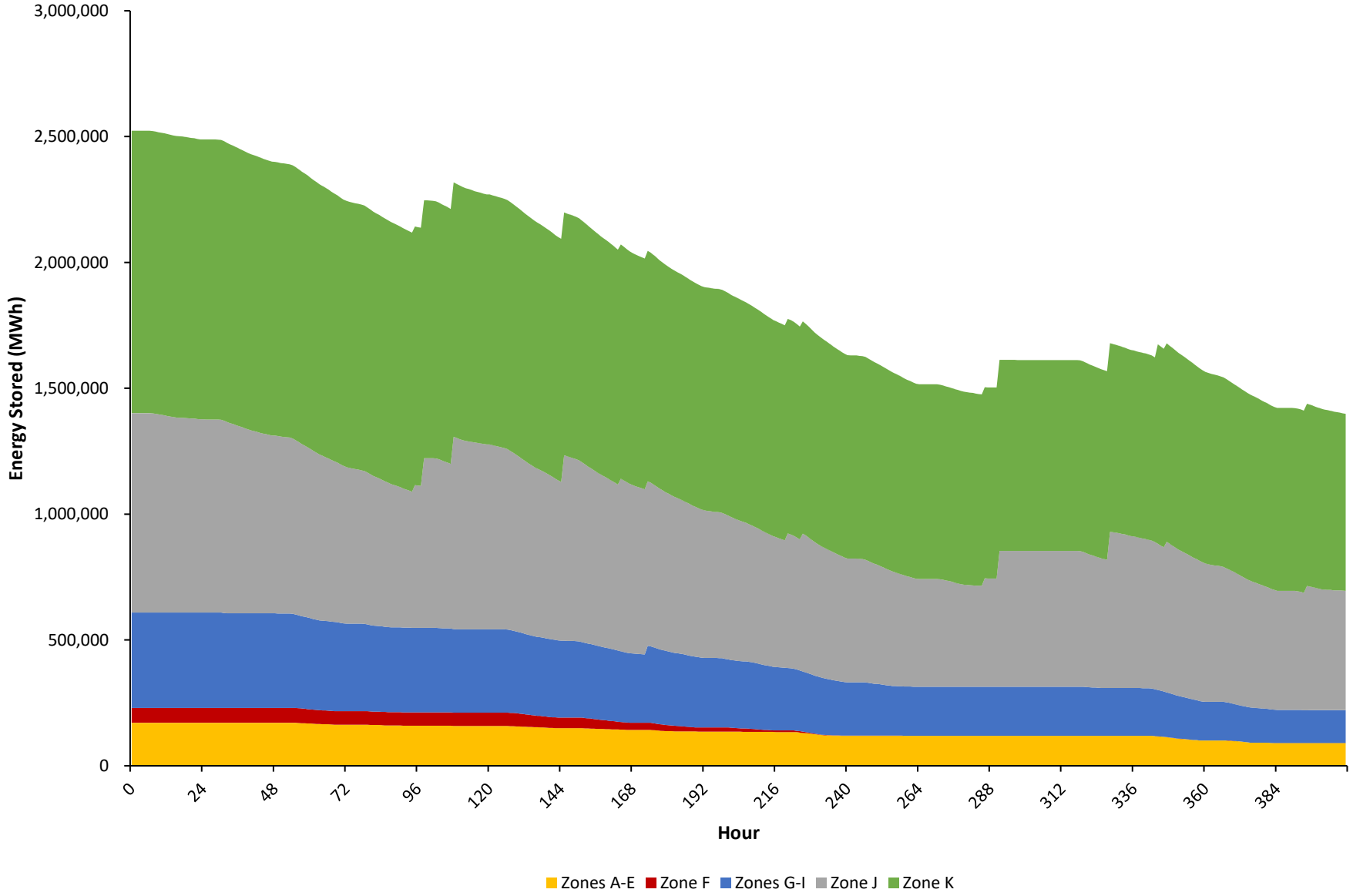
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 5 No Truck Refill

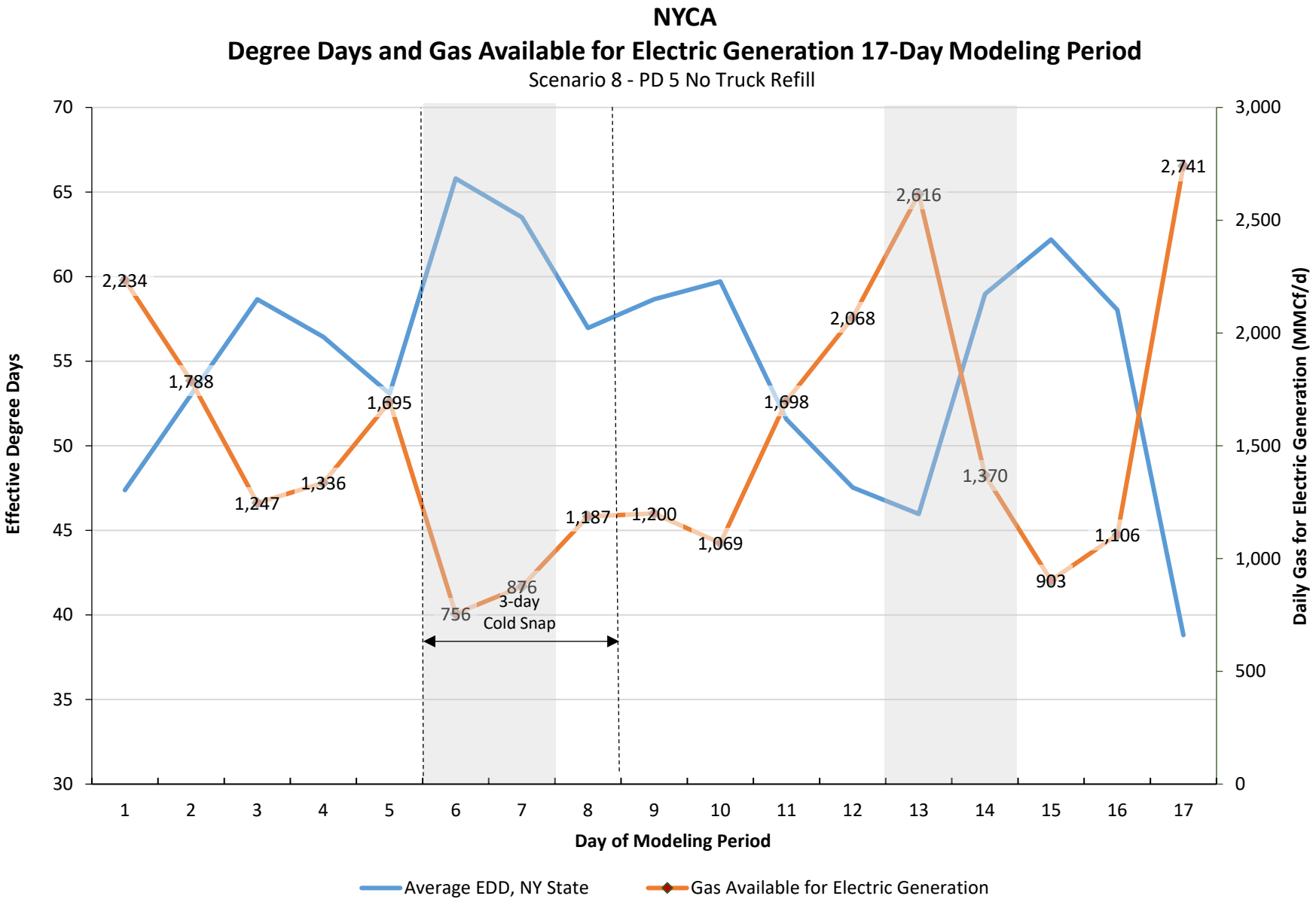


NYCA

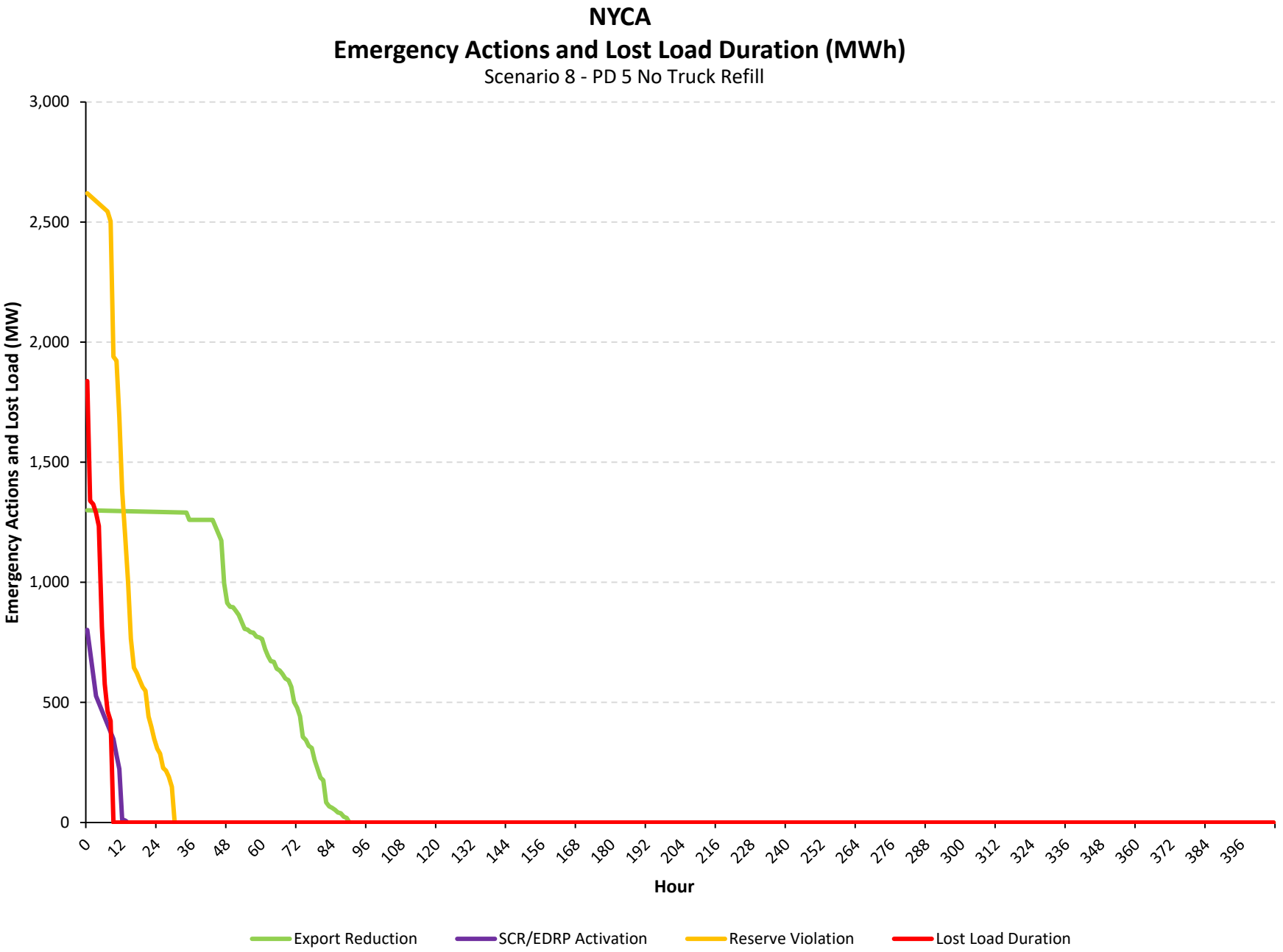
Quantity of Stored Fuel for Oil and Dual Fuel Units

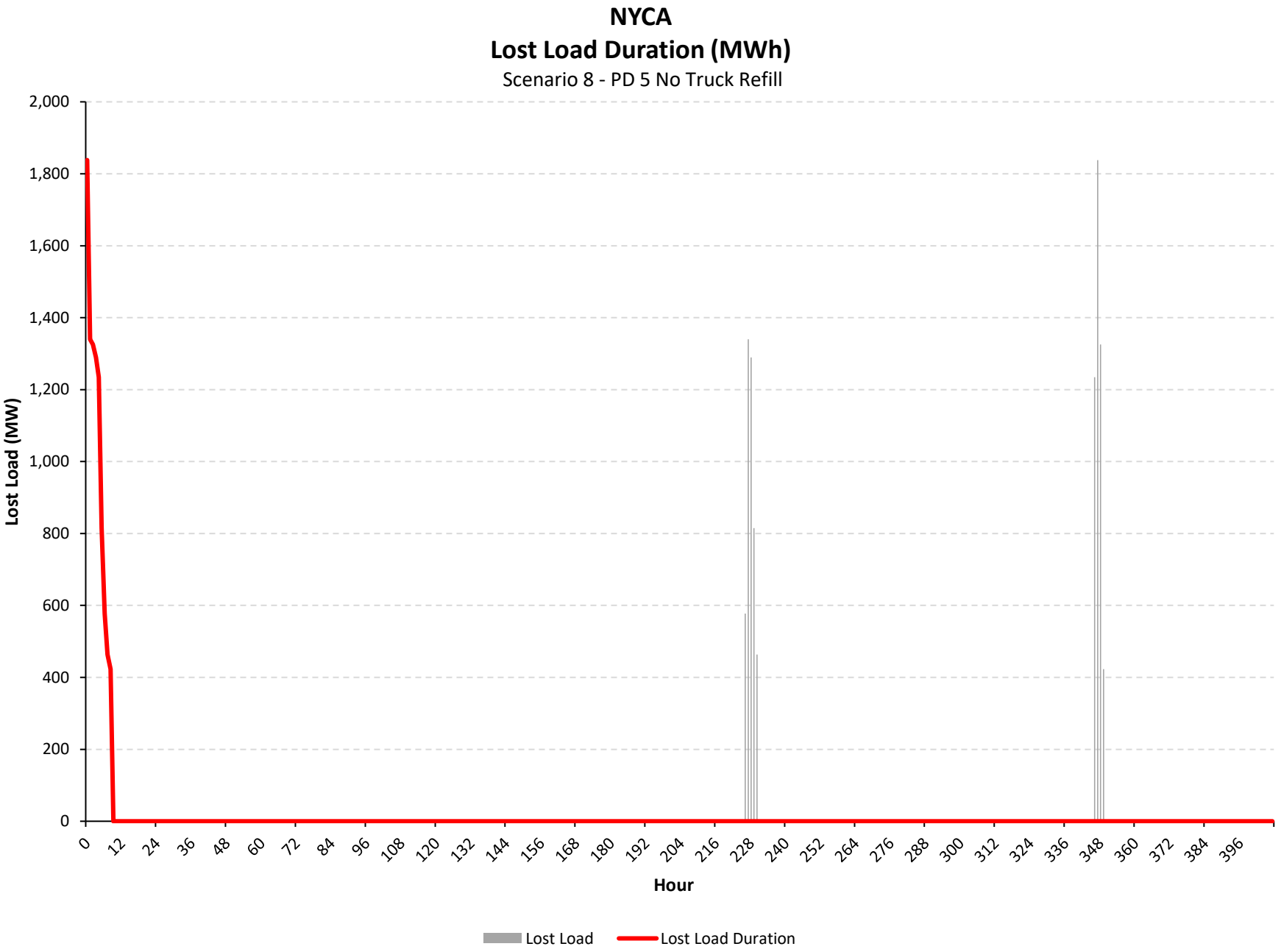
Scenario 8 - PD 5 No Truck Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 8 - PD 5 No Truck Refill
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 8 - PD 5 No Truck Refill
Lost Load (MW)
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

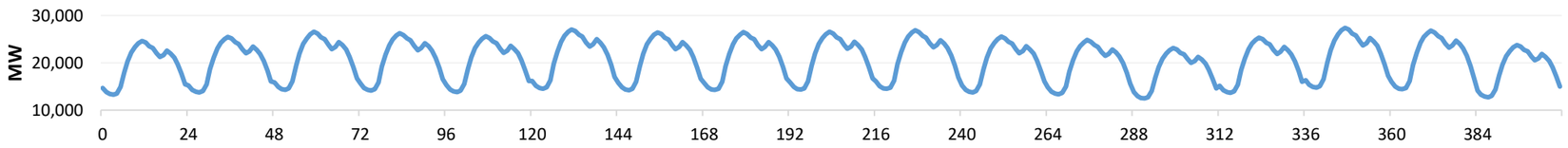
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 8 - PD 6 No Barge Refill (Winter 2026/2027)

Hourly Results Summary

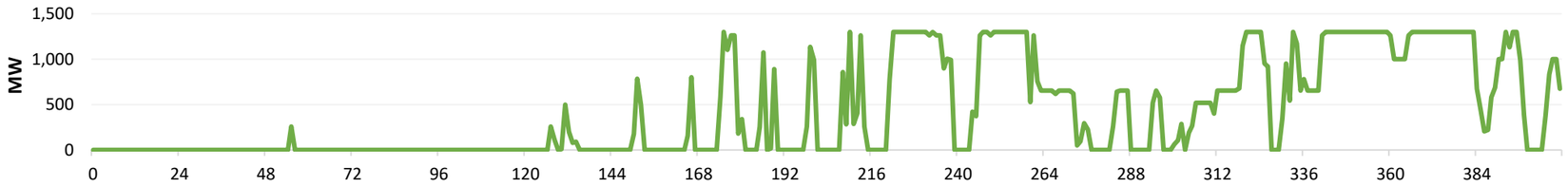
Case Name: Scenario 8 - PD 6 No Barge Refill

Load During Modeling Period



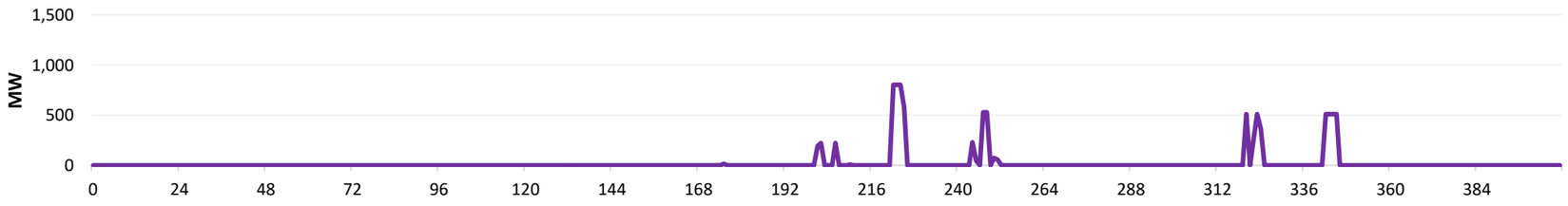
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



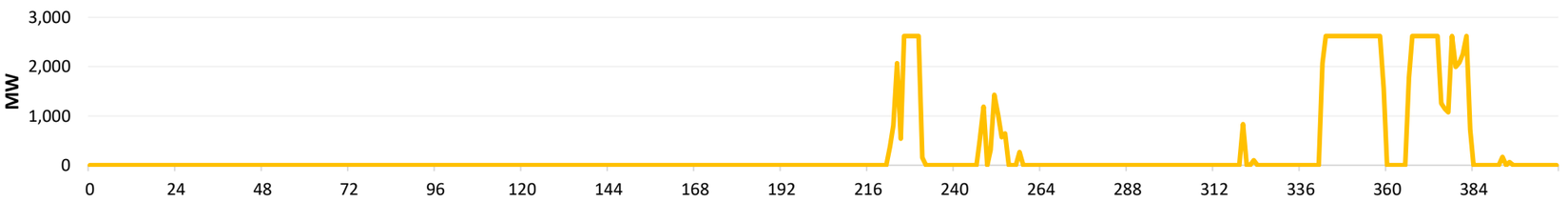
Export Reductions	
Total Hrs.	192
Total MWh	170,259
Avg. MW	417.3

SCR/EDRP Deployed During Modeling Period



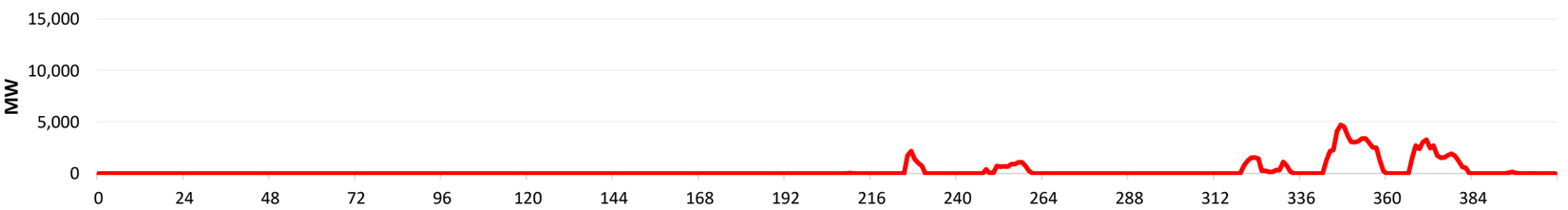
SCR Deployment	
Total Hrs.	23
Total MWh	8,782
Avg. MW	21.5

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	58
Total MWh	108,242
Avg. MW	265.3
First Hour with Viol.	202

Loss of Load During Modeling Period



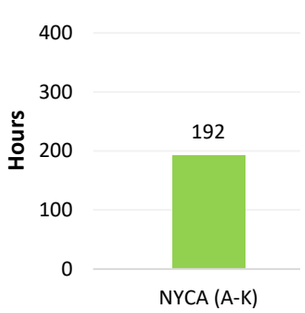
Loss of Load	
Total Hrs.	73
Total MWh	104,611
Avg. MW	256.4
First Hour with Losses	209

Full Period Results Summary

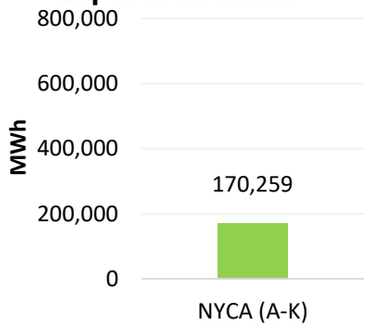
Case Name: Scenario 8 - PD 6 No Barge Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

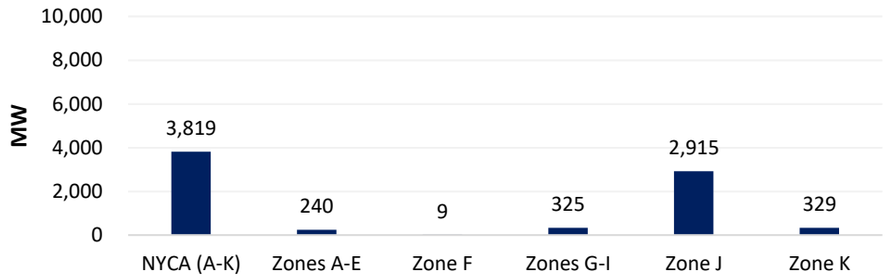
Hours Exports Reduced



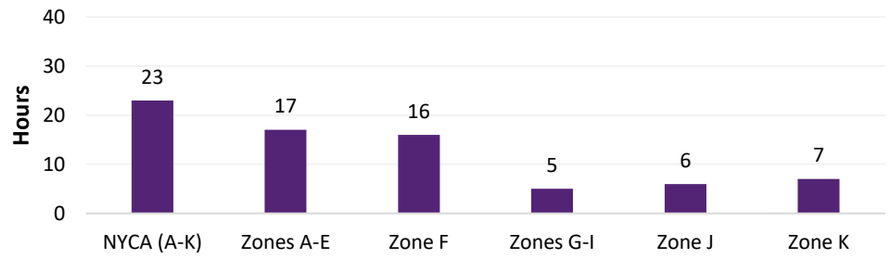
Total MWh of Exports Reduced



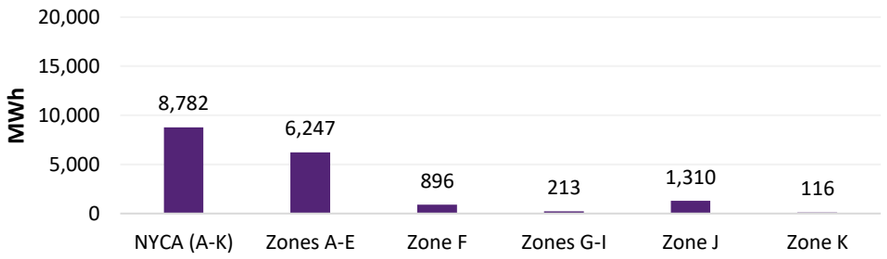
Average Capacity Not Available Due to Exhausted Fuel Inventory



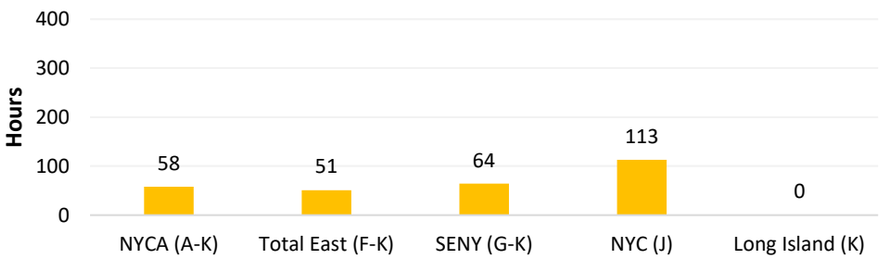
Hours SCR/EDRP Deployed



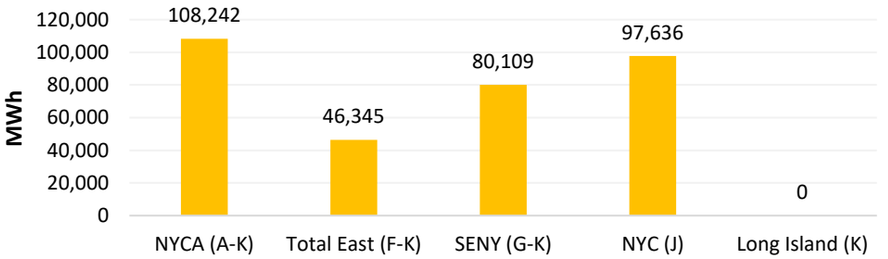
Total MWh SCR/EDRP Deployed



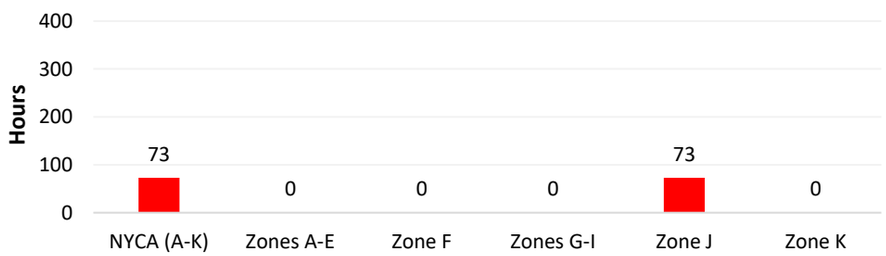
Hours with Reserve Violations



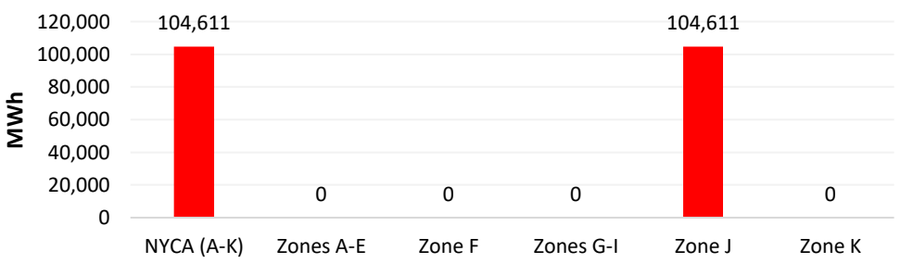
Total MWh of Reserve Violations

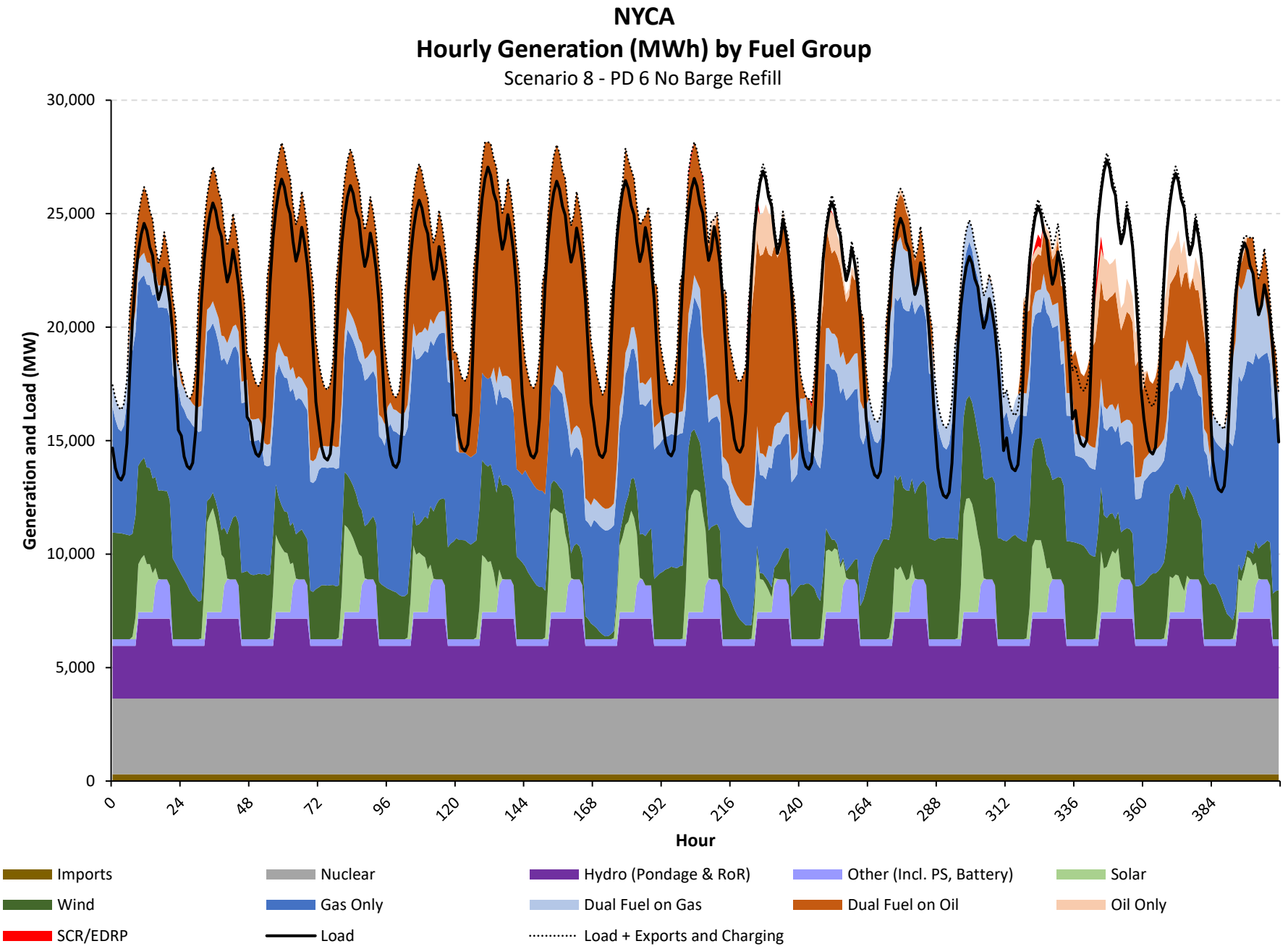


Hours with Loss of Load

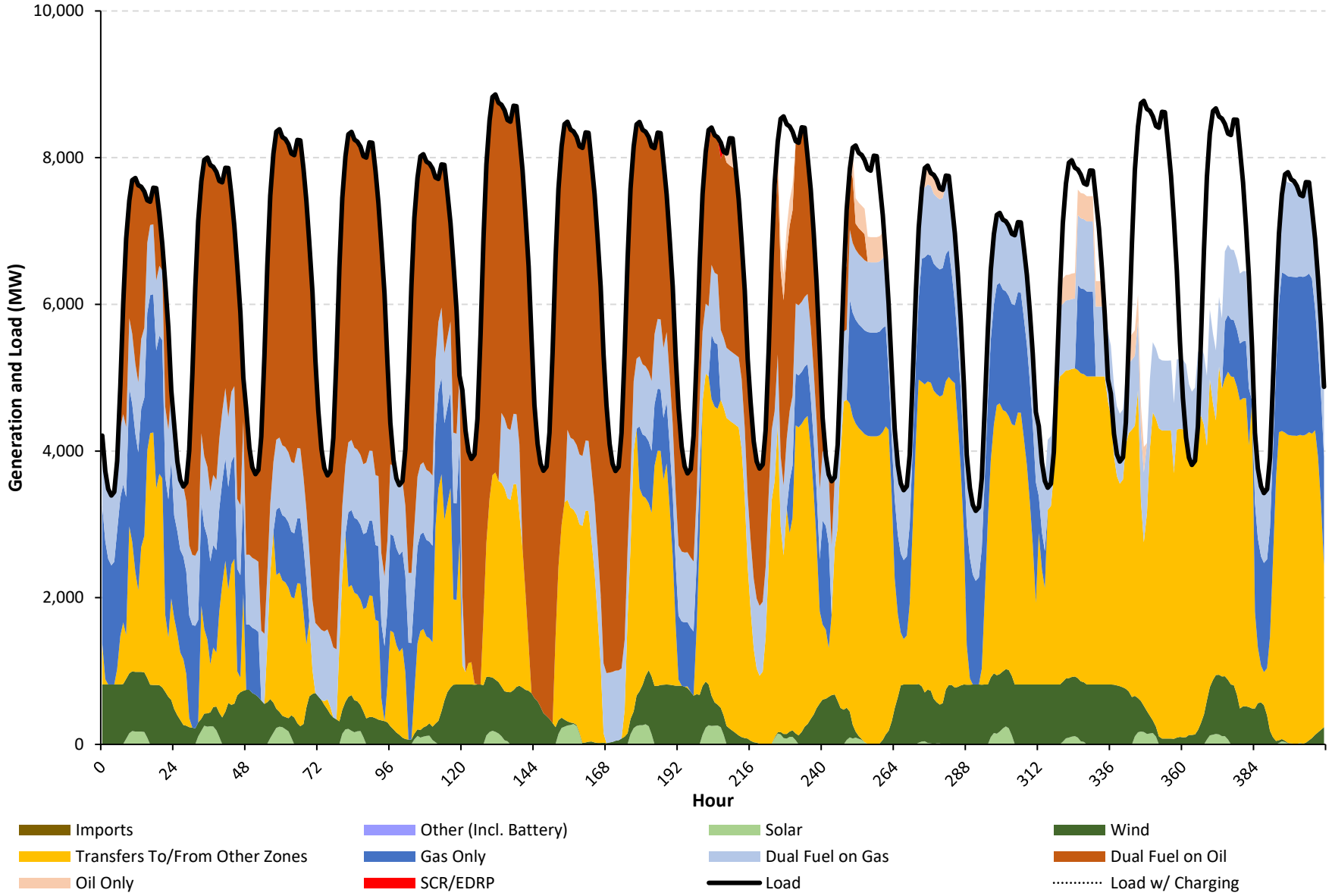


Total MWh of Lost Load

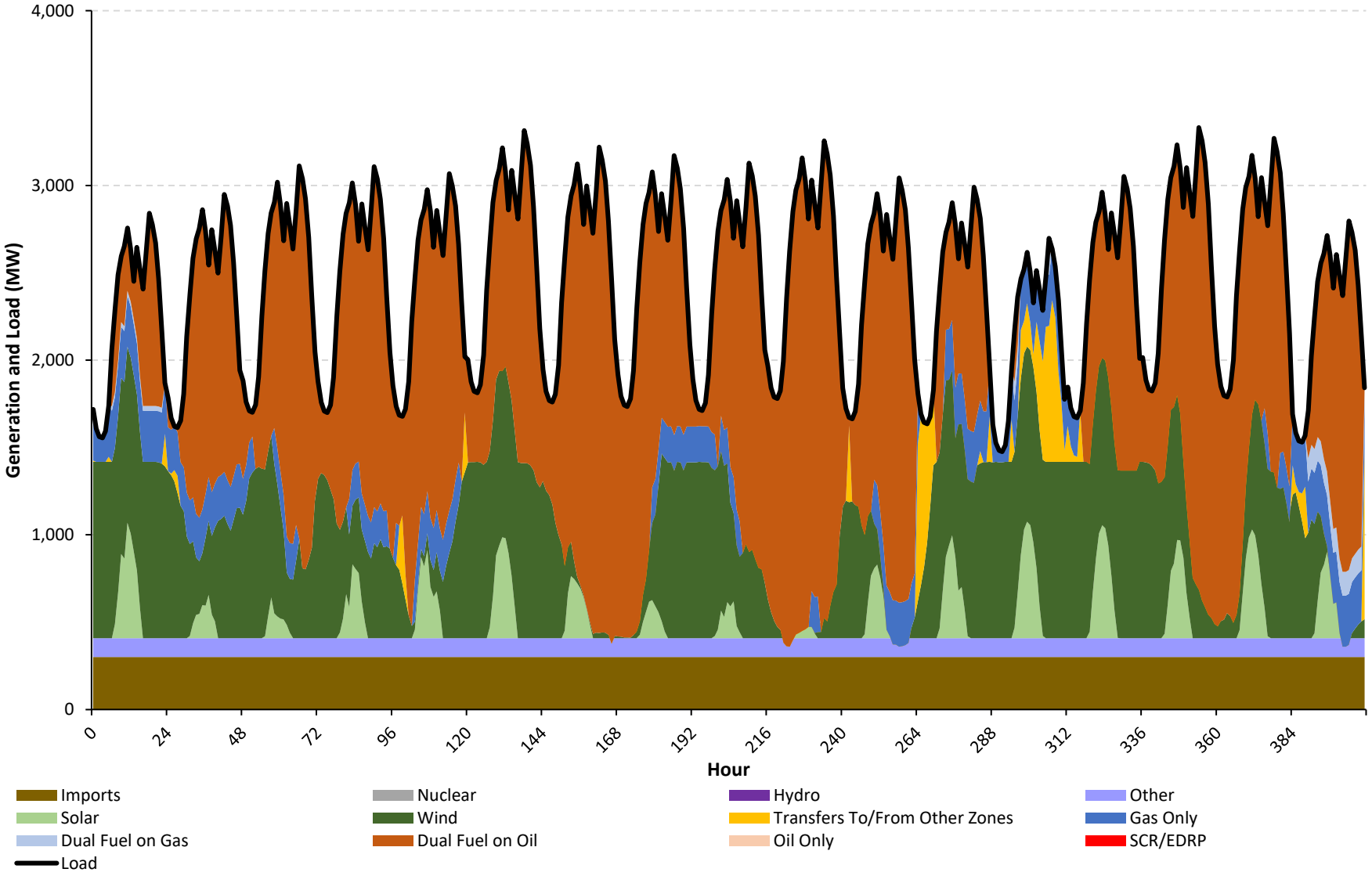



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 8 - PD 6 No Barge Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 6 No Barge Refill



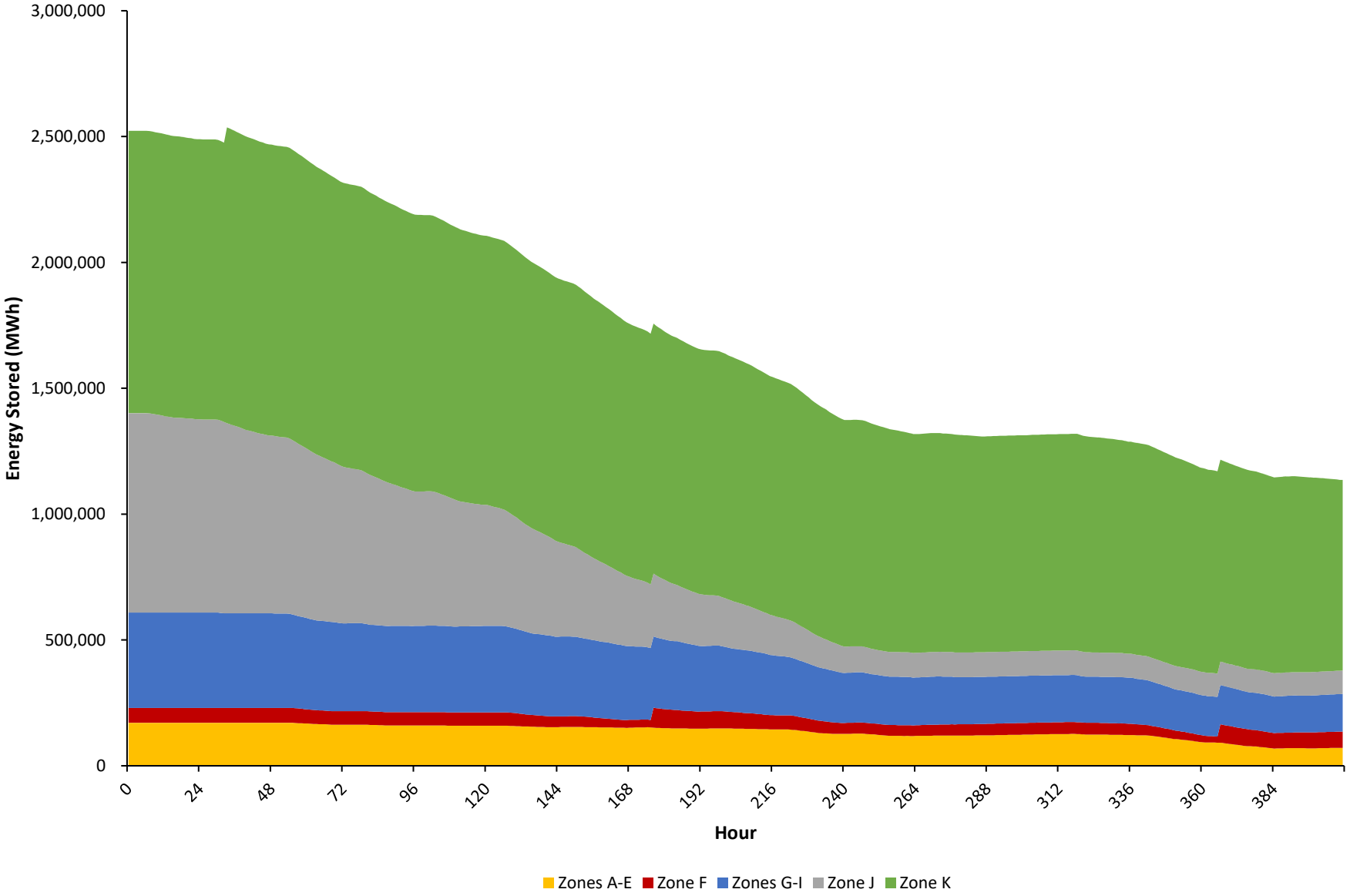
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 6 No Barge Refill

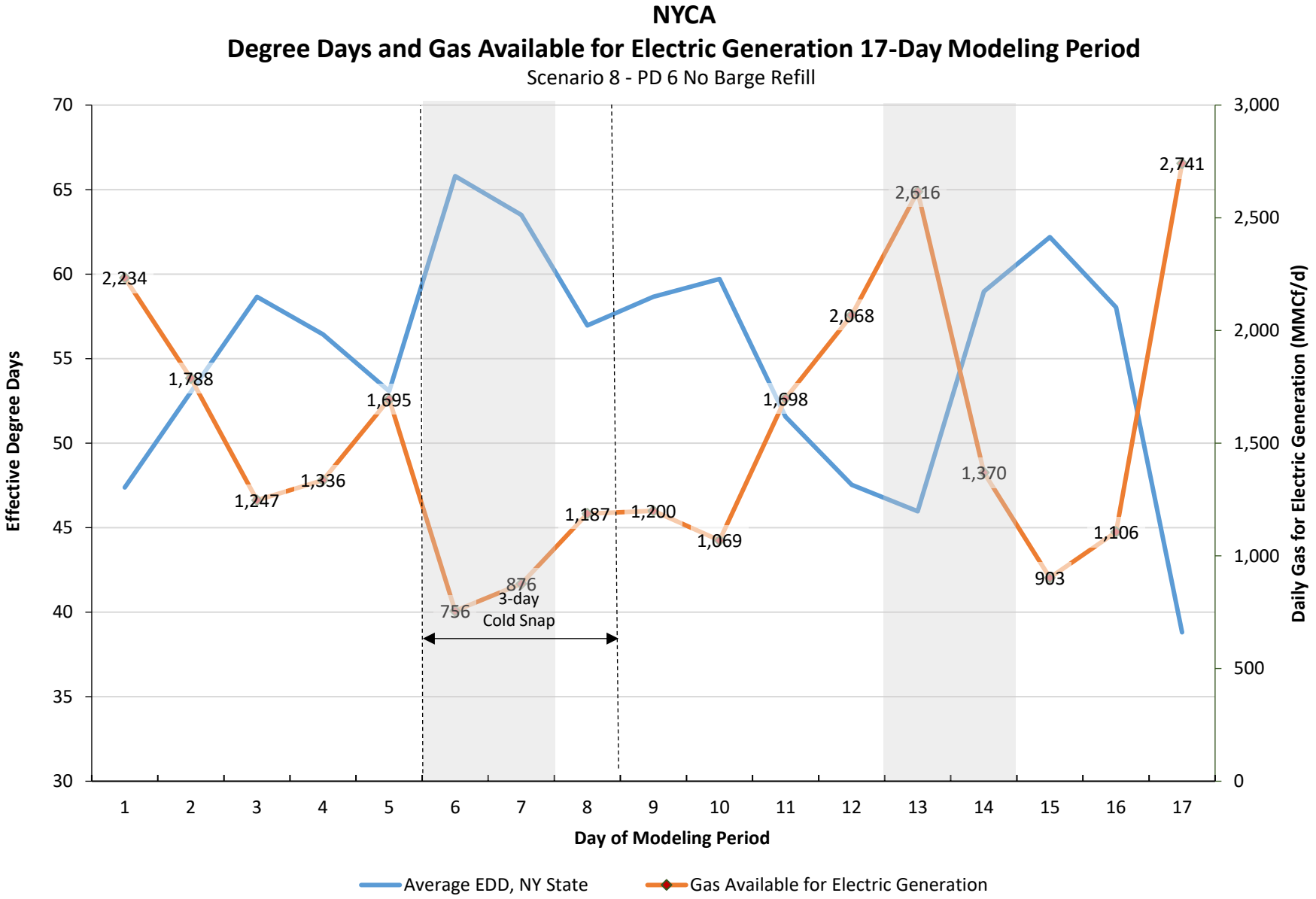


NYCA

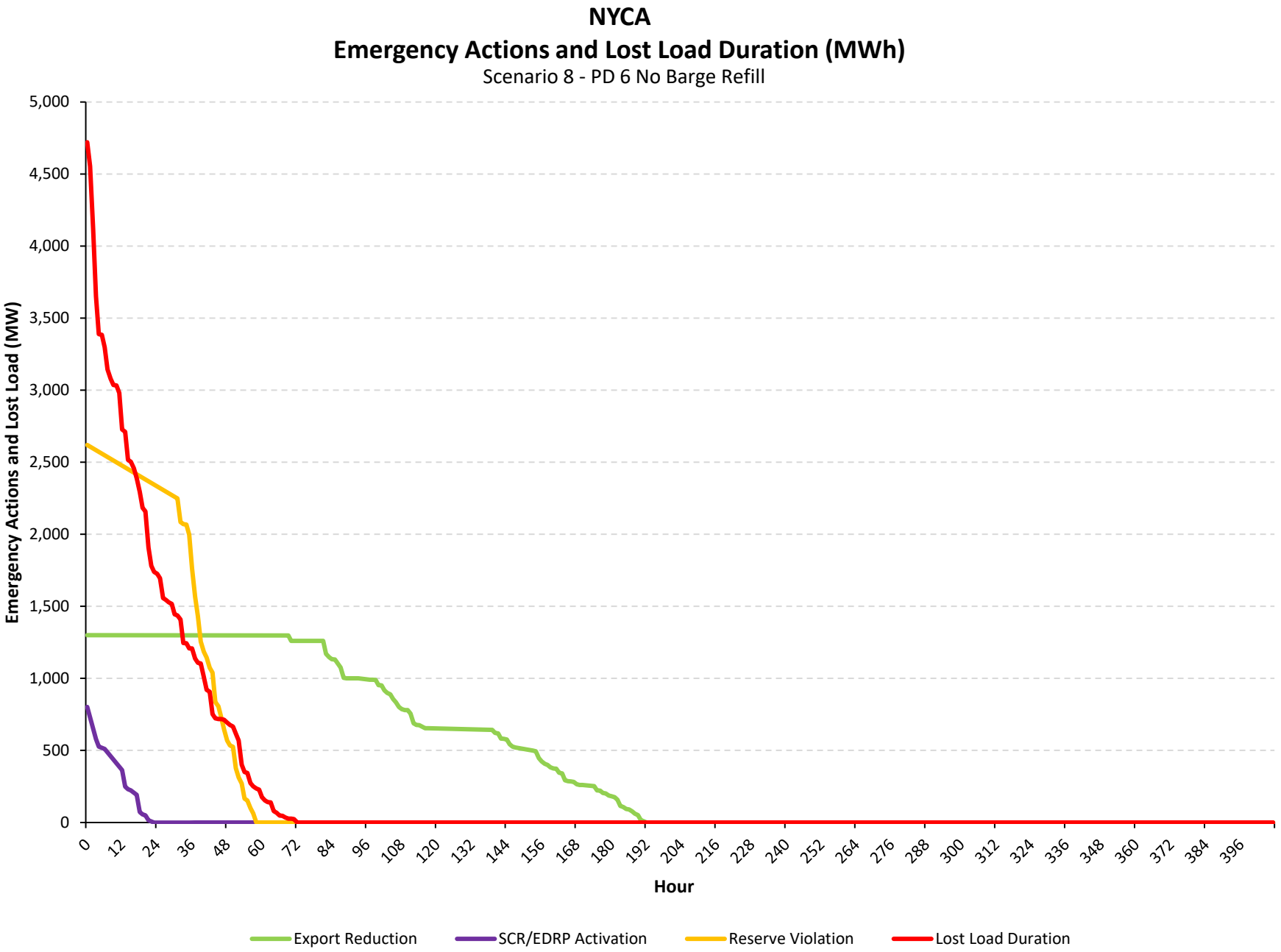
Quantity of Stored Fuel for Oil and Dual Fuel Units

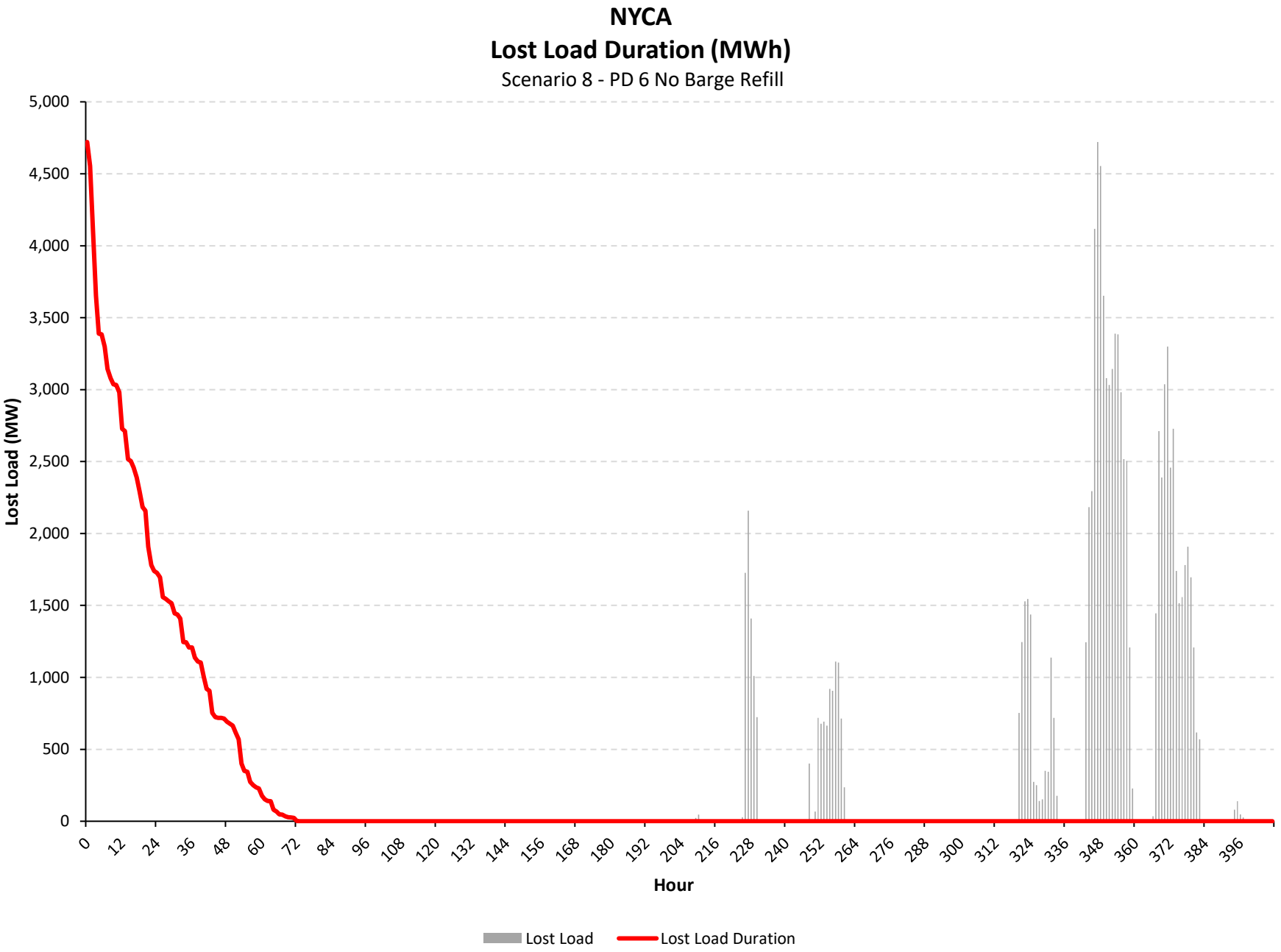
Scenario 8 - PD 6 No Barge Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 8 - PD 6 No Barge Refill
Emergency Actions and Lost Load (MW)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 8 - PD 6 No Barge Refill
Lost Load (MW)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

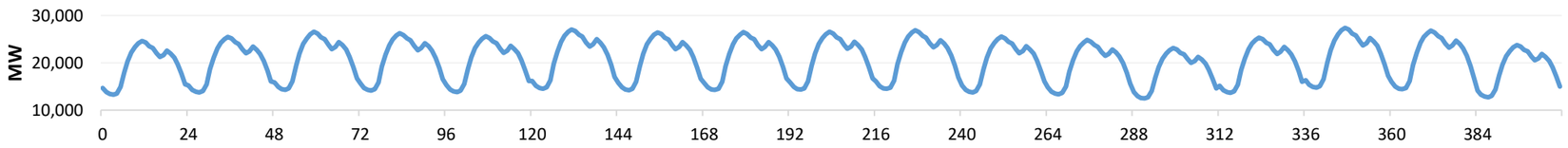
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 8 - PD 7 No Refill (Winter 2026/2027)

Hourly Results Summary

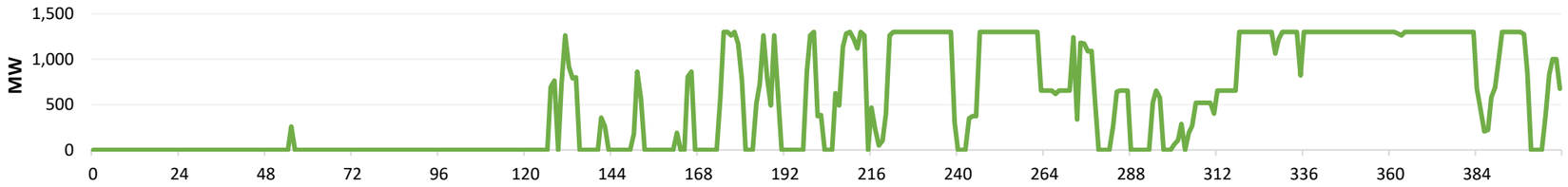
Case Name: Scenario 8 - PD 7 No Refill

Load During Modeling Period



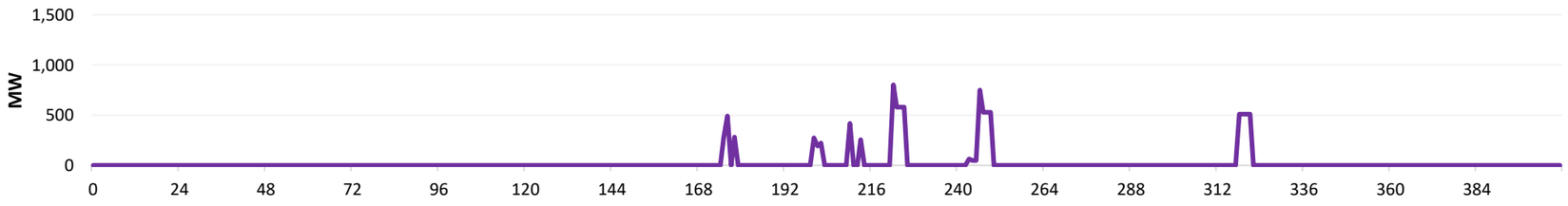
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



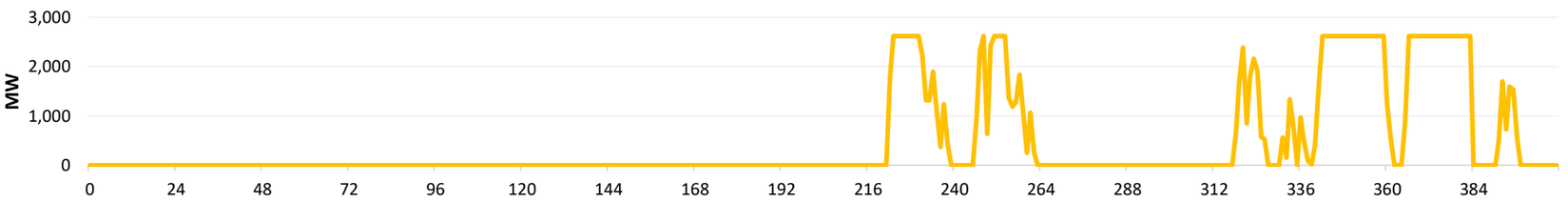
Export Reductions	
Total Hrs.	215
Total MWh	213,195
Avg. MW	522.5

SCR/EDRP Deployed During Modeling Period



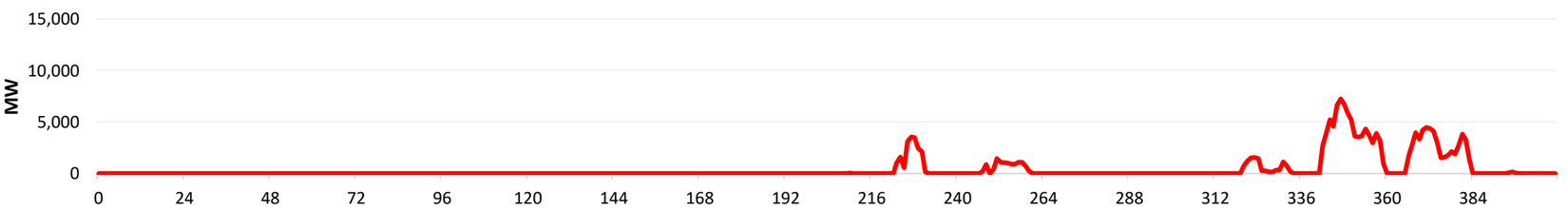
SCR Deployment	
Total Hrs.	23
Total MWh	9,484
Avg. MW	23.2

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	99
Total MWh	182,933
Avg. MW	448.4
First Hour with Viol.	202

Loss of Load During Modeling Period



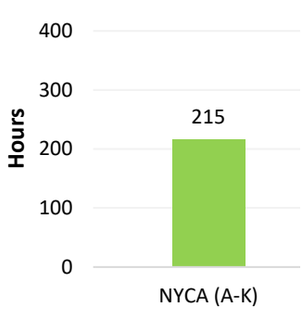
Loss of Load	
Total Hrs.	79
Total MWh	169,563
Avg. MW	415.6
First Hour with Losses	209

Full Period Results Summary

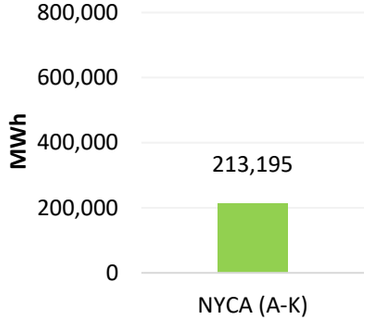
Case Name: Scenario 8 - PD 7 No Refill

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

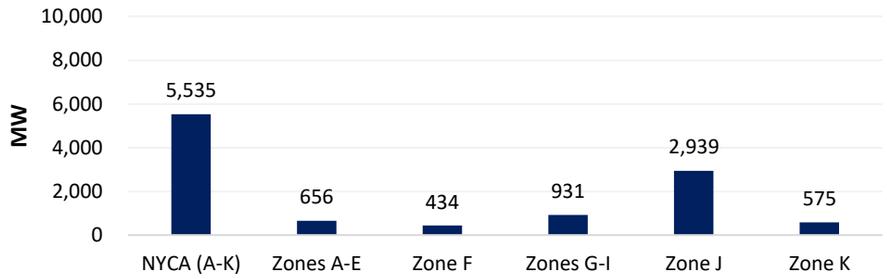
Hours Exports Reduced



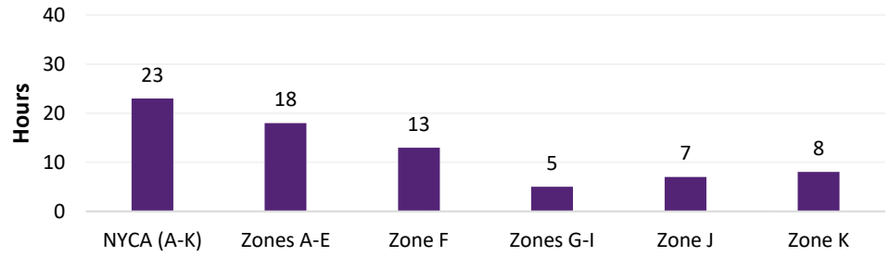
Total MWh of Exports Reduced



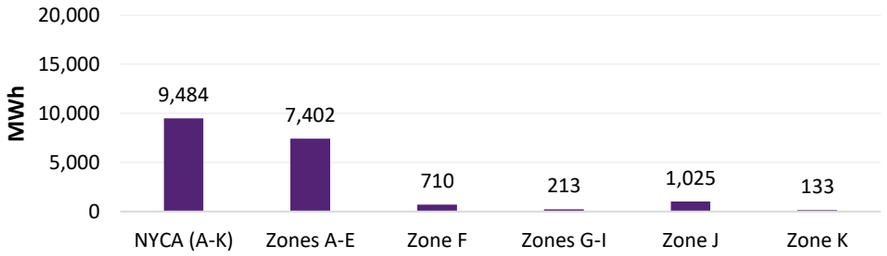
Average Capacity Not Available Due to Exhausted Fuel Inventory



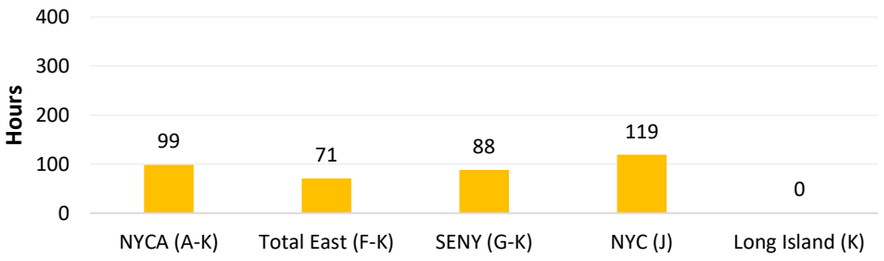
Hours SCR/EDRP Deployed



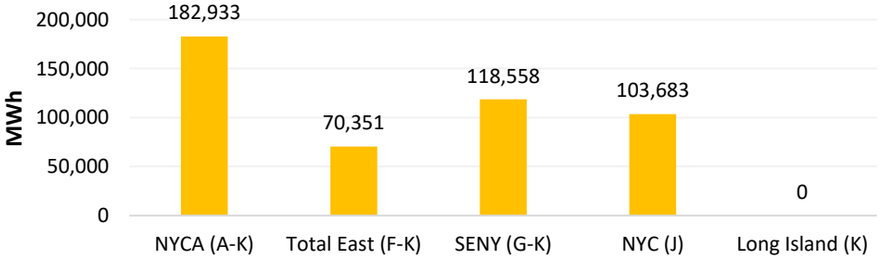
Total MWh SCR/EDRP Deployed



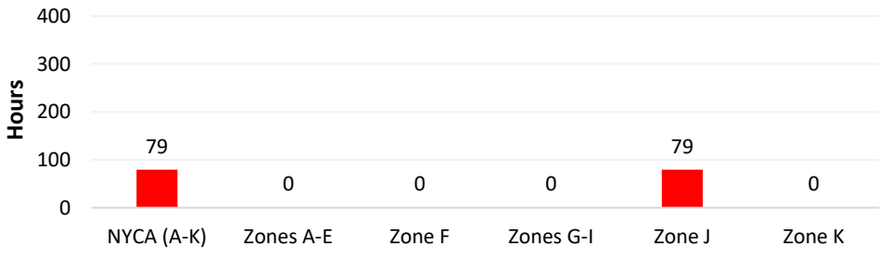
Hours with Reserve Violations



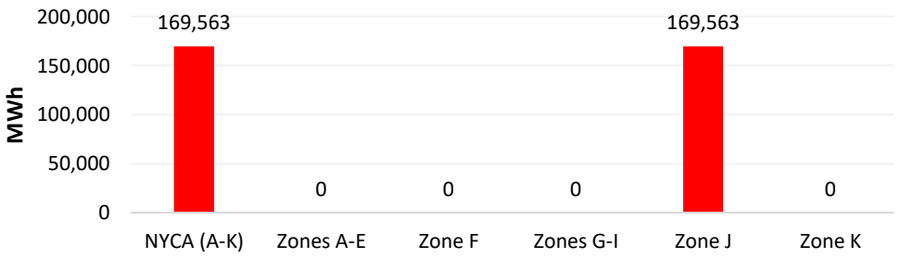
Total MWh of Reserve Violations

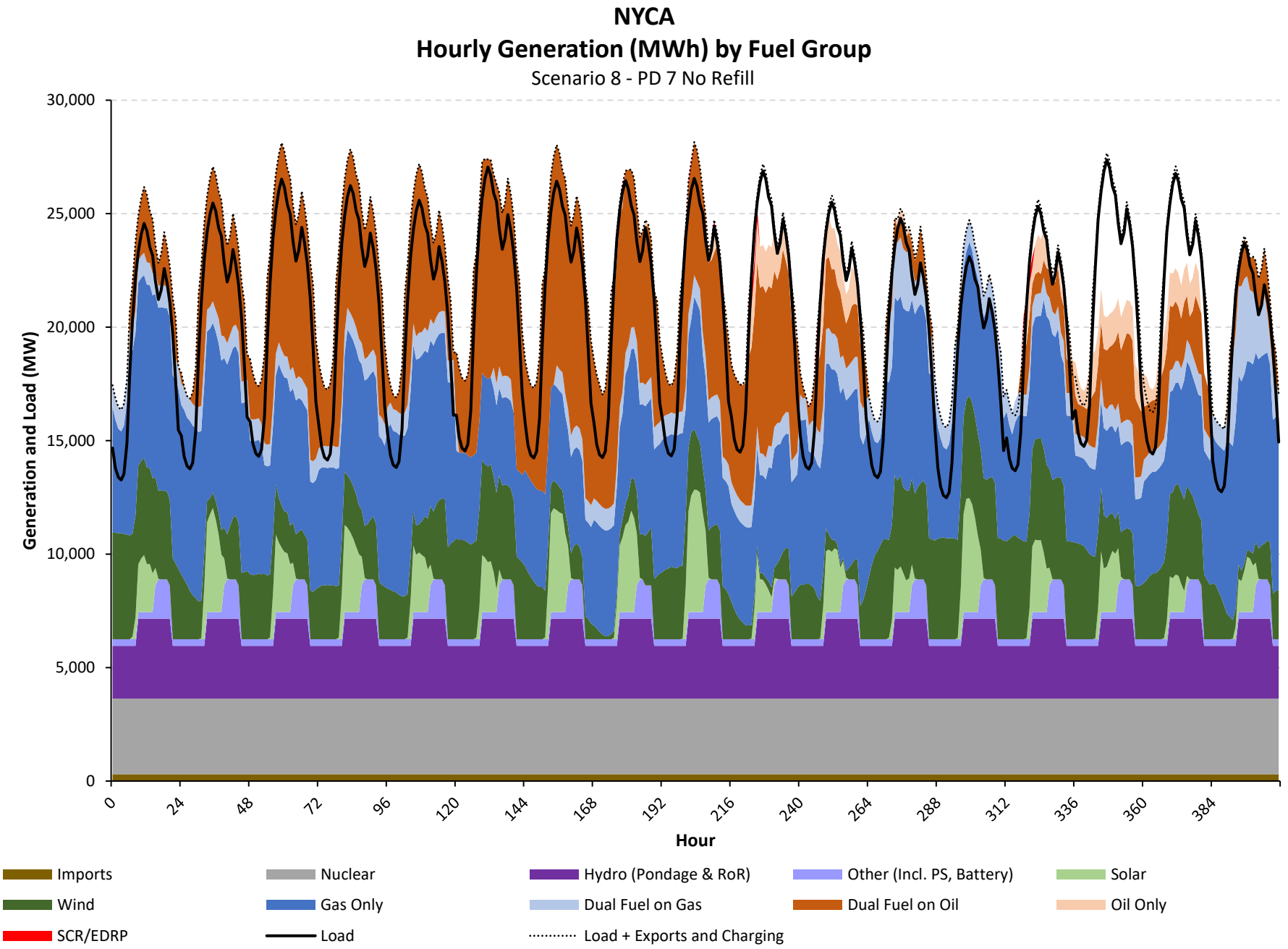


Hours with Loss of Load

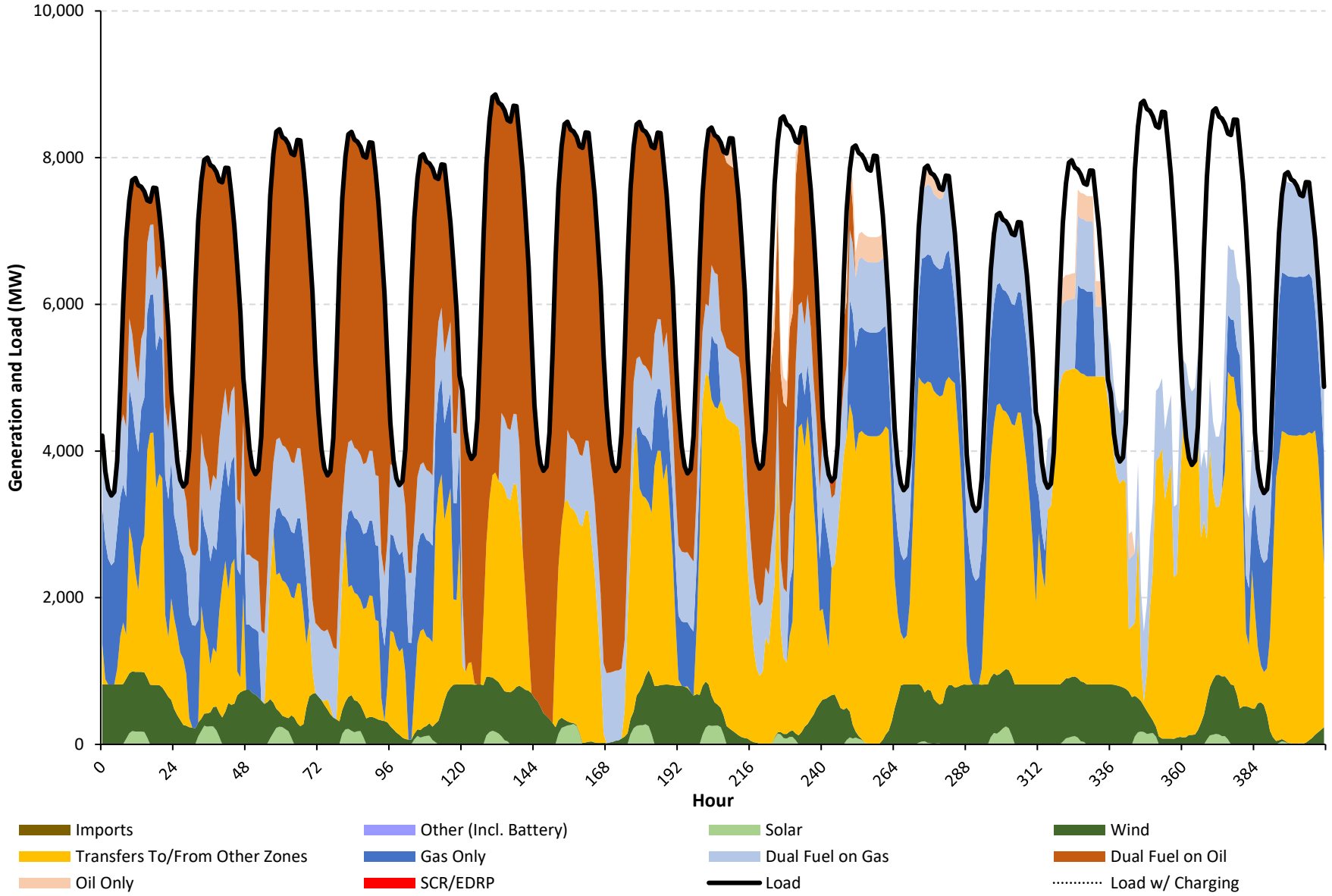


Total MWh of Lost Load

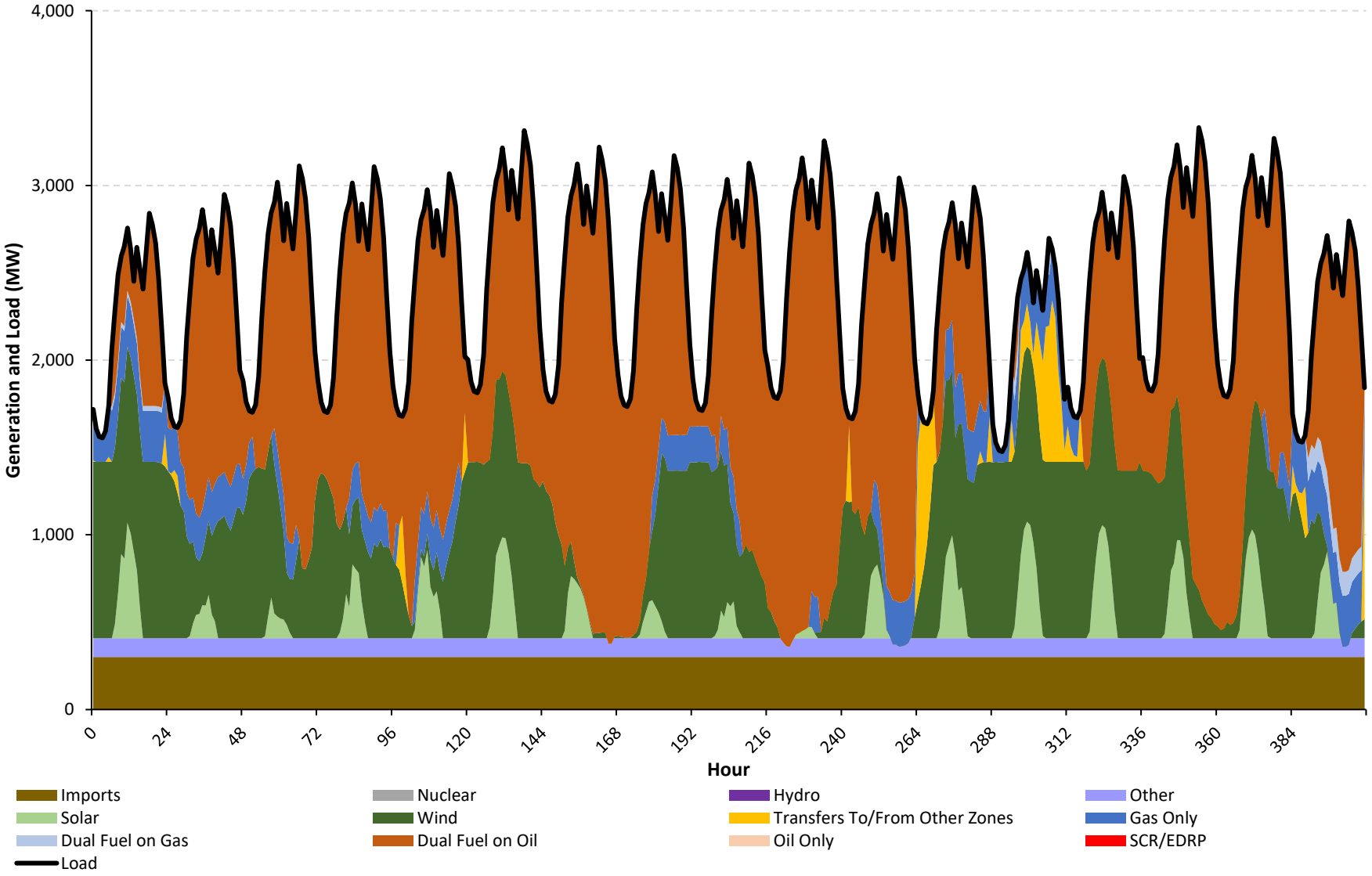



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 8 - PD 7 No Refill
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 7 No Refill



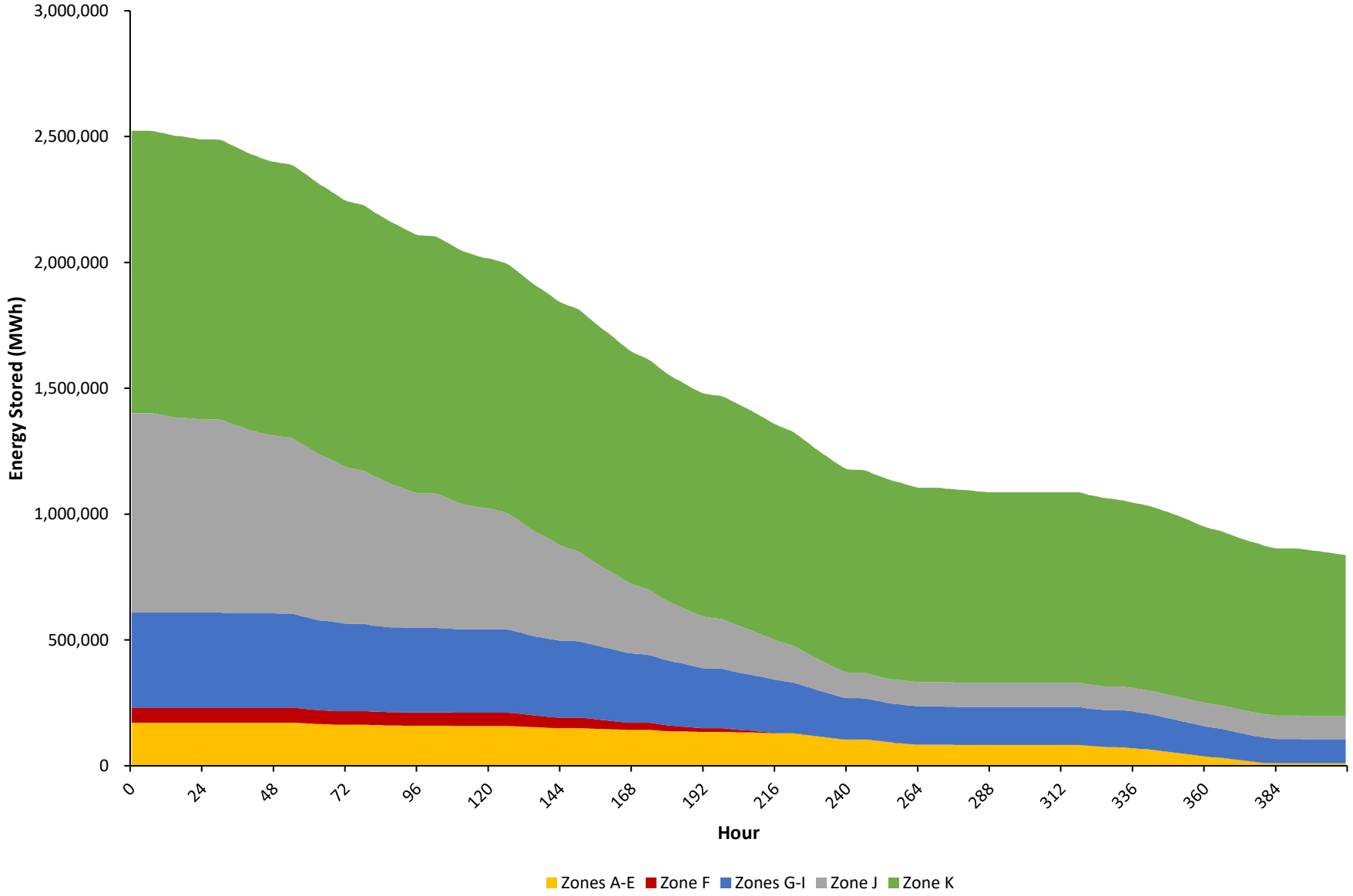
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 7 No Refill

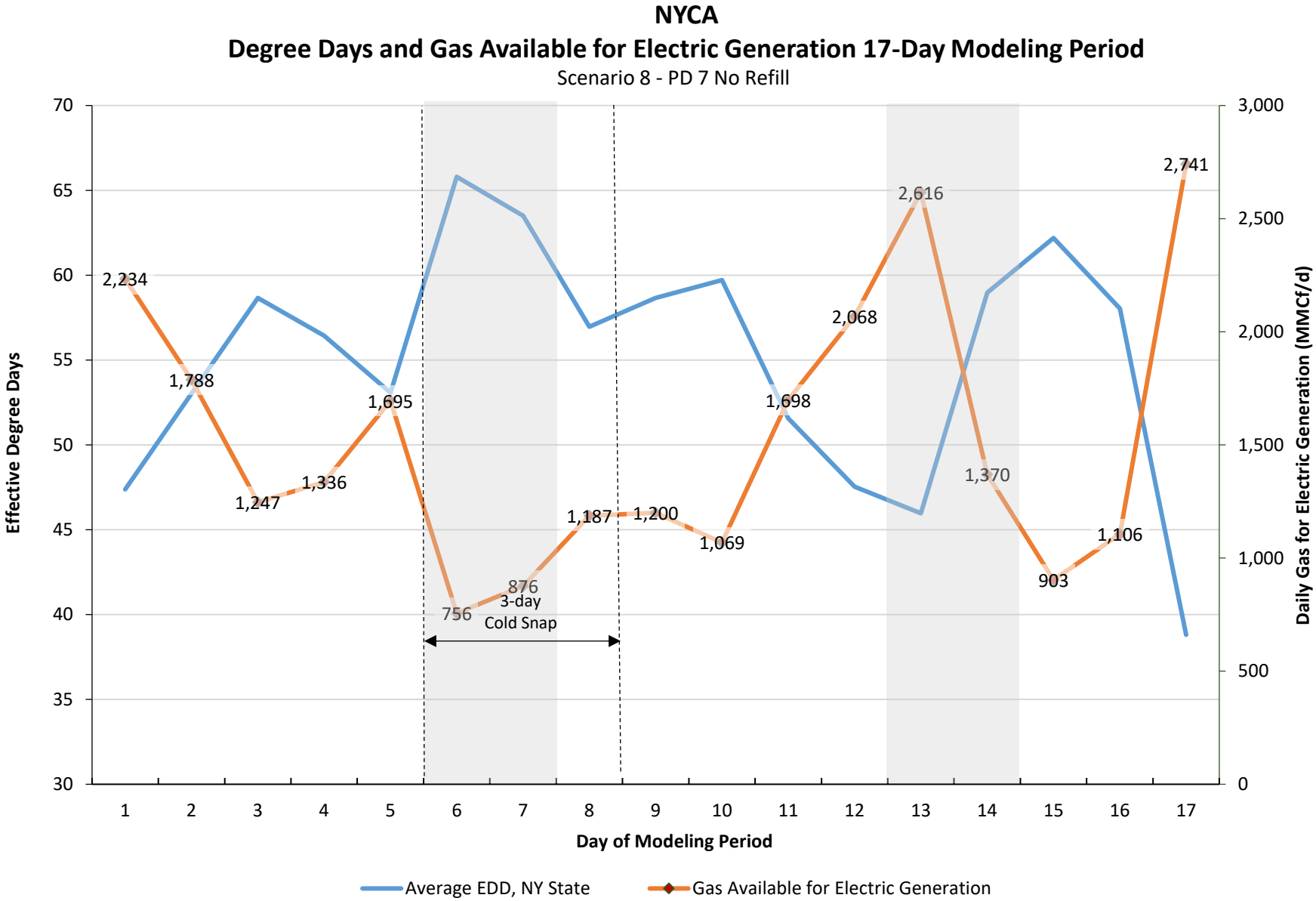


NYCA

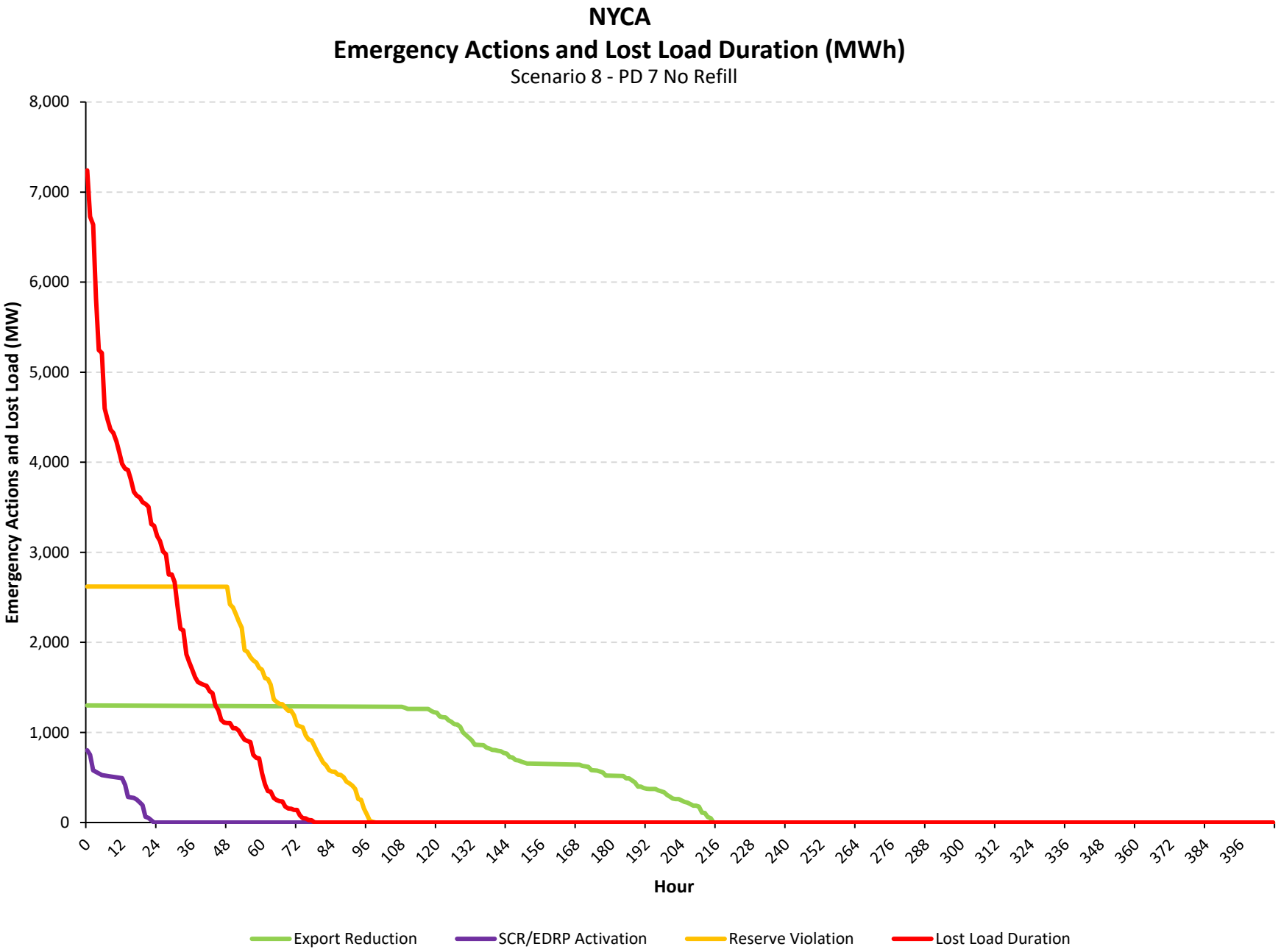
Quantity of Stored Fuel for Oil and Dual Fuel Units

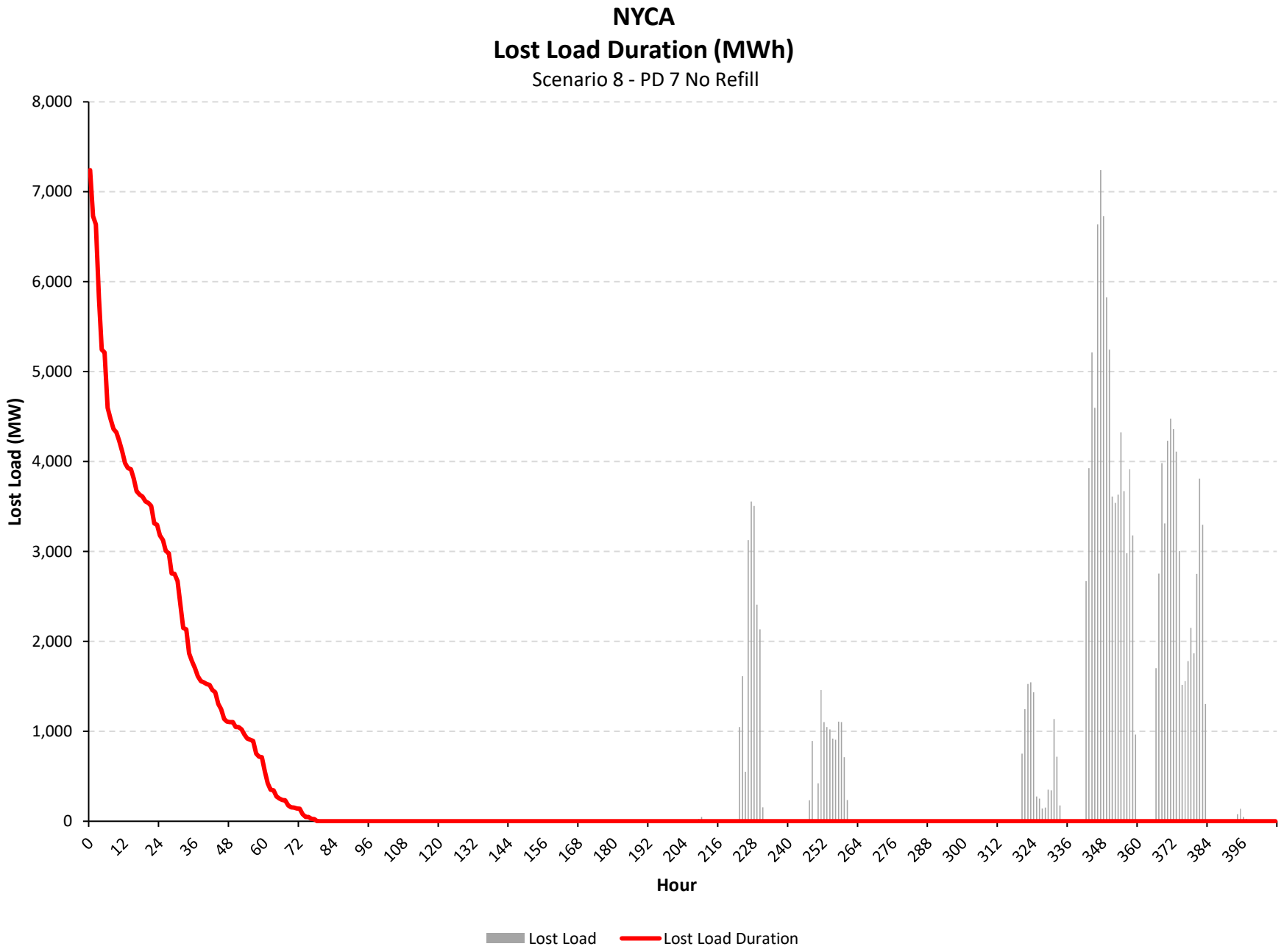
Scenario 8 - PD 7 No Refill





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 8 - PD 7 No Refill
Emergency Actions and Lost Load (MW)
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 8 - PD 7 No Refill
Lost Load (MW)
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

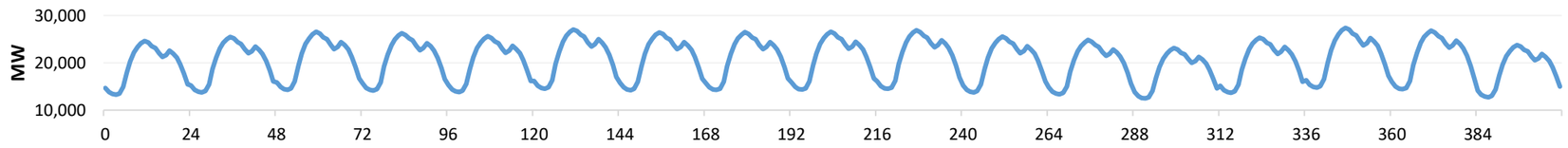
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 8 - PD 8 Non-Firm Gas Unavailable (F-K) (Winter 2026/2027)

Hourly Results Summary

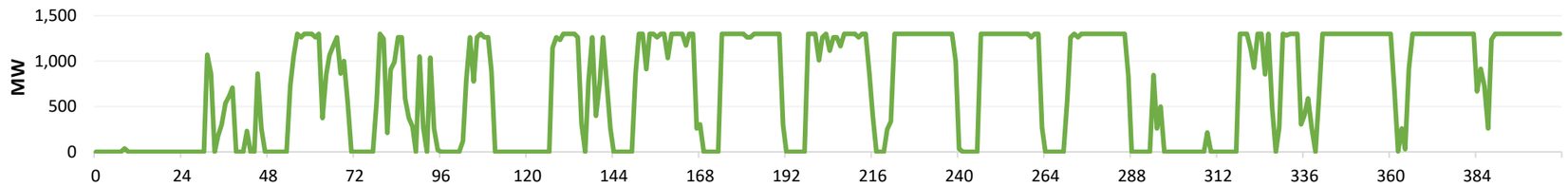
Case Name: Scenario 8 - PD 8 Non-Firm Gas Unavailable (F-K)

Load During Modeling Period



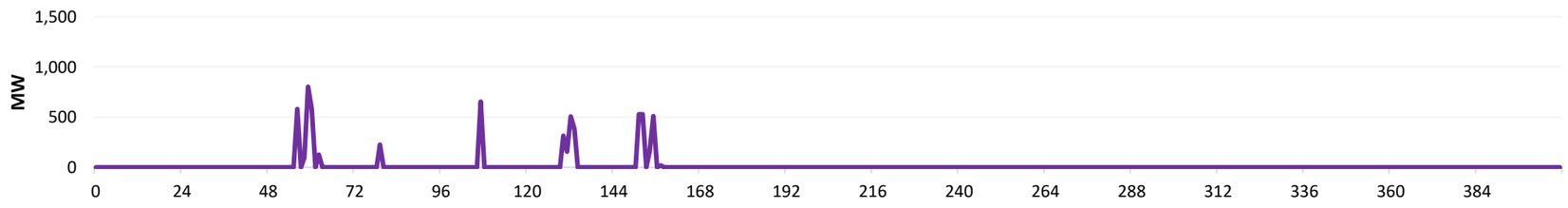
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



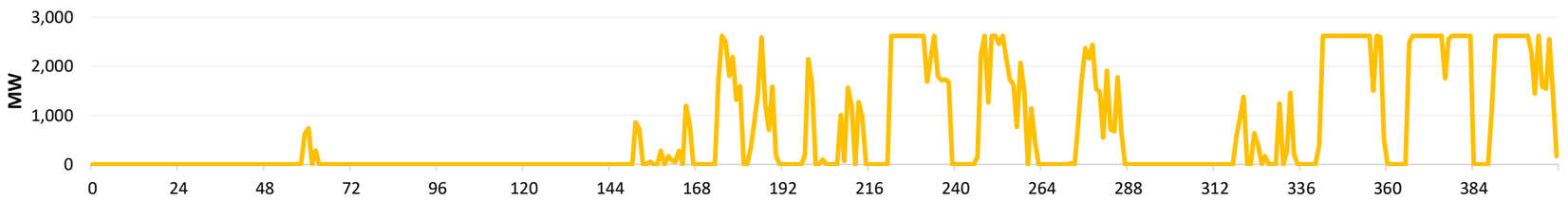
Export Reductions	
Total Hrs.	274
Total MWh	296,158
Avg. MW	725.9

SCR/EDRP Deployed During Modeling Period



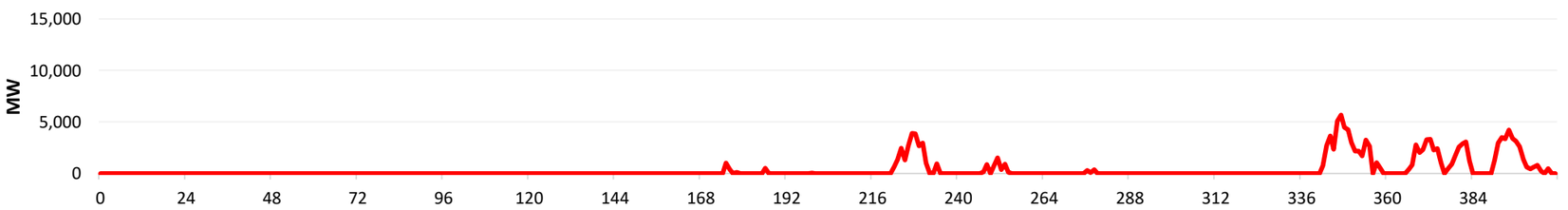
SCR Deployment	
Total Hrs.	16
Total MWh	6,154
Avg. MW	15.1

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	152
Total MWh	264,069
Avg. MW	647.2
First Hour with Viol.	59

Loss of Load During Modeling Period



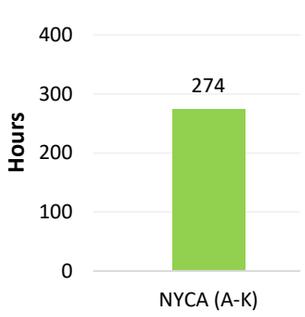
Loss of Load	
Total Hrs.	75
Total MWh	139,468
Avg. MW	341.8
First Hour with Losses	175

Full Period Results Summary

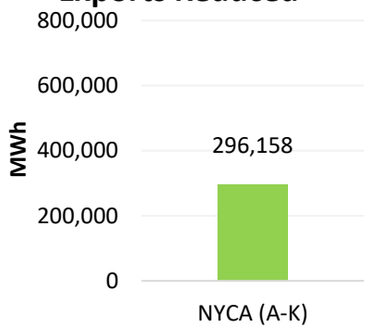
Case Name: Scenario 8 - PD 8 Non-Firm Gas Unavailable (F-K)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

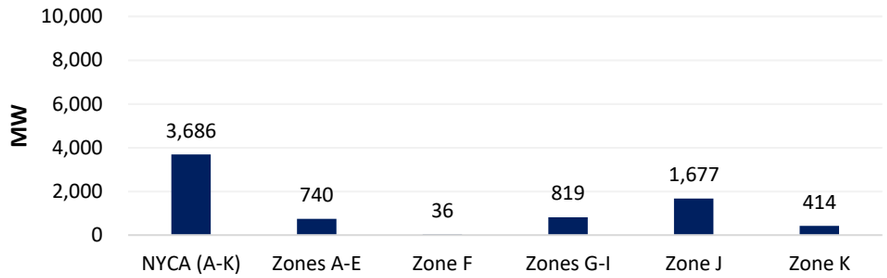
Hours Exports Reduced



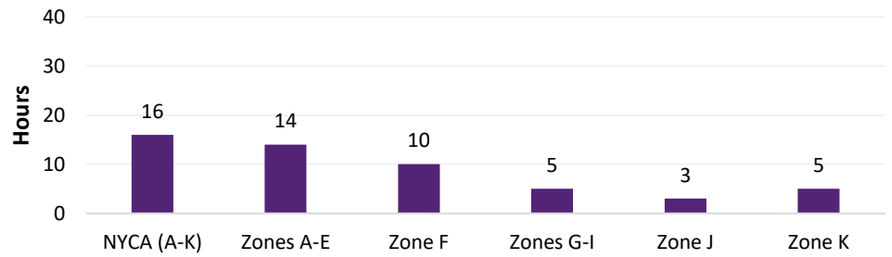
Total MWh of Exports Reduced



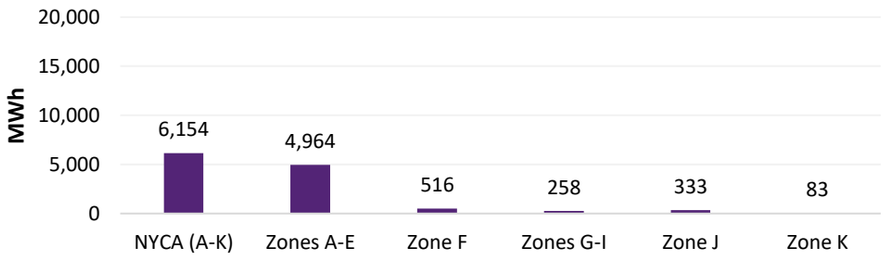
Average Capacity Not Available Due to Exhausted Fuel Inventory



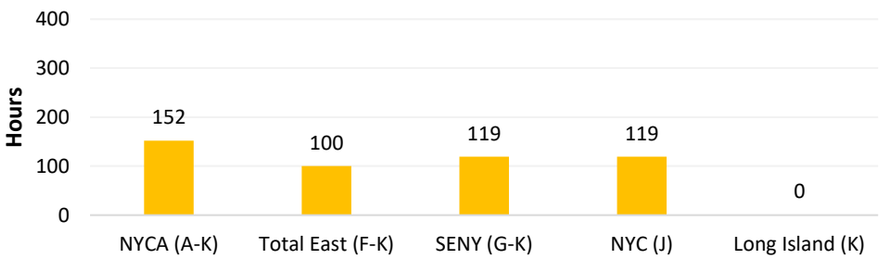
Hours SCR/EDRP Deployed



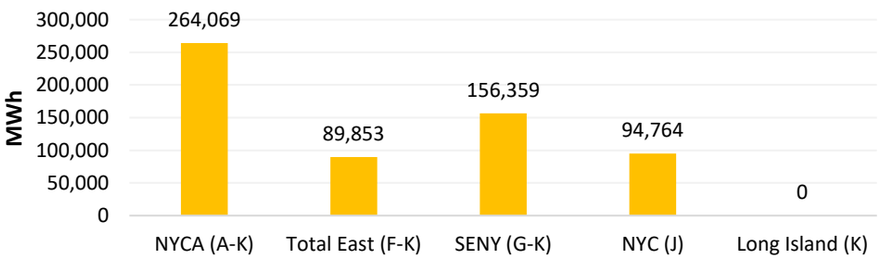
Total MWh SCR/EDRP Deployed



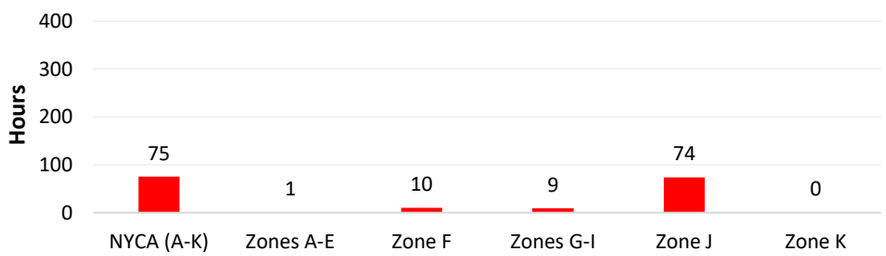
Hours with Reserve Violations



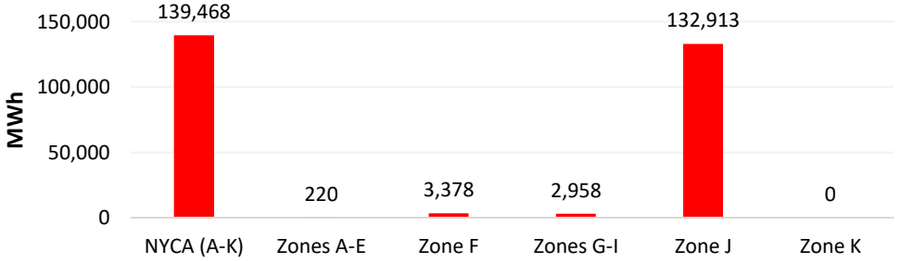
Total MWh of Reserve Violations

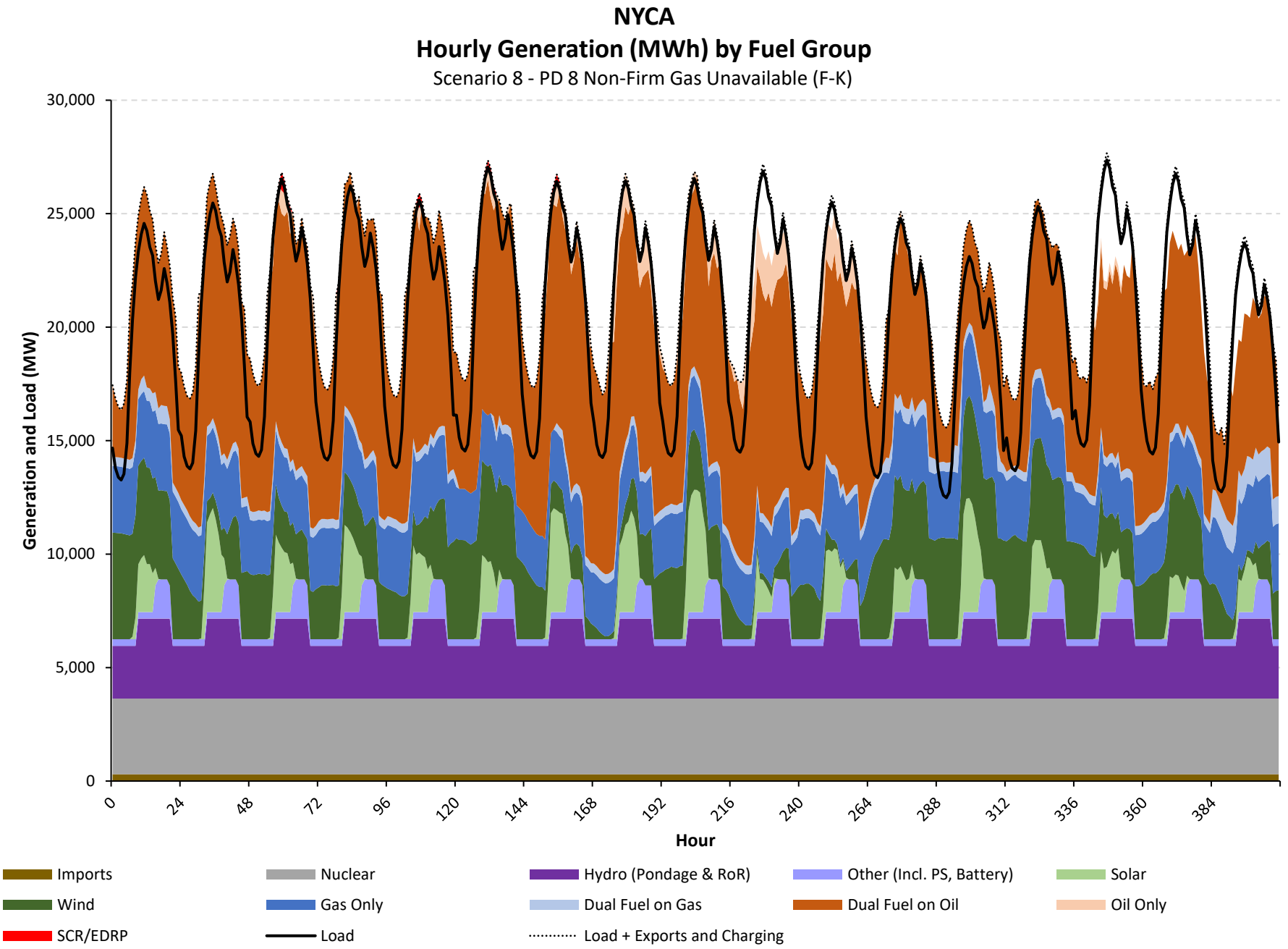


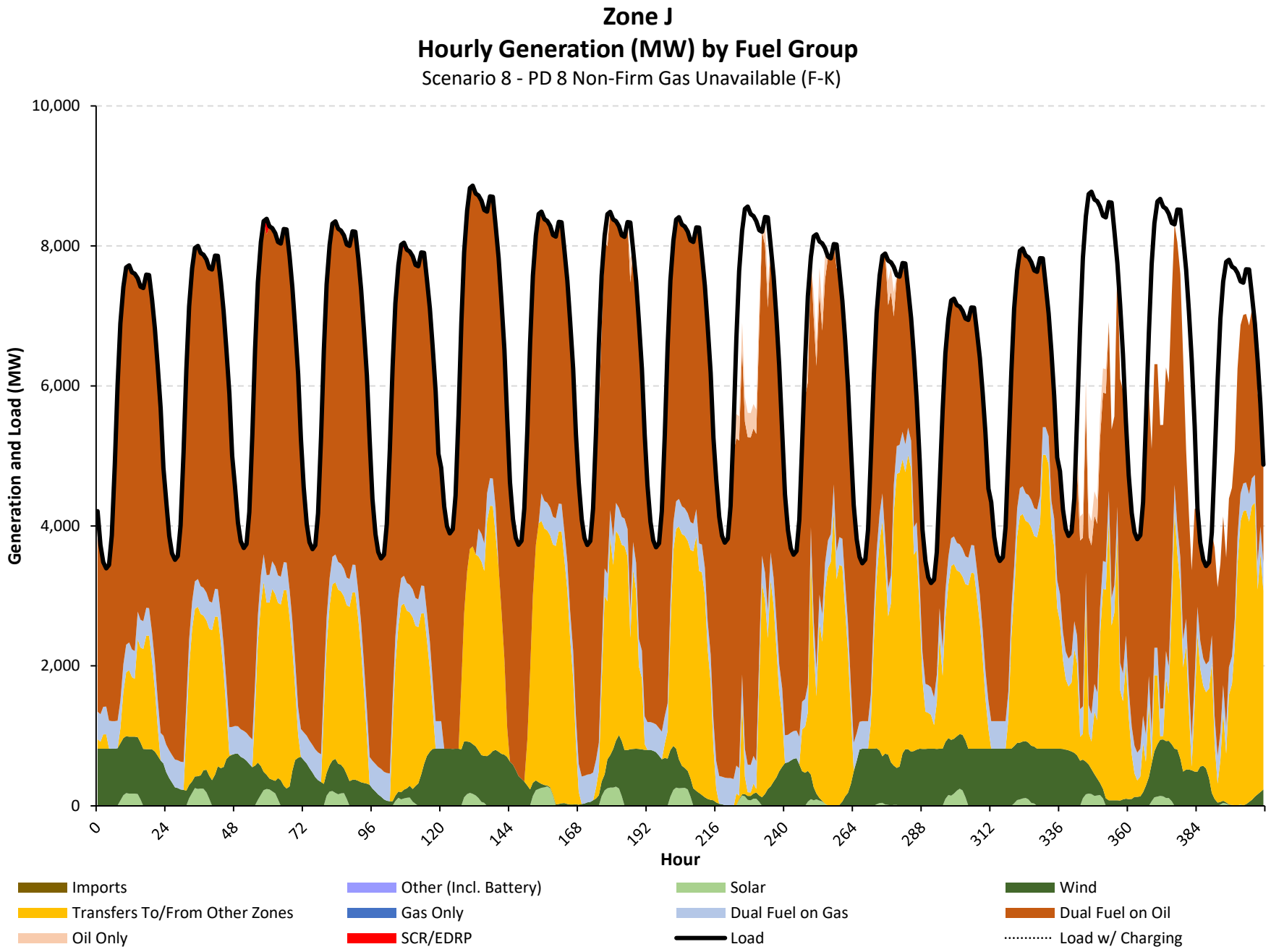
Hours with Loss of Load



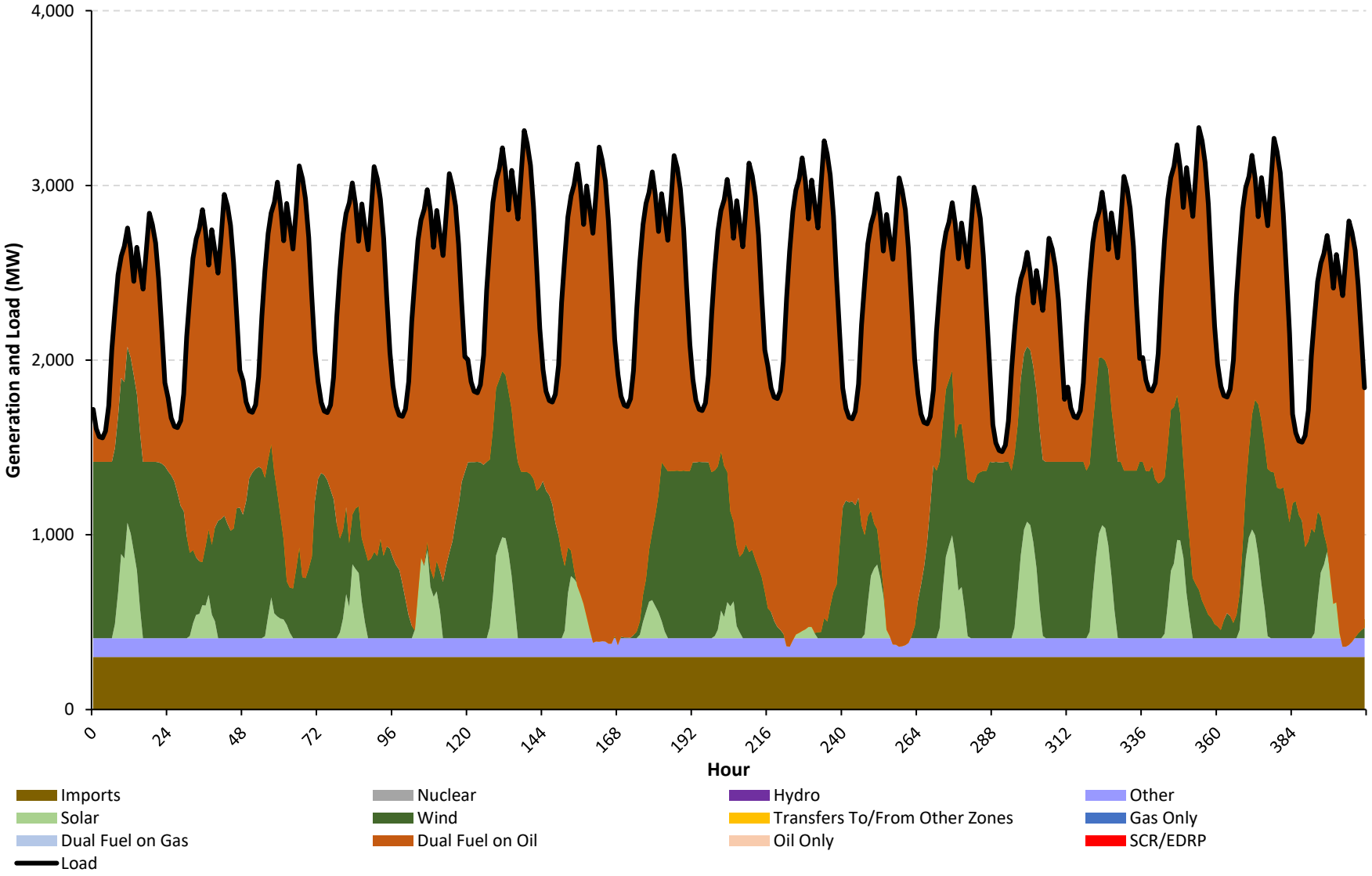
Total MWh of Lost Load




NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 8 - PD 8 Non-Firm Gas Unavailable (F-K)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging


Zone J
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 8 Non-Firm Gas Unavailable (F-K)
Generation and Load (MW)
10,000
8,000
6,000
4,000
2,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Other (Incl. Battery)
Solar
Wind
Transfers To/From Other Zones
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load w/ Charging

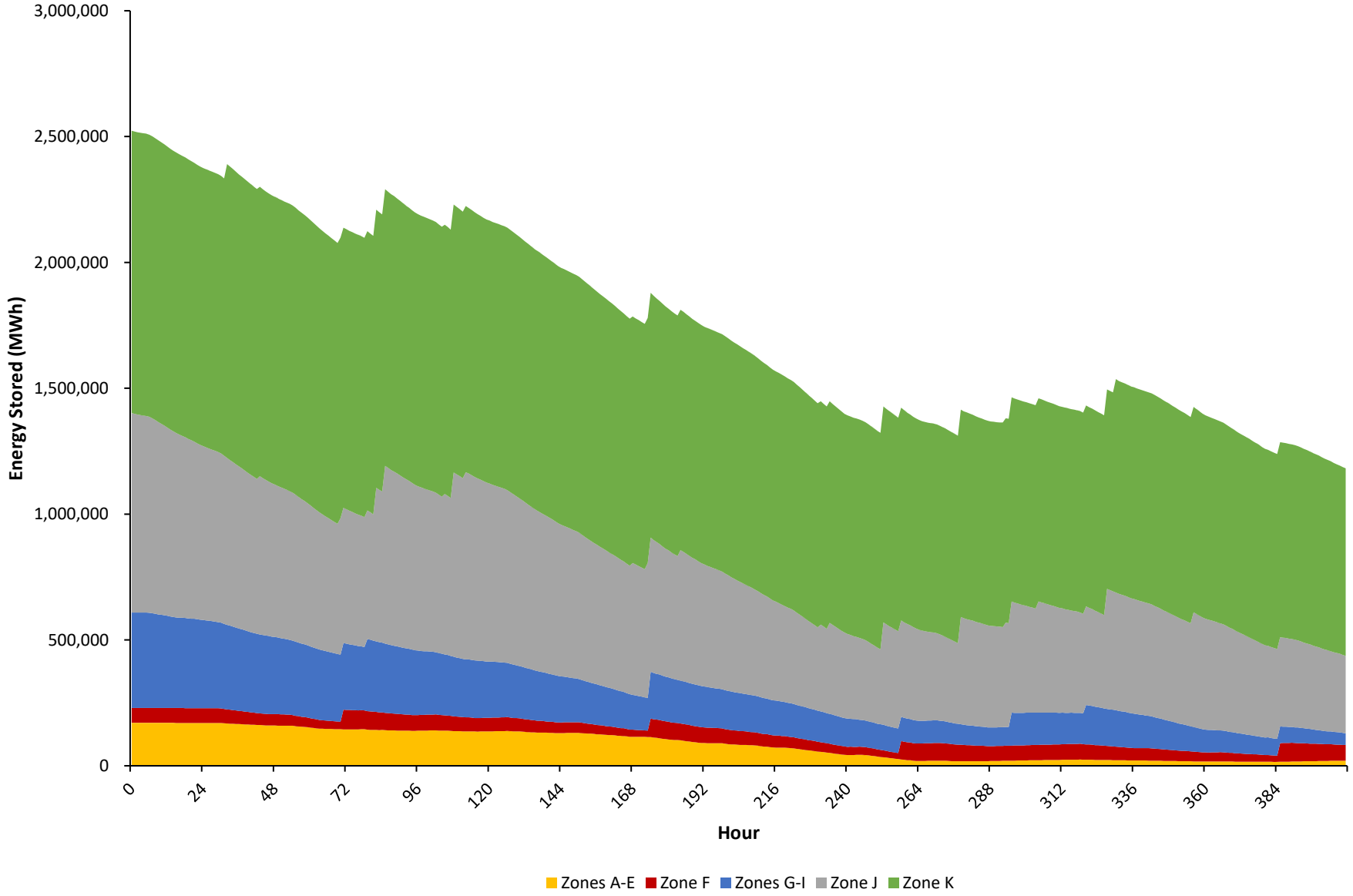
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 8 Non-Firm Gas Unavailable (F-K)



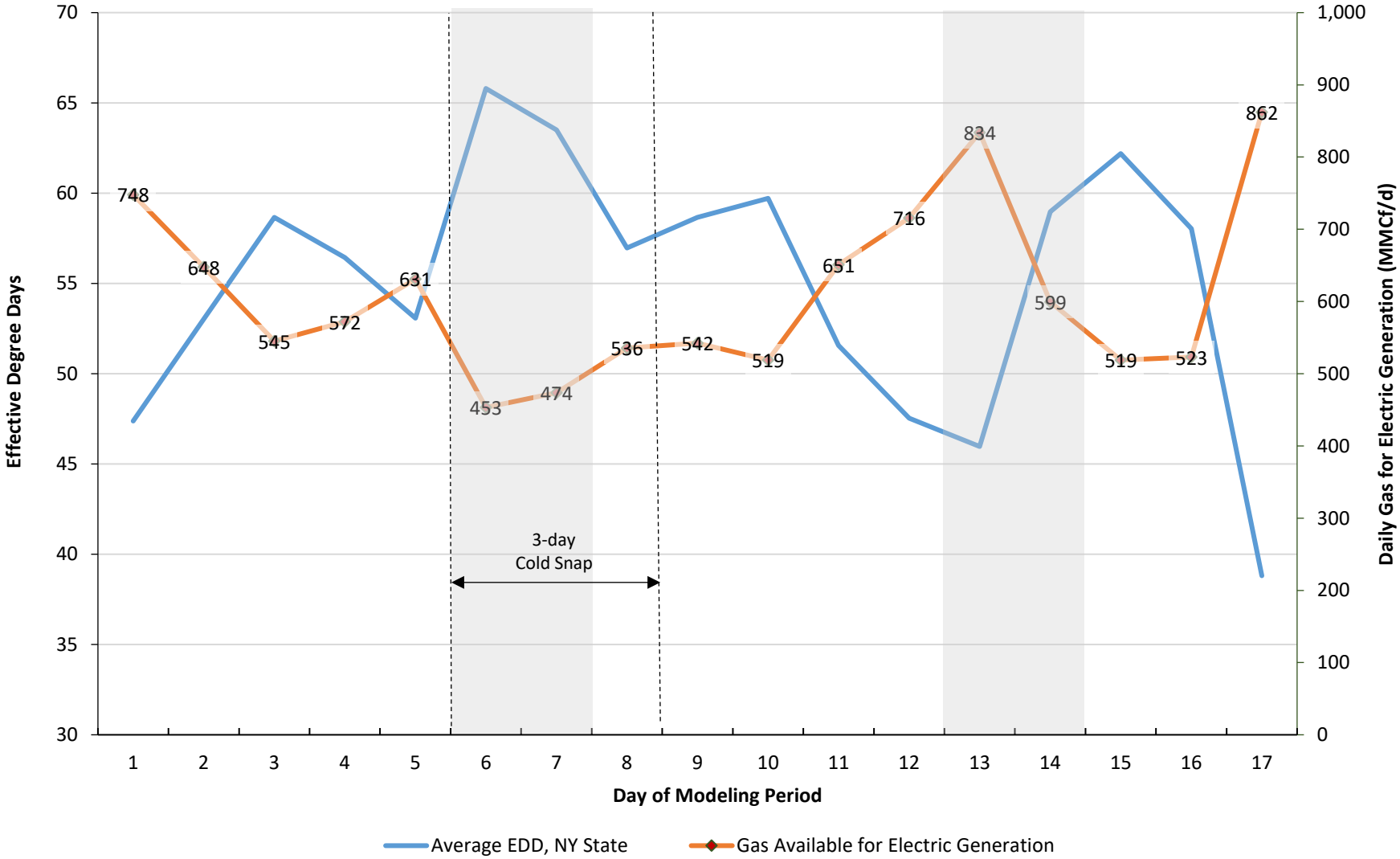
NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

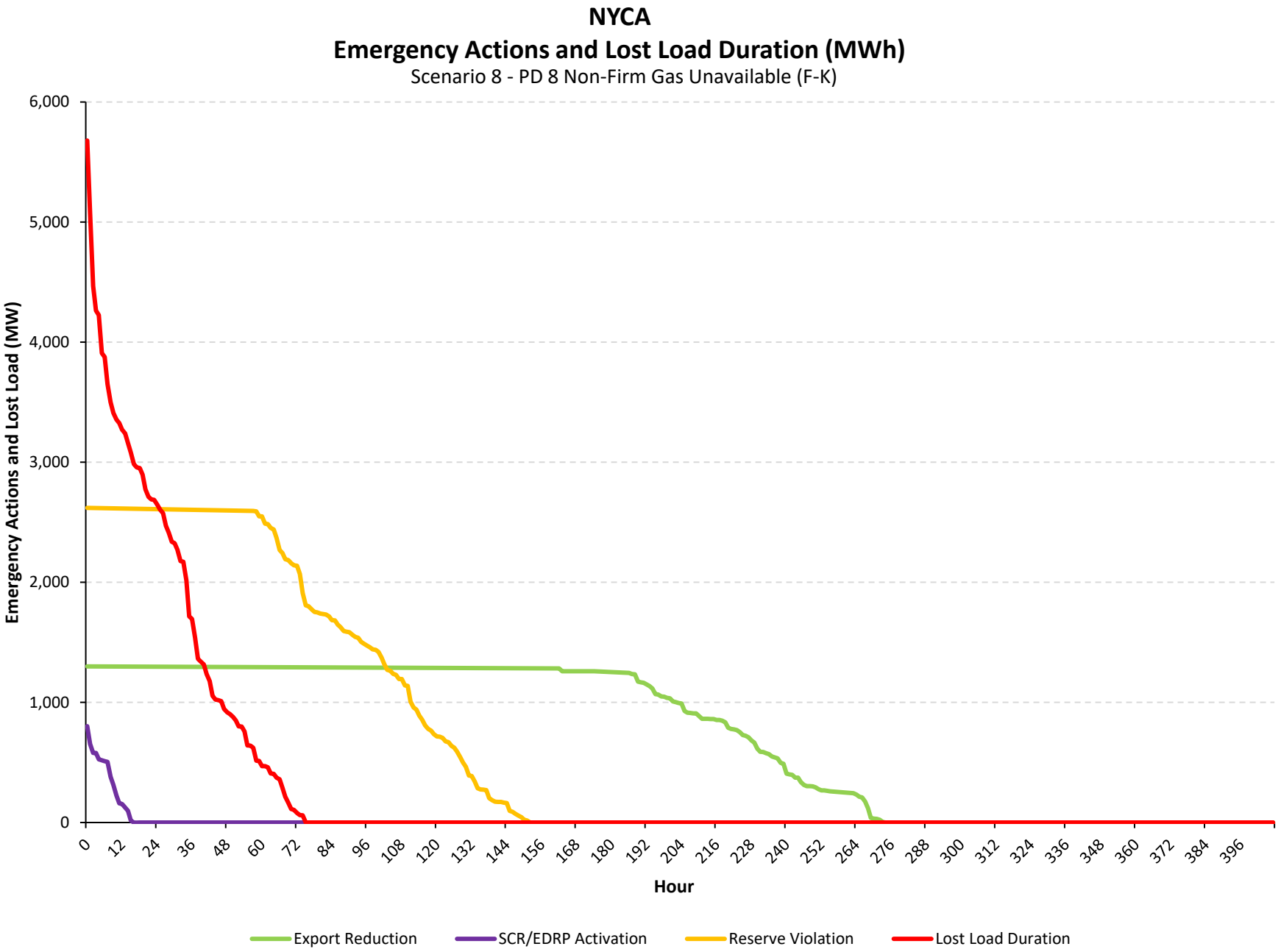
Scenario 8 - PD 8 Non-Firm Gas Unavailable (F-K)

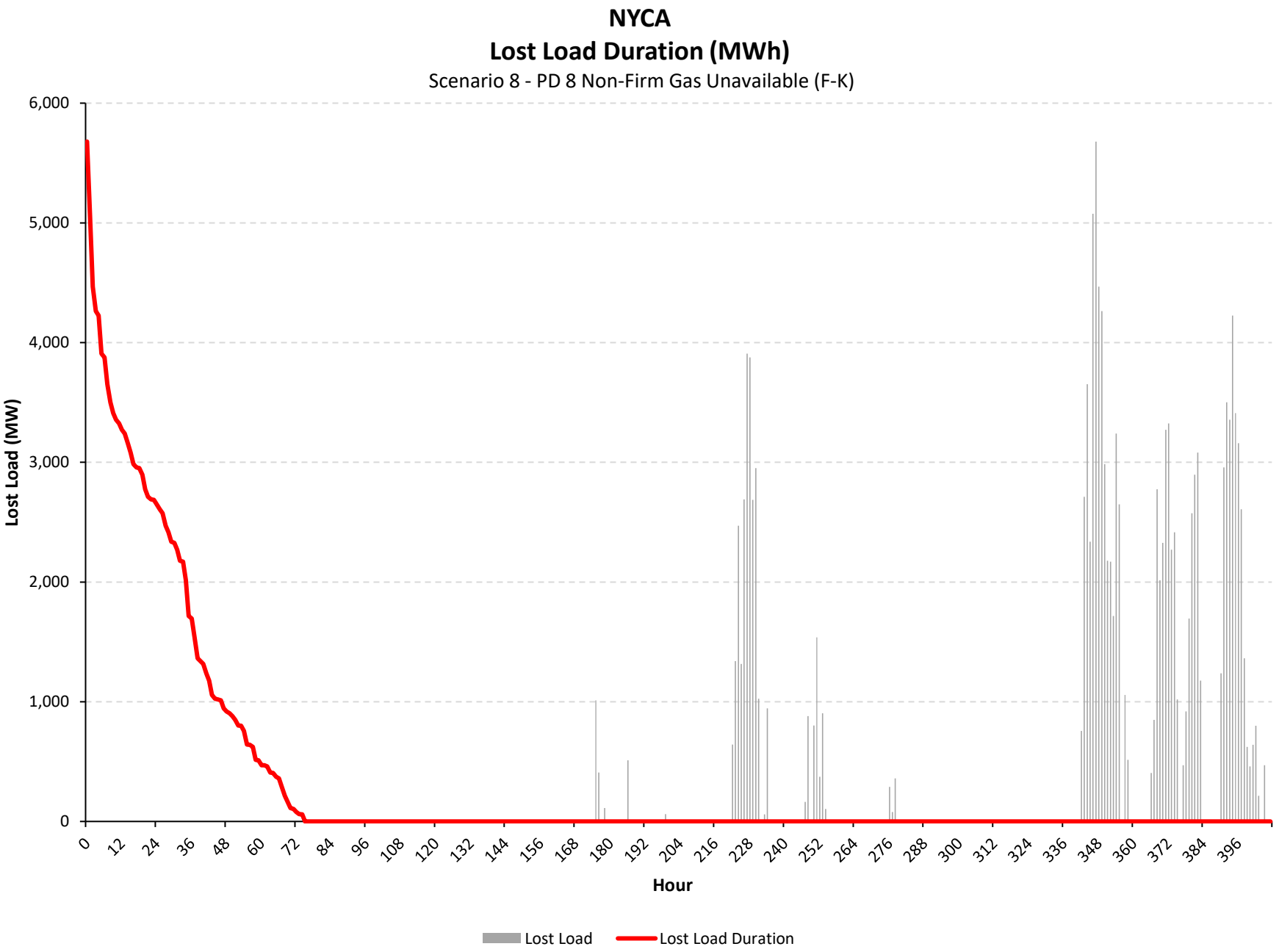


NYCA
Degree Days and Gas Available for Electric Generation 17-Day Modeling Period
Scenario 8 - PD 8 Non-Firm Gas Unavailable (F-K)



Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 8 - PD 8 Non-Firm Gas Unavailable (F-K)
Emergency Actions and Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 8 - PD 8 Non-Firm Gas Unavailable (F-K)
Lost Load (MW)
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

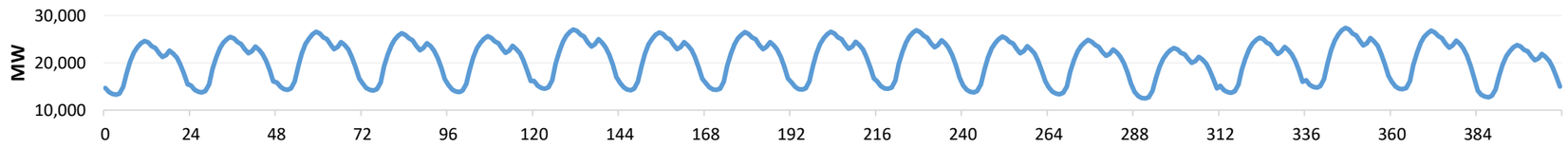
Case: Scenario 8 - PD 9 Non-Firm Gas Unavailable (NYCA) (Winter 2026/2027)

Hourly Results Summary

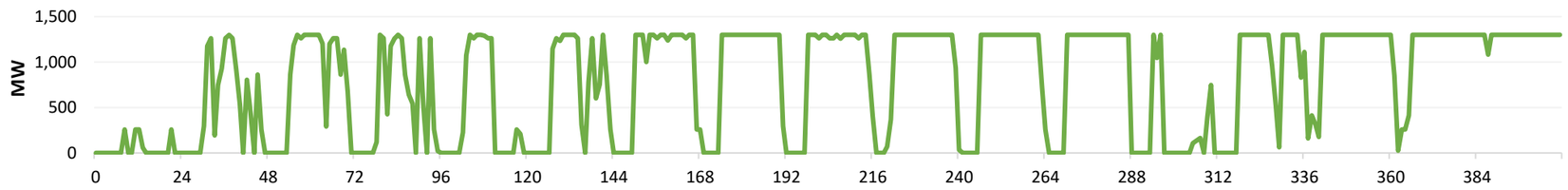
Case Name: Scenario 8 - PD 9 Non-Firm Gas Unavailable (NYCA)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Load During Modeling Period

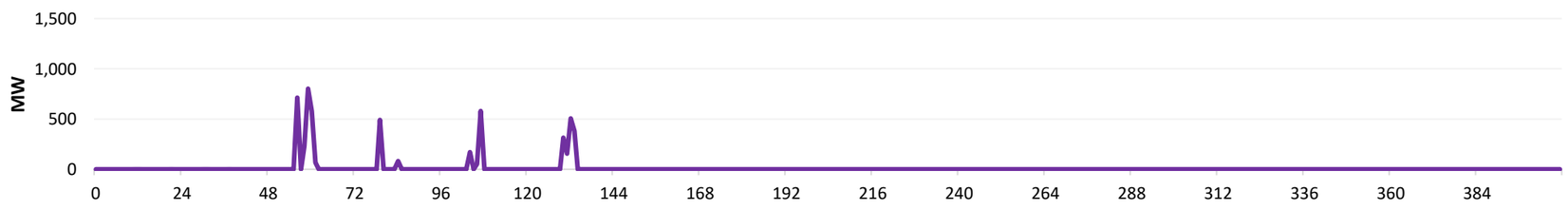


Export to ISO-NE Reduction During Modeling Period



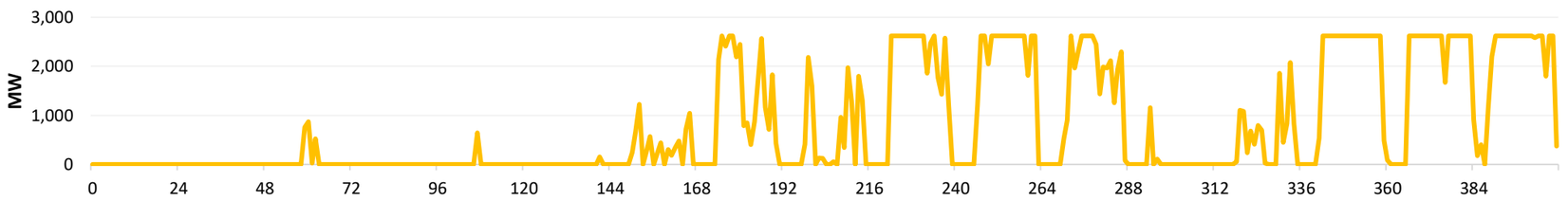
Export Reductions	
Total Hrs.	292
Total MWh	320,617
Avg. MW	785.8

SCR/EDRP Deployed During Modeling Period



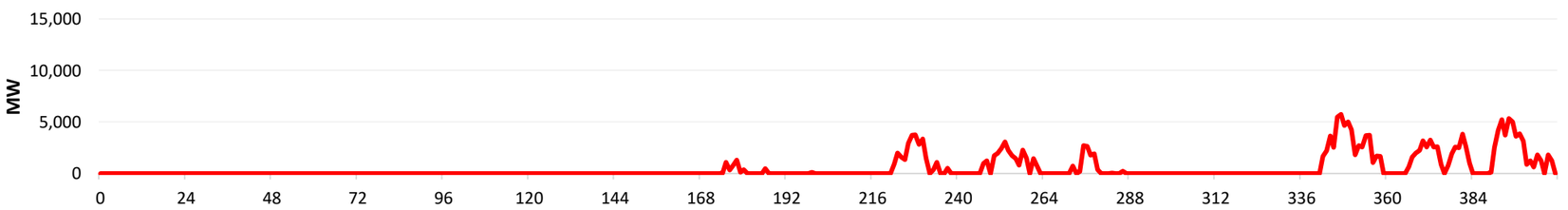
SCR Deployment	
Total Hrs.	14
Total MWh	5,125
Avg. MW	12.6

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	177
Total MWh	319,406
Avg. MW	782.9
First Hour with Viol.	59

Loss of Load During Modeling Period



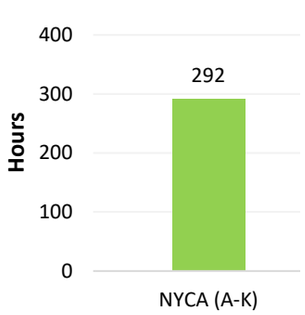
Loss of Load	
Total Hrs.	96
Total MWh	201,168
Avg. MW	493.1
First Hour with Losses	174

Full Period Results Summary

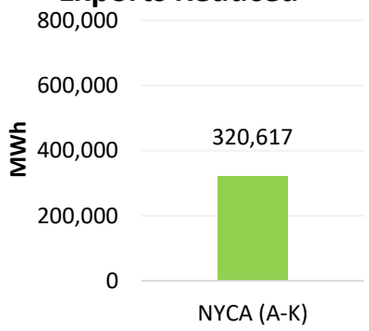
Case Name: Scenario 8 - PD 9 Non-Firm Gas Unavailable (NYCA)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

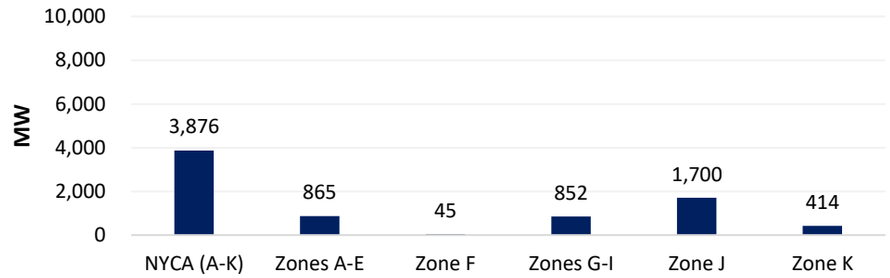
Hours Exports Reduced



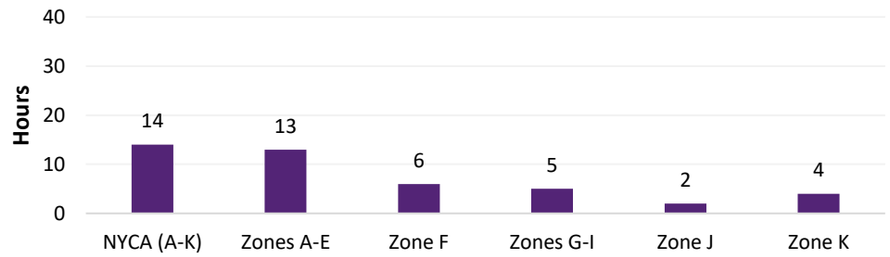
Total MWh of Exports Reduced



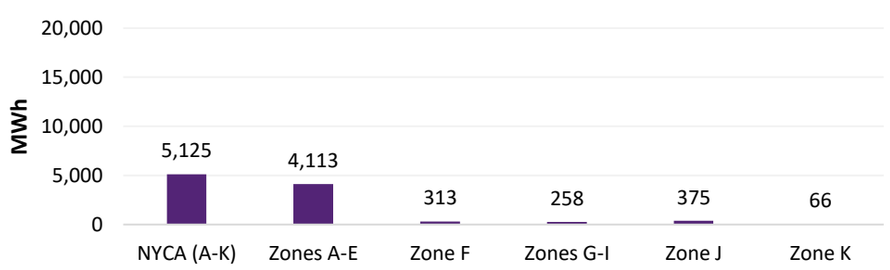
Average Capacity Not Available Due to Exhausted Fuel Inventory



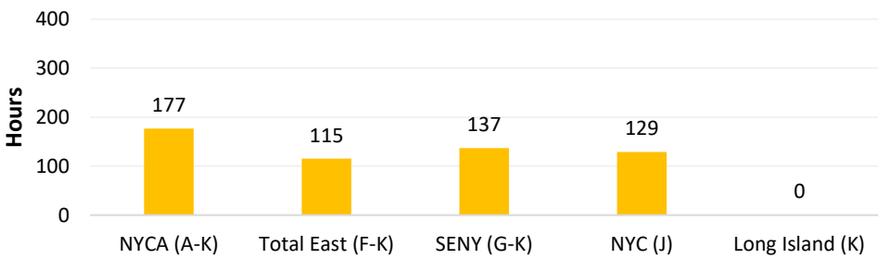
Hours SCR/EDRP Deployed



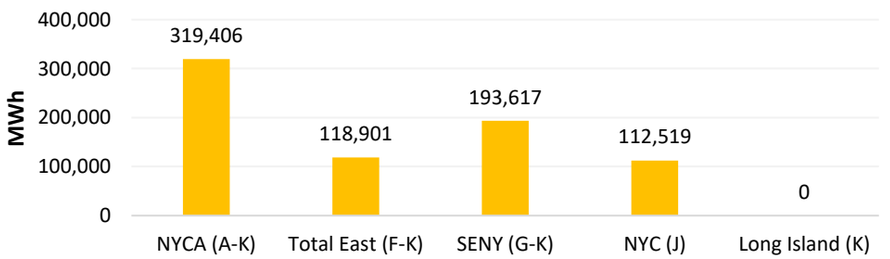
Total MWh SCR/EDRP Deployed



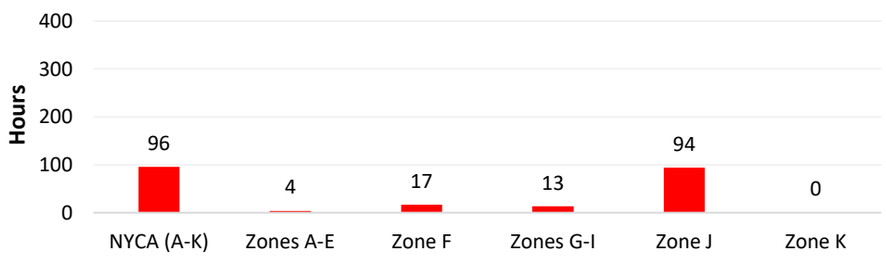
Hours with Reserve Violations



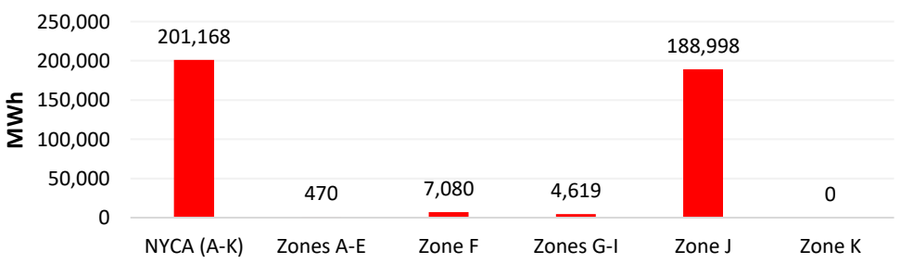
Total MWh of Reserve Violations

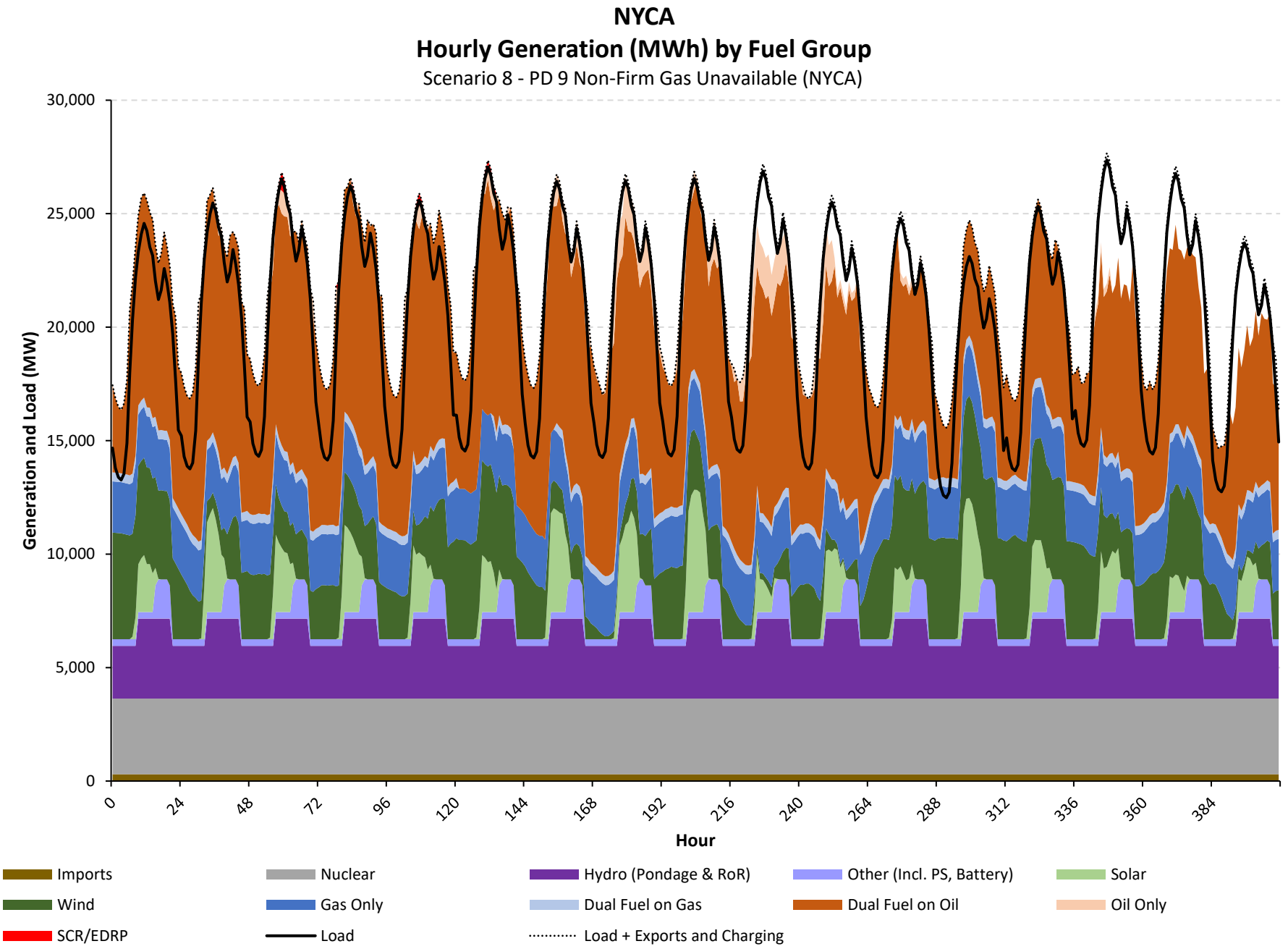


Hours with Loss of Load

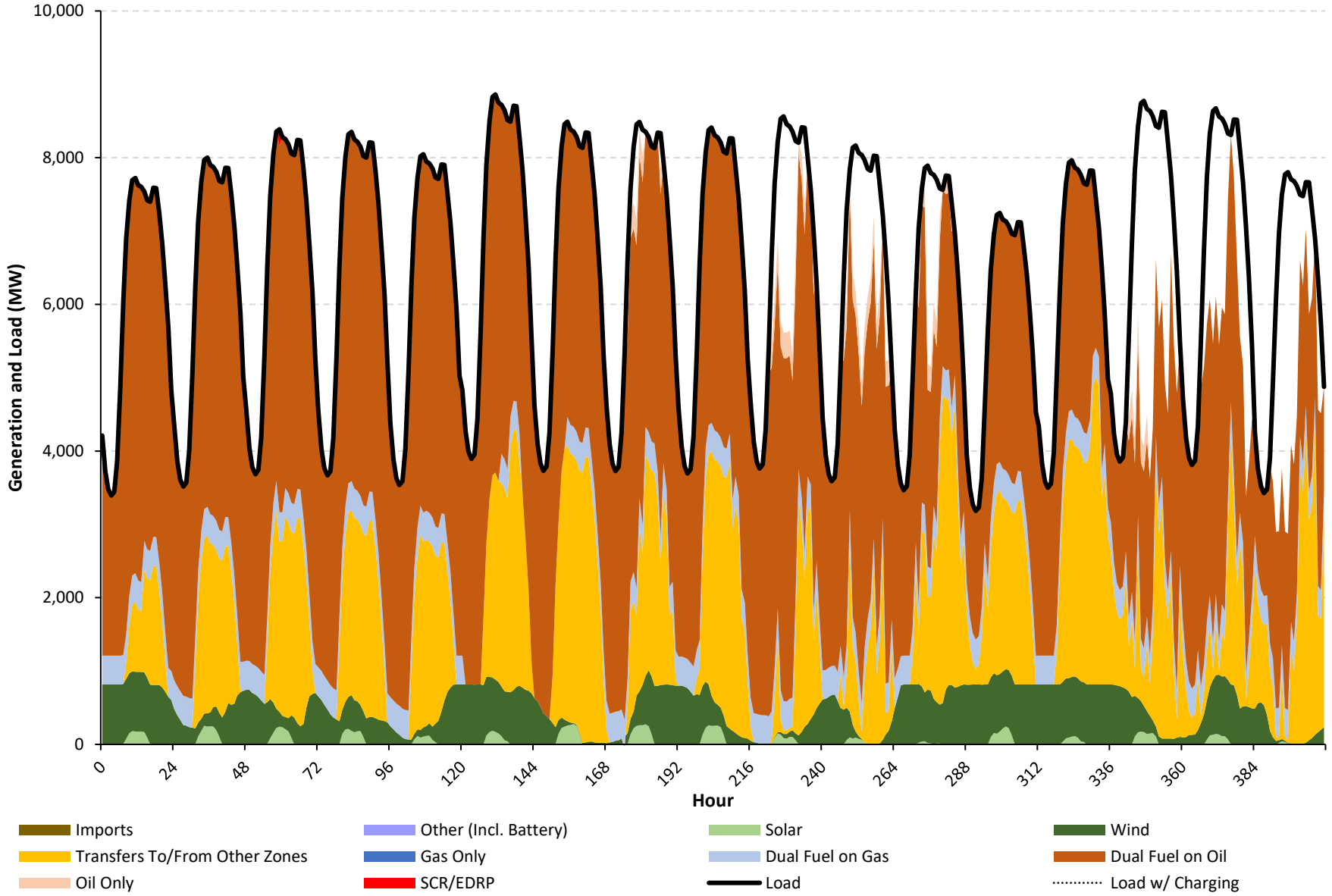


Total MWh of Lost Load

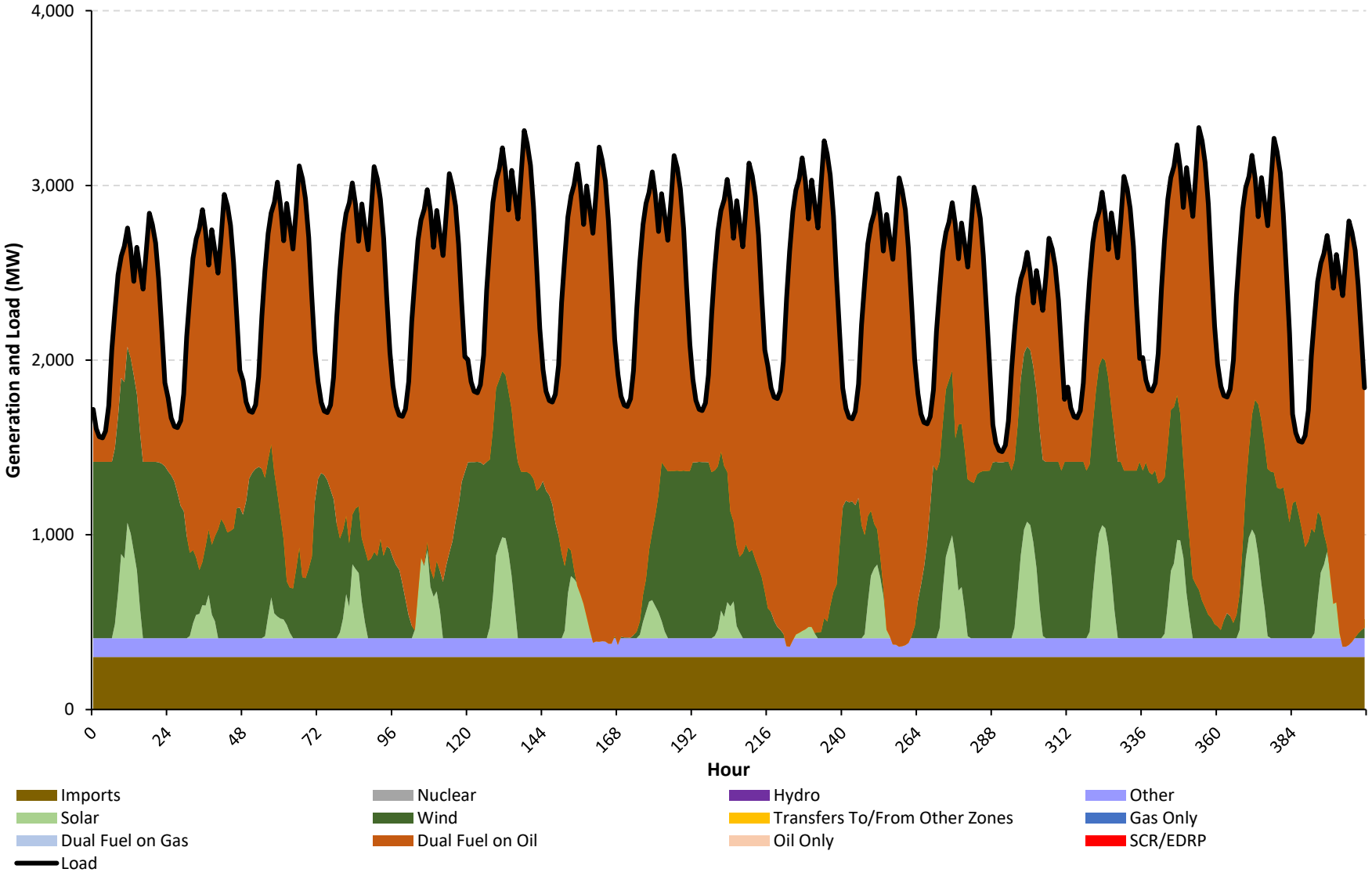



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 8 - PD 9 Non-Firm Gas Unavailable (NYCA)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 9 Non-Firm Gas Unavailable (NYCA)



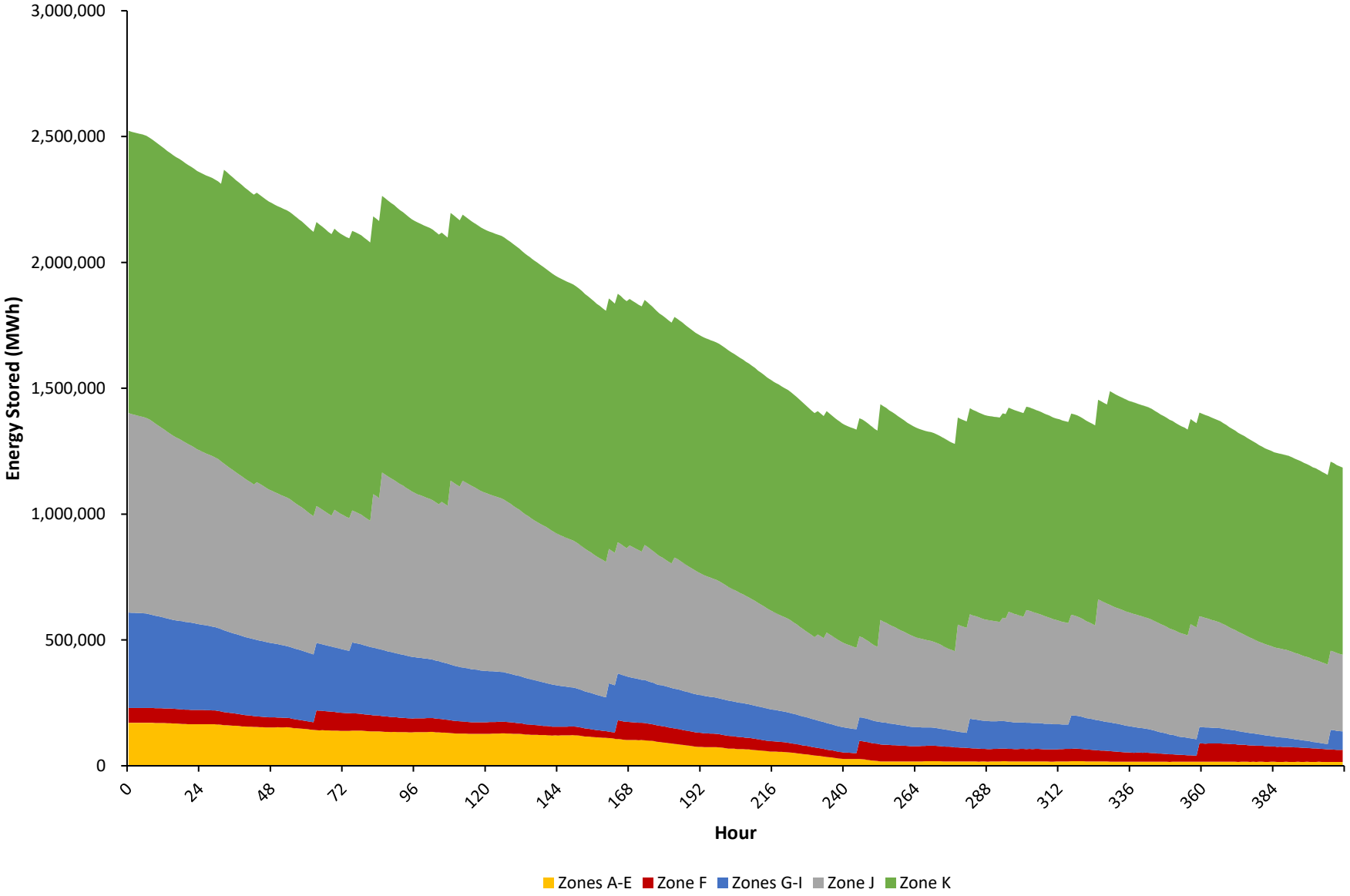
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 9 Non-Firm Gas Unavailable (NYCA)



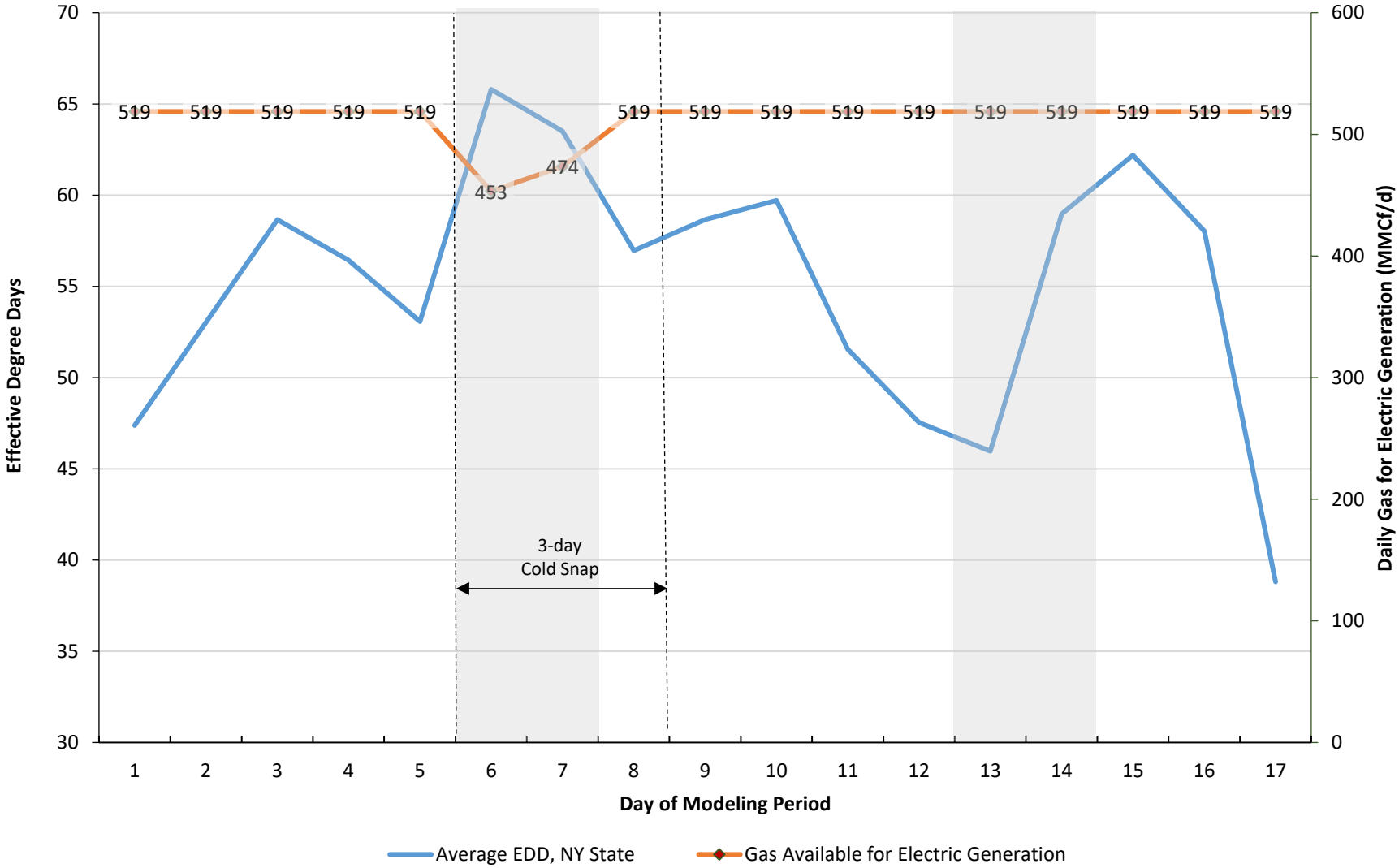
NYCA

Quantity of Stored Fuel for Oil and Dual Fuel Units

Scenario 8 - PD 9 Non-Firm Gas Unavailable (NYCA)



NYCA
Degree Days and Gas Available for Electric Generation 17-Day Modeling Period
Scenario 8 - PD 9 Non-Firm Gas Unavailable (NYCA)

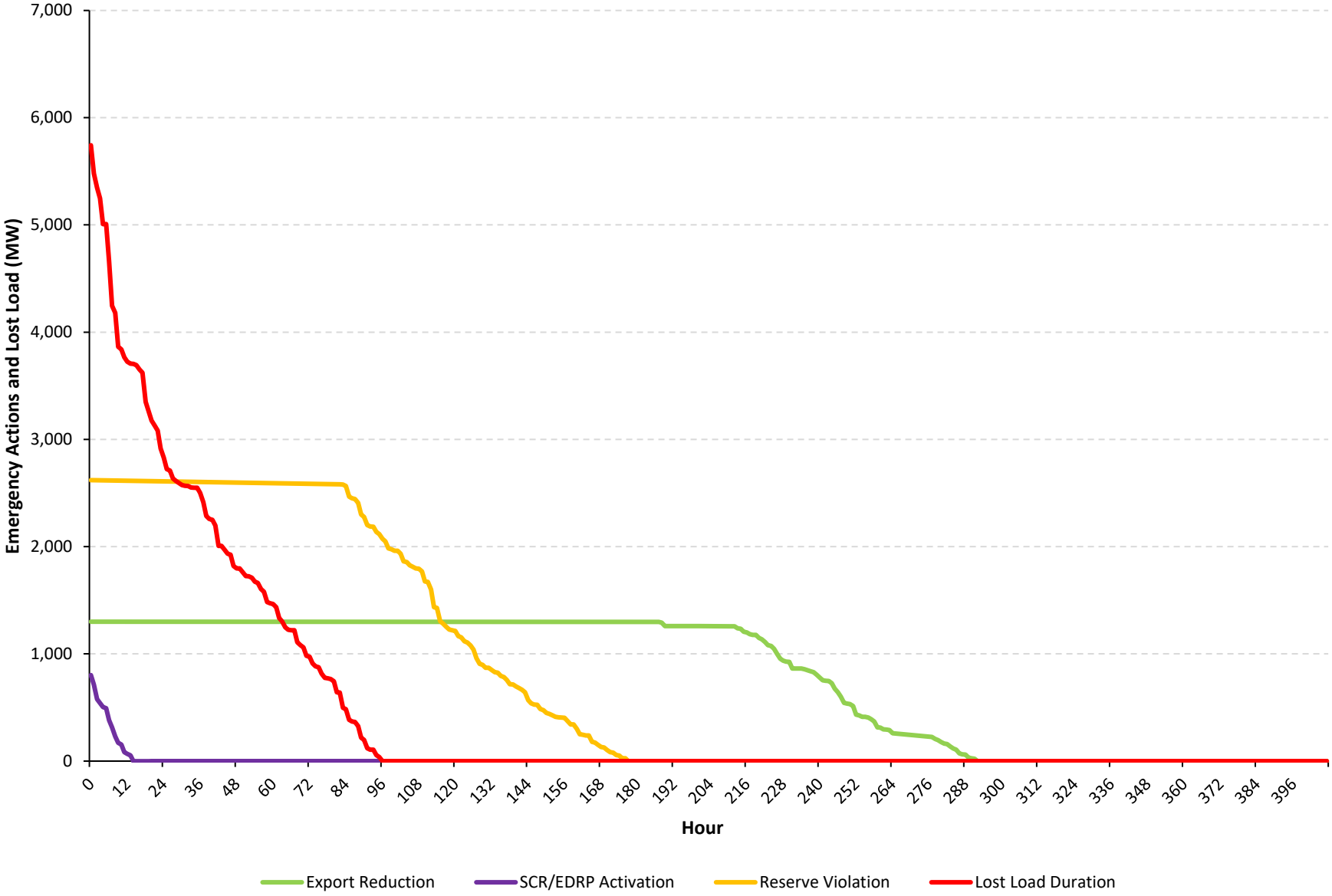


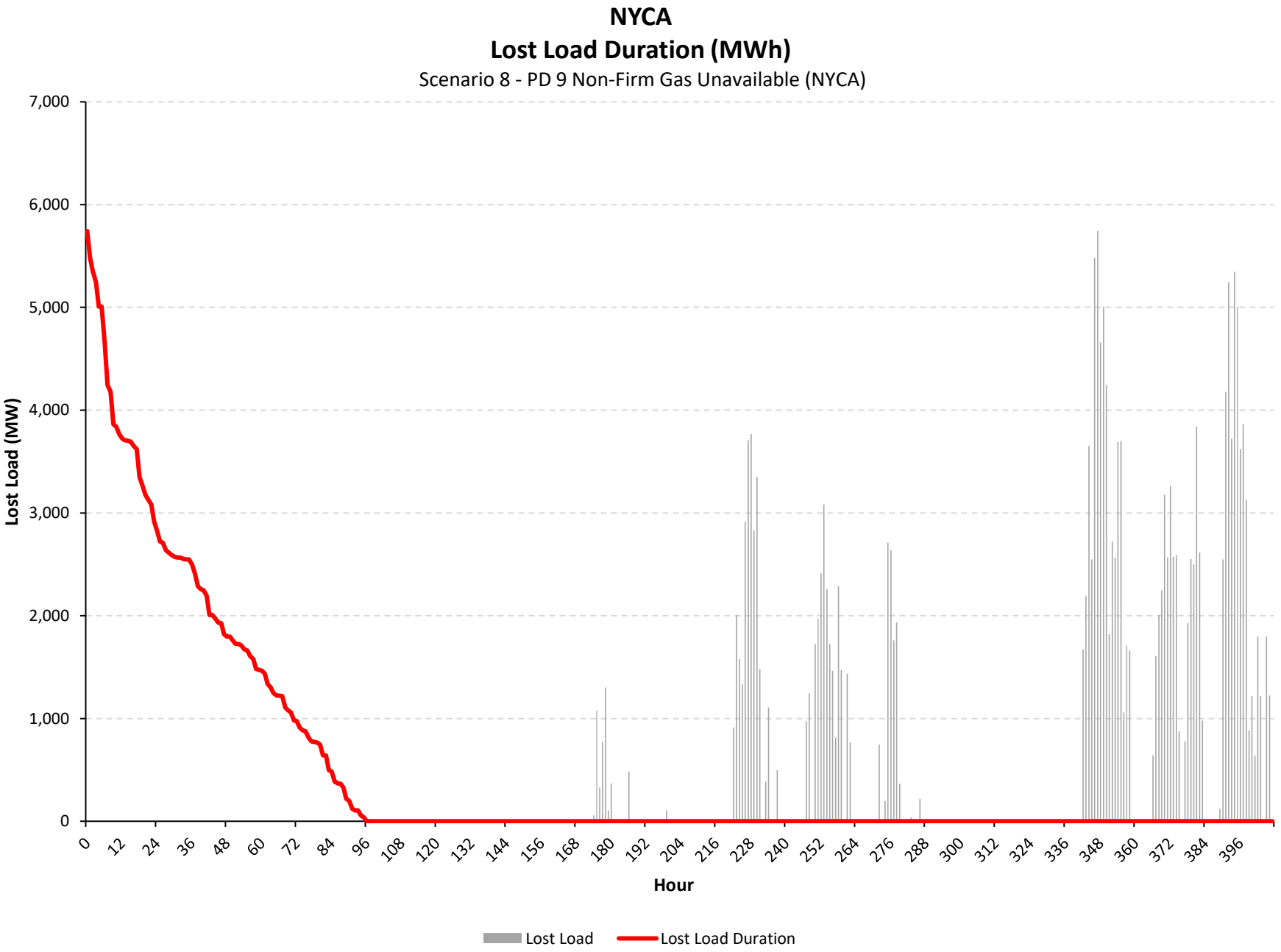
Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.

NYCA

Emergency Actions and Lost Load Duration (MWh)

Scenario 8 - PD 9 Non-Firm Gas Unavailable (NYCA)




NYCA
Lost Load Duration (MWh)
Scenario 8 - PD 9 Non-Firm Gas Unavailable (NYCA)
Lost Load (MW)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

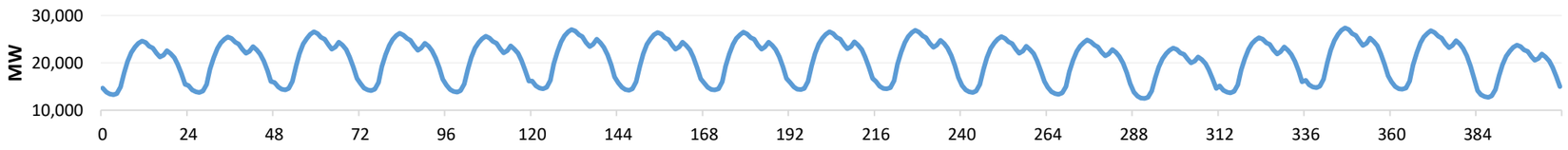
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 8 - PD 10 Non-Firm Gas Unavailable (4 days) (Winter 2026/2027)

Hourly Results Summary

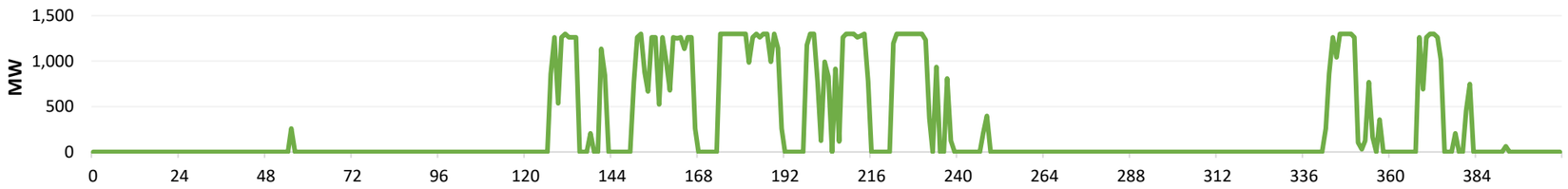
Case Name: Scenario 8 - PD 10 Non-Firm Gas Unavailable (4 days)

Load During Modeling Period



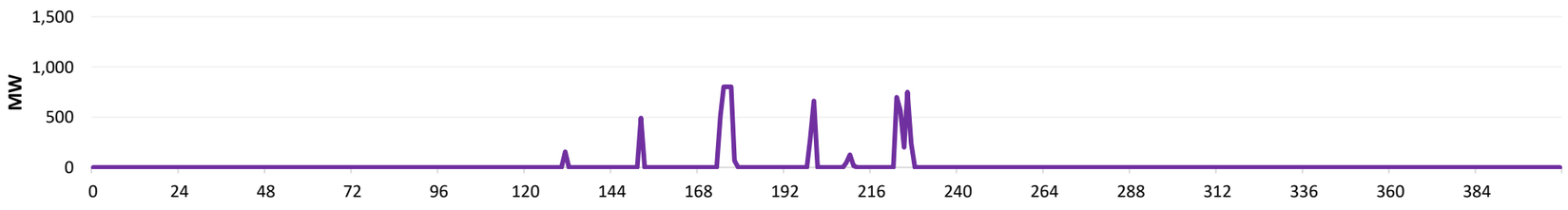
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



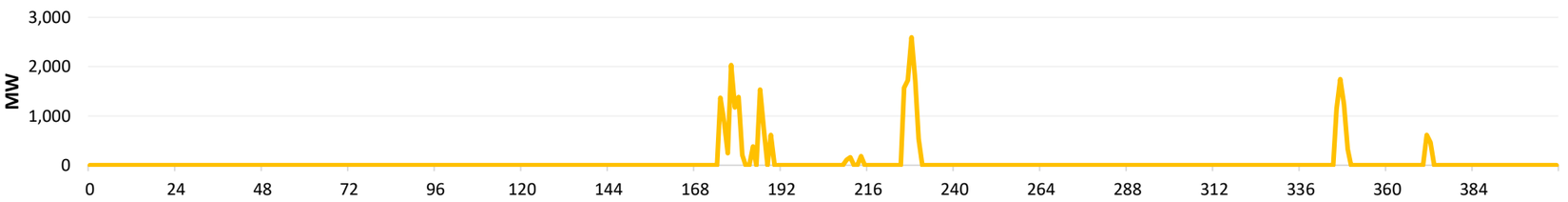
Export Reductions	
Total Hrs.	107
Total MWh	105,411
Avg. MW	258.4

SCR/EDRP Deployed During Modeling Period



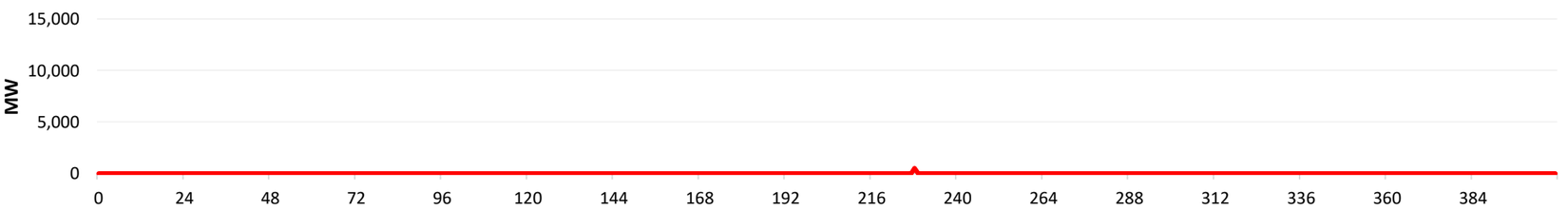
SCR Deployment	
Total Hrs.	17
Total MWh	7,213
Avg. MW	17.7

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	25
Total MWh	24,684
Avg. MW	60.5
First Hour with Viol.	174

Loss of Load During Modeling Period



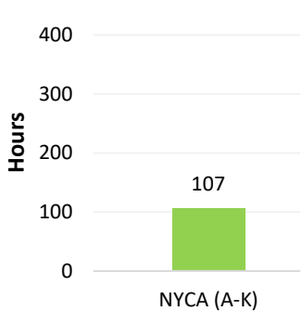
Loss of Load	
Total Hrs.	1
Total MWh	514
Avg. MW	1.3
First Hour with Losses	228

Full Period Results Summary

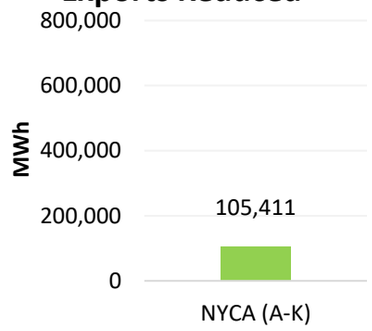
Case Name: Scenario 8 - PD 10 Non-Firm Gas Unavailable (4 days)

Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

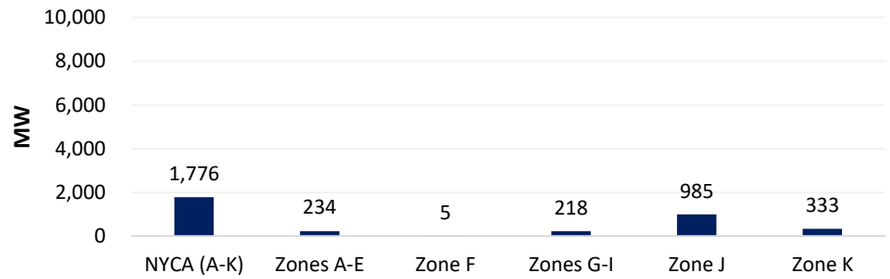
Hours Exports Reduced



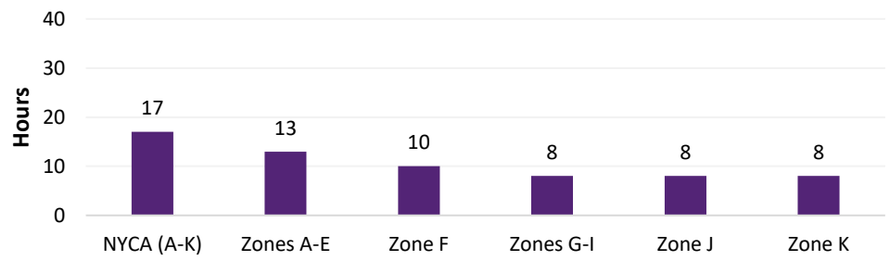
Total MWh of Exports Reduced



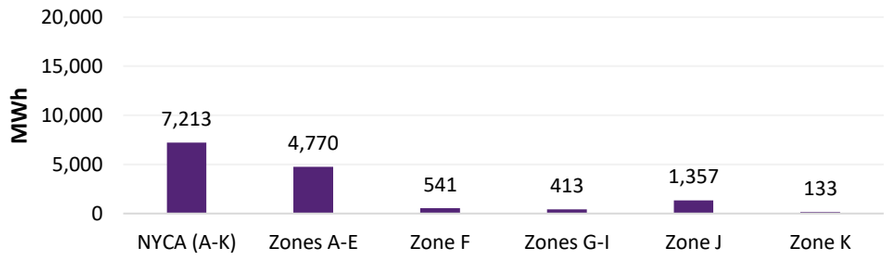
Average Capacity Not Available Due to Exhausted Fuel Inventory



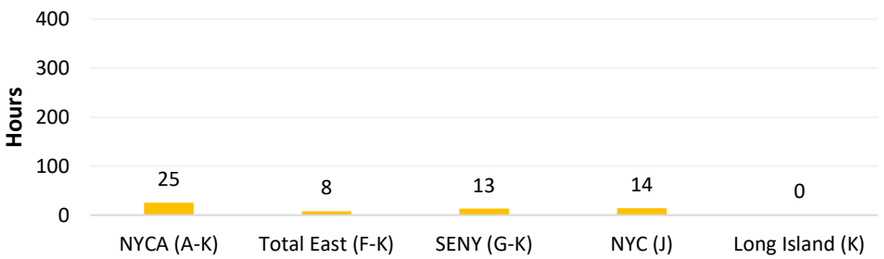
Hours SCR/EDRP Deployed



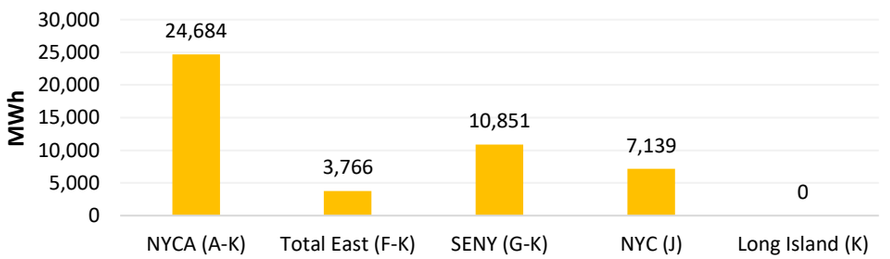
Total MWh SCR/EDRP Deployed



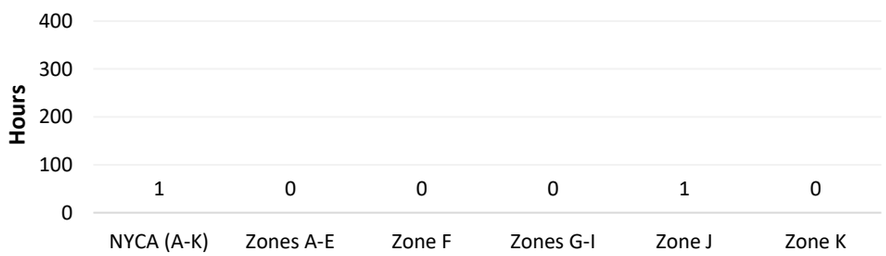
Hours with Reserve Violations



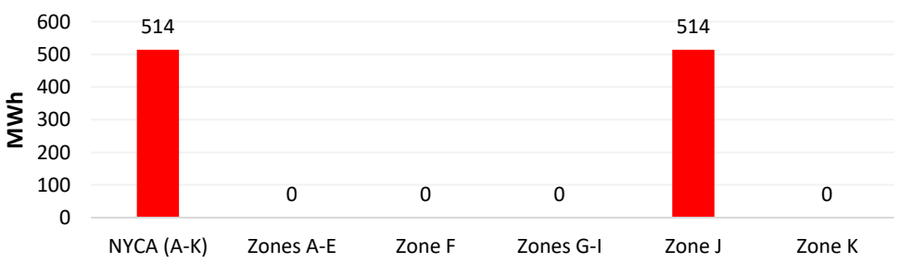
Total MWh of Reserve Violations

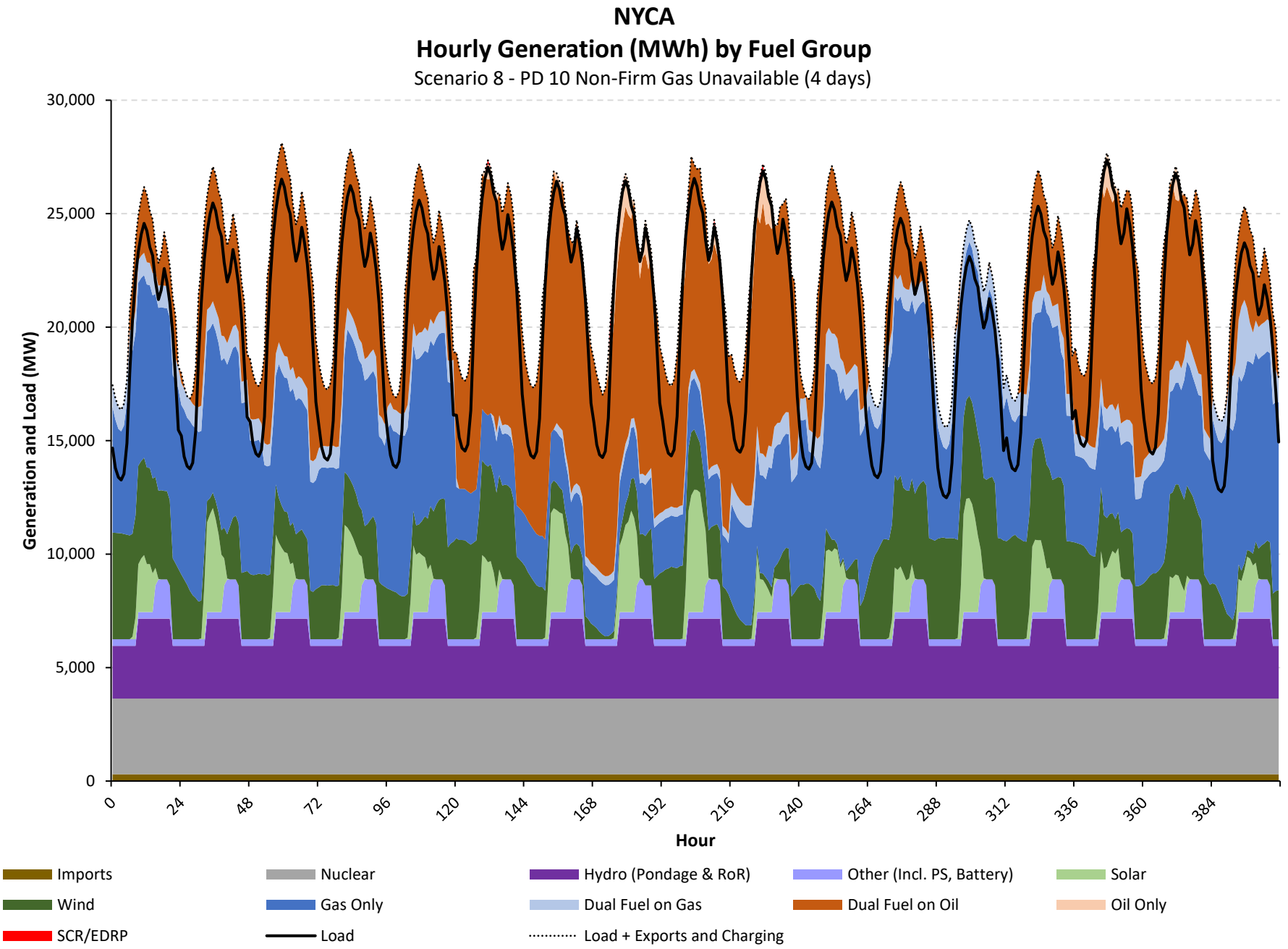


Hours with Loss of Load

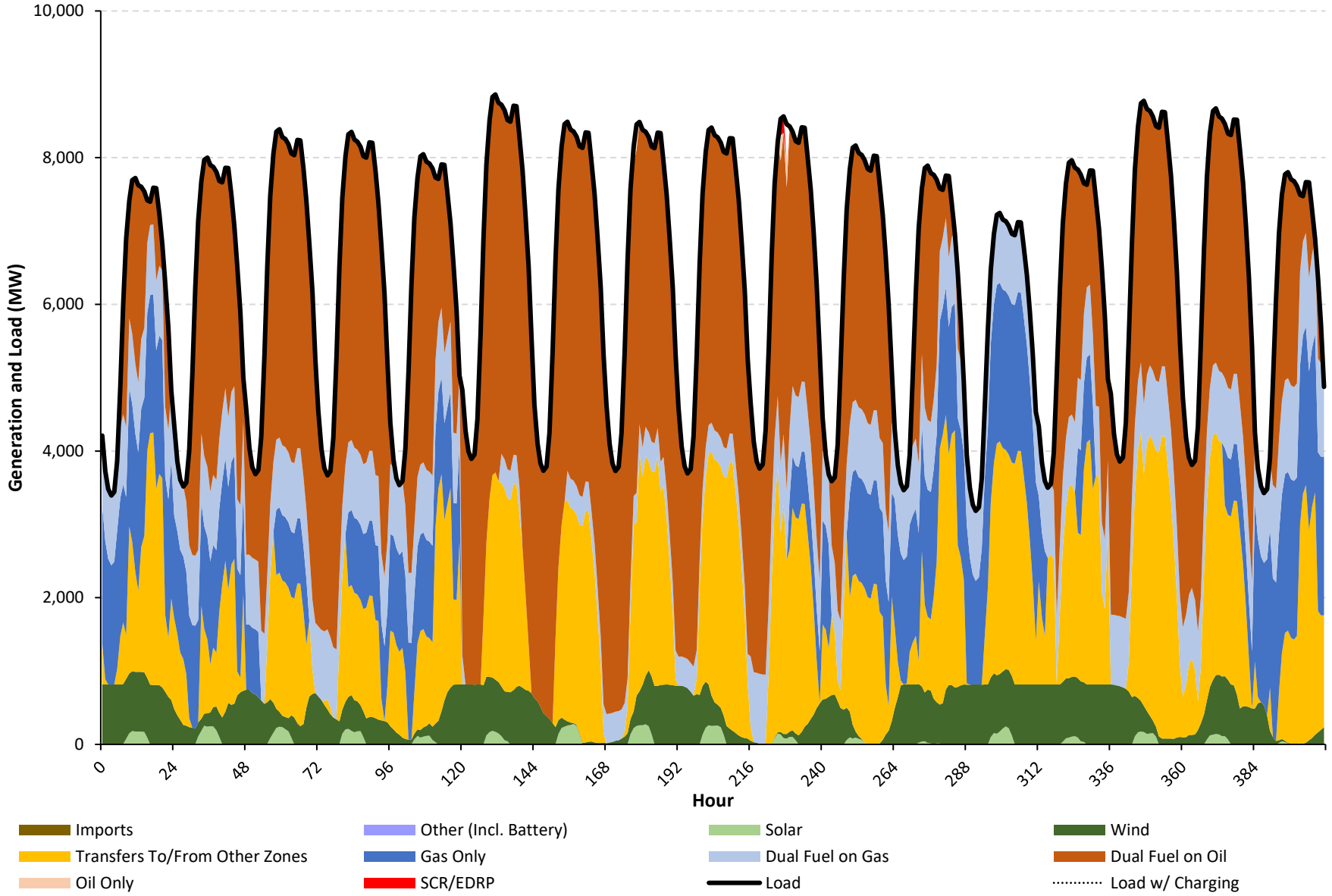


Total MWh of Lost Load

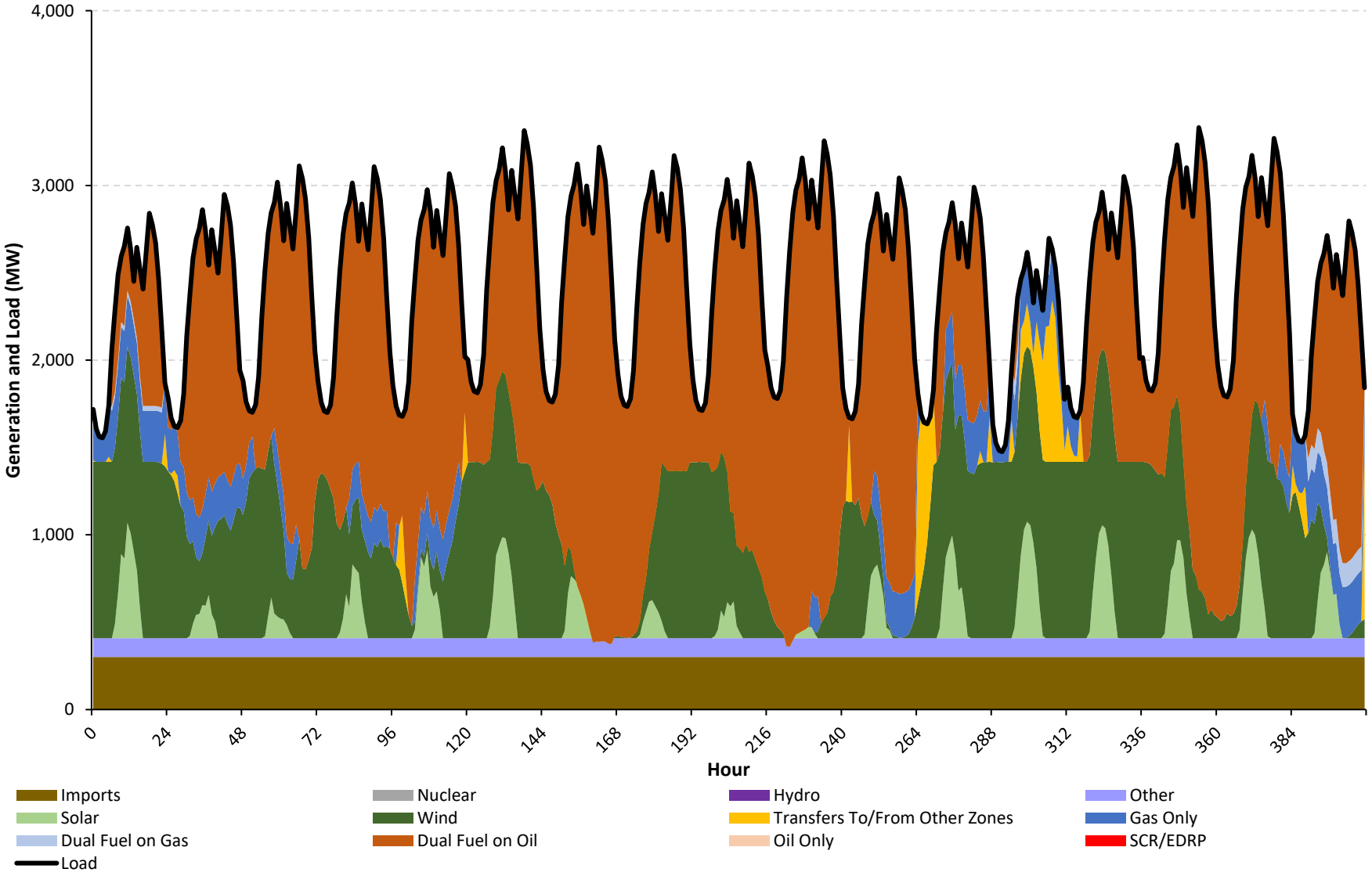



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 8 - PD 10 Non-Firm Gas Unavailable (4 days)
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 10 Non-Firm Gas Unavailable (4 days)



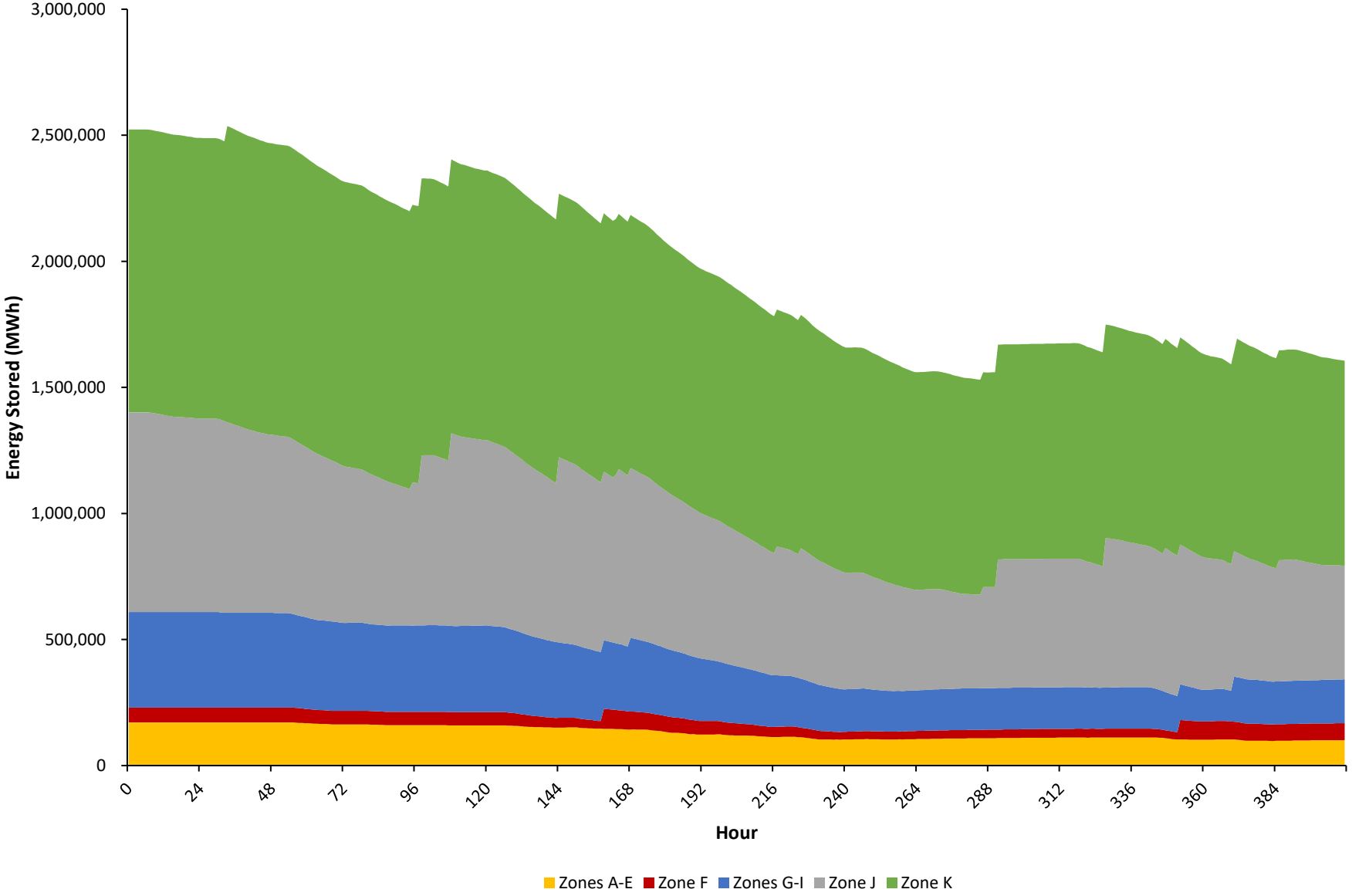
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 10 Non-Firm Gas Unavailable (4 days)

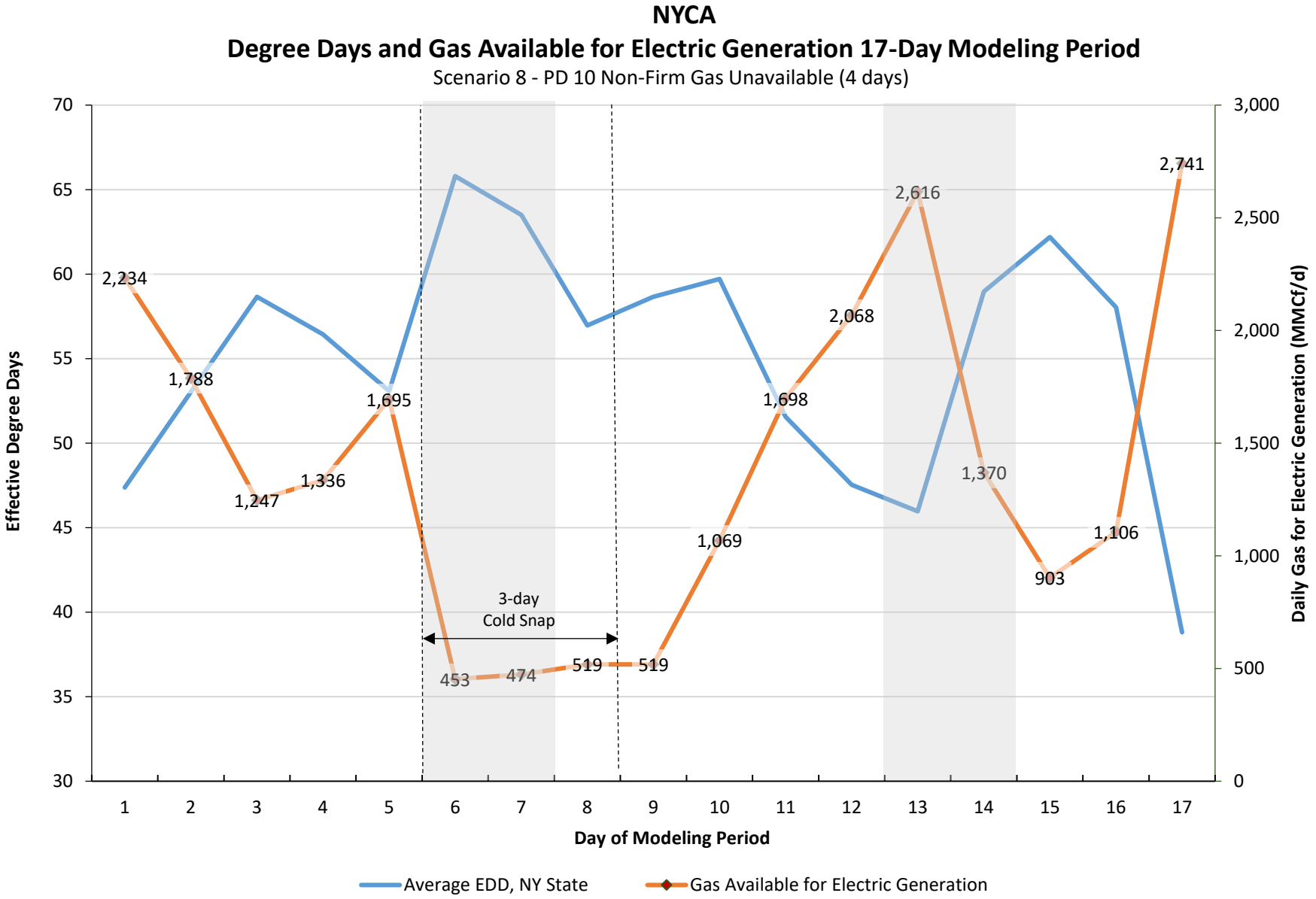


NYCA

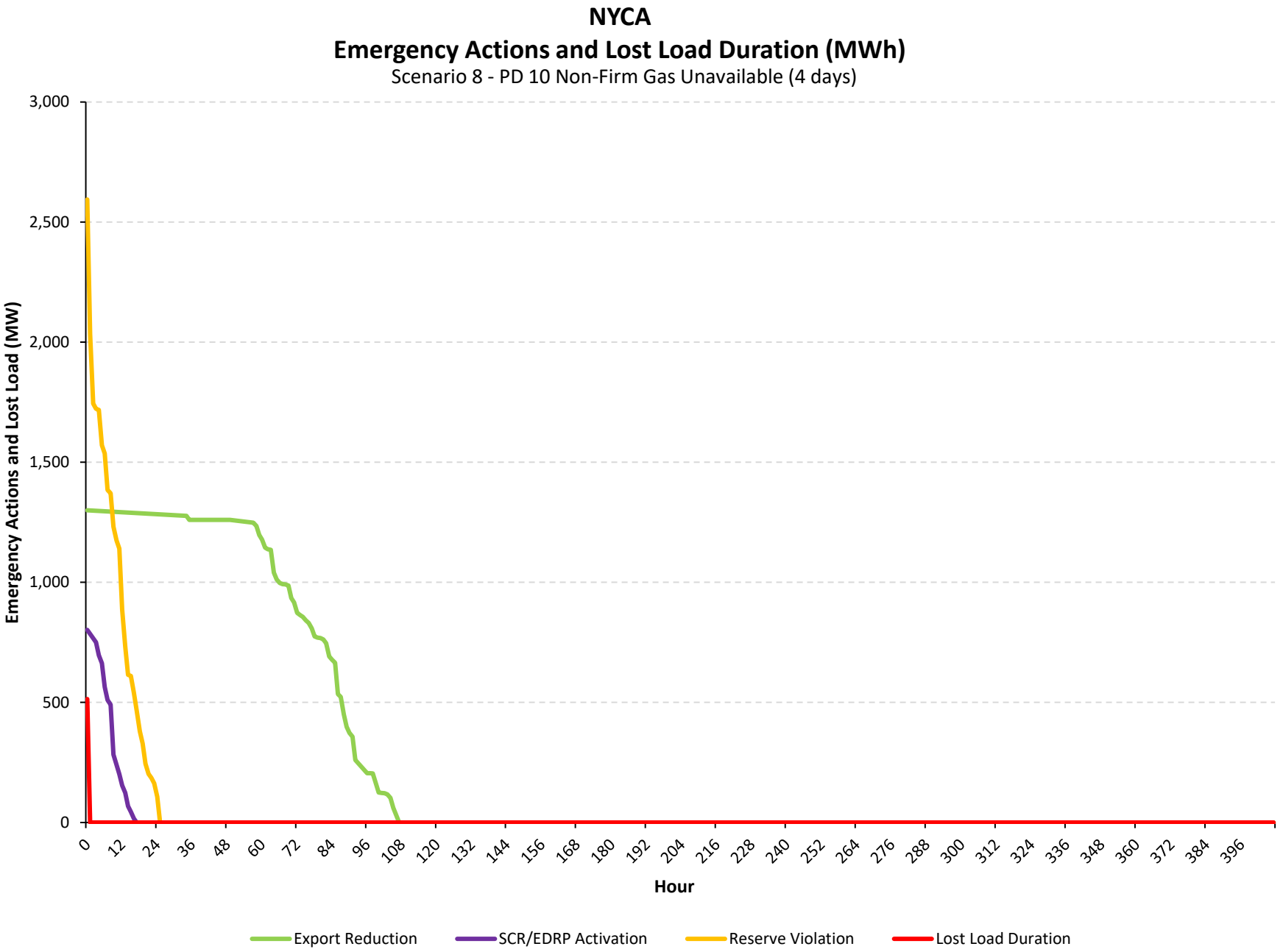
Quantity of Stored Fuel for Oil and Dual Fuel Units

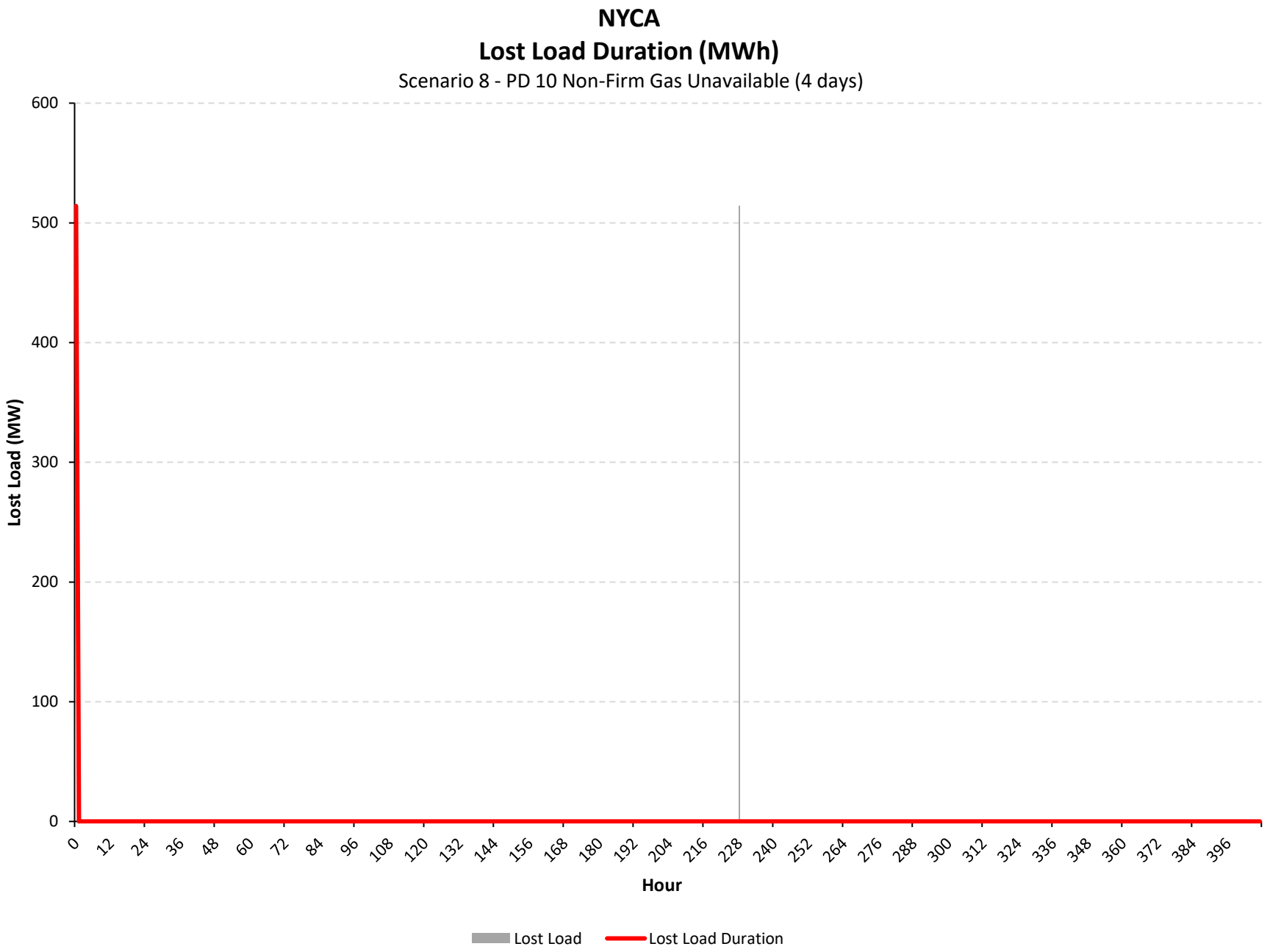
Scenario 8 - PD 10 Non-Firm Gas Unavailable (4 days)





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 8 - PD 10 Non-Firm Gas Unavailable (4 days)
Emergency Actions and Lost Load (MW)
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 8 - PD 10 Non-Firm Gas Unavailable (4 days)
Lost Load (MW)
600
500
400
300
200
100
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration

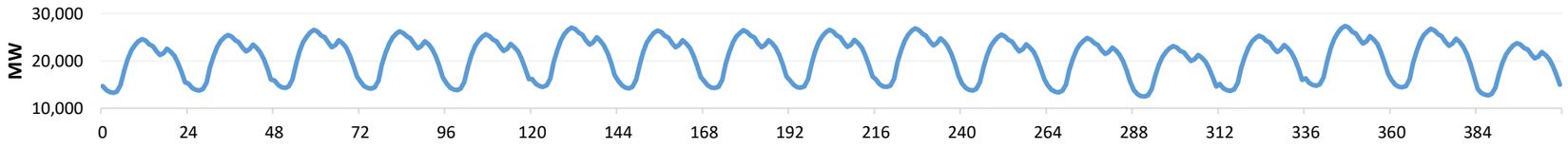
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 8 - PD 11 Combination Disruption (Winter 2026/2027)

Hourly Results Summary

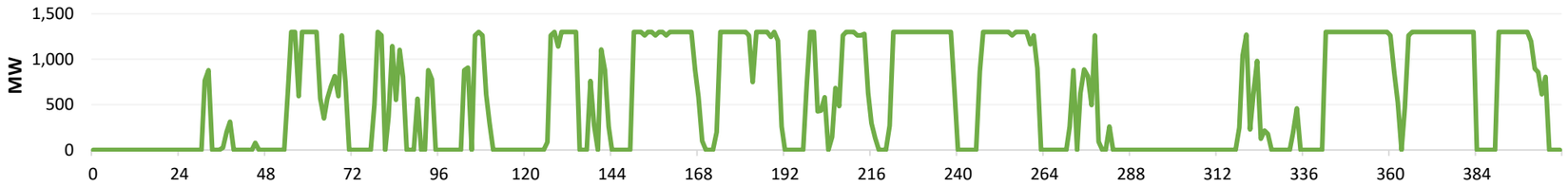
Case Name: Scenario 8 - PD 11 Combination Disruption

Load During Modeling Period



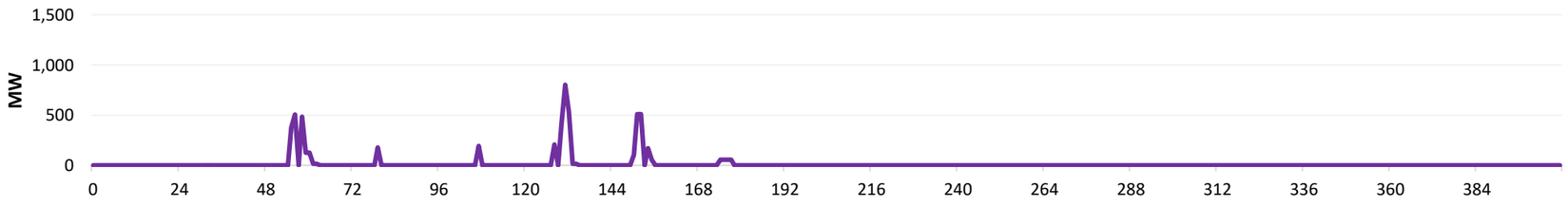
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

Export to ISO-NE Reduction During Modeling Period



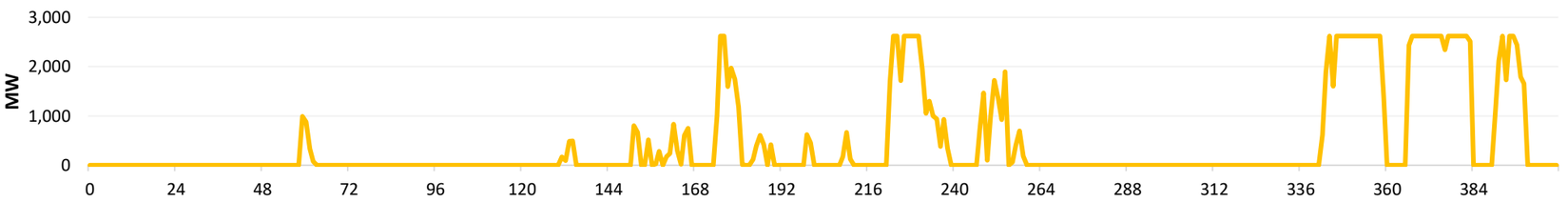
Export Reductions	
Total Hrs.	225
Total MWh	231,366
Avg. MW	567.1

SCR/EDRP Deployed During Modeling Period



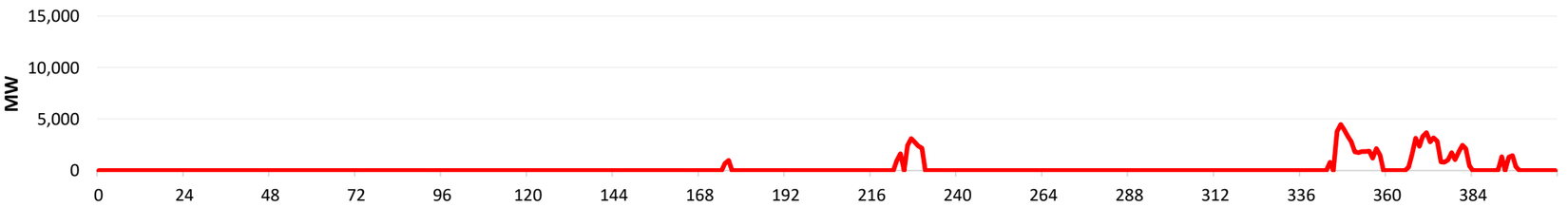
SCR Deployment	
Total Hrs.	24
Total MWh	5,578
Avg. MW	13.7

NYCA Reserve Violations During Modeling Period



Reserve Violations	
Total Hrs.	112
Total MWh	173,099
Avg. MW	424.3
First Hour with Viol.	59

Loss of Load During Modeling Period



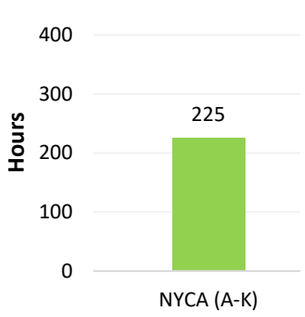
Loss of Load	
Total Hrs.	46
Total MWh	90,264
Avg. MW	221.2
First Hour with Losses	175

Full Period Results Summary

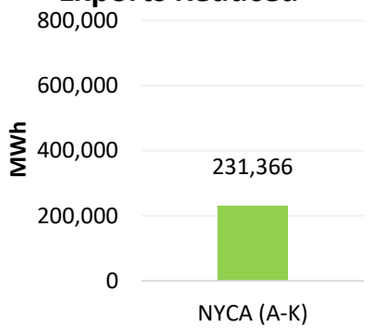
Case Name: Scenario 8 - PD 11 Combination Disruption

Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	High
Renewables:	Delayed
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

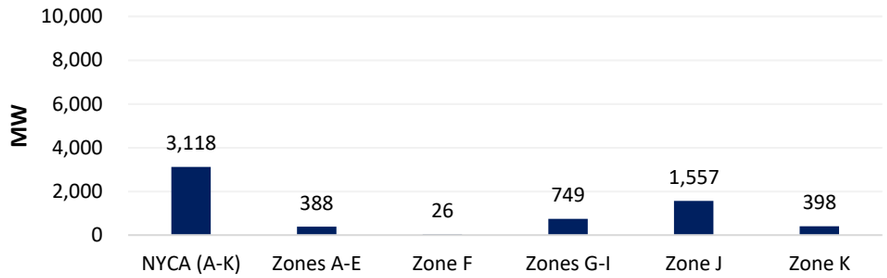
Hours Exports Reduced



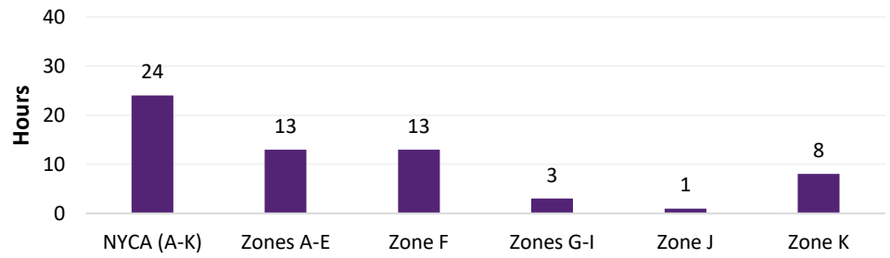
Total MWh of Exports Reduced



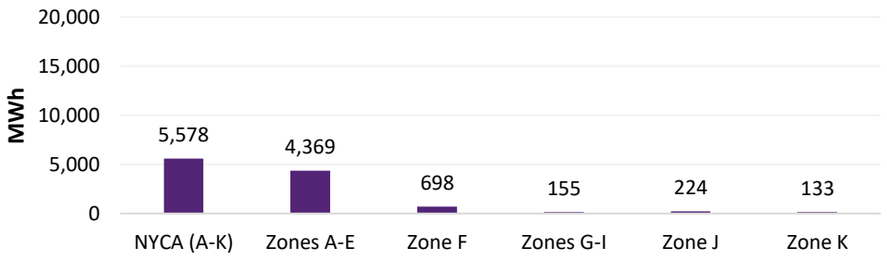
Average Capacity Not Available Due to Exhausted Fuel Inventory



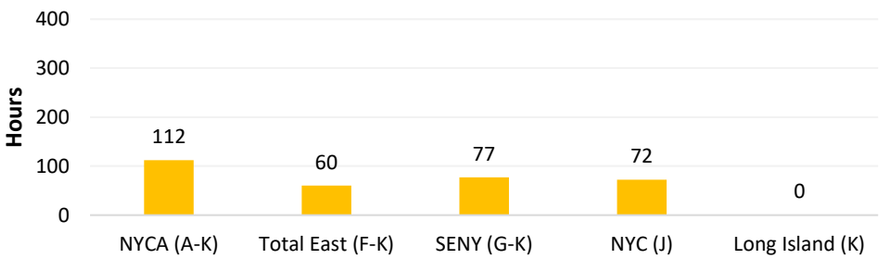
Hours SCR/EDRP Deployed



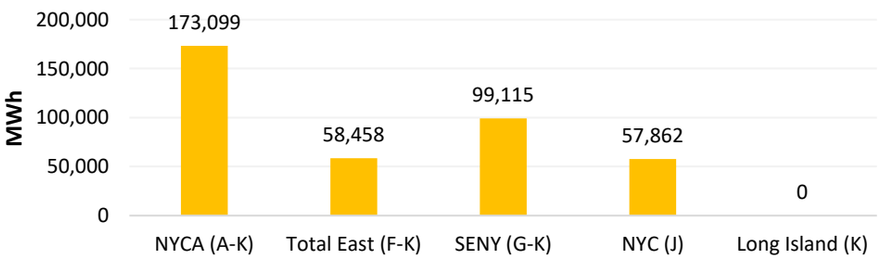
Total MWh SCR/EDRP Deployed



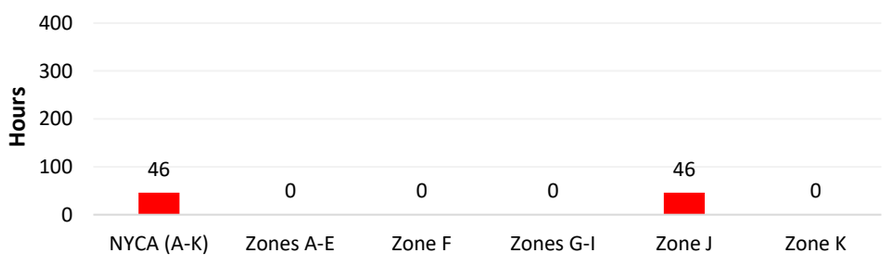
Hours with Reserve Violations



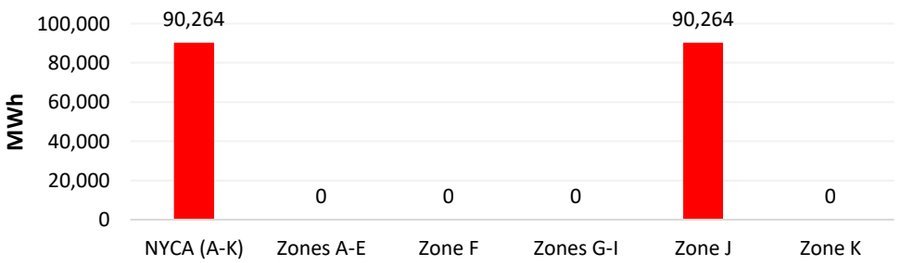
Total MWh of Reserve Violations

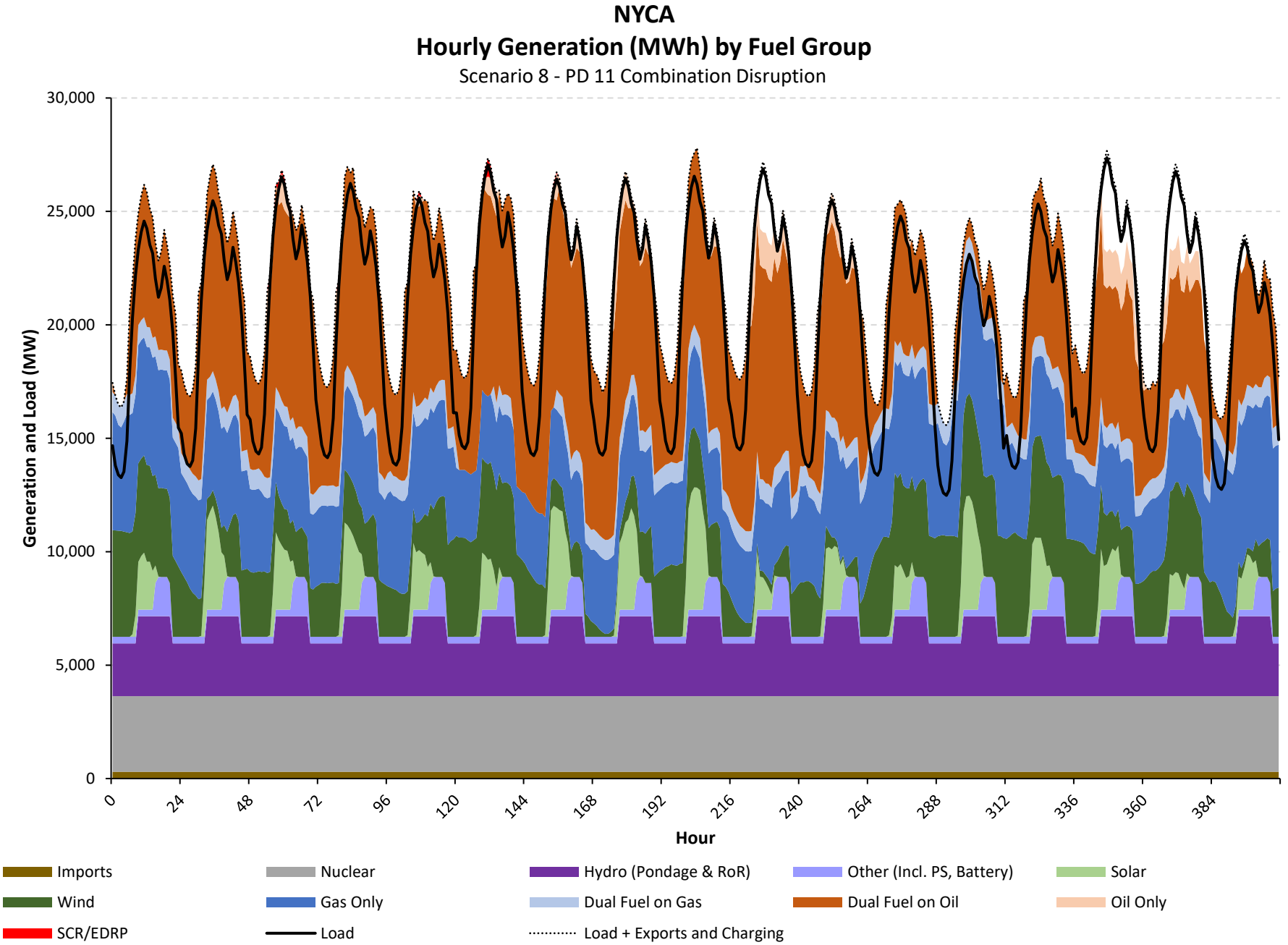


Hours with Loss of Load

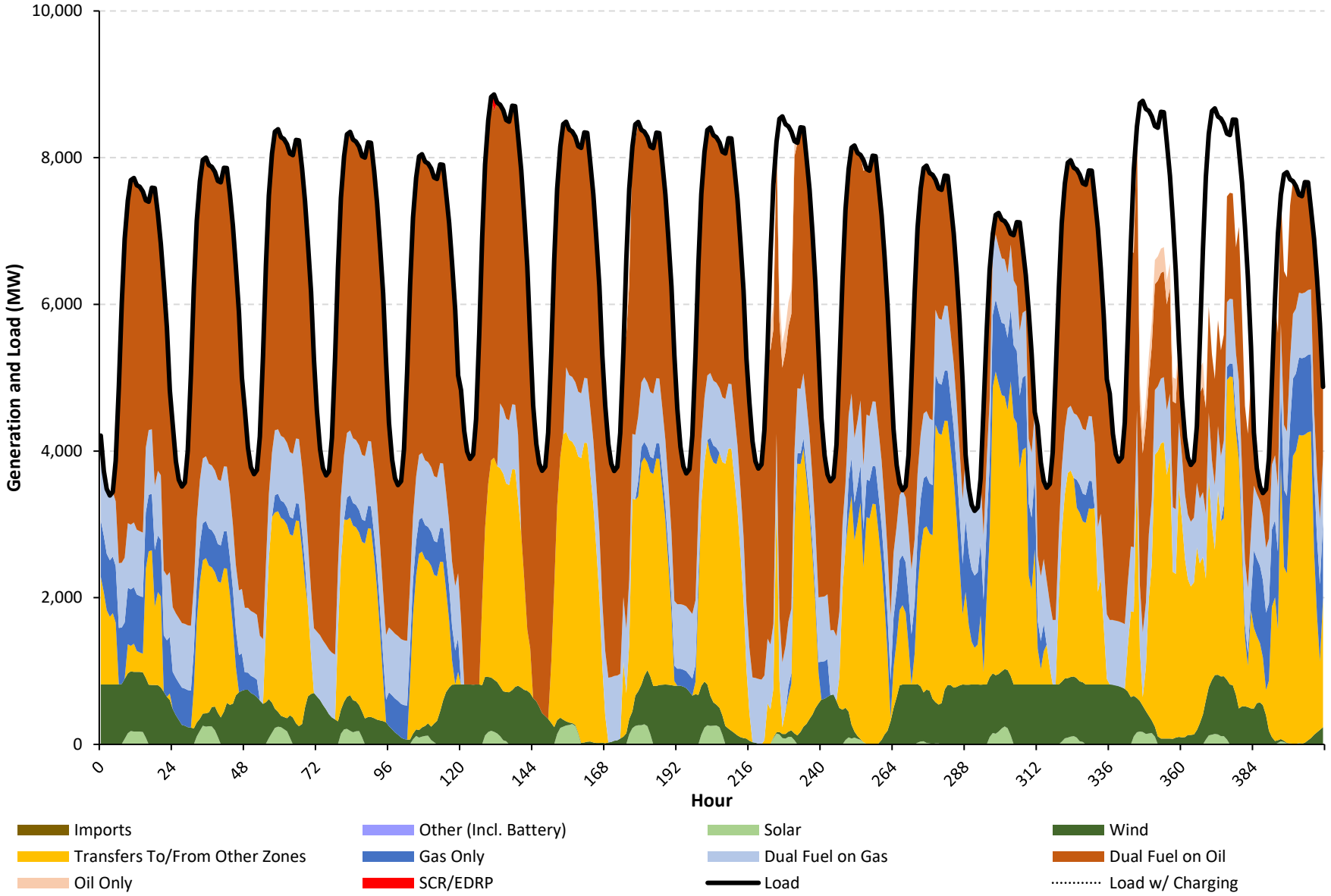


Total MWh of Lost Load

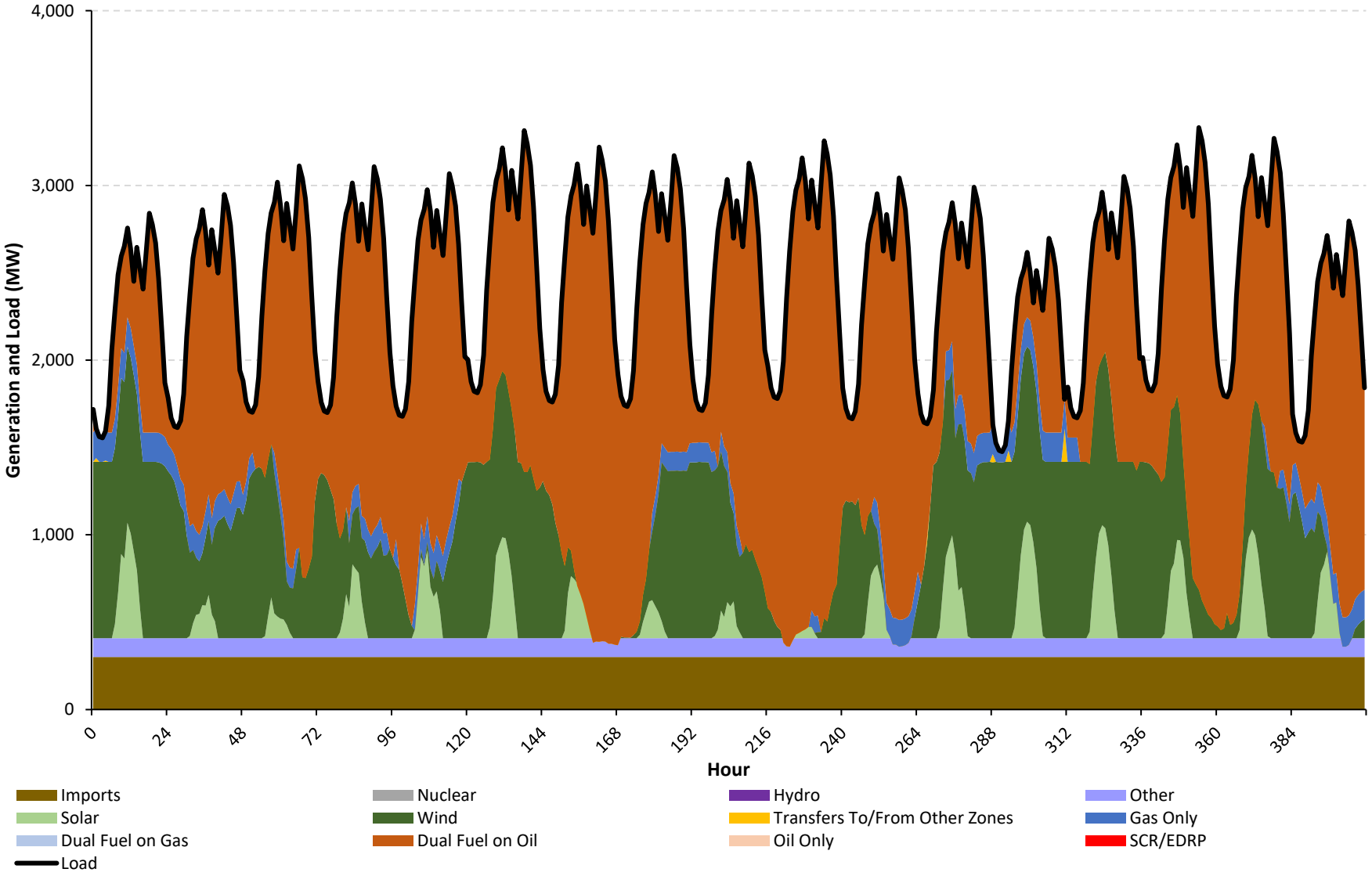



NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 8 - PD 11 Combination Disruption
Generation and Load (MW)
30,000
25,000
20,000
15,000
10,000
5,000
0
0
24
48
72
96
120
144
168
192
216
240
264
288
312
336
360
384
Hour
Imports
Nuclear
Hydro (Pondage & RoR)
Other (Incl. PS, Battery)
Solar
Wind
Gas Only
Dual Fuel on Gas
Dual Fuel on Oil
Oil Only
SCR/EDRP
Load
Load + Exports and Charging

Zone J
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 11 Combination Disruption



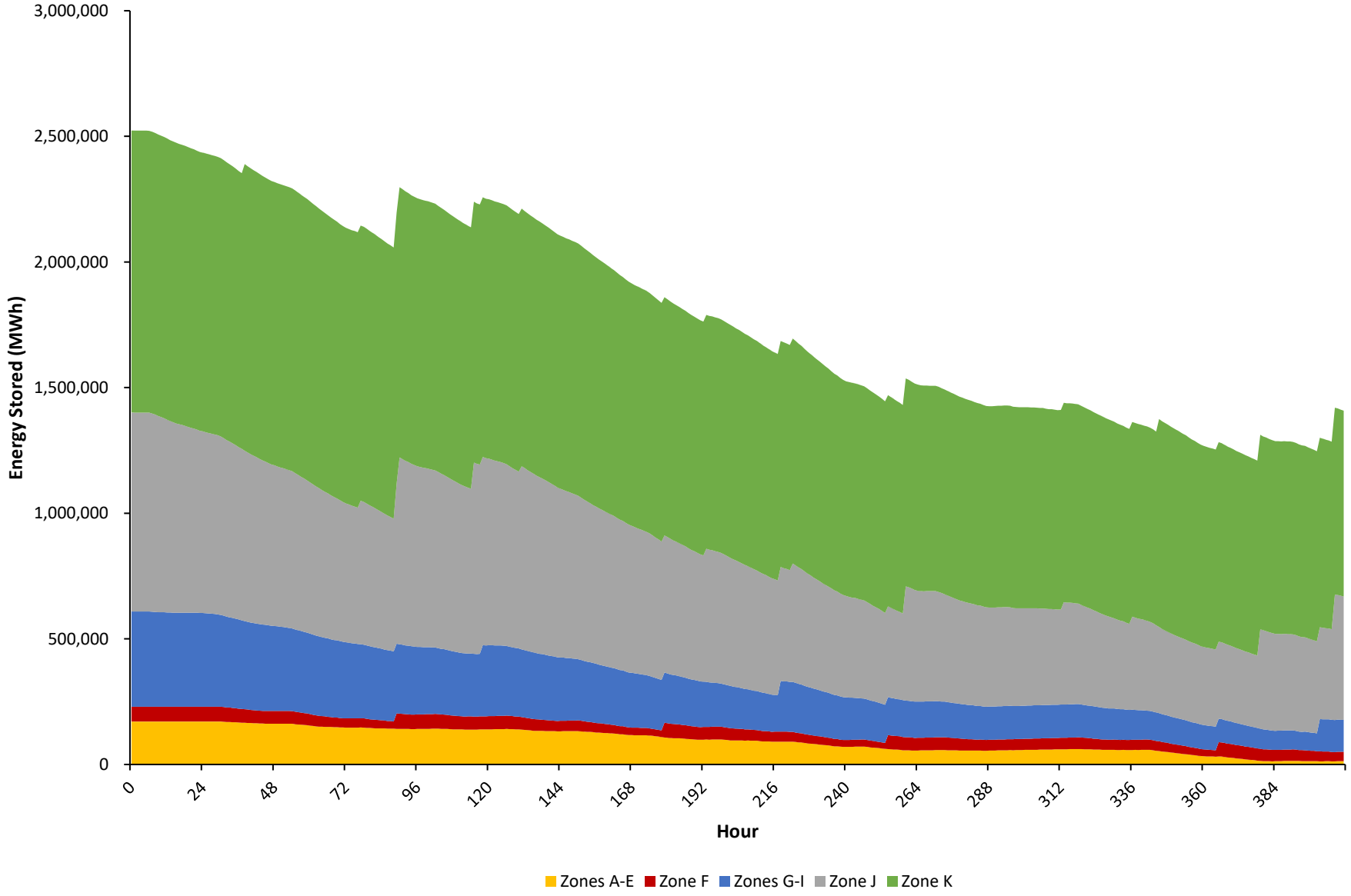
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 8 - PD 11 Combination Disruption

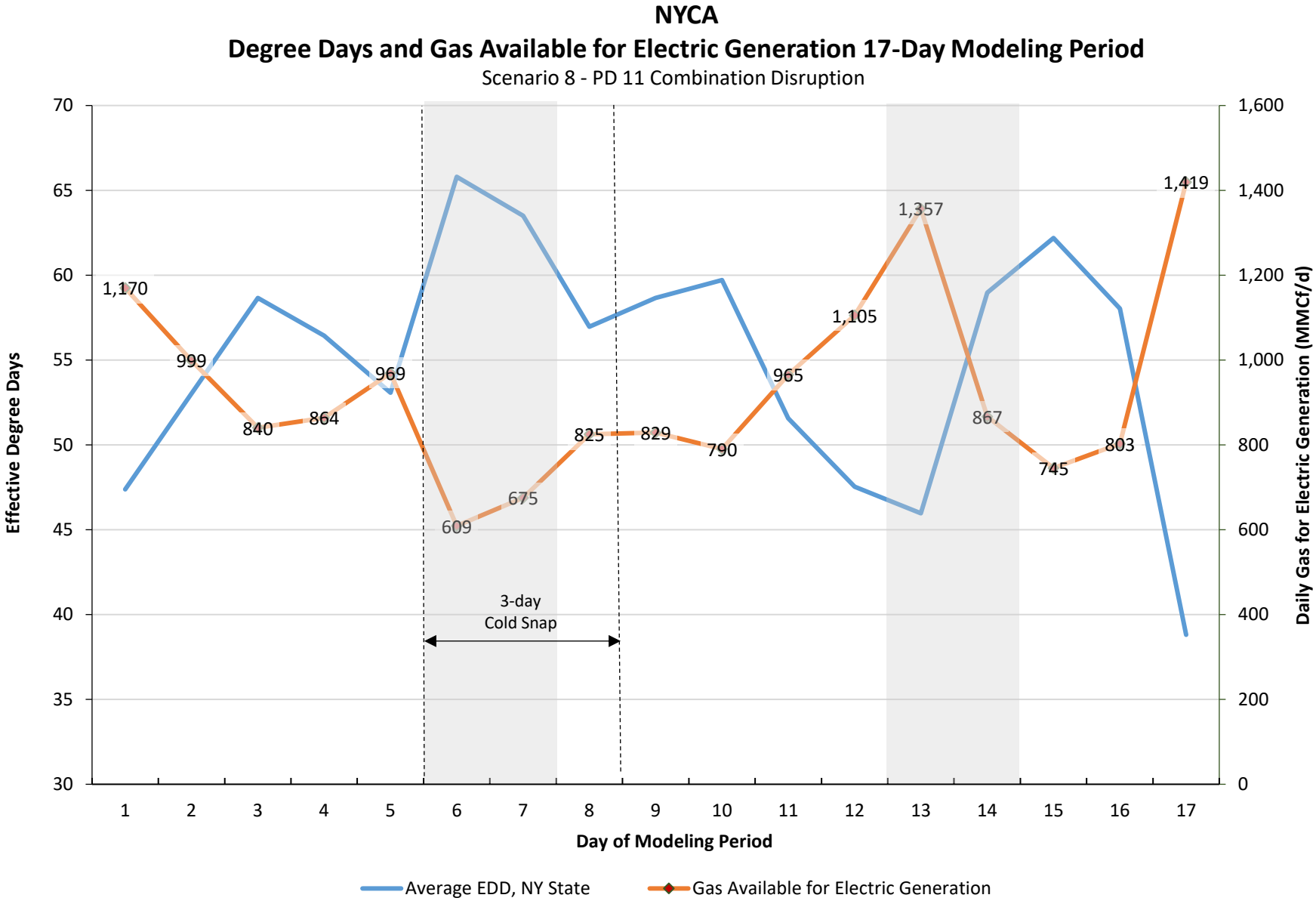


NYCA

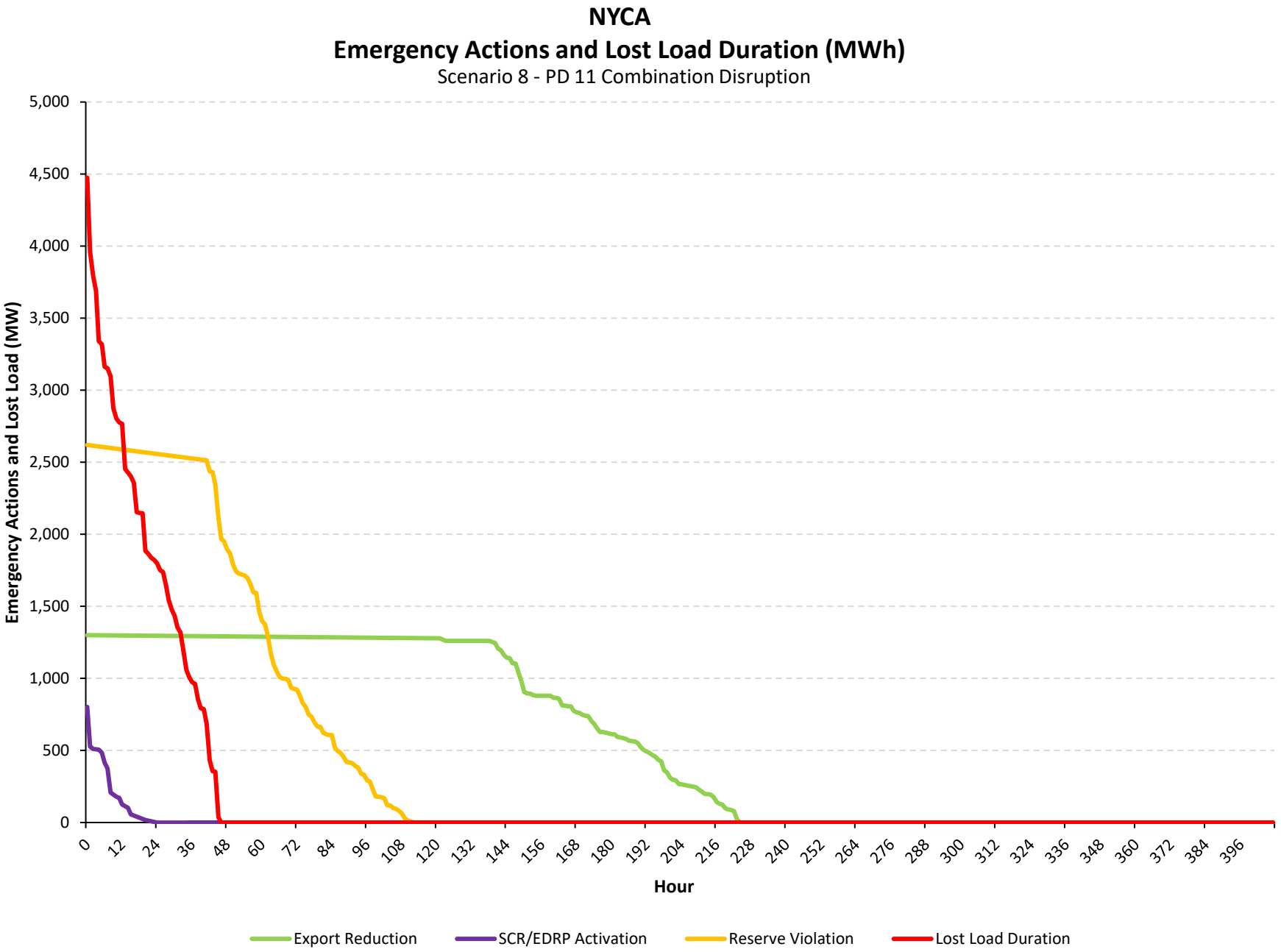
Quantity of Stored Fuel for Oil and Dual Fuel Units

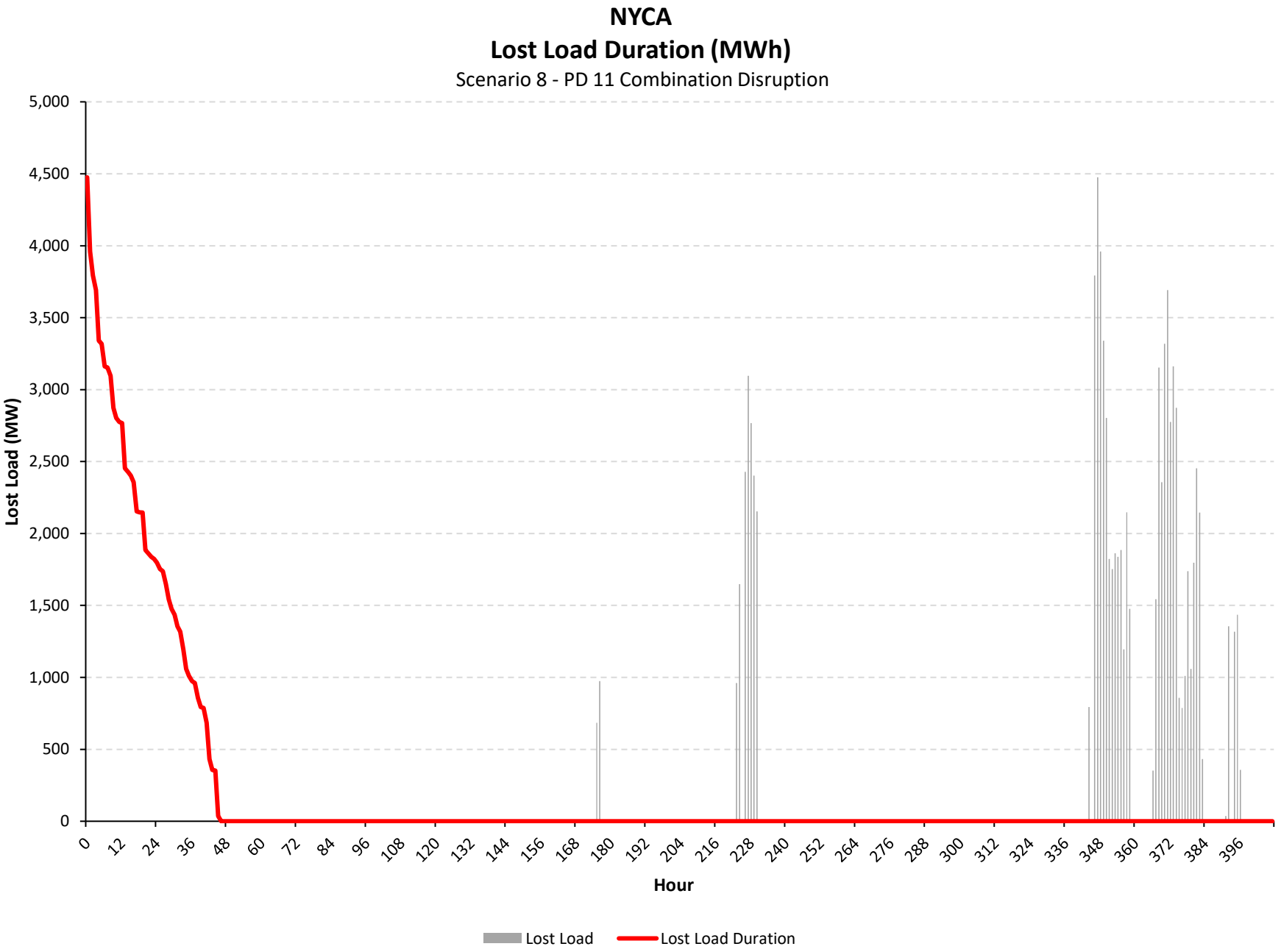
Scenario 8 - PD 11 Combination Disruption





Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.


NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 8 - PD 11 Combination Disruption
Emergency Actions and Lost Load (MW)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Export Reduction
SCR/EDRP Activation
Reserve Violation
Lost Load Duration


NYCA
Lost Load Duration (MWh)
Scenario 8 - PD 11 Combination Disruption
Lost Load (MW)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0 12 24 36 48 60 72 84 96 108 120 132 144 156 168 180 192 204 216 228 240 252 264 276 288 300 312 324 336 348 360 372 384 396
Hour
Lost Load
Lost Load Duration