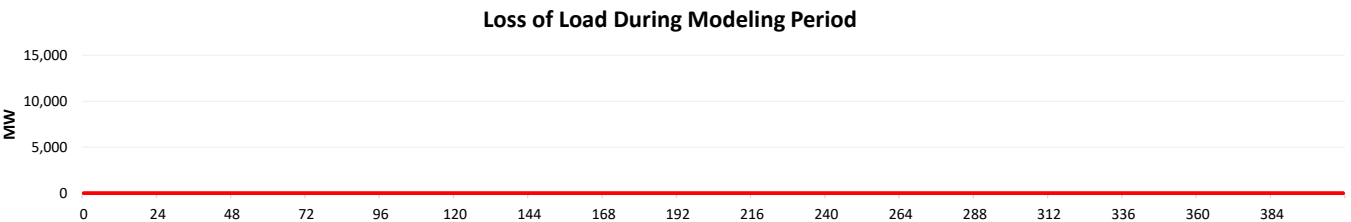
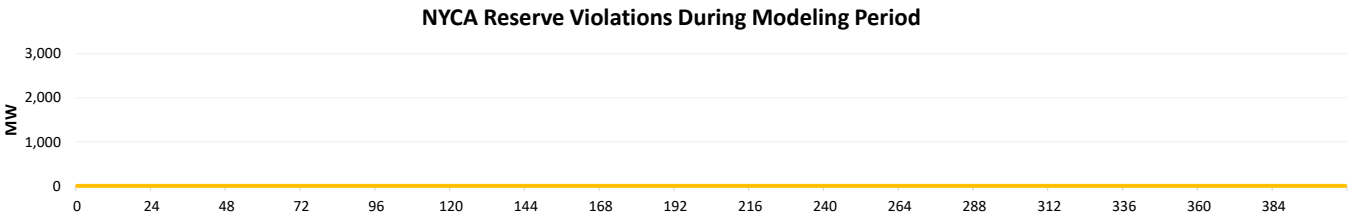
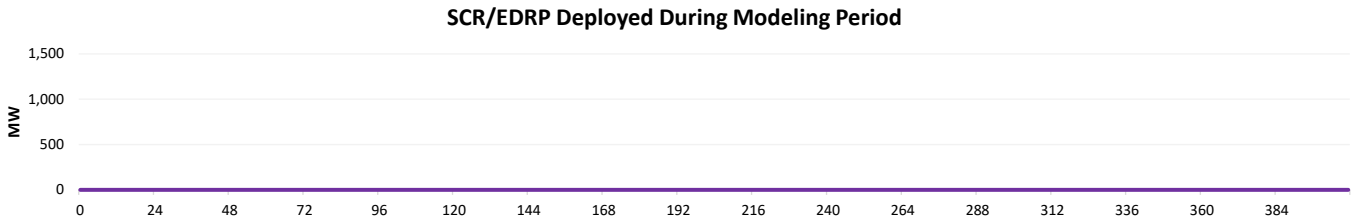
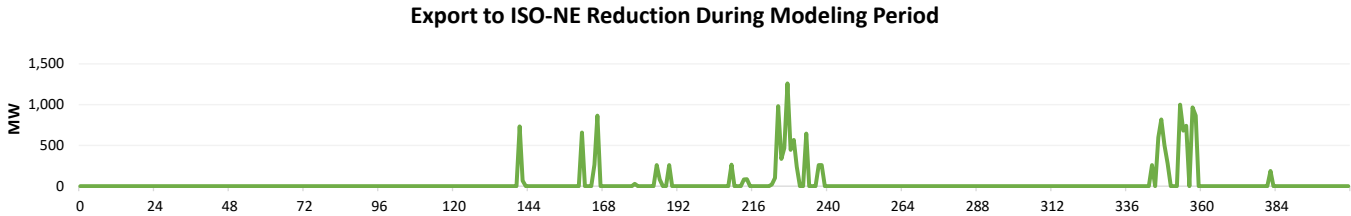
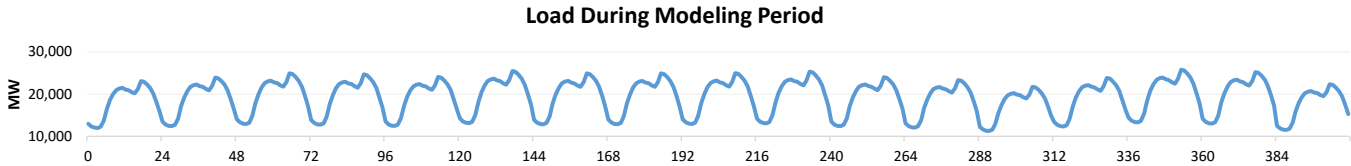


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 1 No Disruptions (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 1 - PD 1 No Disruptions



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

Export Reductions	
Total Hrs.	35
Total MWh	16,119
Avg. MW	39.5

SCR Deployment	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0

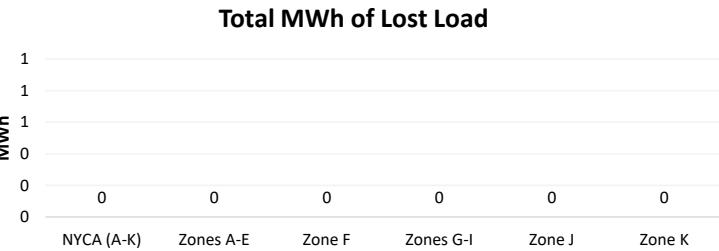
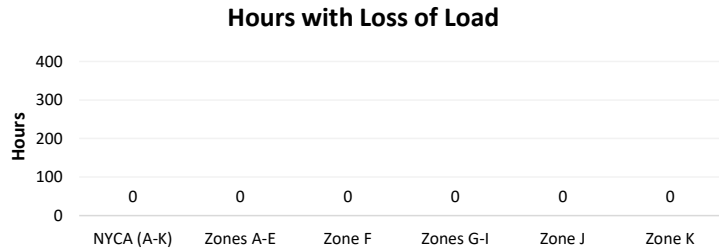
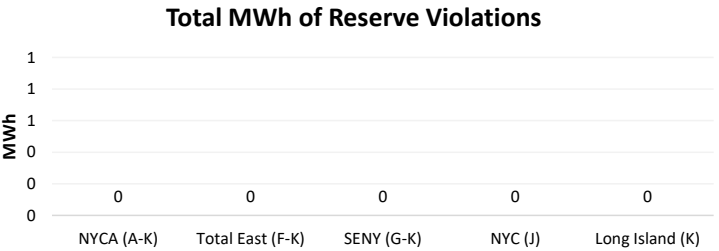
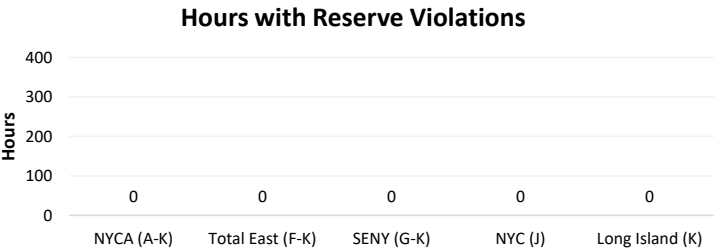
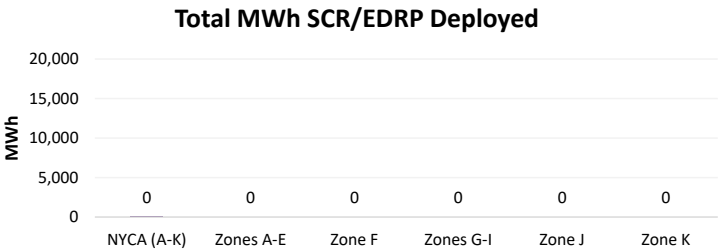
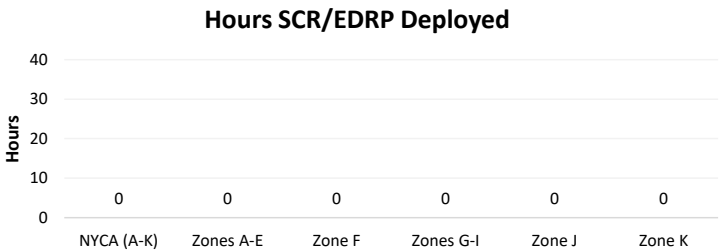
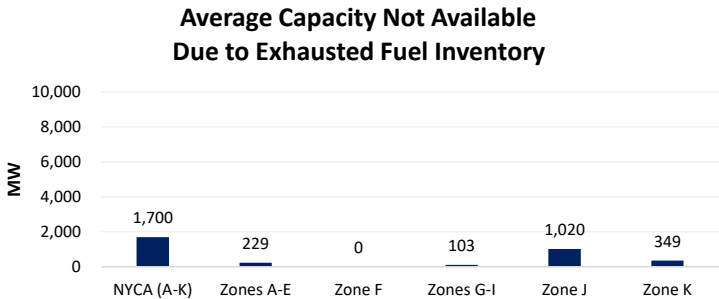
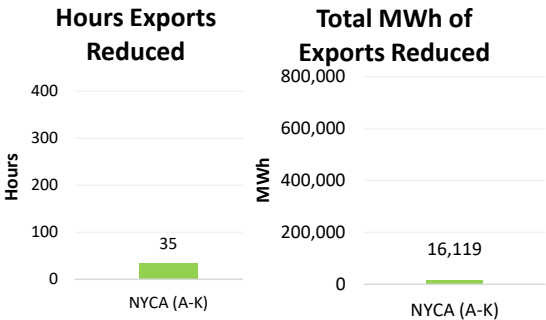
Reserve Violations	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Viol.	

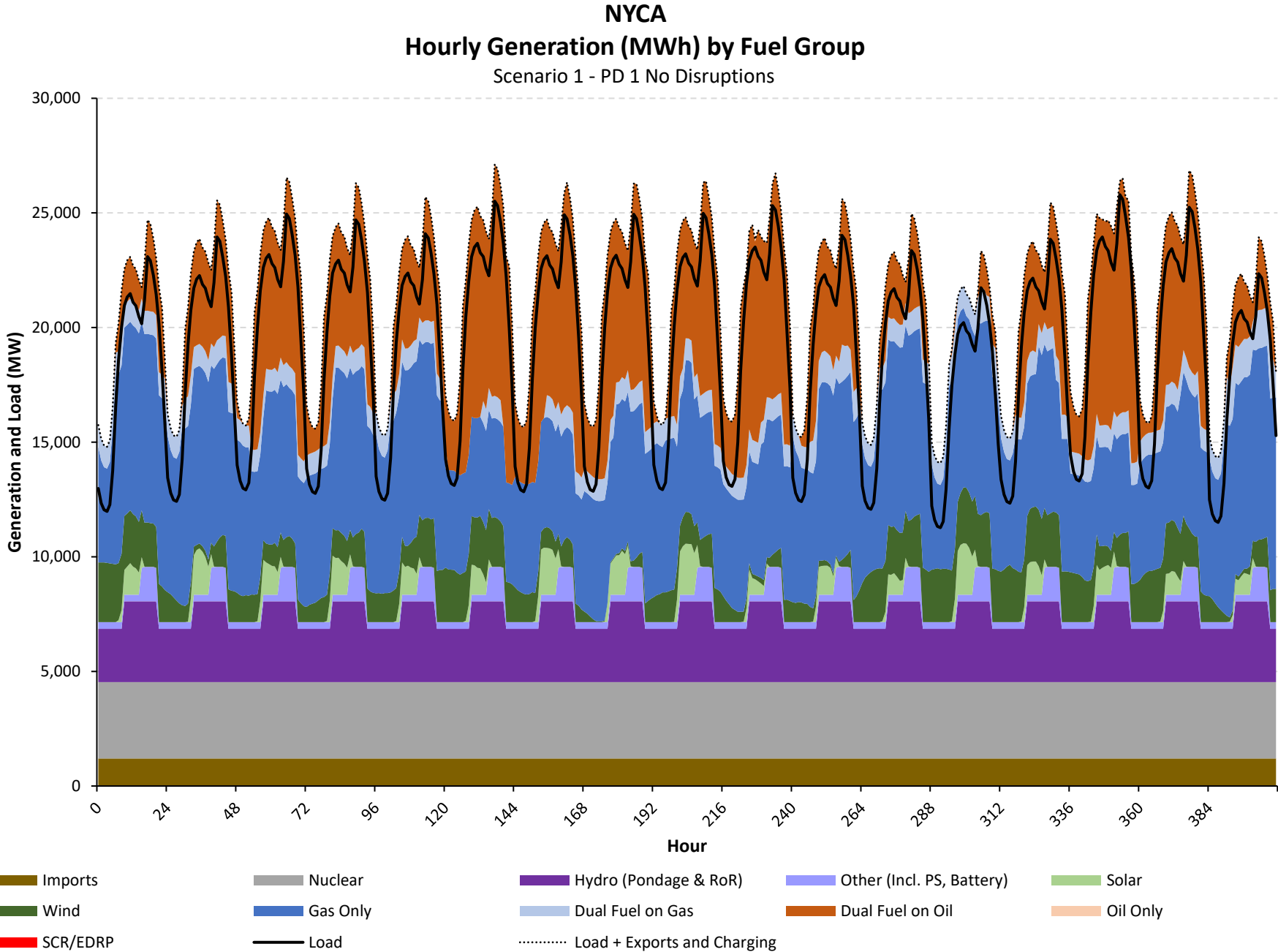
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

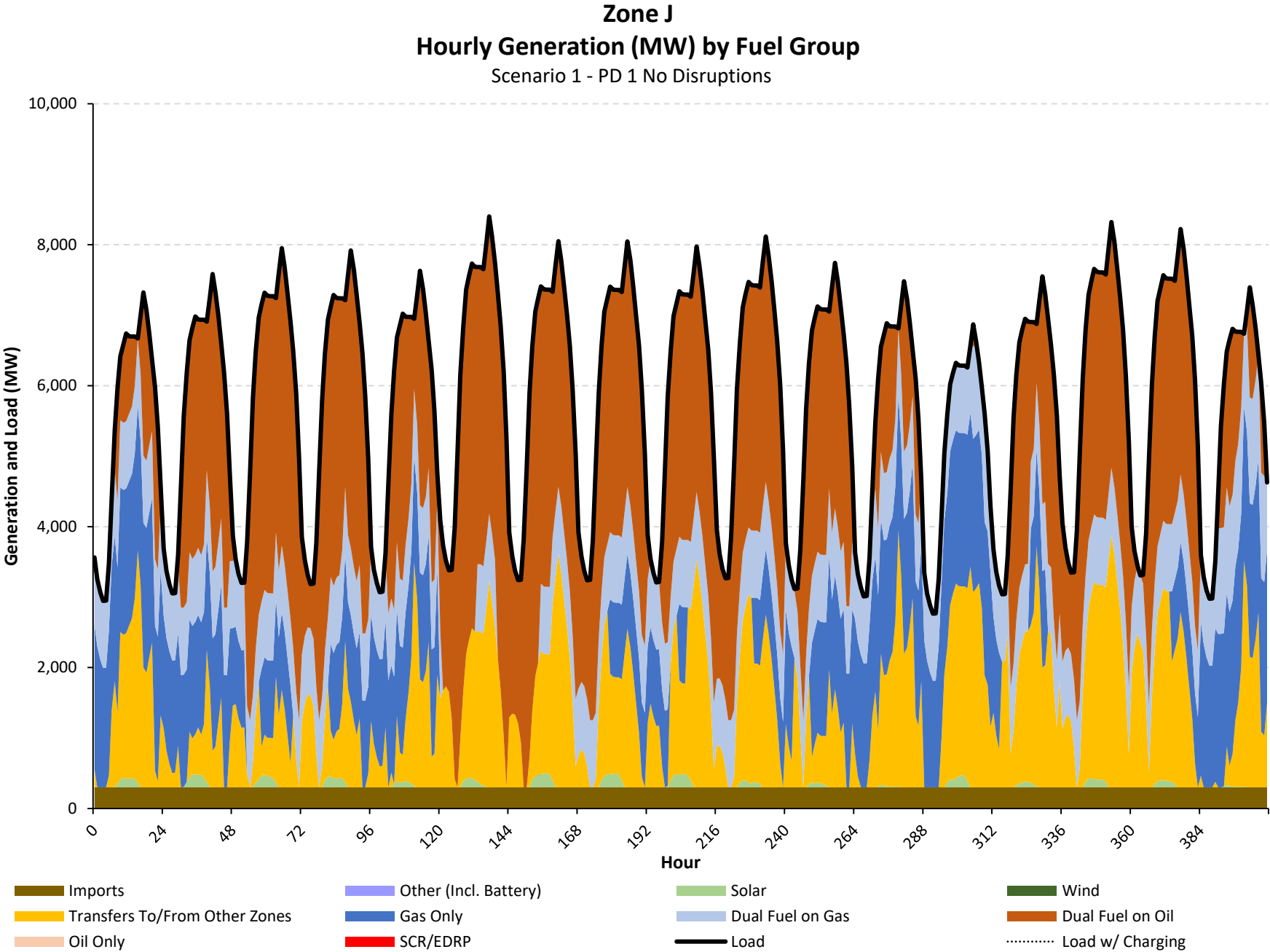
Full Period Results Summary

Case Name: Scenario 1 - PD 1 No Disruptions

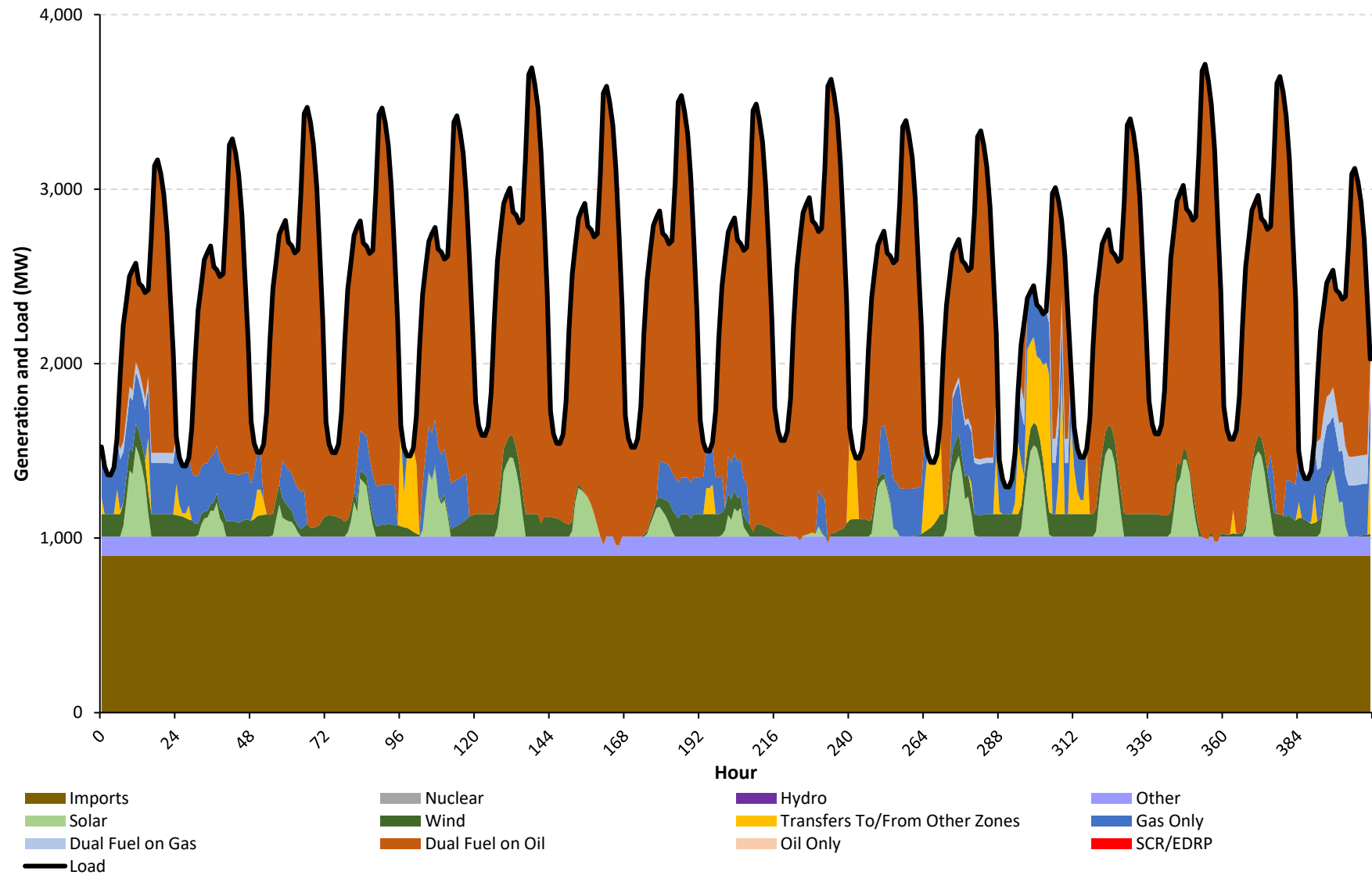
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	Historical
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

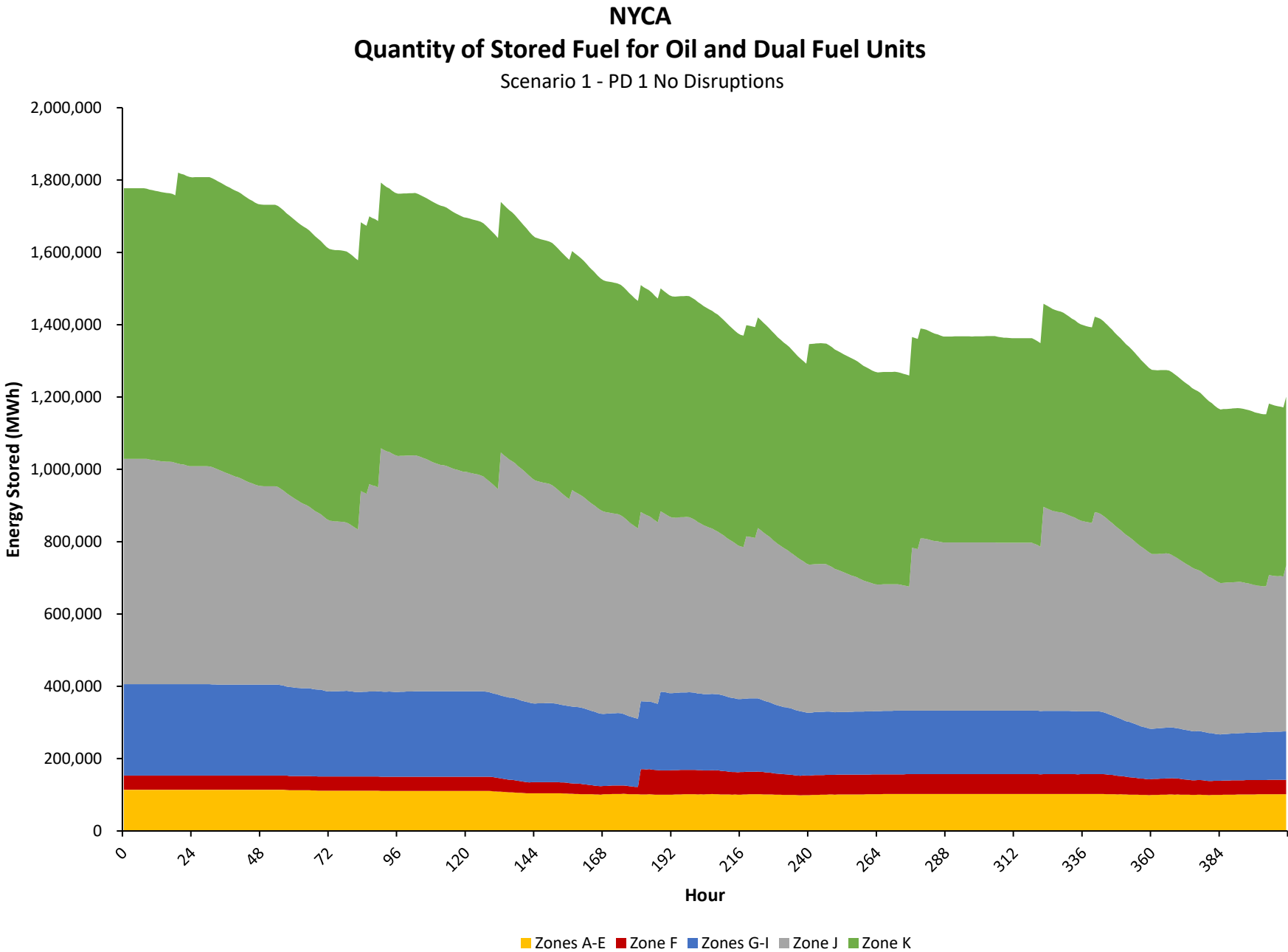






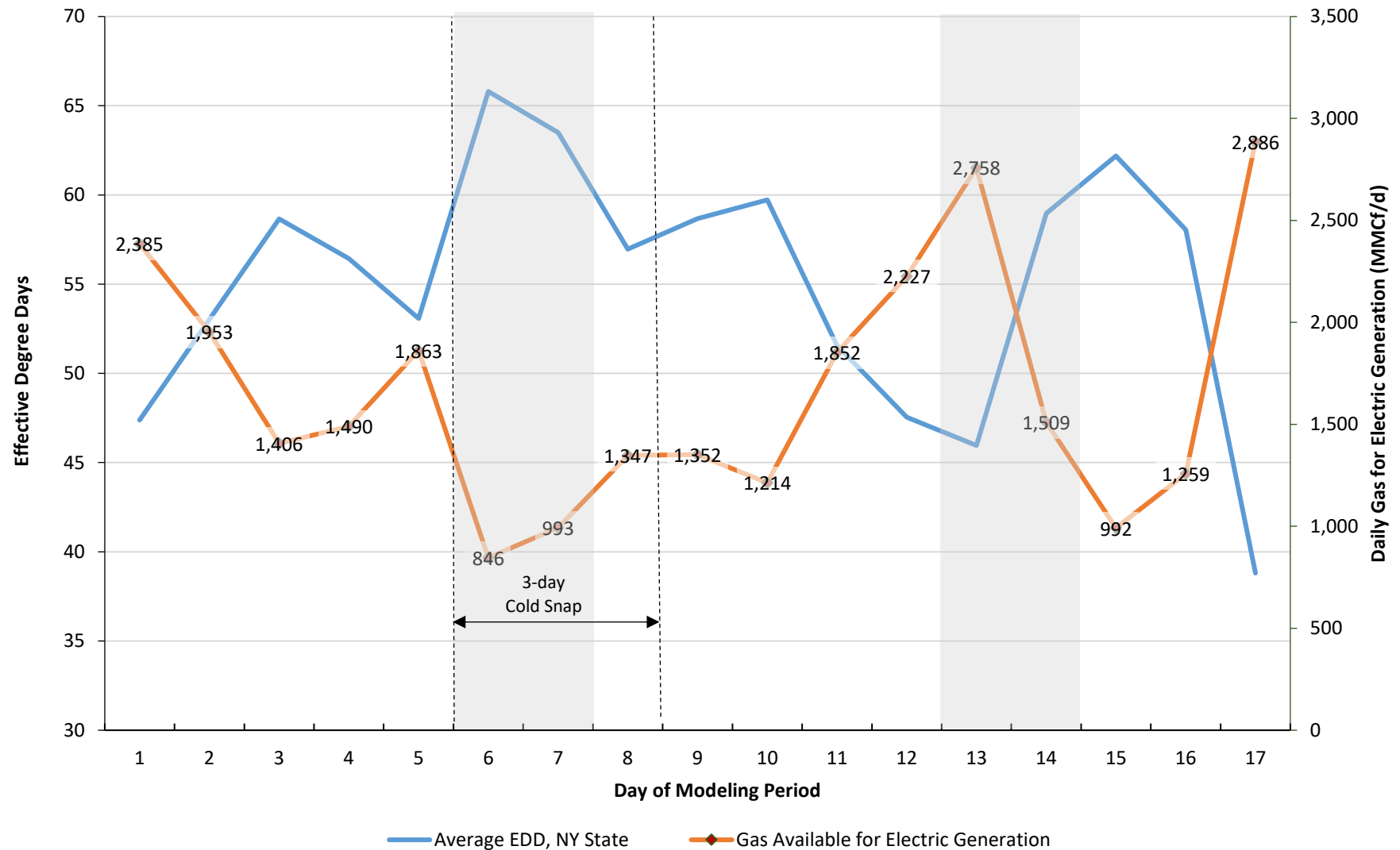
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 1 No Disruptions





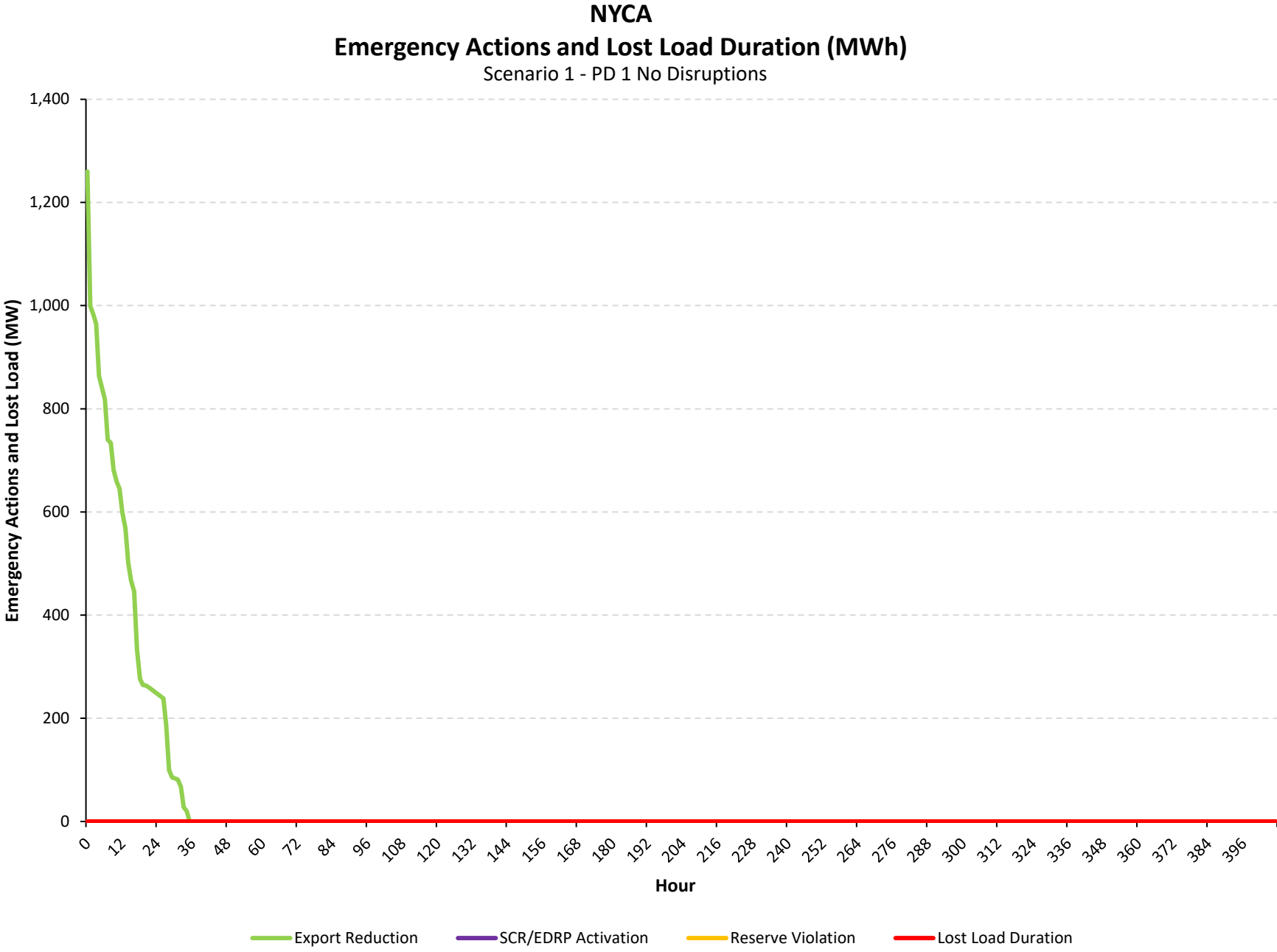
NYCA **Degree Days and Gas Available for Electric Generation 17-Day Modeling Period**

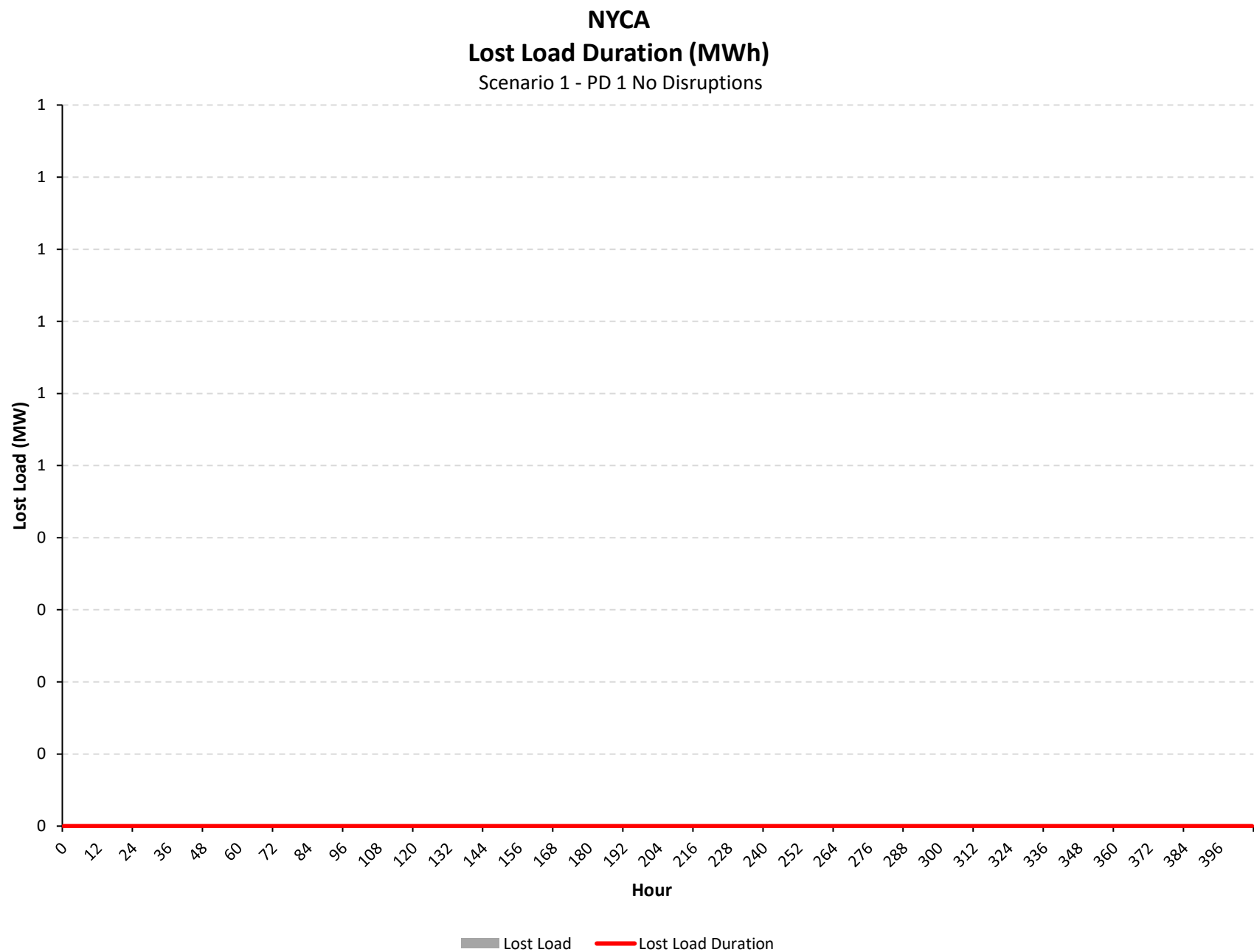
Scenario 1 - PD 1 No Disruptions



Notes:

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



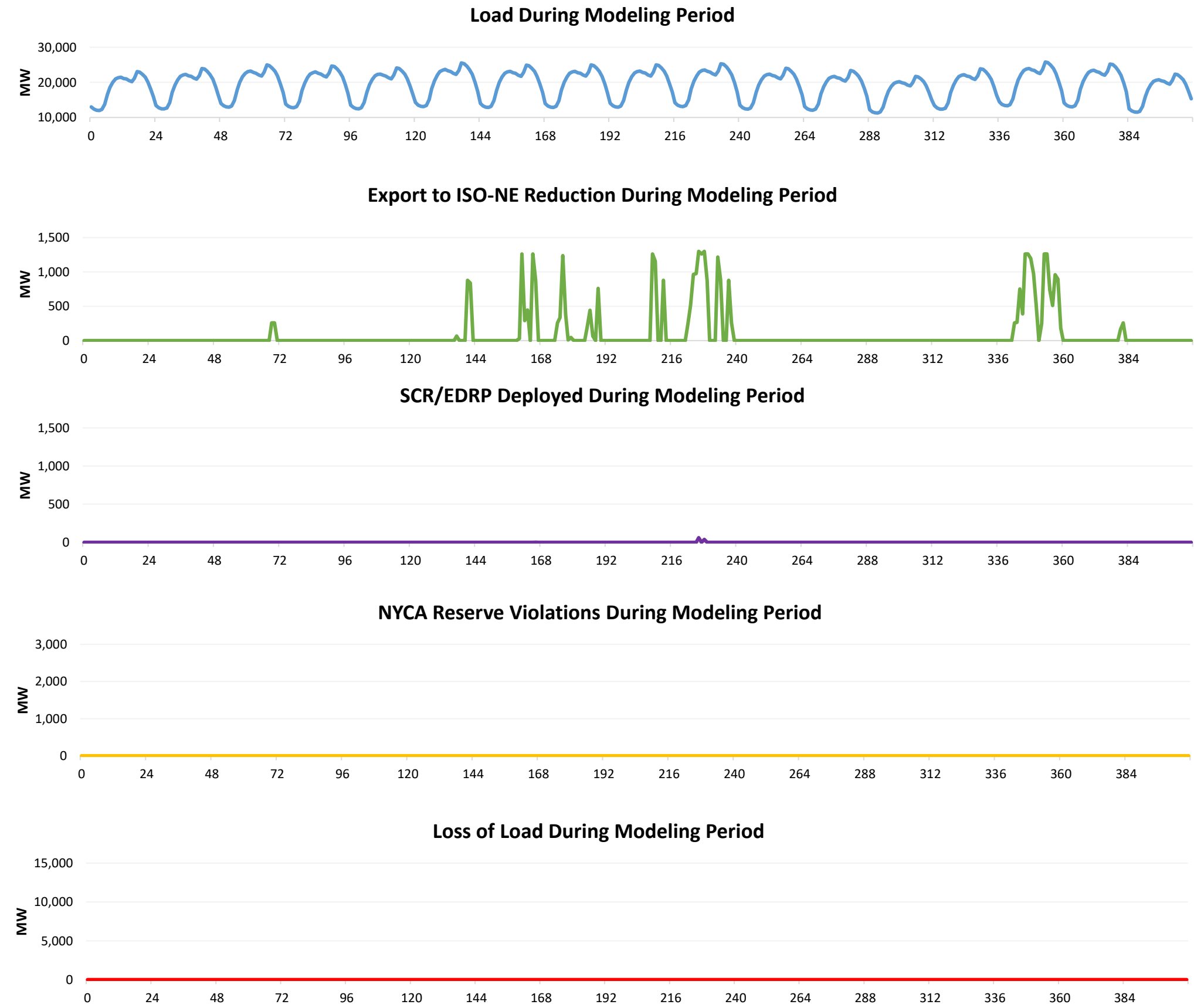


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 2 High Outage (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 1 - PD 2 High Outage



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

Export Reductions	
Total Hrs.	55
Total MWh	37,561
Avg. MW	92.1

SCR Deployment	
Total Hrs.	2
Total MWh	101
Avg. MW	0.2

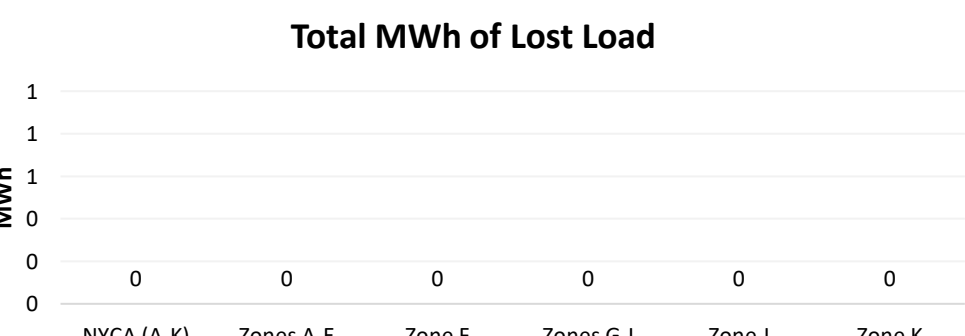
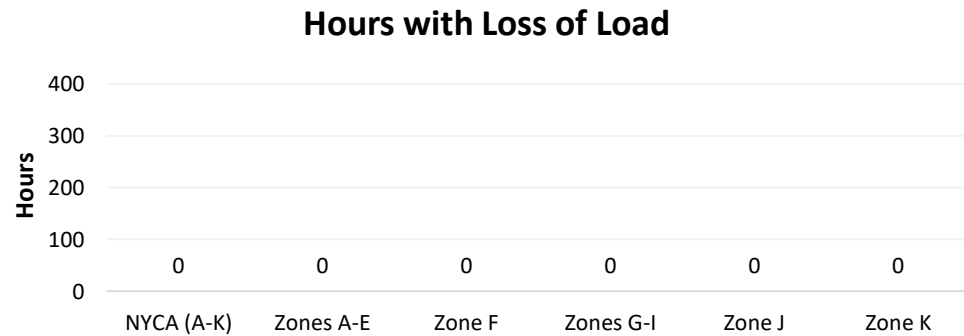
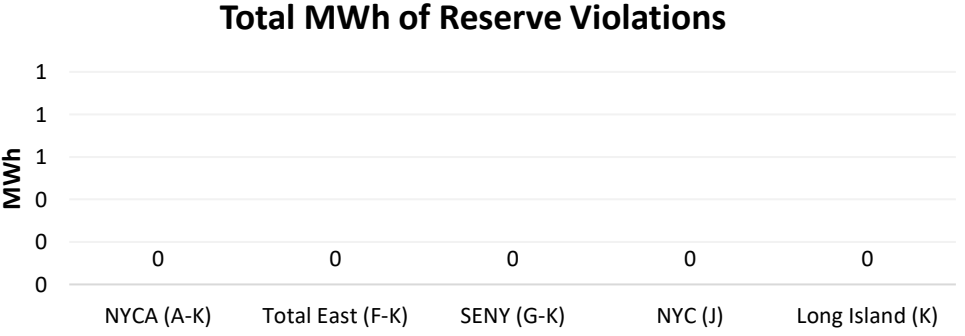
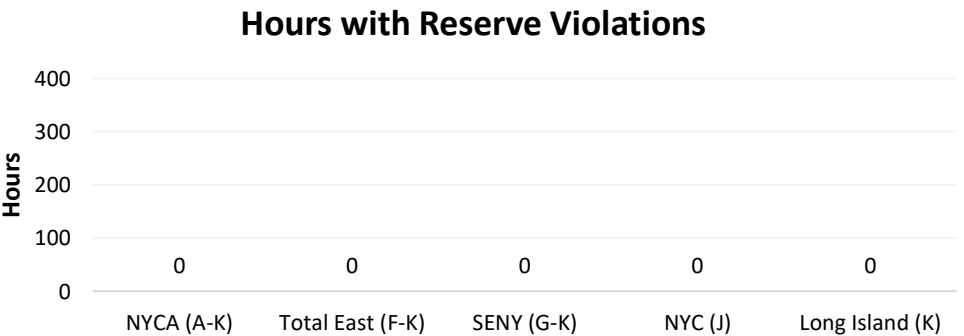
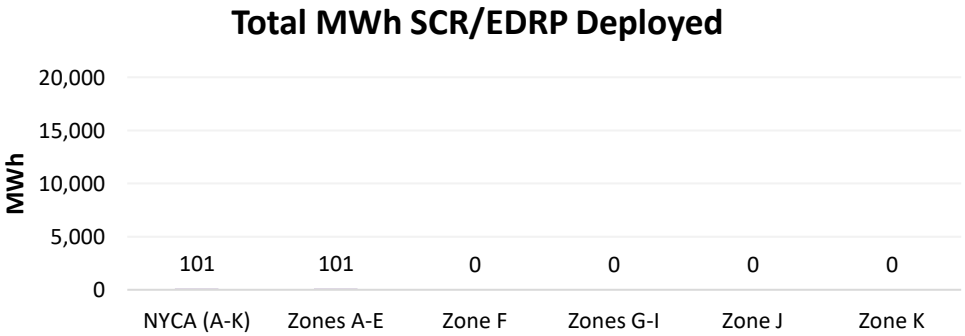
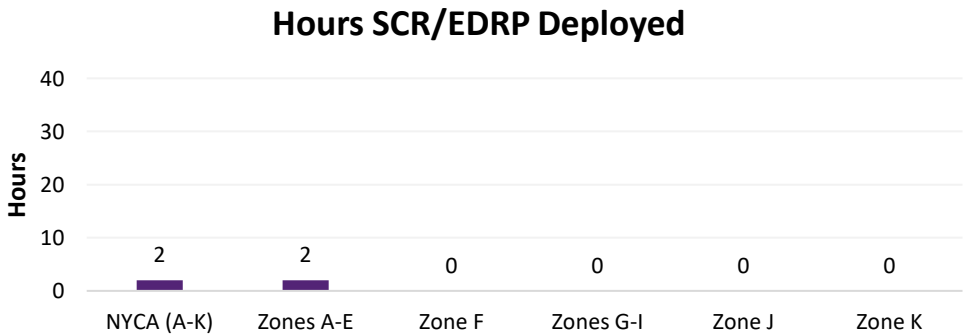
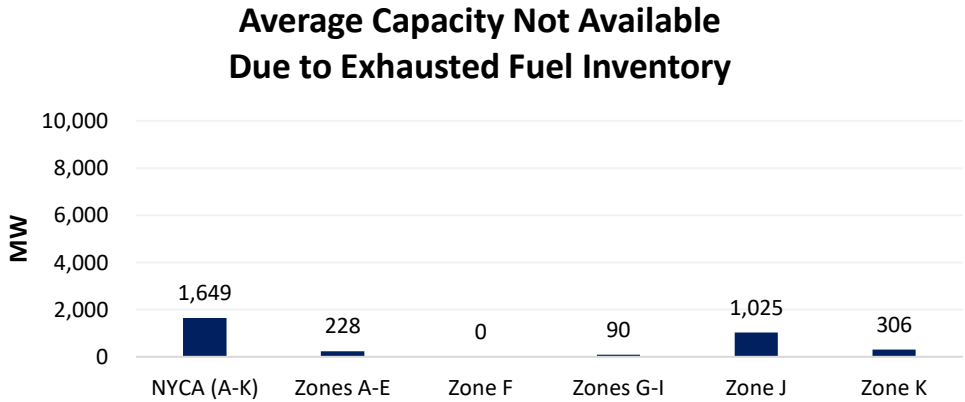
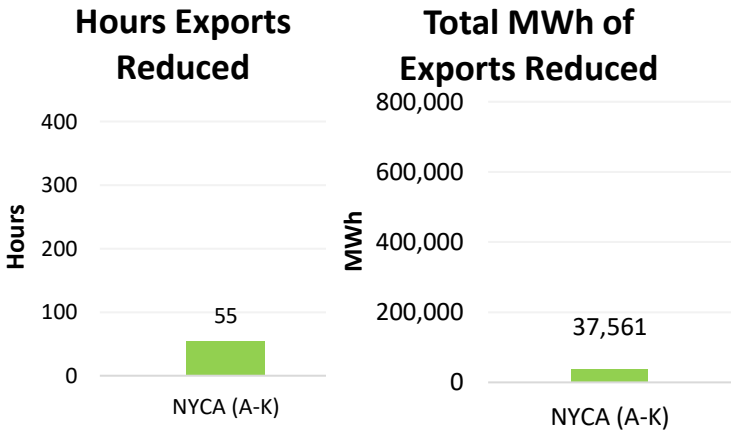
Reserve Violations	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Viol.	

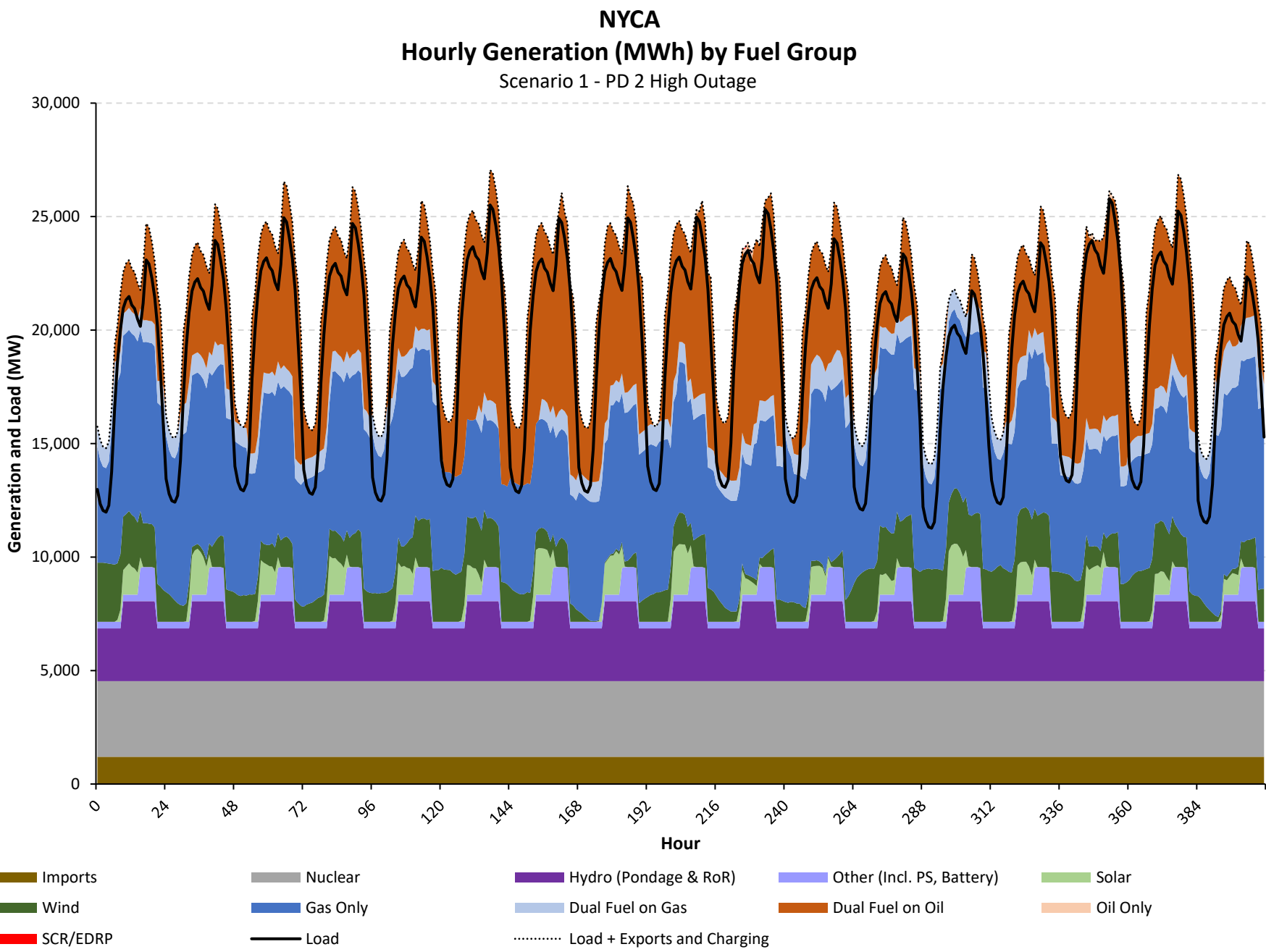
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

Full Period Results Summary

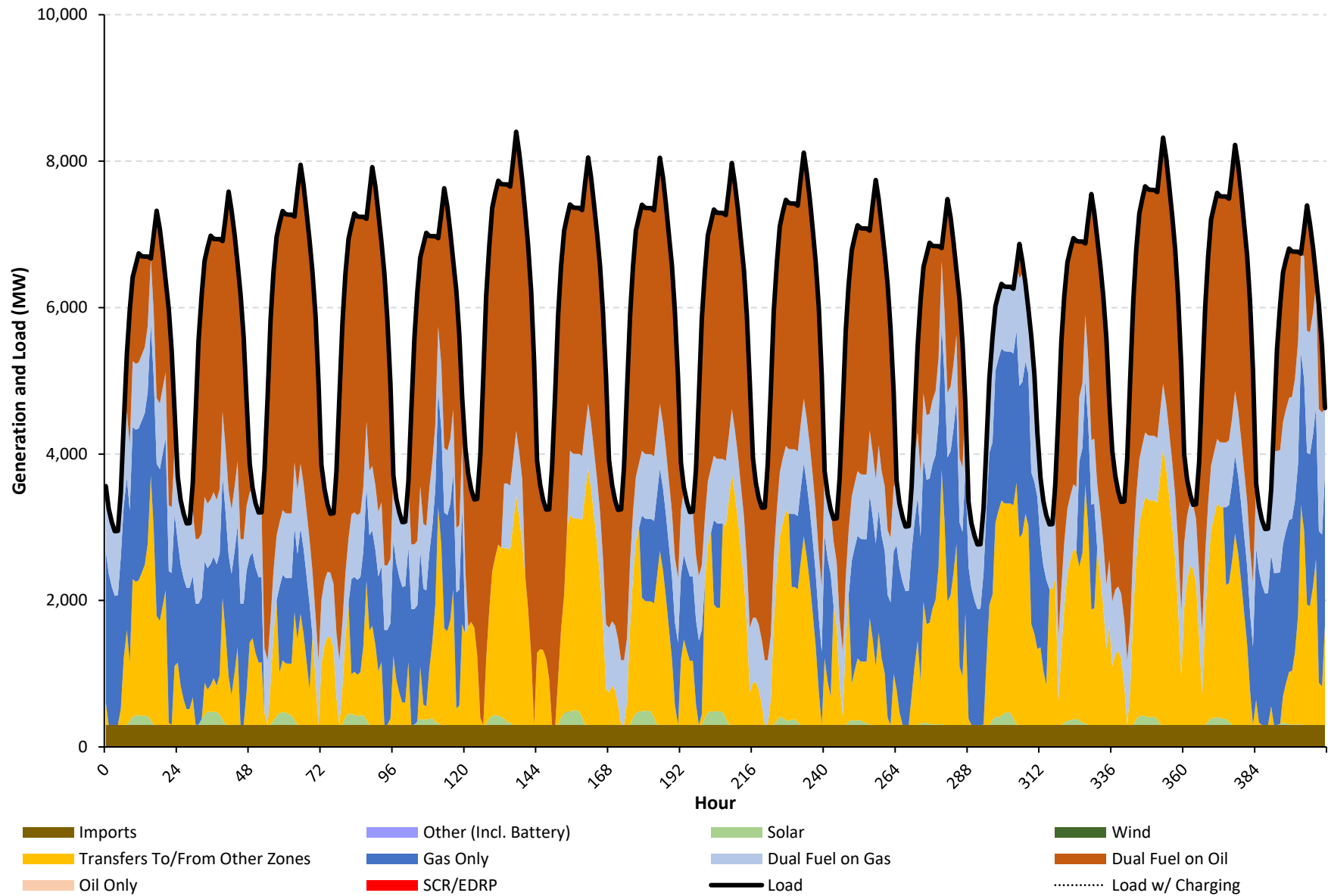
Case Name: Scenario 1 - PD 2 High Outage

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

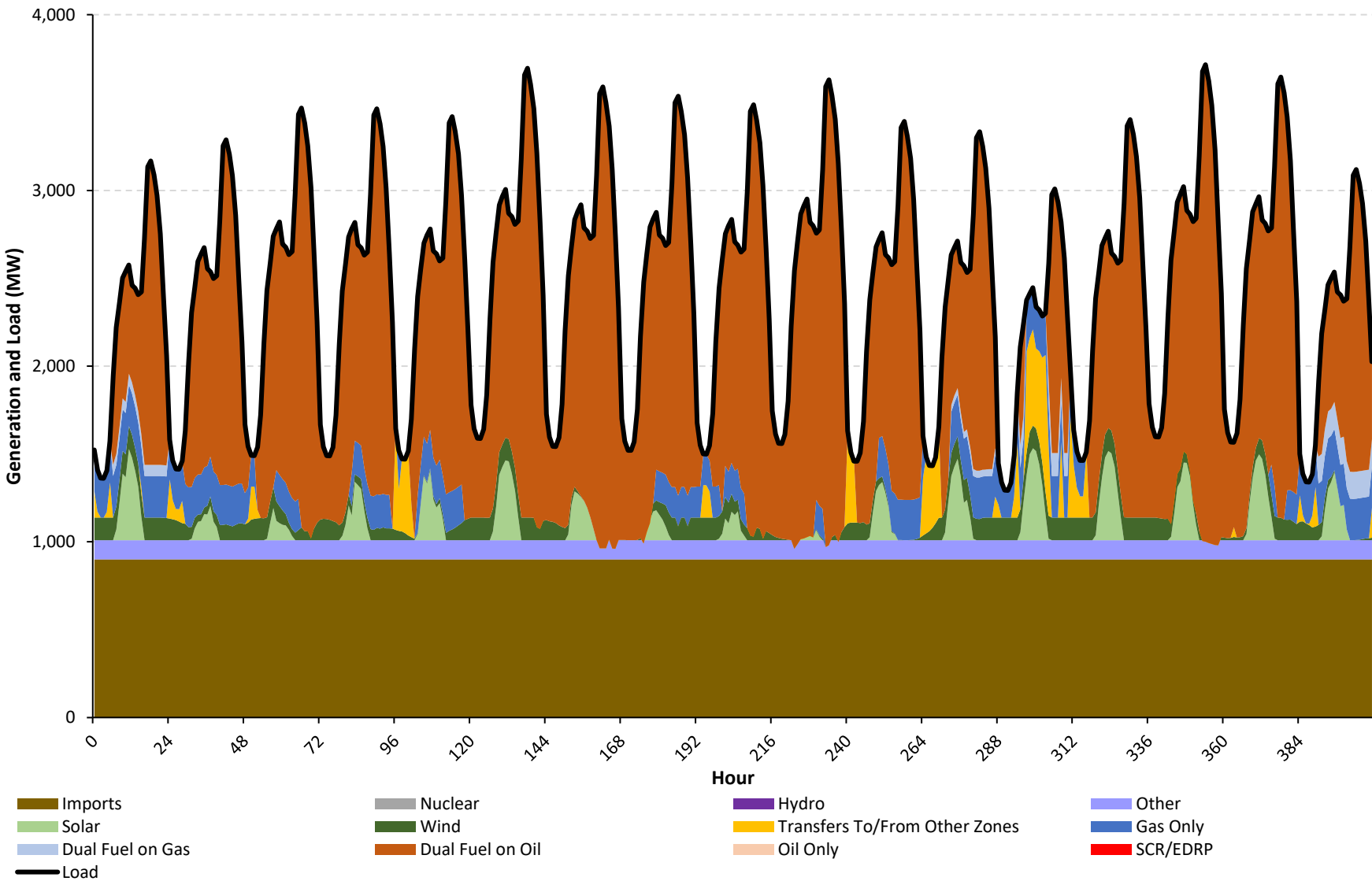


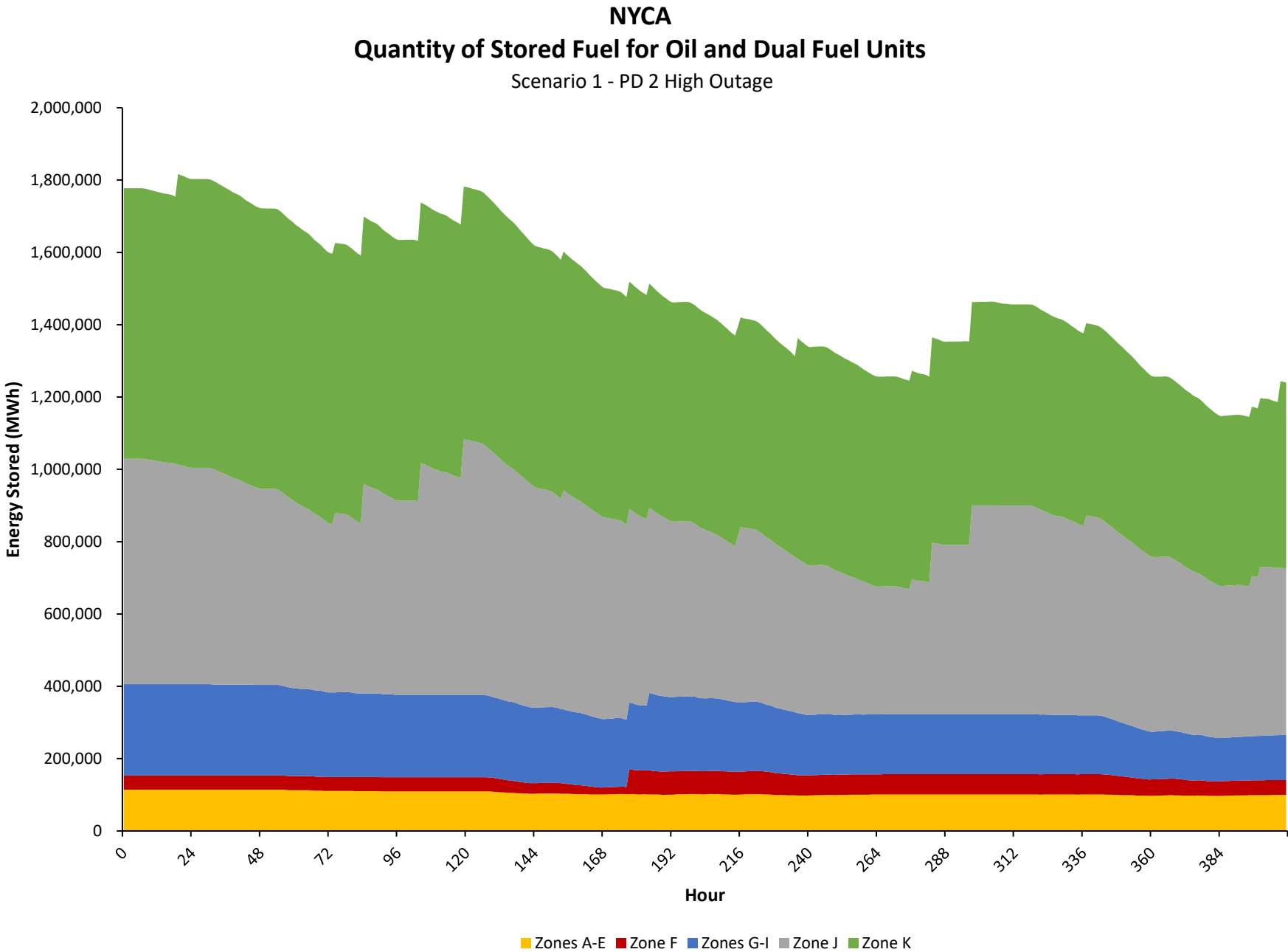


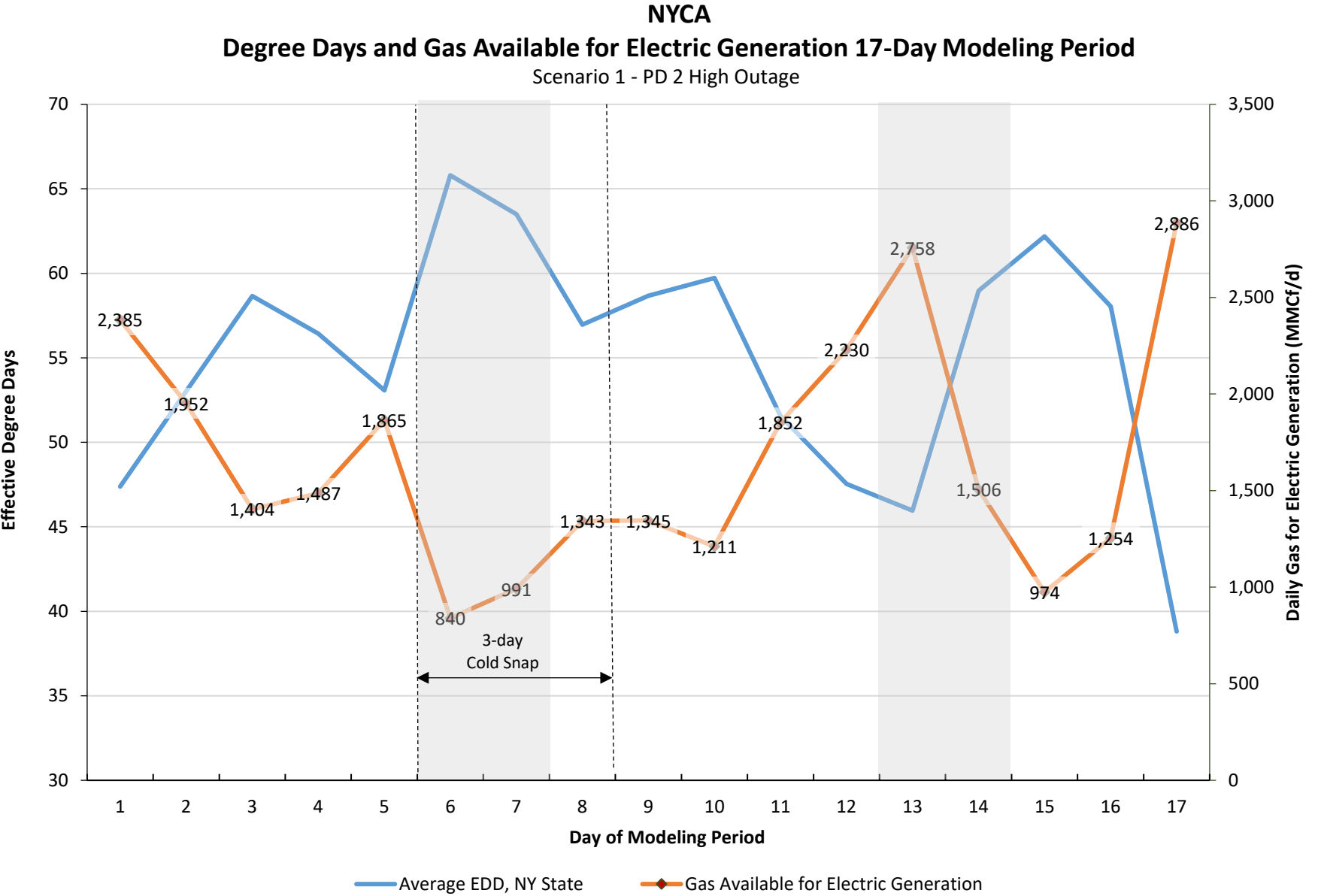
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 2 High Outage



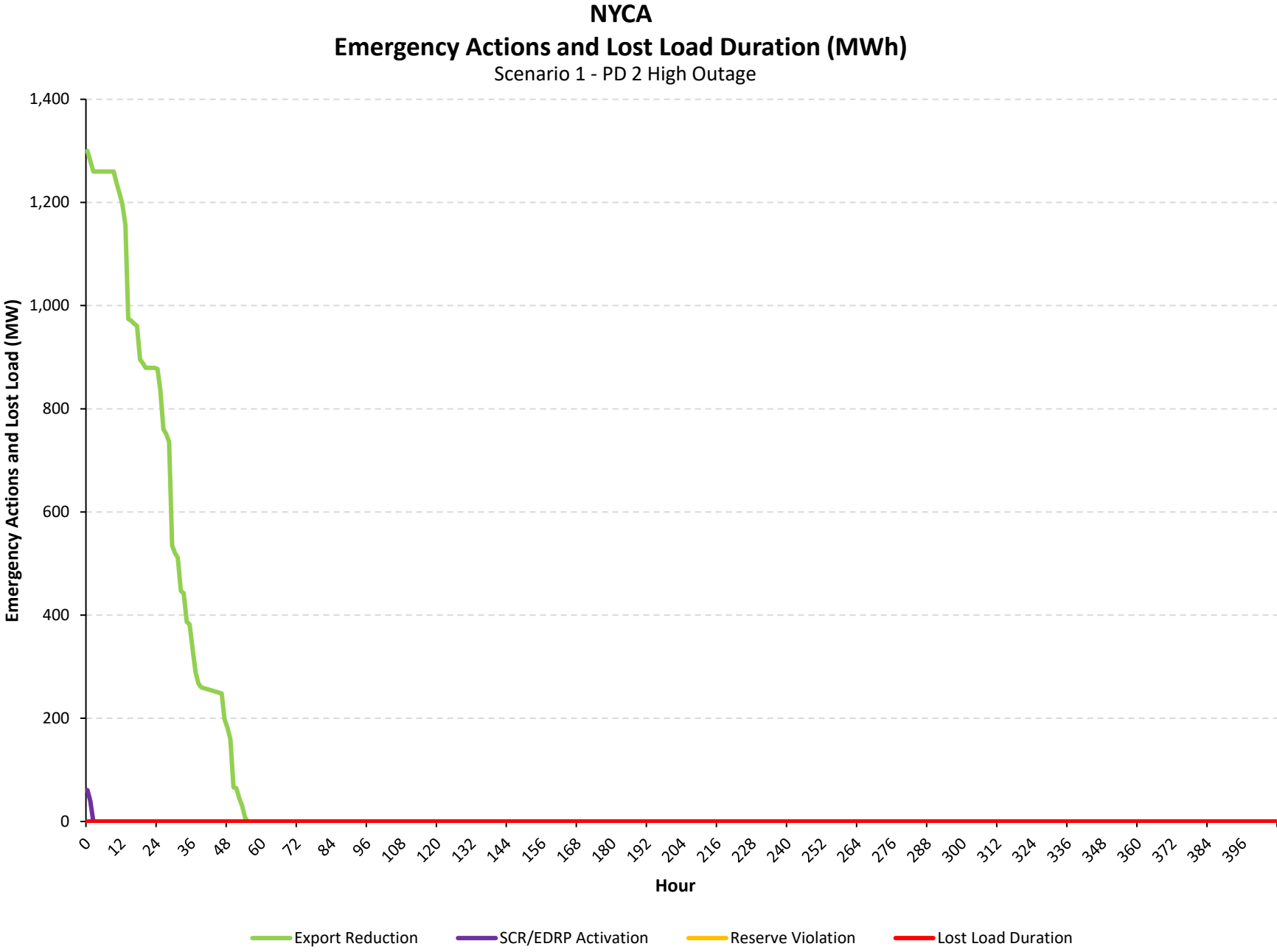
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 2 High Outage

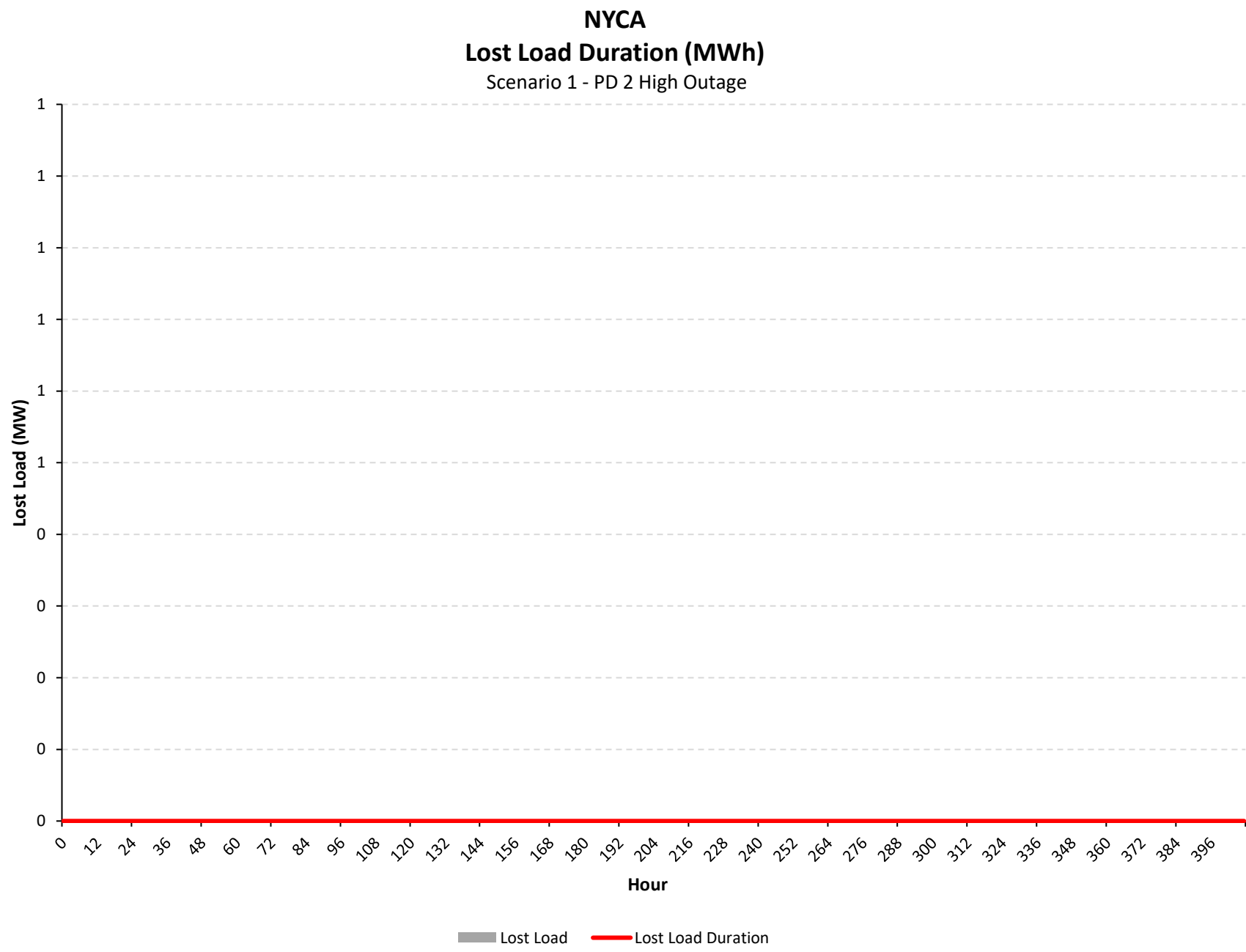






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



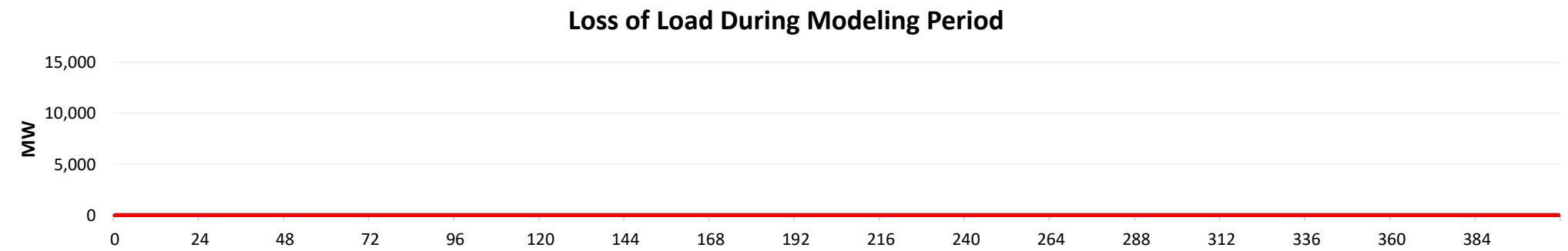
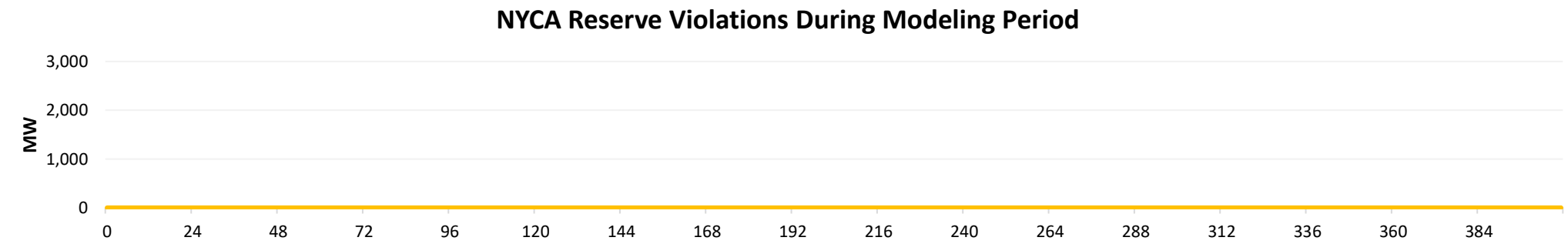
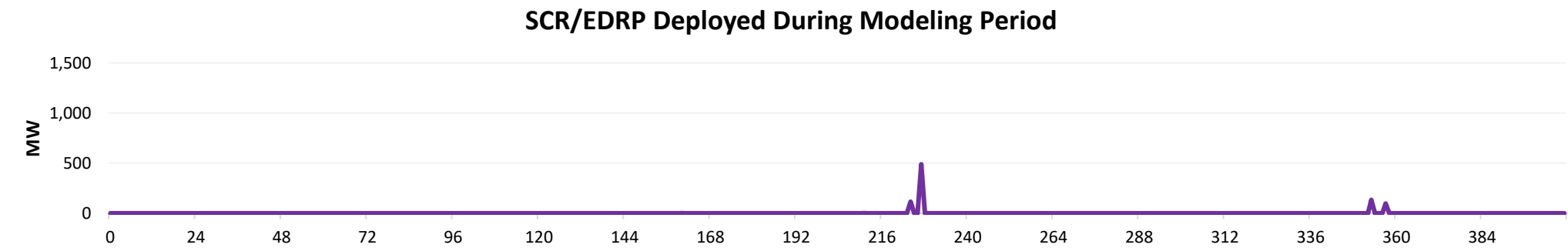
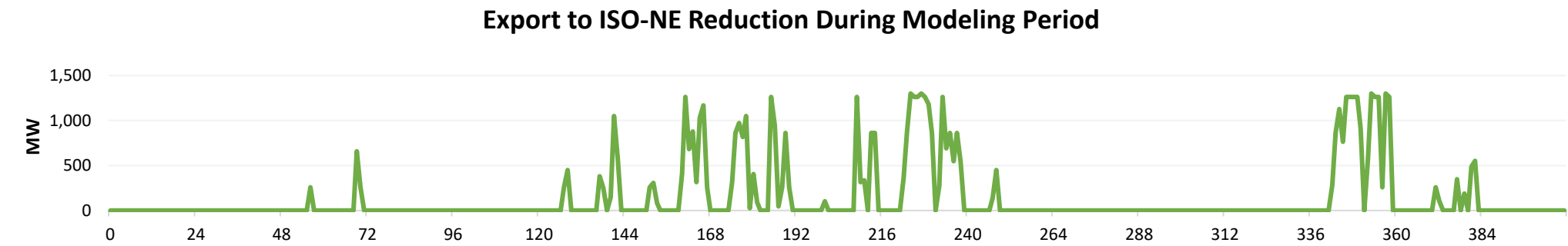
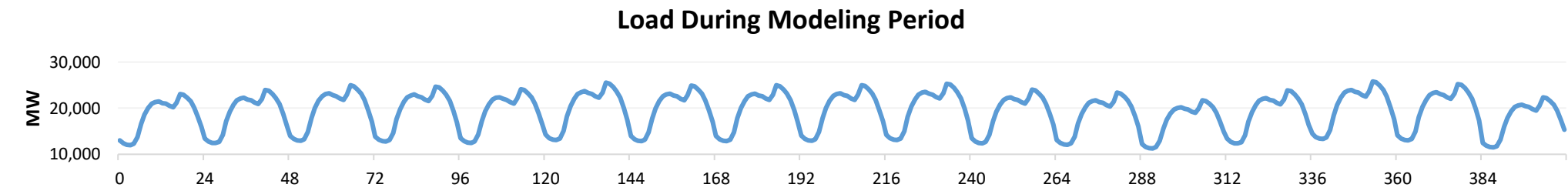


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 3 SENY Deactivation (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 1 - PD 3 SENY Deactivation



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

Export Reductions	
Total Hrs.	81
Total MWh	56,296
Avg. MW	138.0

SCR Deployment	
Total Hrs.	4
Total MWh	836
Avg. MW	2.0

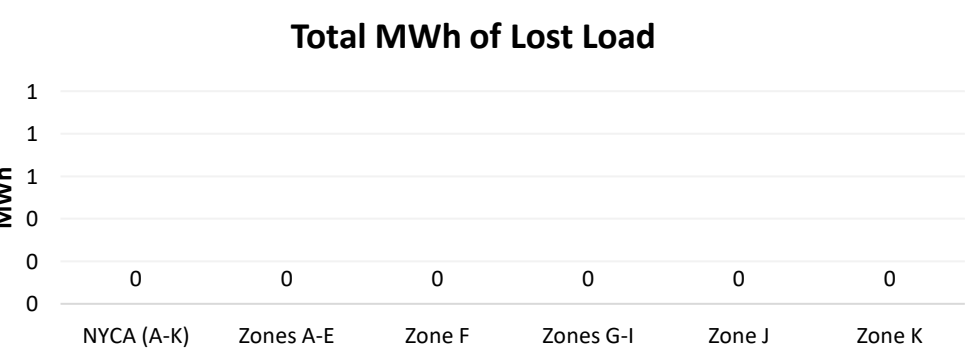
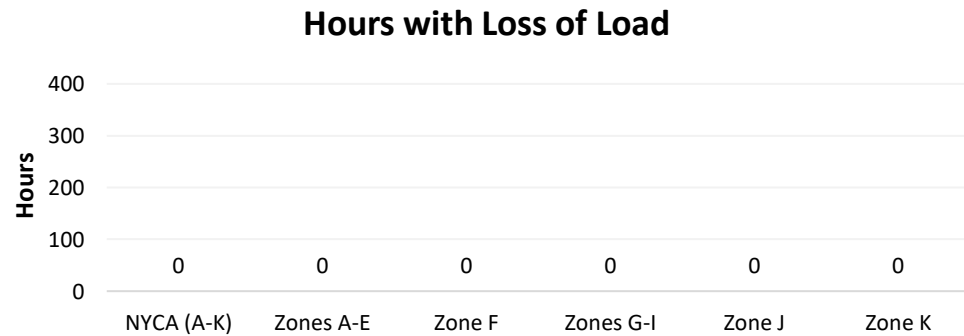
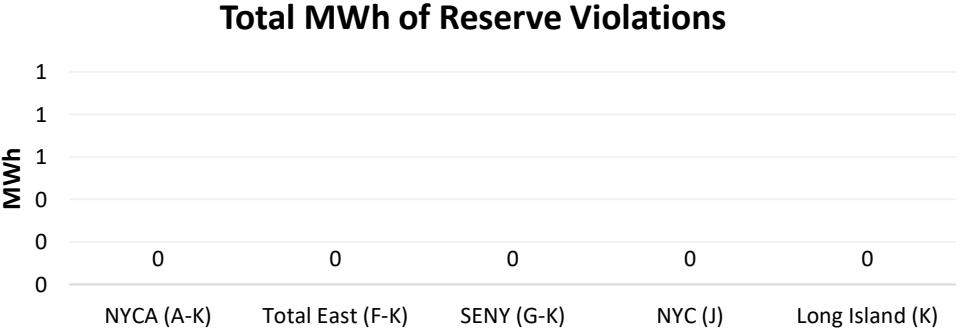
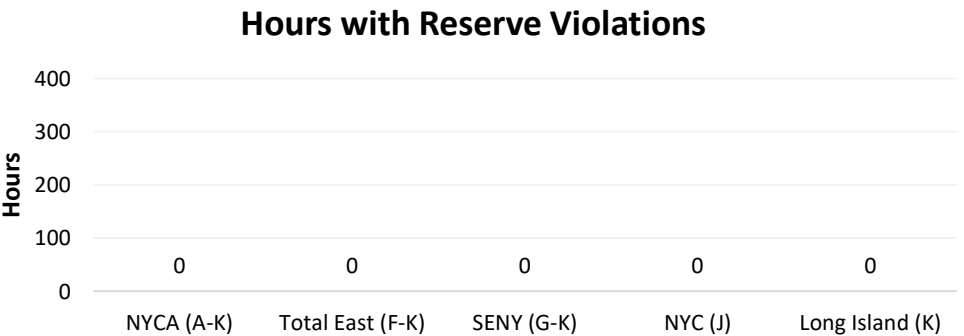
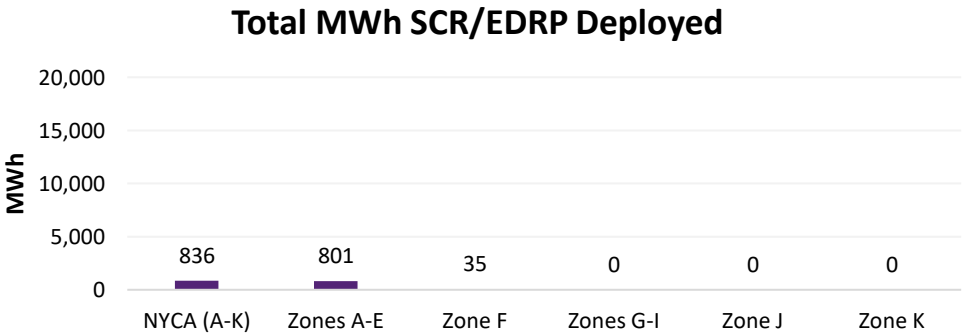
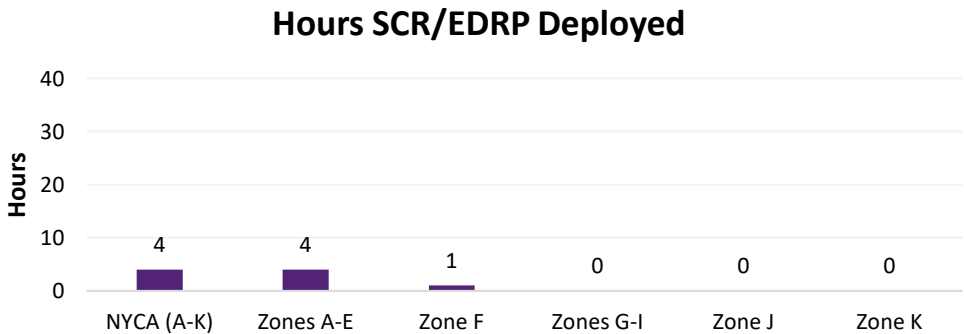
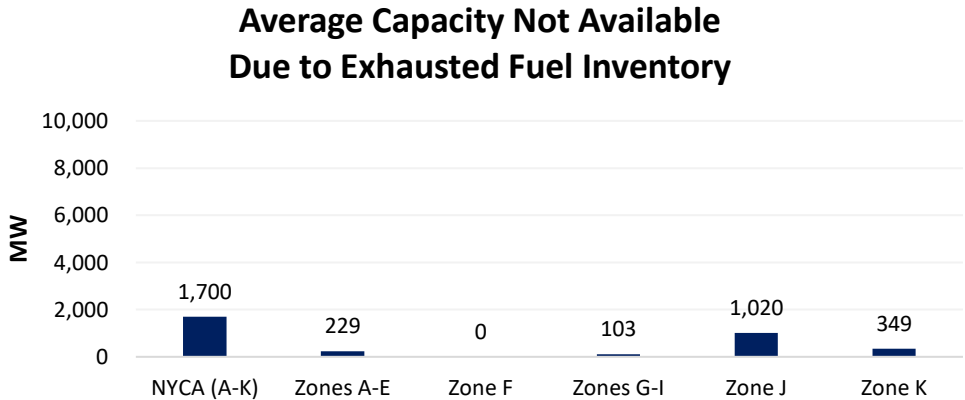
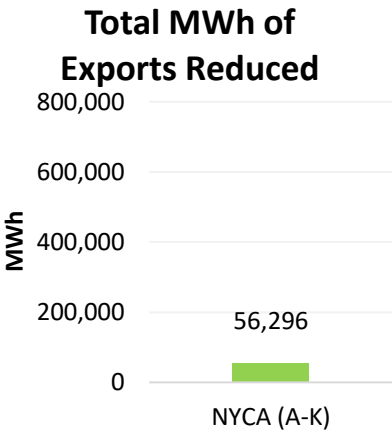
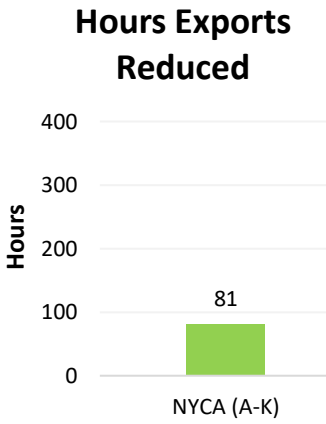
Reserve Violations	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Viol.	

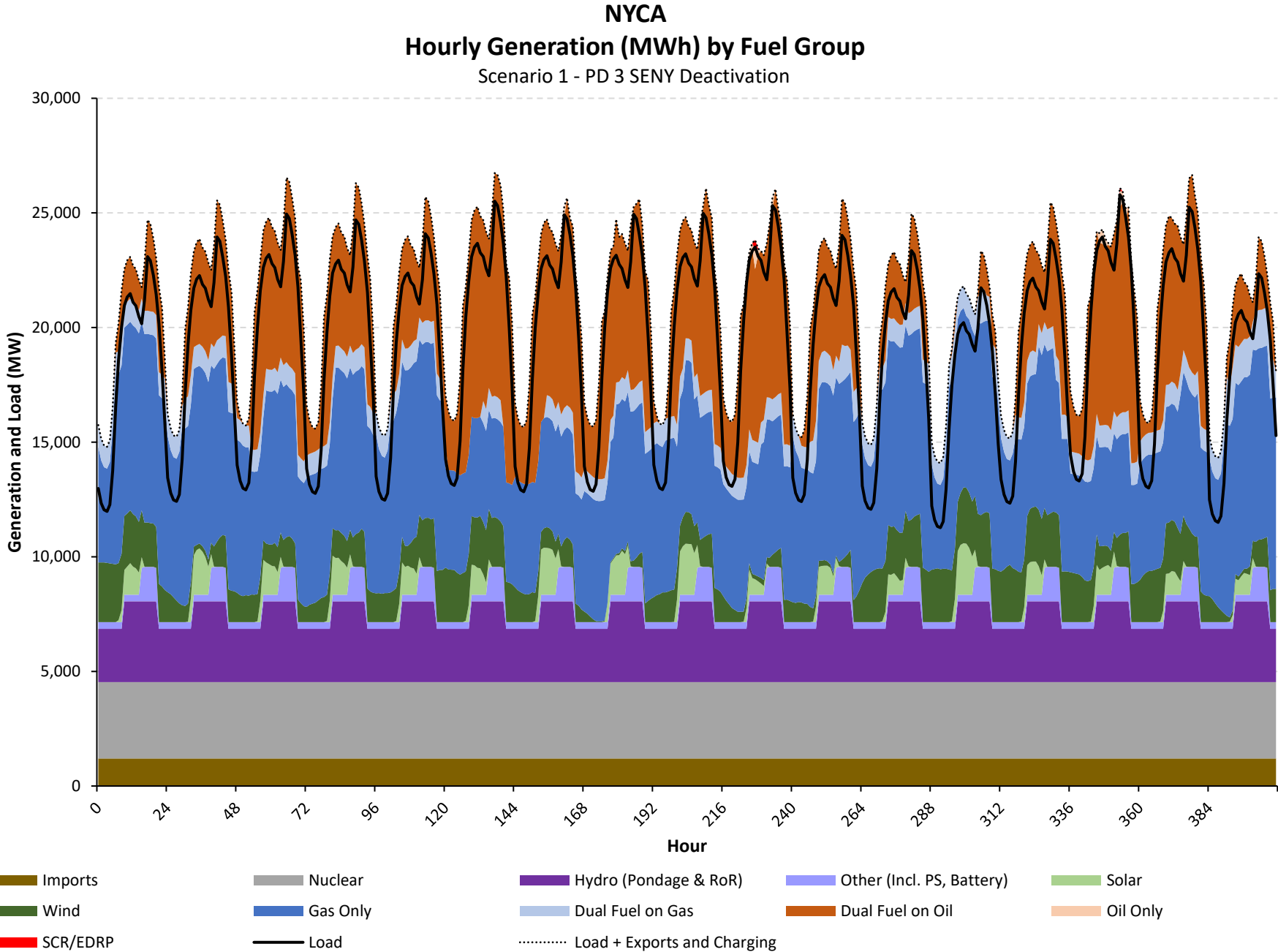
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

Full Period Results Summary

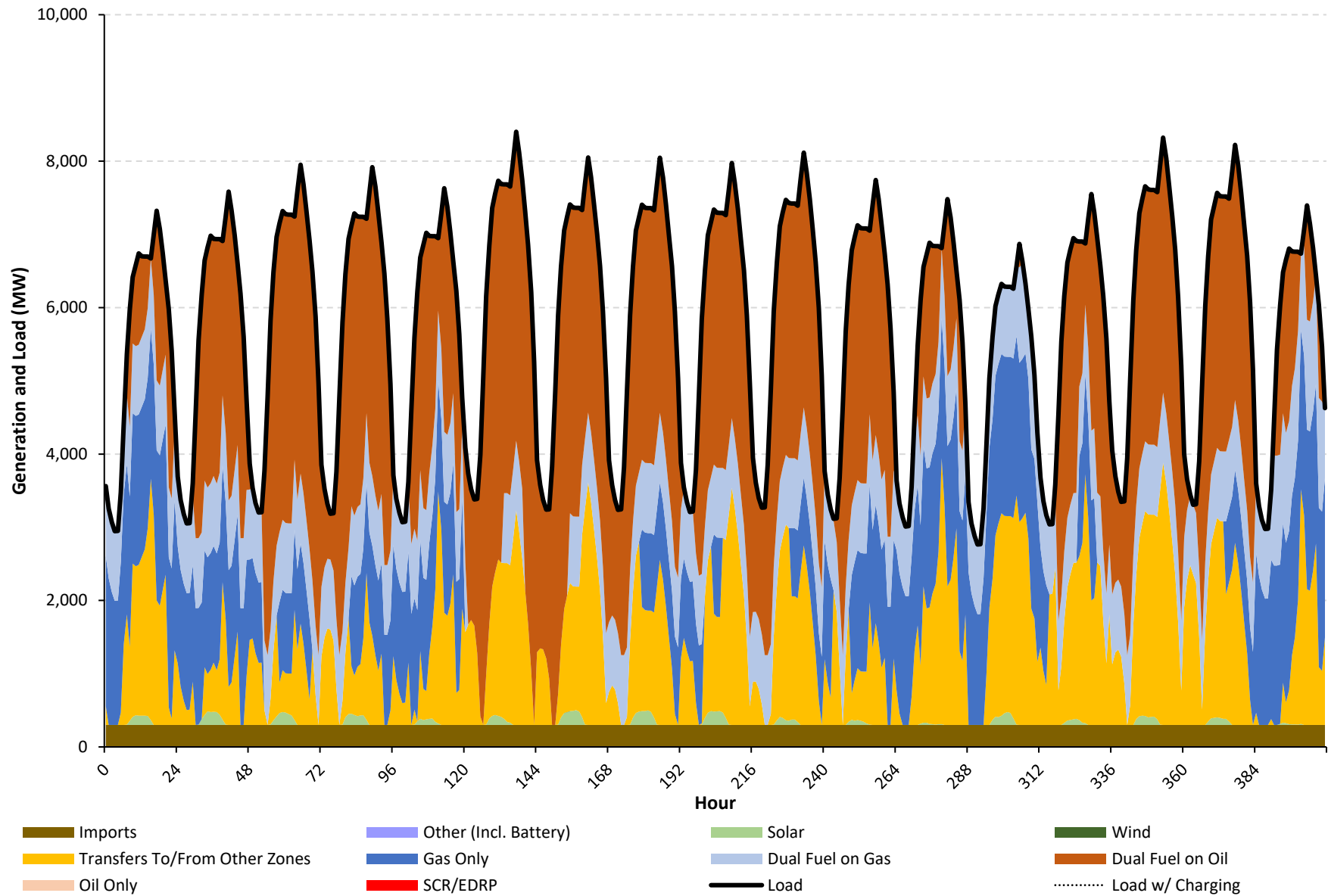
Case Name: Scenario 1 - PD 3 SENY Deactivation

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

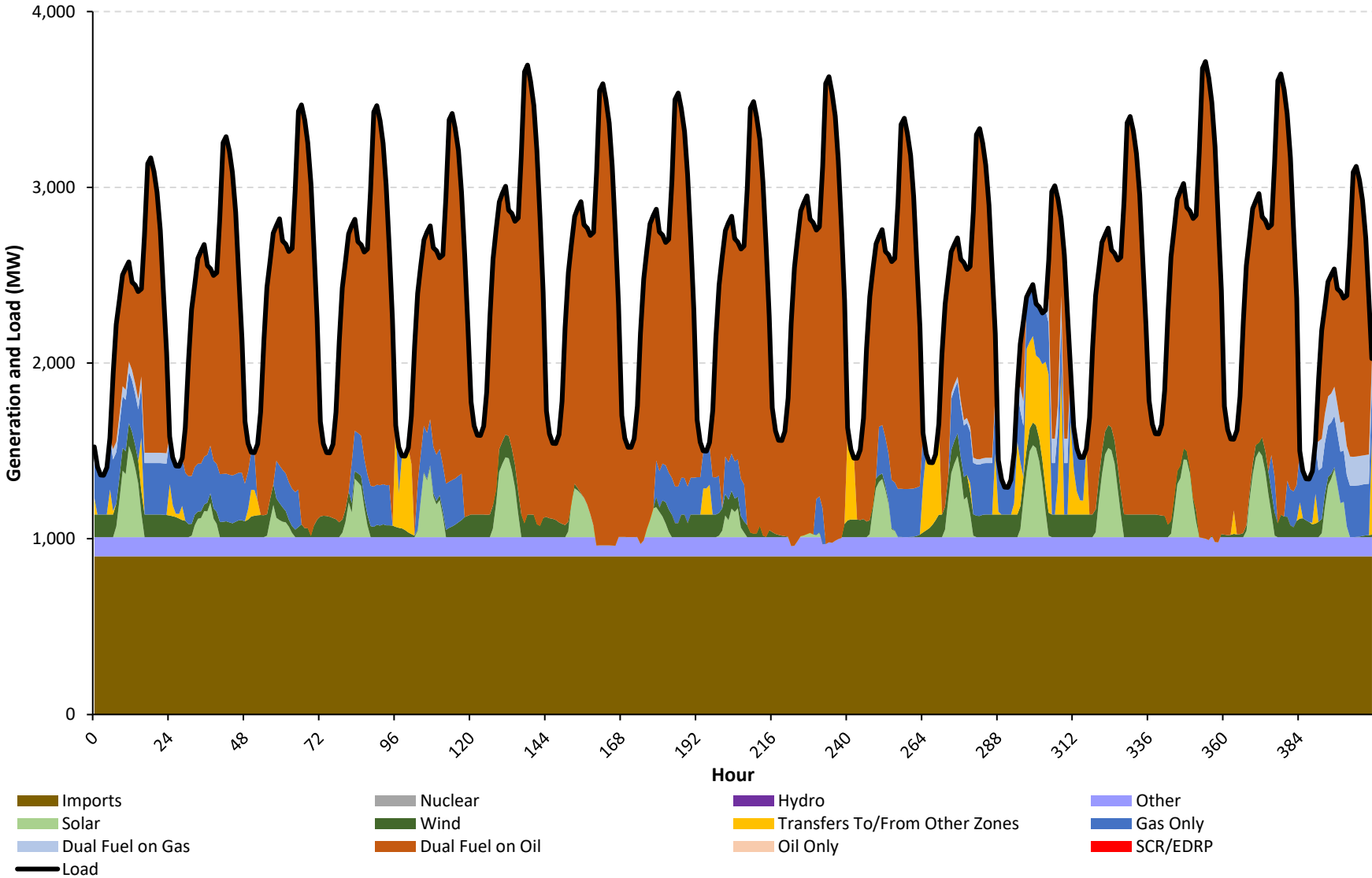


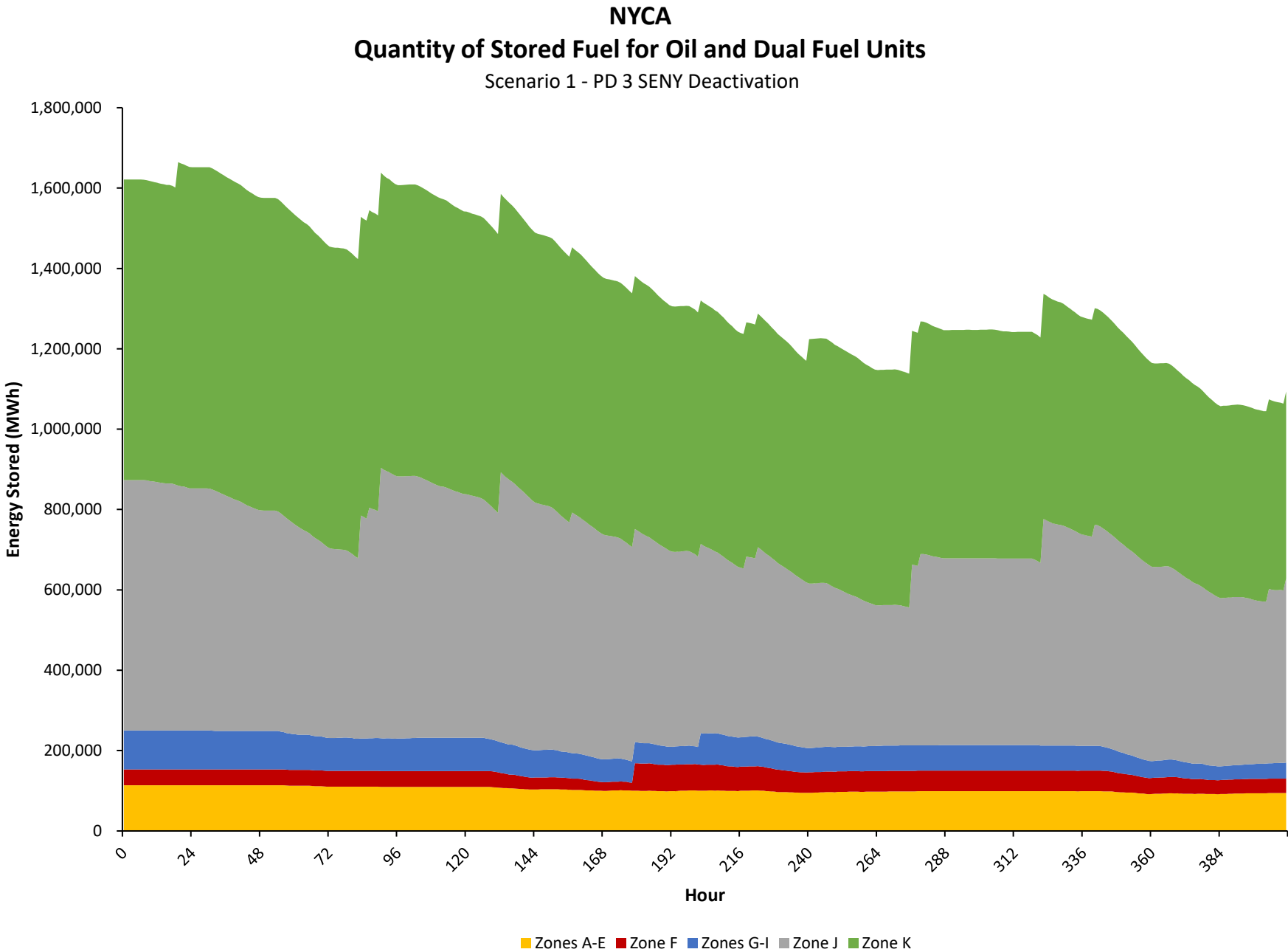


Zone J
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 3 SENY Deactivation



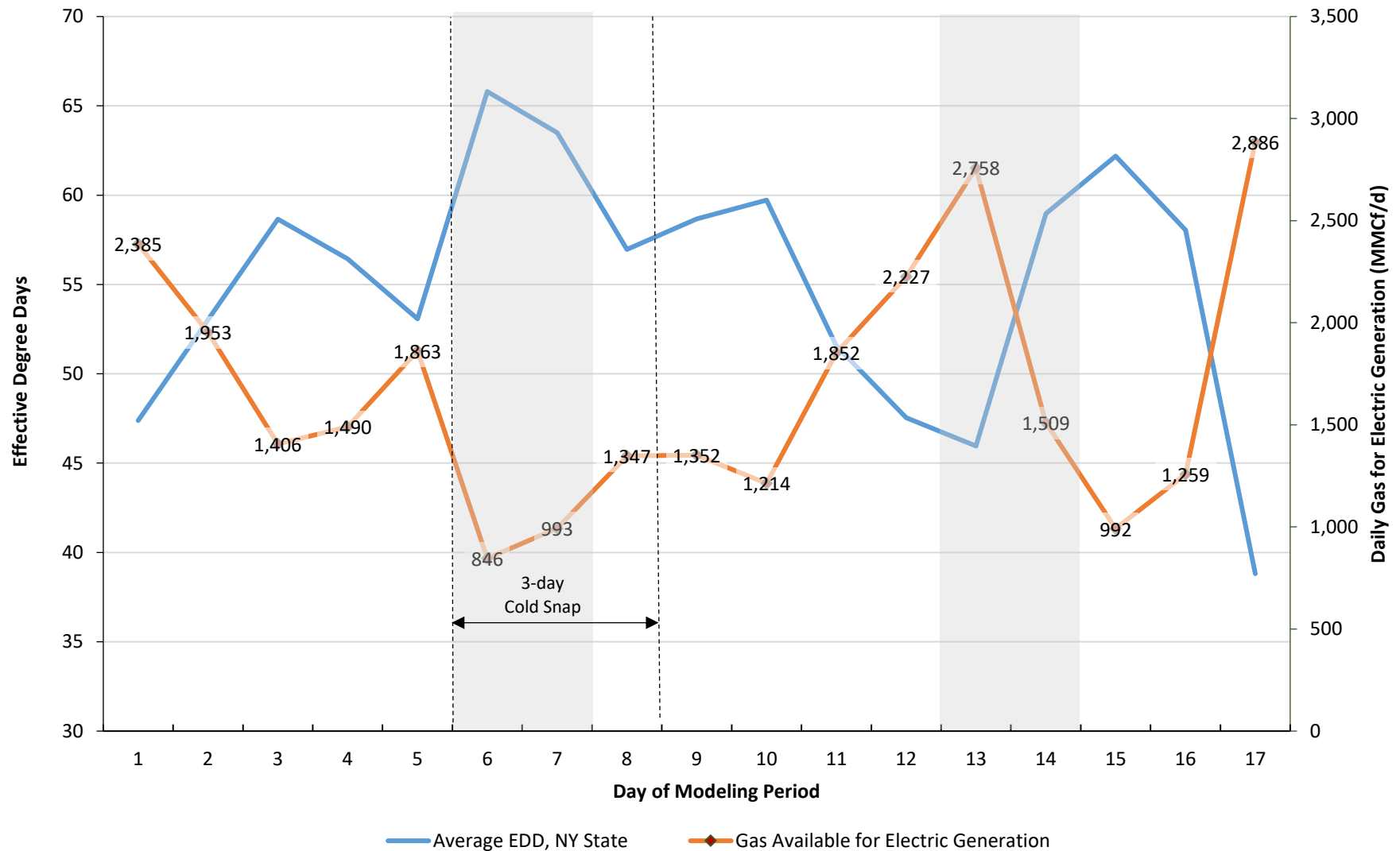
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 3 SENY Deactivation





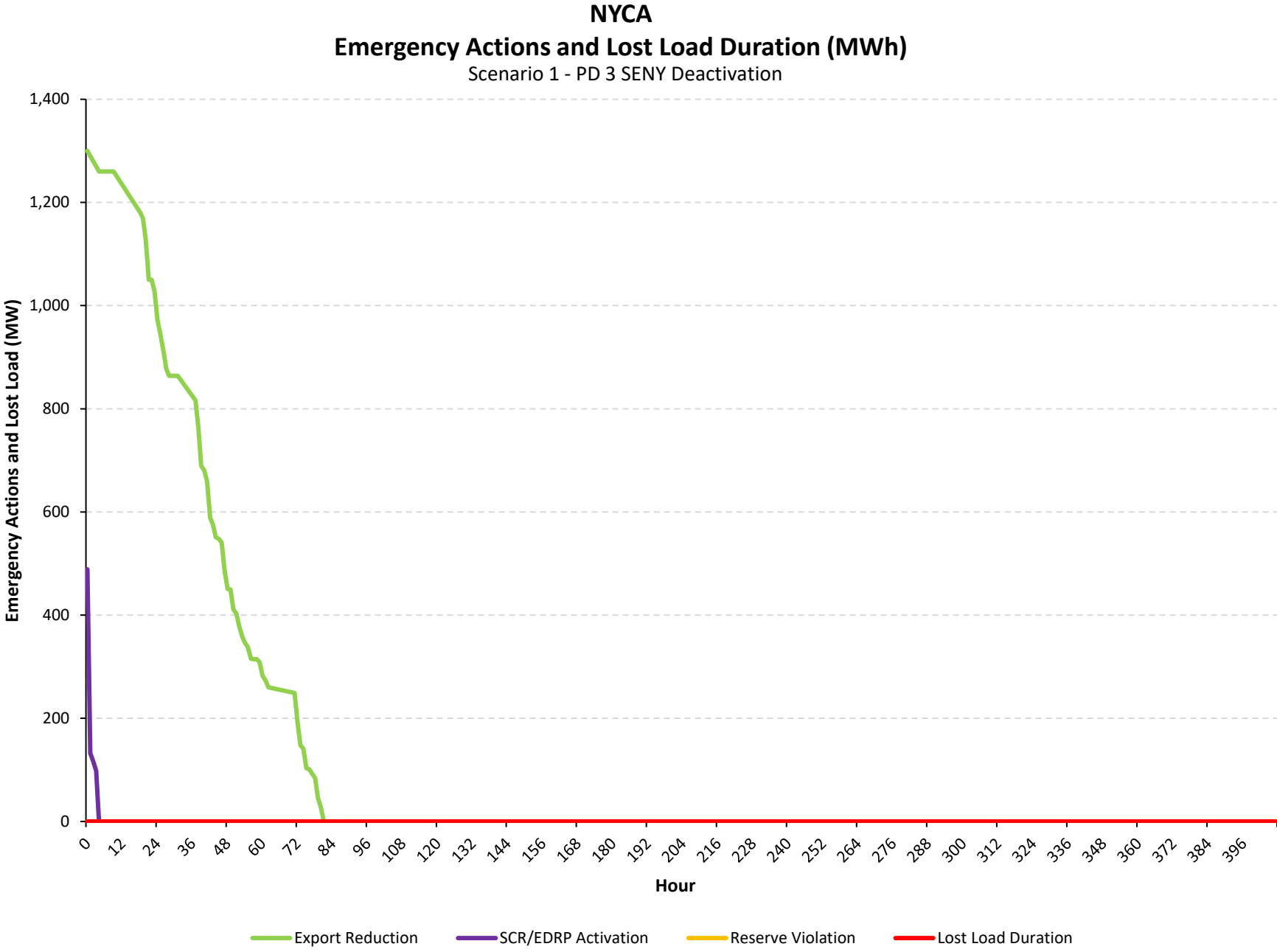
NYCA **Degree Days and Gas Available for Electric Generation 17-Day Modeling Period**

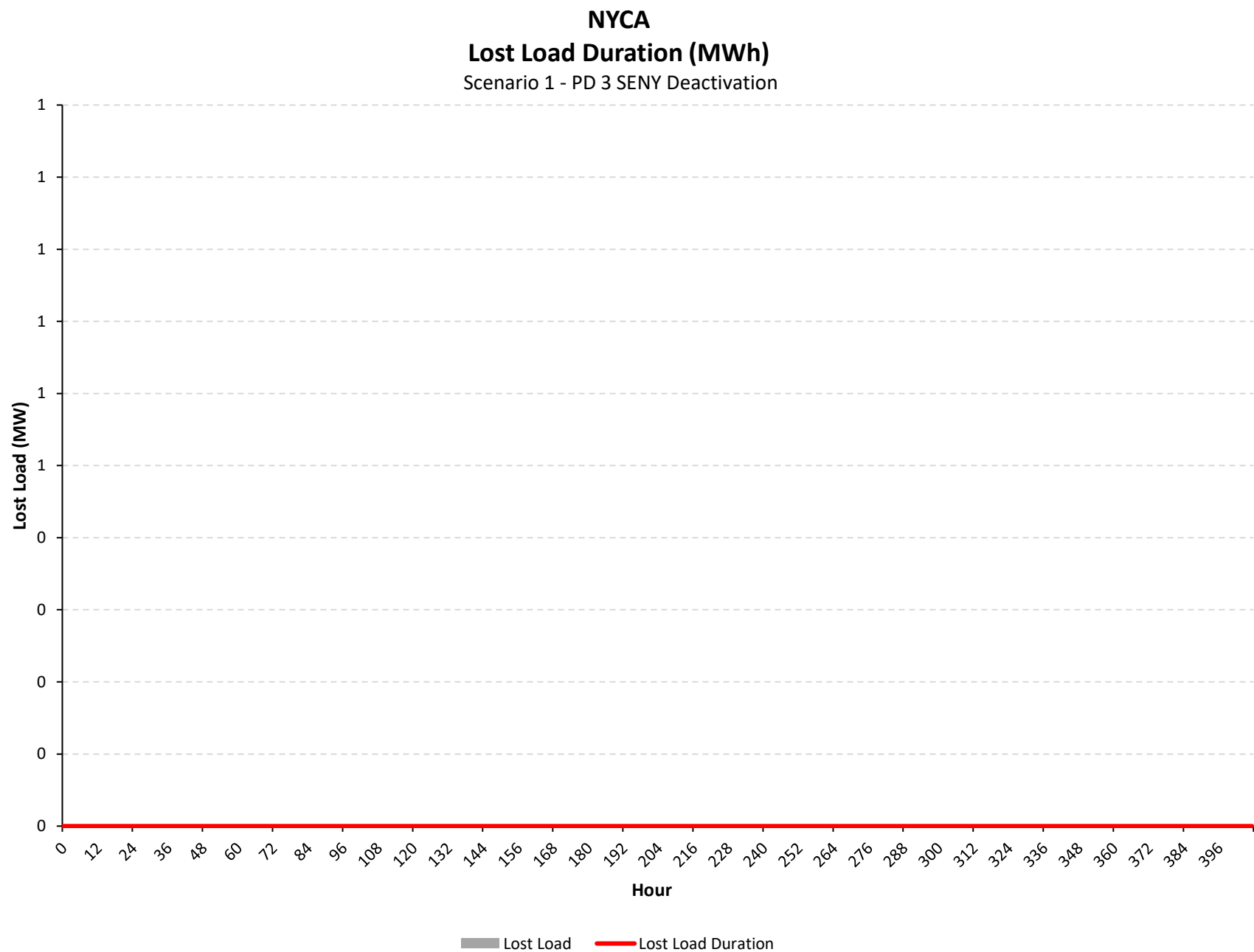
Scenario 1 - PD 3 SENY Deactivation



Notes:

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



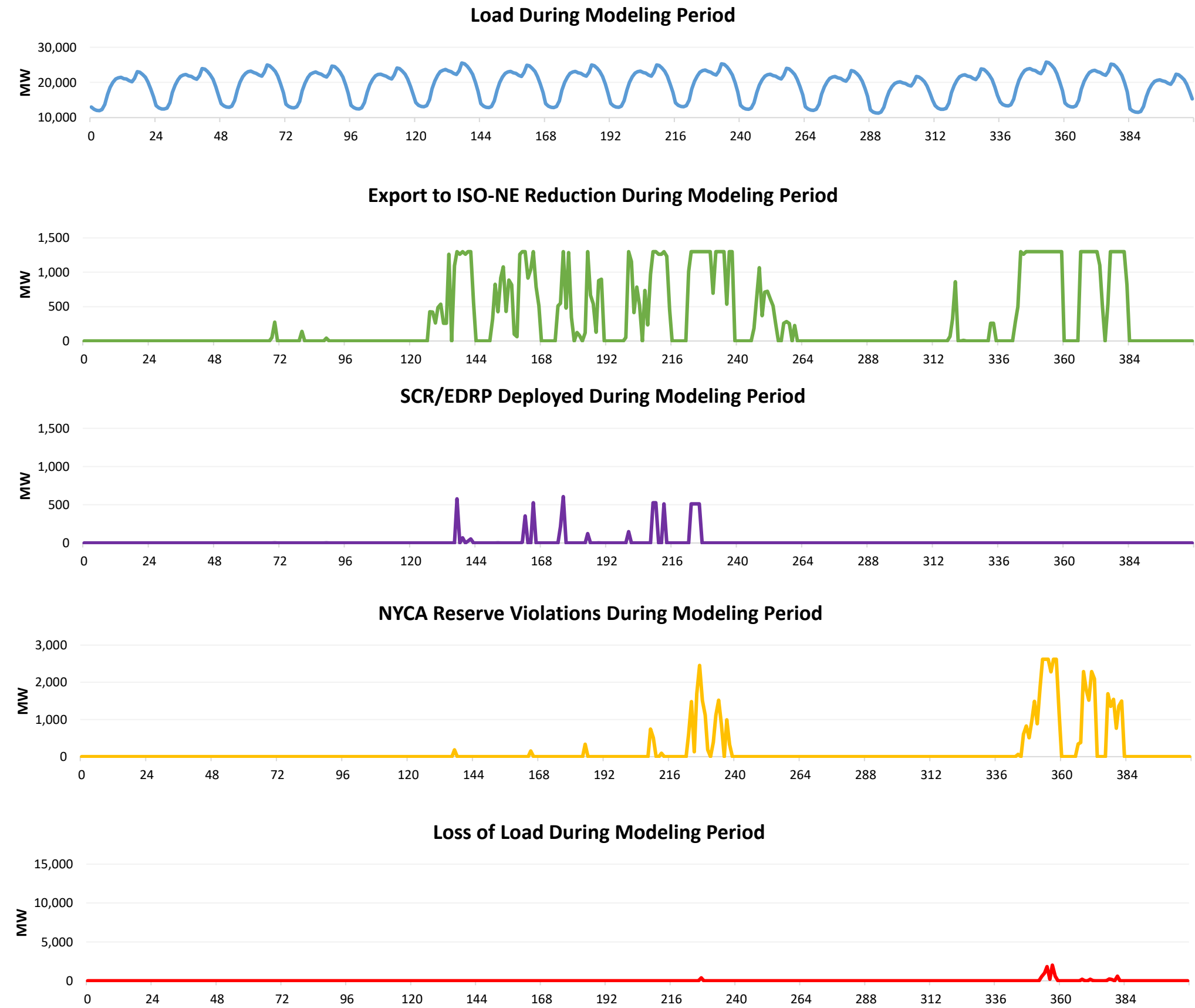


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 4 Nuclear Station Outage (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 1 - PD 4 Nuclear Station Outage



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

Export Reductions	
Total Hrs.	140
Total MWh	121,231
Avg. MW	297.1

SCR Deployment	
Total Hrs.	18
Total MWh	6,314
Avg. MW	15.5

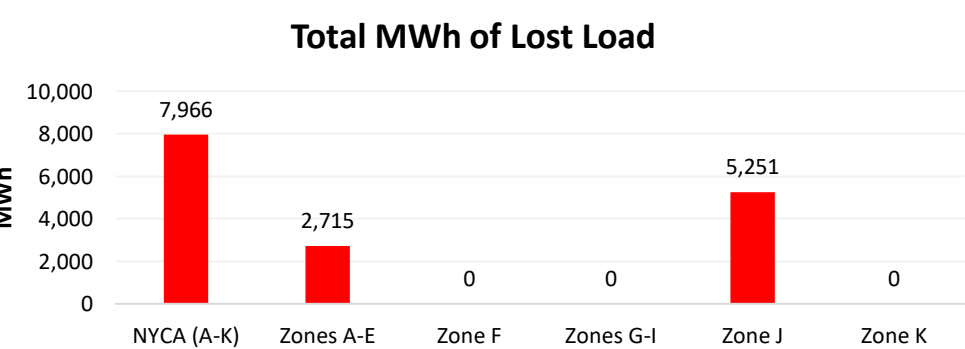
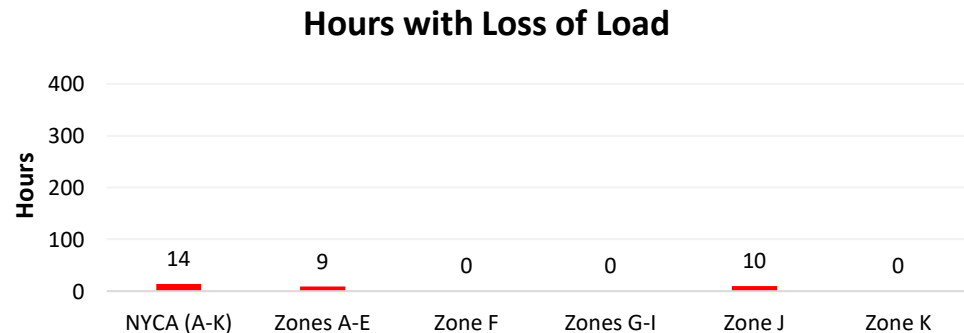
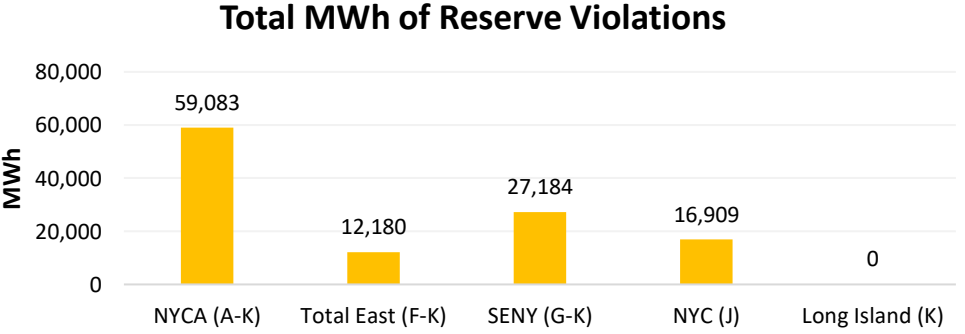
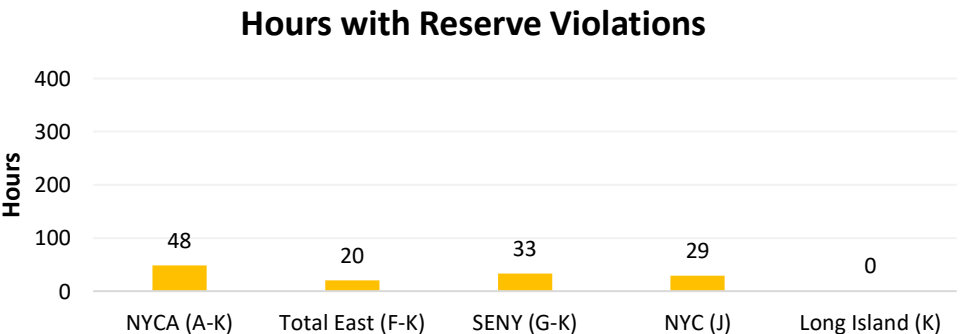
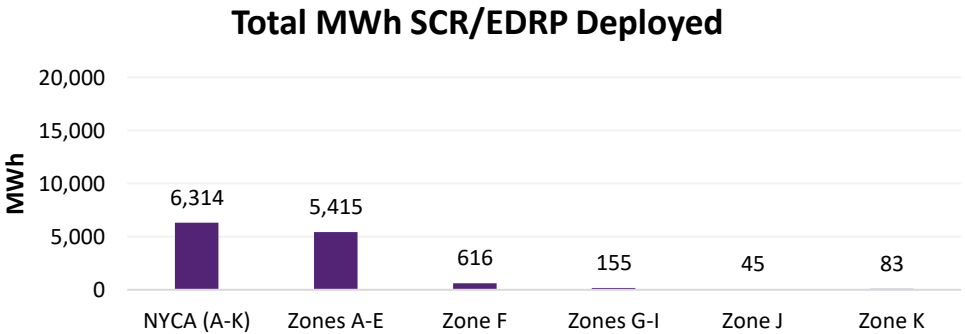
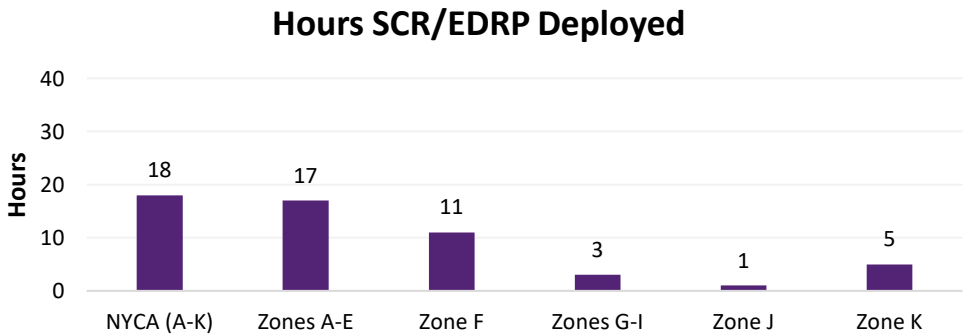
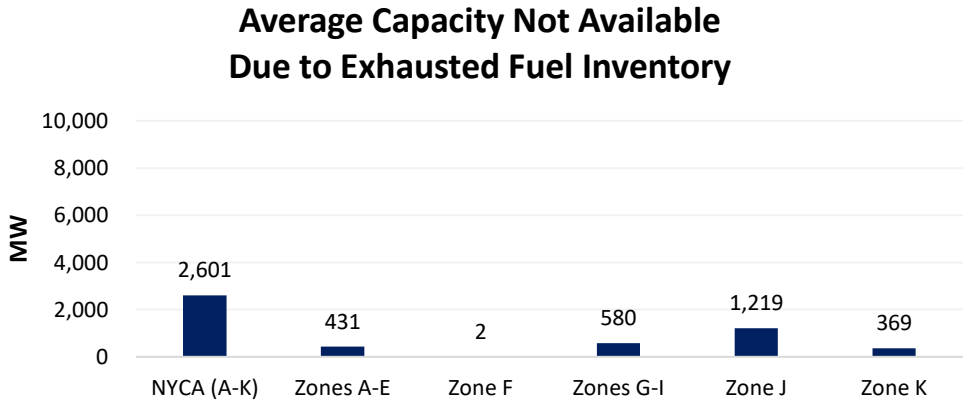
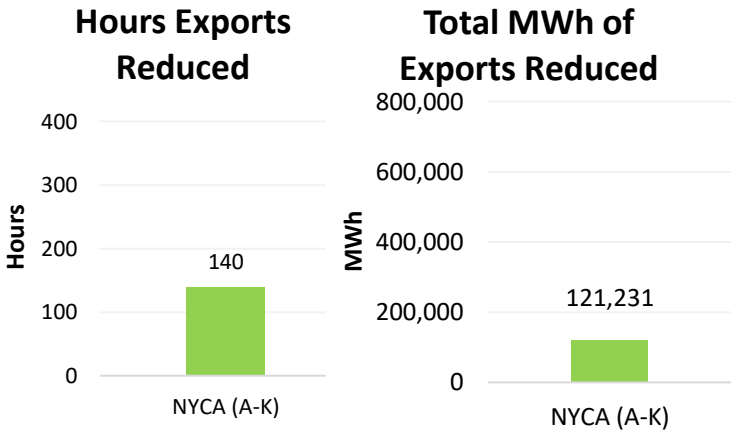
Reserve Violations	
Total Hrs.	48
Total MWh	59,083
Avg. MW	144.8
First Hour with Viol.	137

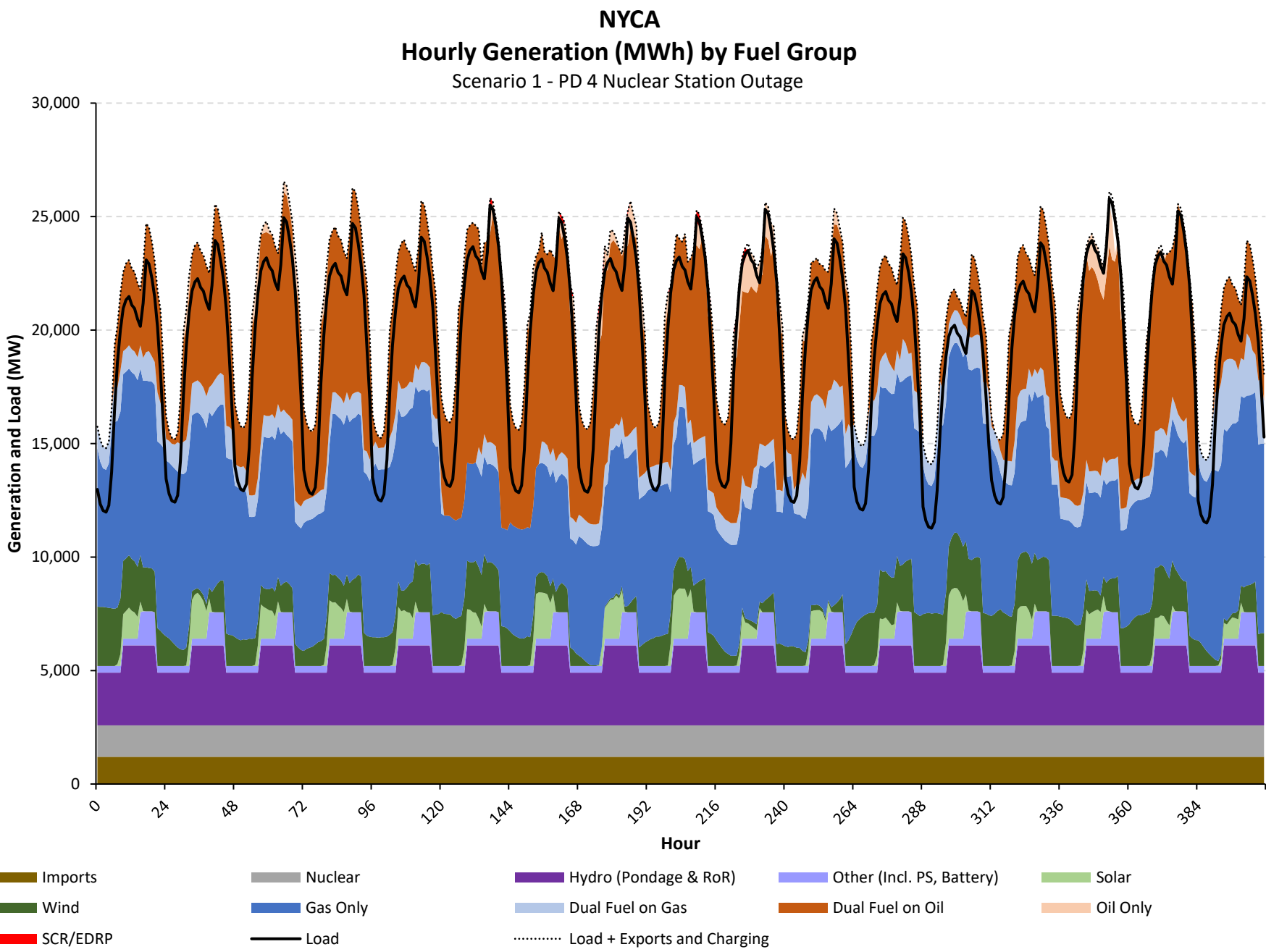
Loss of Load	
Total Hrs.	14
Total MWh	7,966
Avg. MW	19.5
First Hour with Losses	227

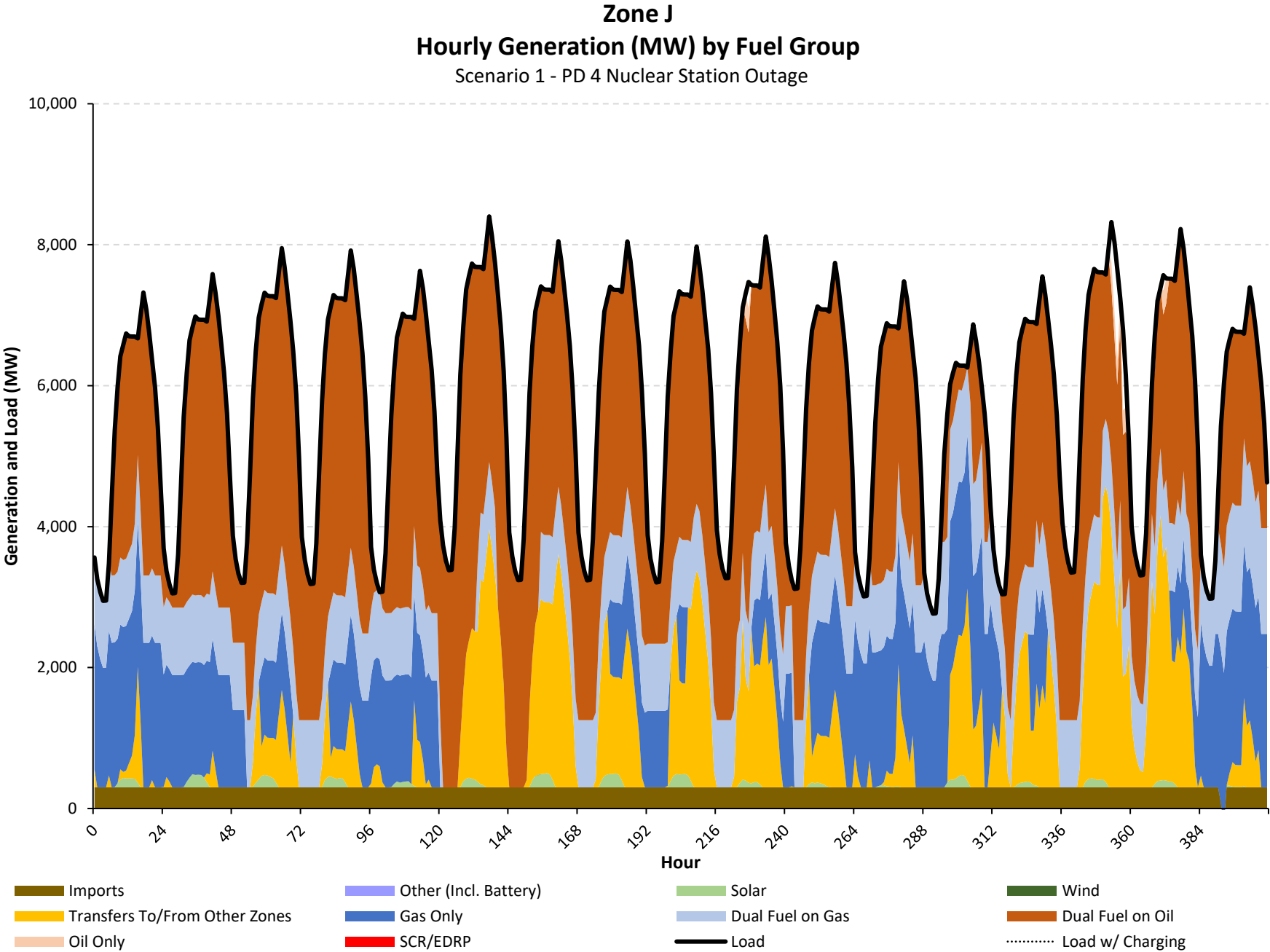
Full Period Results Summary

Case Name: Scenario 1 - PD 4 Nuclear Station Outage

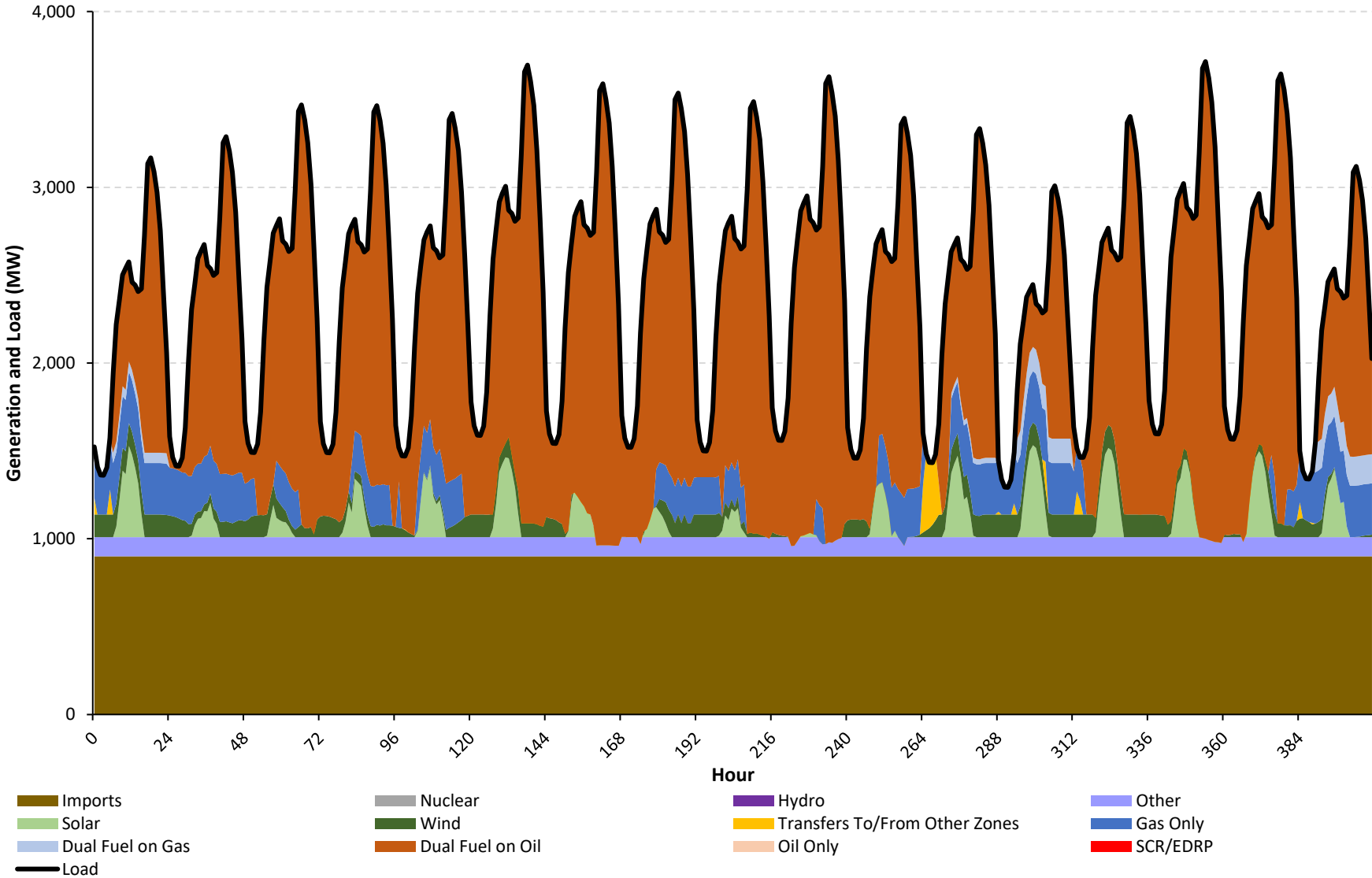
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	Historical
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	All

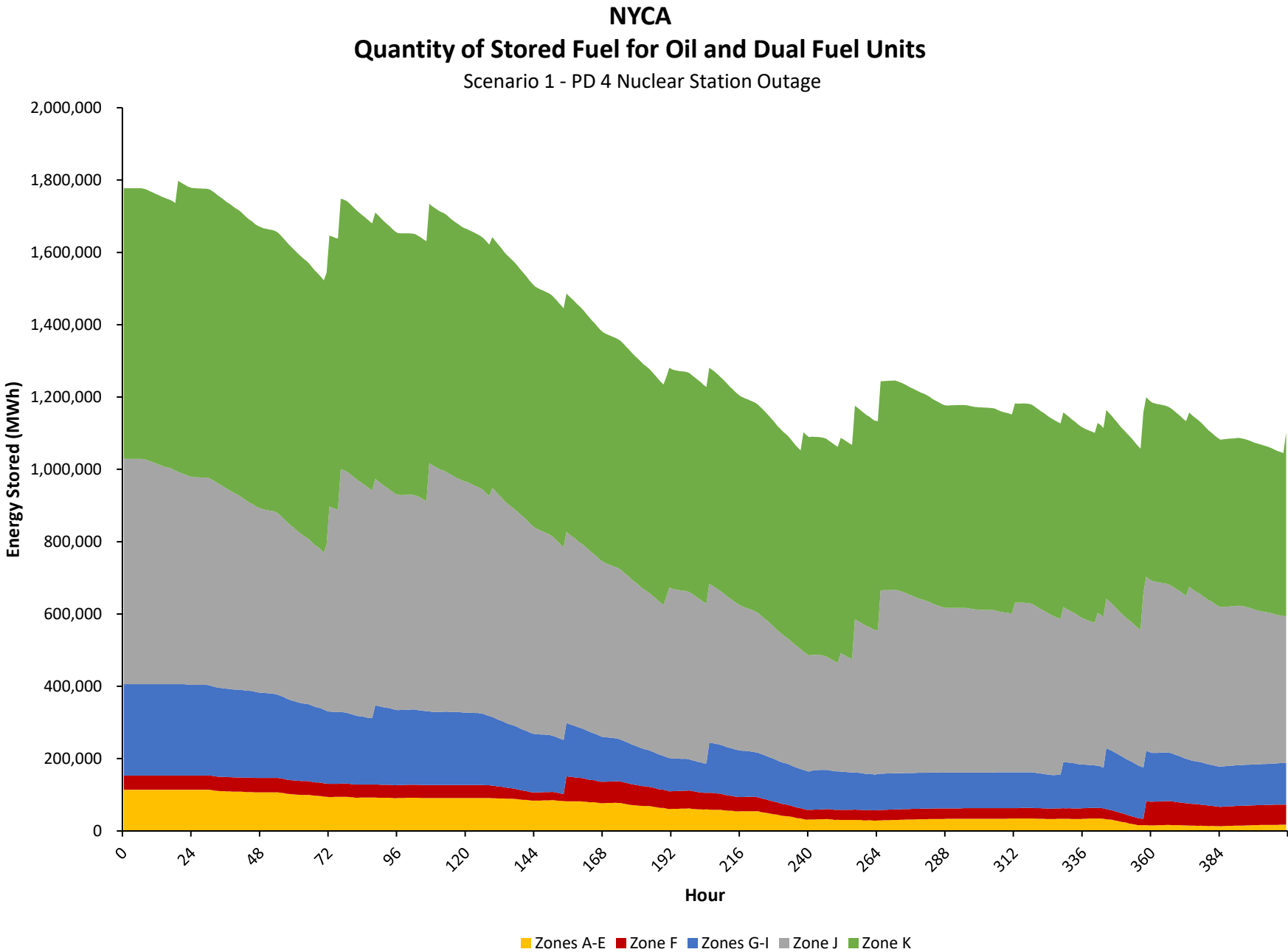


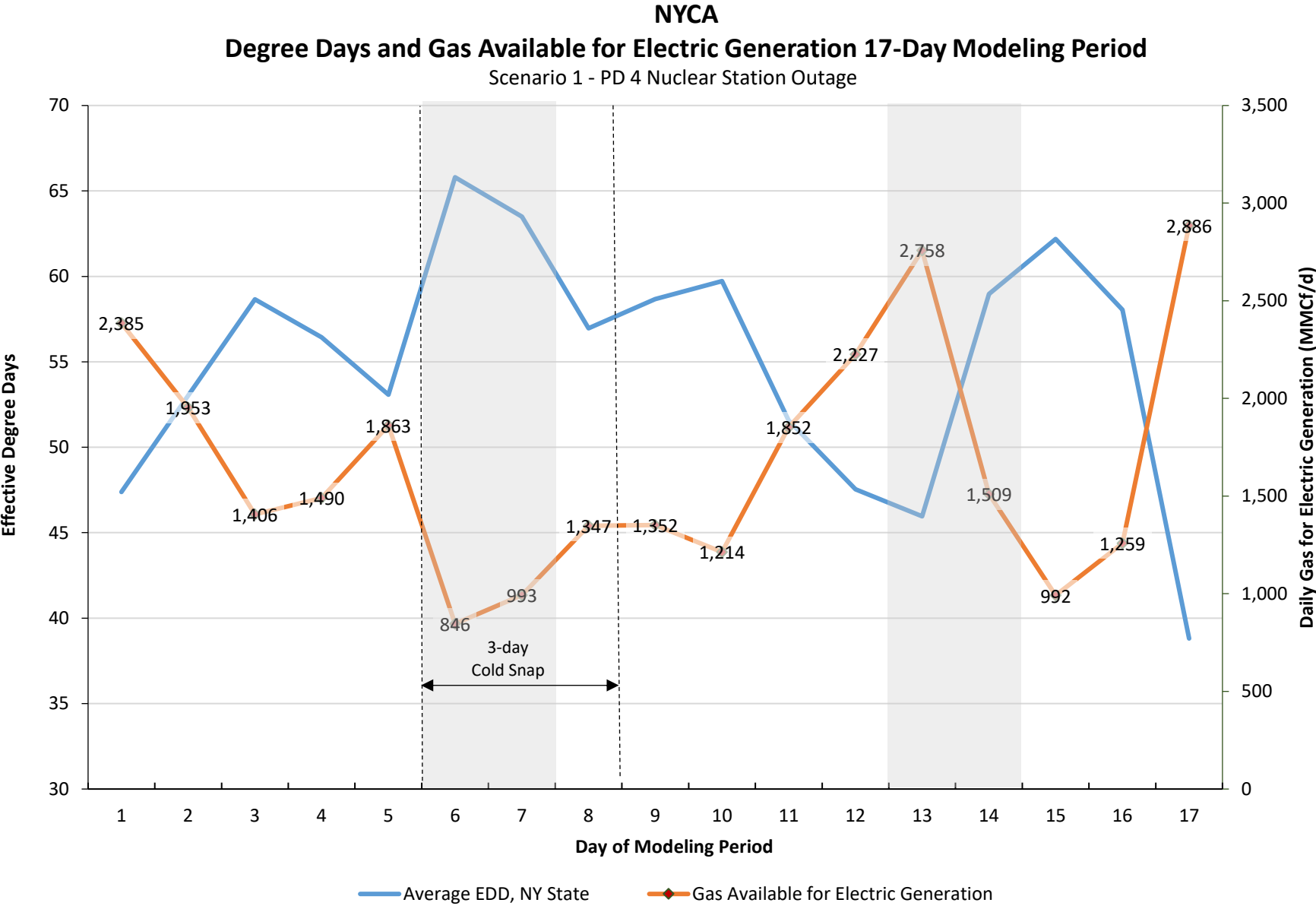




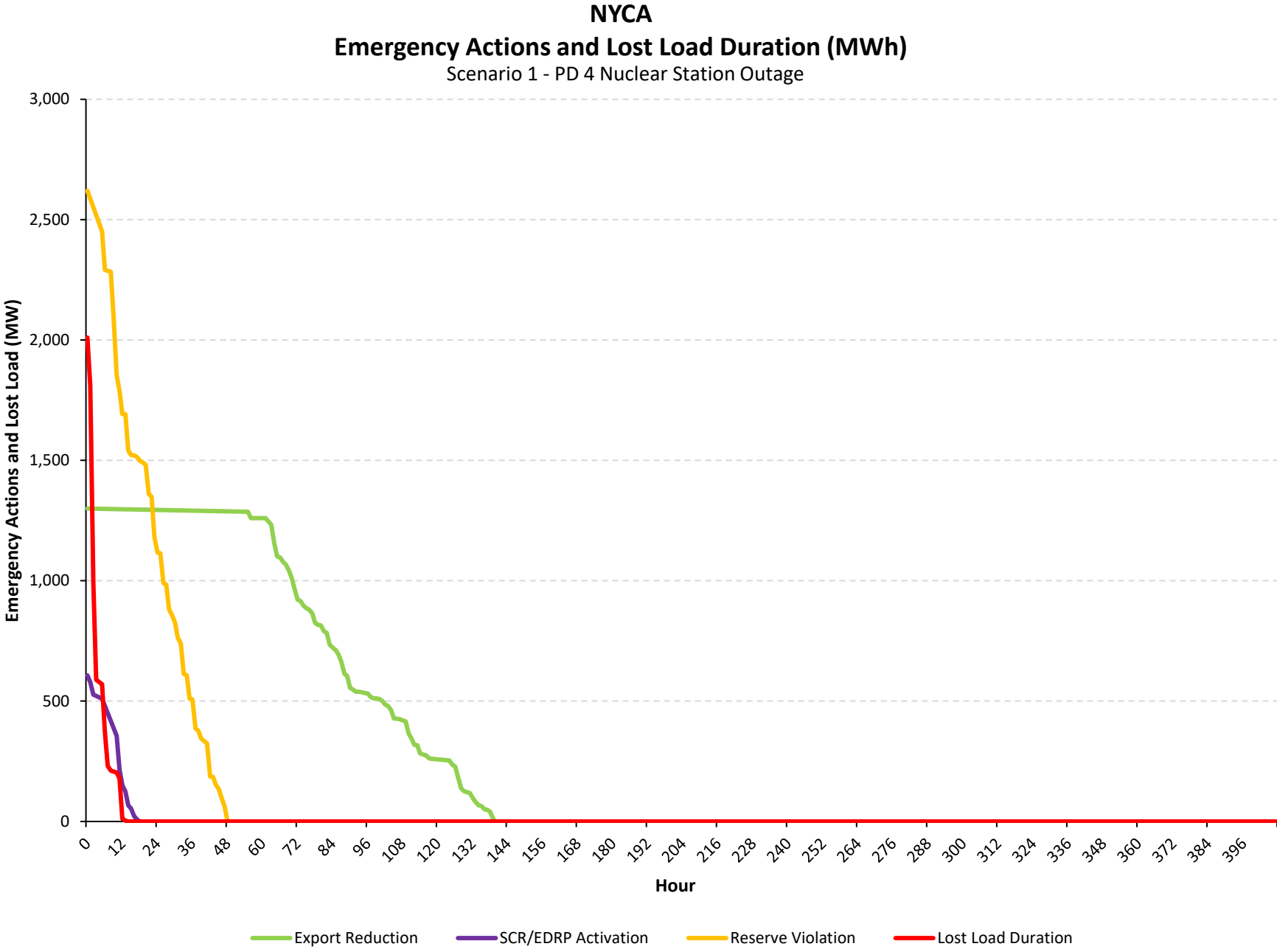
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 4 Nuclear Station Outage

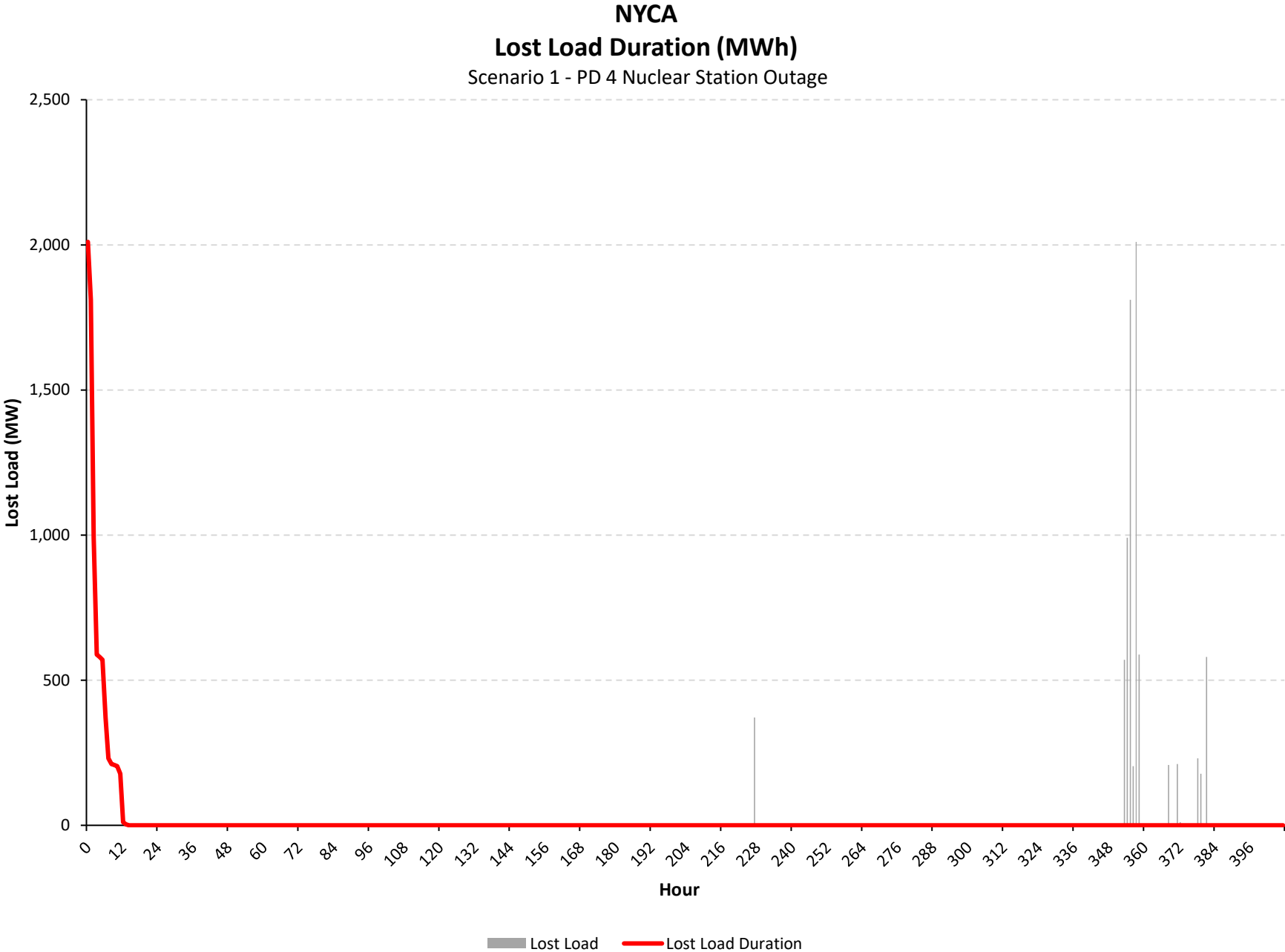






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



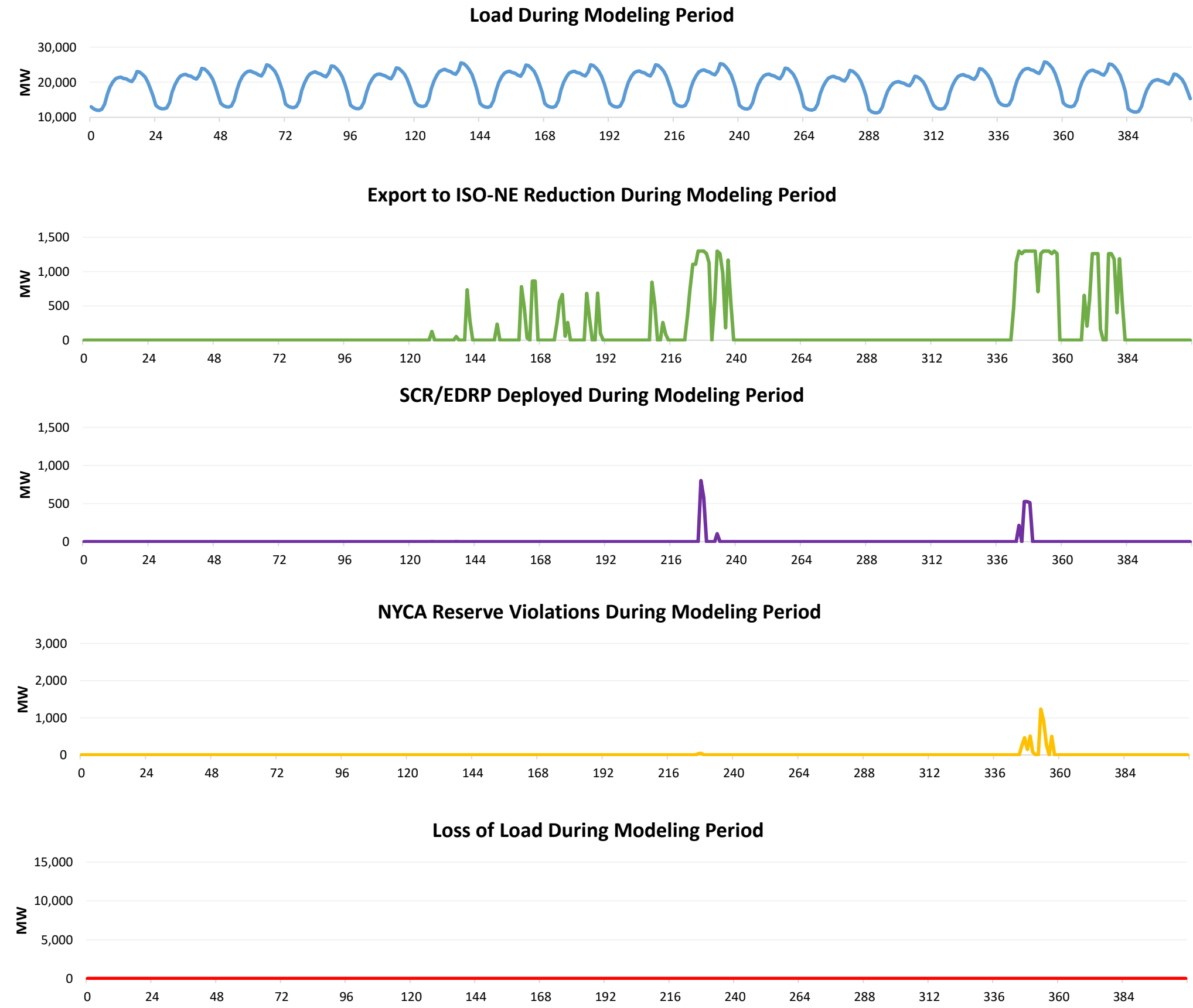


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 5 No Truck Refill (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 1 - PD 5 No Truck Refill



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

Export Reductions	
Total Hrs.	69
Total MWh	56,914
Avg. MW	139.5

SCR Deployment	
Total Hrs.	8
Total MWh	3,264
Avg. MW	8.0

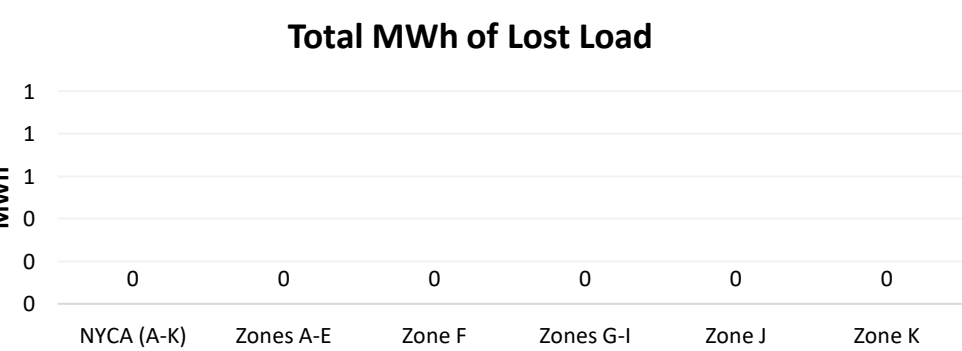
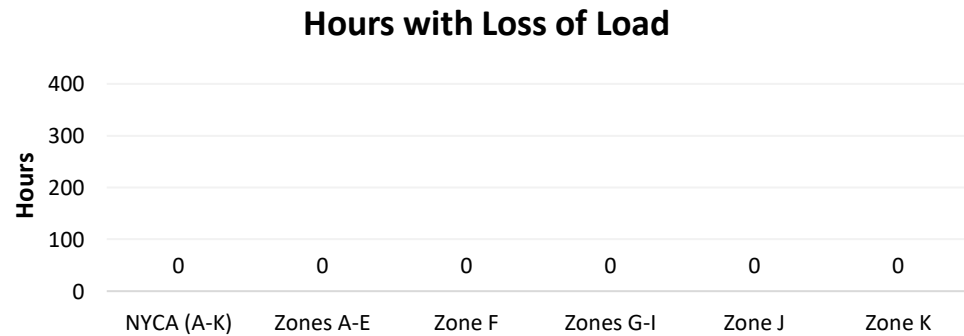
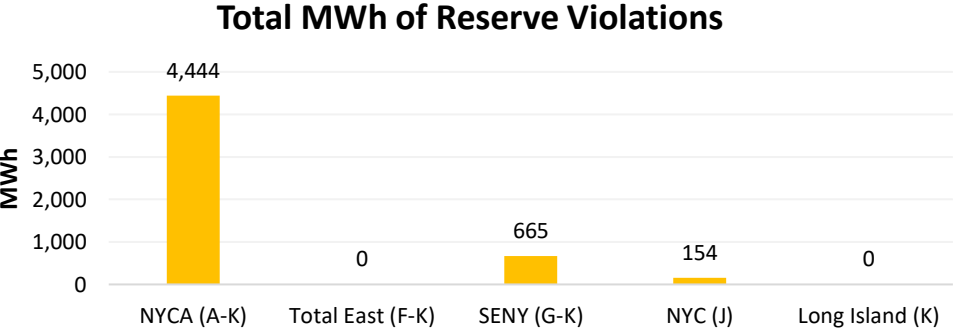
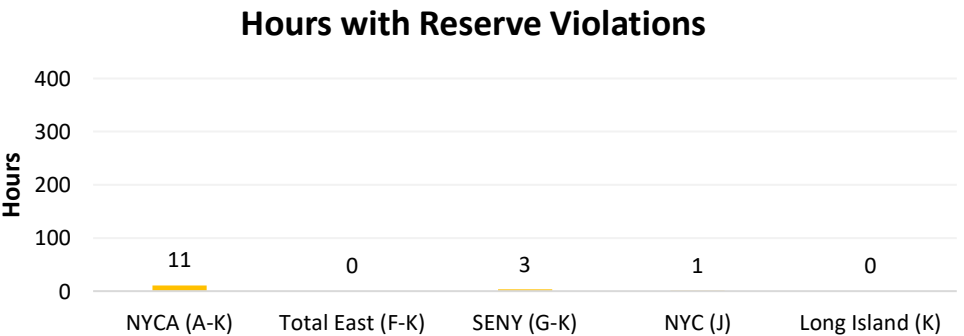
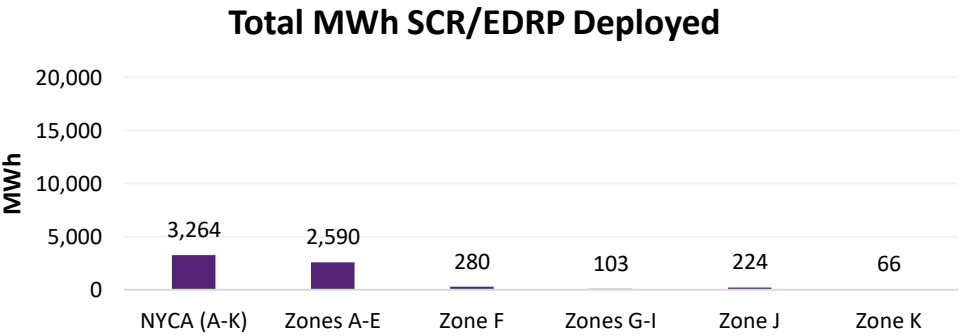
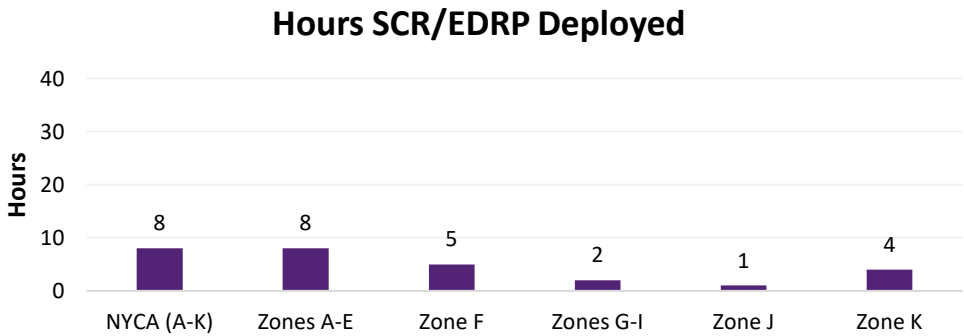
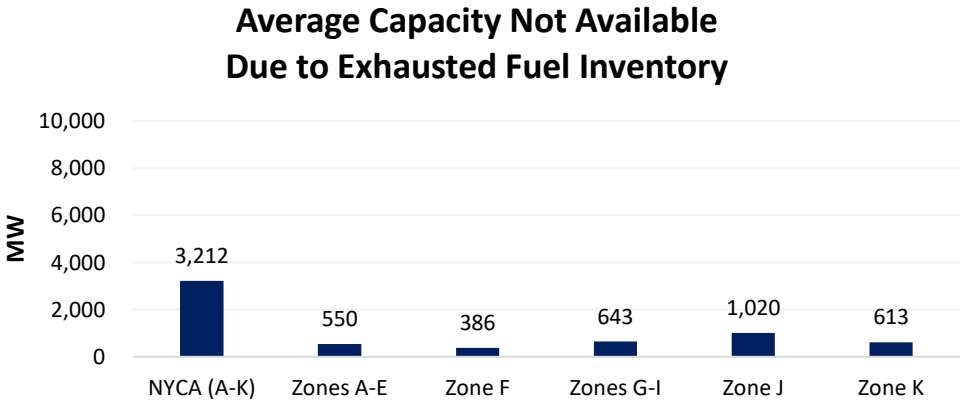
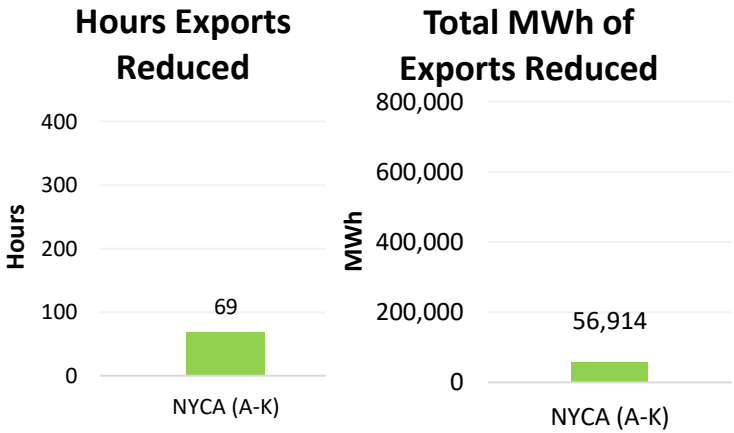
Reserve Violations	
Total Hrs.	11
Total MWh	4,444
Avg. MW	10.9
First Hour with Viol.	227

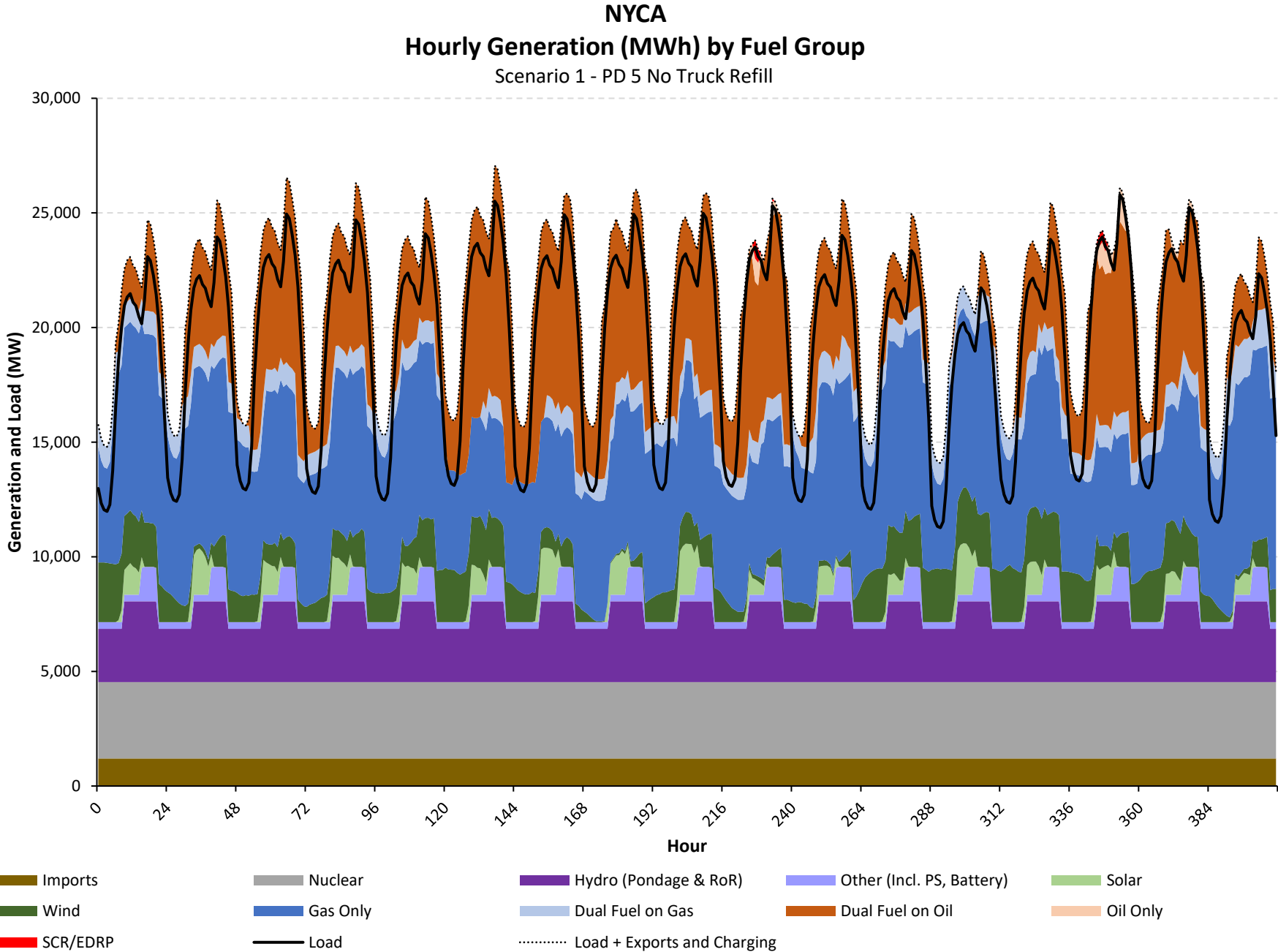
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

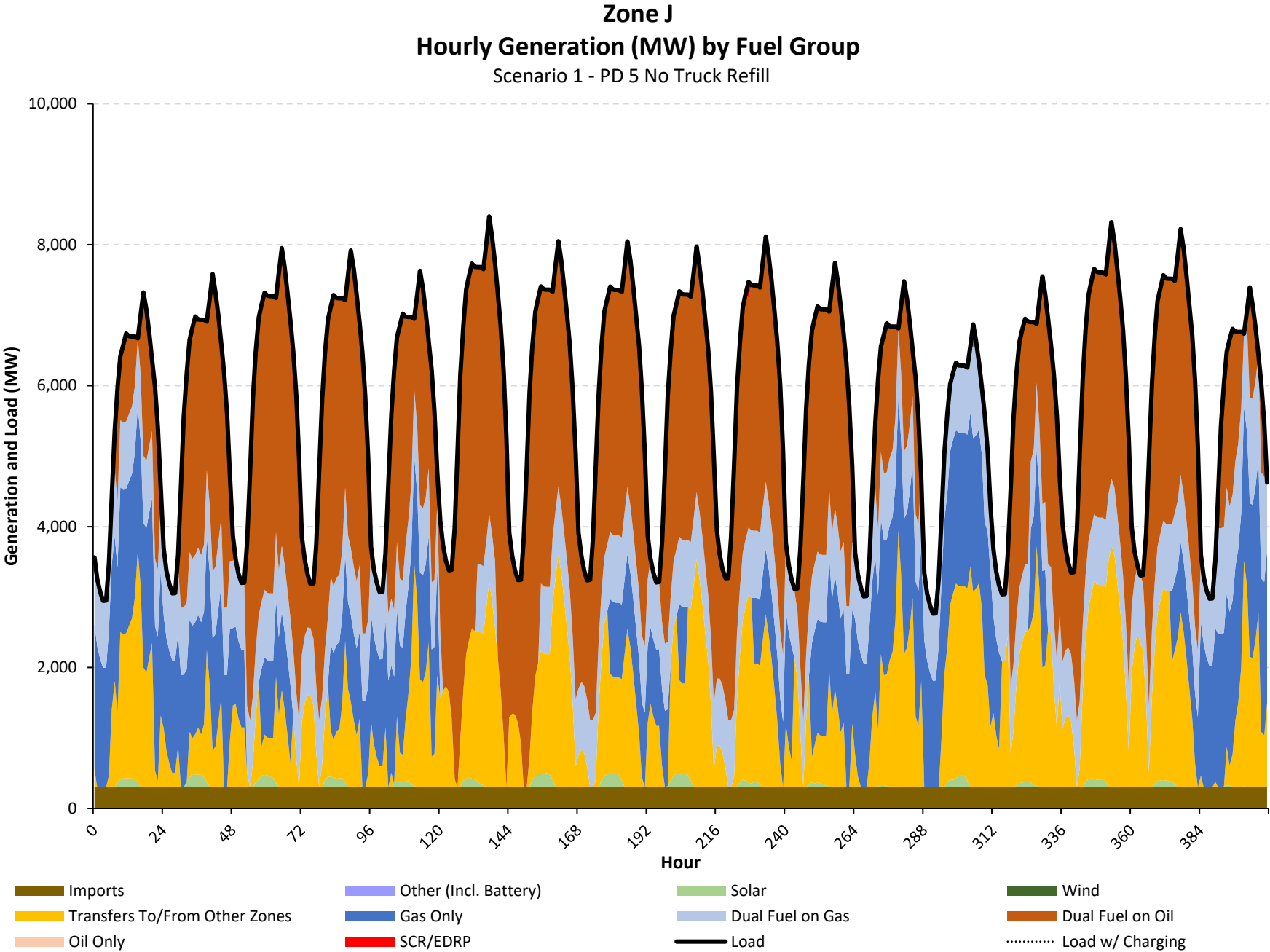
Full Period Results Summary

Case Name: Scenario 1 - PD 5 No Truck Refill

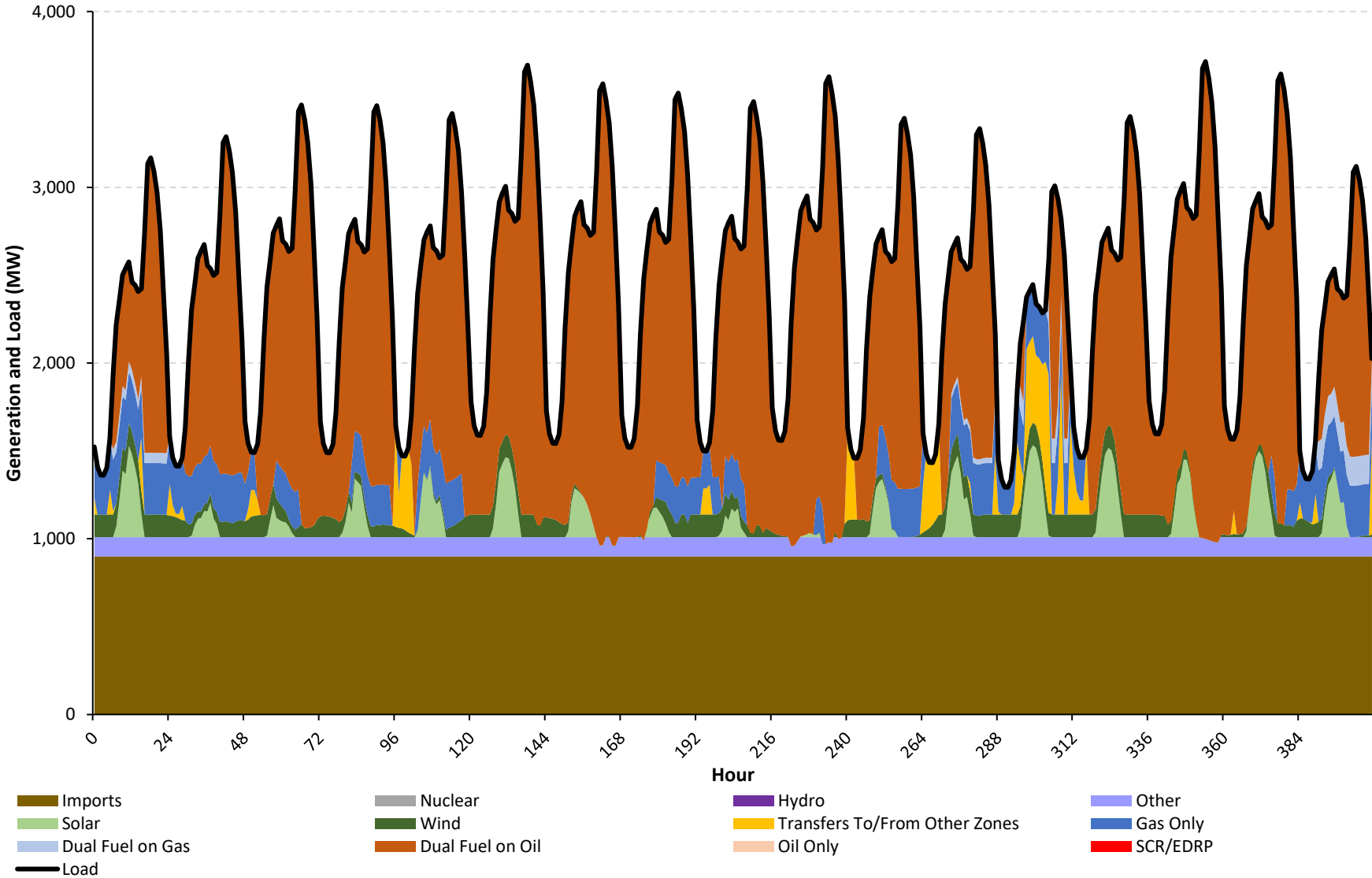
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	Historical
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All



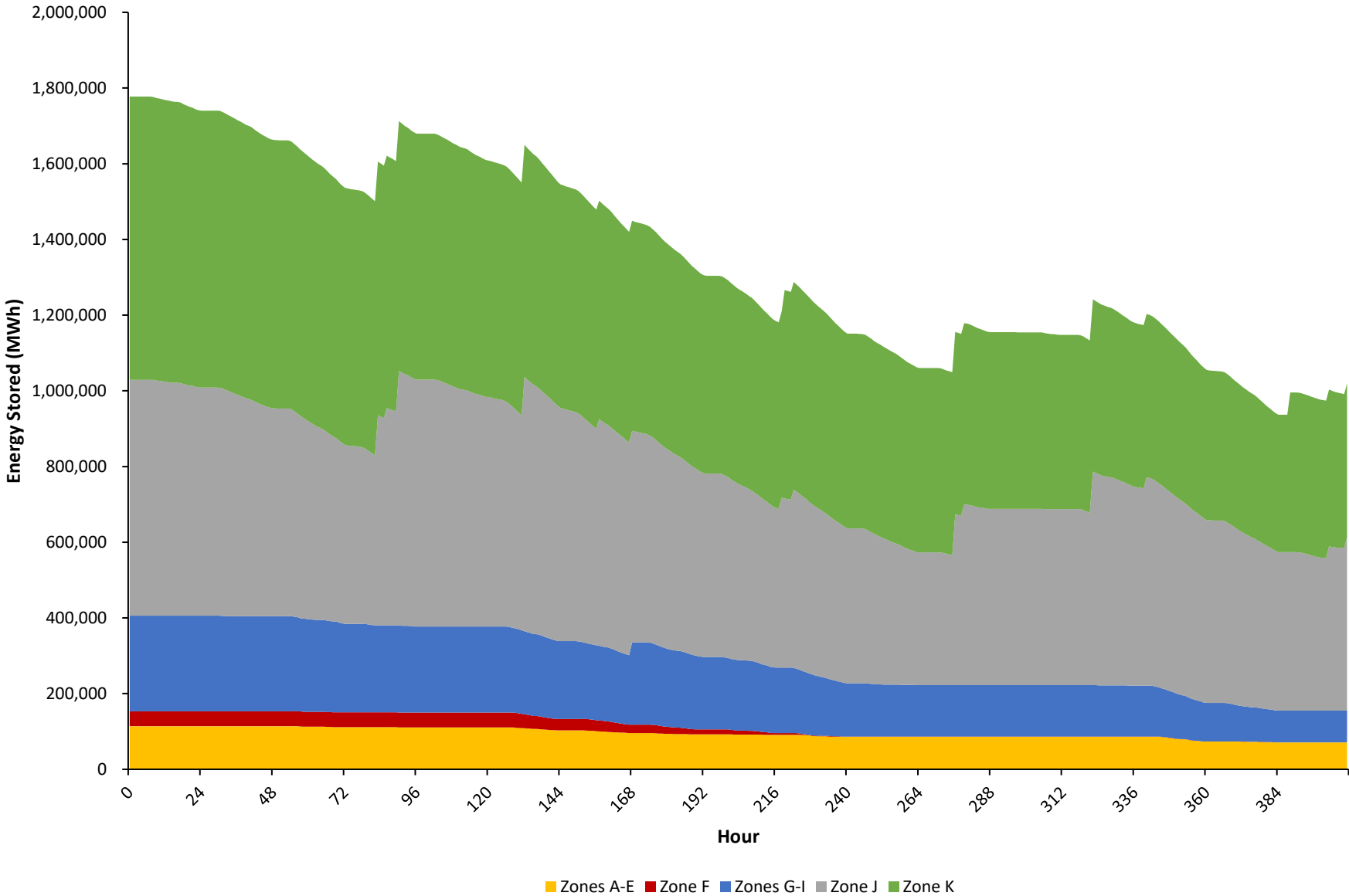




Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 5 No Truck Refill

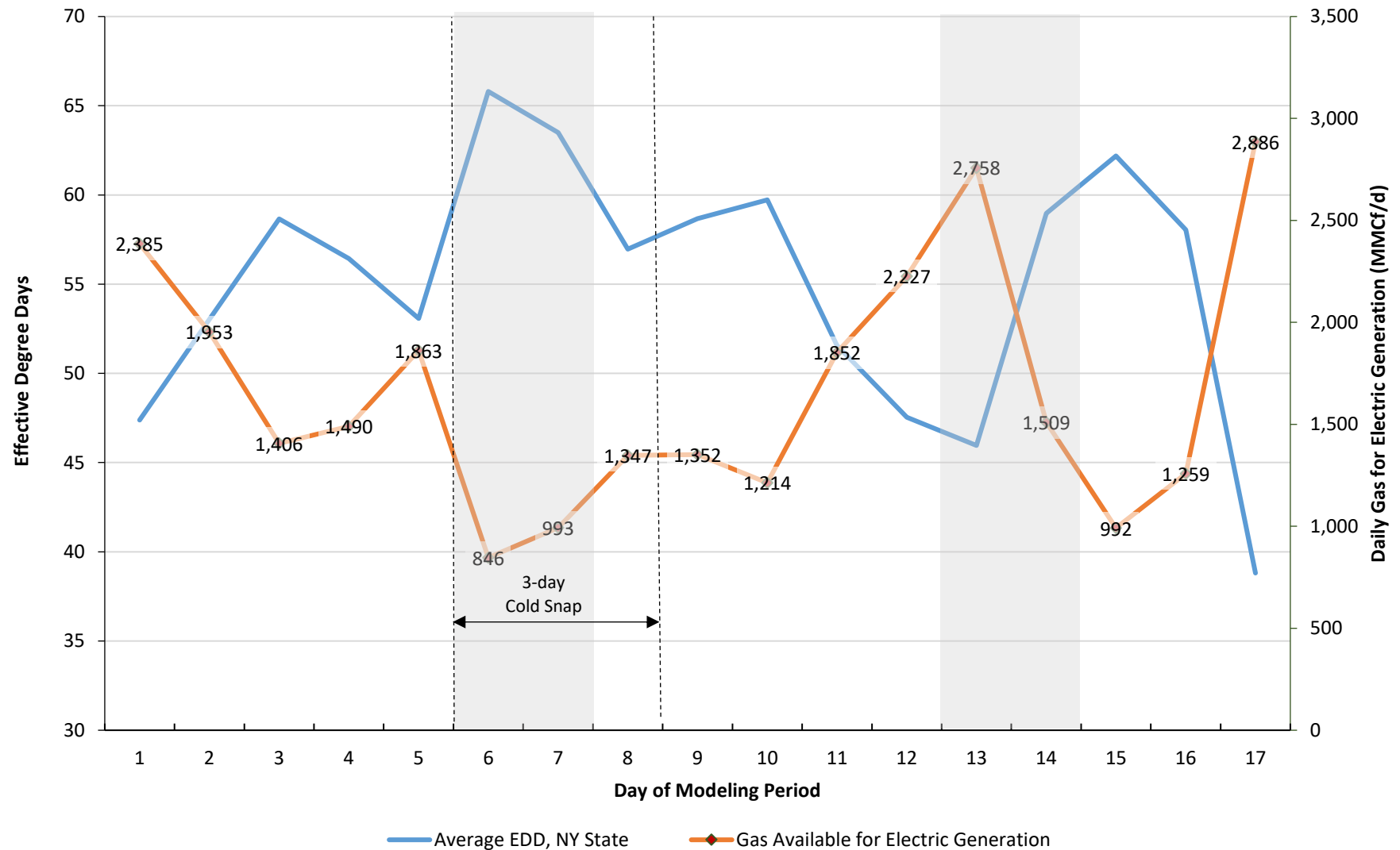


NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 1 - PD 5 No Truck Refill



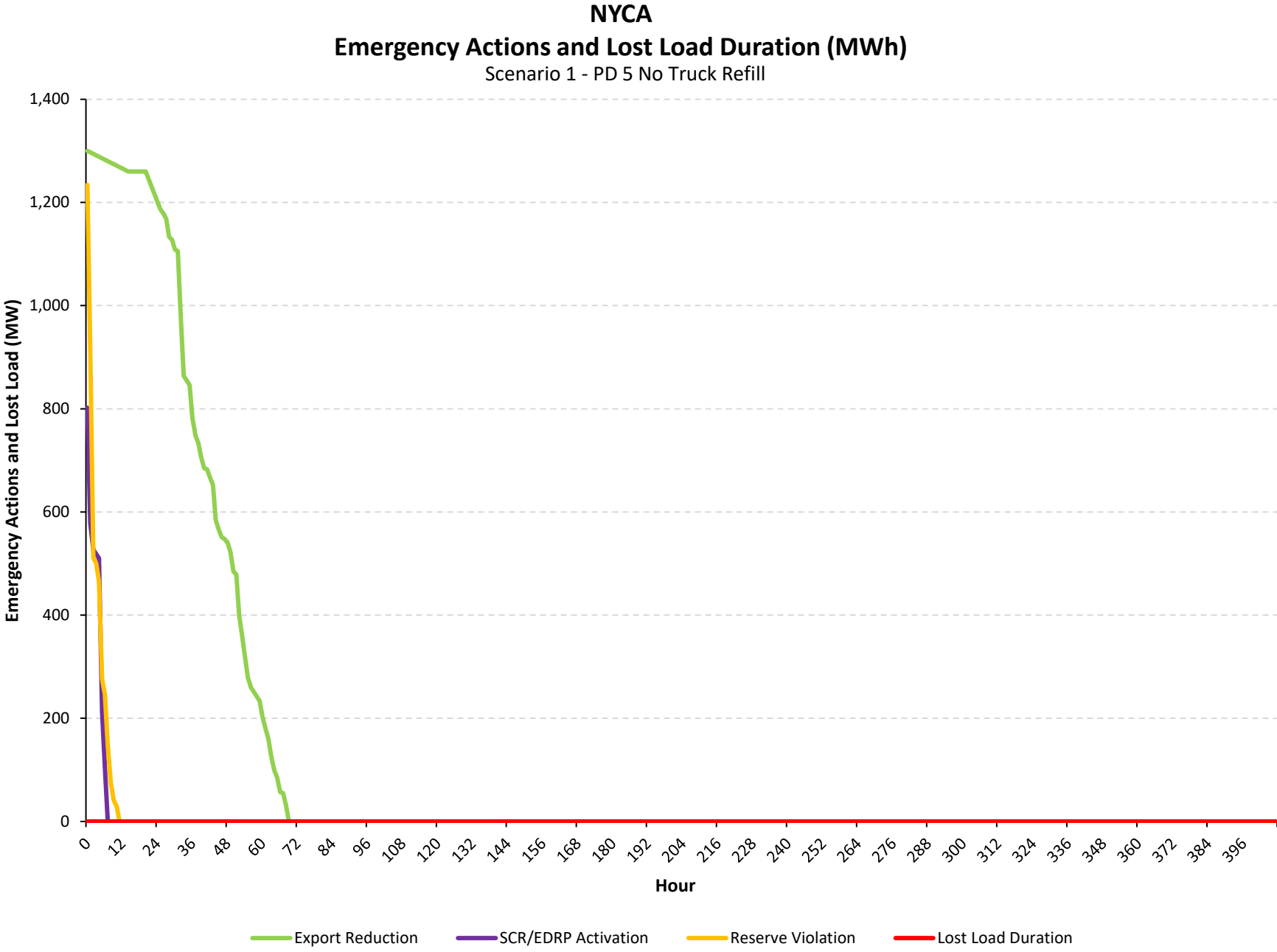
NYCA **Degree Days and Gas Available for Electric Generation 17-Day Modeling Period**

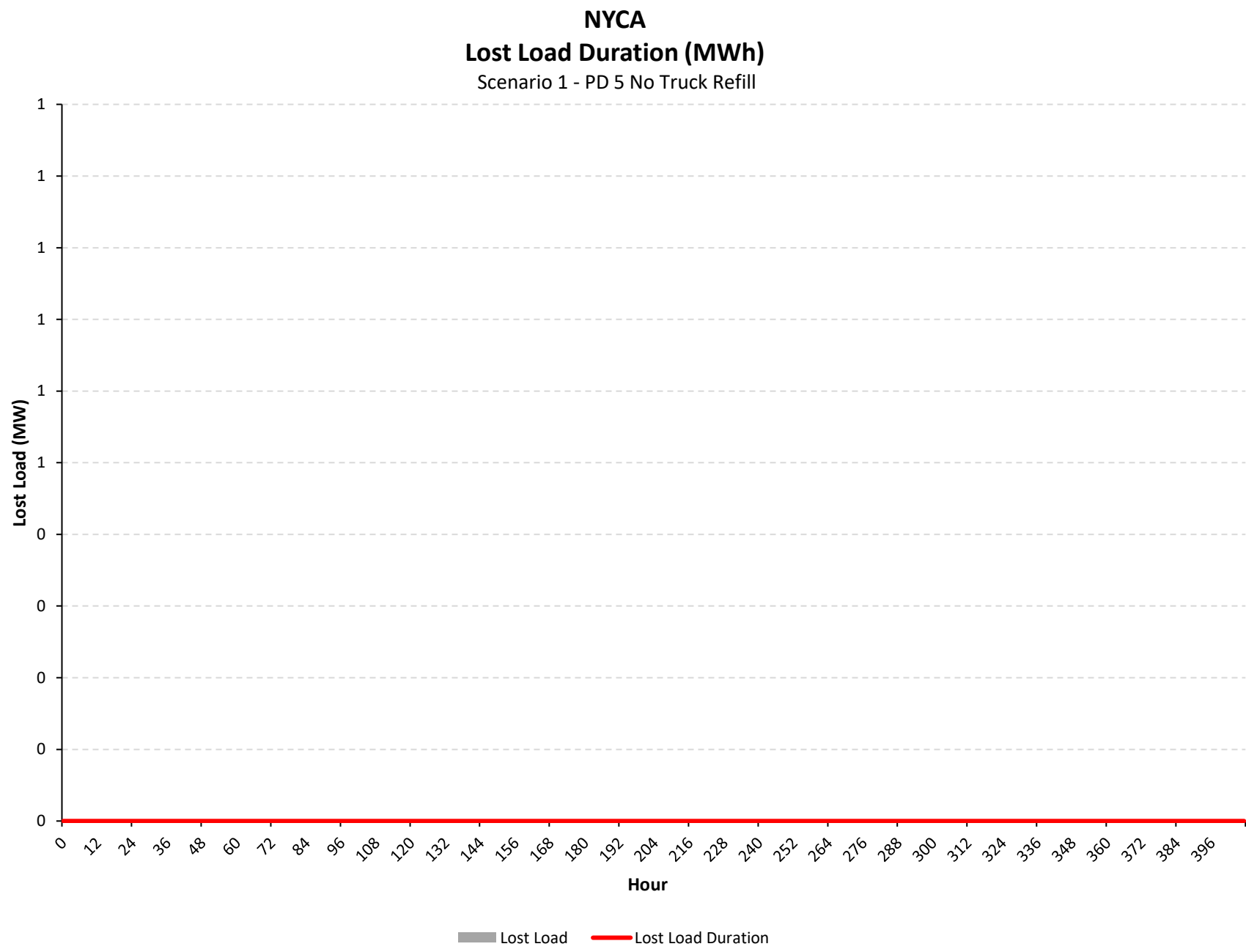
Scenario 1 - PD 5 No Truck Refill



Notes:

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



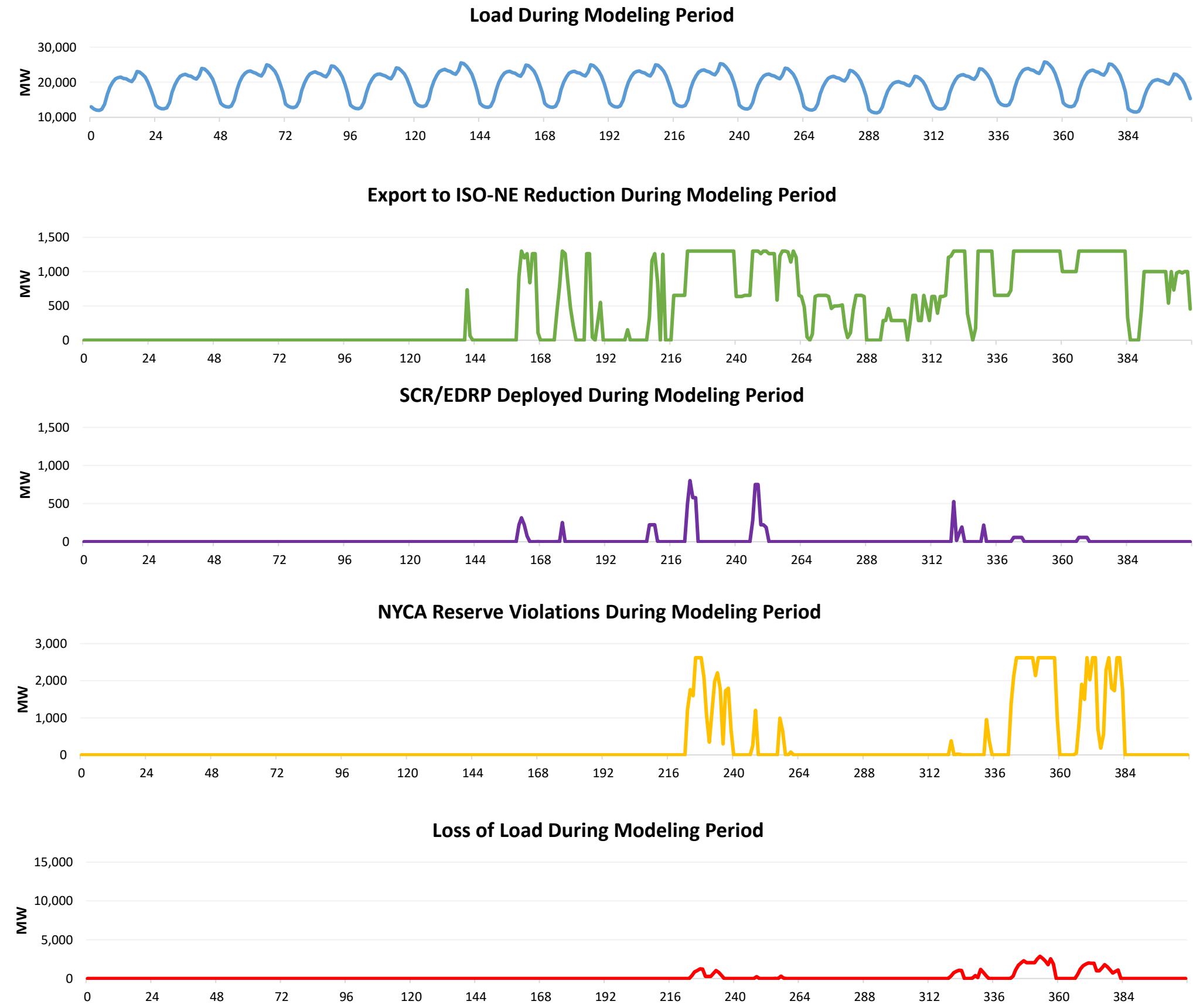


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 6 No Barge Refill (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 1 - PD 6 No Barge Refill



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

Export Reductions	
Total Hrs.	206
Total MWh	188,106
Avg. MW	461.0

SCR Deployment	
Total Hrs.	32
Total MWh	8,150
Avg. MW	20.0

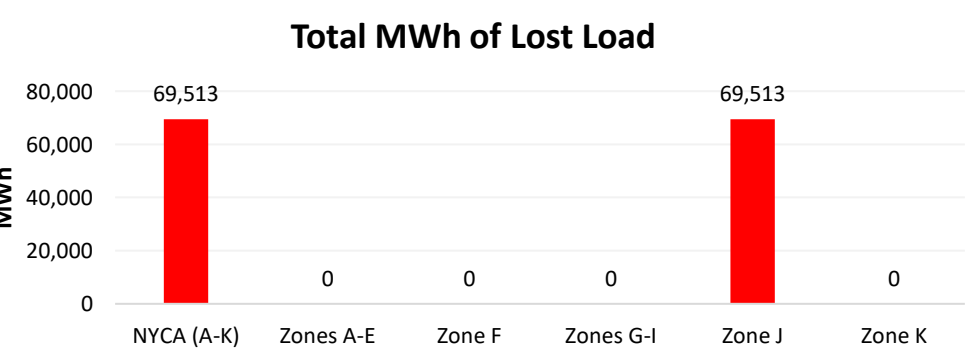
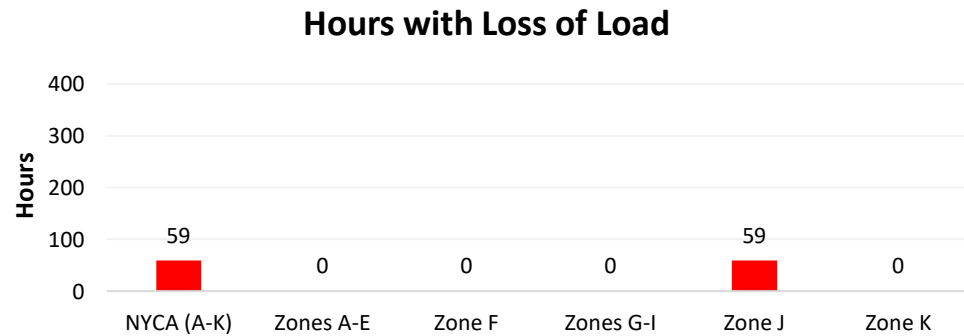
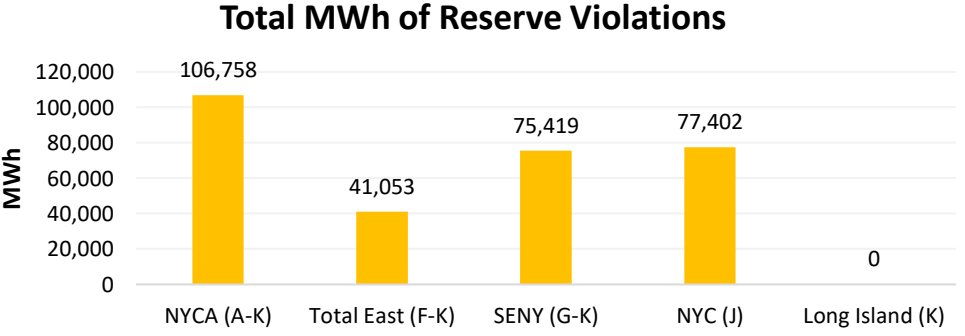
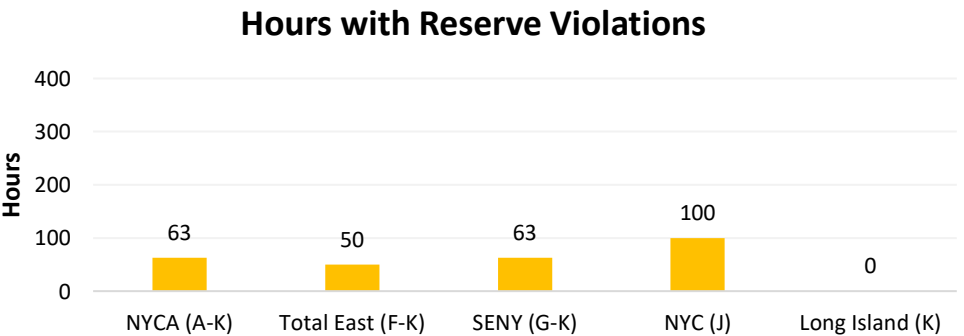
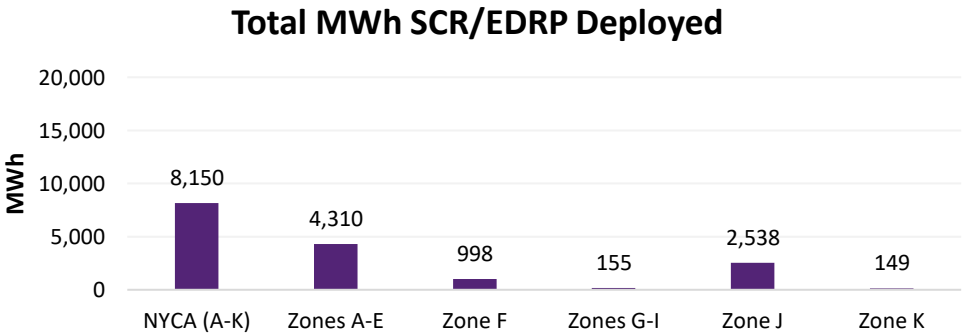
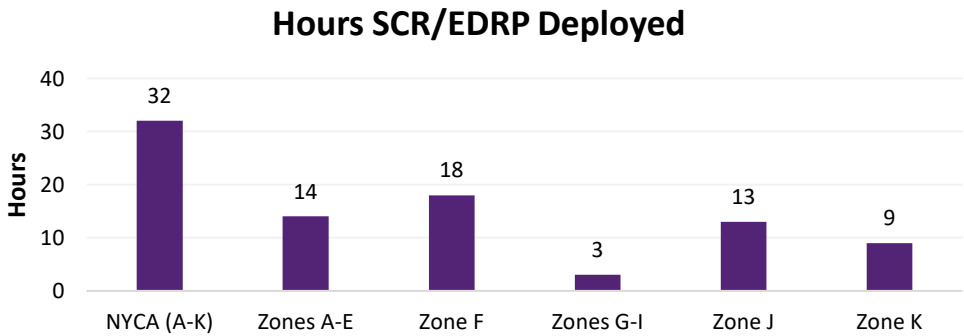
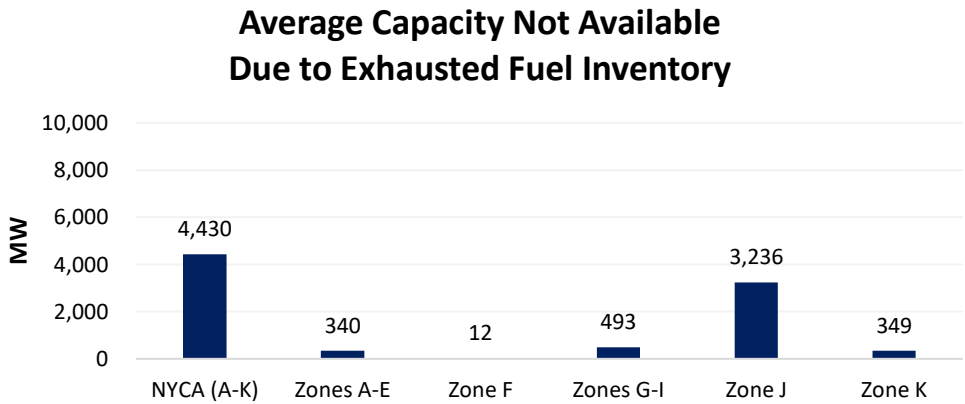
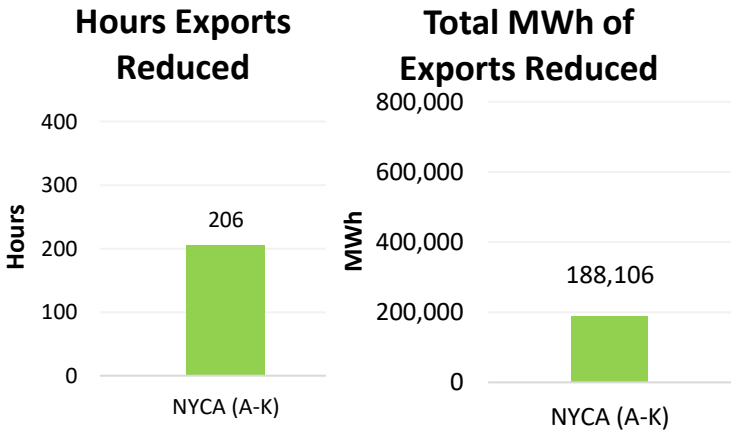
Reserve Violations	
Total Hrs.	63
Total MWh	106,758
Avg. MW	261.7
First Hour with Viol.	160

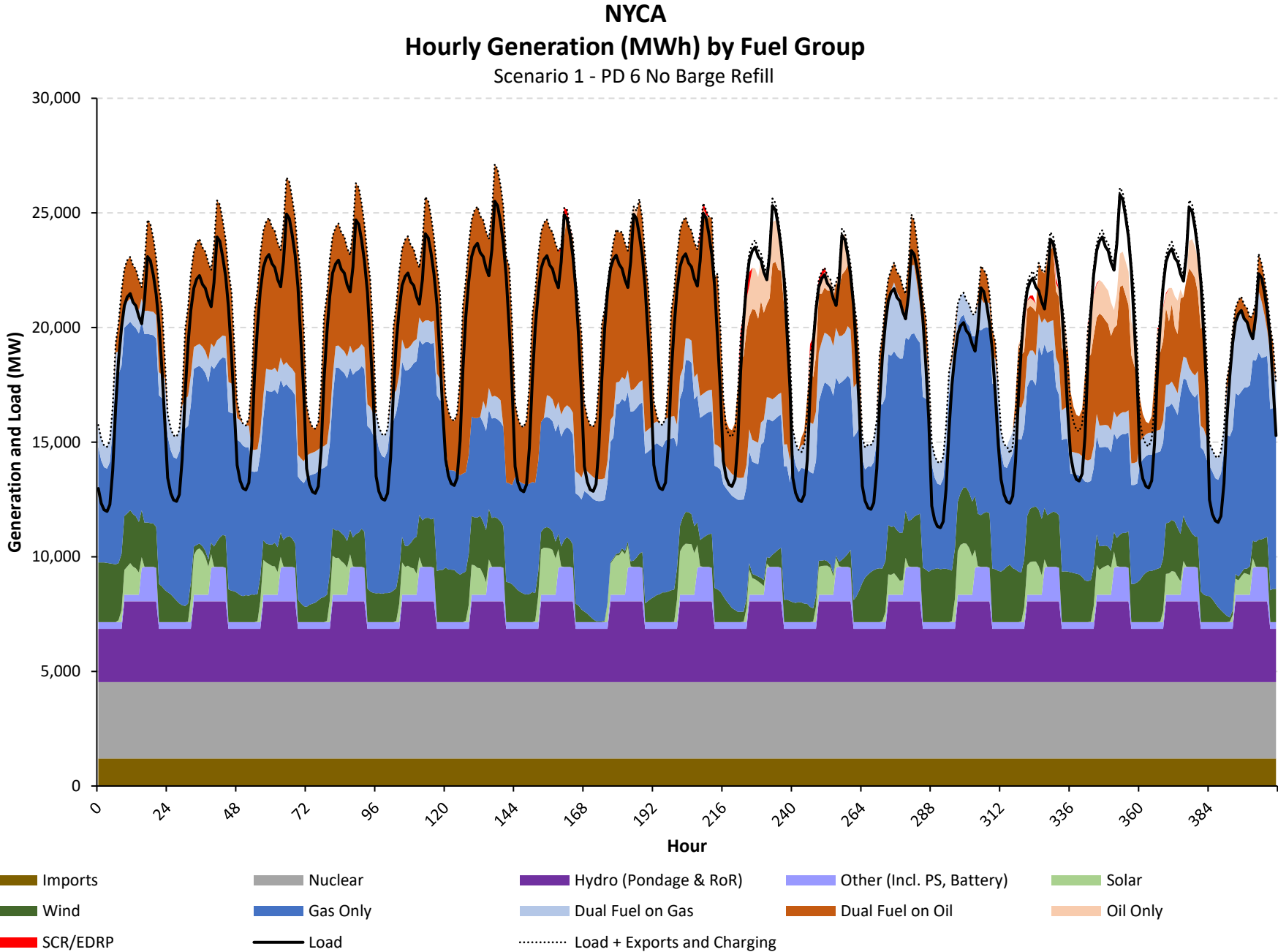
Loss of Load	
Total Hrs.	59
Total MWh	69,513
Avg. MW	170.4
First Hour with Losses	224

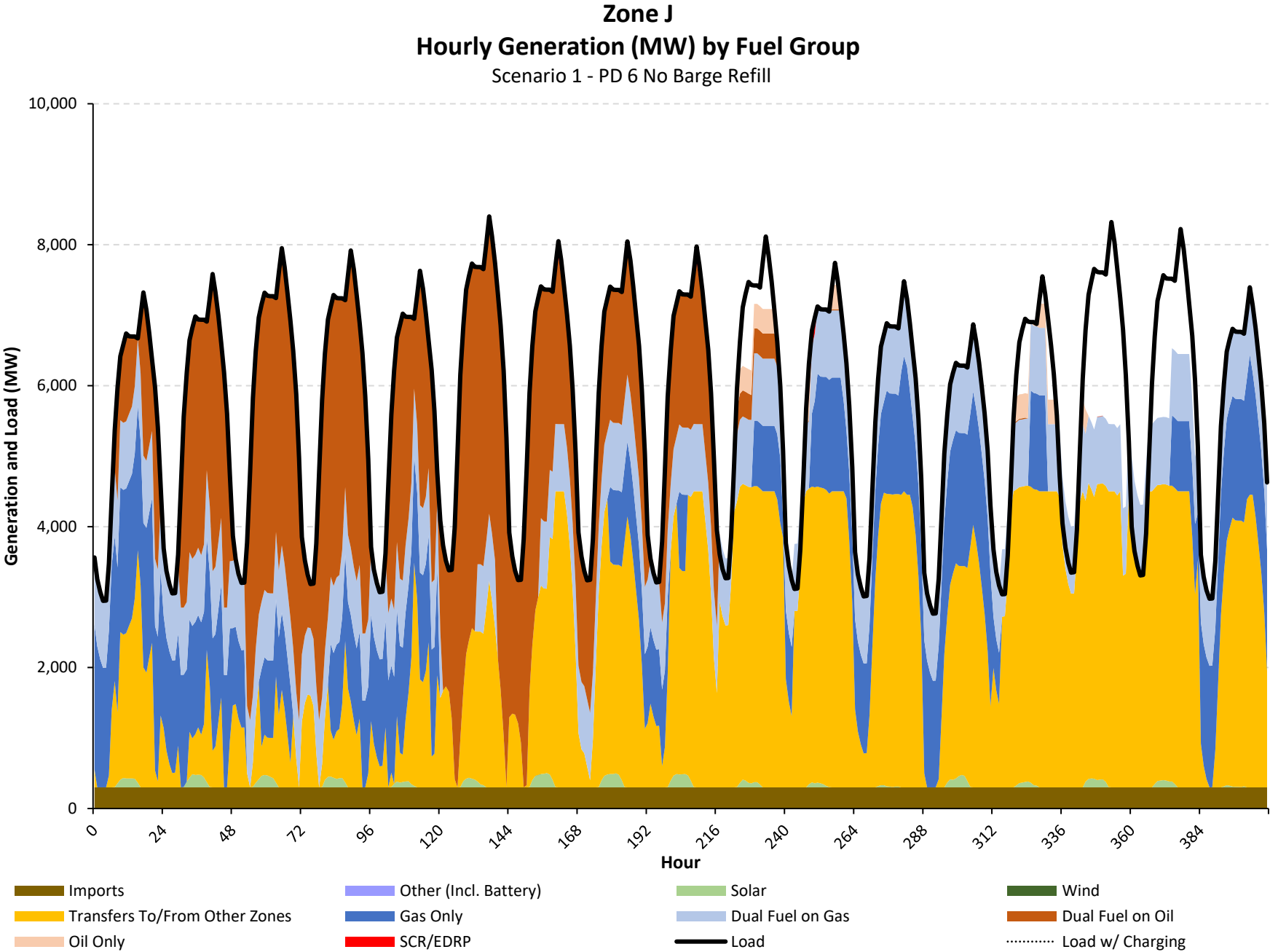
Full Period Results Summary

Case Name: Scenario 1 - PD 6 No Barge Refill

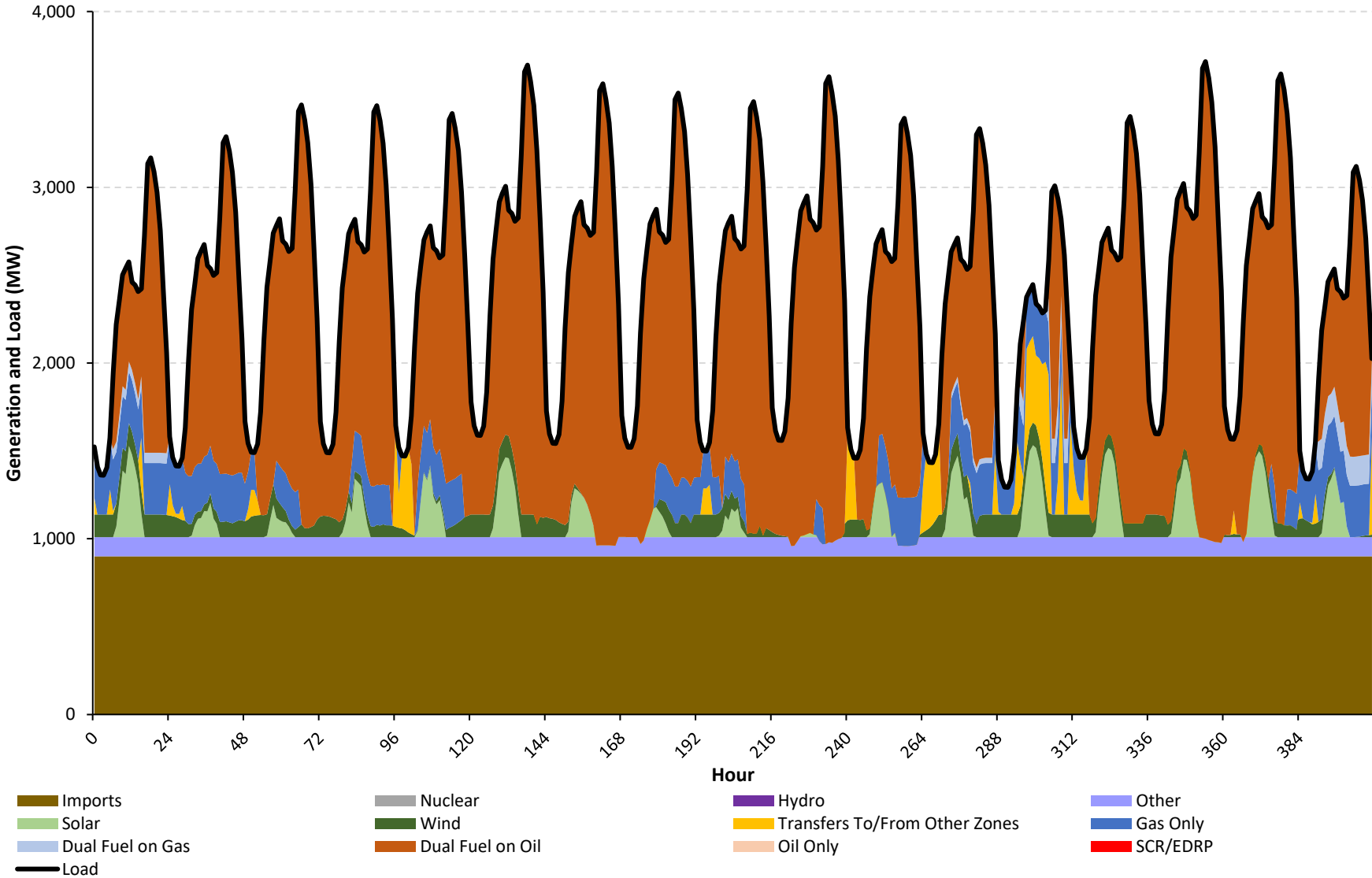
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	Historical
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All



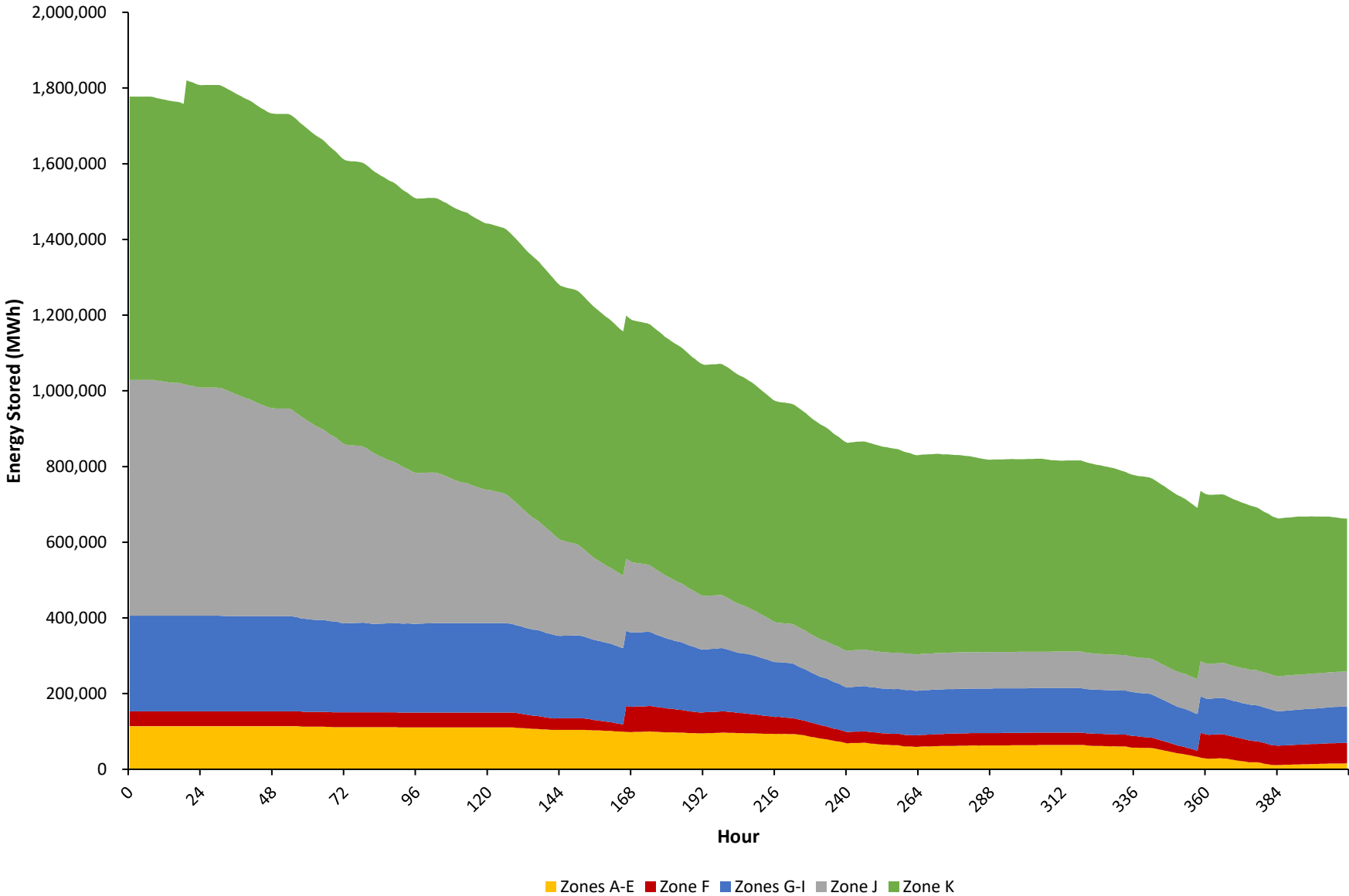




Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 6 No Barge Refill

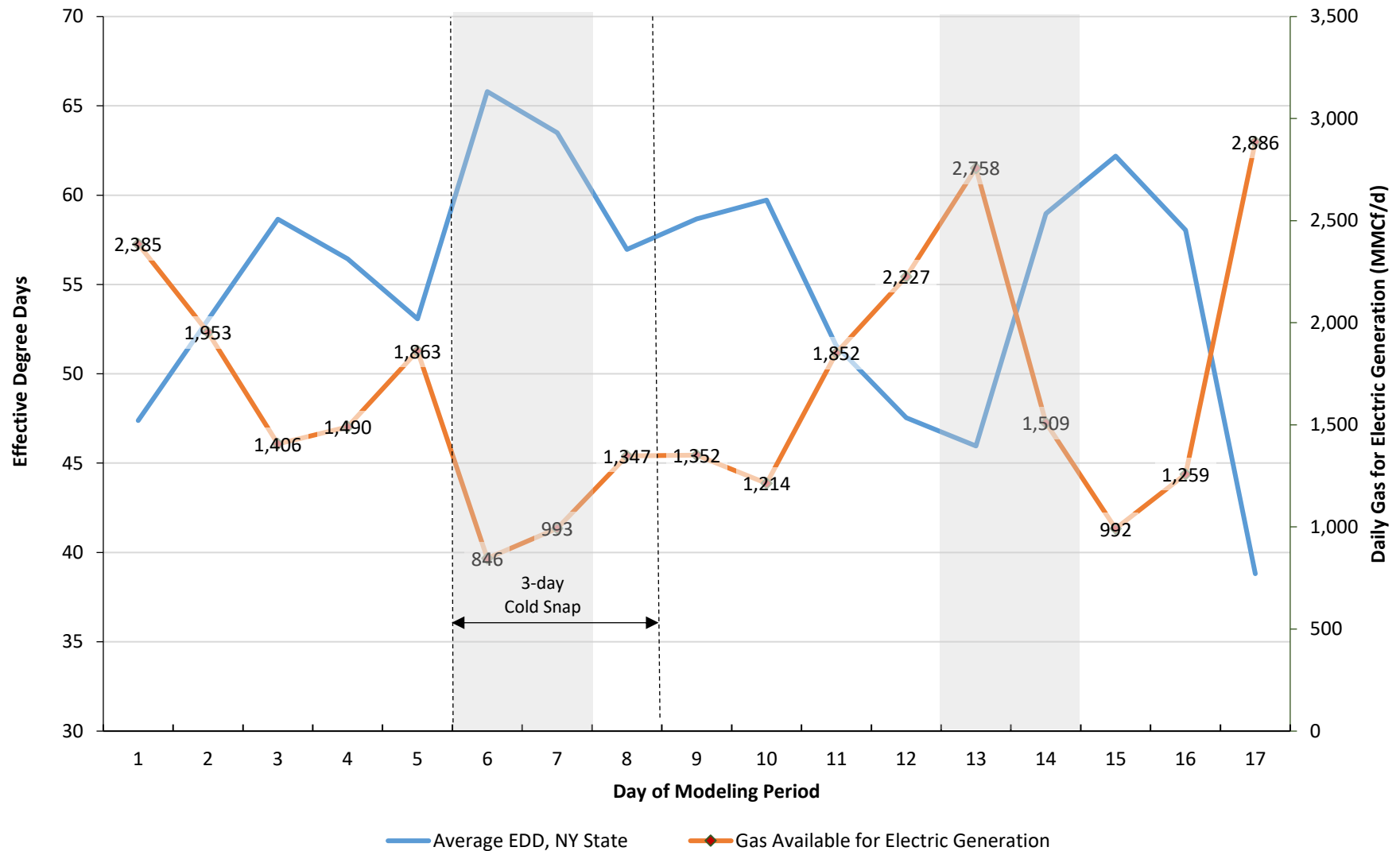


NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 1 - PD 6 No Barge Refill



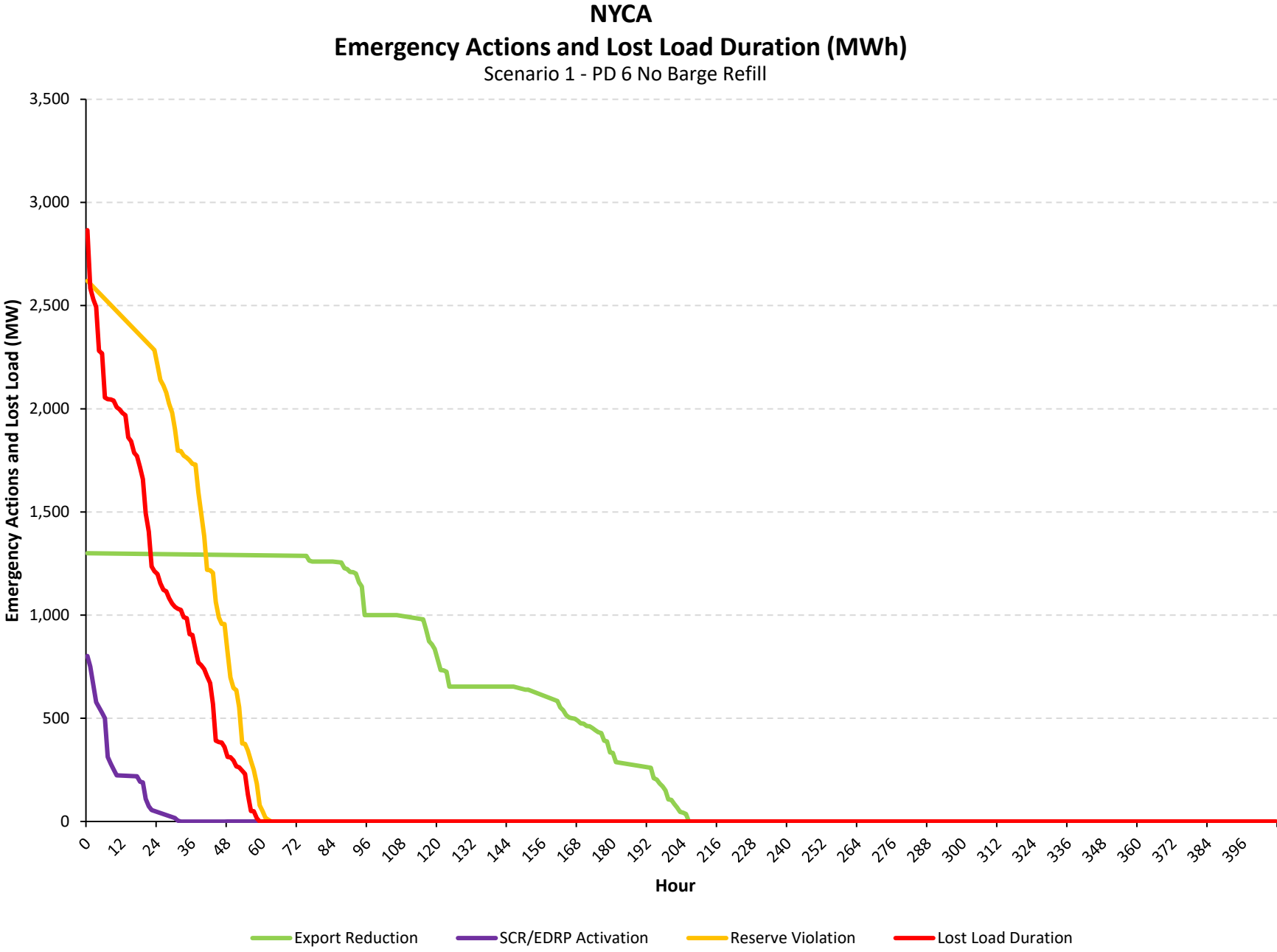
NYCA **Degree Days and Gas Available for Electric Generation 17-Day Modeling Period**

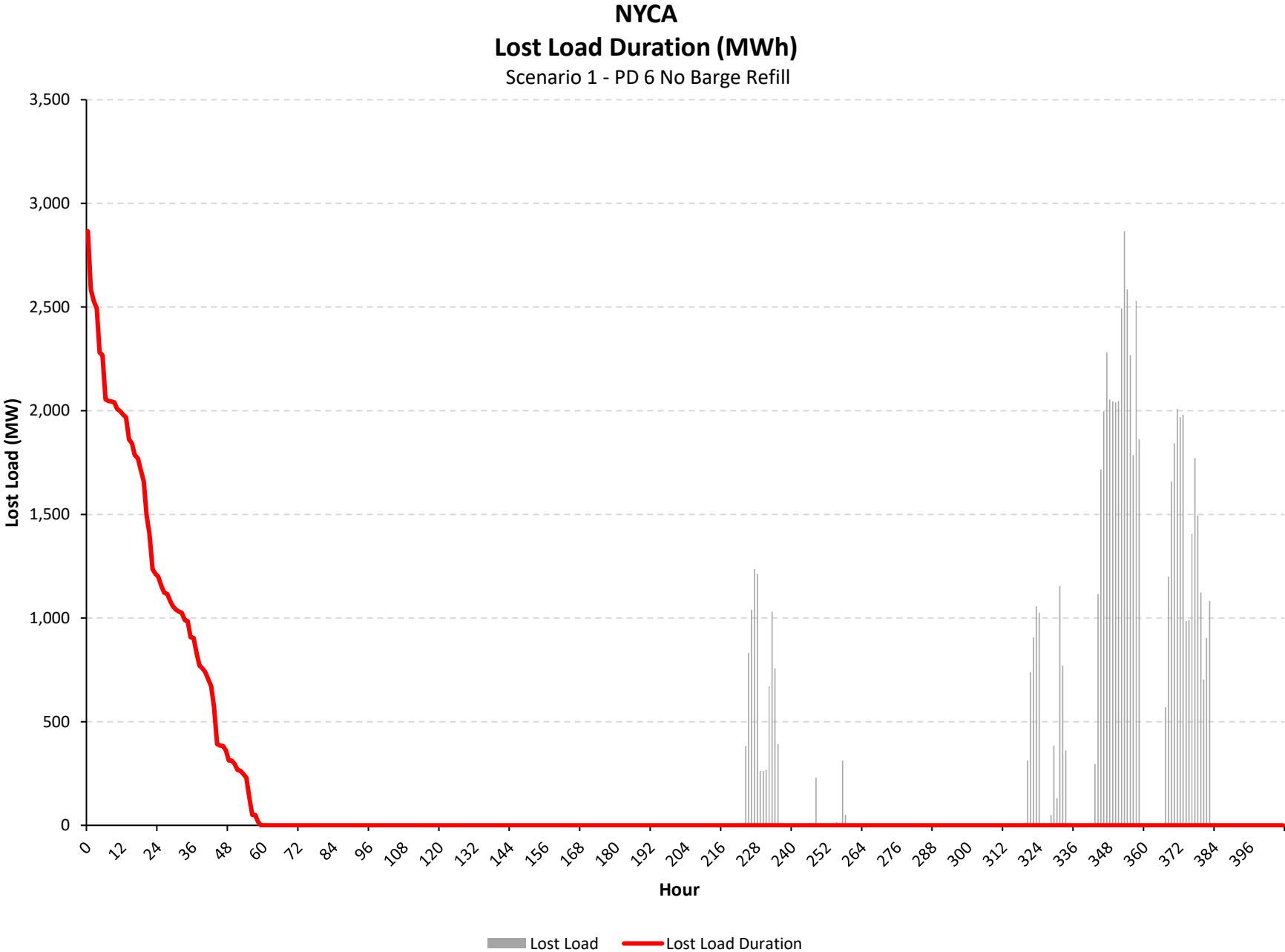
Scenario 1 - PD 6 No Barge Refill



Notes:

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



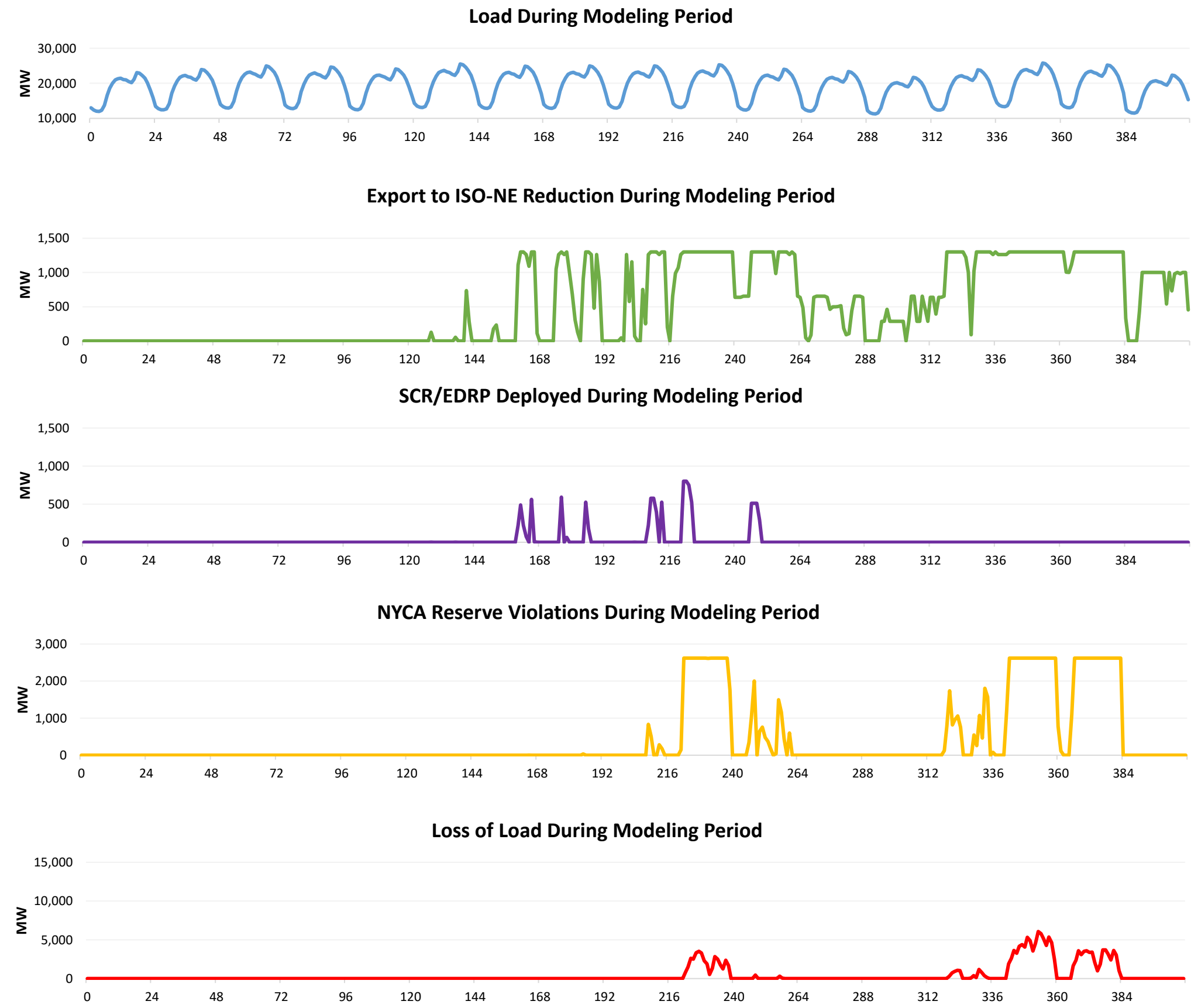


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 7 No Refill (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 1 - PD 7 No Refill



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

Export Reductions	
Total Hrs.	224
Total MWh	215,669
Avg. MW	528.6

SCR Deployment	
Total Hrs.	23
Total MWh	9,942
Avg. MW	24.4

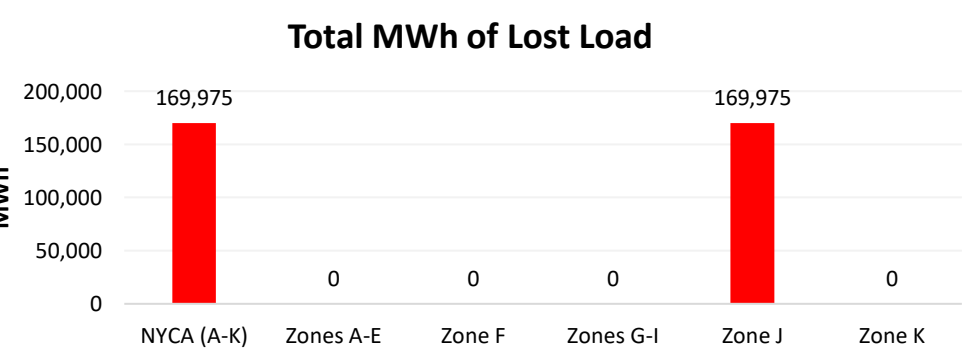
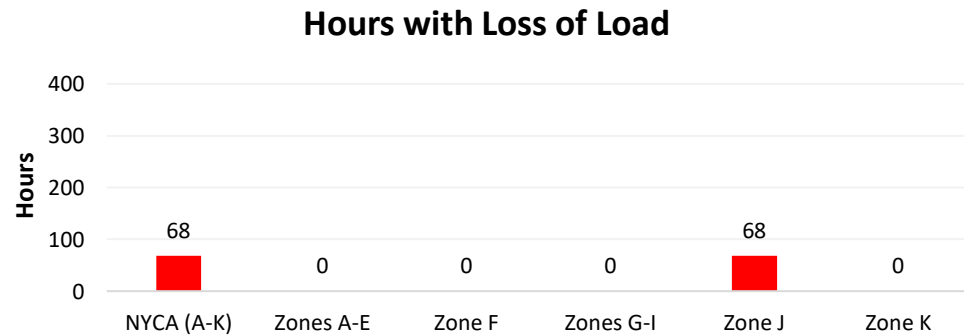
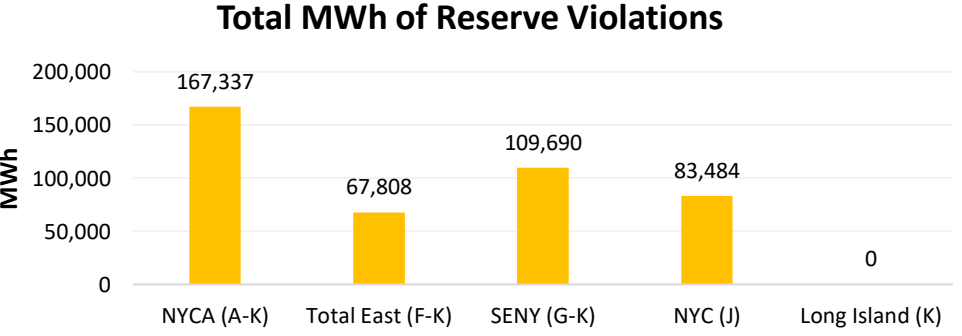
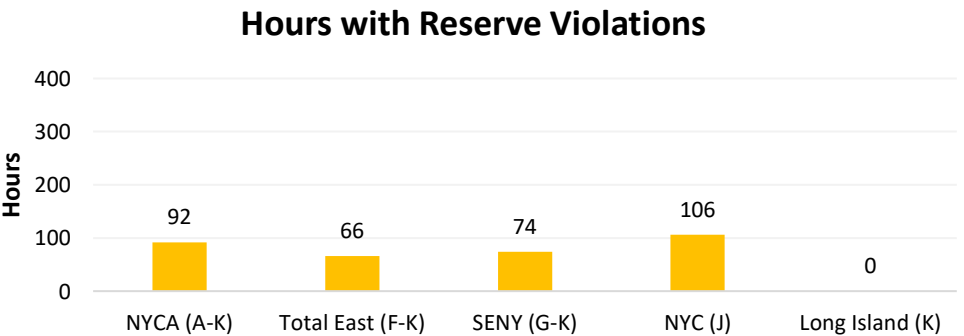
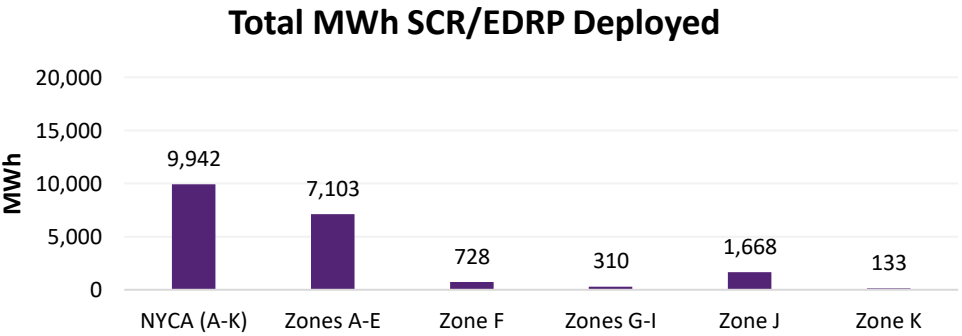
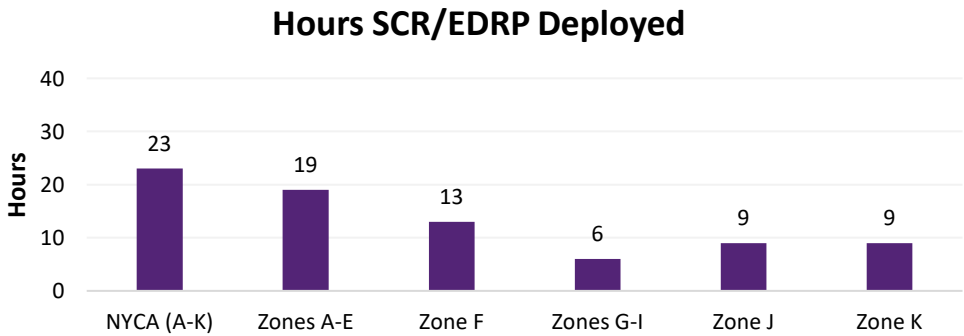
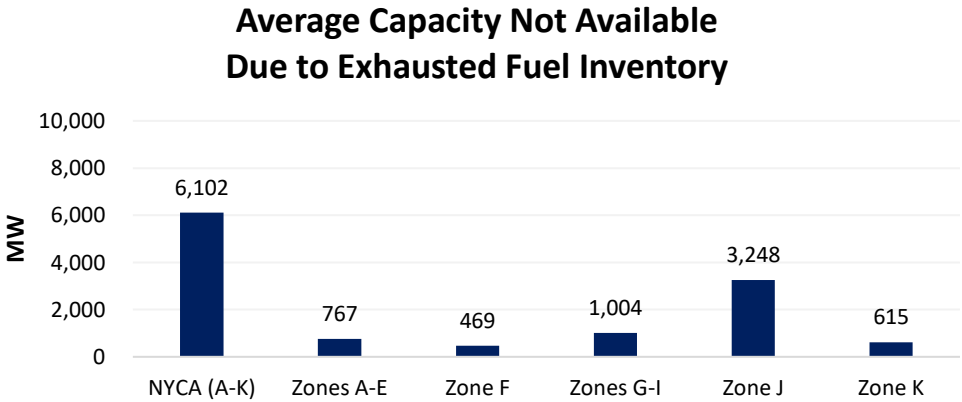
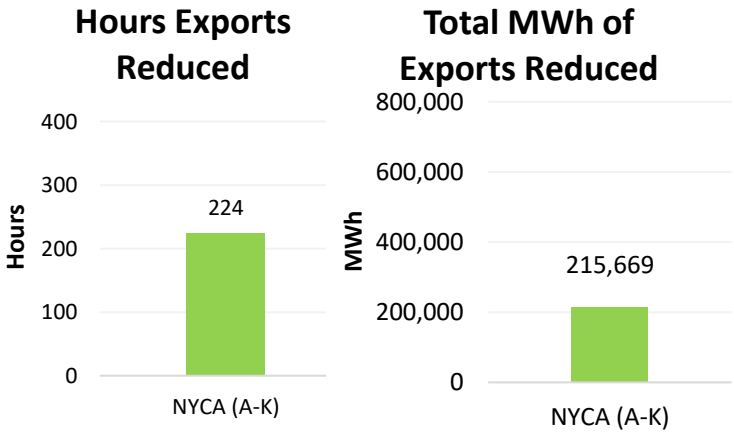
Reserve Violations	
Total Hrs.	92
Total MWh	167,337
Avg. MW	410.1
First Hour with Viol.	160

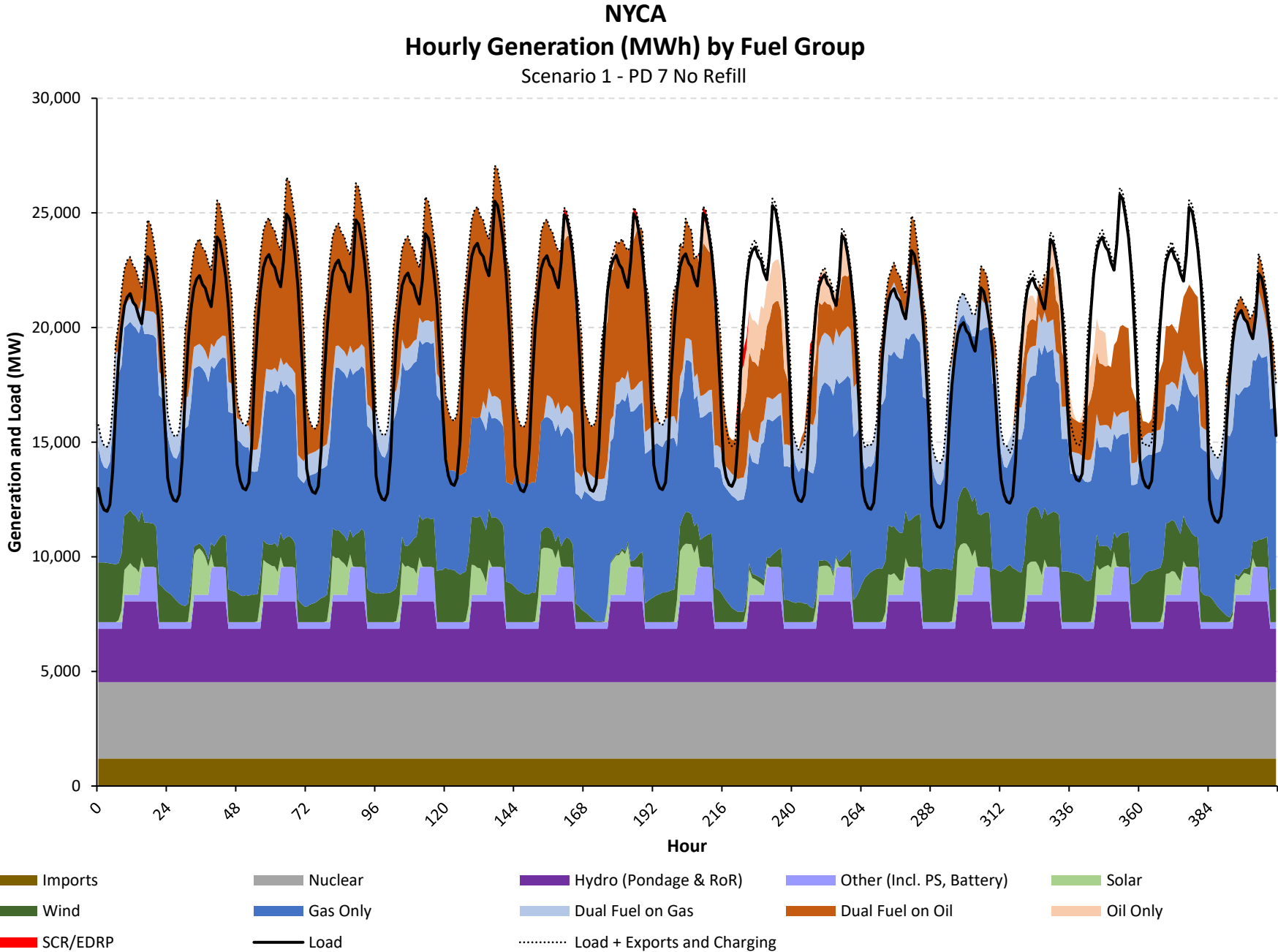
Loss of Load	
Total Hrs.	68
Total MWh	169,975
Avg. MW	416.6
First Hour with Losses	222

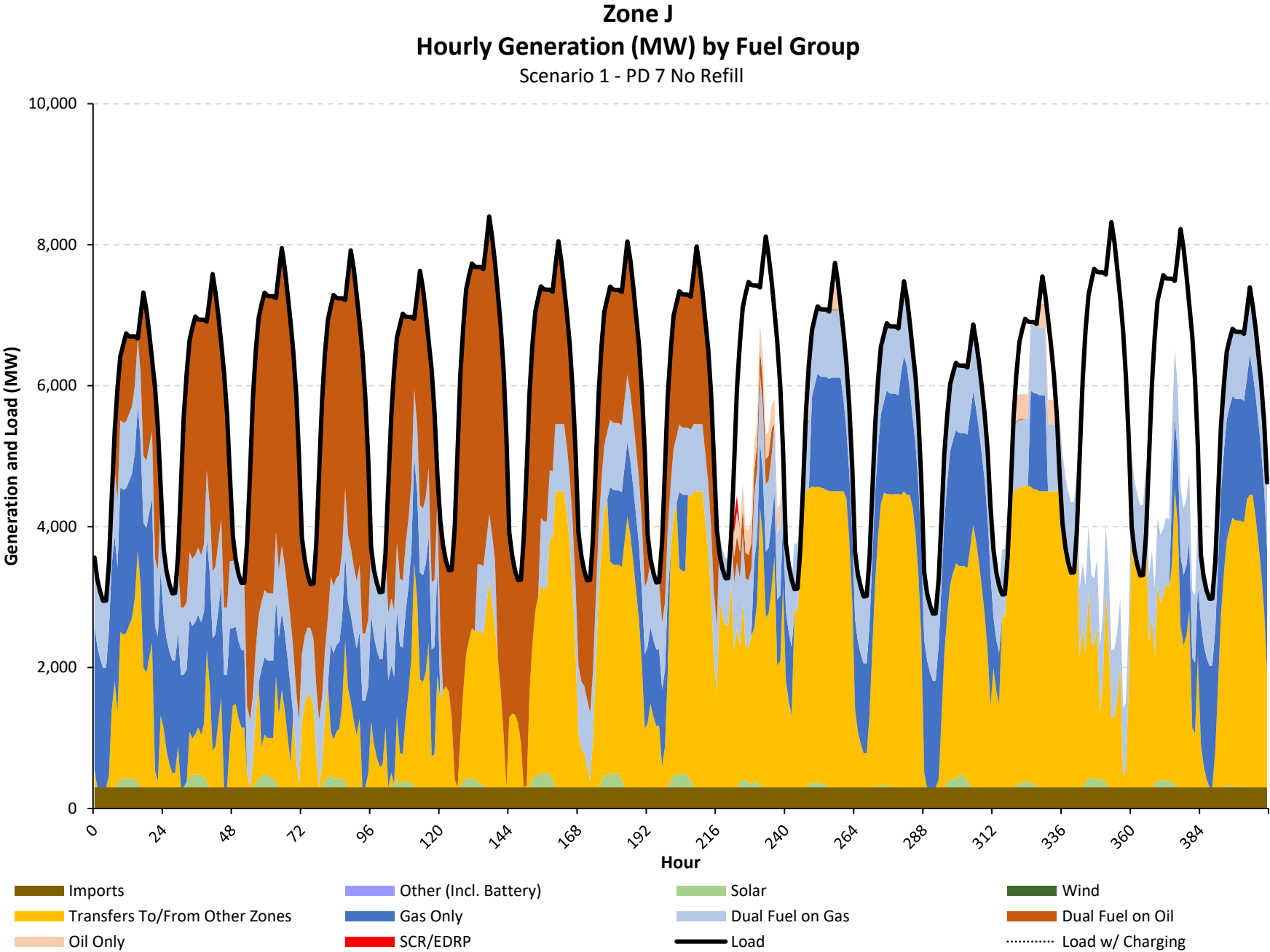
Full Period Results Summary

Case Name: Scenario 1 - PD 7 No Refill

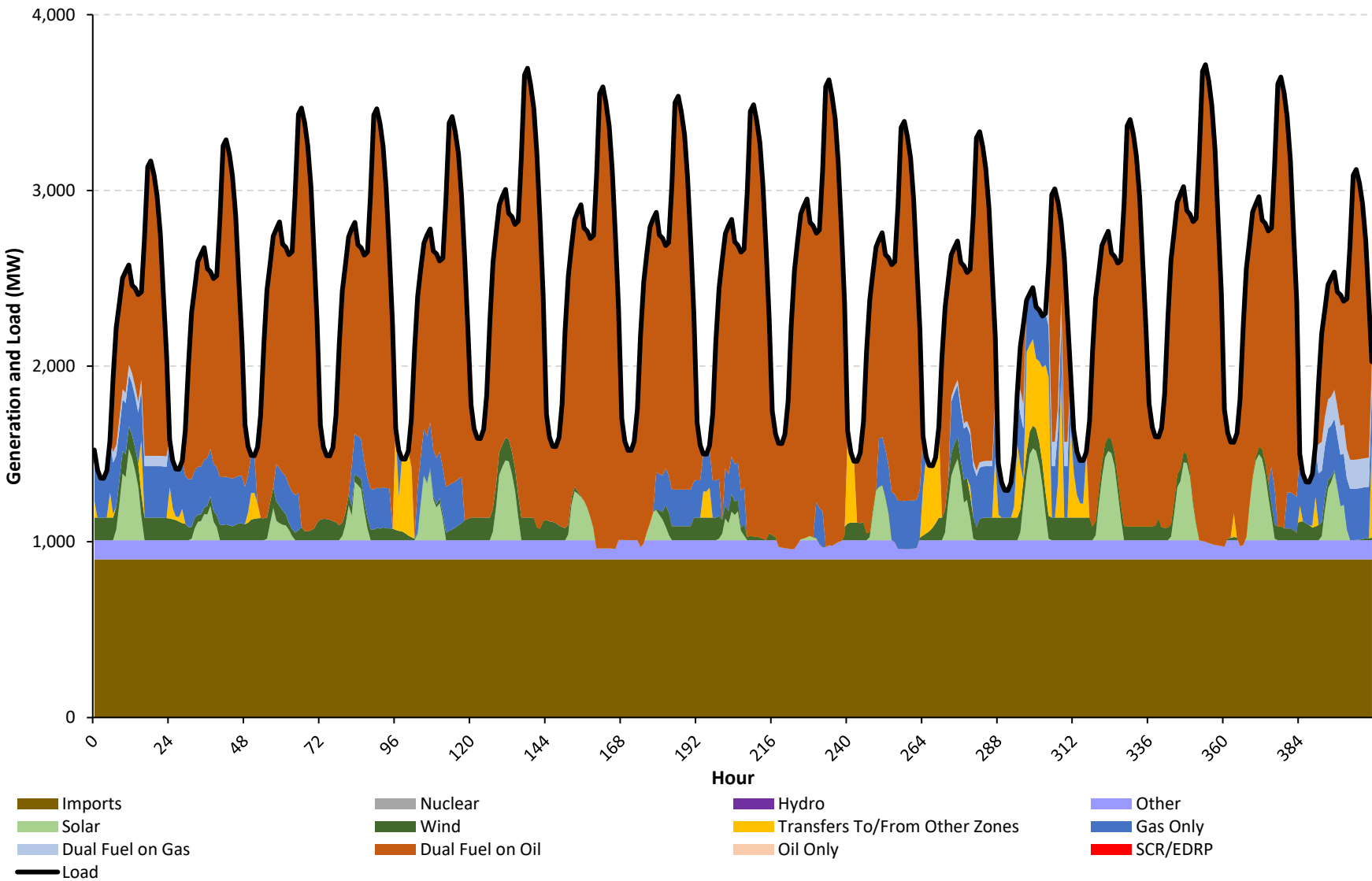
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	Historical
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All



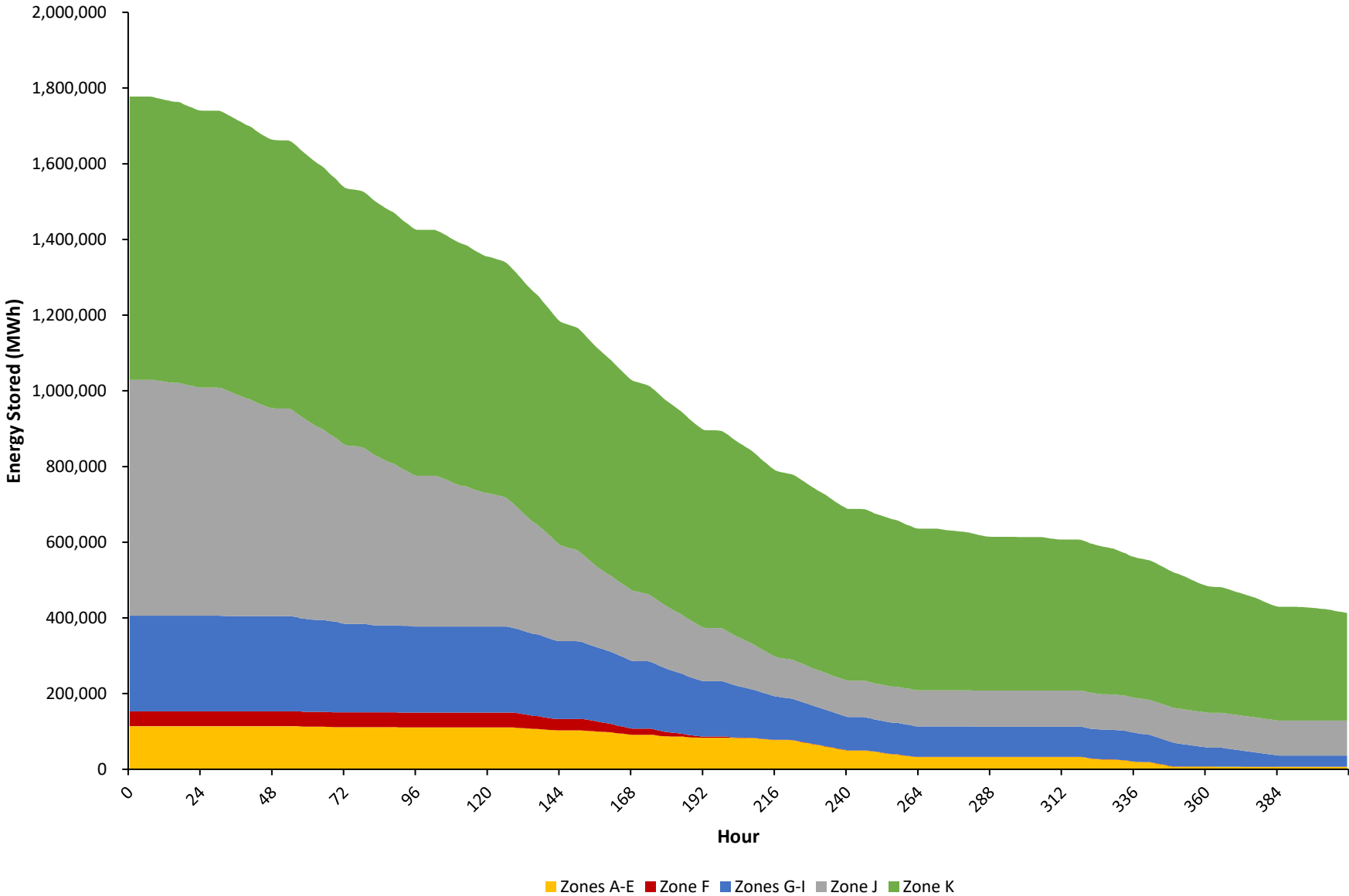




Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 7 No Refill

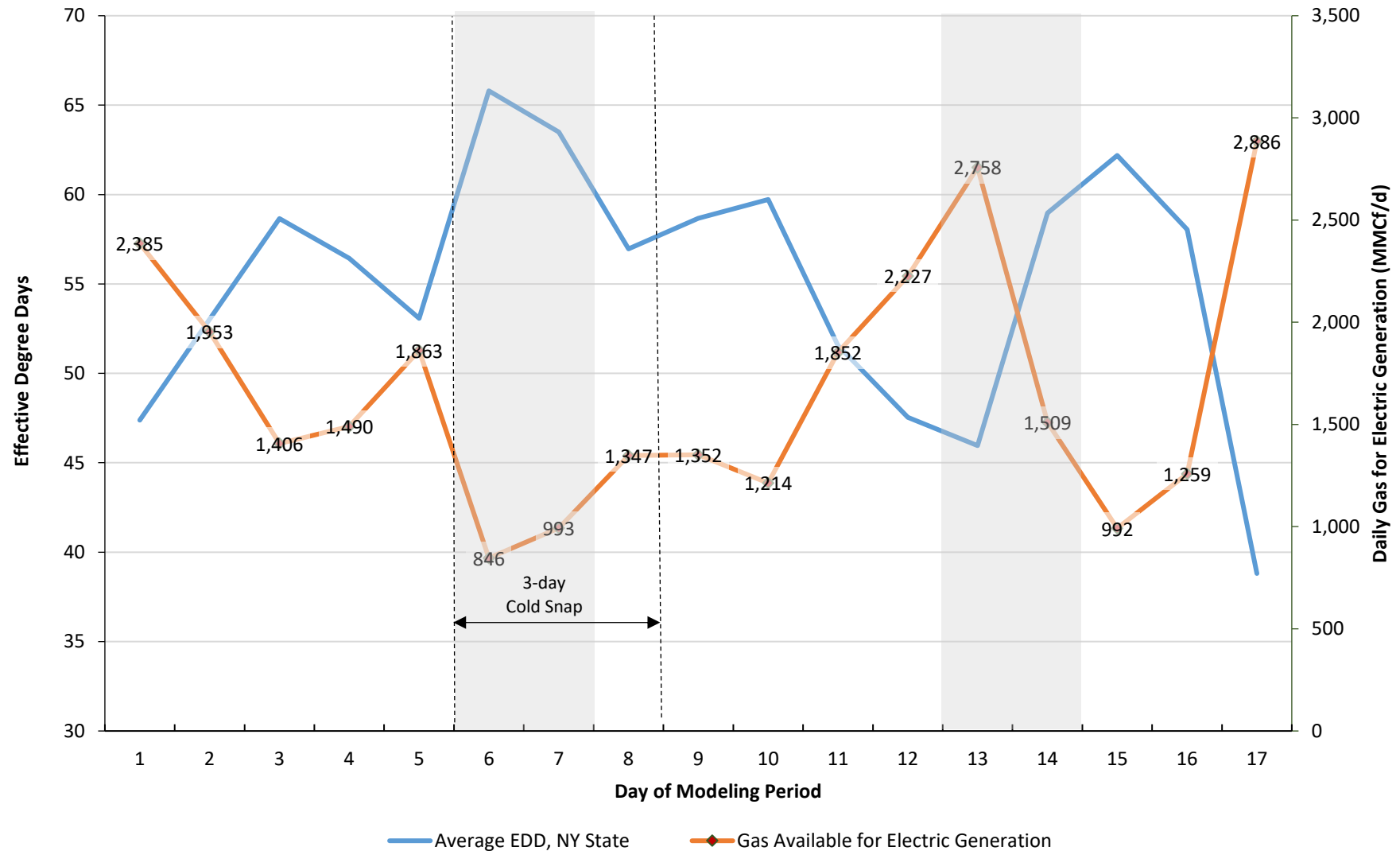


NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 1 - PD 7 No Refill



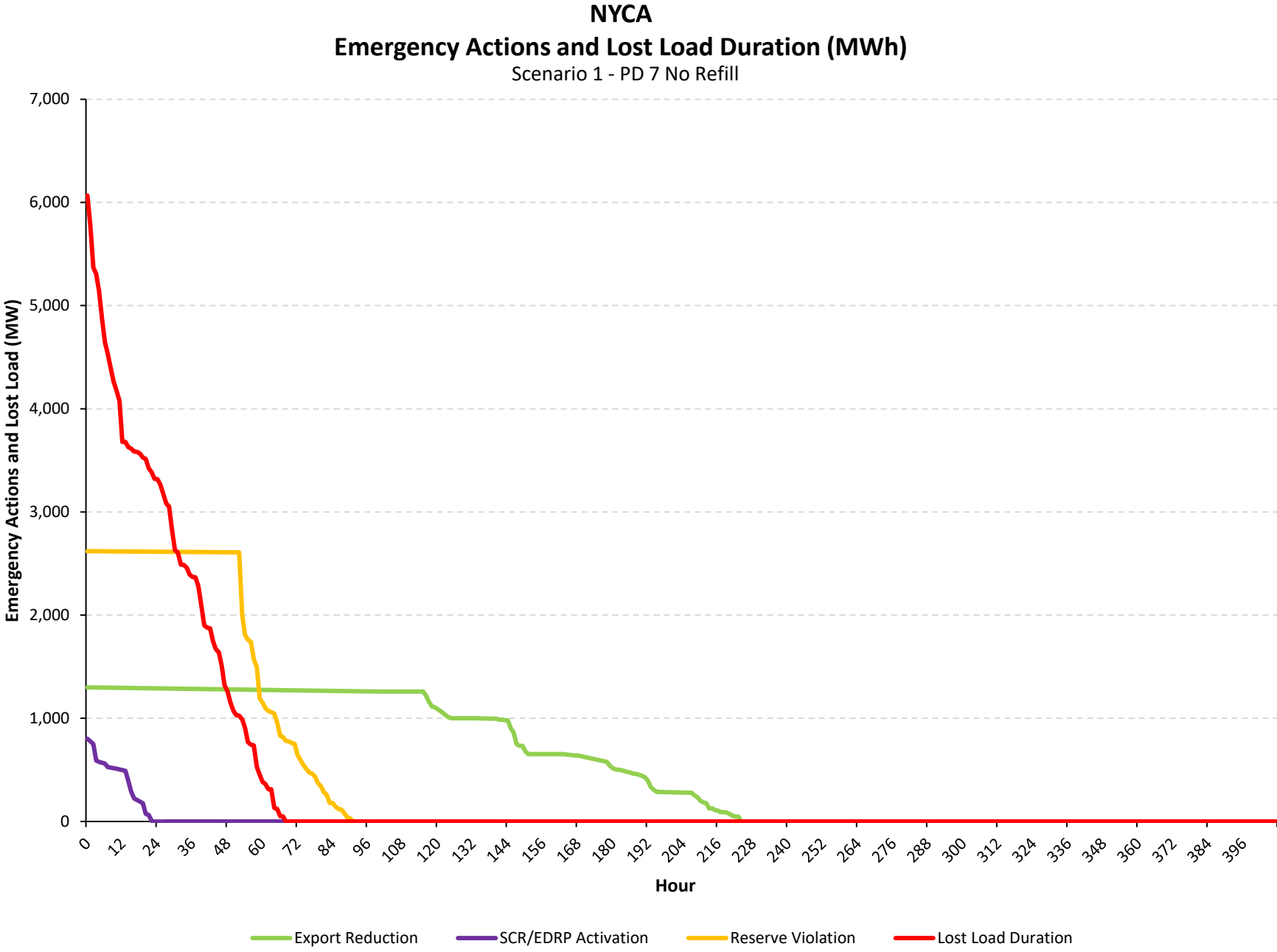
NYCA **Degree Days and Gas Available for Electric Generation 17-Day Modeling Period**

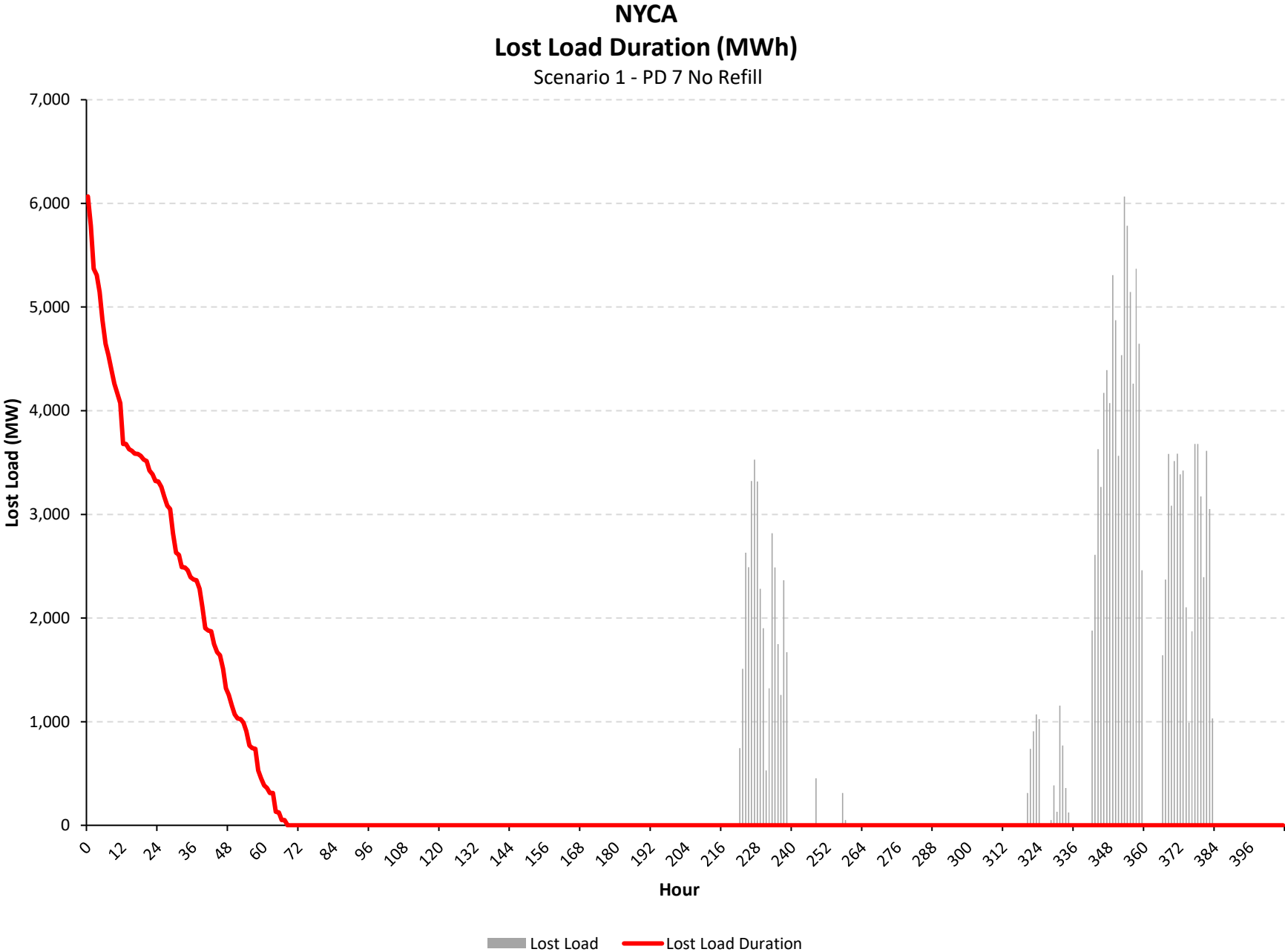
Scenario 1 - PD 7 No Refill



Notes:

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



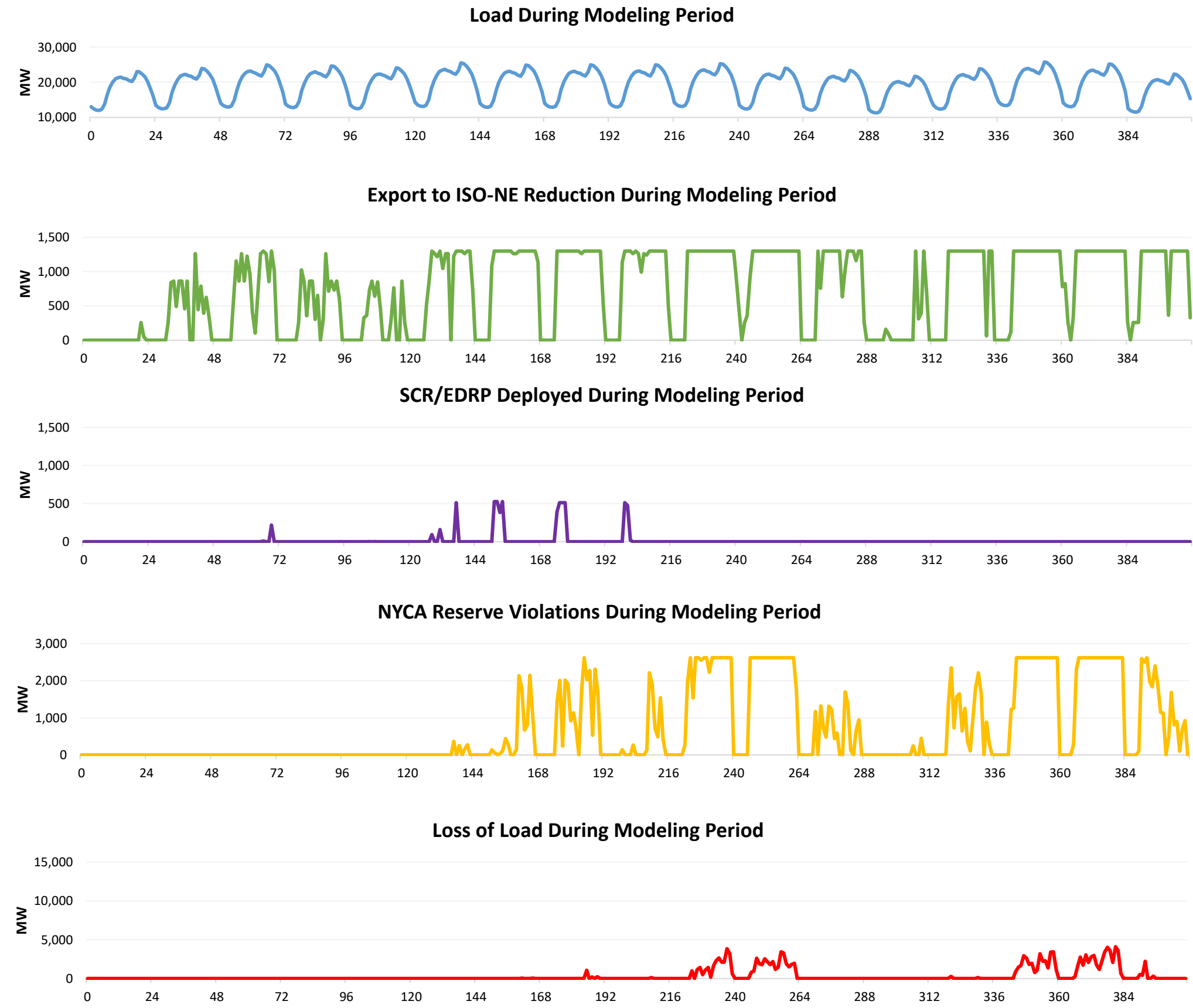


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 8 Non-Firm Gas Unavailable (F-K) (Winter 2023/2024)

Hourly Results Summary

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



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

Export Reductions	
Total Hrs.	277
Total MWh	298,686
Avg. MW	732.1

SCR Deployment	
Total Hrs.	16
Total MWh	5,888
Avg. MW	14.4

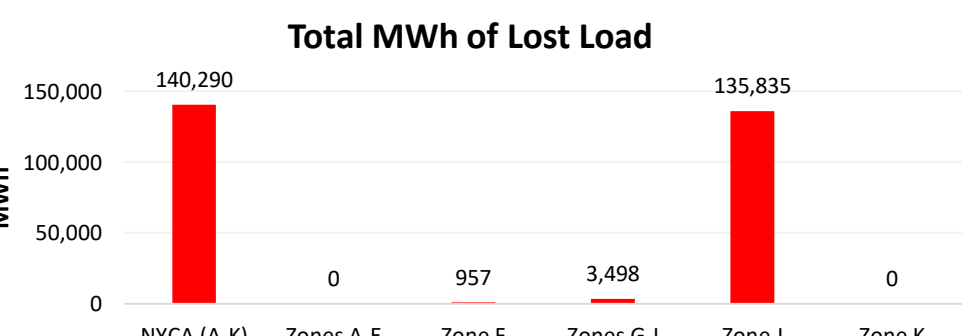
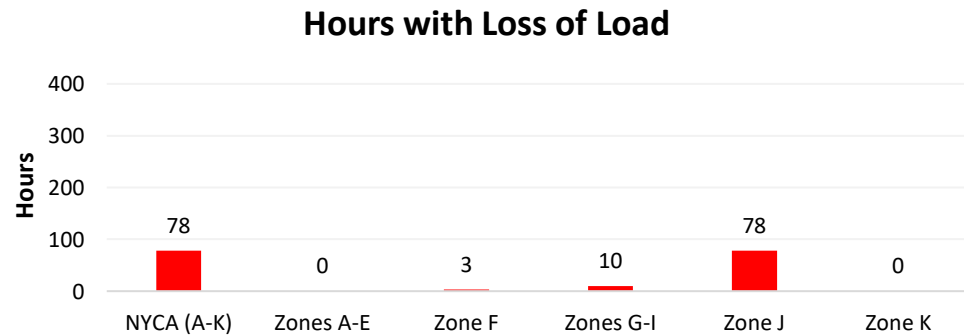
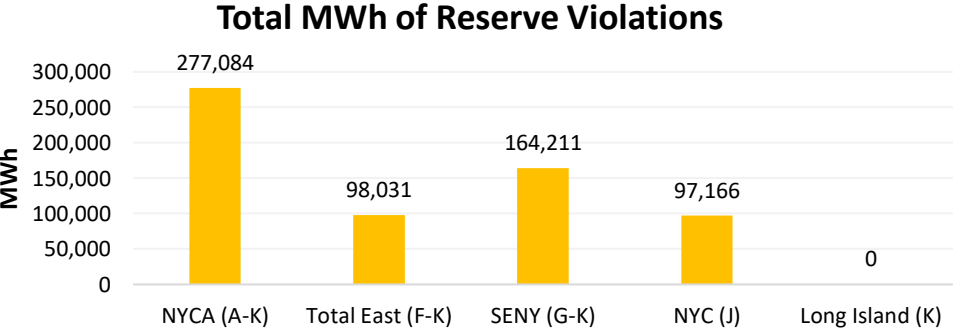
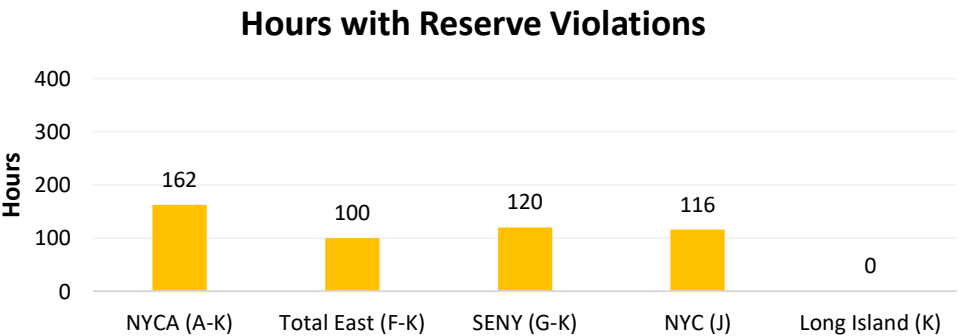
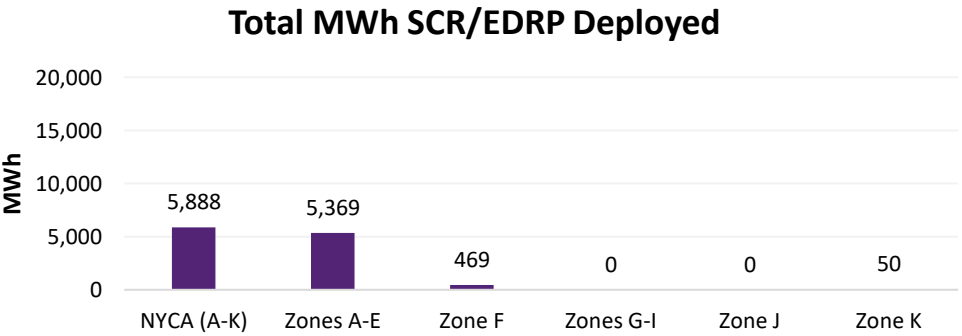
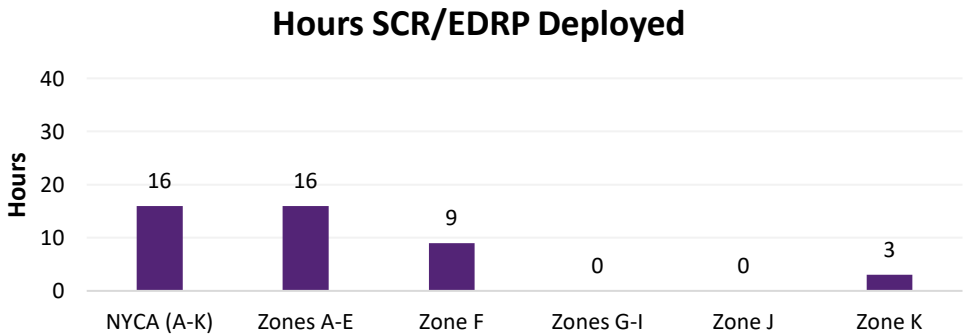
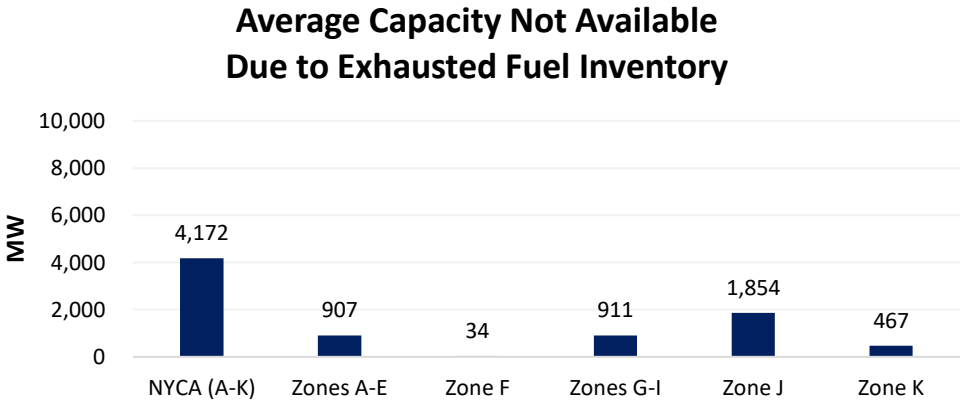
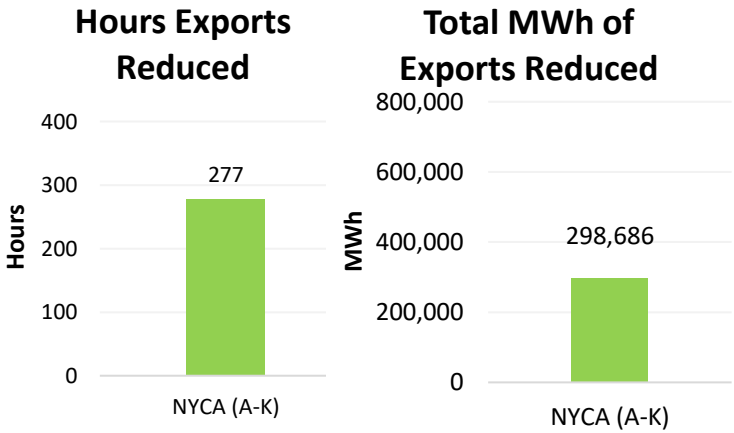
Reserve Violations	
Total Hrs.	162
Total MWh	277,084
Avg. MW	679.1
First Hour with Viol.	137

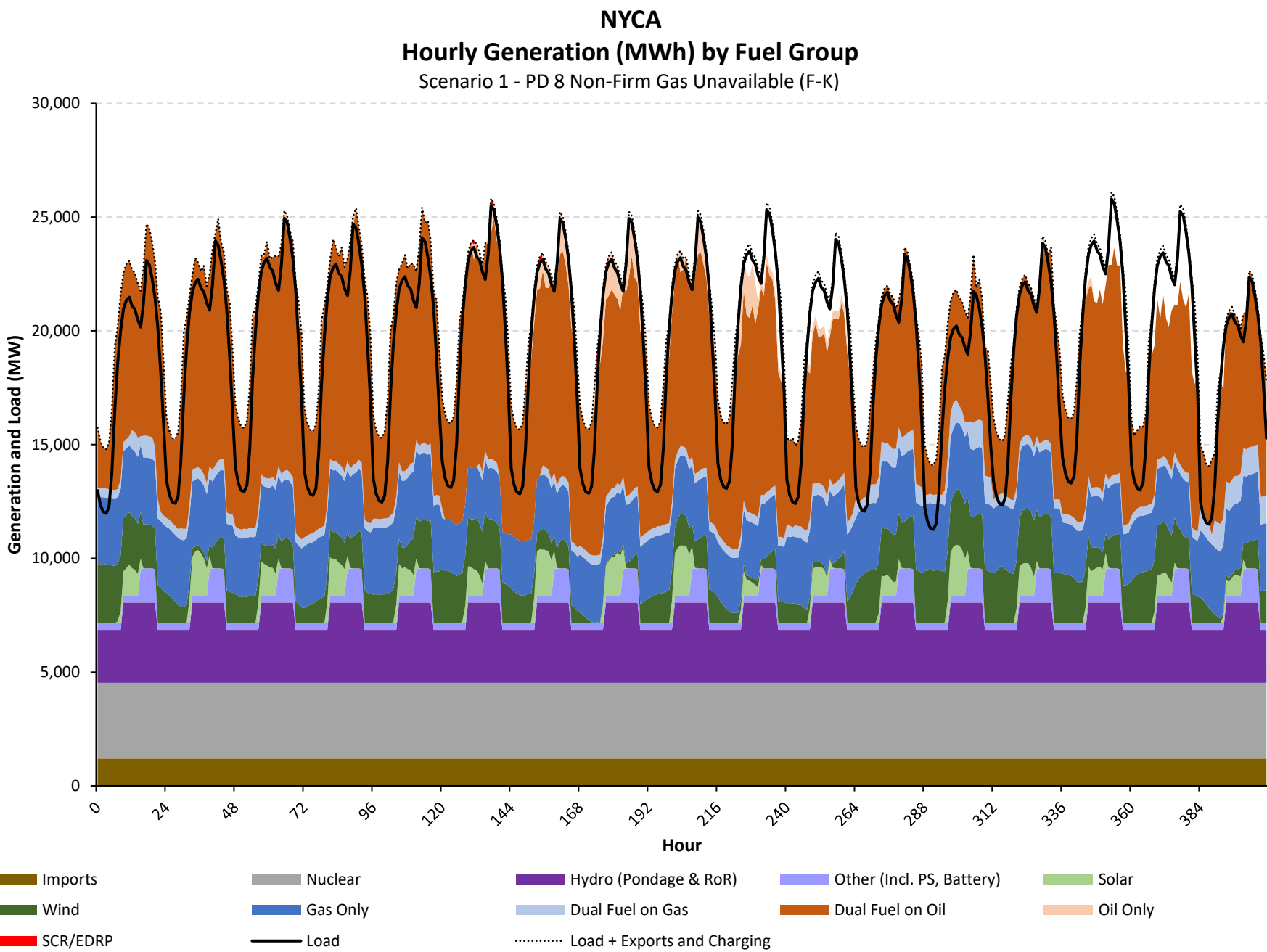
Loss of Load	
Total Hrs.	78
Total MWh	140,290
Avg. MW	343.8
First Hour with Losses	161

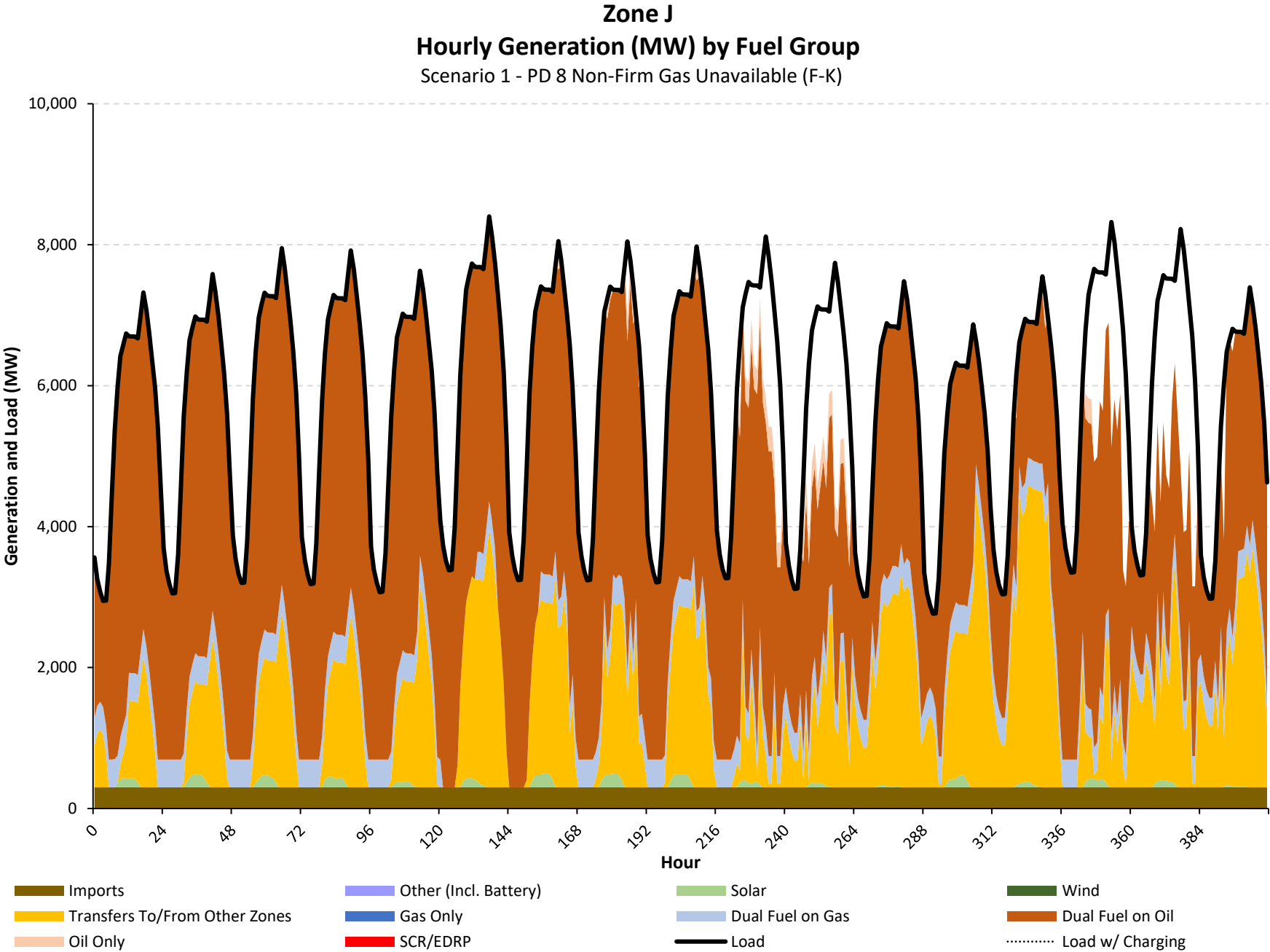
Full Period Results Summary

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

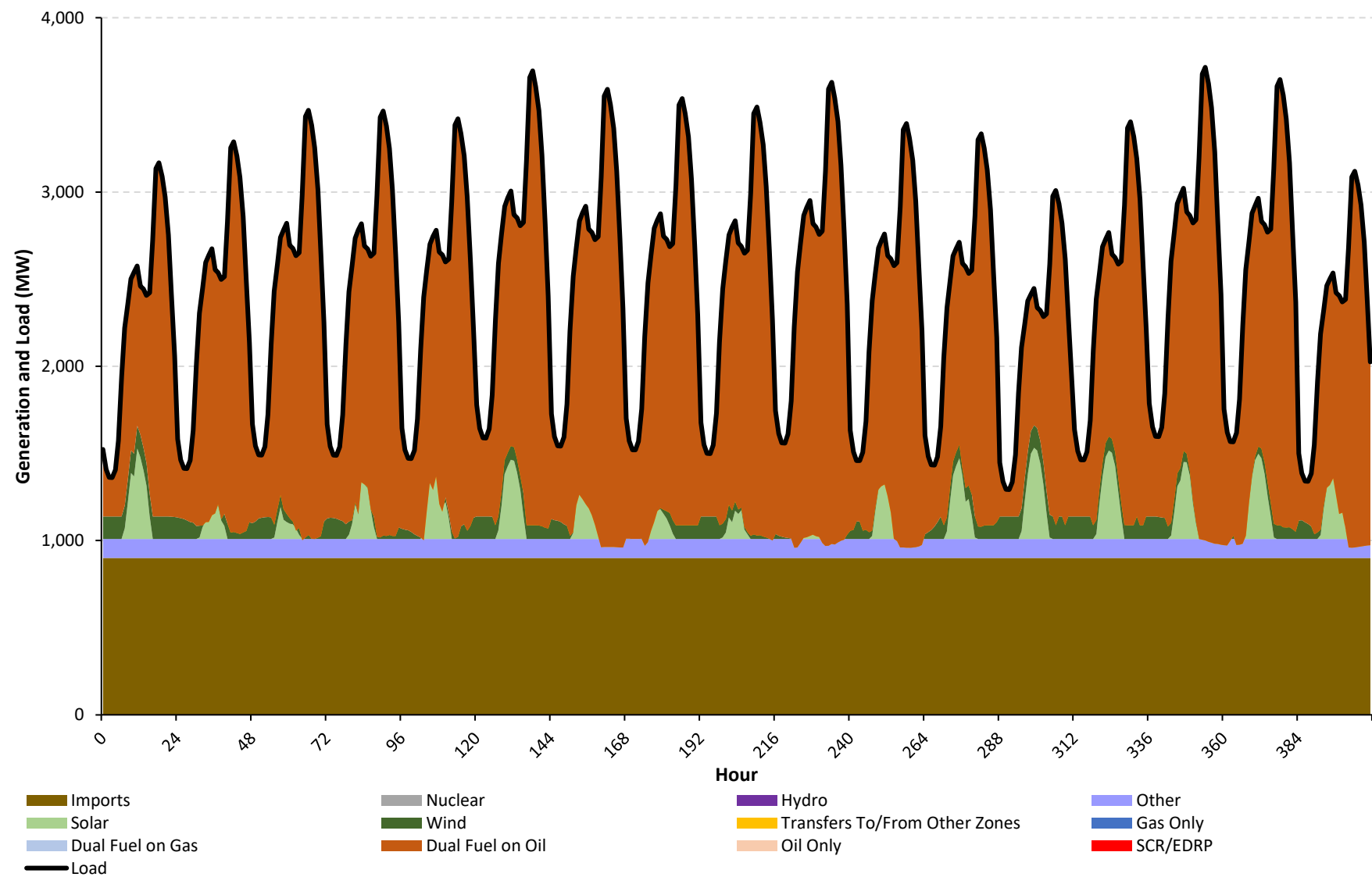
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	Historical
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

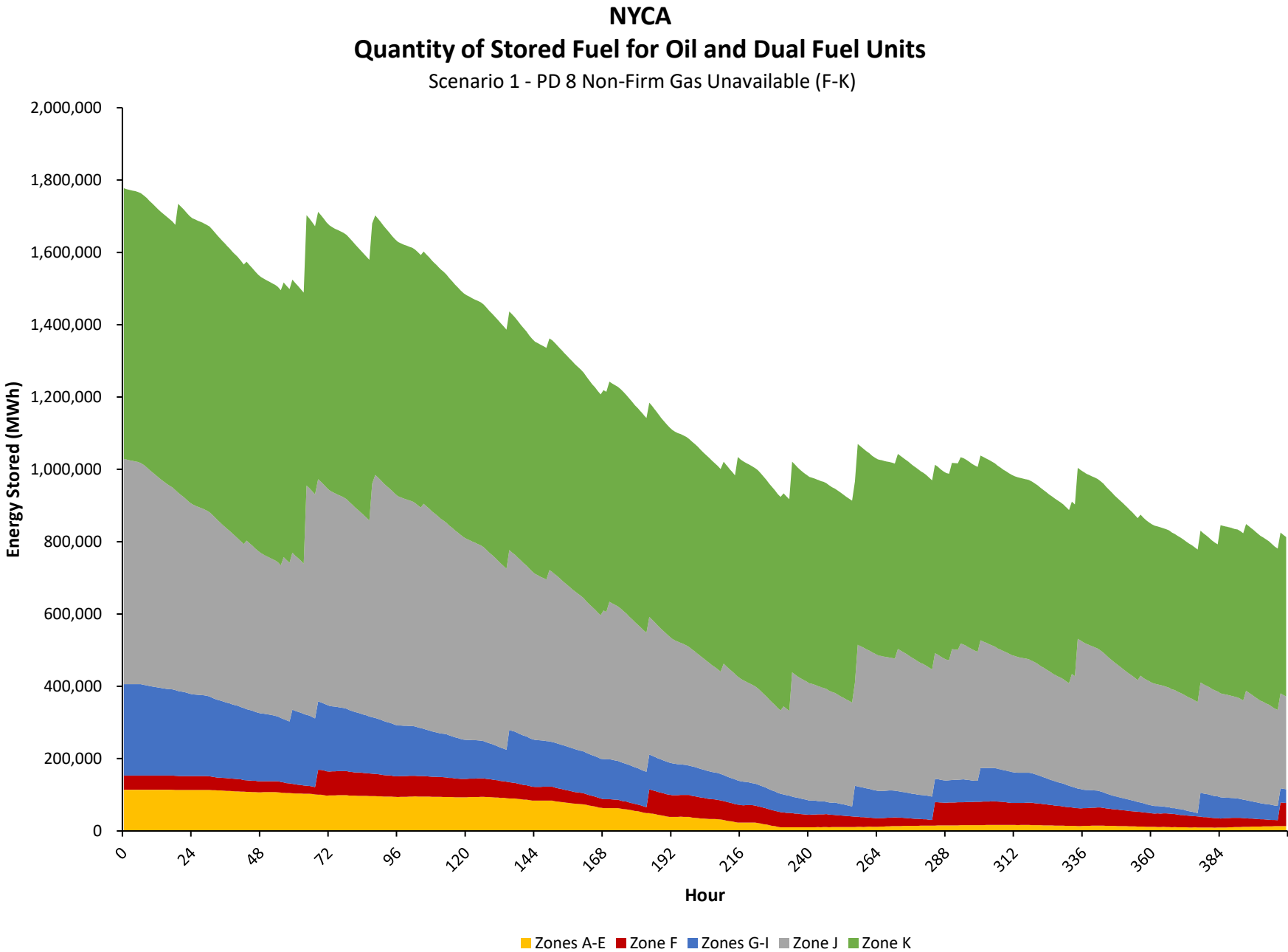


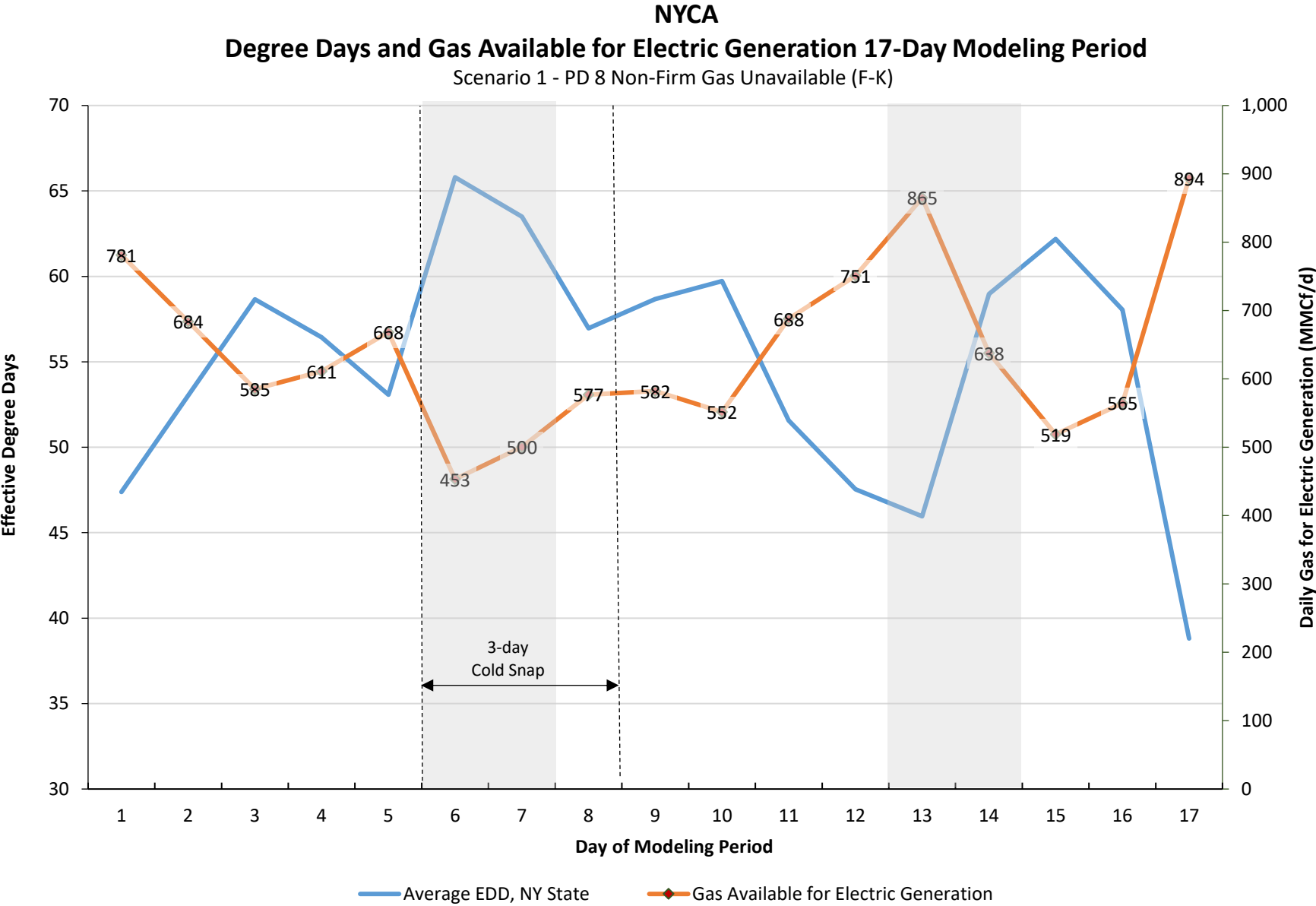




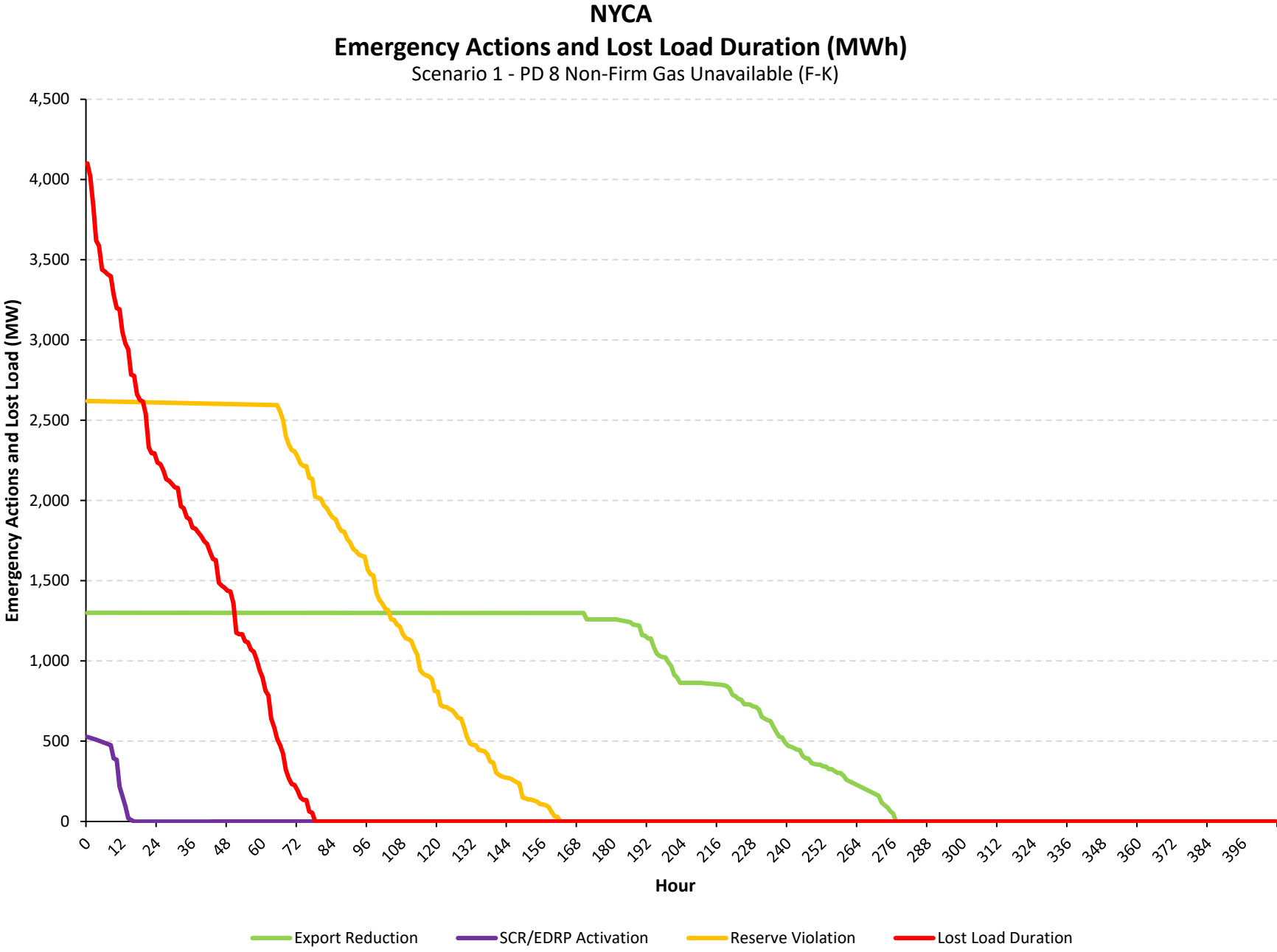
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 8 Non-Firm Gas Unavailable (F-K)

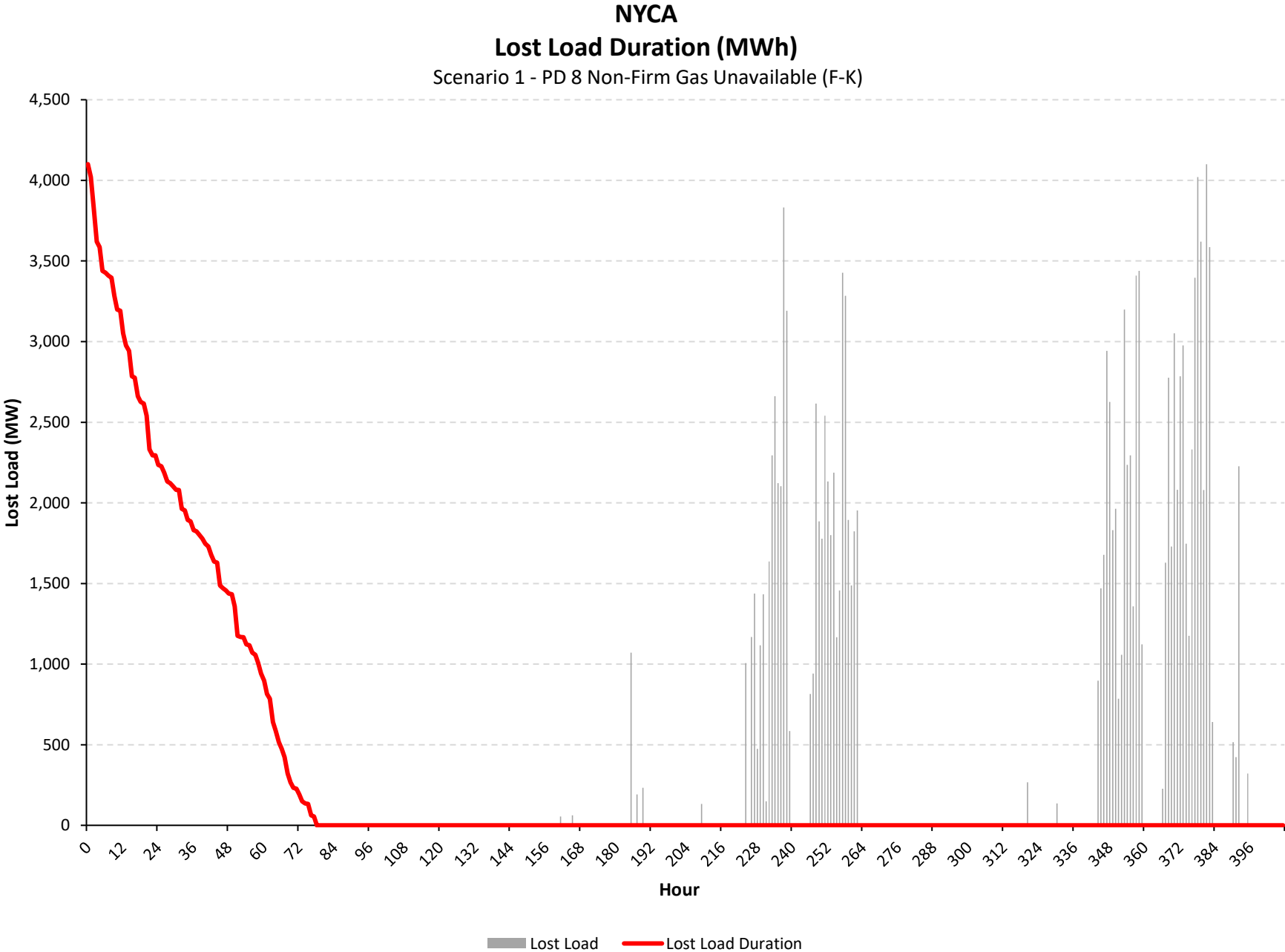






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



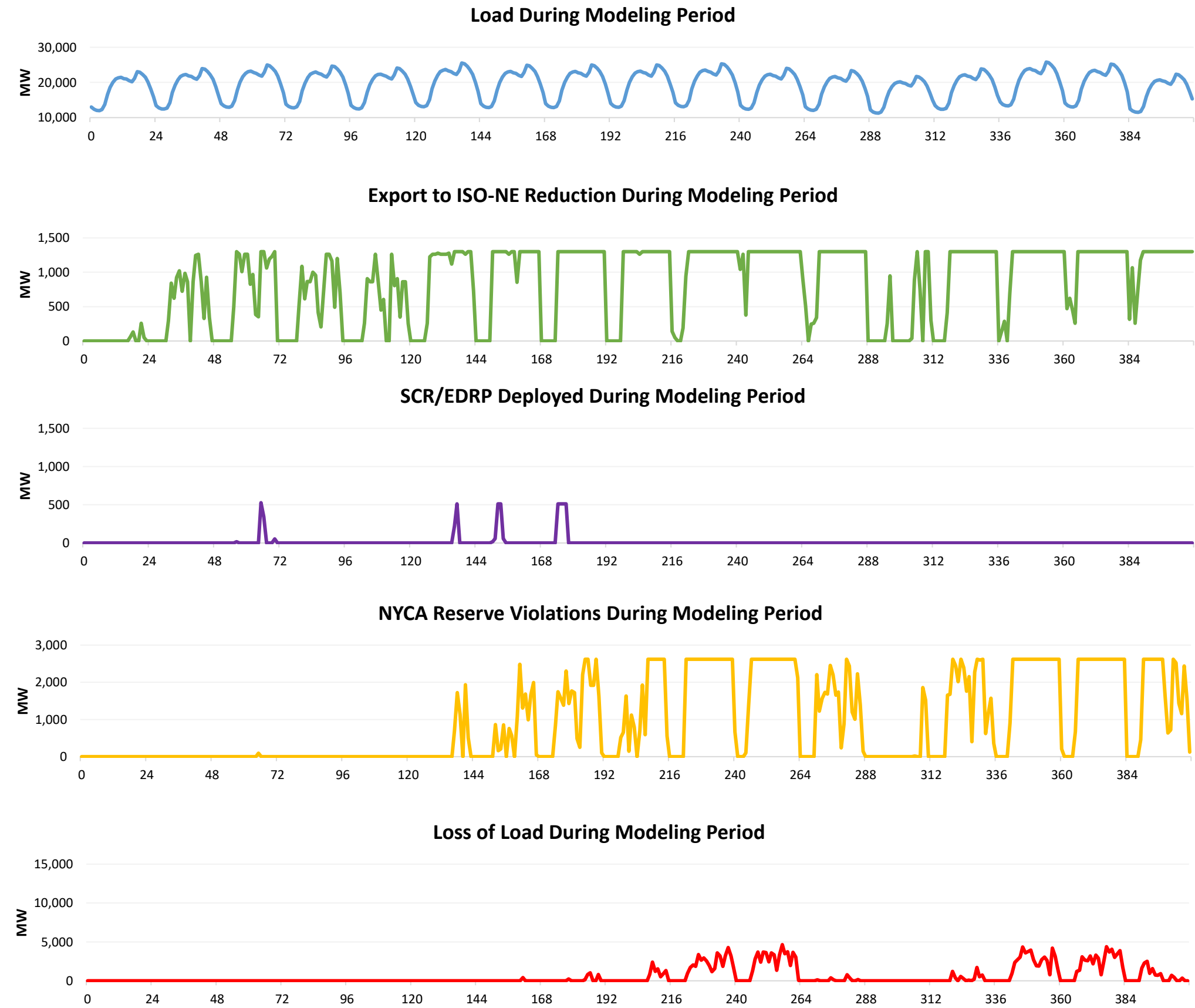


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 9 Non-Firm Gas Unavailable (NYCA) (Winter 2023/2024)

Hourly Results Summary

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



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

Export Reductions	
Total Hrs.	305
Total MWh	337,893
Avg. MW	828.2

SCR Deployment	
Total Hrs.	15
Total MWh	4,862
Avg. MW	11.9

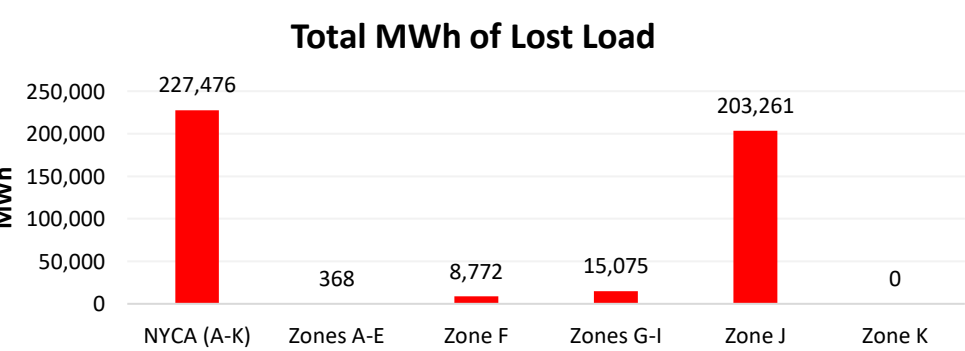
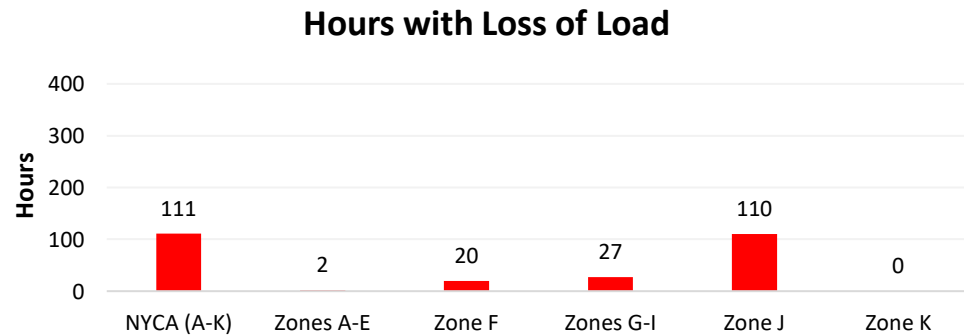
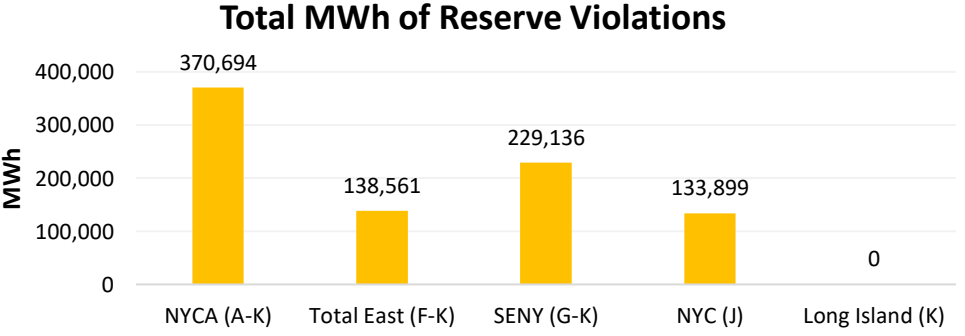
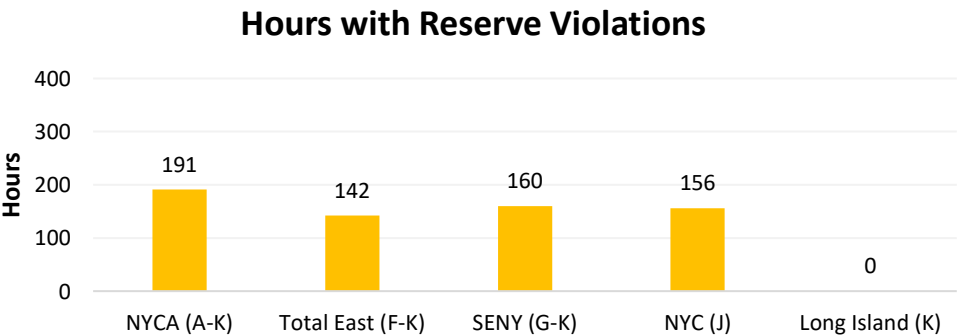
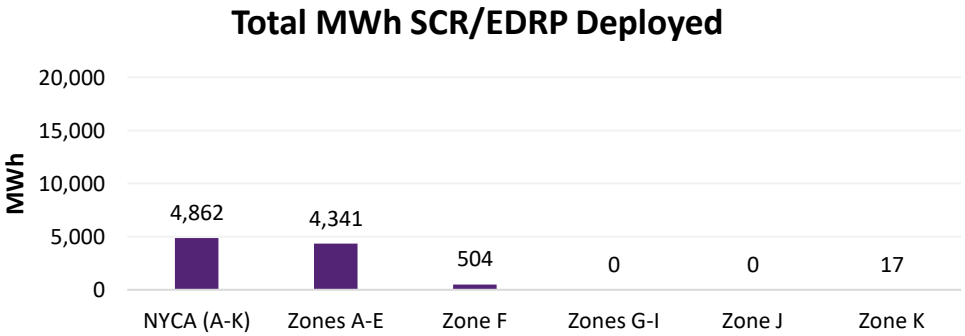
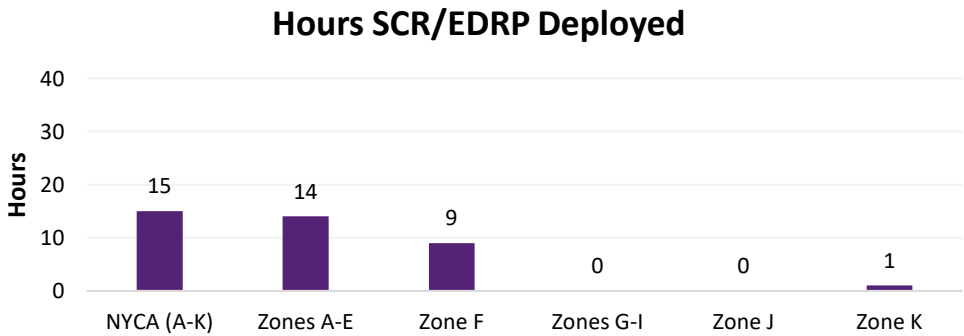
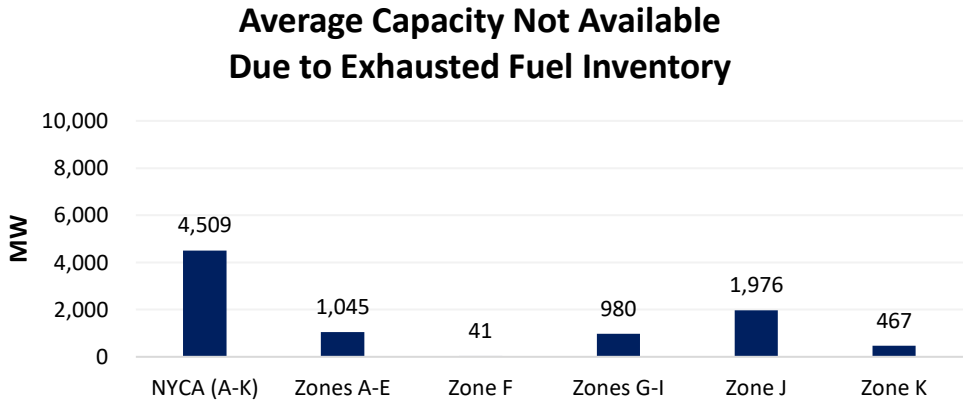
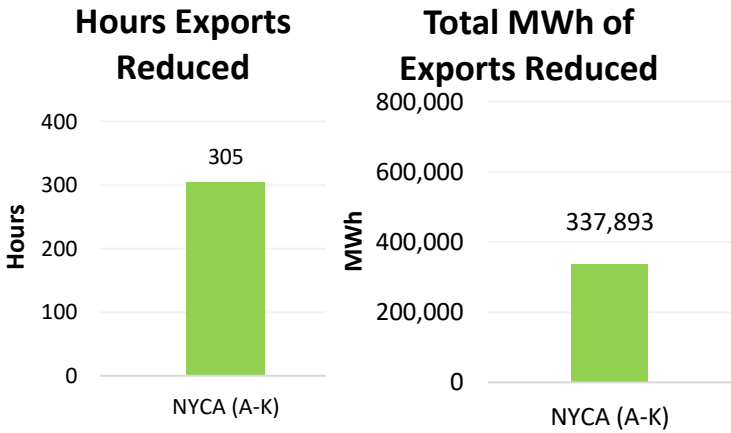
Reserve Violations	
Total Hrs.	191
Total MWh	370,694
Avg. MW	908.6
First Hour with Viol.	65

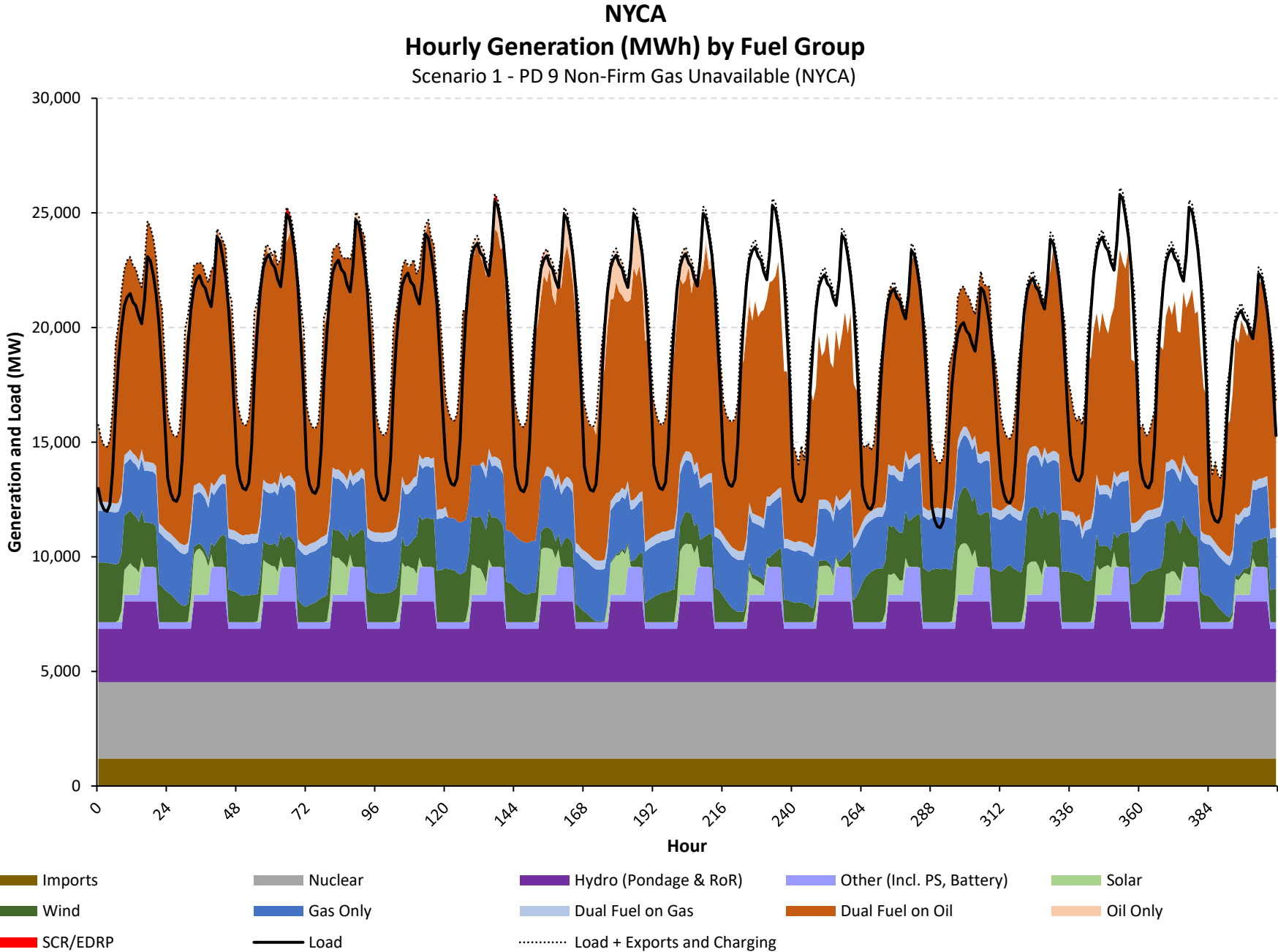
Loss of Load	
Total Hrs.	111
Total MWh	227,476
Avg. MW	557.5
First Hour with Losses	161

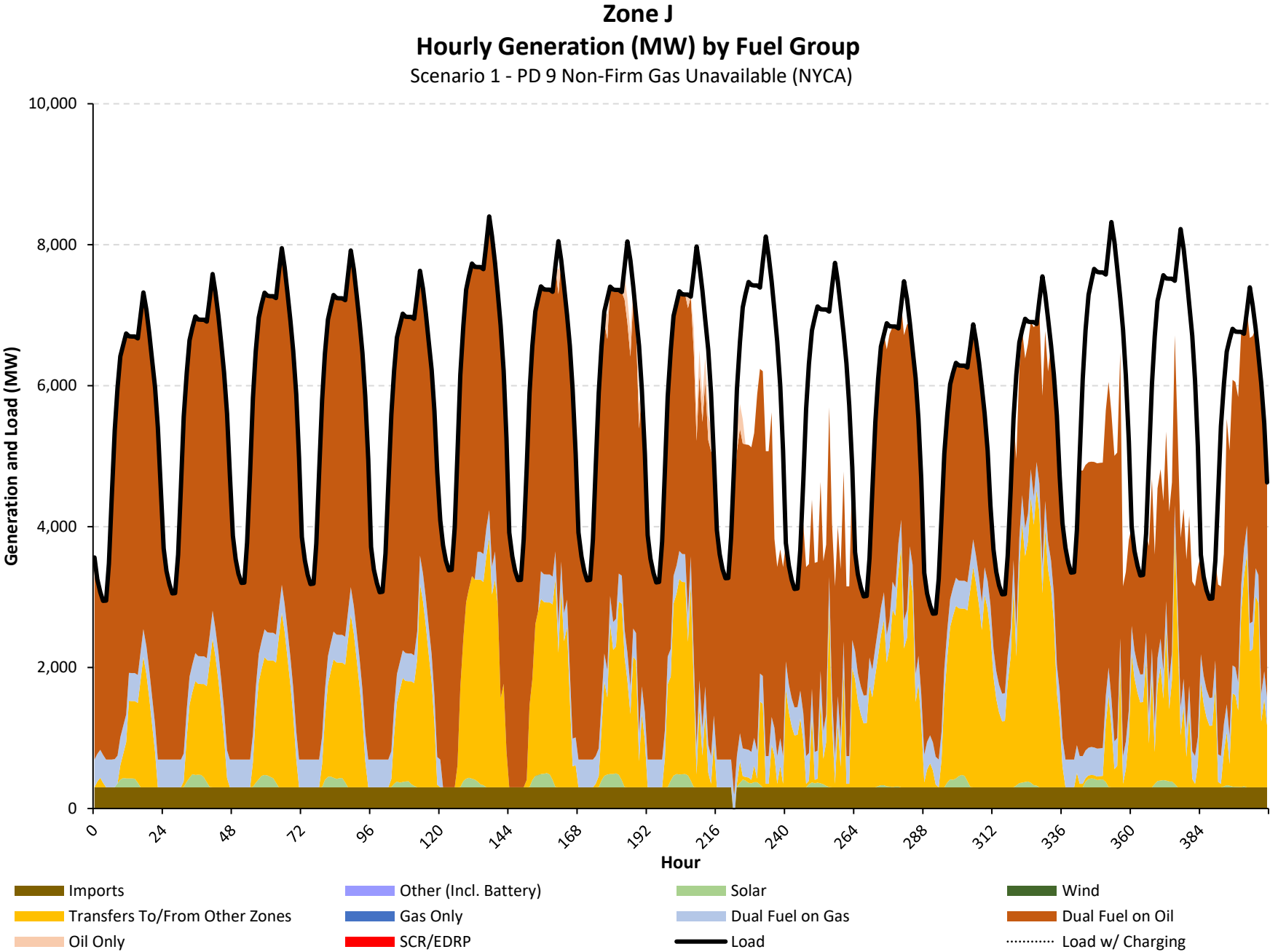
Full Period Results Summary

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

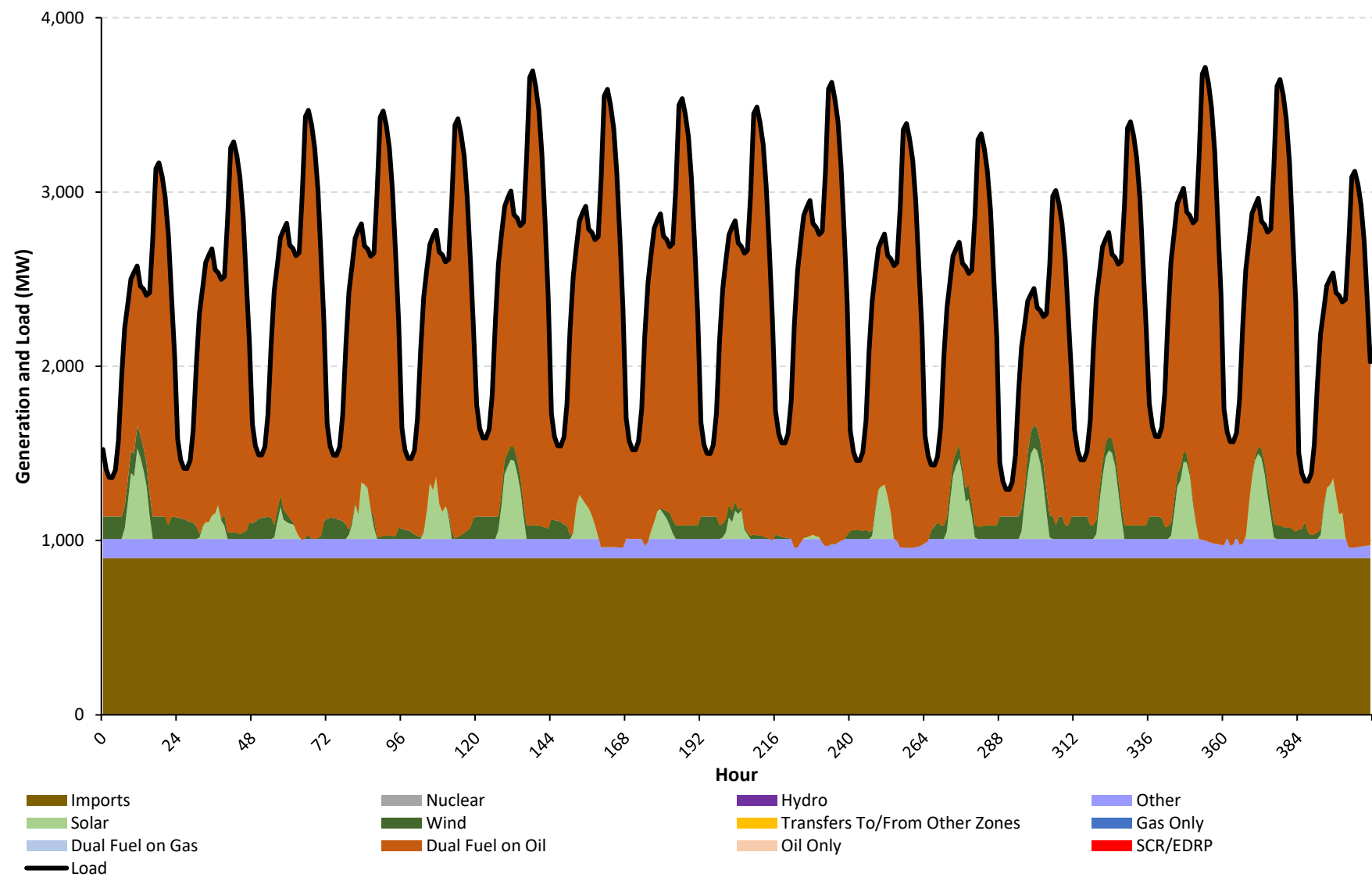
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	Historical
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

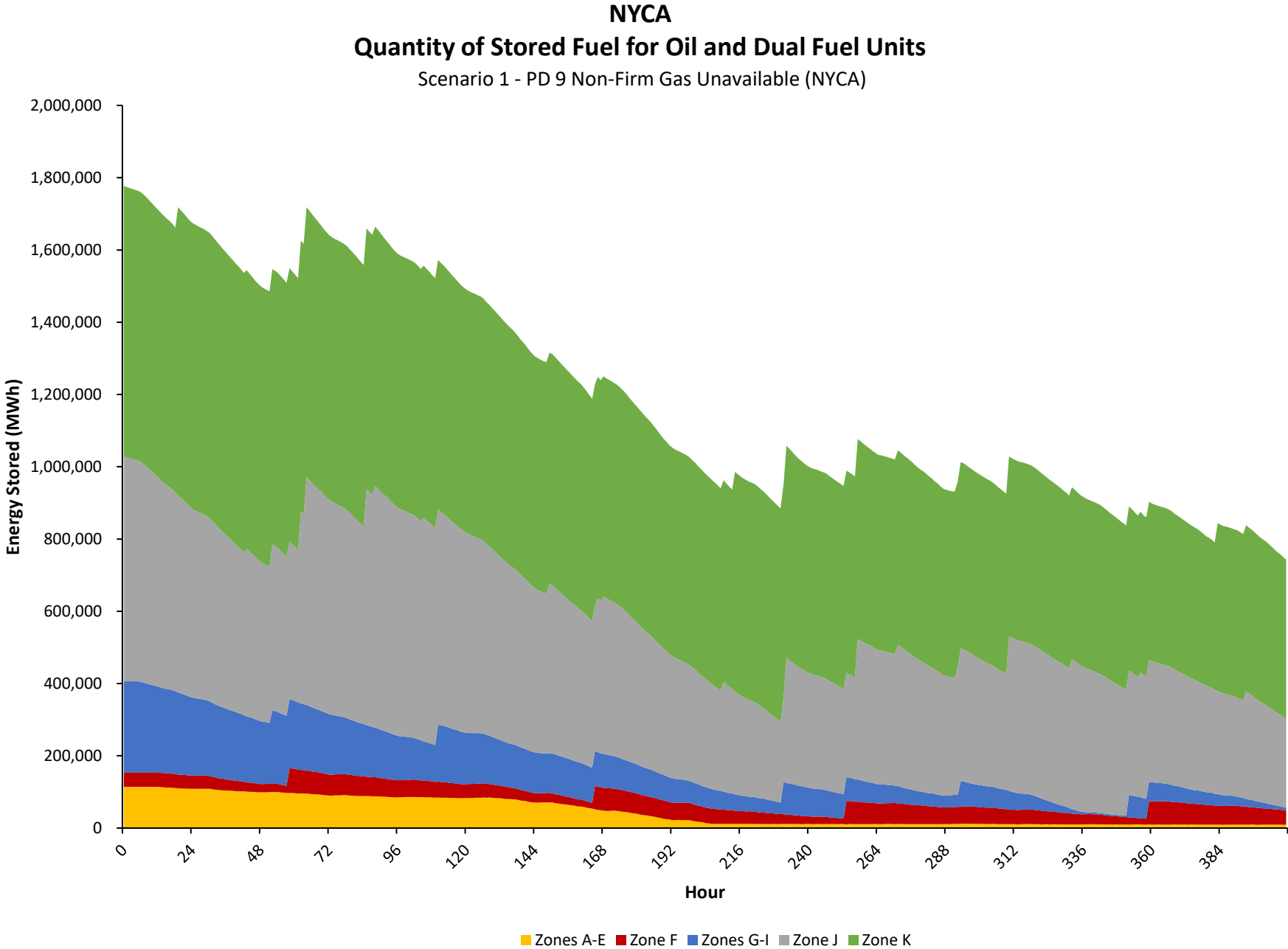


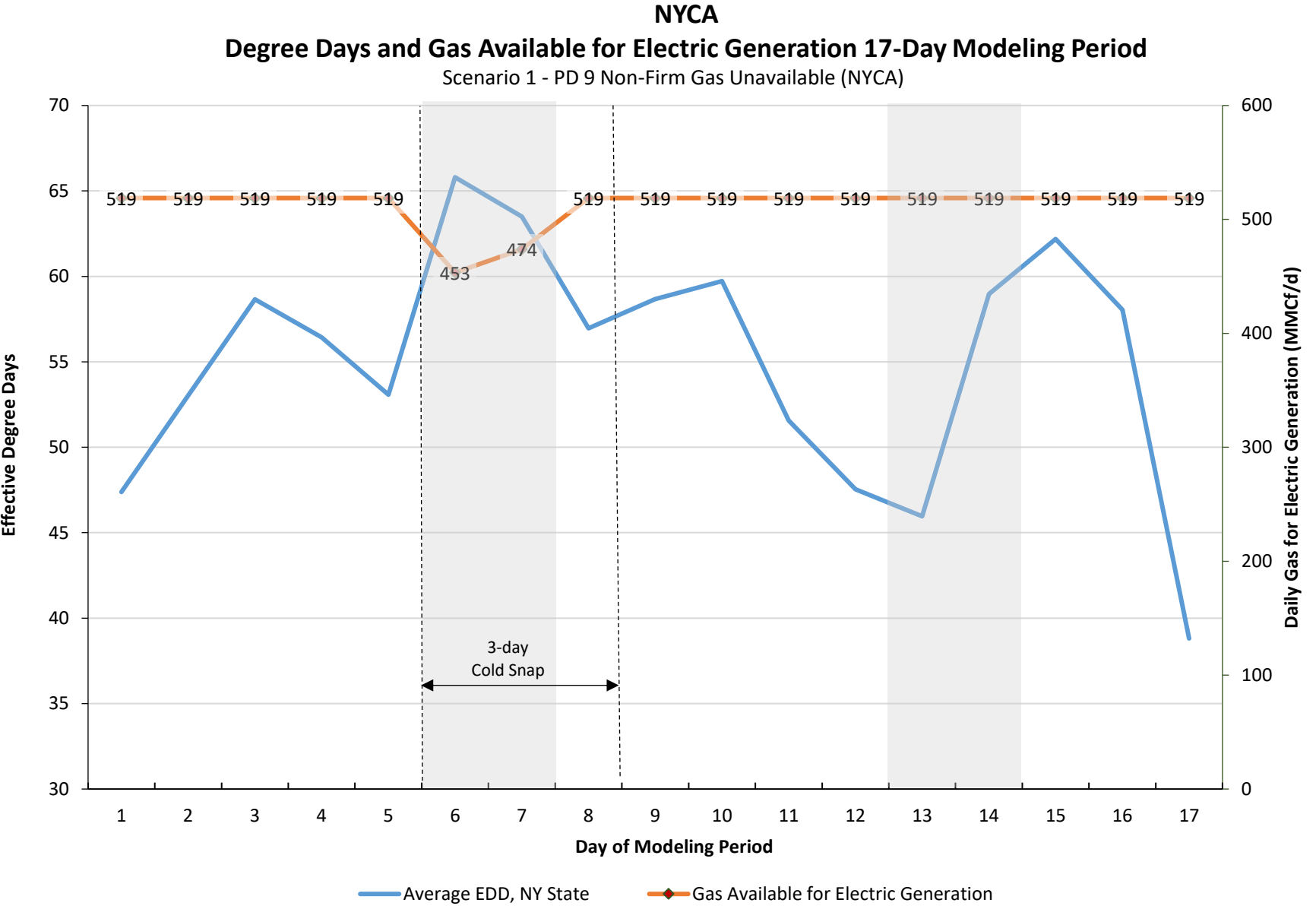




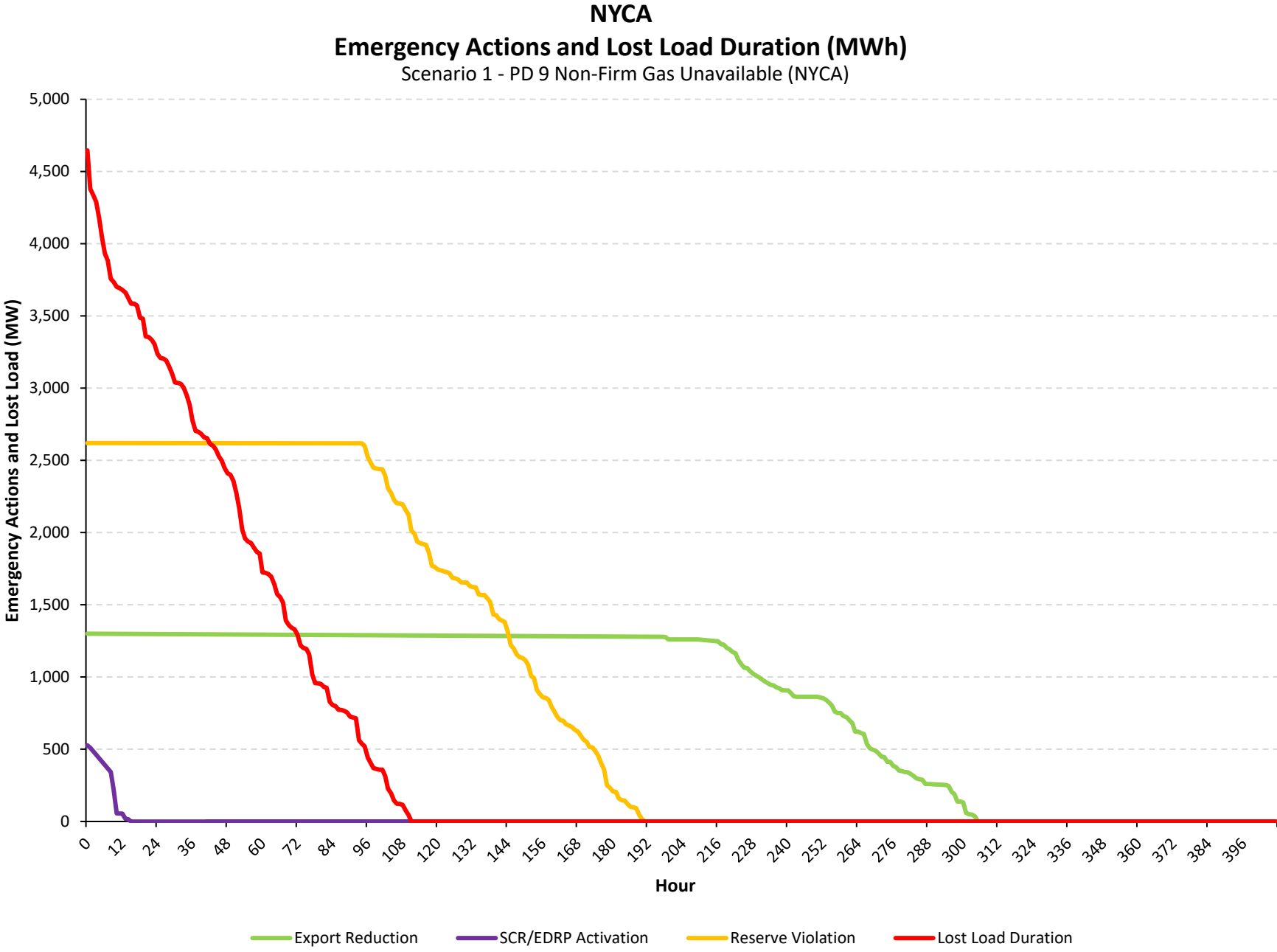
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 9 Non-Firm Gas Unavailable (NYCA)

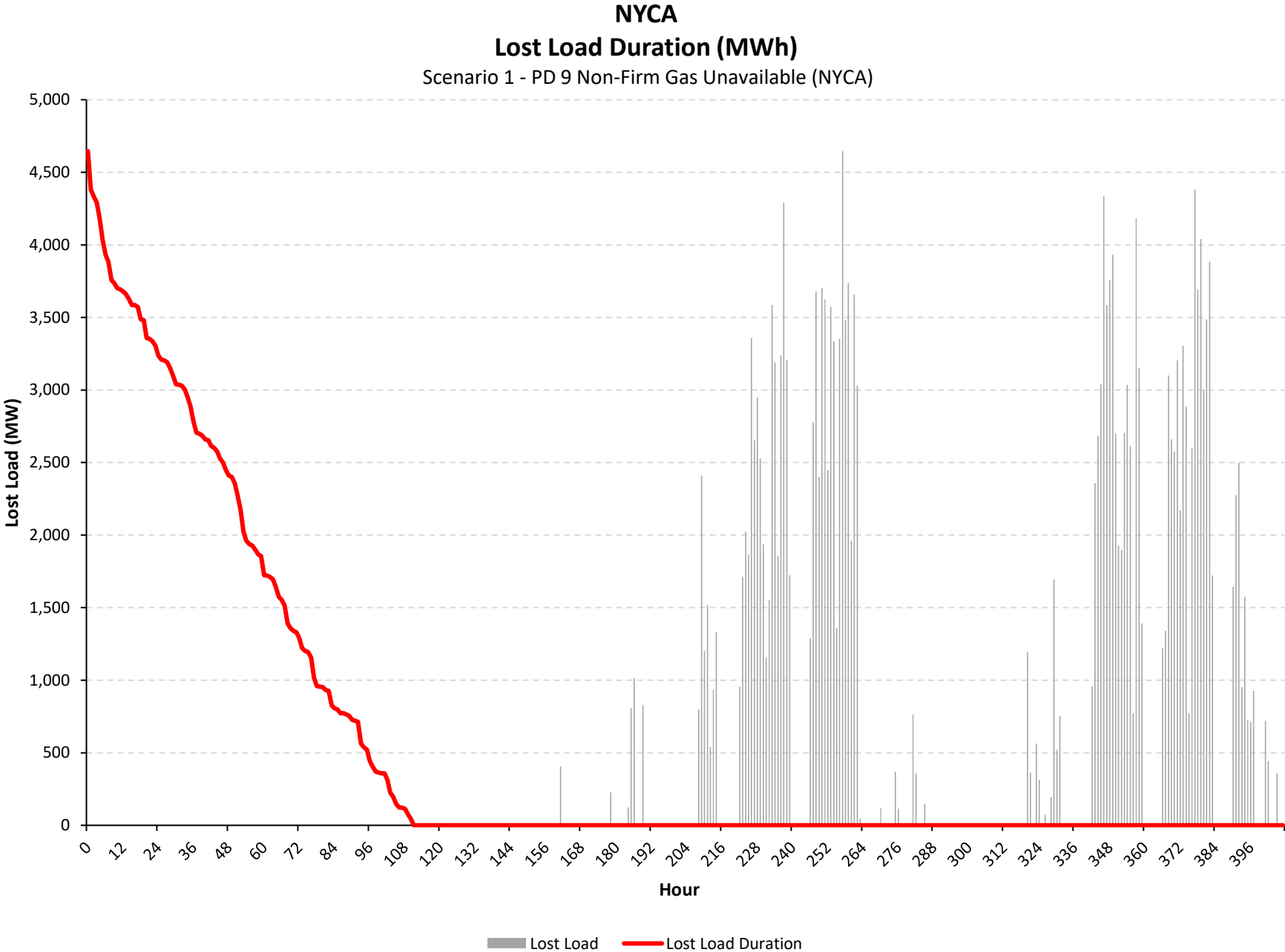






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



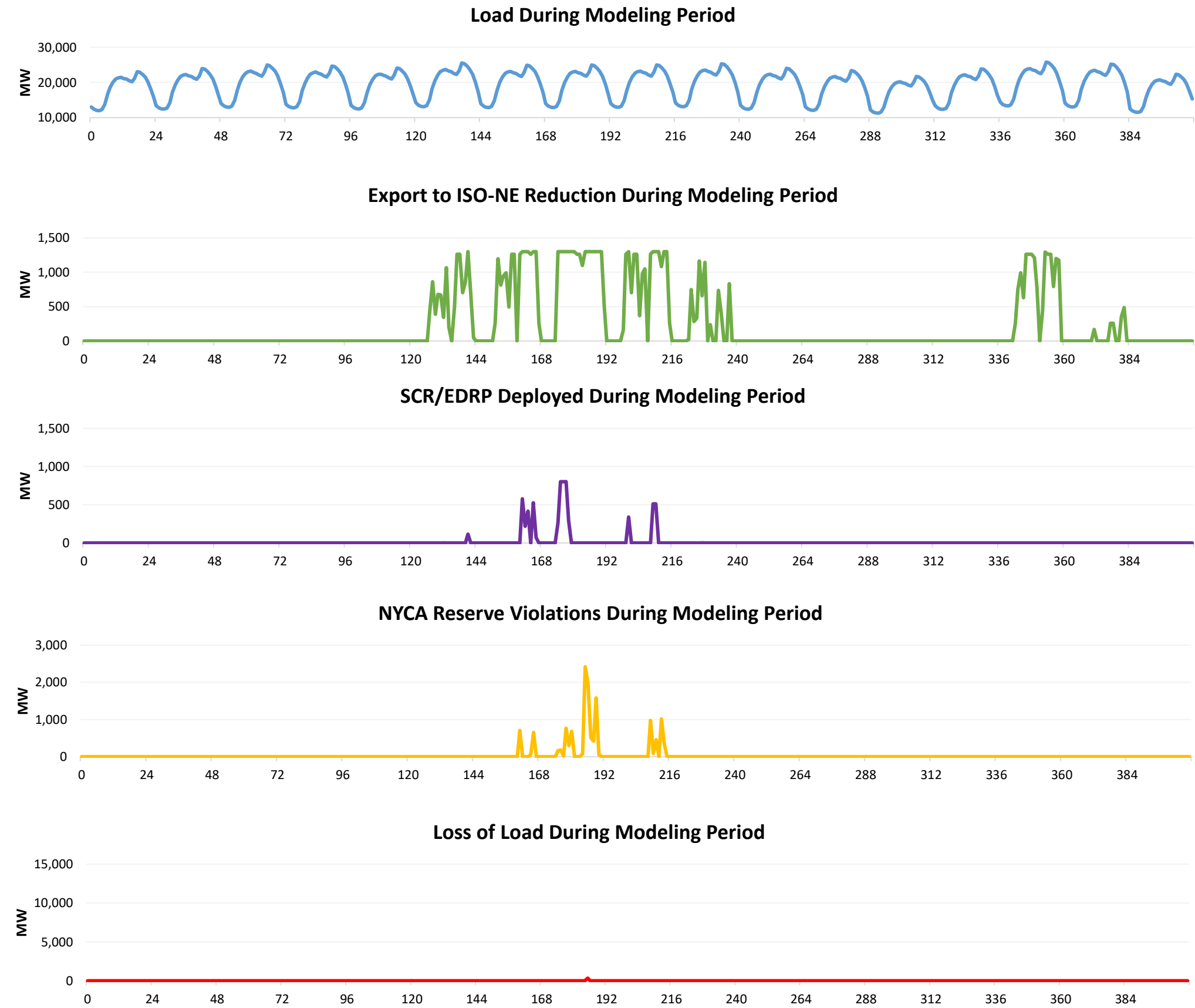


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 10 Non-Firm Gas Unavailable (4 days) (Winter 2023/2024)

Hourly Results Summary

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



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

Export Reductions	
Total Hrs.	99
Total MWh	91,473
Avg. MW	224.2

SCR Deployment	
Total Hrs.	14
Total MWh	6,244
Avg. MW	15.3

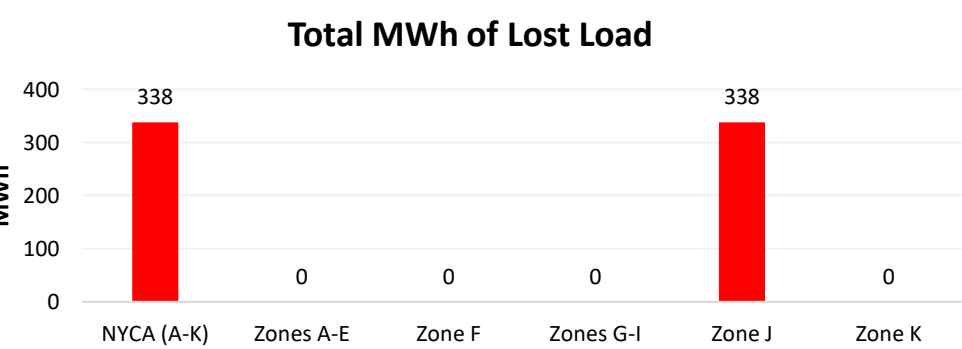
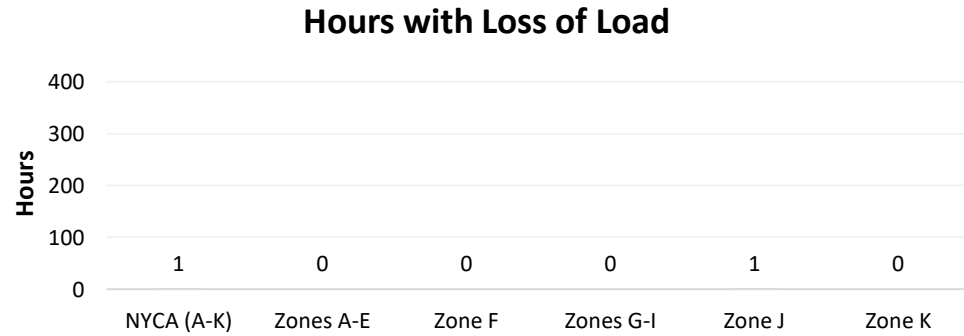
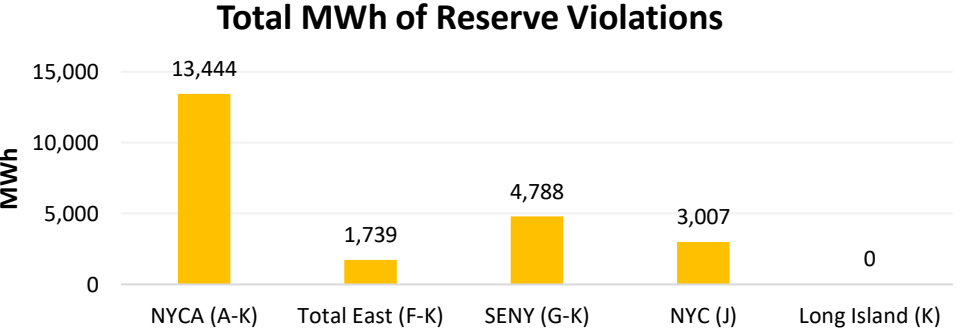
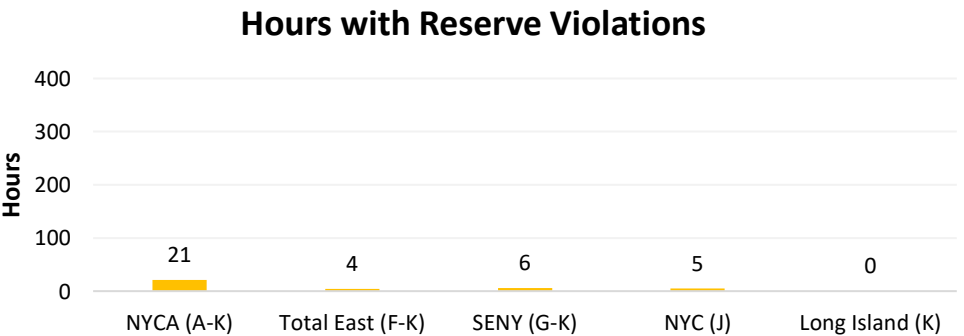
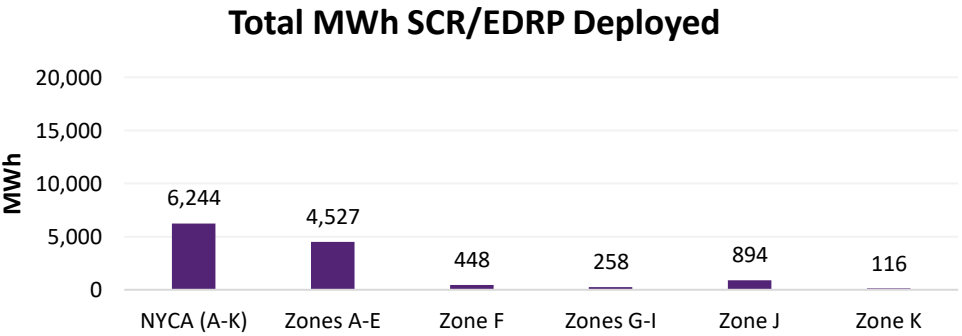
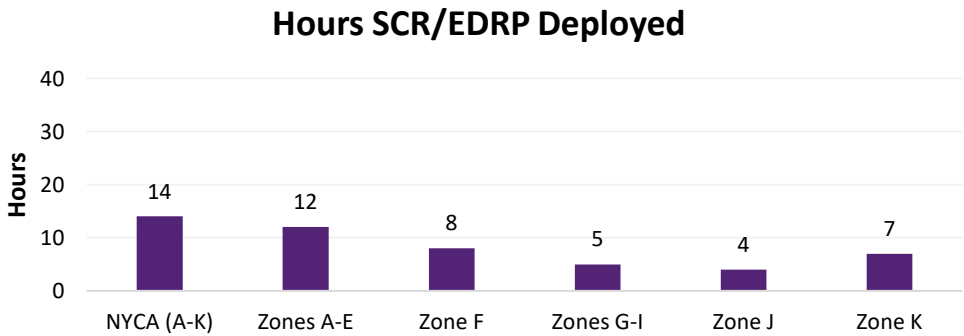
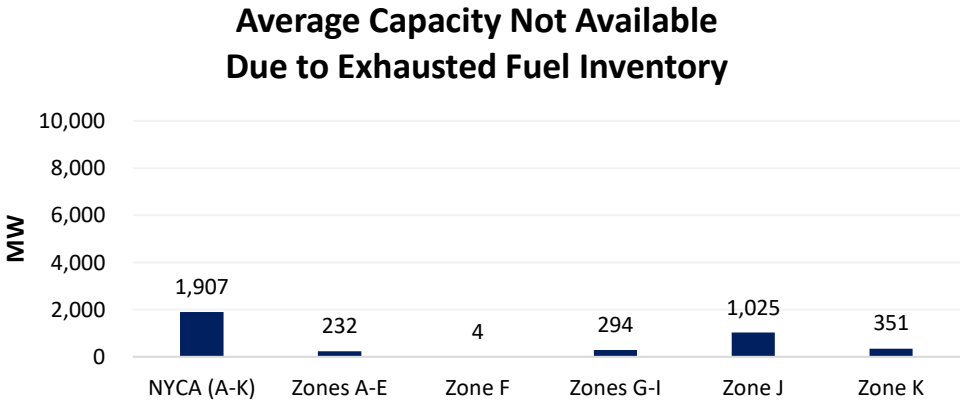
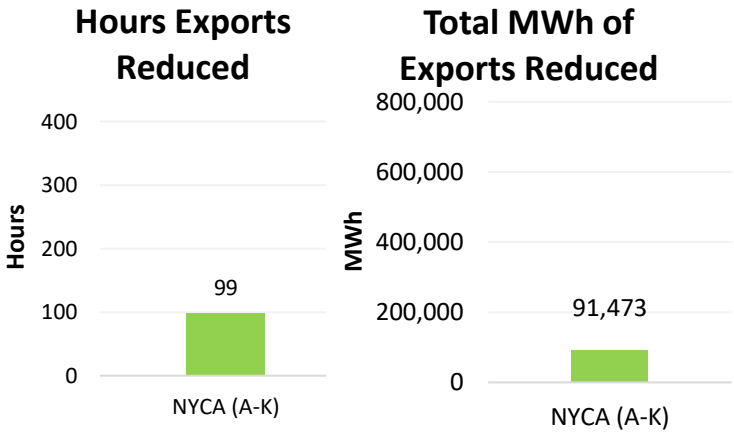
Reserve Violations	
Total Hrs.	21
Total MWh	13,444
Avg. MW	33.0
First Hour with Viol.	161

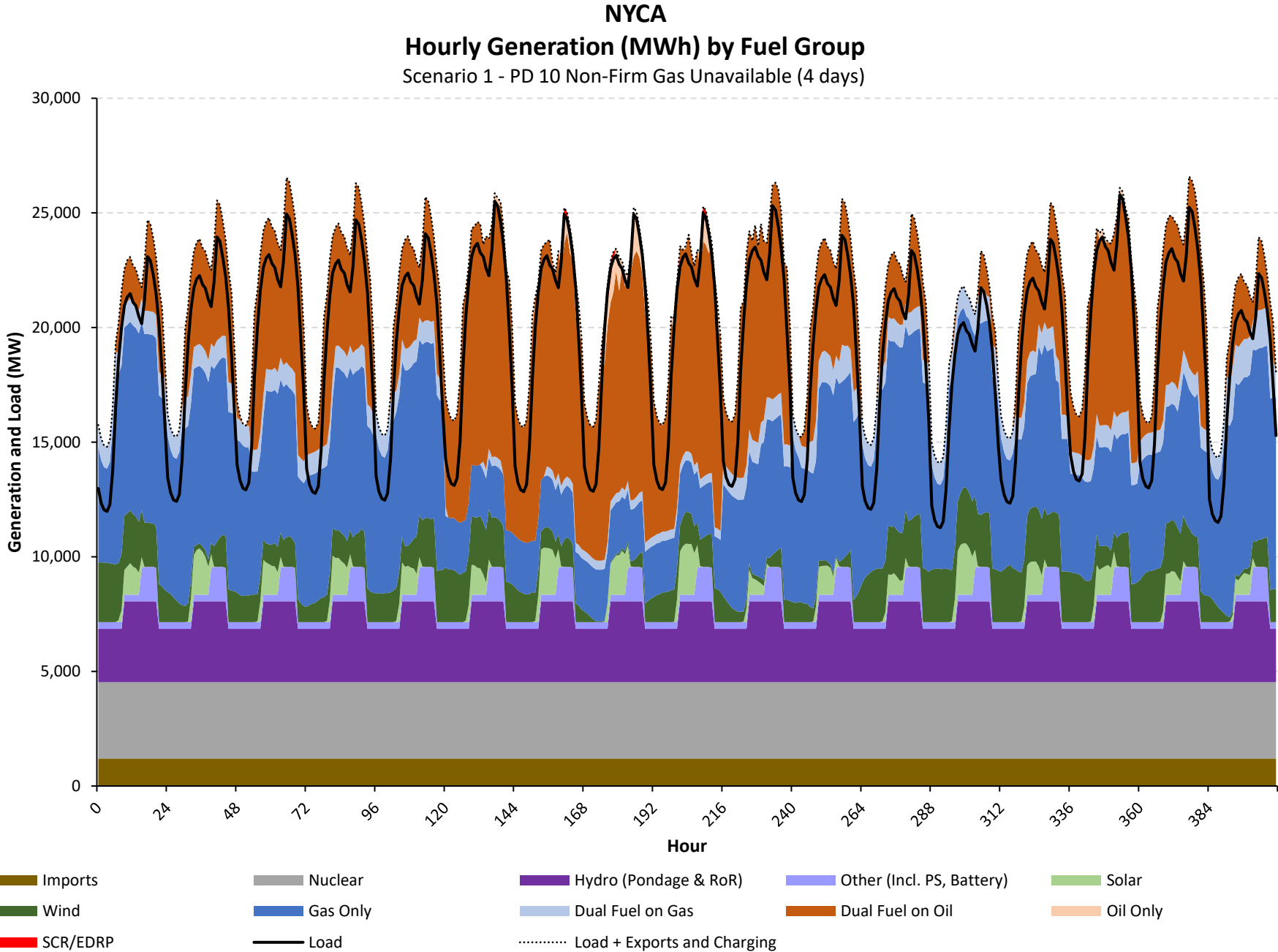
Loss of Load	
Total Hrs.	1
Total MWh	338
Avg. MW	0.8
First Hour with Losses	185

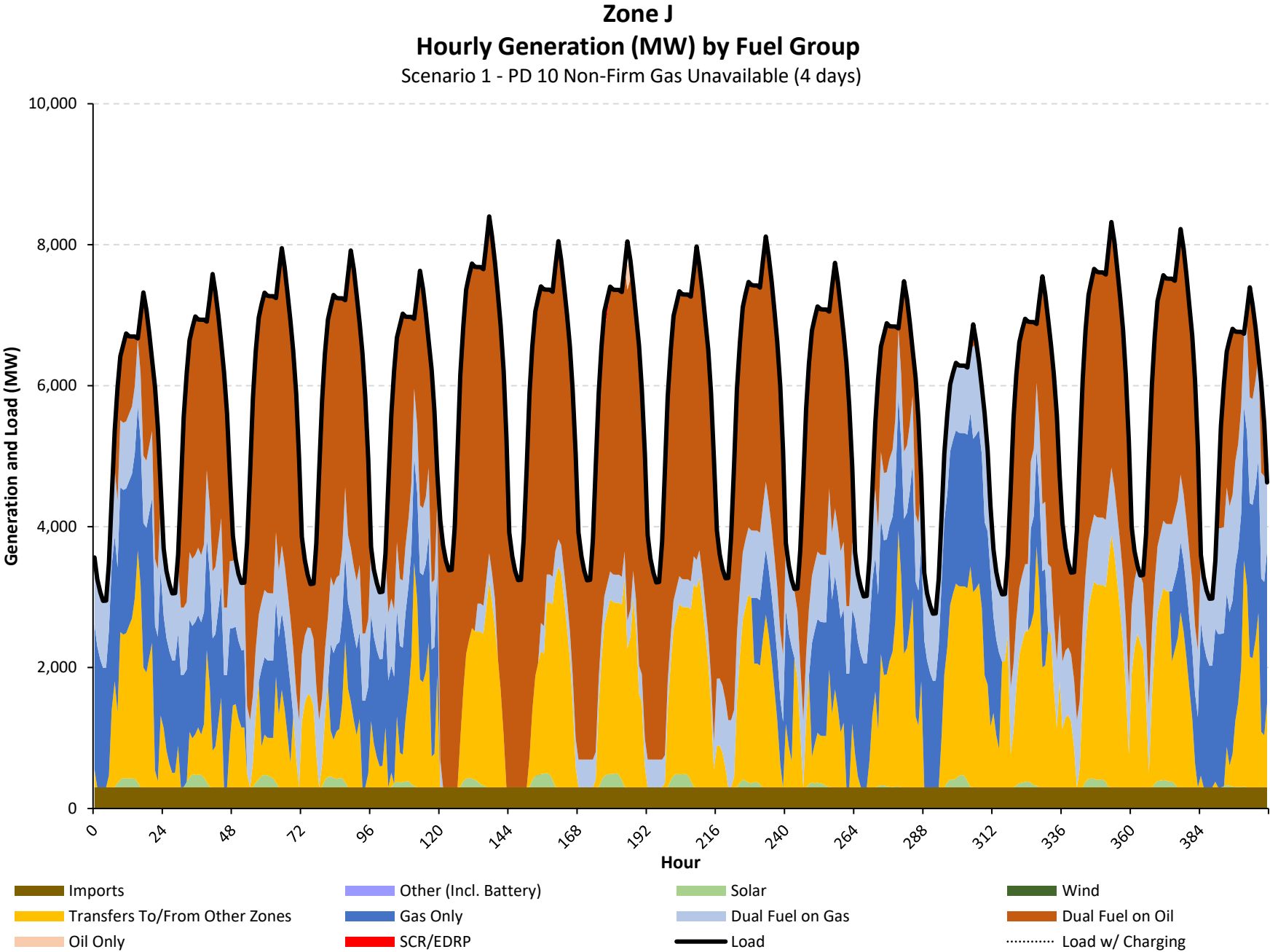
Full Period Results Summary

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

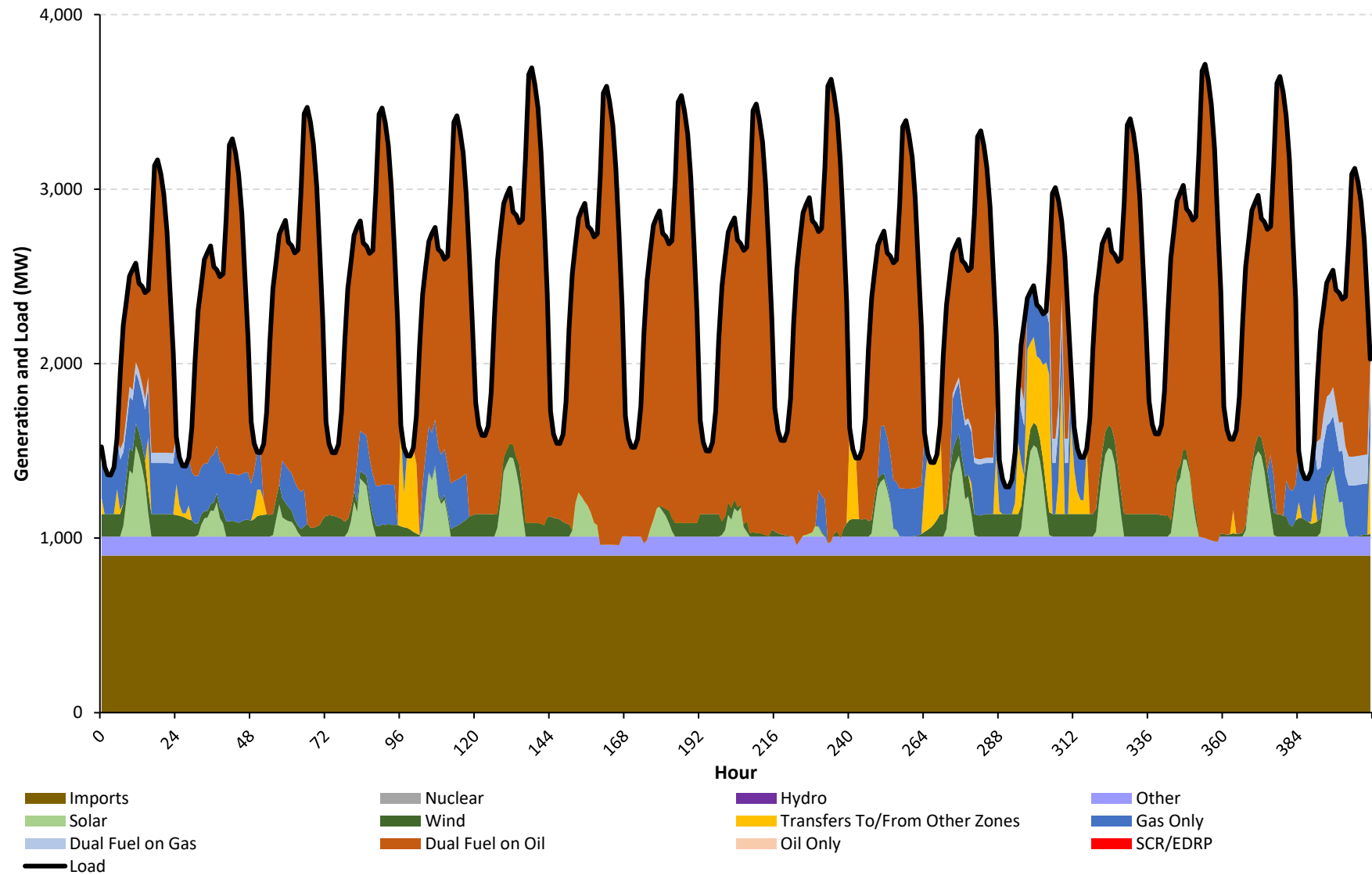
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	Historical
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

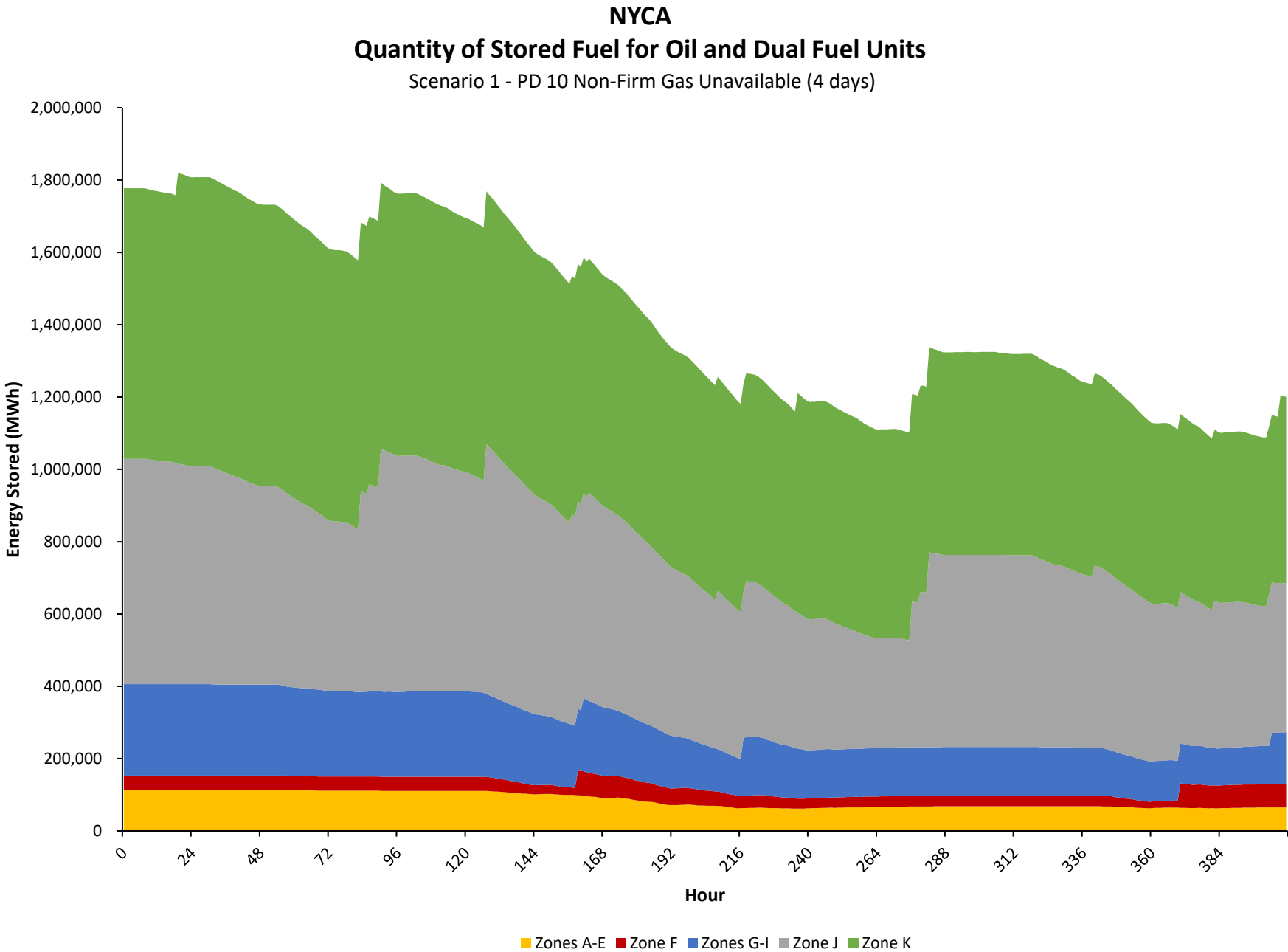


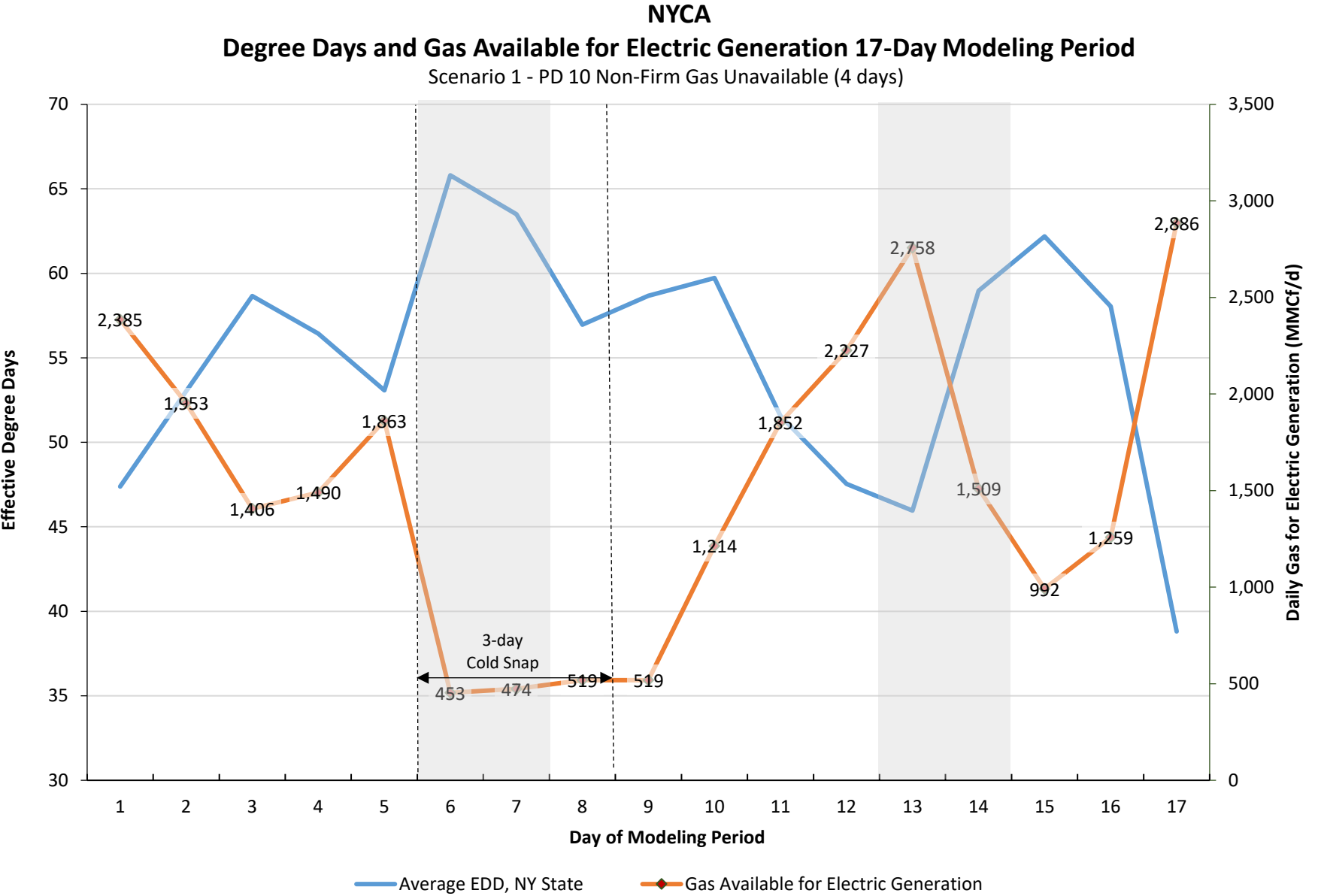




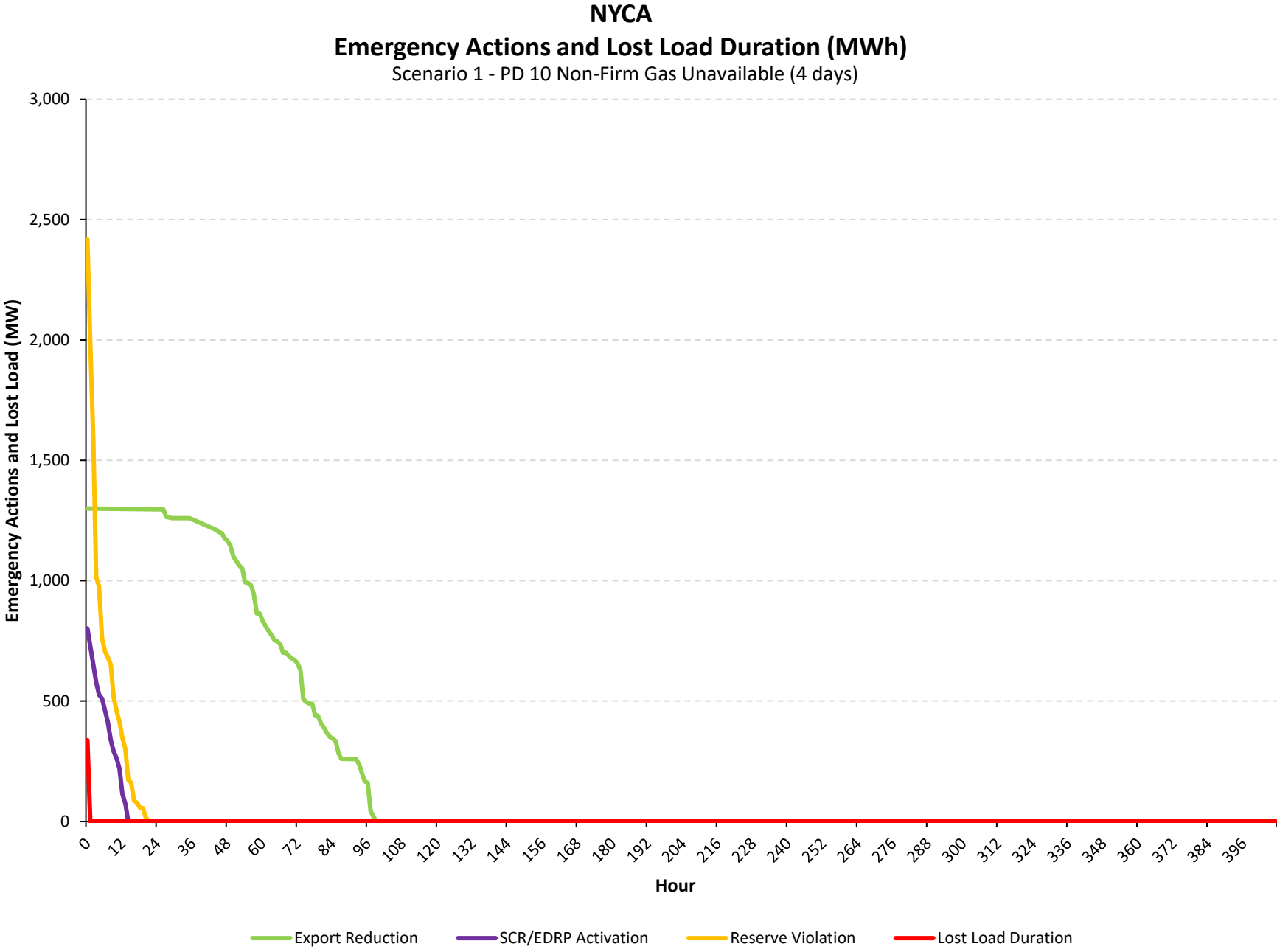
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 10 Non-Firm Gas Unavailable (4 days)

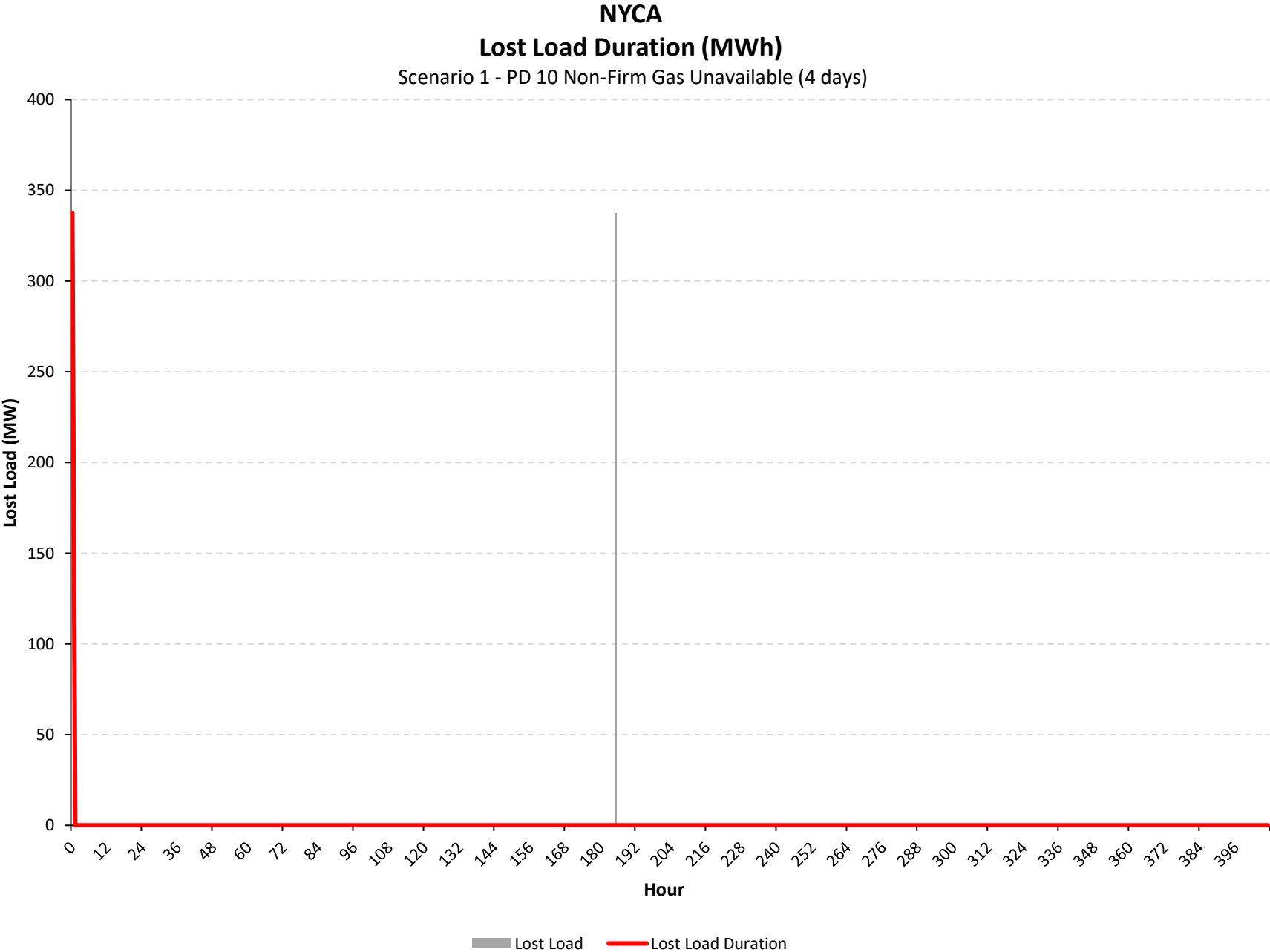






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



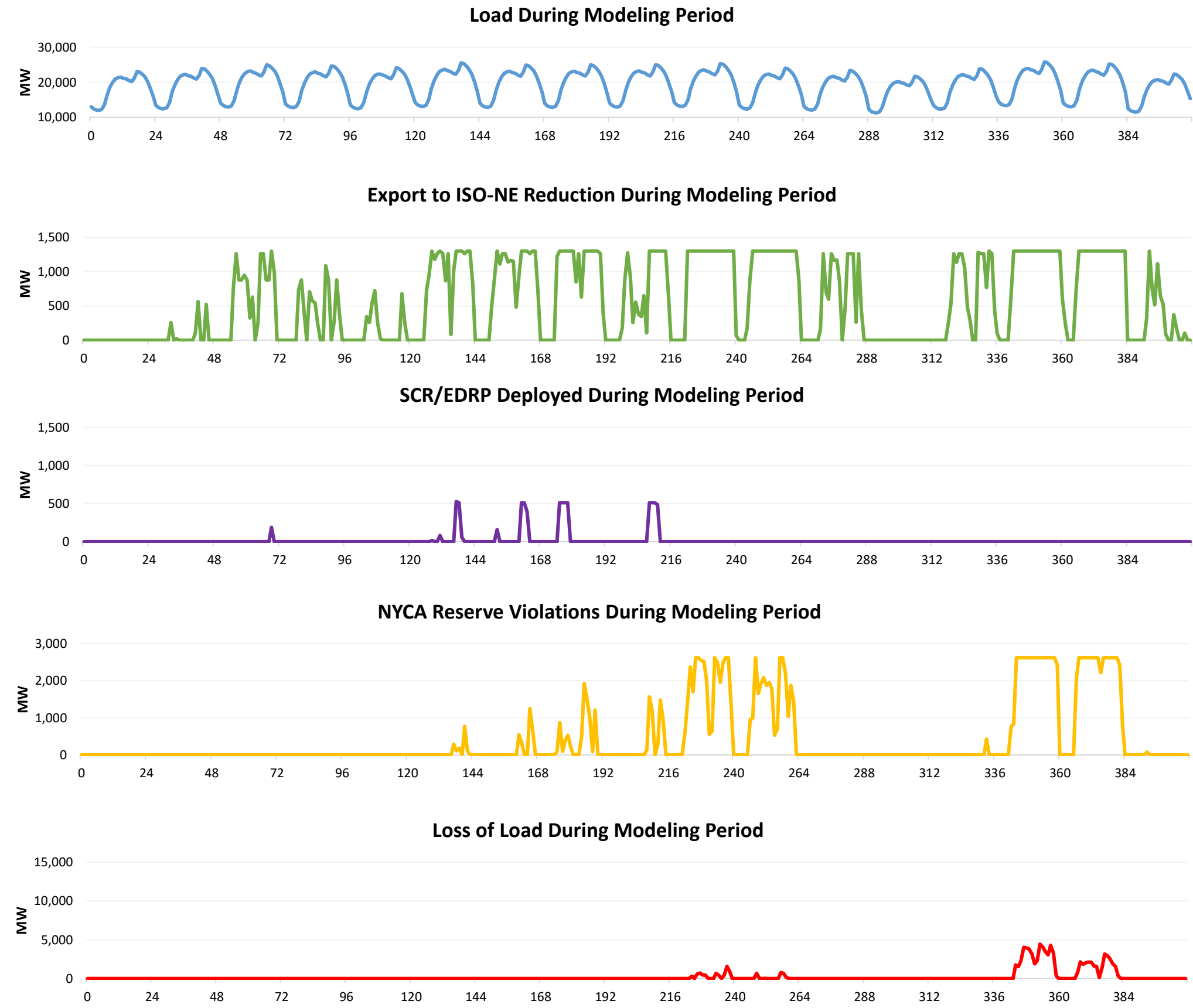


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 11 Combination Disruption (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 1 - PD 11 Combination Disruption



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

Export Reductions	
Total Hrs.	234
Total MWh	232,422
Avg. MW	569.7

SCR Deployment	
Total Hrs.	18
Total MWh	7,009
Avg. MW	17.2

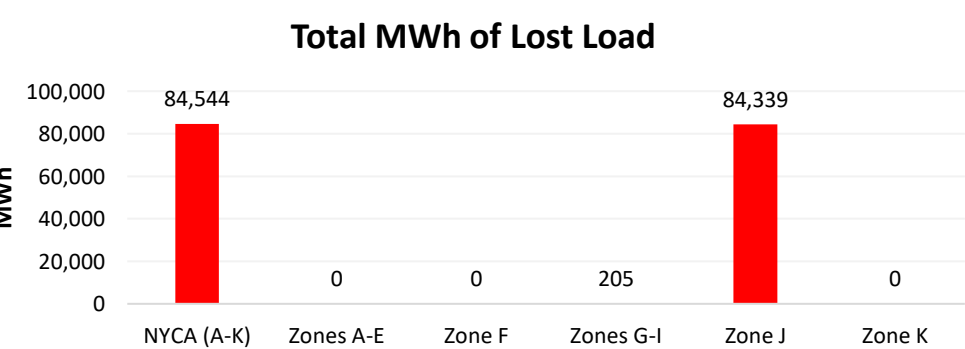
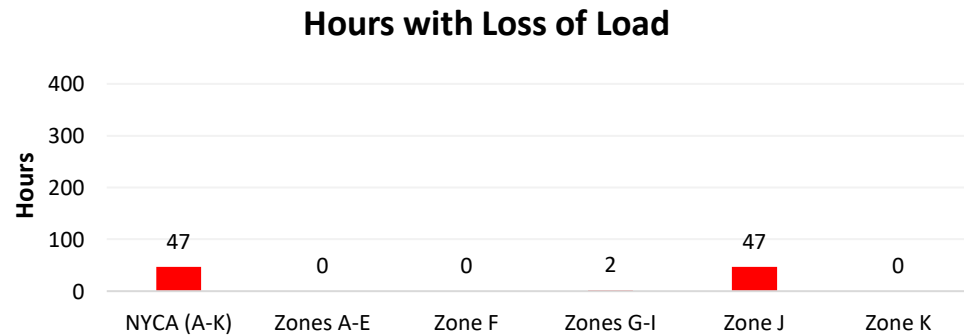
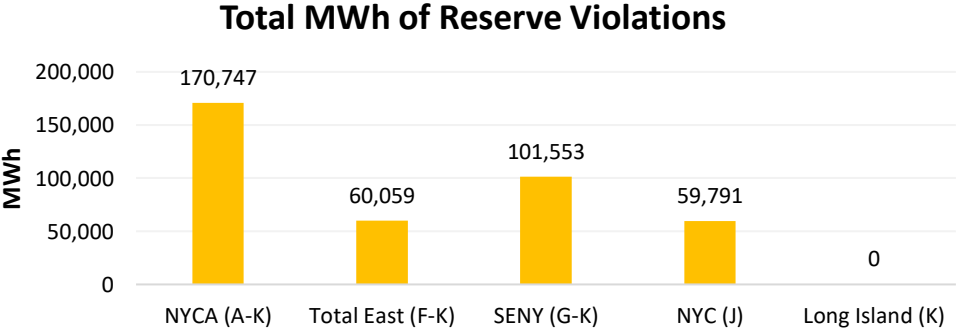
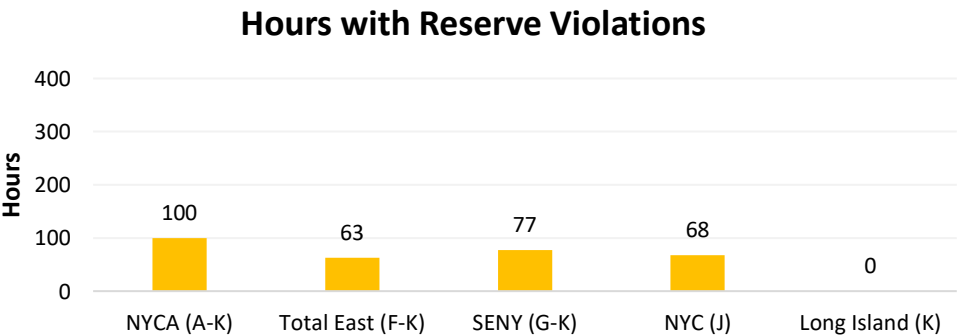
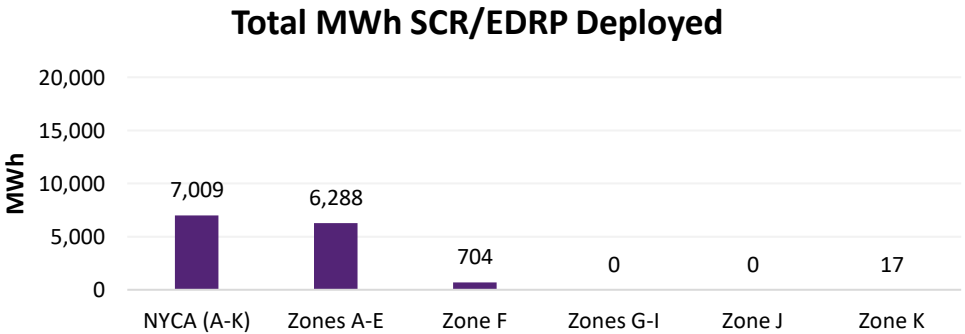
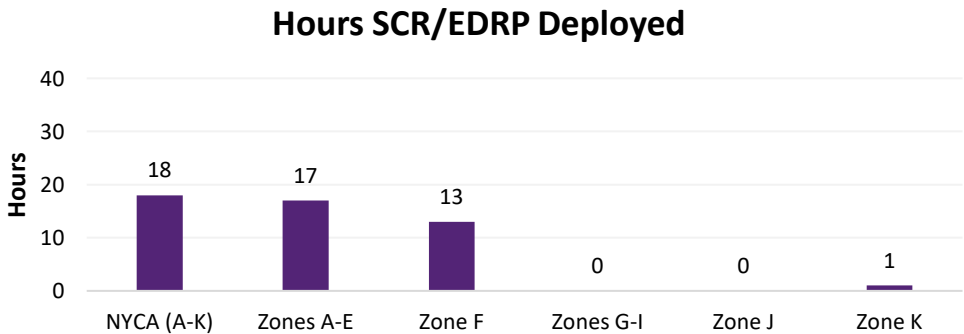
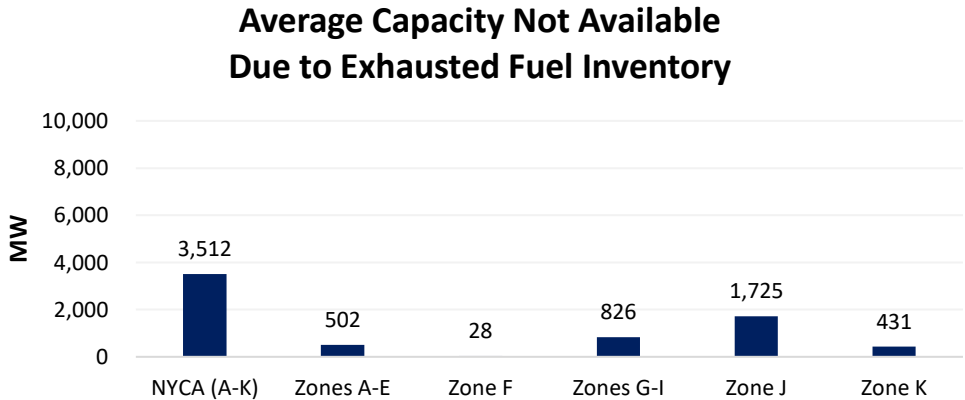
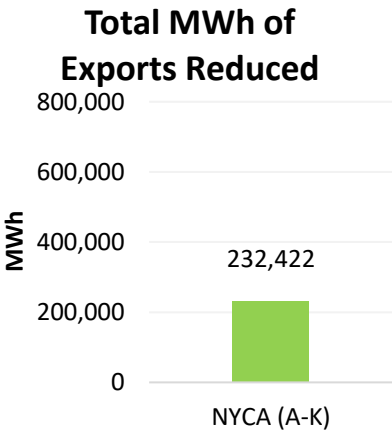
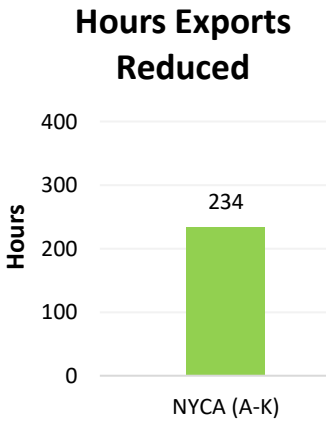
Reserve Violations	
Total Hrs.	100
Total MWh	170,747
Avg. MW	418.5
First Hour with Viol.	137

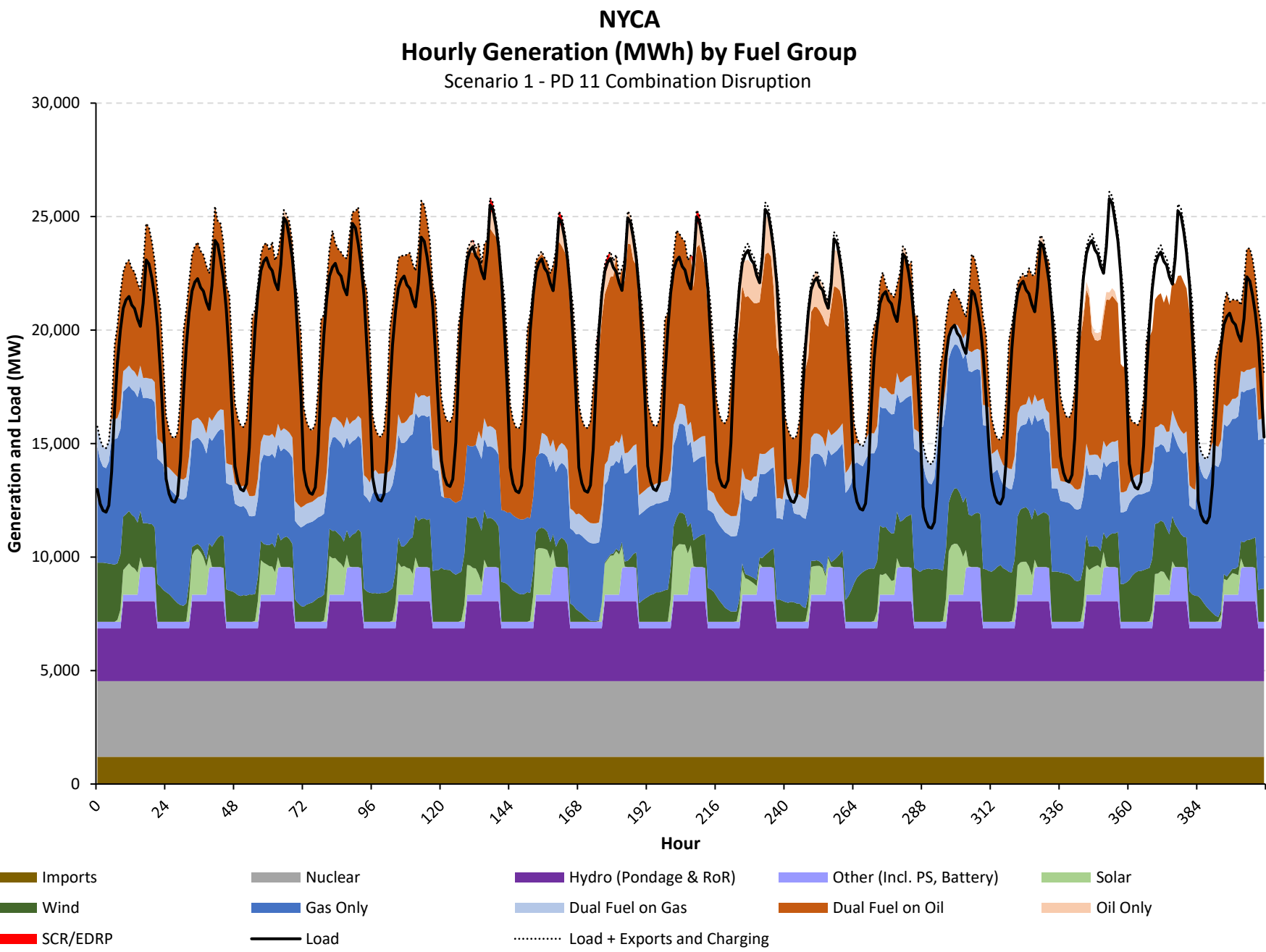
Loss of Load	
Total Hrs.	47
Total MWh	84,544
Avg. MW	207.2
First Hour with Losses	224

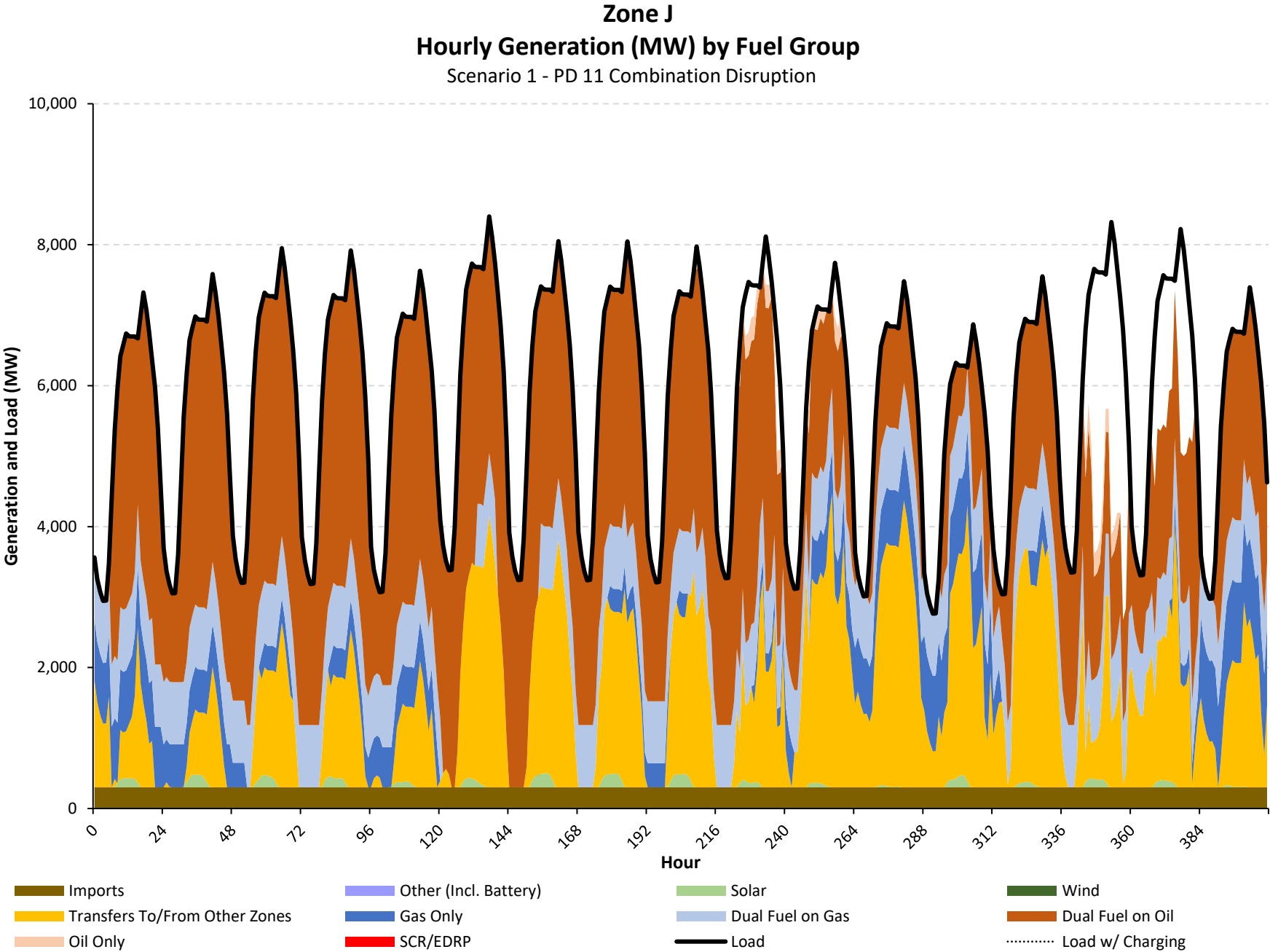
Full Period Results Summary

Case Name: Scenario 1 - PD 11 Combination Disruption

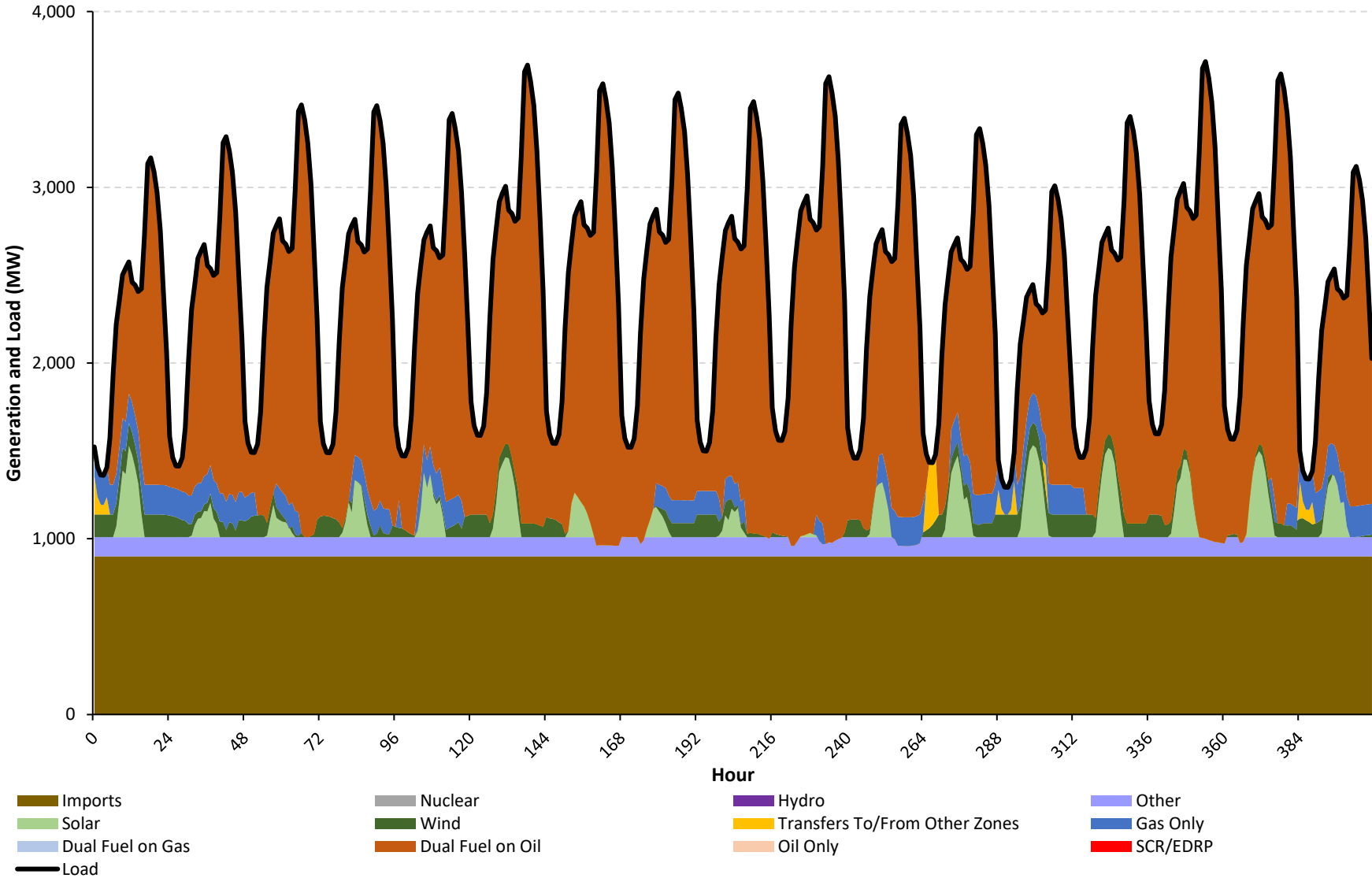
Case Summary	
Derate (EFORD) Increase:	High
Starting Storage:	Historical
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

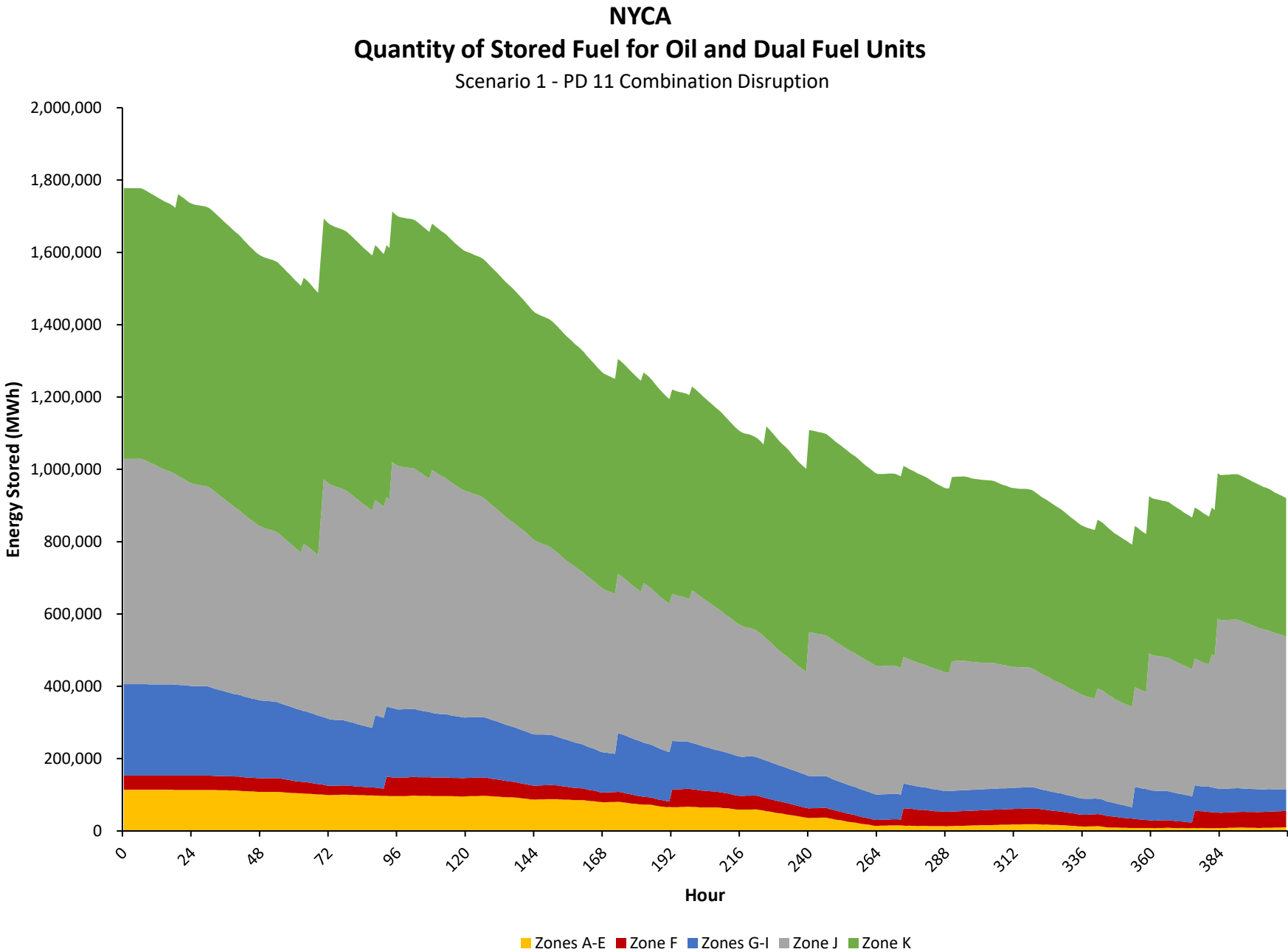


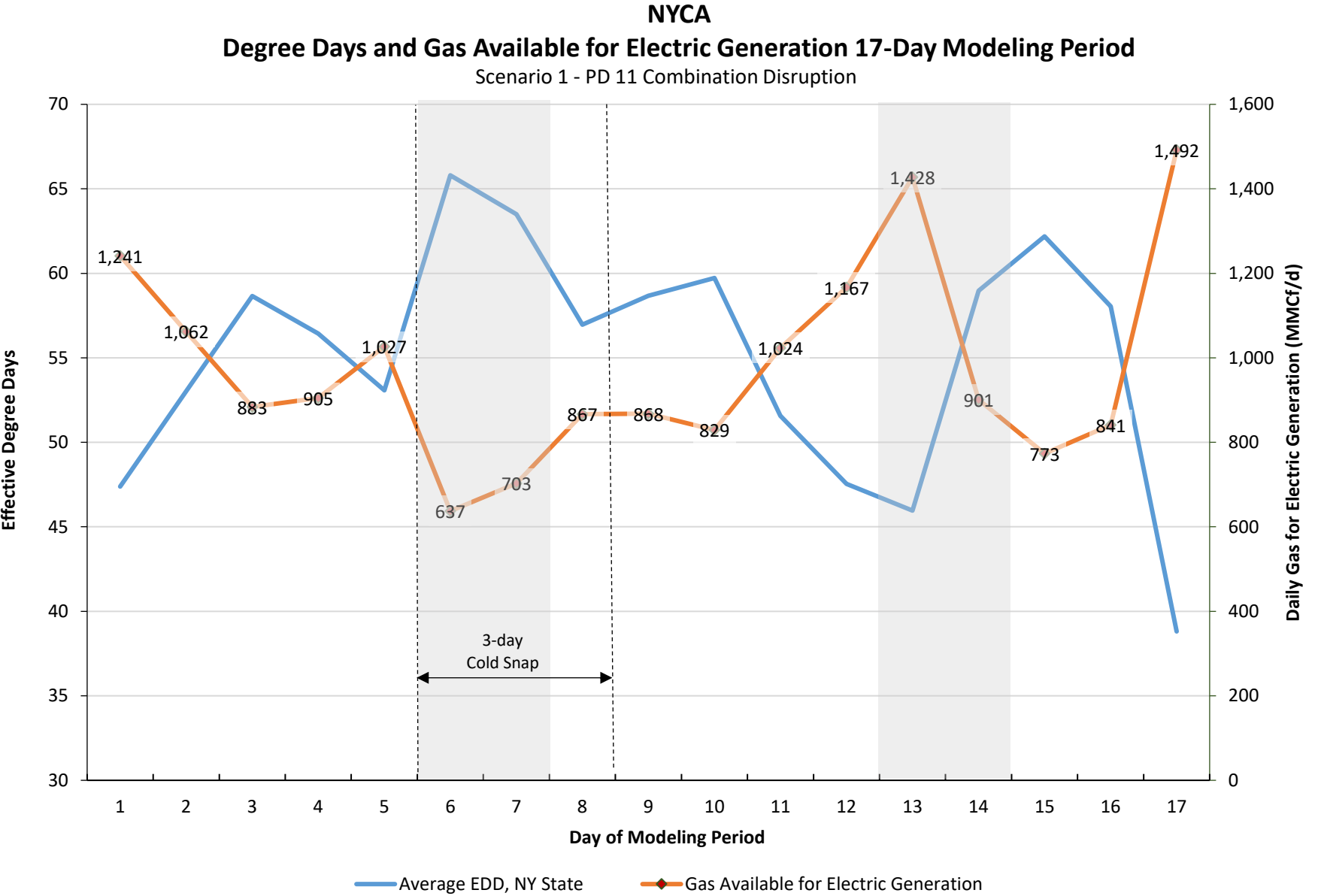




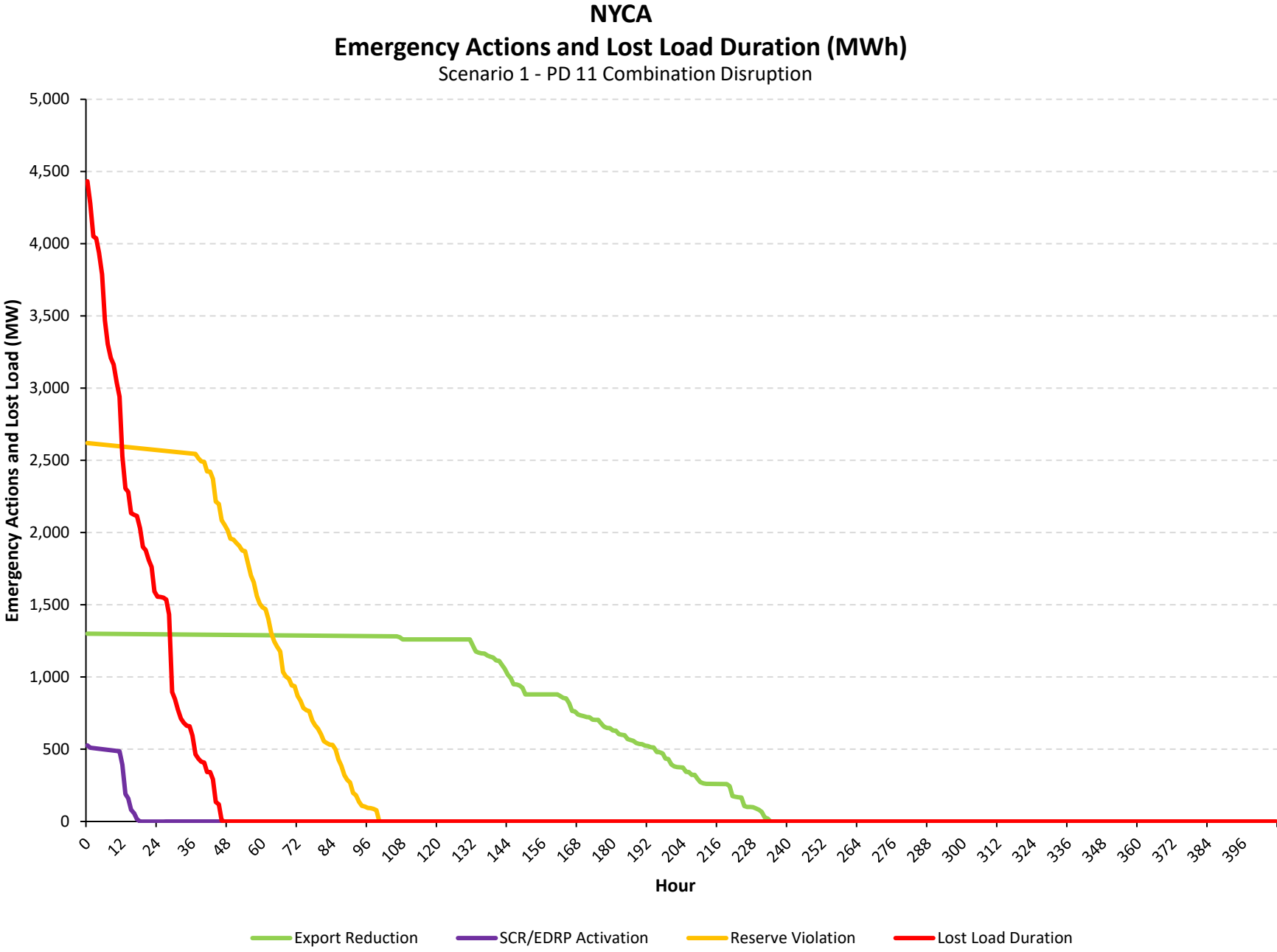
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 1 - PD 11 Combination Disruption

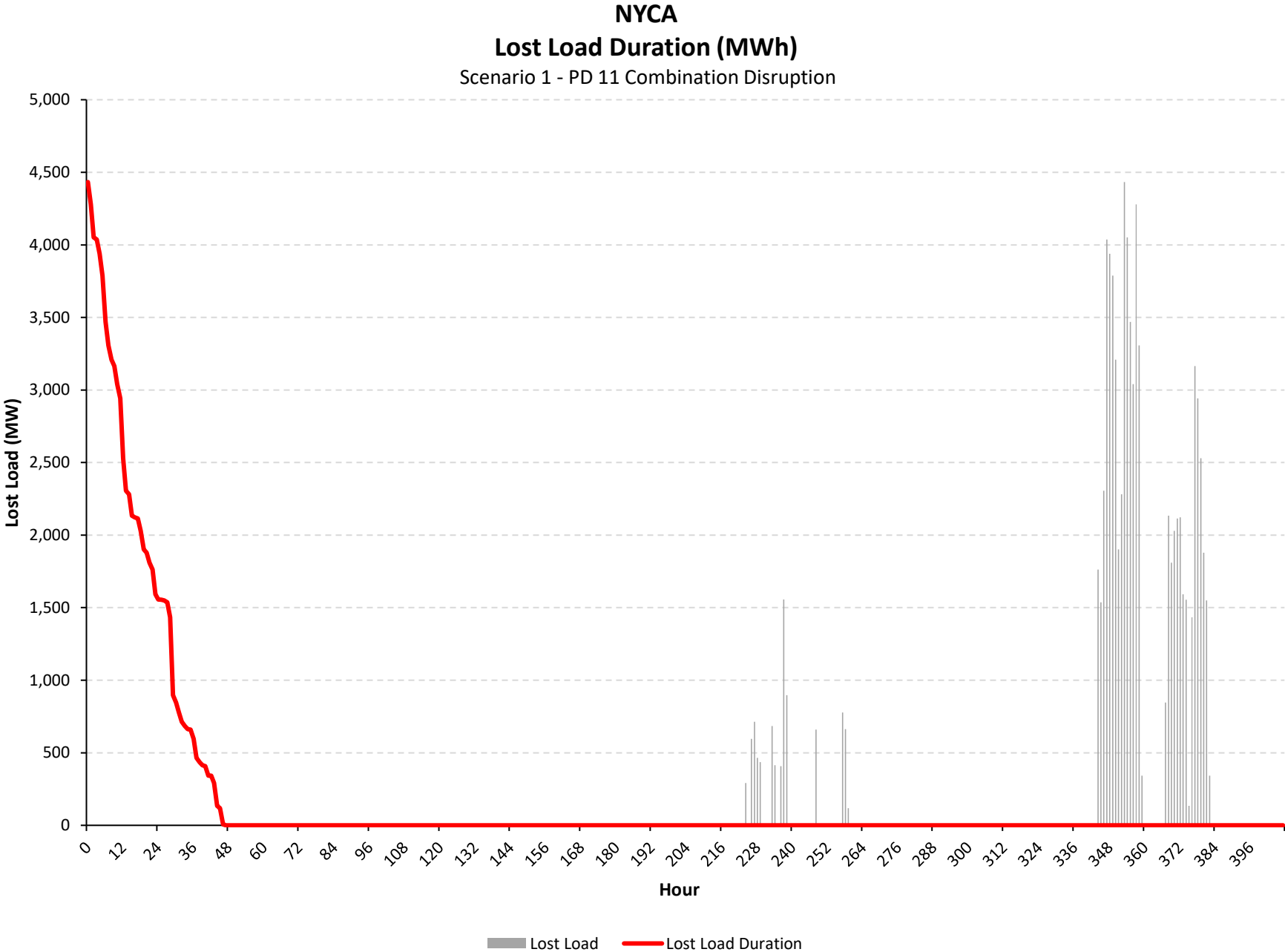






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



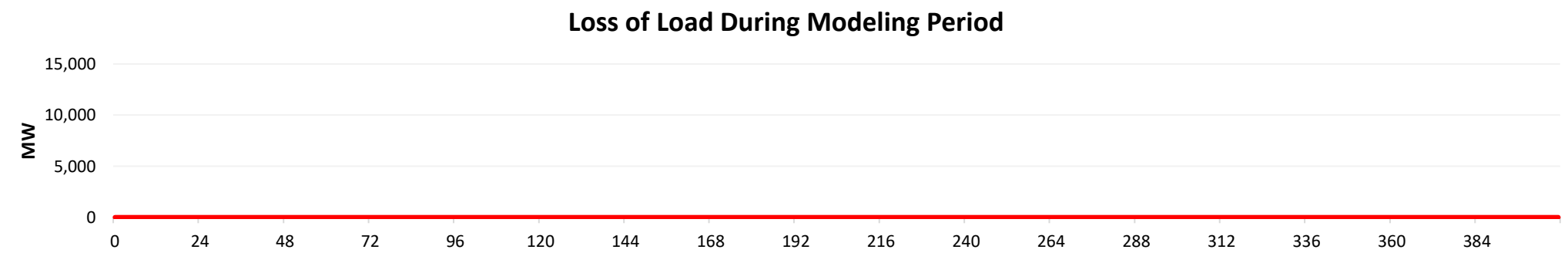
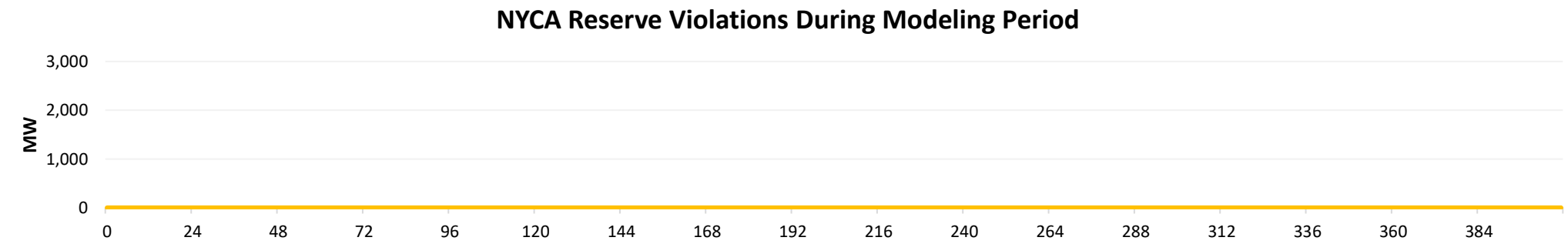
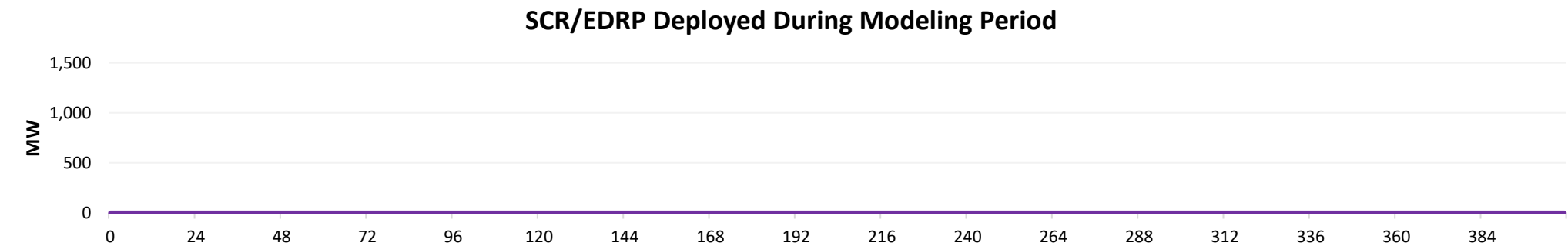
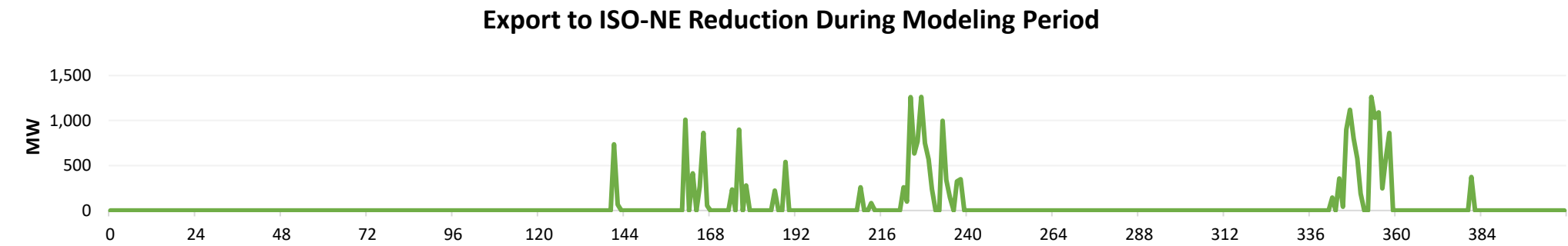
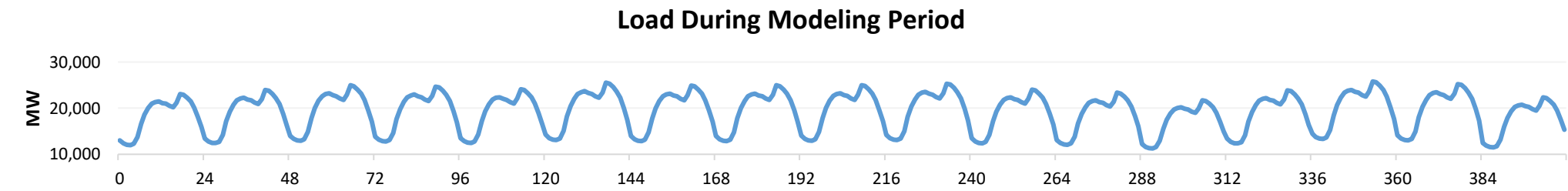


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 1 No Disruptions (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 2 - PD 1 No Disruptions



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

Export Reductions	
Total Hrs.	43
Total MWh	23,451
Avg. MW	57.5

SCR Deployment	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0

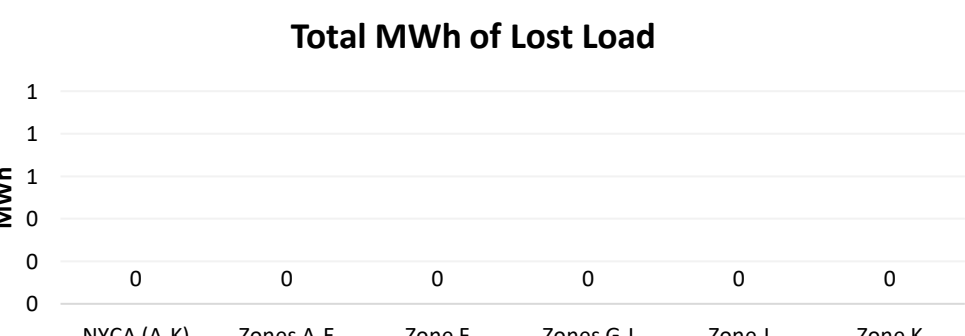
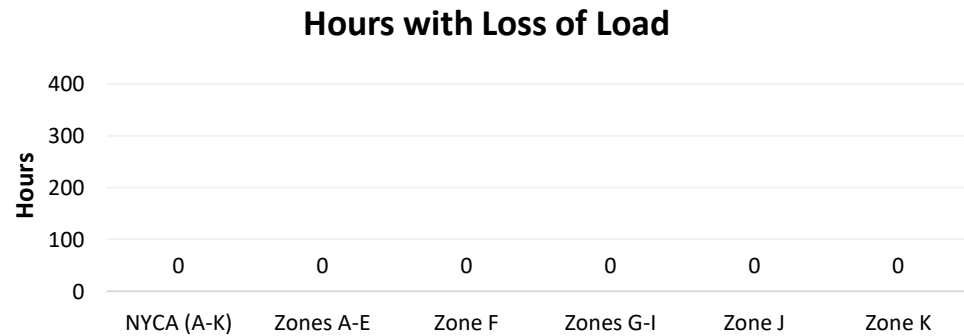
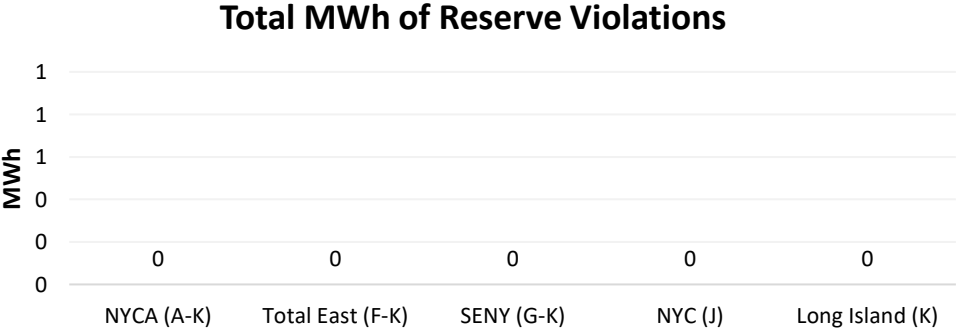
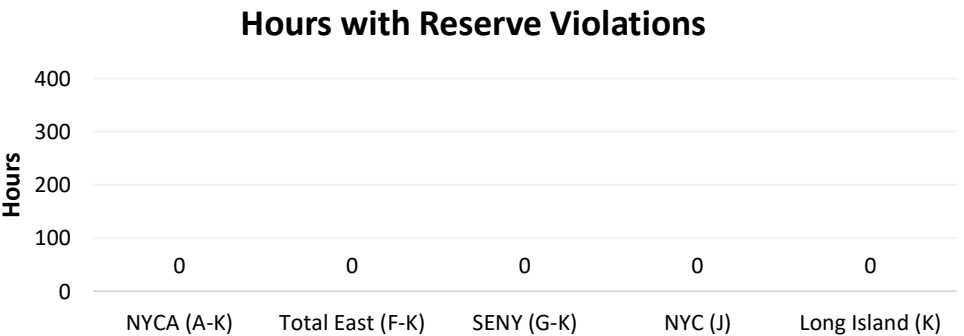
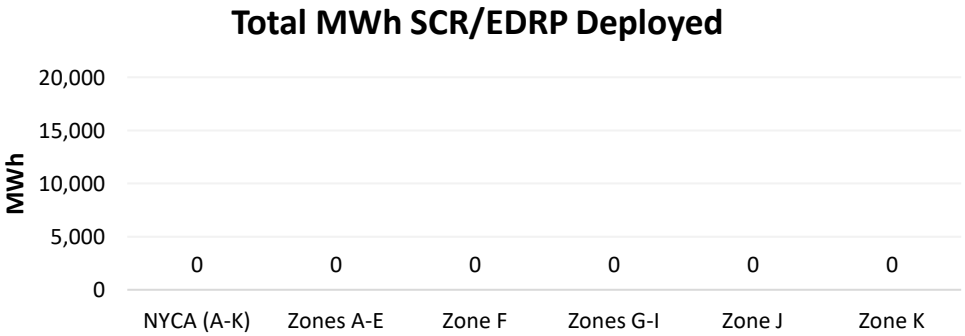
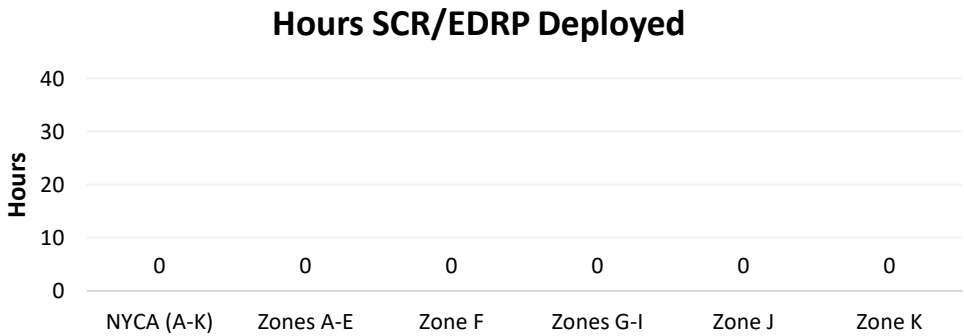
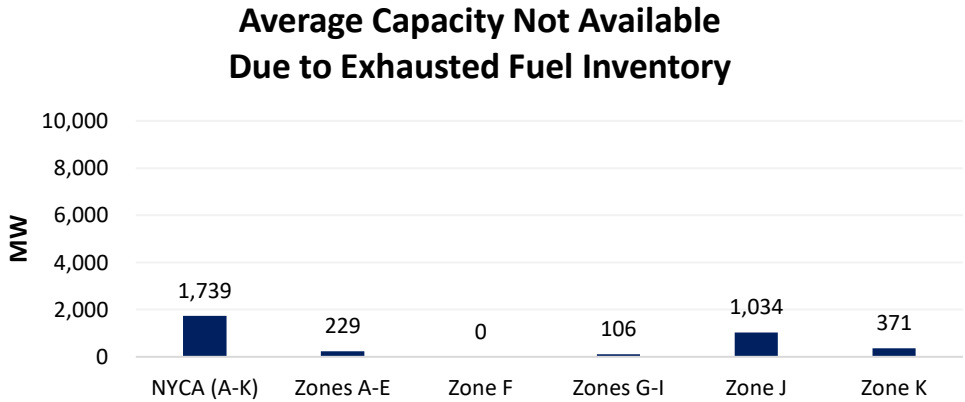
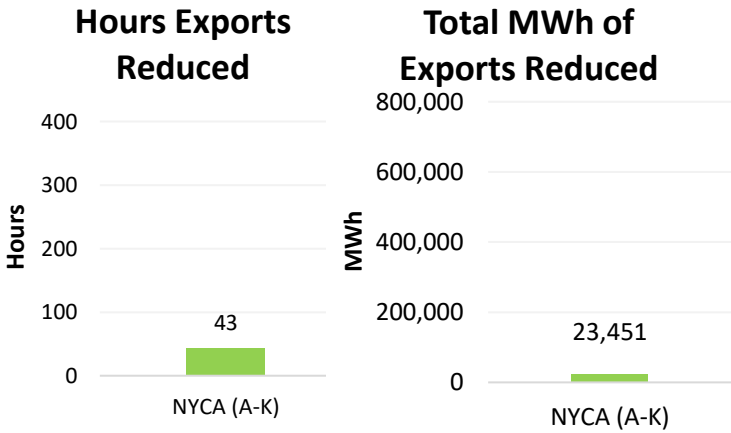
Reserve Violations	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Viol.	

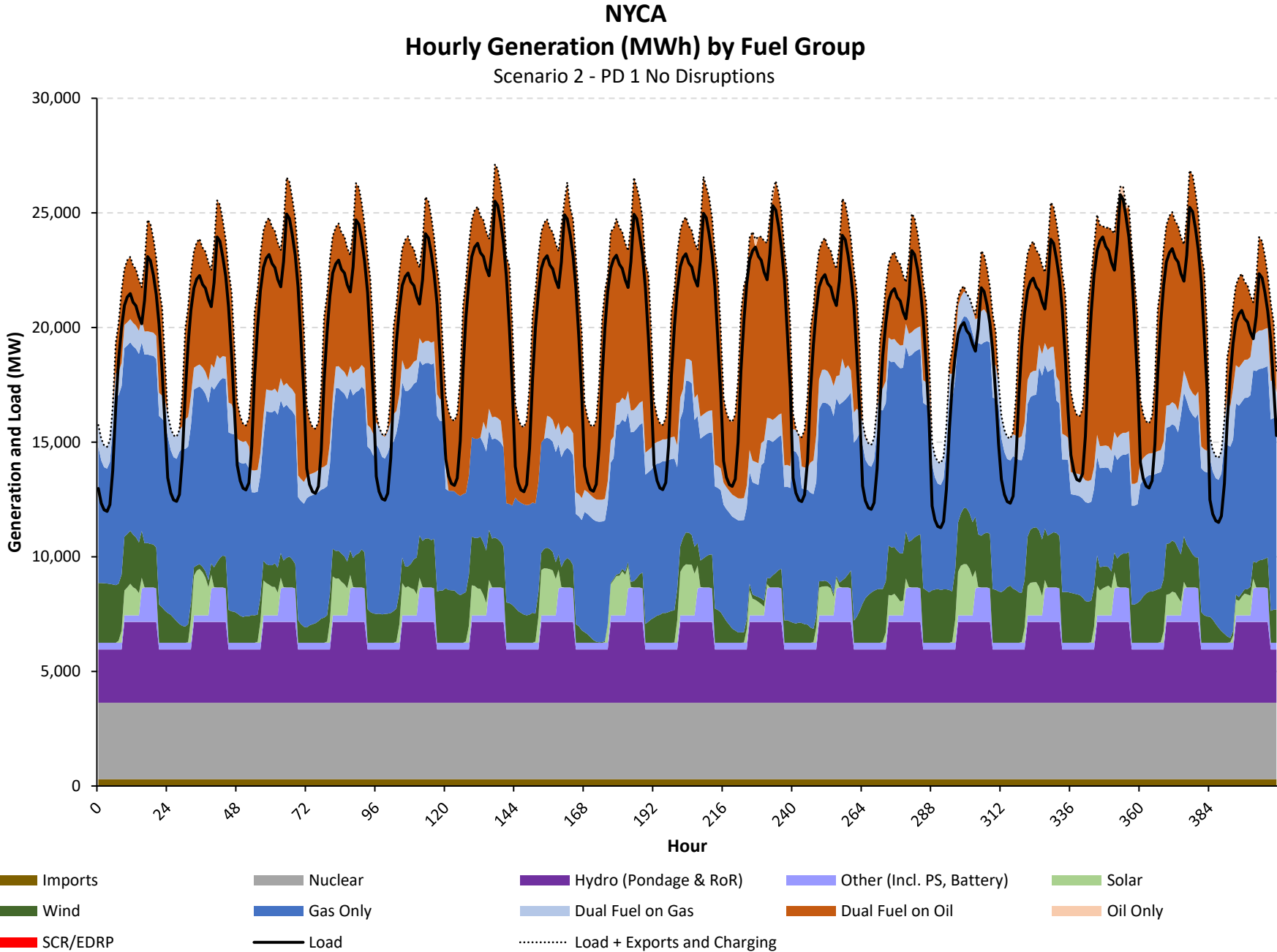
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

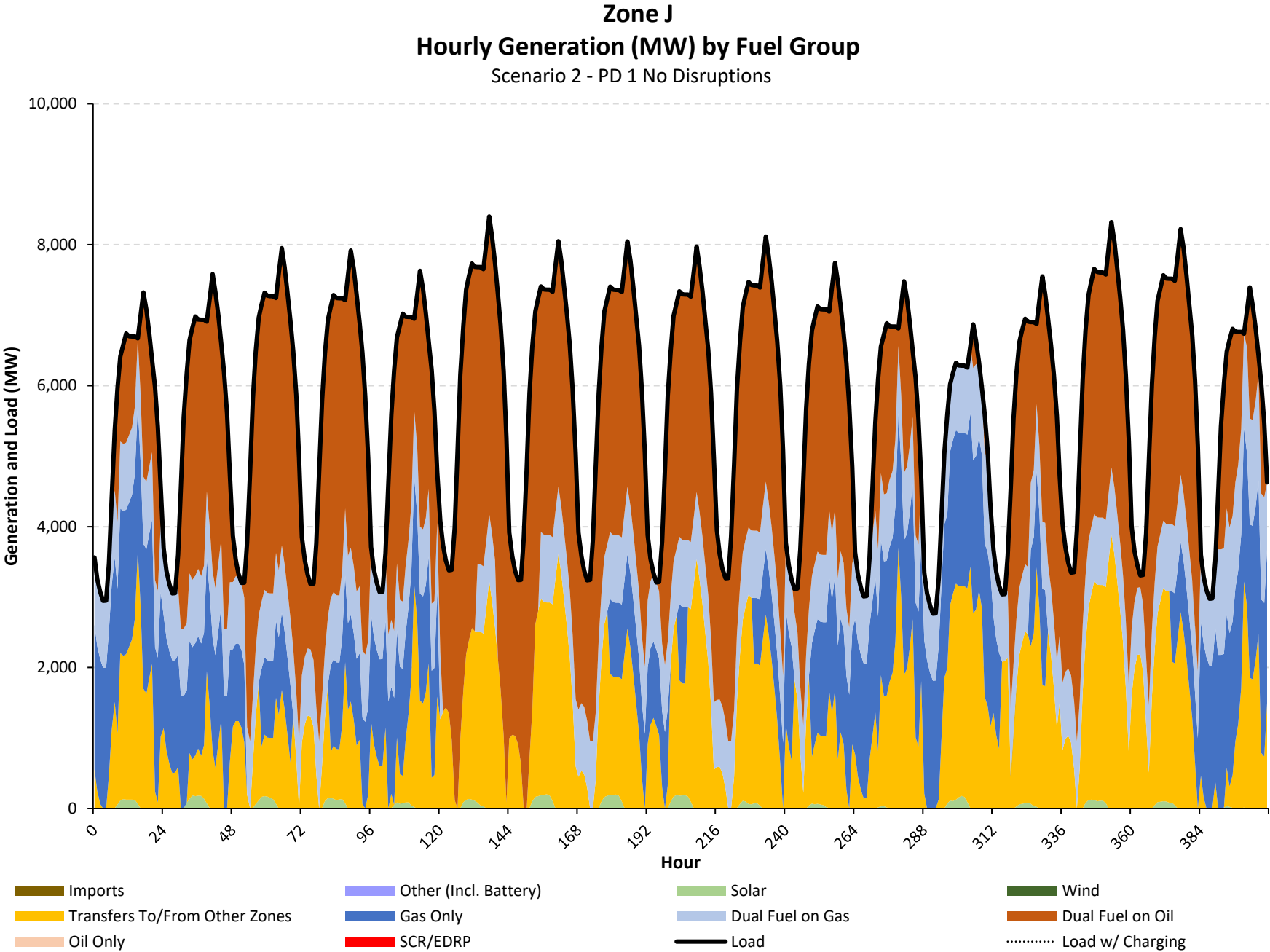
Full Period Results Summary

Case Name: Scenario 2 - PD 1 No Disruptions

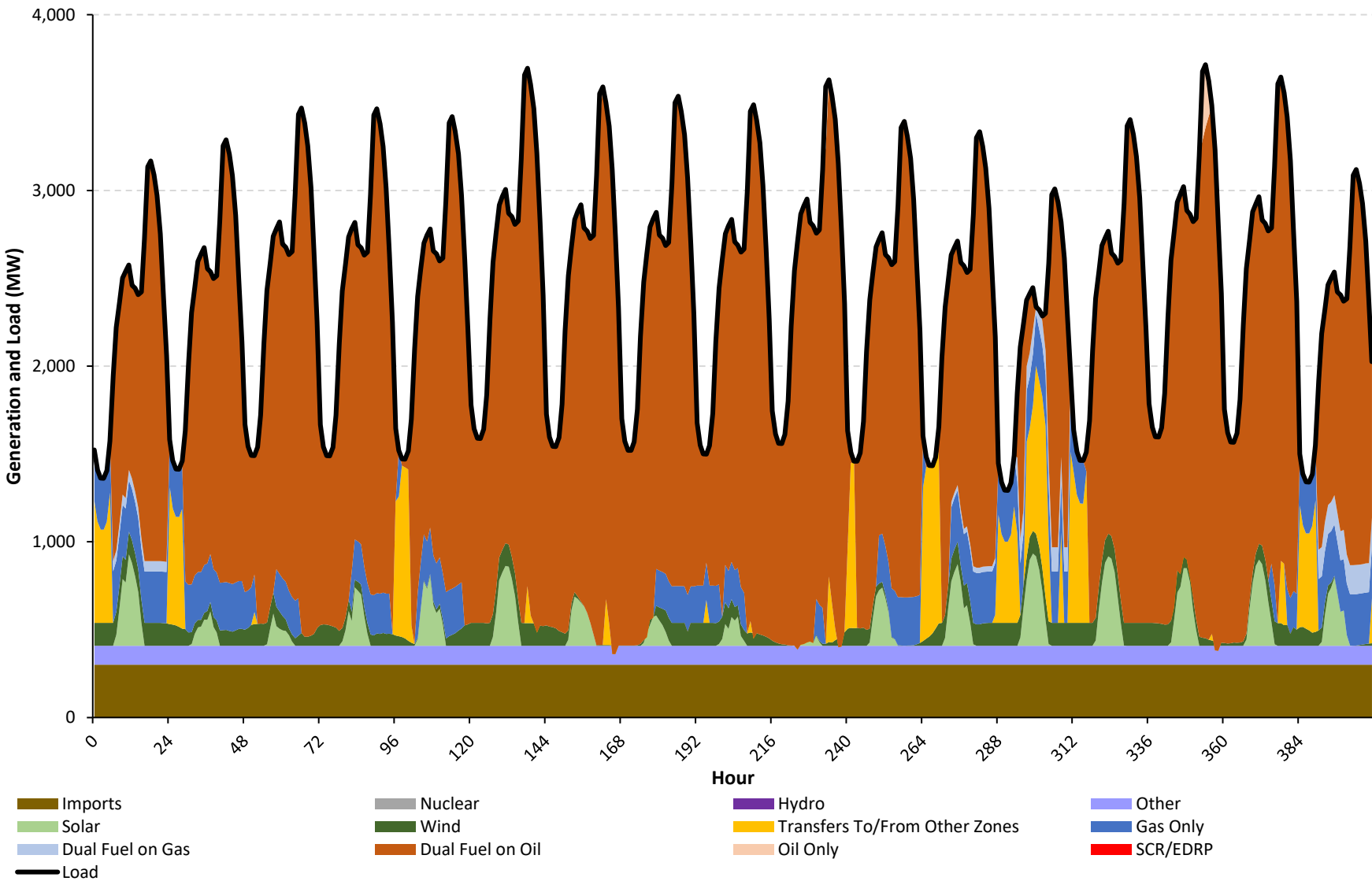
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	Historical
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

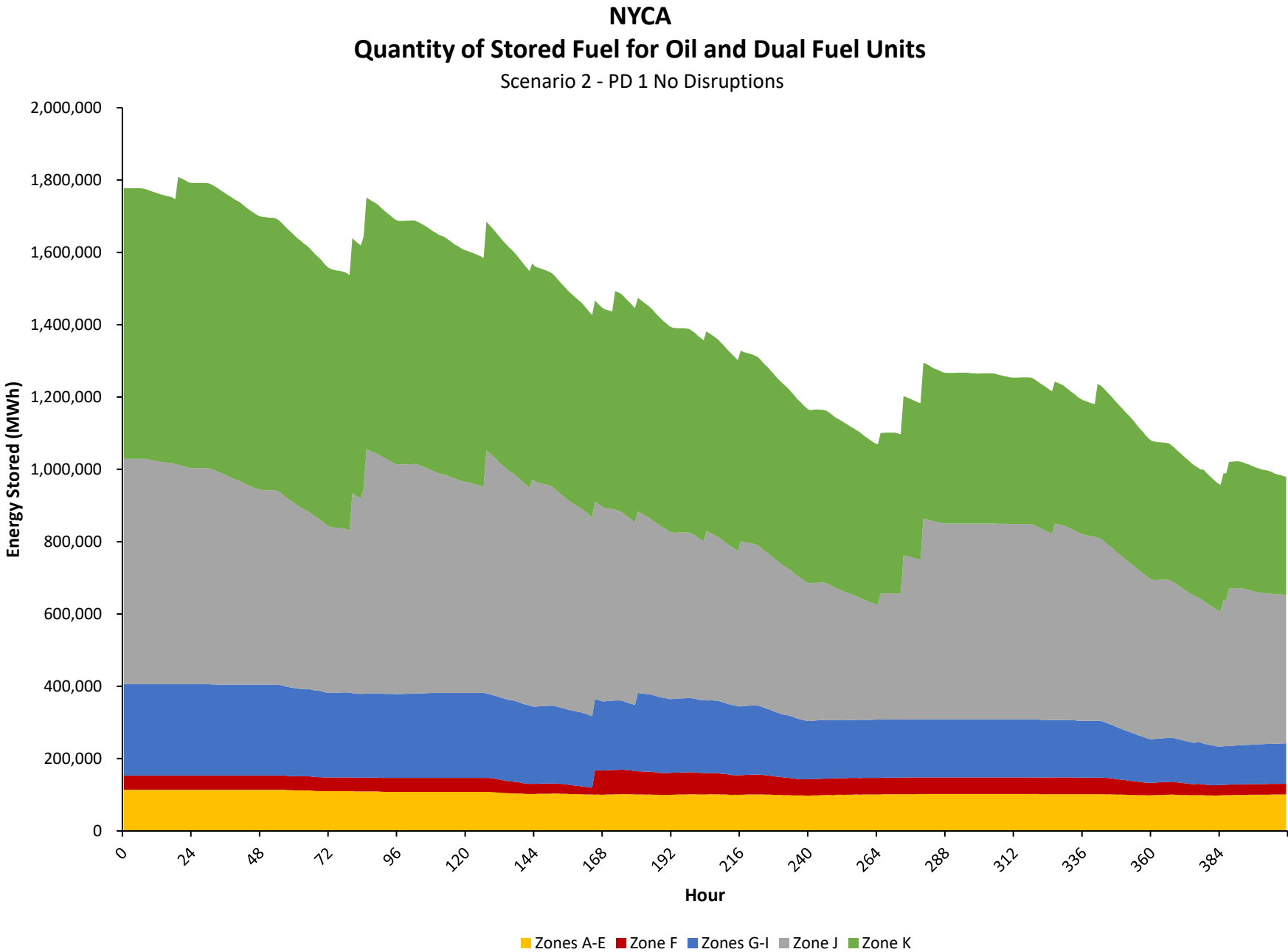


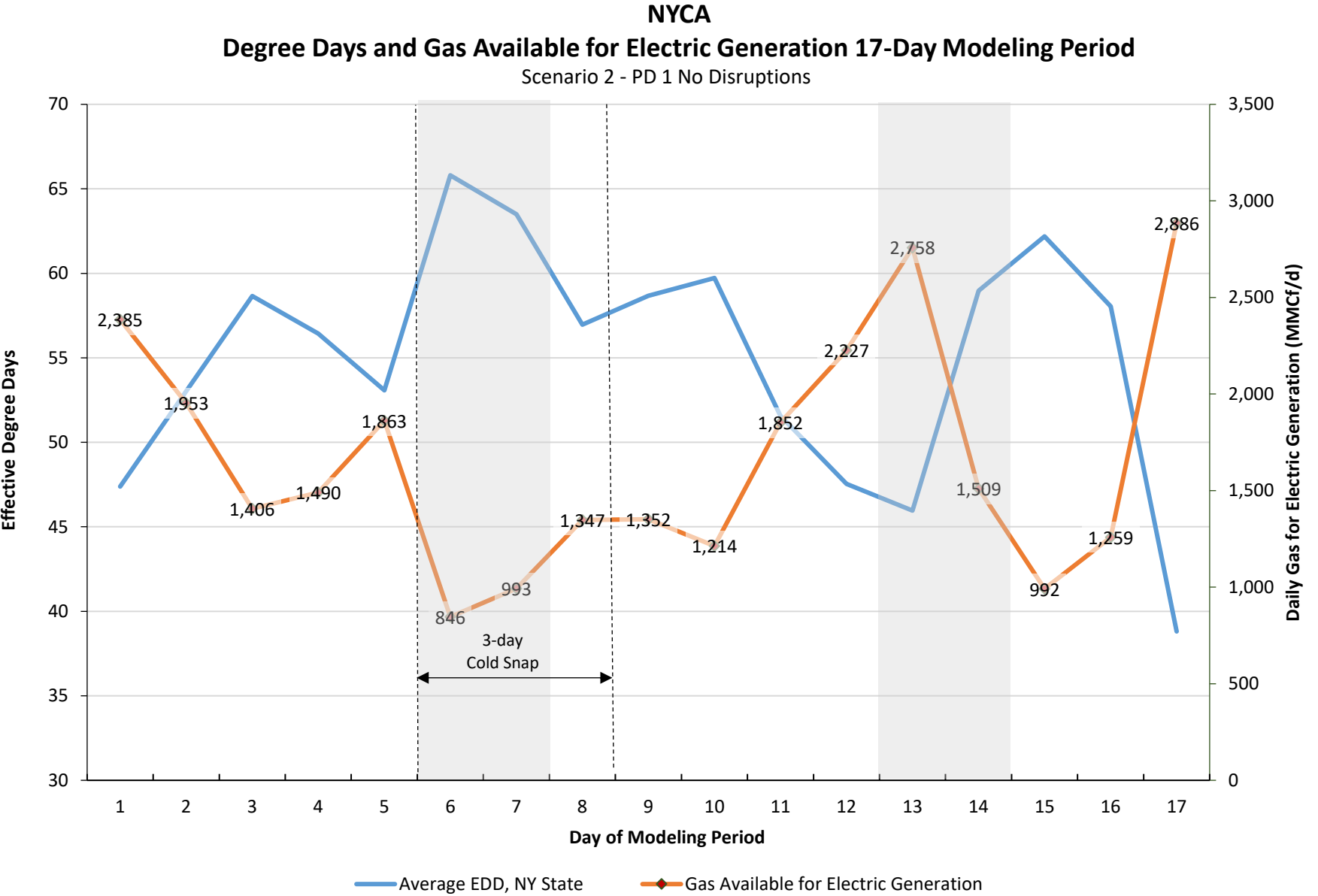




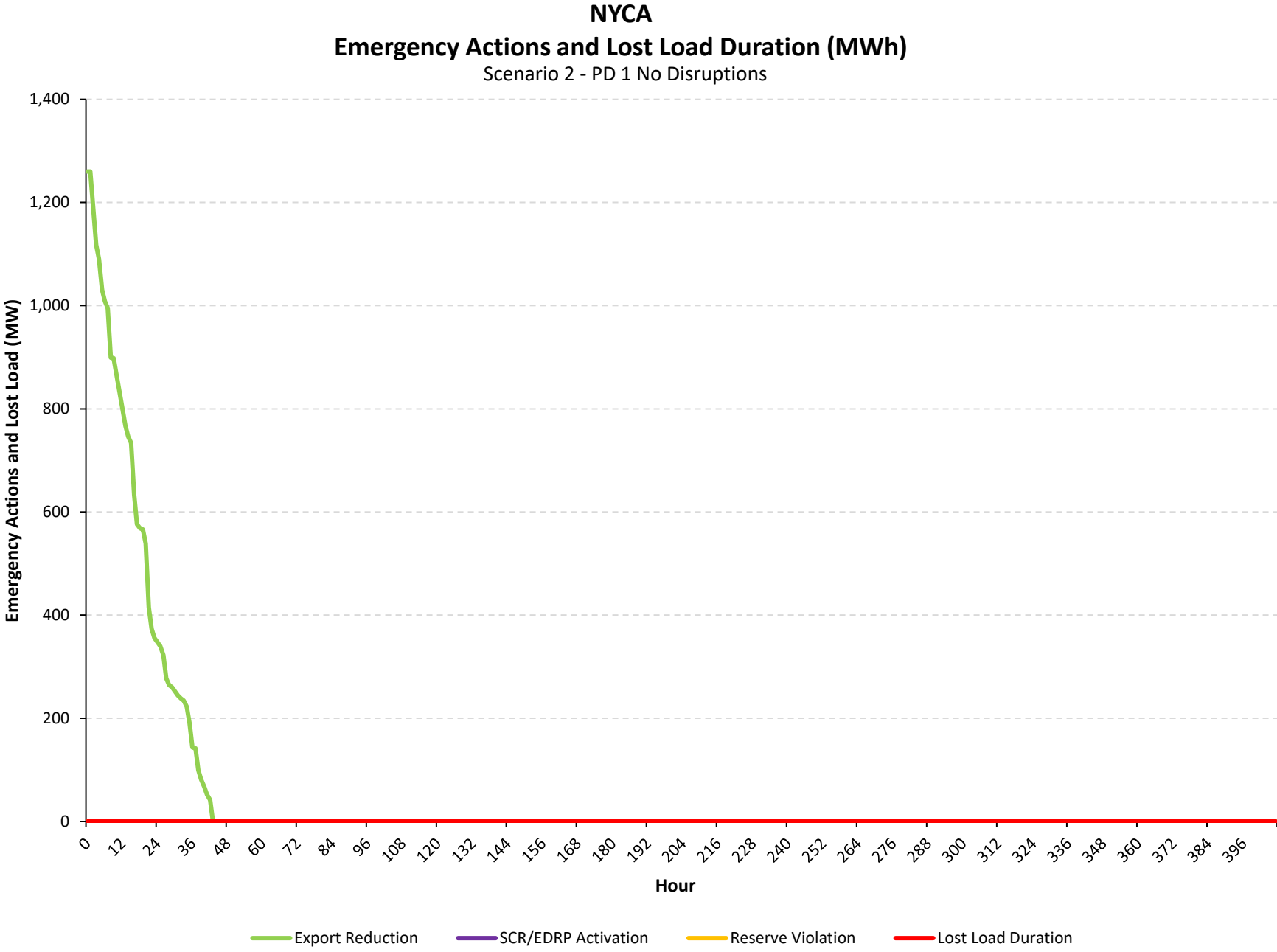
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 1 No Disruptions

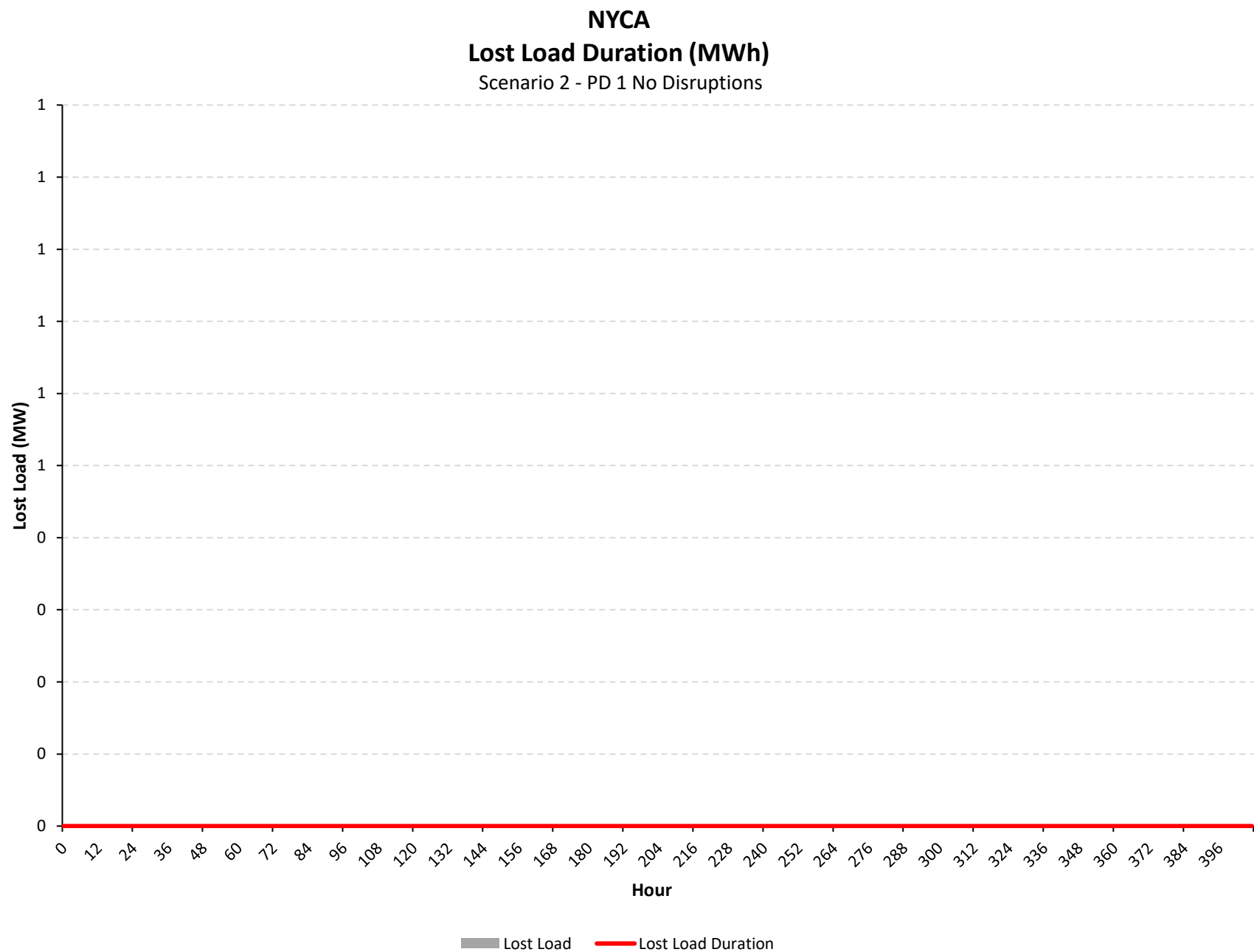






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



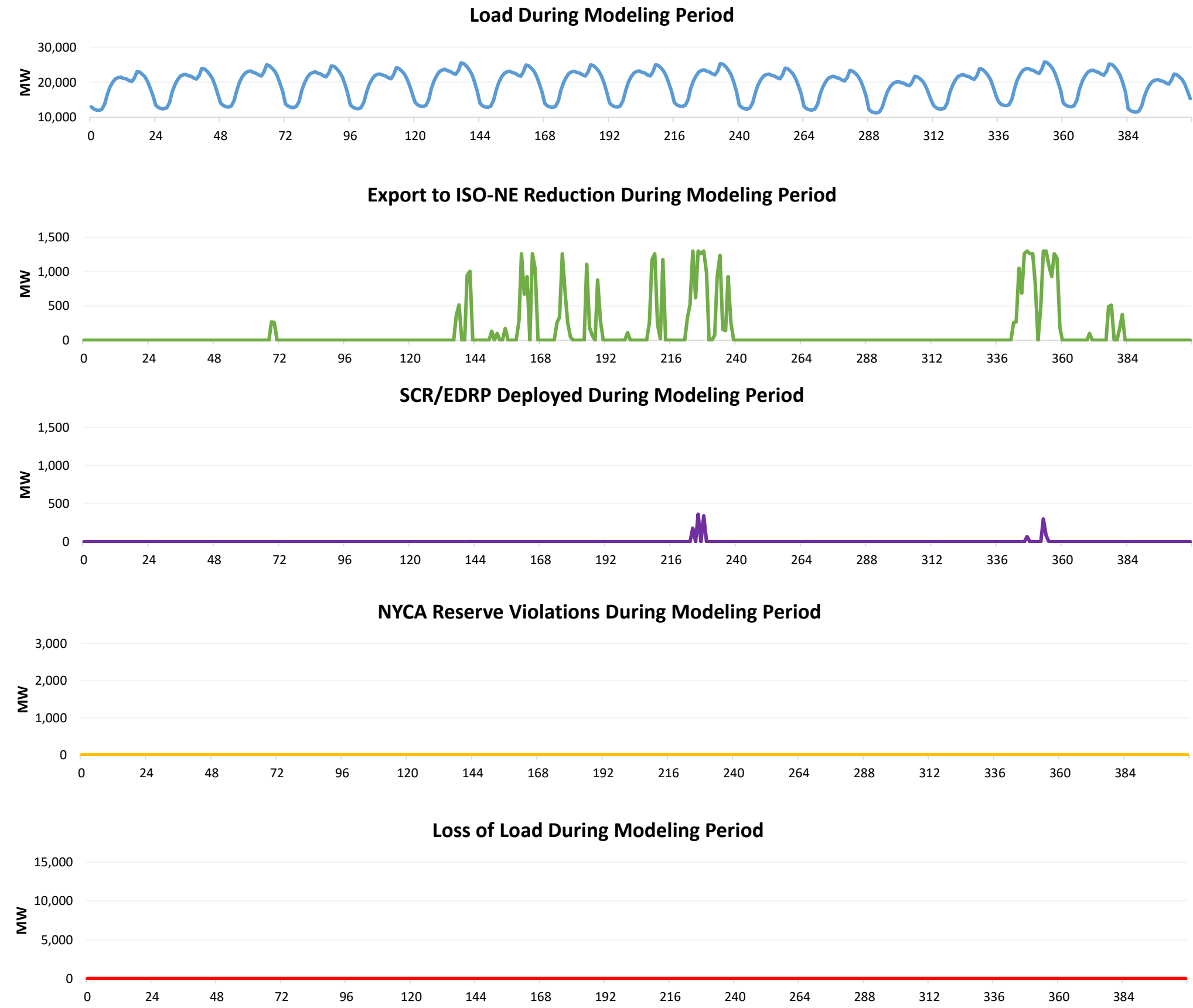


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 2 High Outage (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 2 - PD 2 High Outage



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

Export Reductions	
Total Hrs.	70
Total MWh	47,698
Avg. MW	116.9

SCR Deployment	
Total Hrs.	6
Total MWh	1,324
Avg. MW	3.2

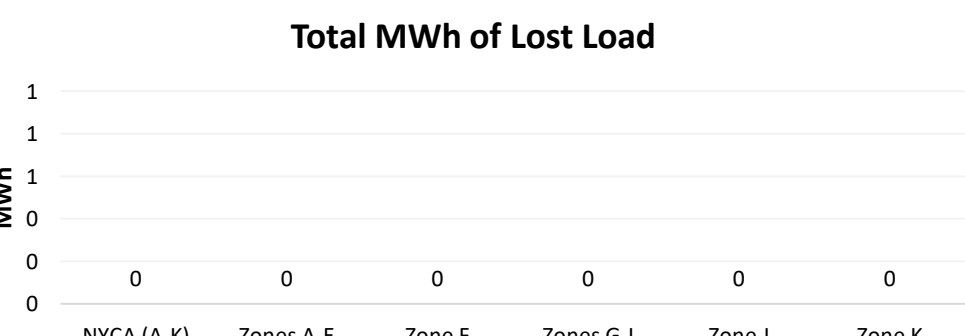
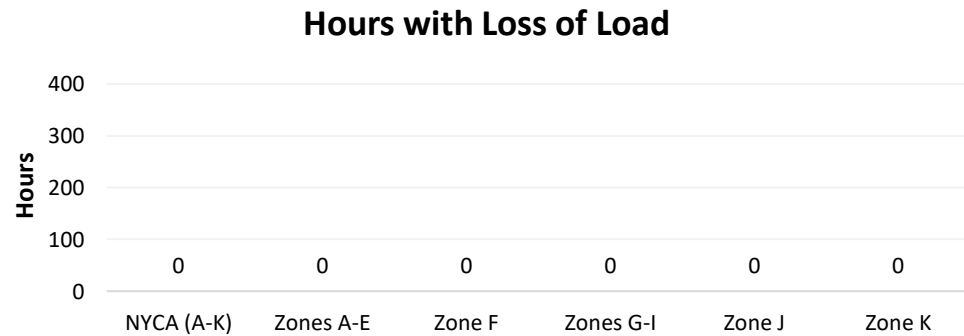
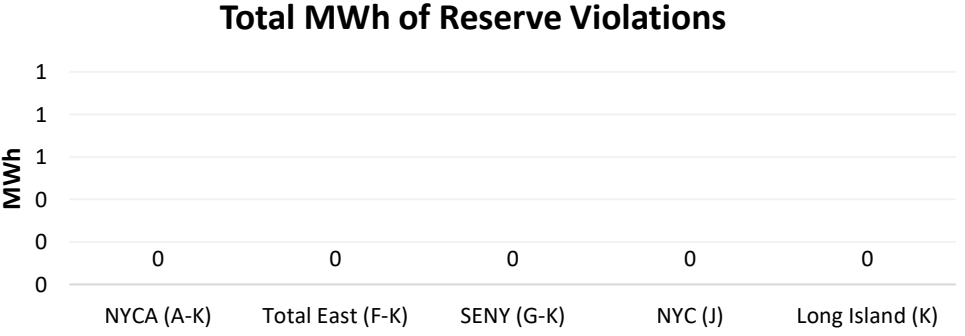
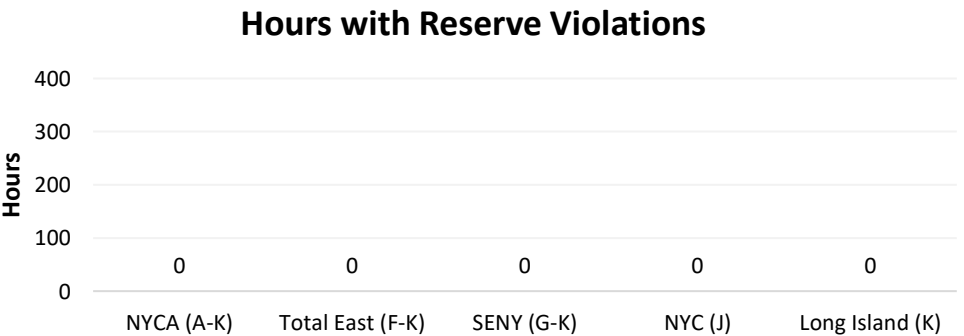
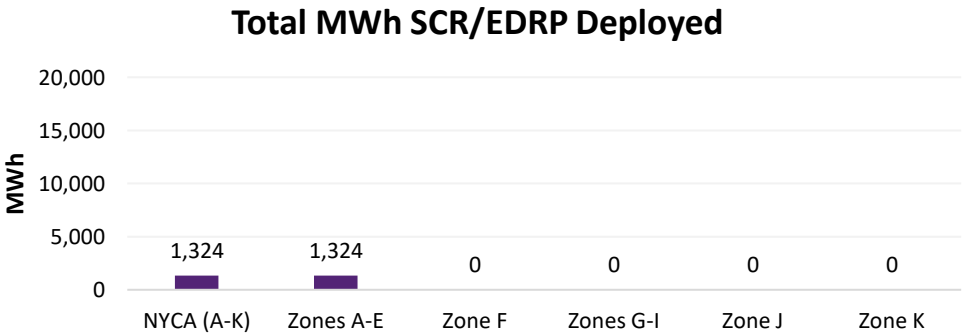
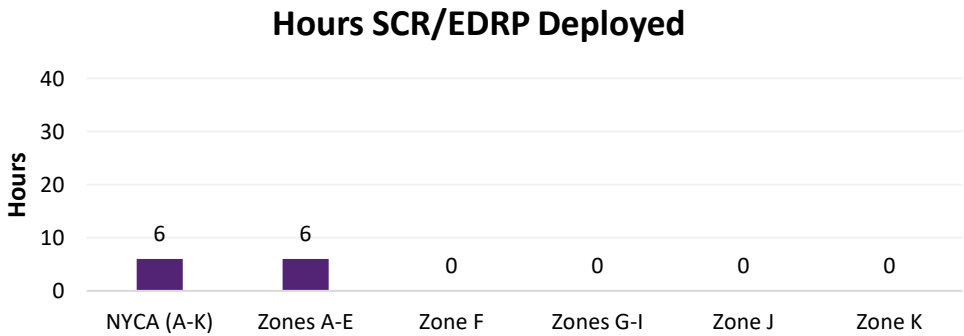
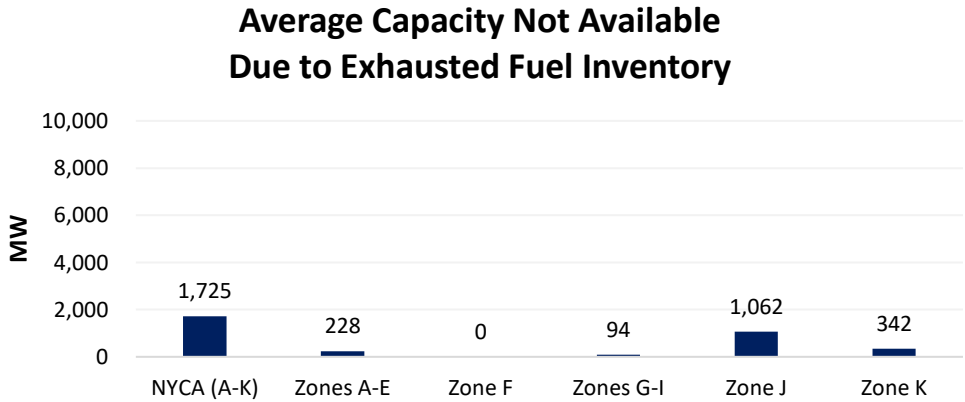
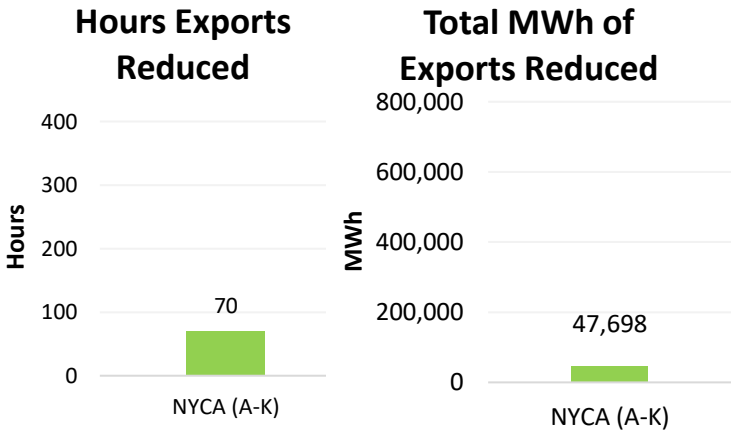
Reserve Violations	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Viol.	

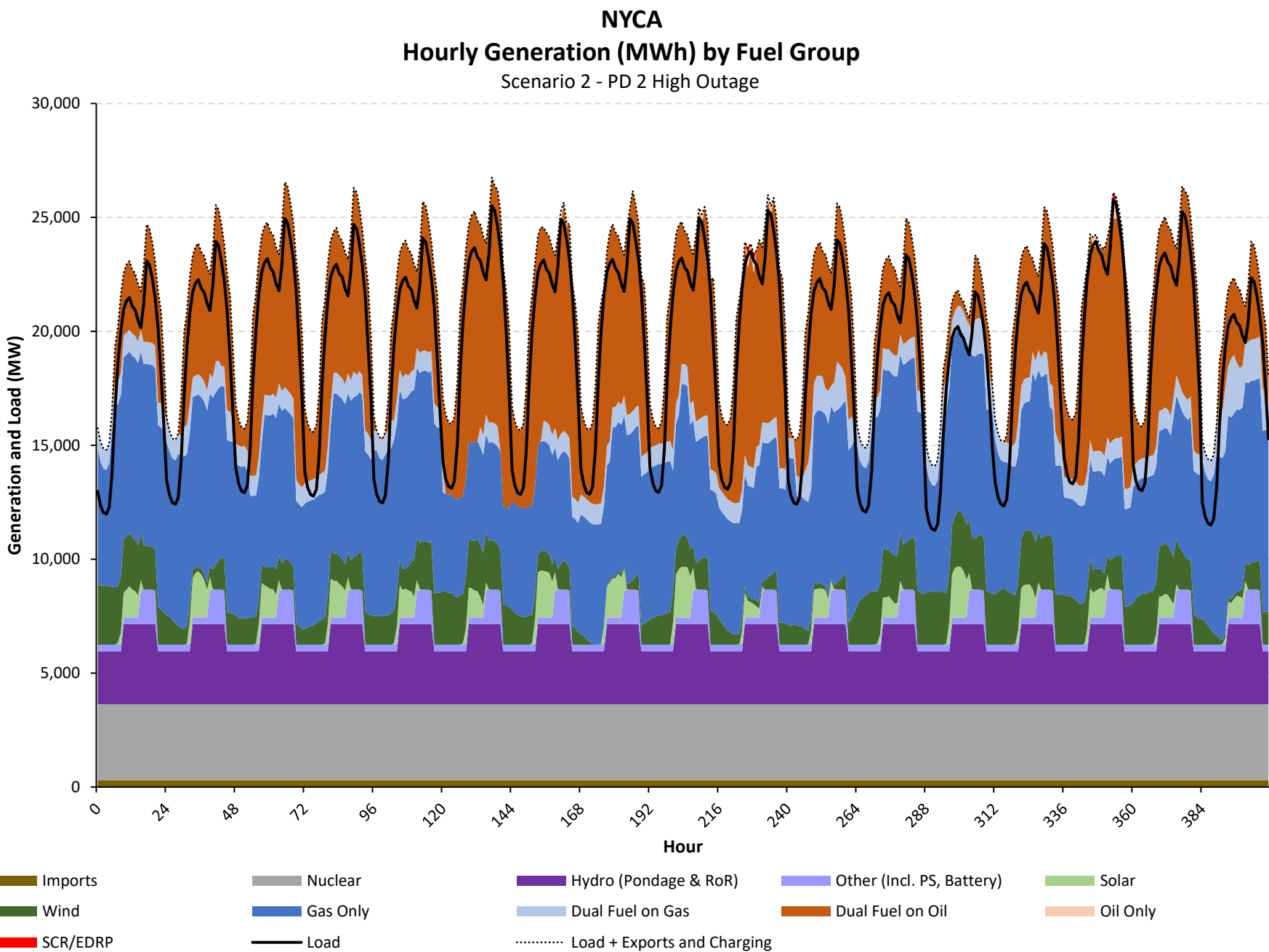
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

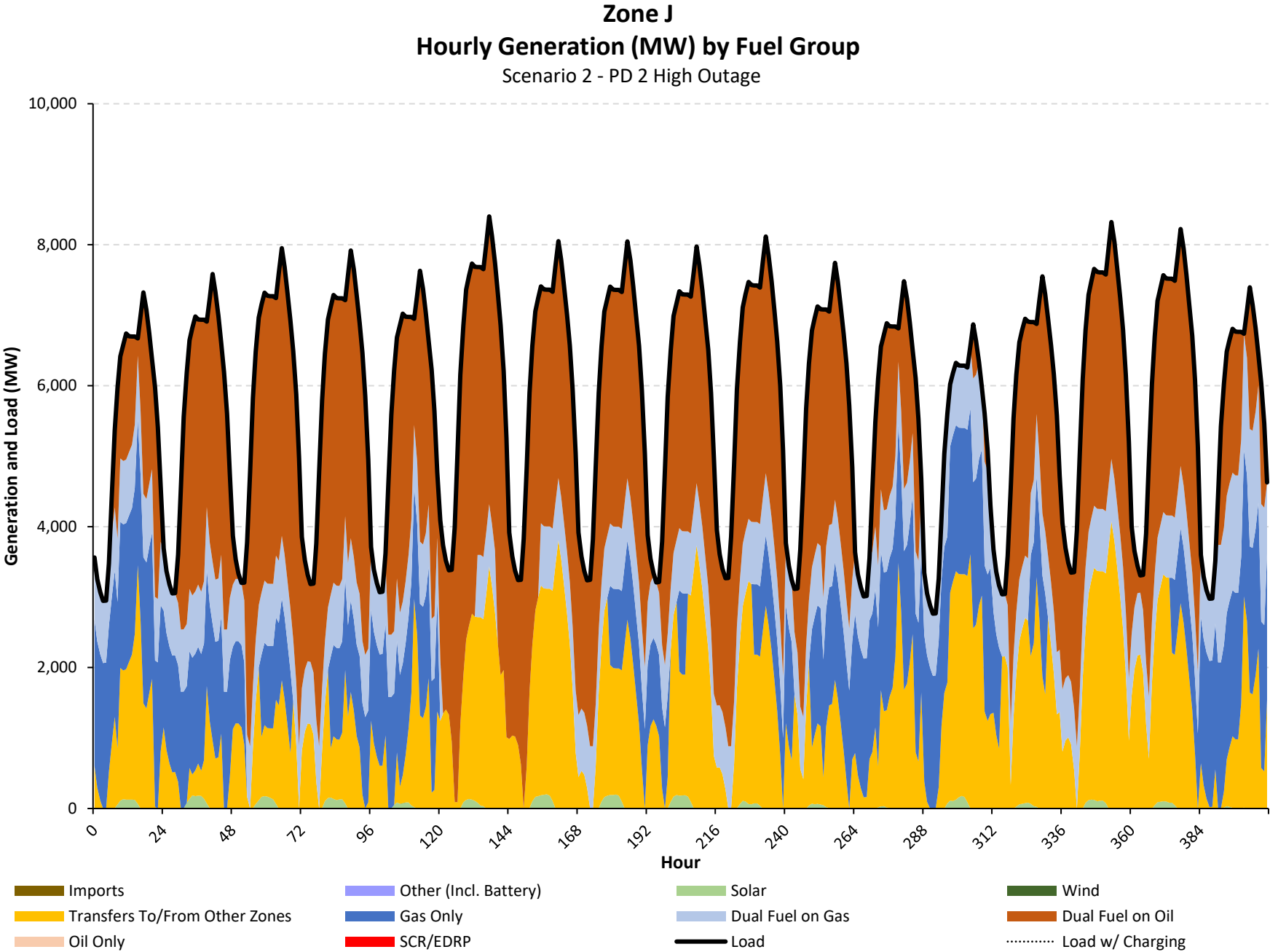
Full Period Results Summary

Case Name: Scenario 2 - PD 2 High Outage

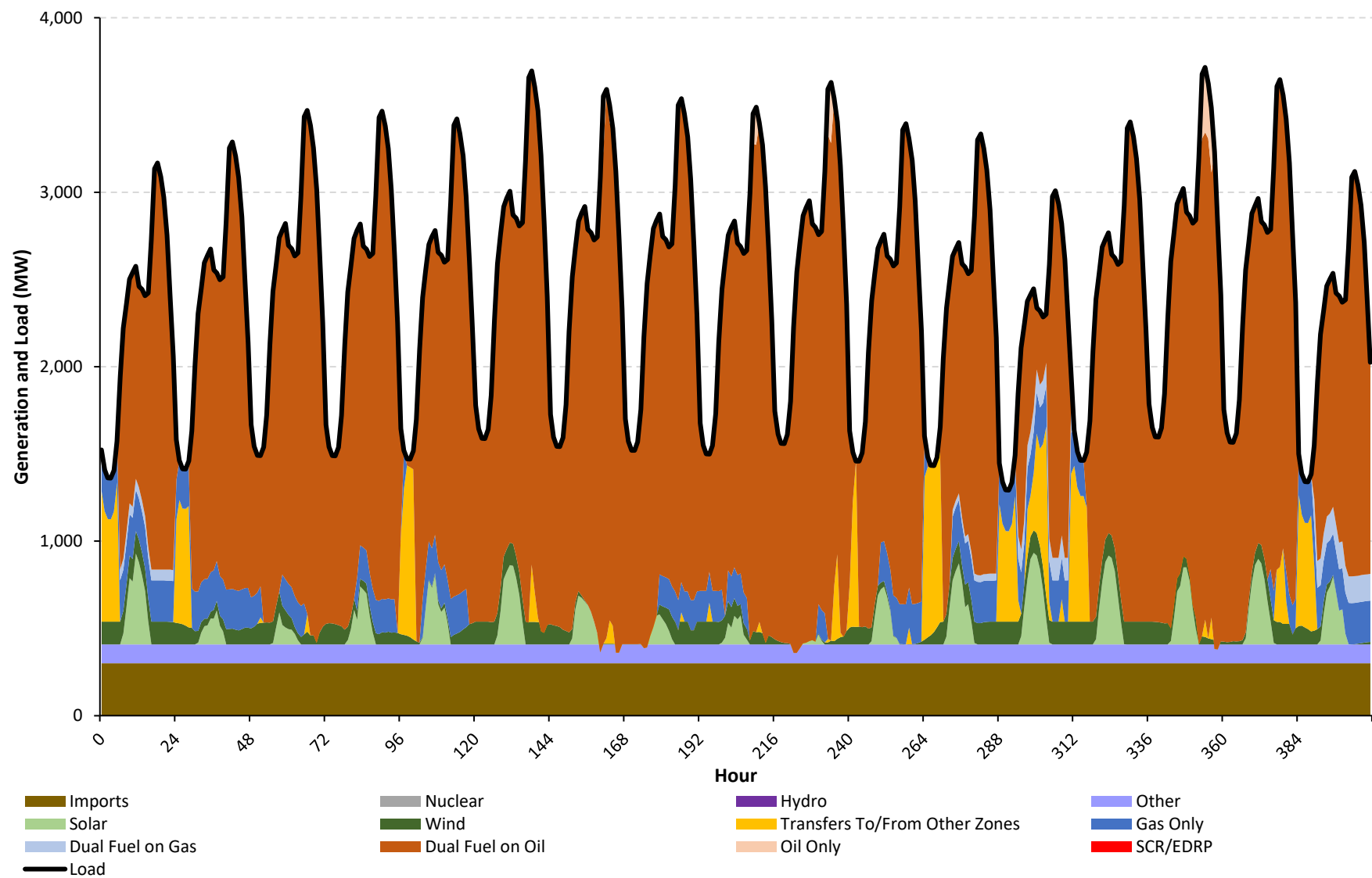
Case Summary	
Derate (EFORD) Increase:	High
Starting Storage:	Historical
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

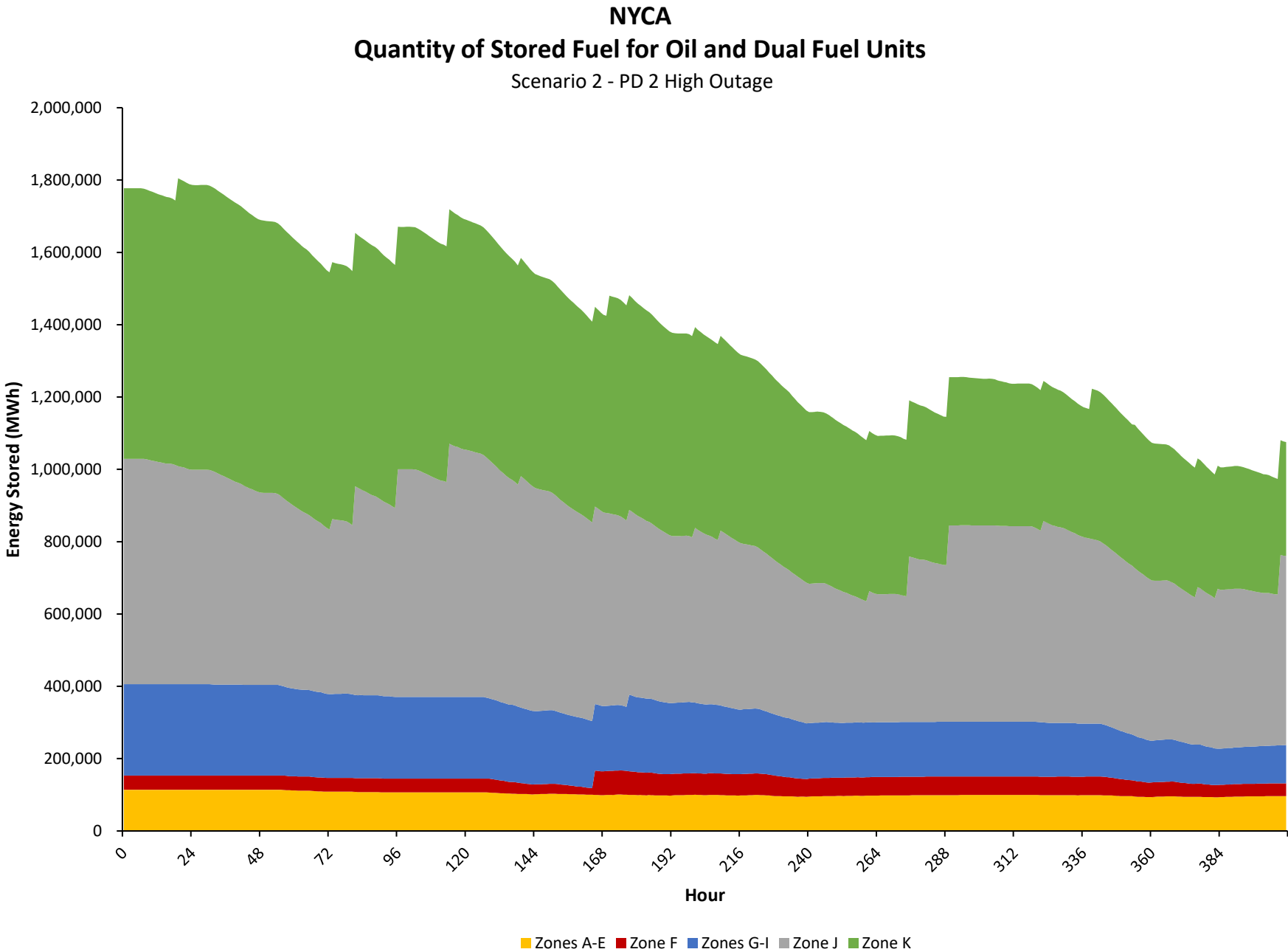


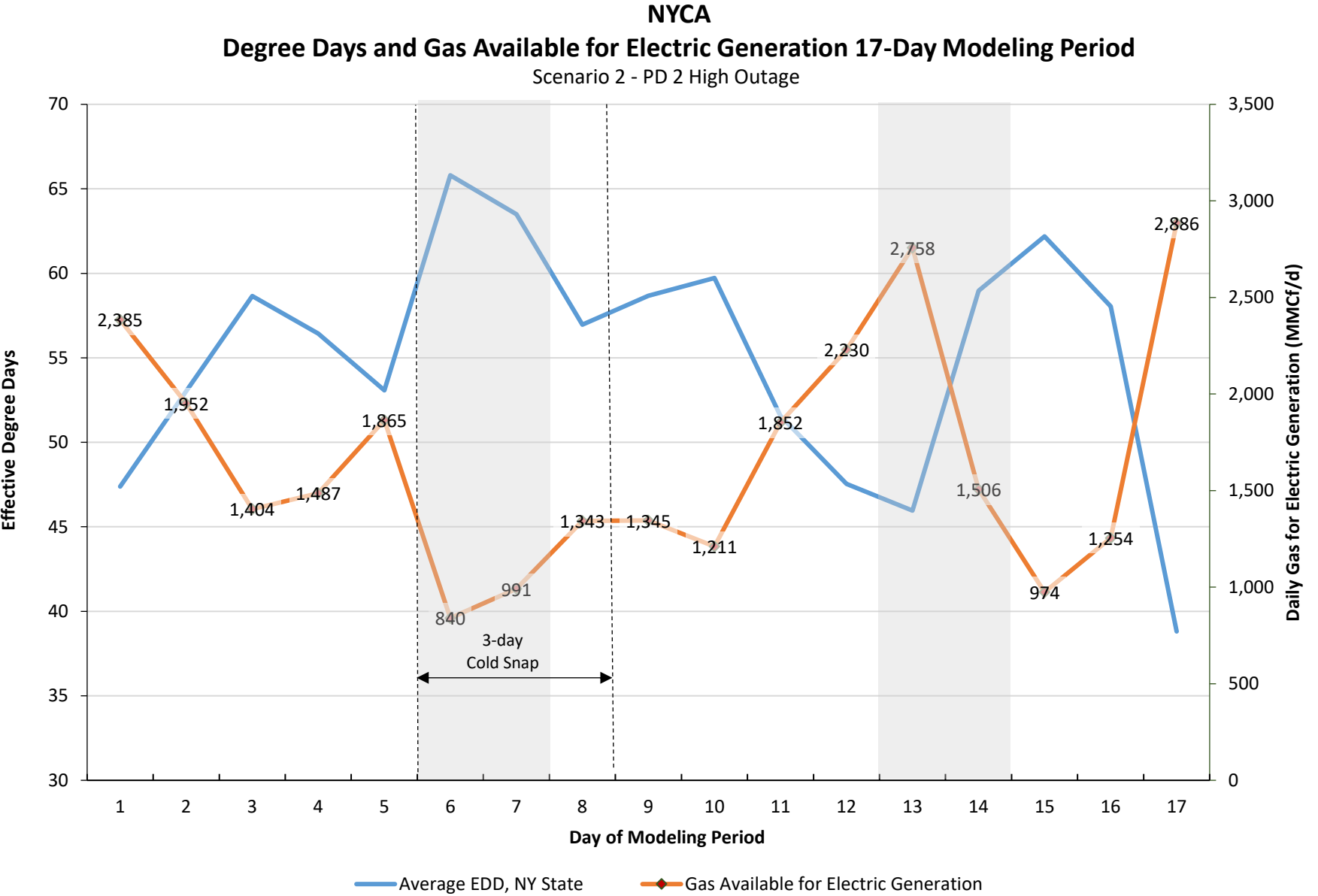




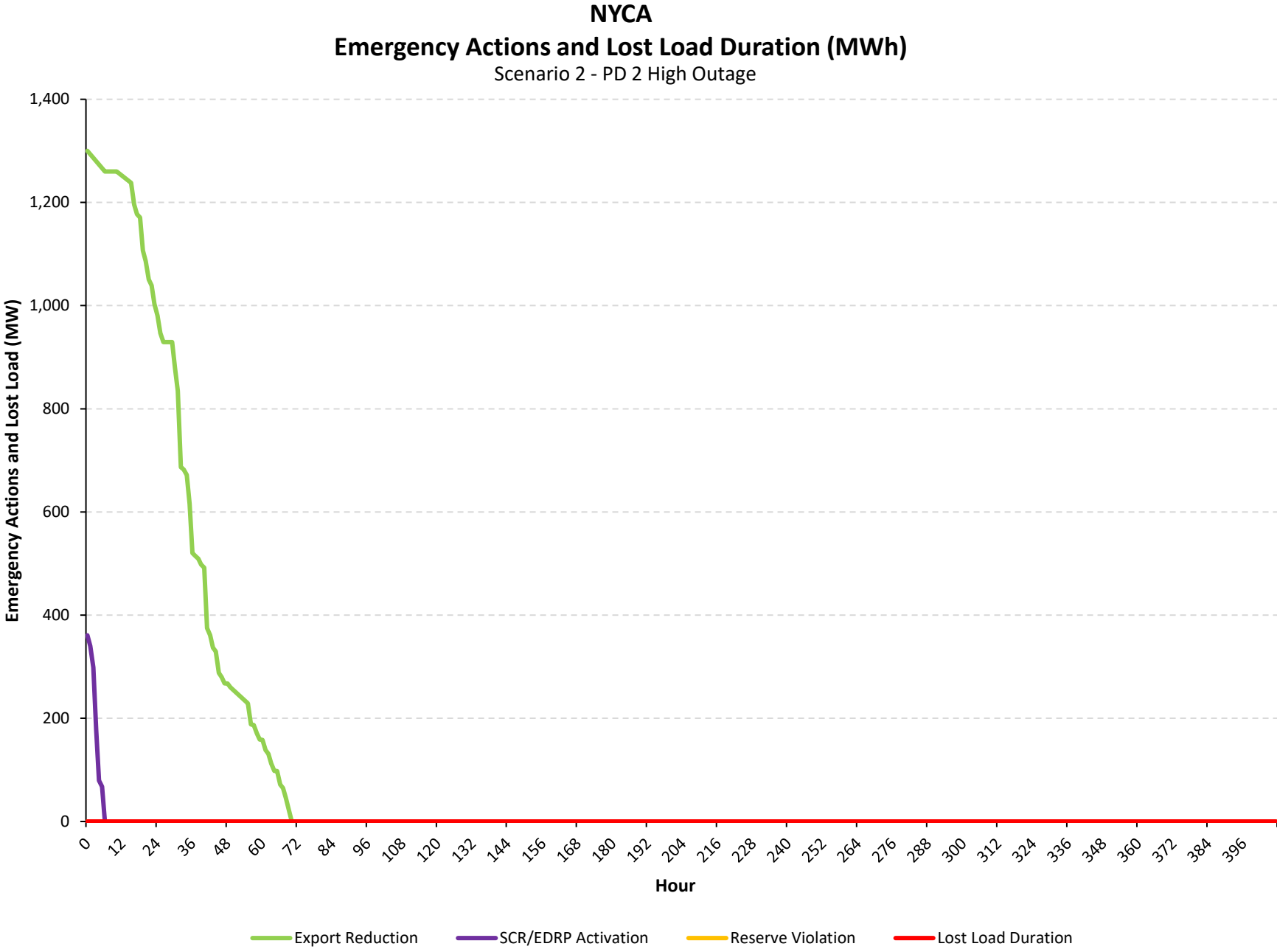
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 2 High Outage

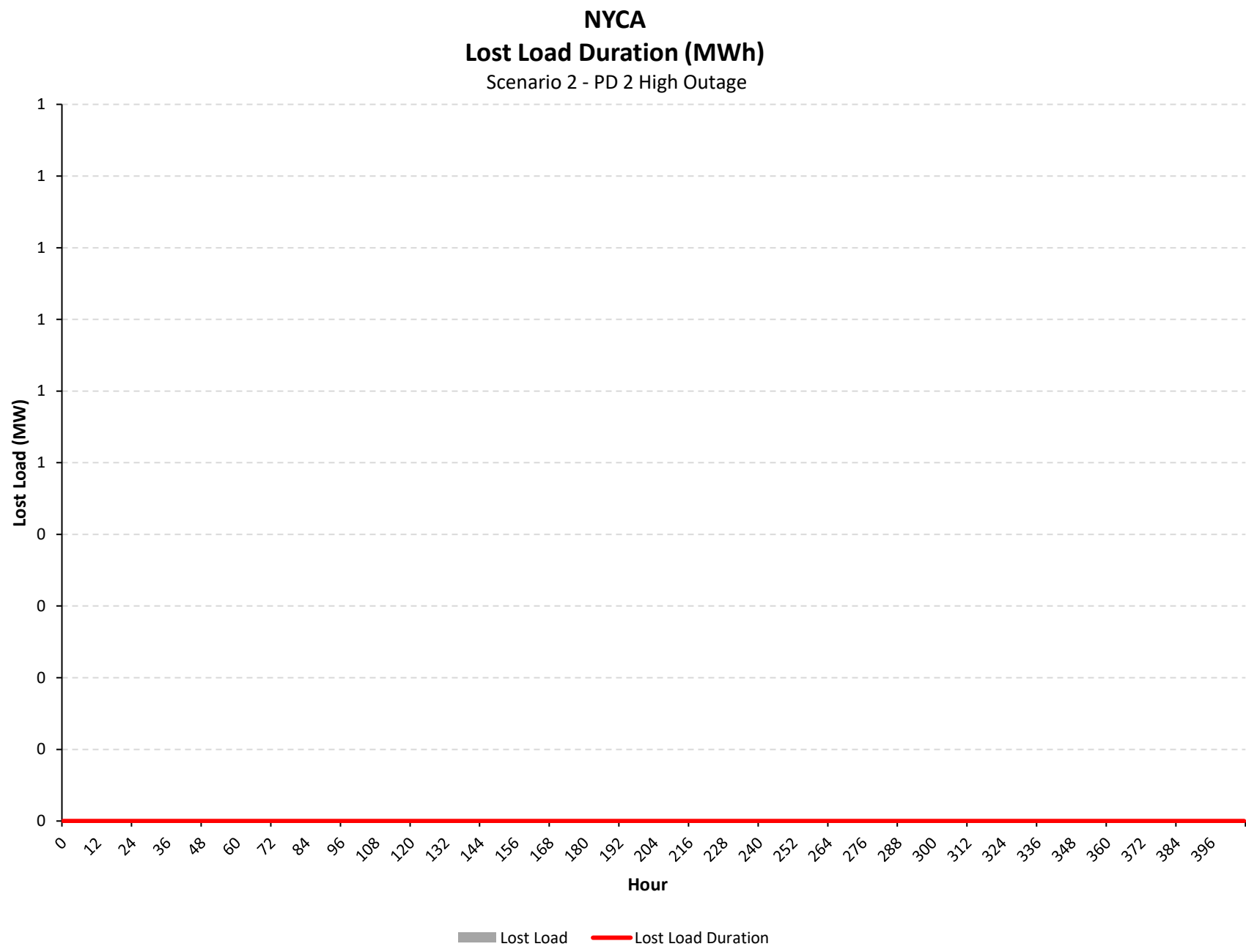






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



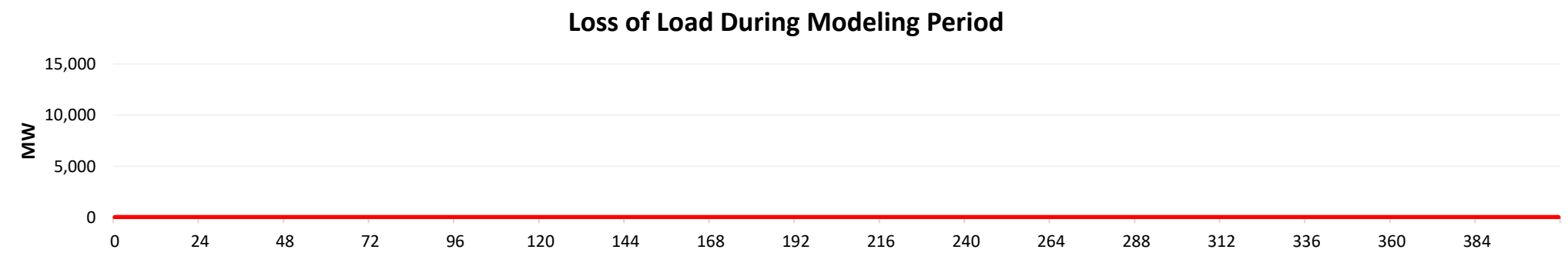
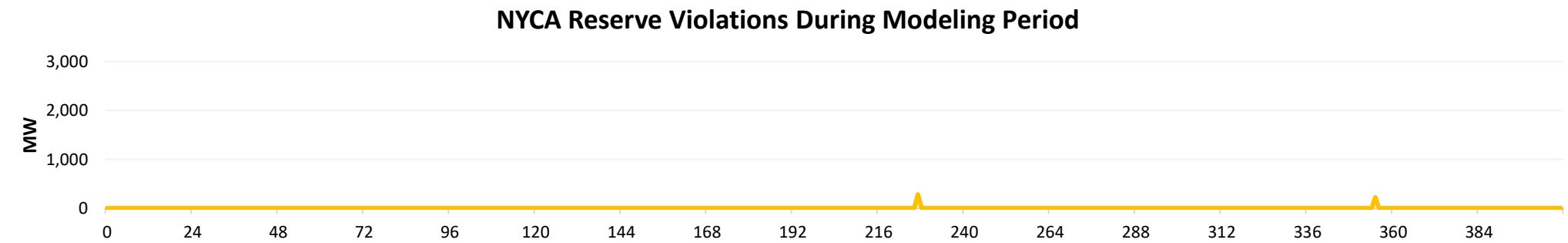
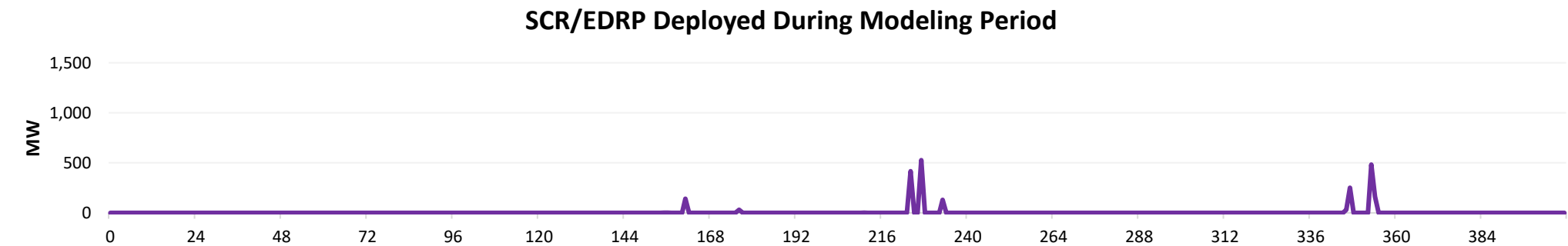
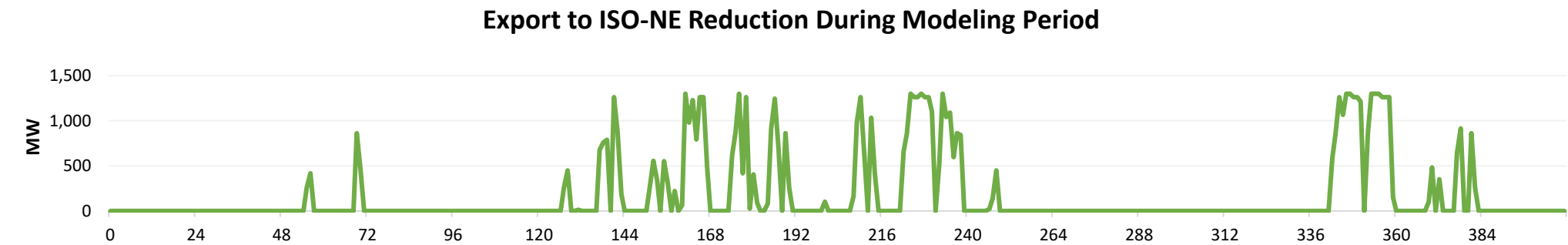
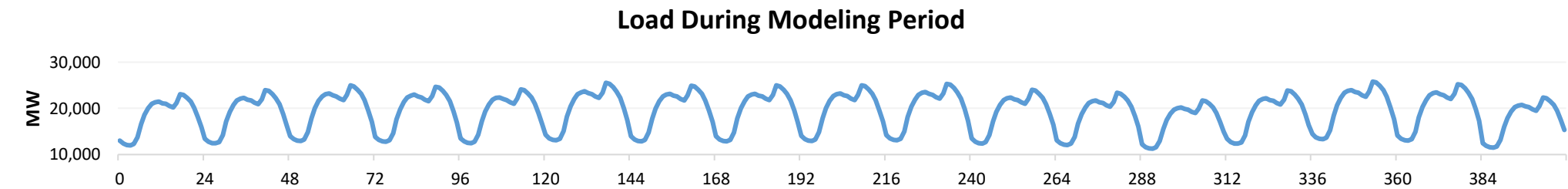


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 3 SENY Deactivation (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 2 - PD 3 SENY Deactivation



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

Export Reductions	
Total Hrs.	91
Total MWh	70,073
Avg. MW	171.7

SCR Deployment	
Total Hrs.	9
Total MWh	2,176
Avg. MW	5.3

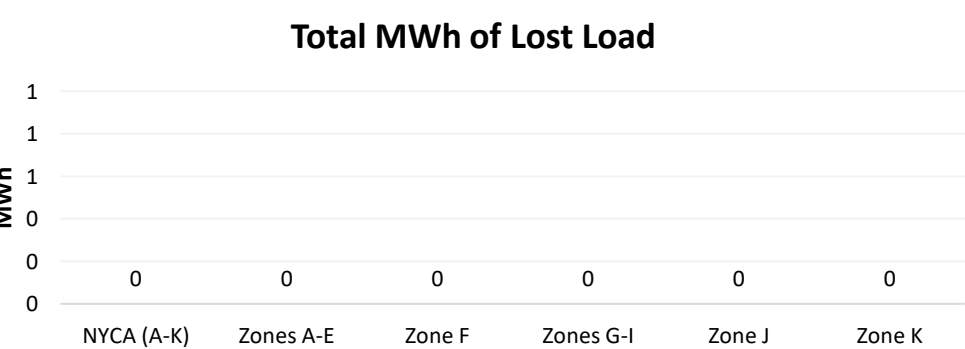
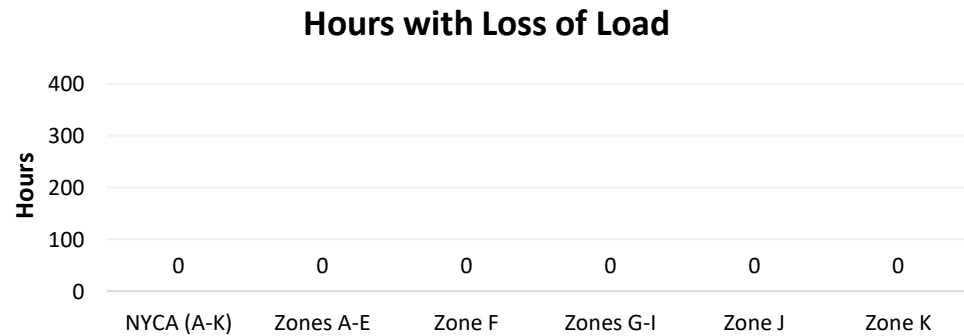
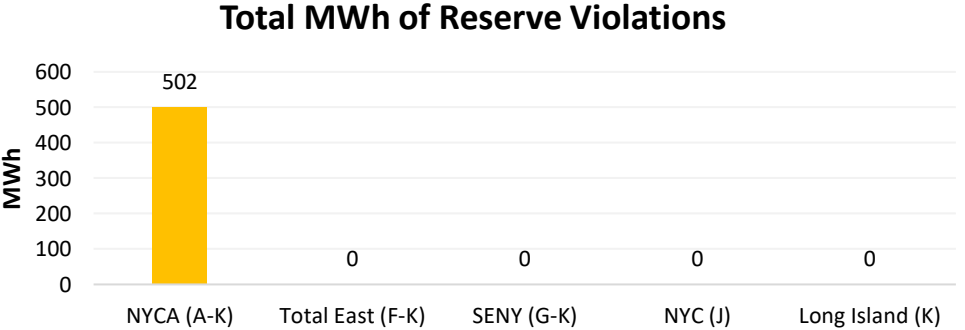
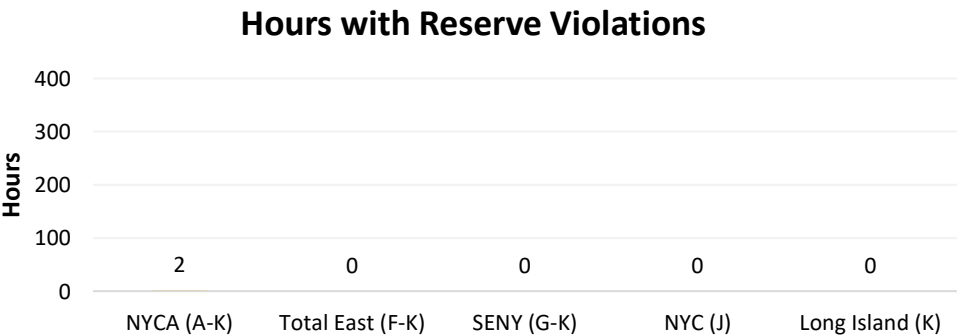
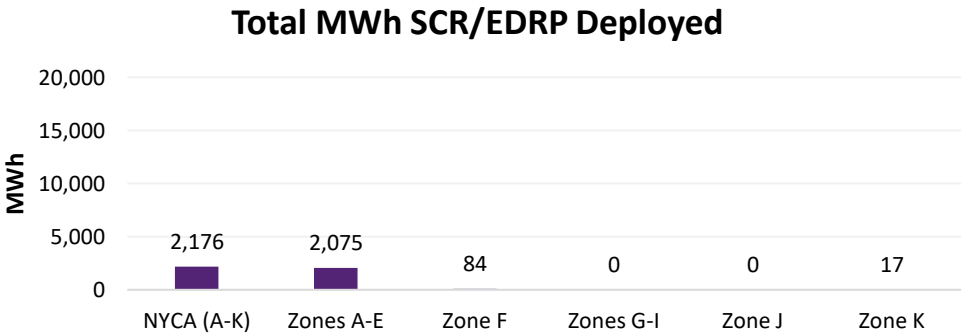
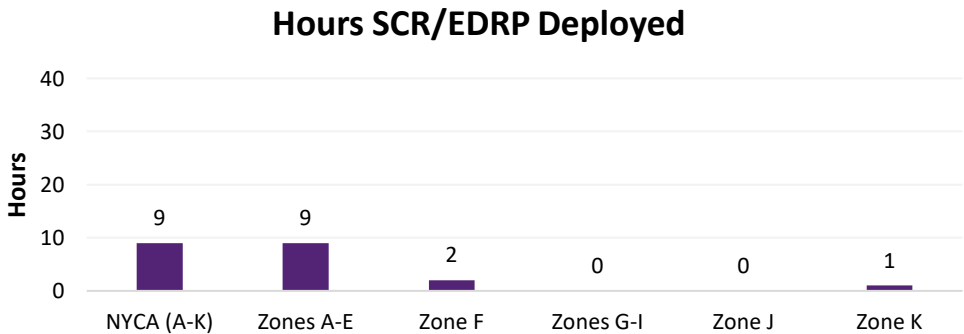
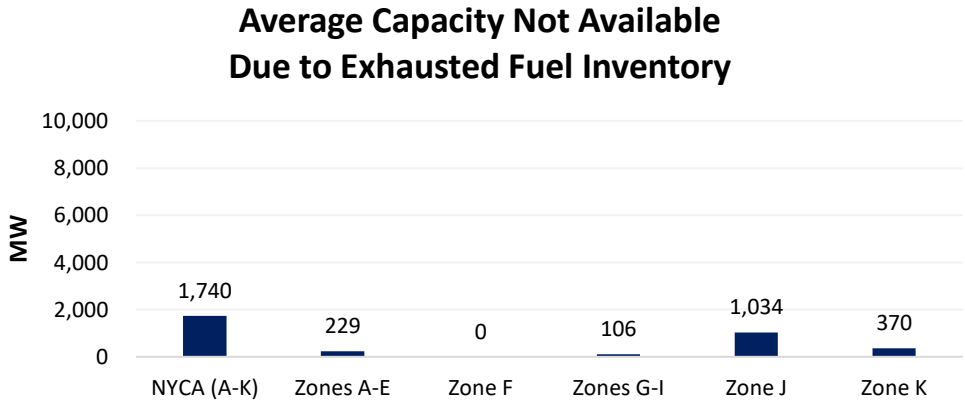
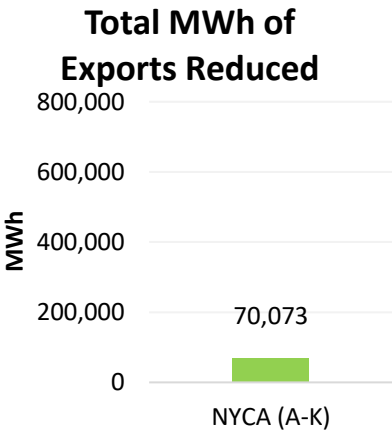
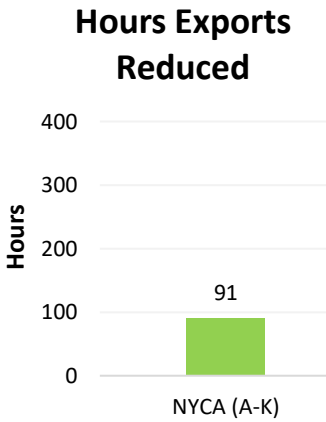
Reserve Violations	
Total Hrs.	2
Total MWh	502
Avg. MW	1.2
First Hour with Viol.	227

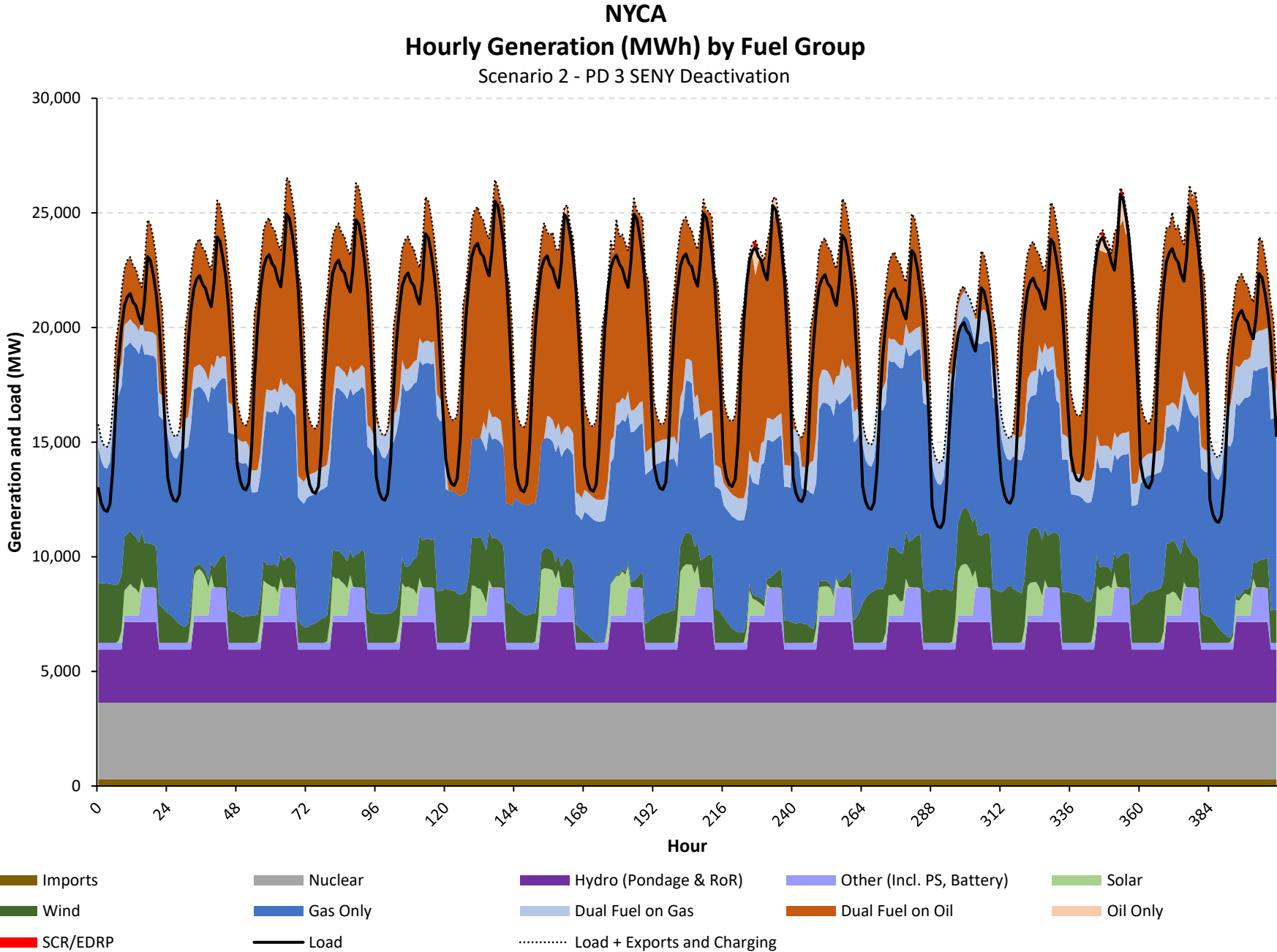
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

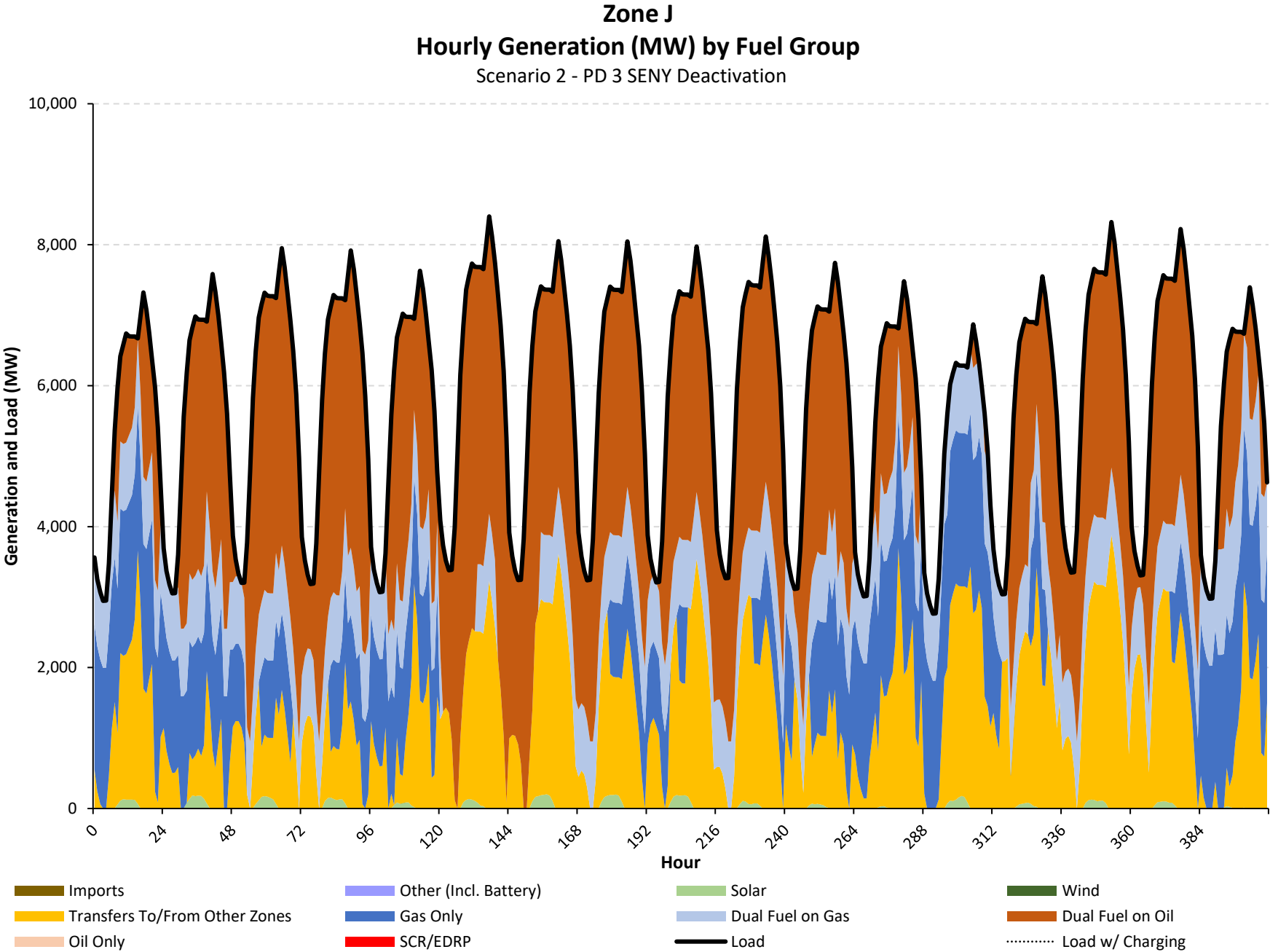
Full Period Results Summary

Case Name: Scenario 2 - PD 3 SENY Deactivation

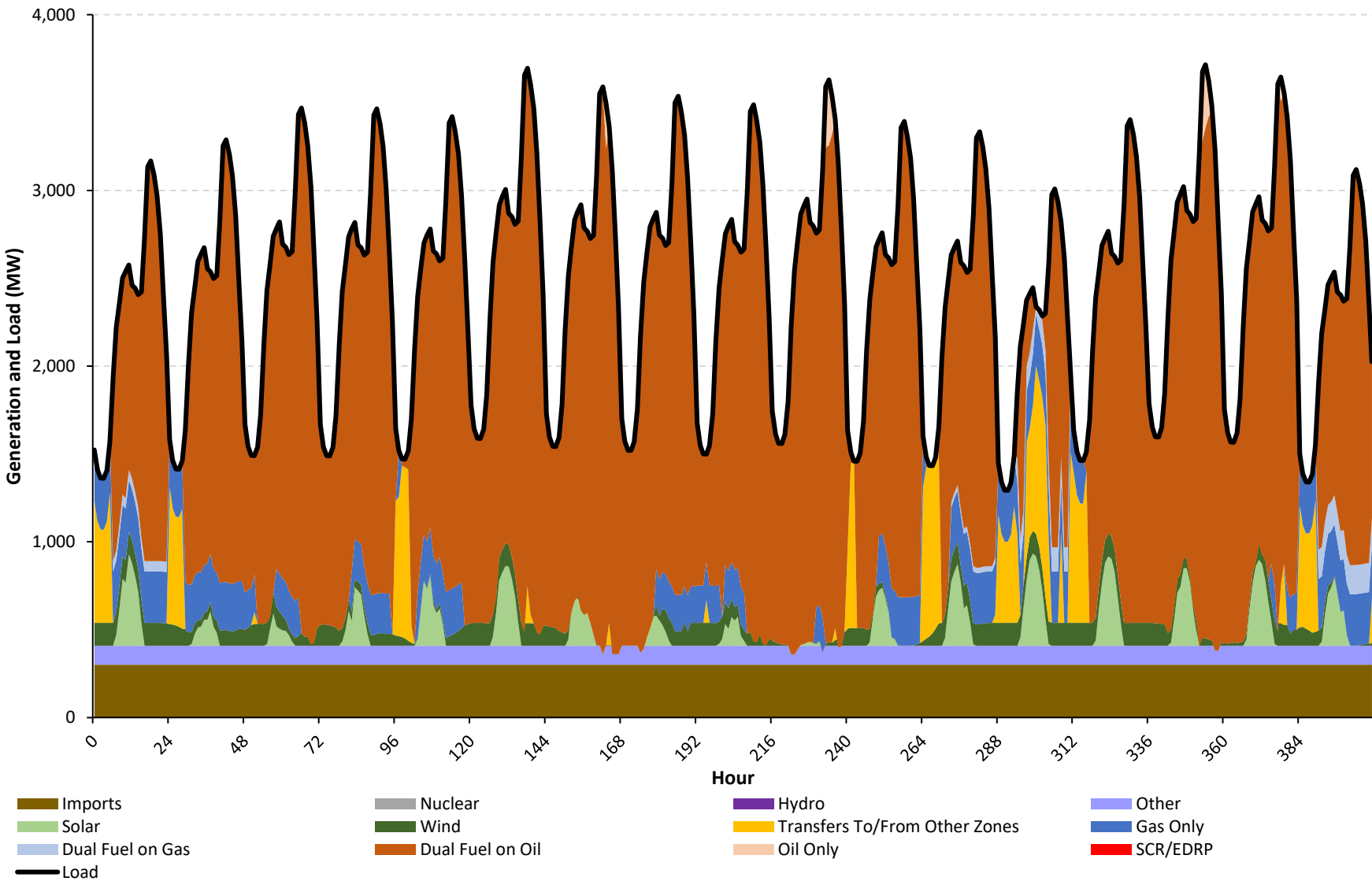
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	Historical
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	Net Zero

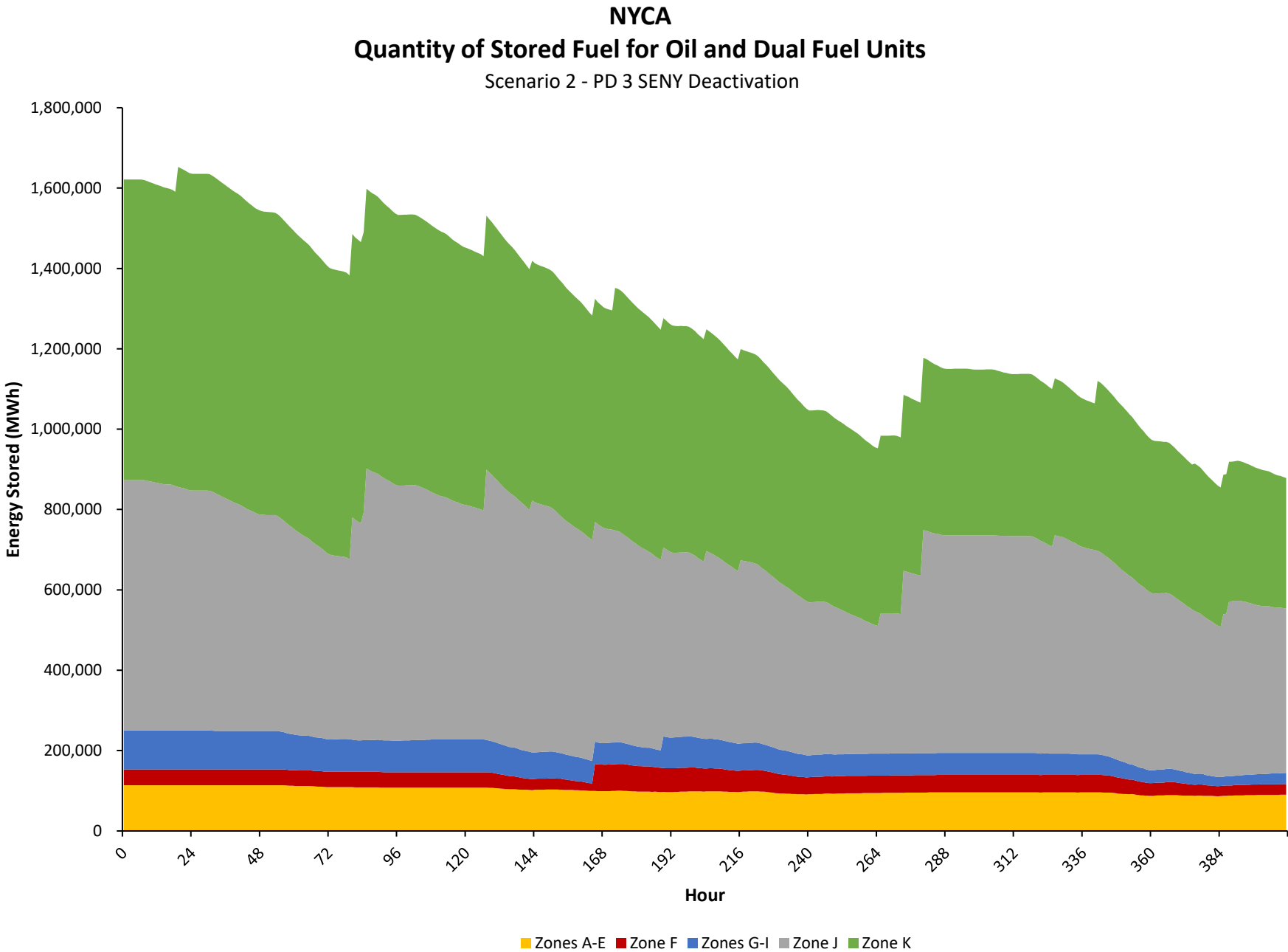


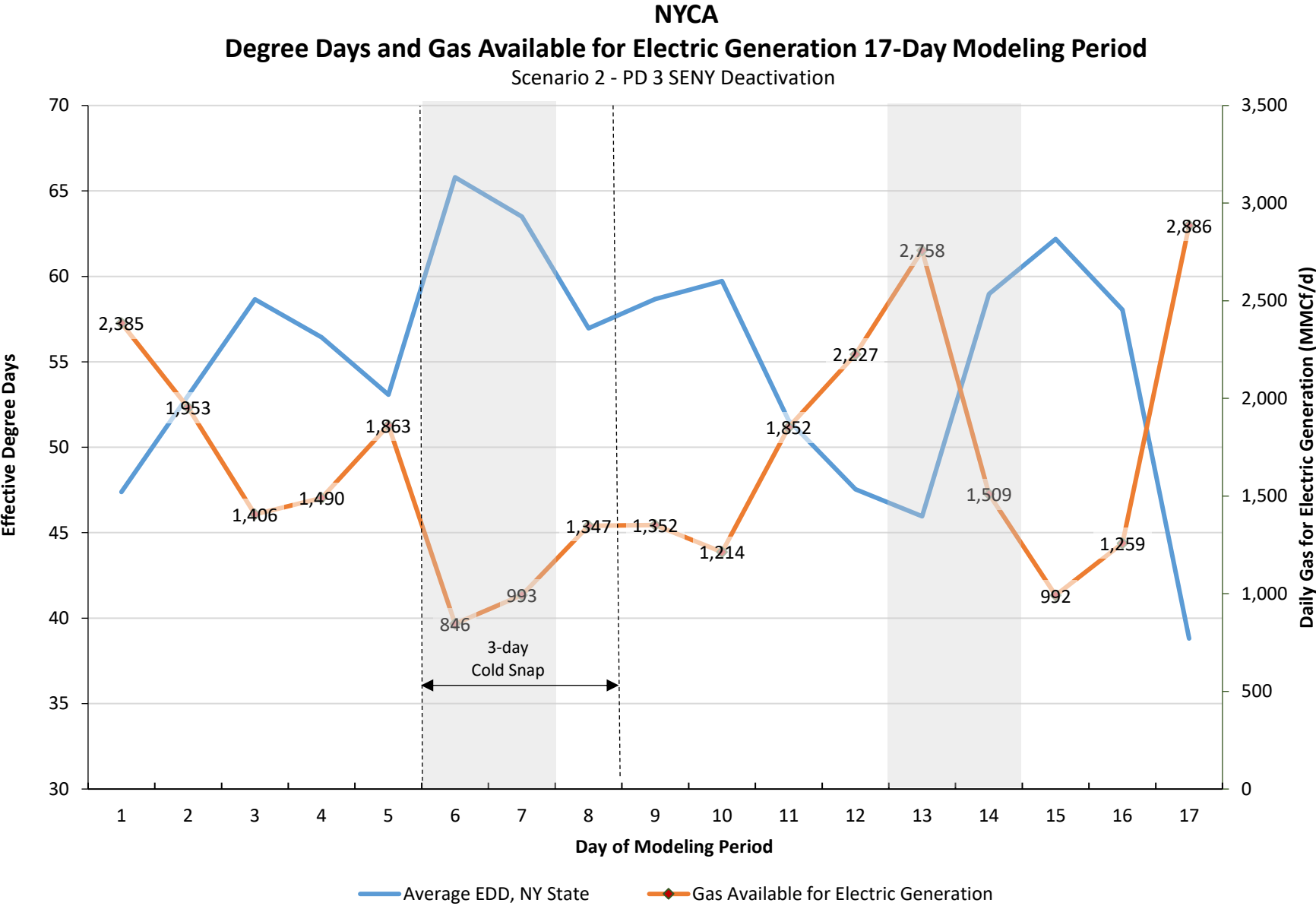




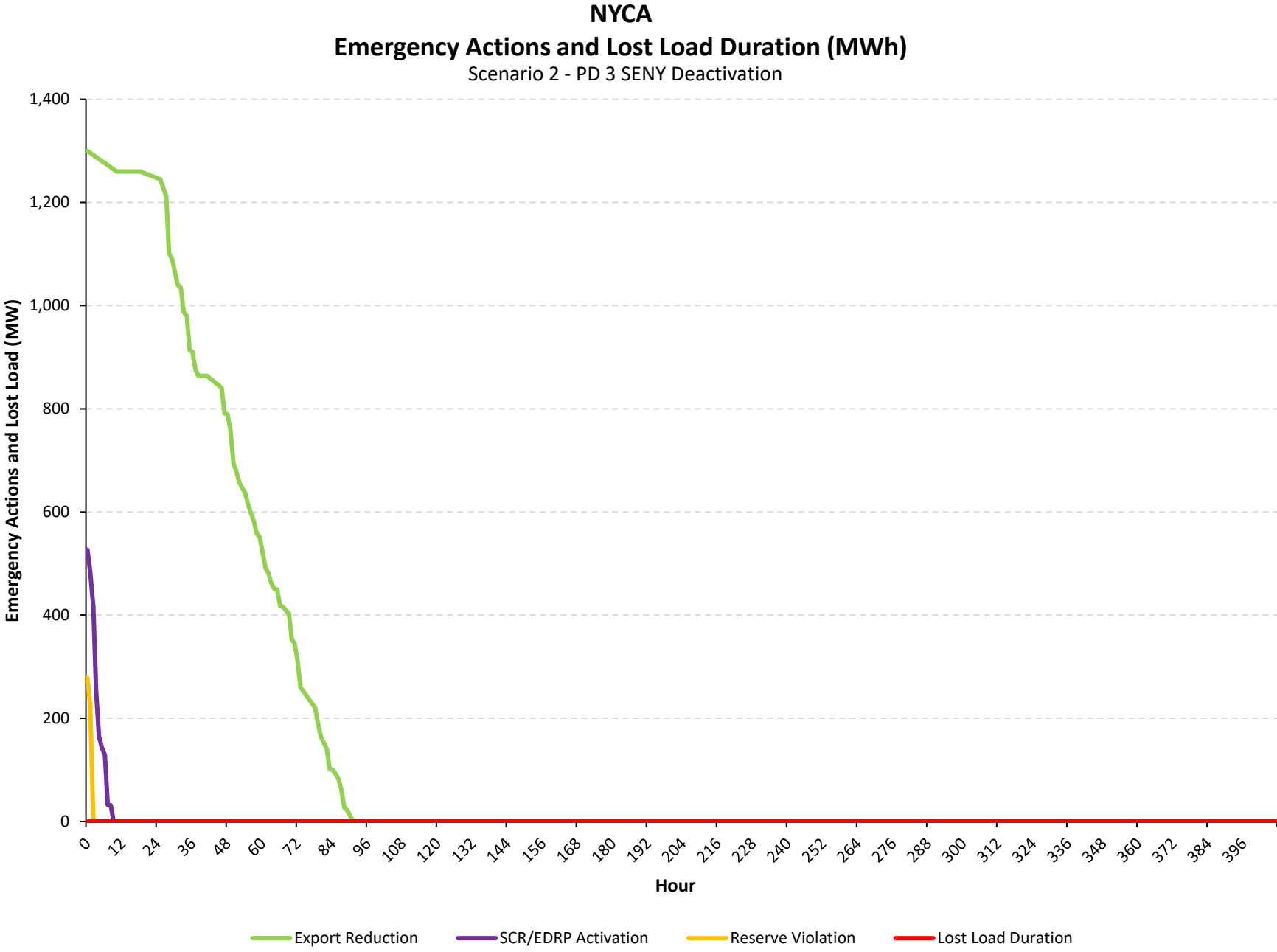
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 3 SENY Deactivation

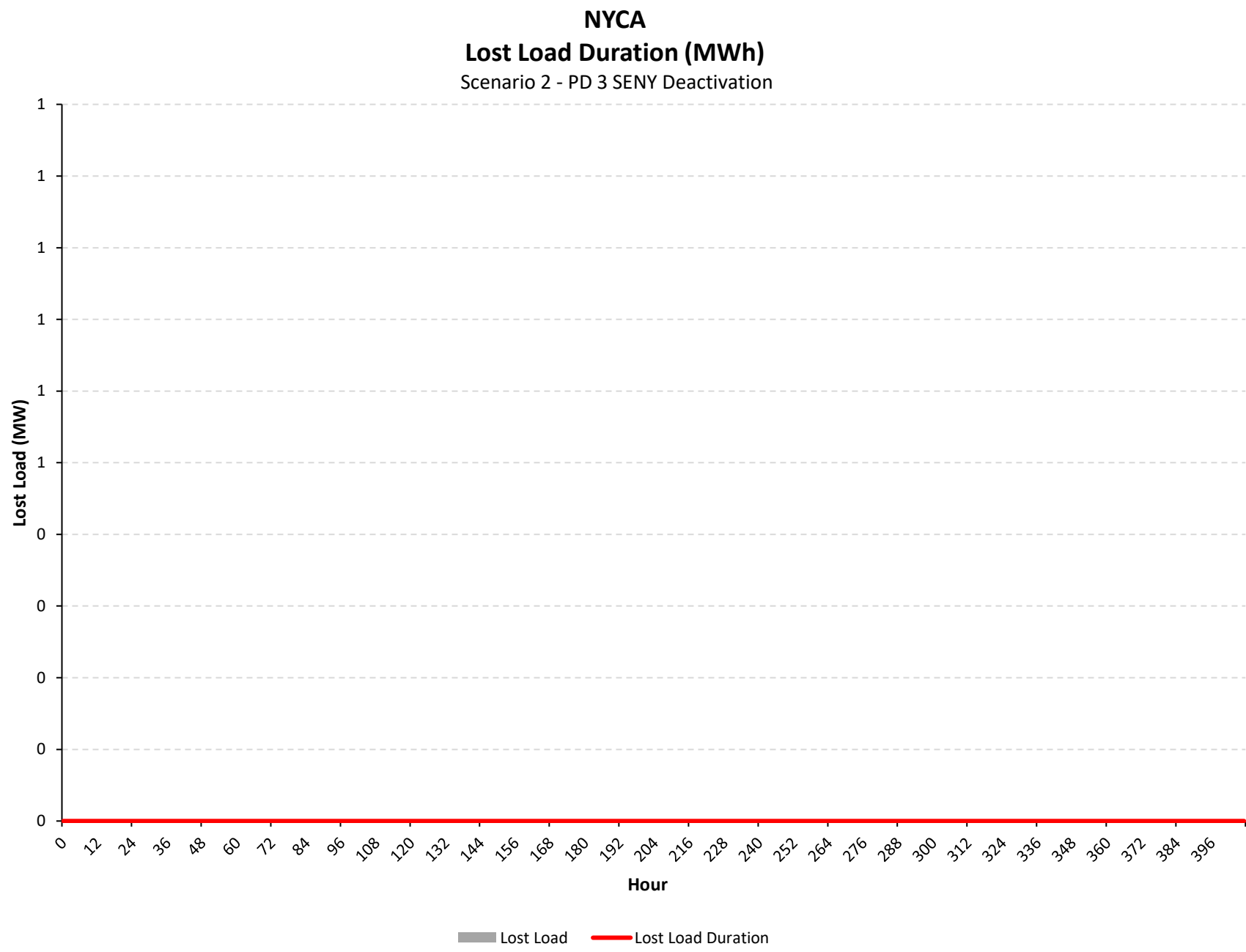






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



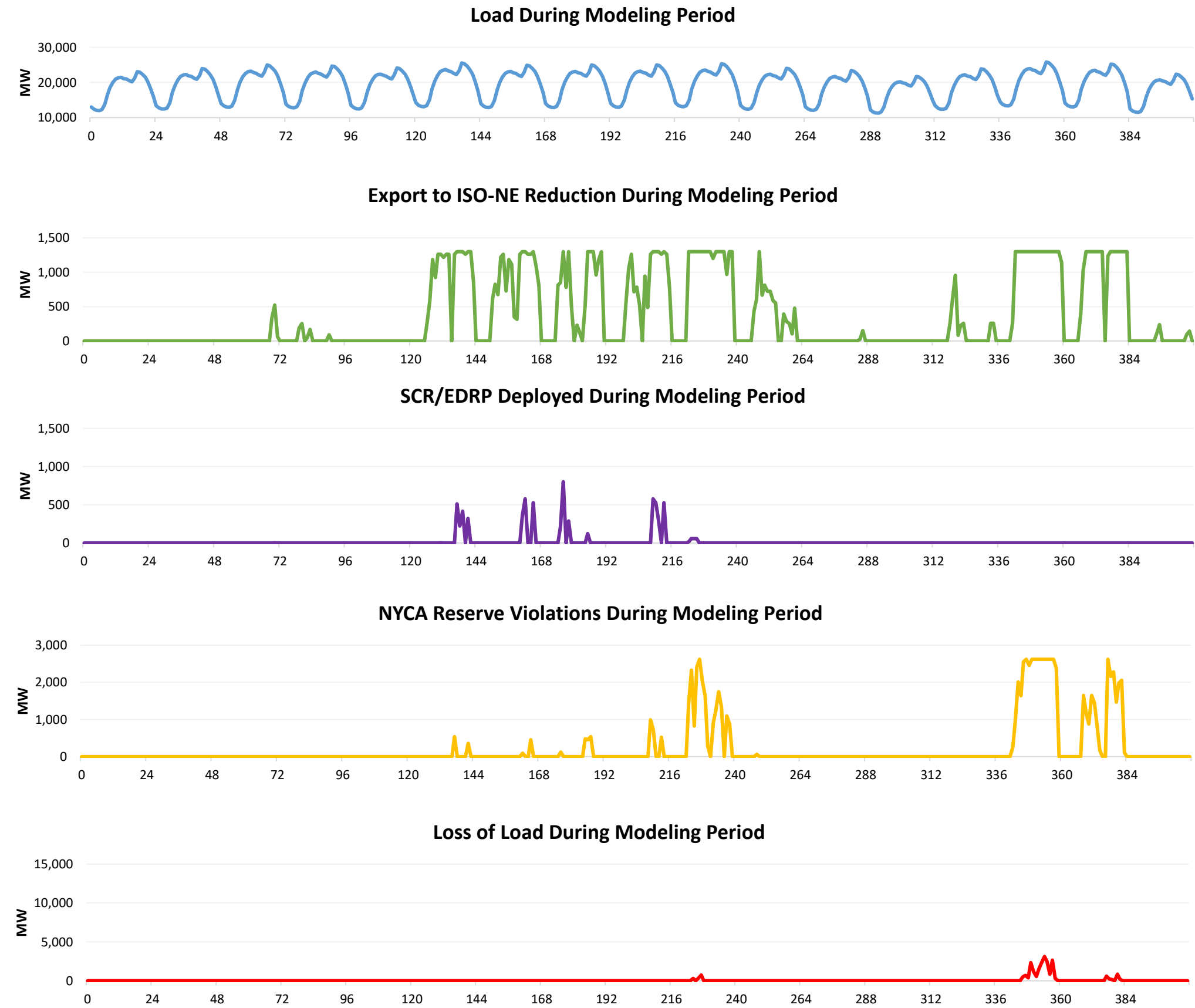


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 4 Nuclear Station Outage (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 2 - PD 4 Nuclear Station Outage



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

Export Reductions	
Total Hrs.	156
Total MWh	146,080
Avg. MW	358.0

SCR Deployment	
Total Hrs.	19
Total MWh	6,459
Avg. MW	15.8

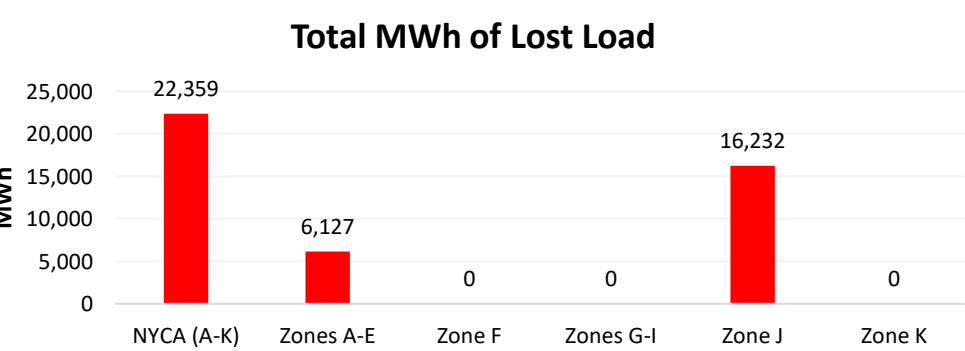
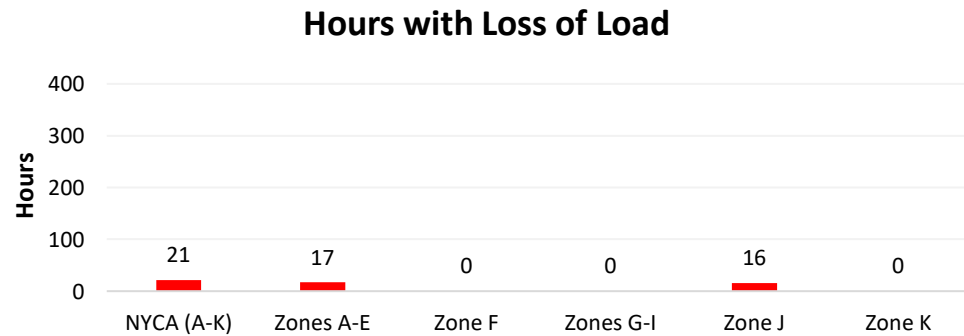
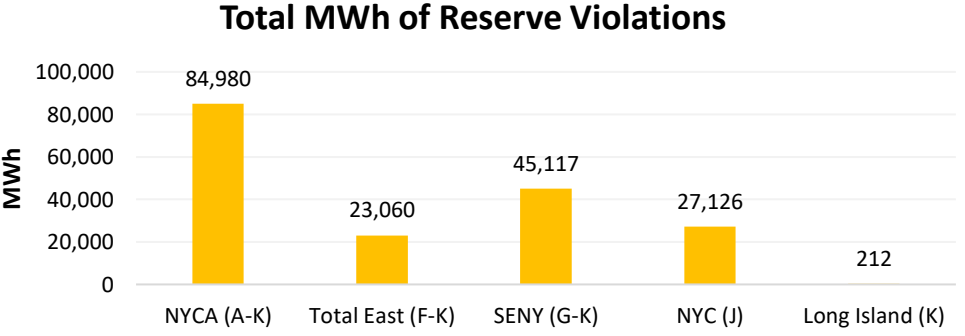
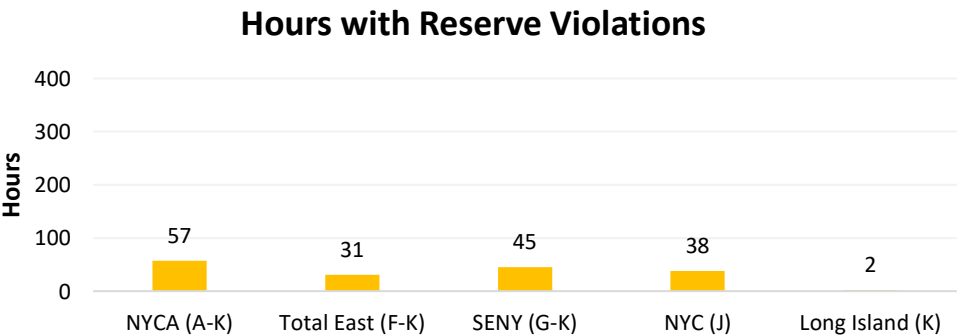
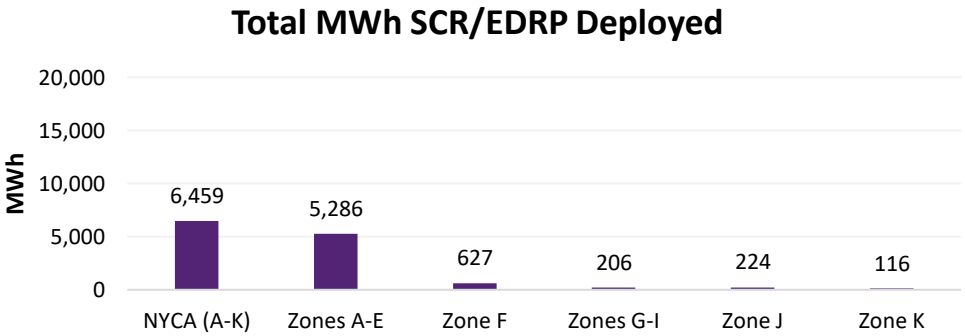
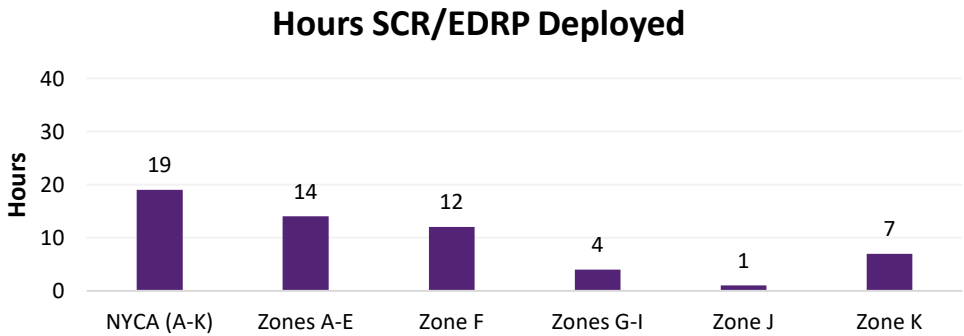
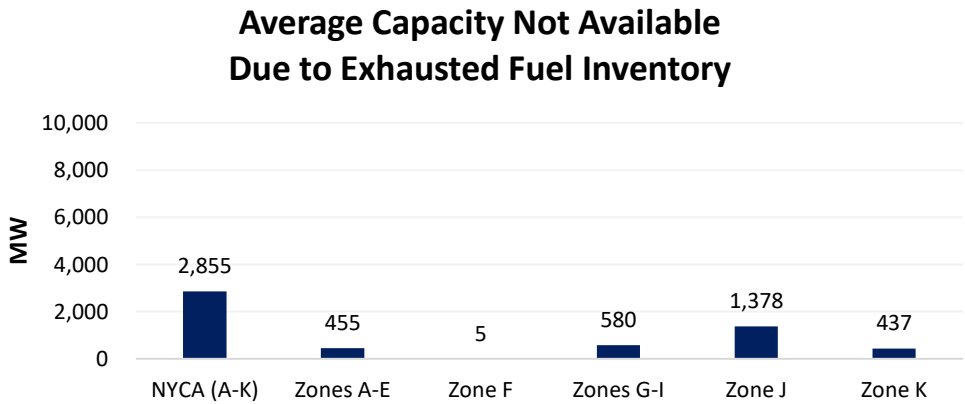
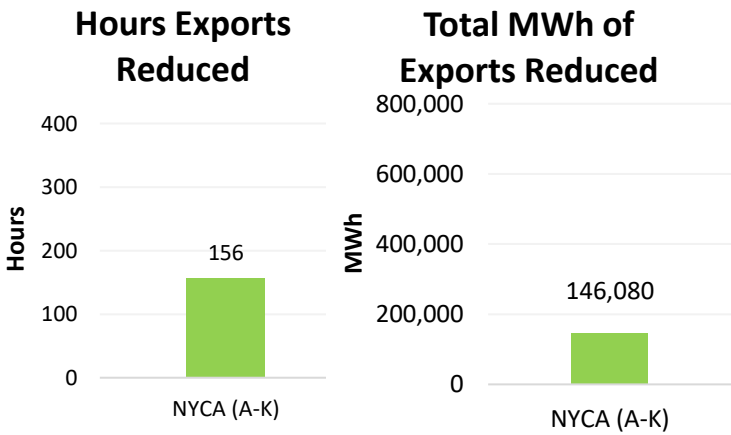
Reserve Violations	
Total Hrs.	57
Total MWh	84,980
Avg. MW	208.3
First Hour with Viol.	137

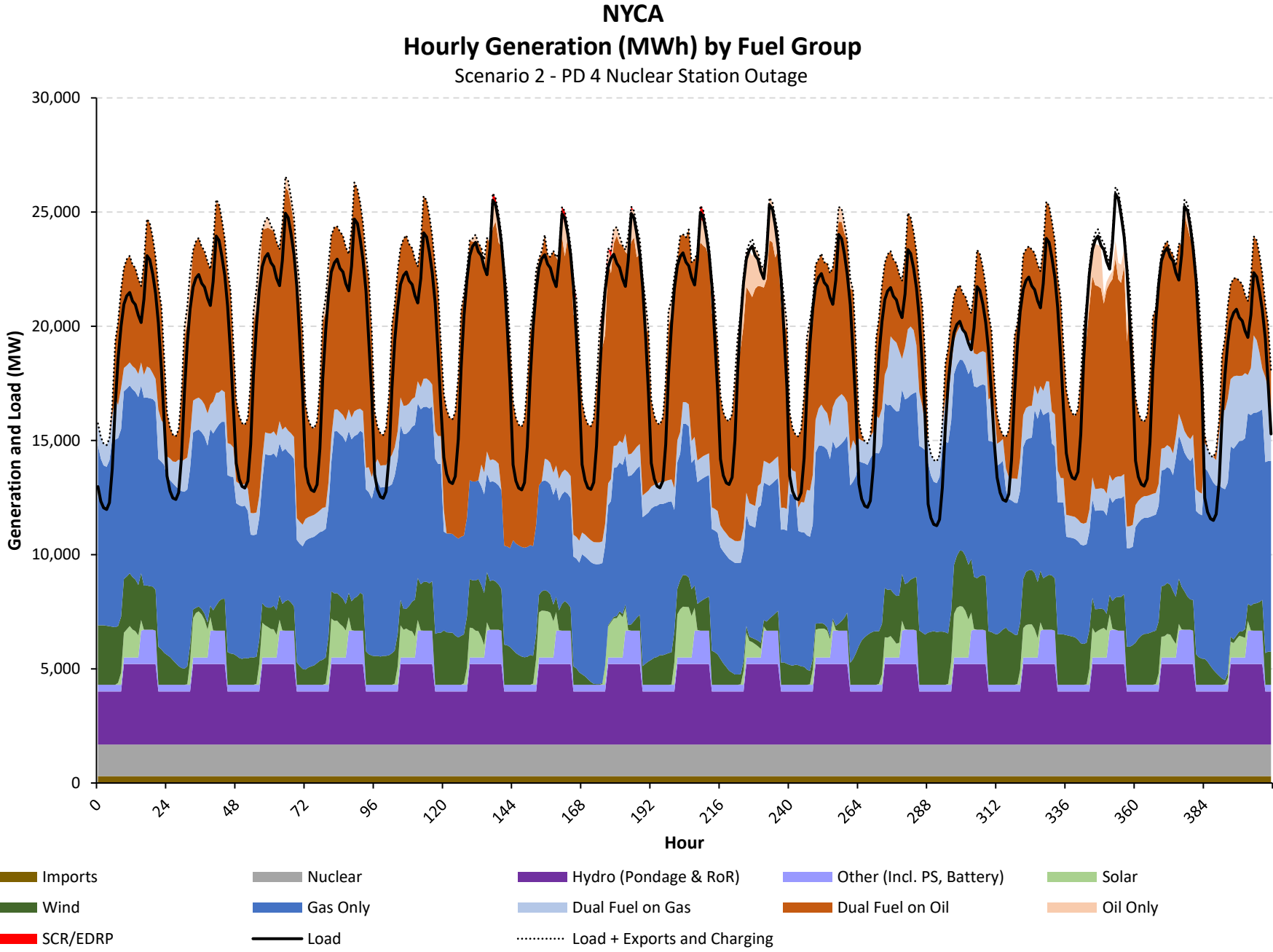
Loss of Load	
Total Hrs.	21
Total MWh	22,359
Avg. MW	54.8
First Hour with Losses	224

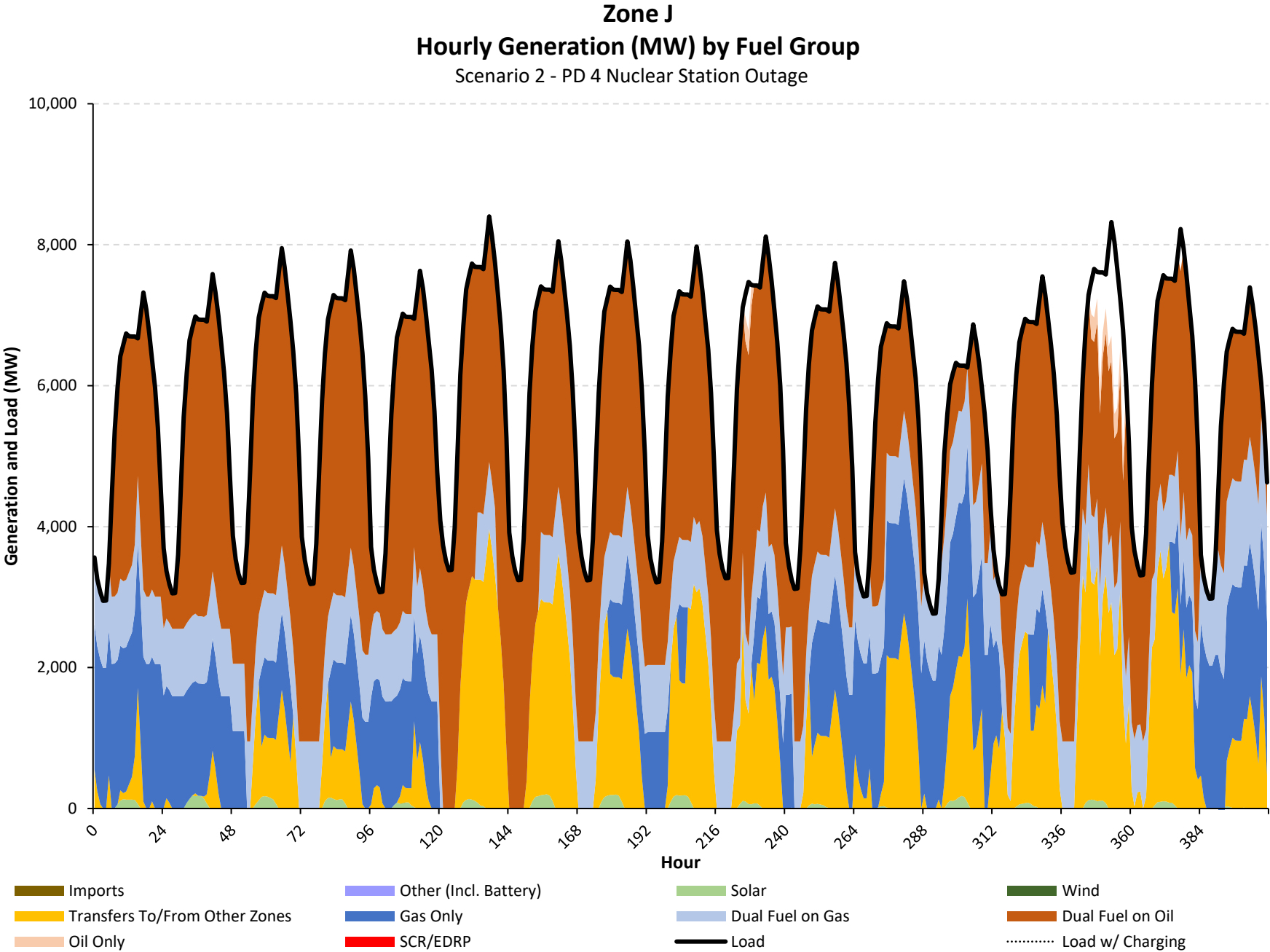
Full Period Results Summary

Case Name: Scenario 2 - PD 4 Nuclear Station Outage

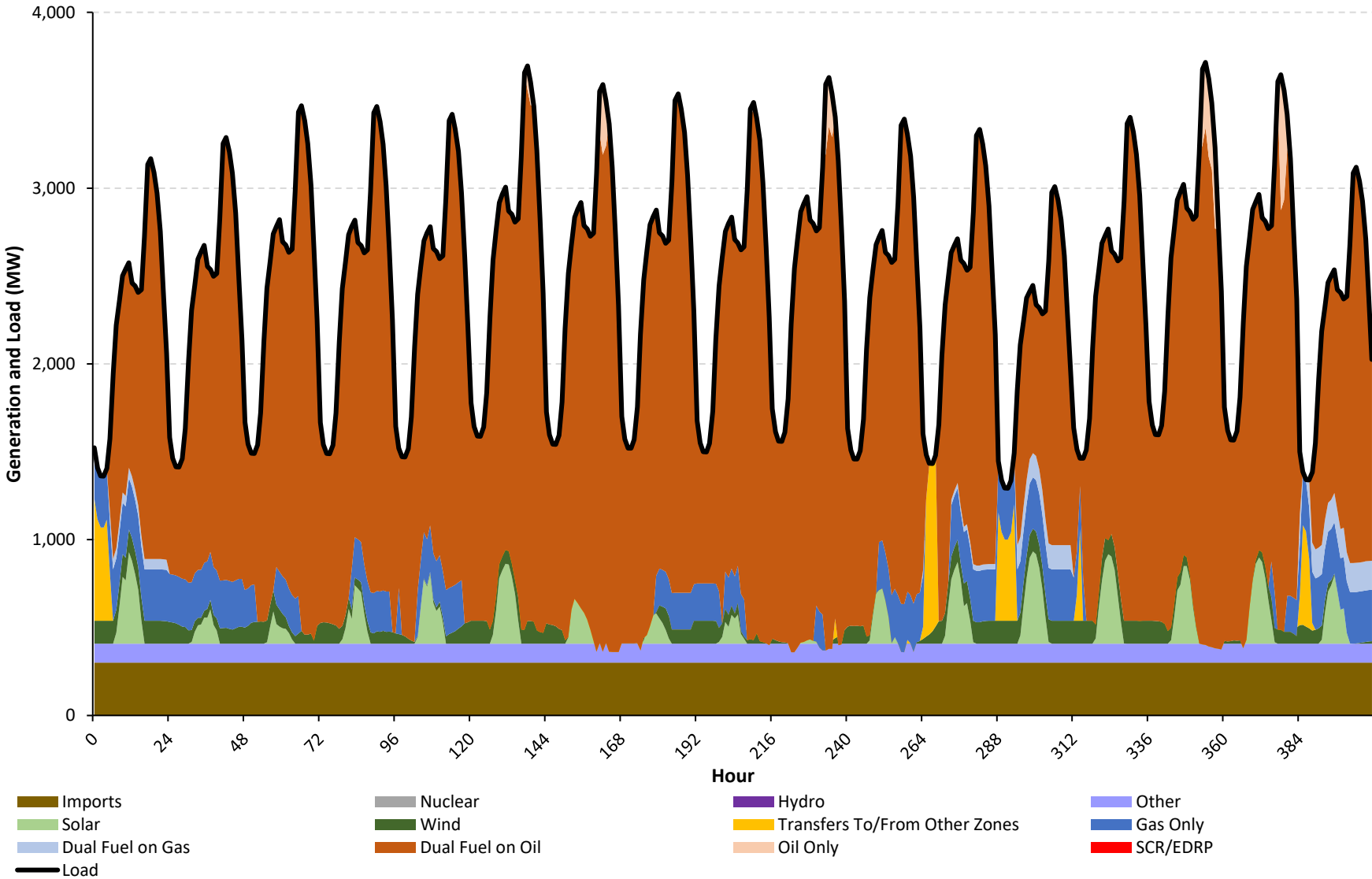
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	Historical
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	Net Zero



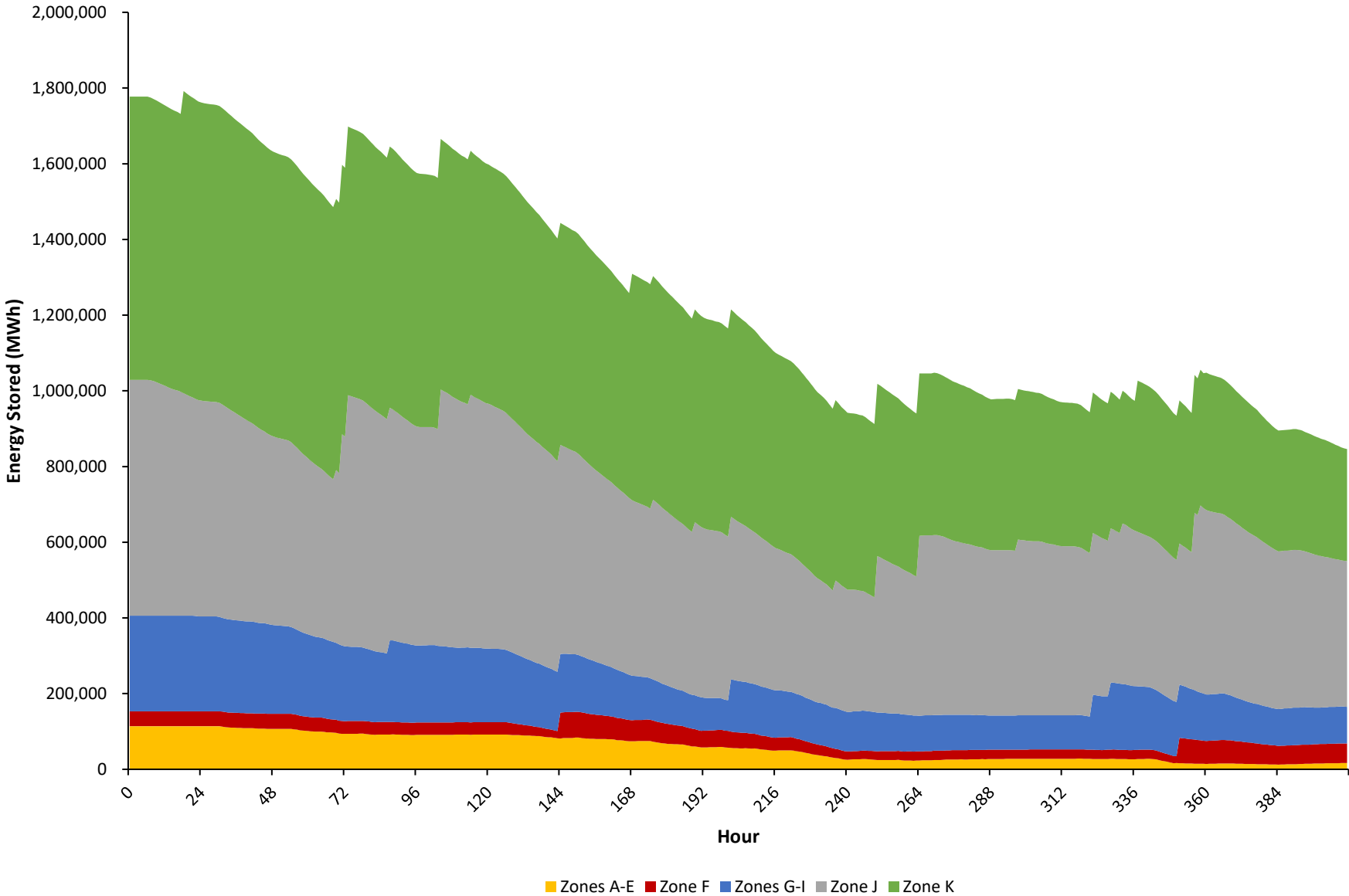


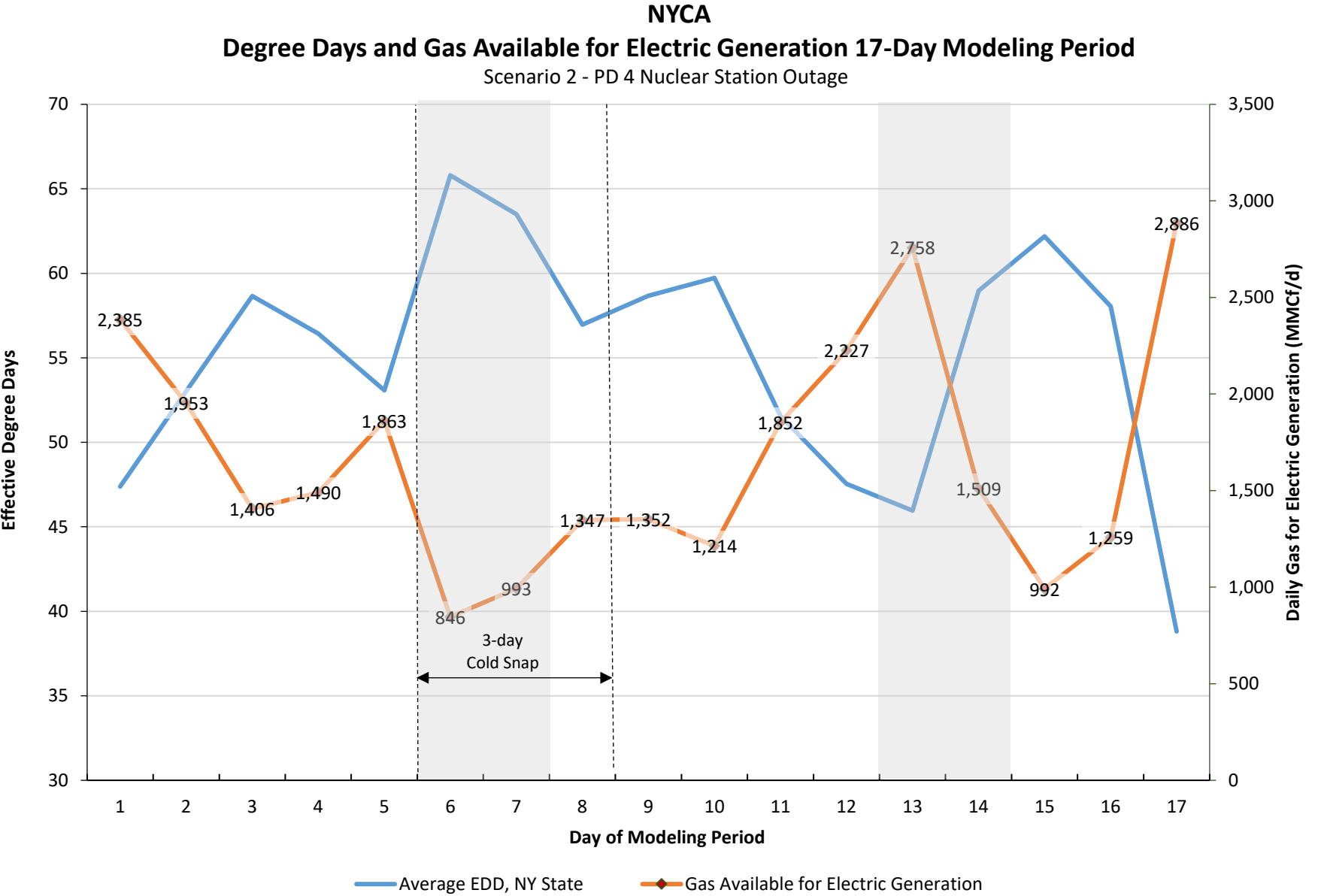


Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 4 Nuclear Station Outage

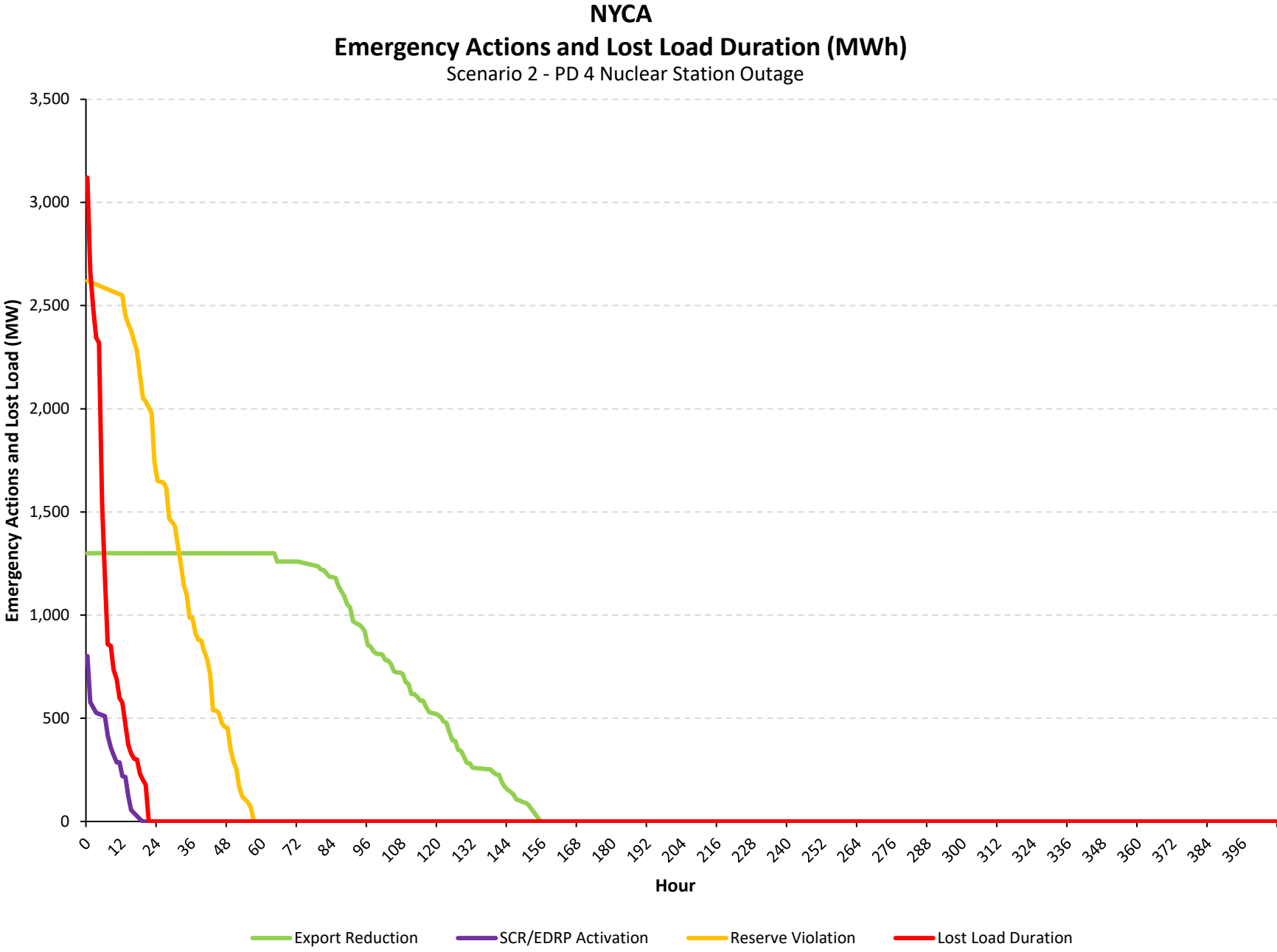


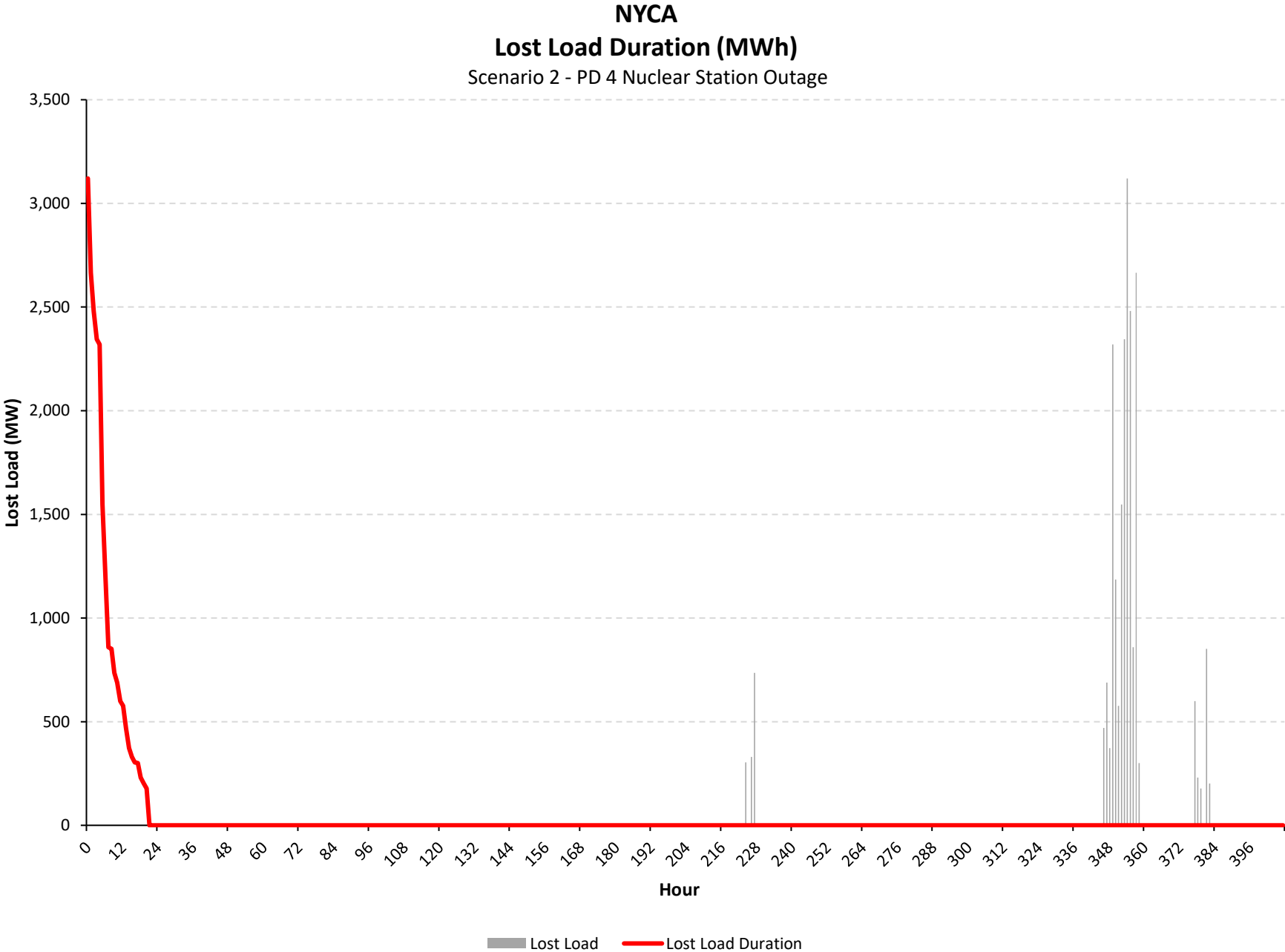
NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 2 - PD 4 Nuclear Station Outage





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



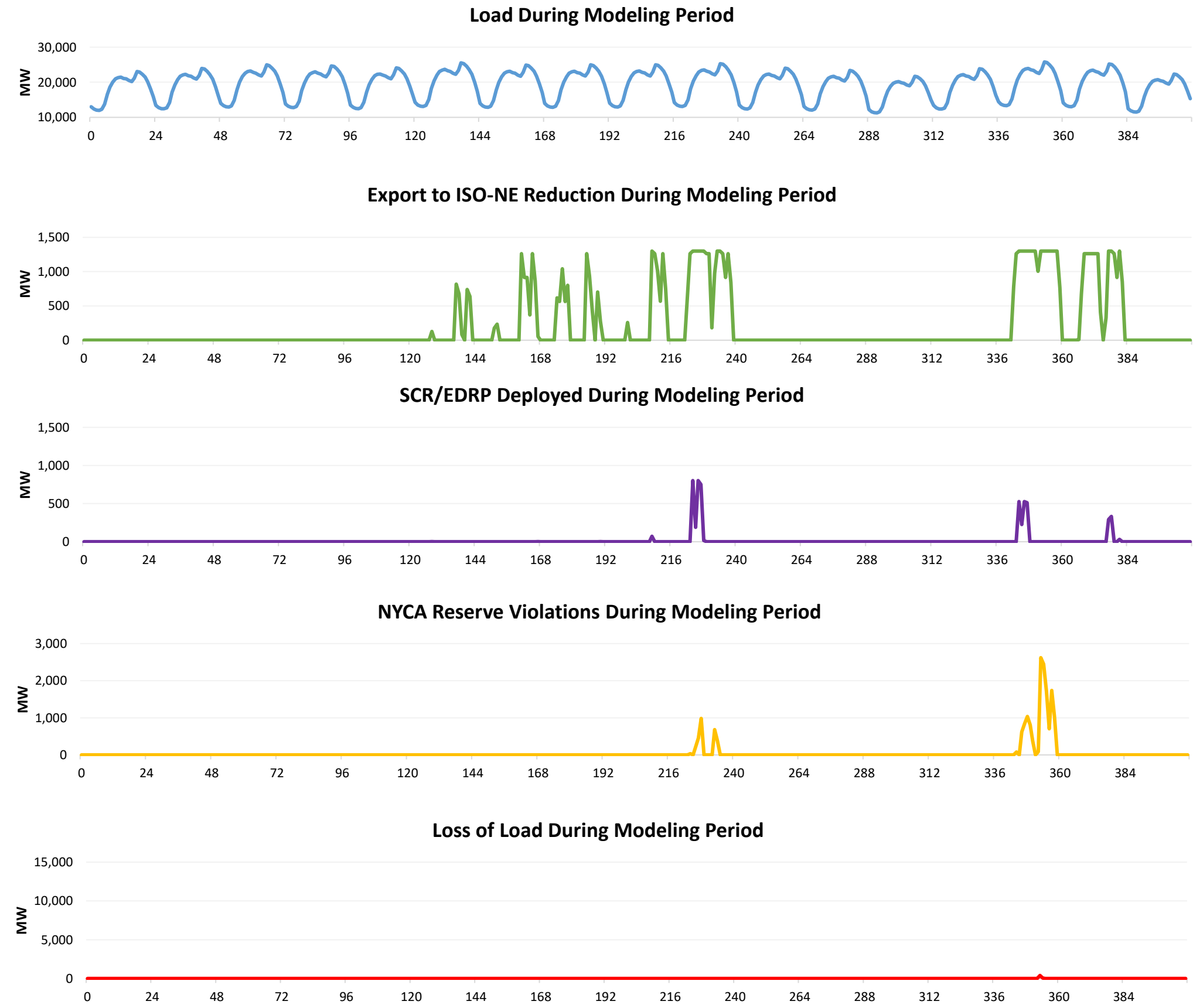


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 5 No Truck Refill (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 2 - PD 5 No Truck Refill



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

Export Reductions	
Total Hrs.	83
Total MWh	79,602
Avg. MW	195.1

SCR Deployment	
Total Hrs.	13
Total MWh	5,075
Avg. MW	12.4

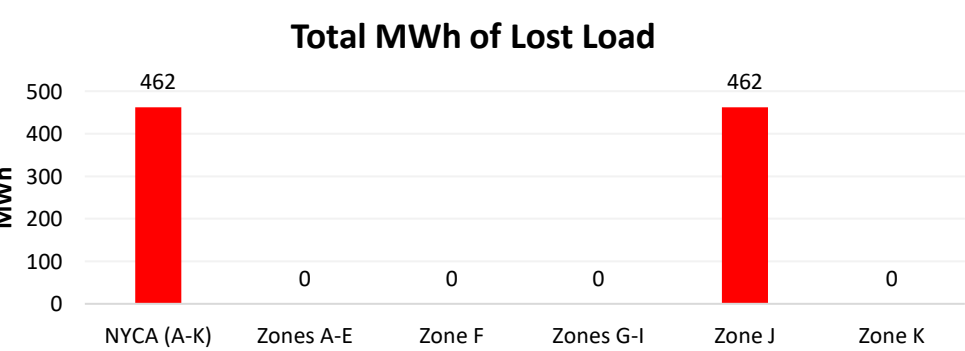
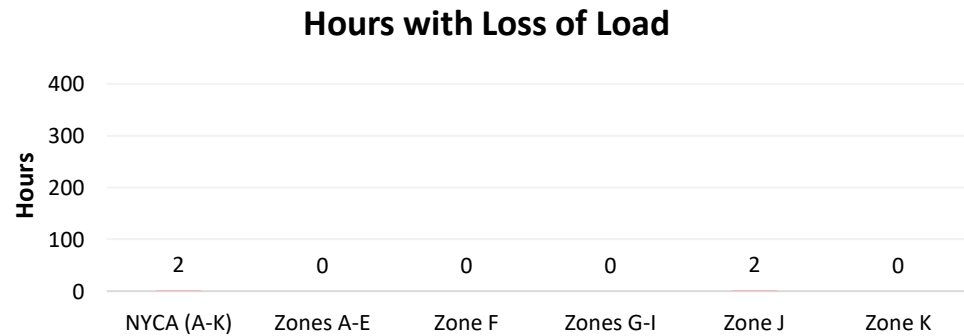
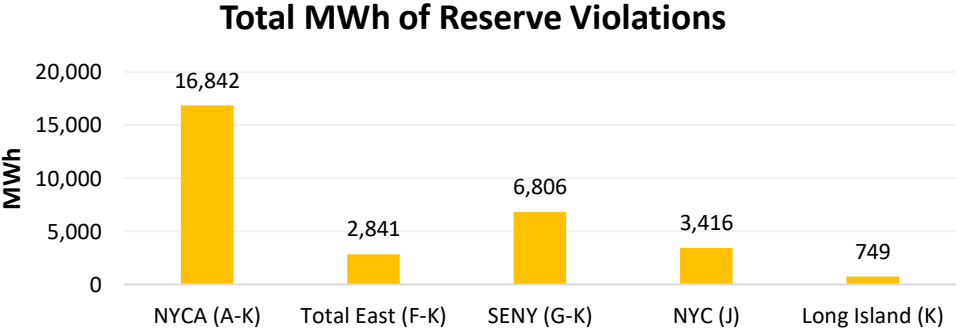
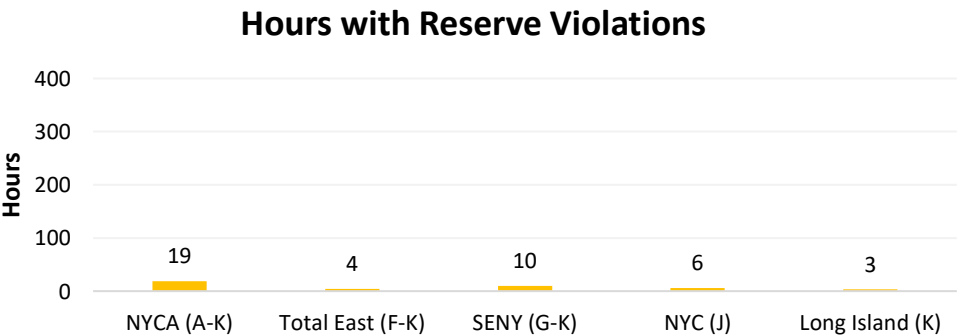
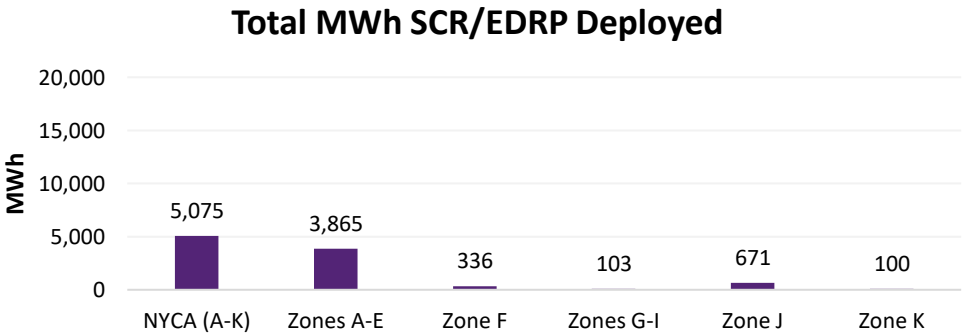
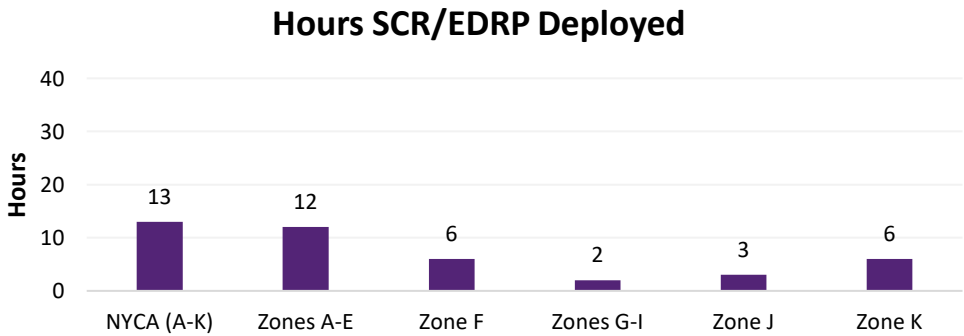
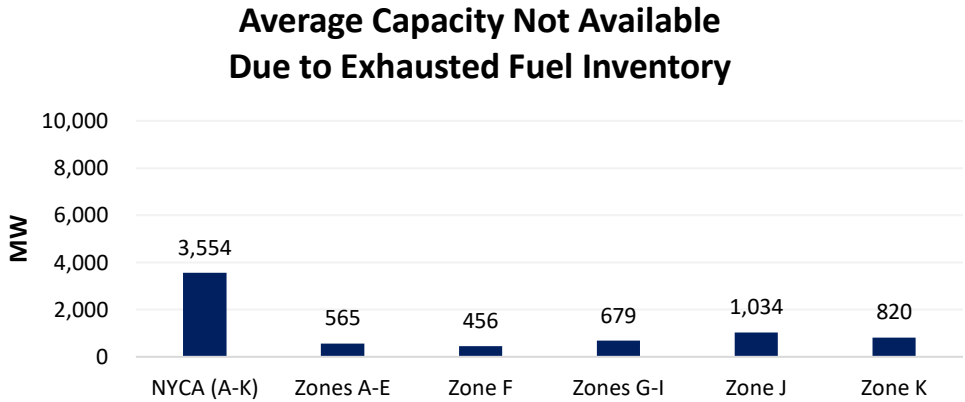
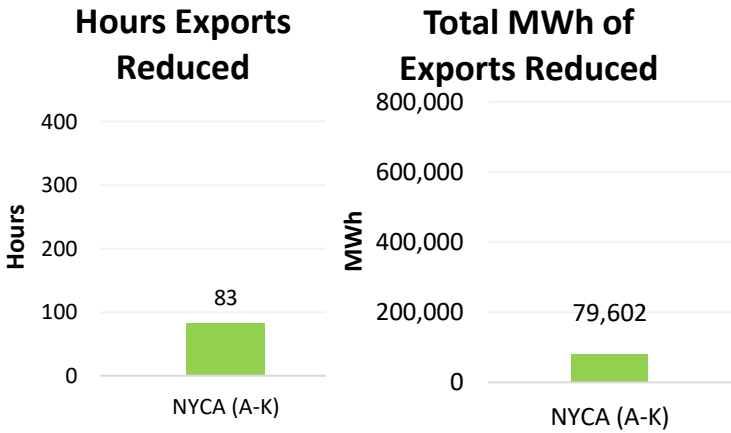
Reserve Violations	
Total Hrs.	19
Total MWh	16,842
Avg. MW	41.3
First Hour with Viol.	224

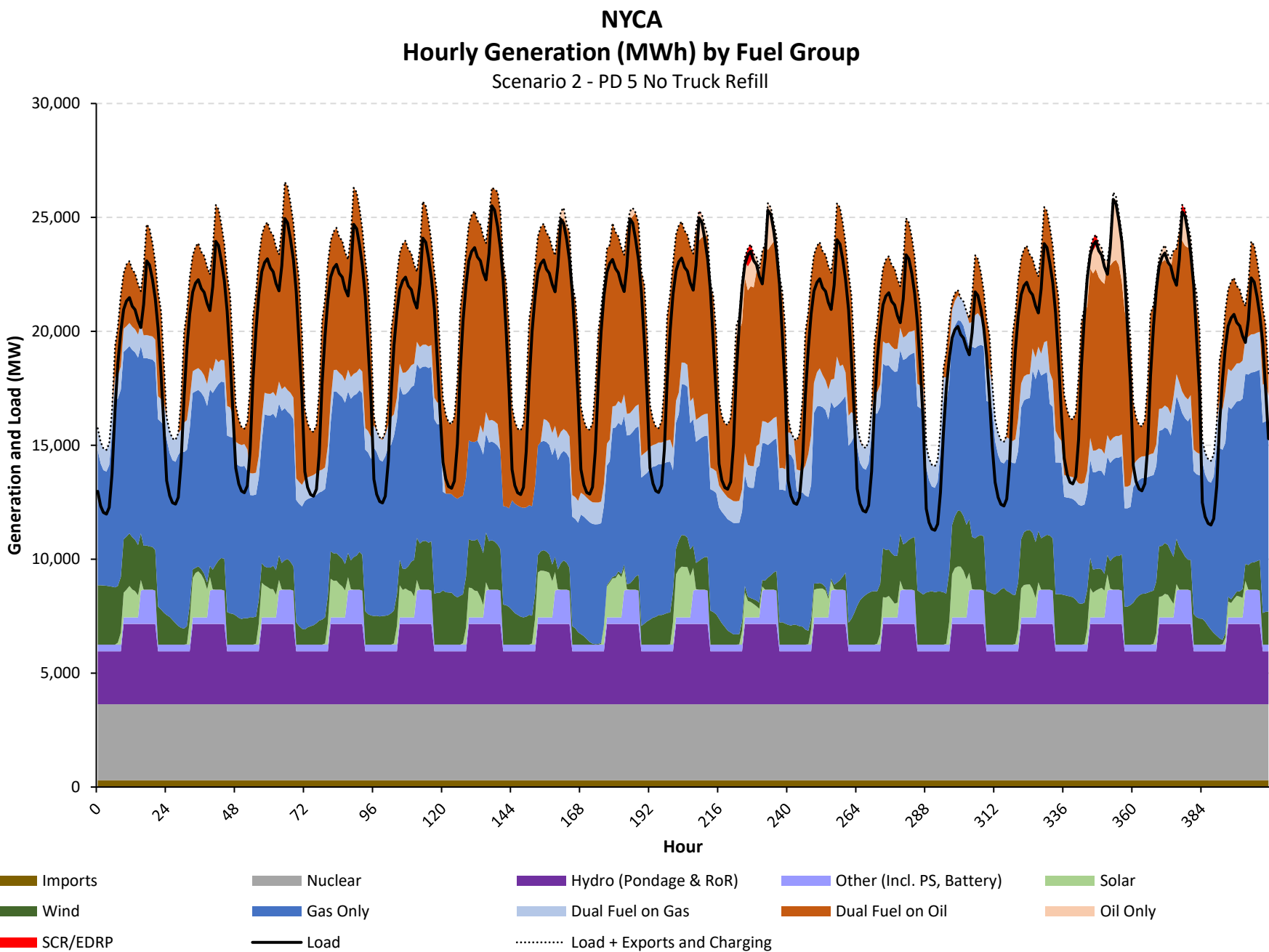
Loss of Load	
Total Hrs.	2
Total MWh	462
Avg. MW	1.1
First Hour with Losses	353

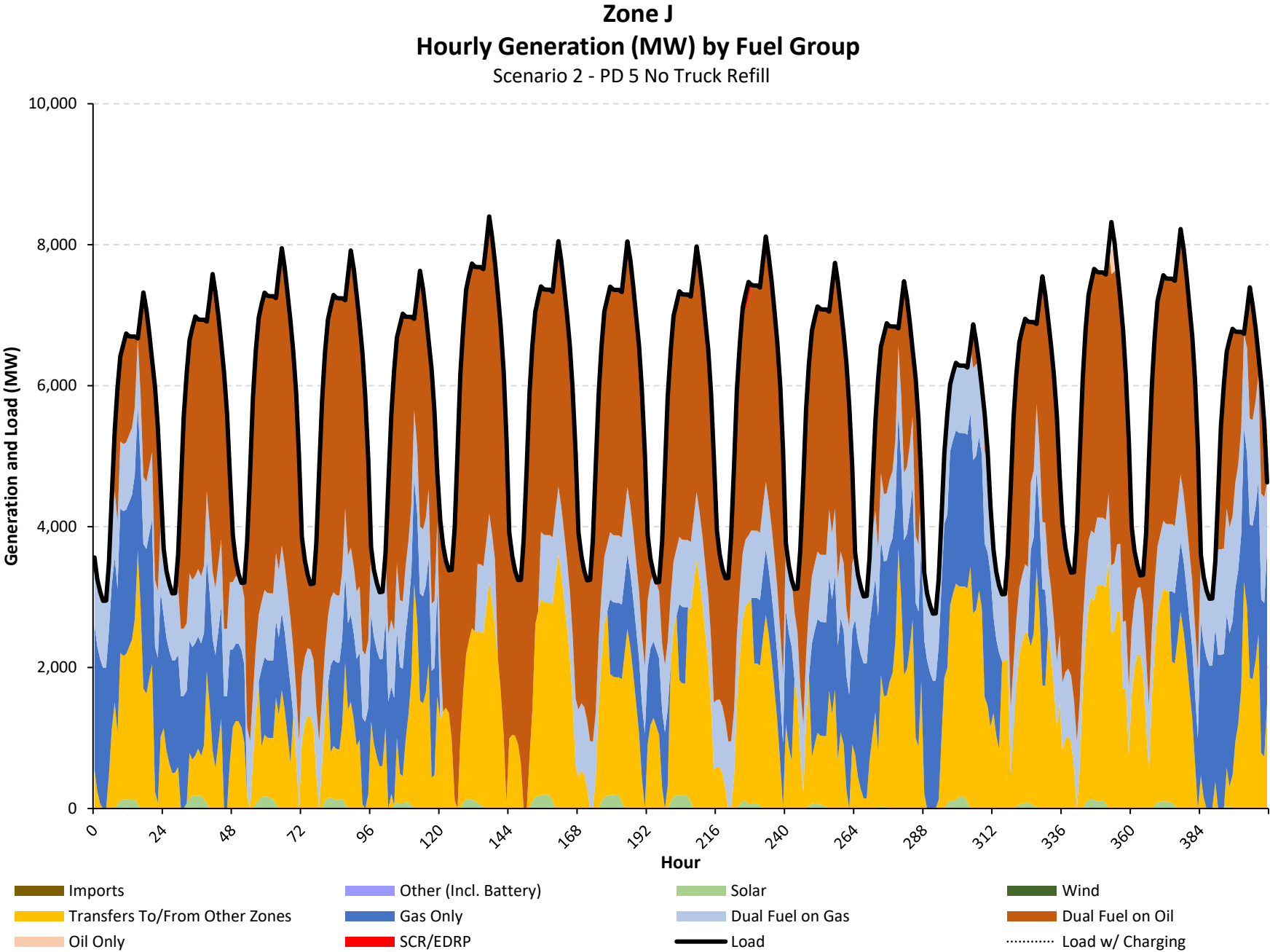
Full Period Results Summary

Case Name: Scenario 2 - PD 5 No Truck Refill

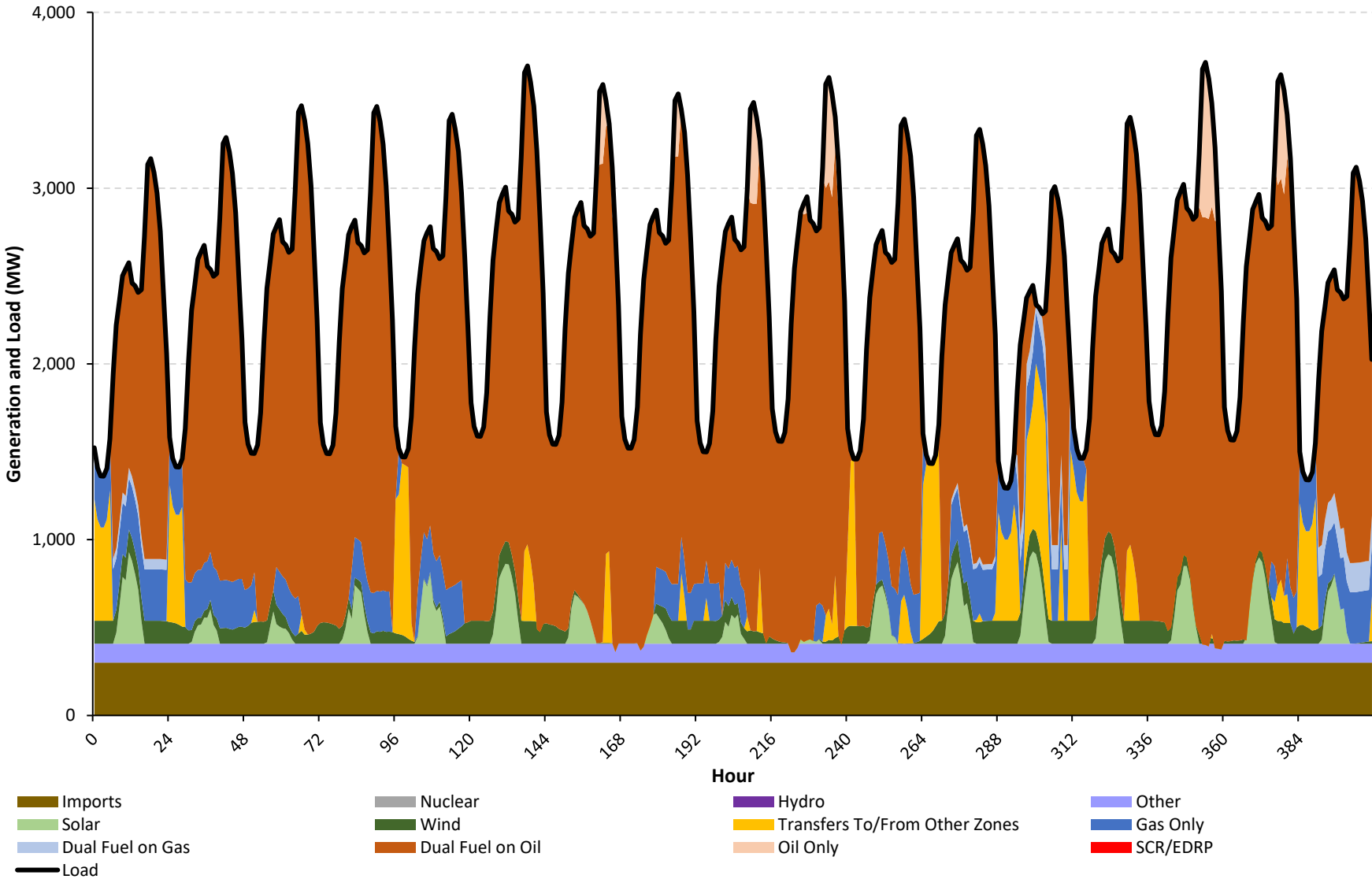
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	Historical
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero



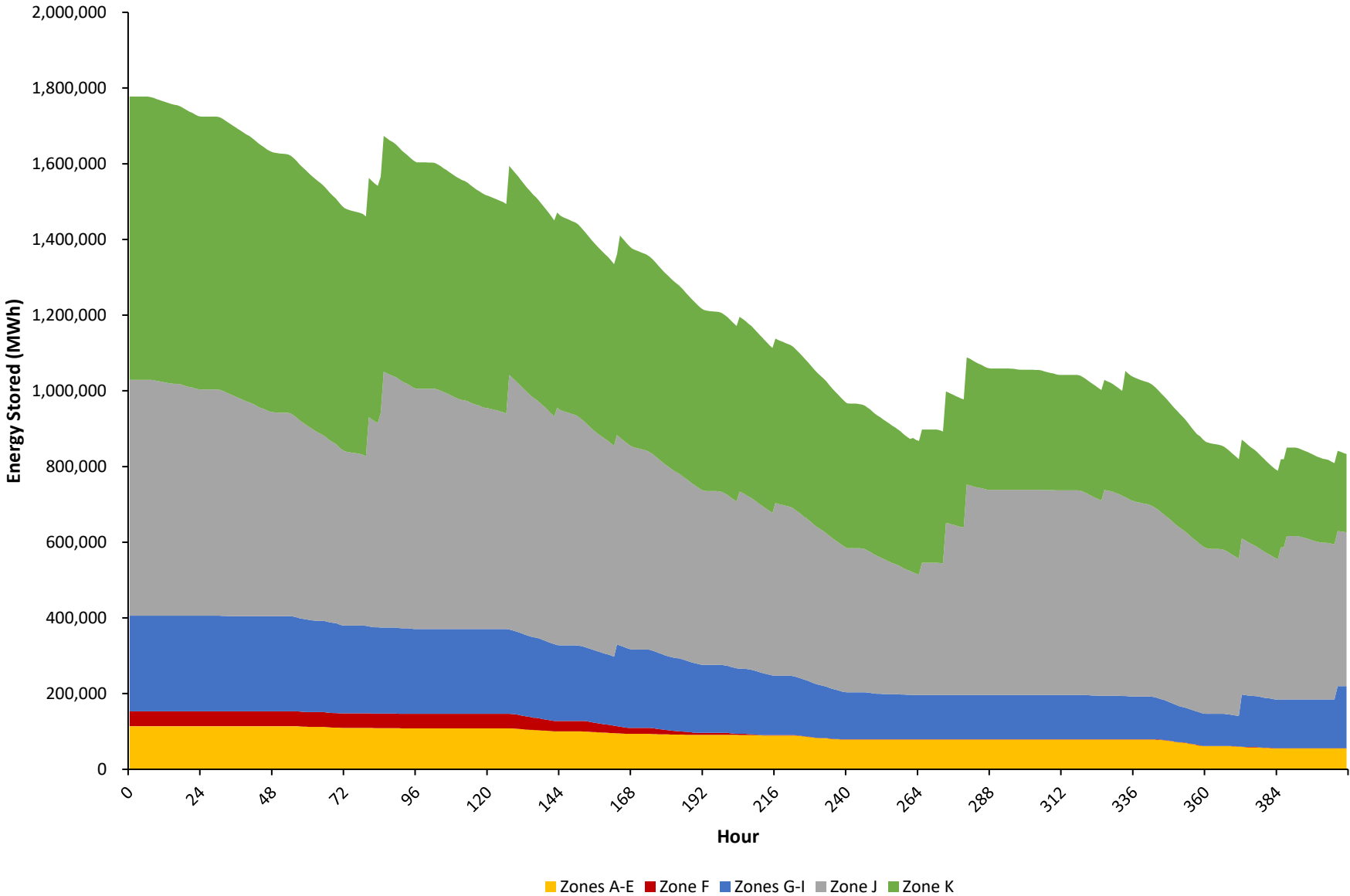


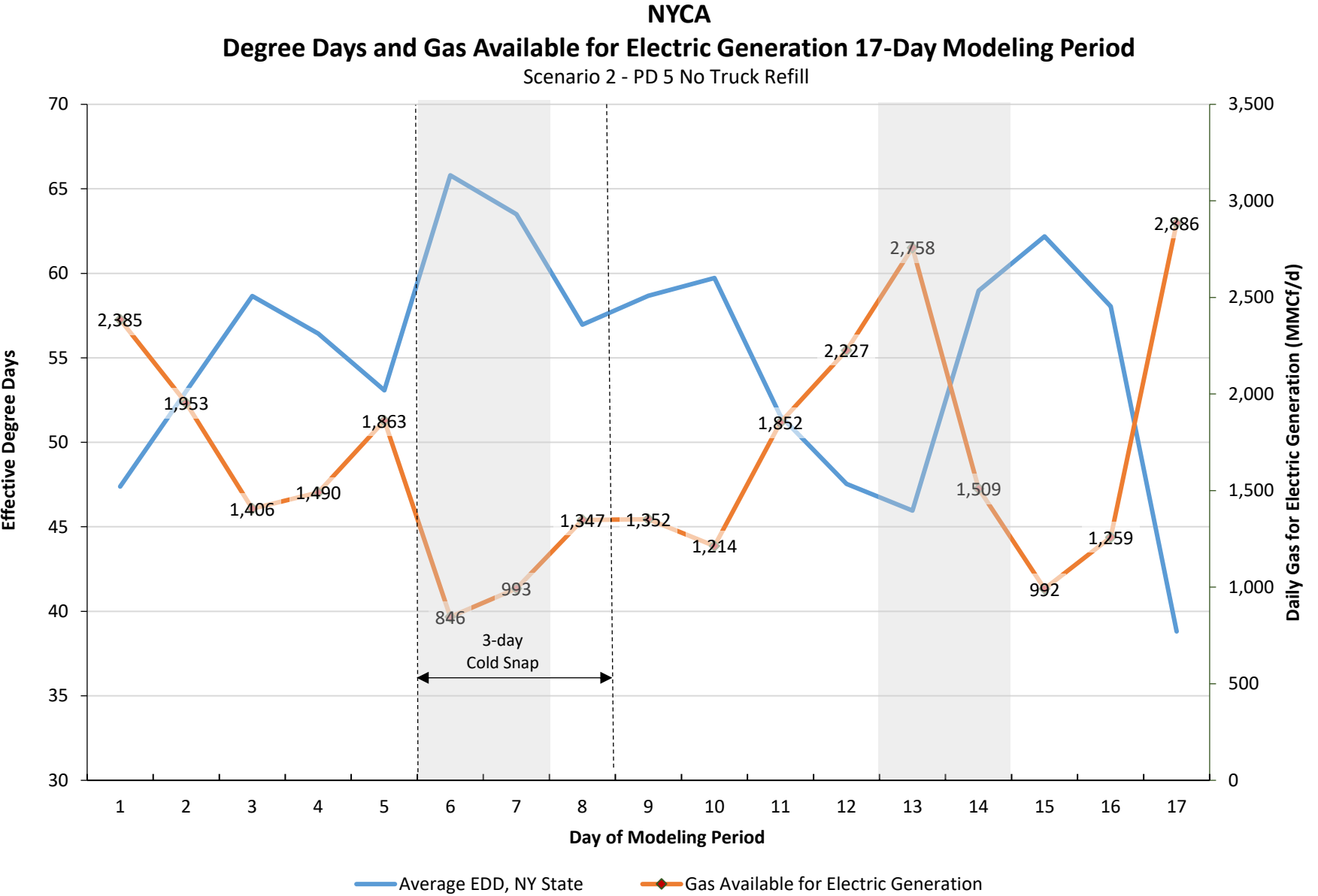


Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 5 No Truck Refill

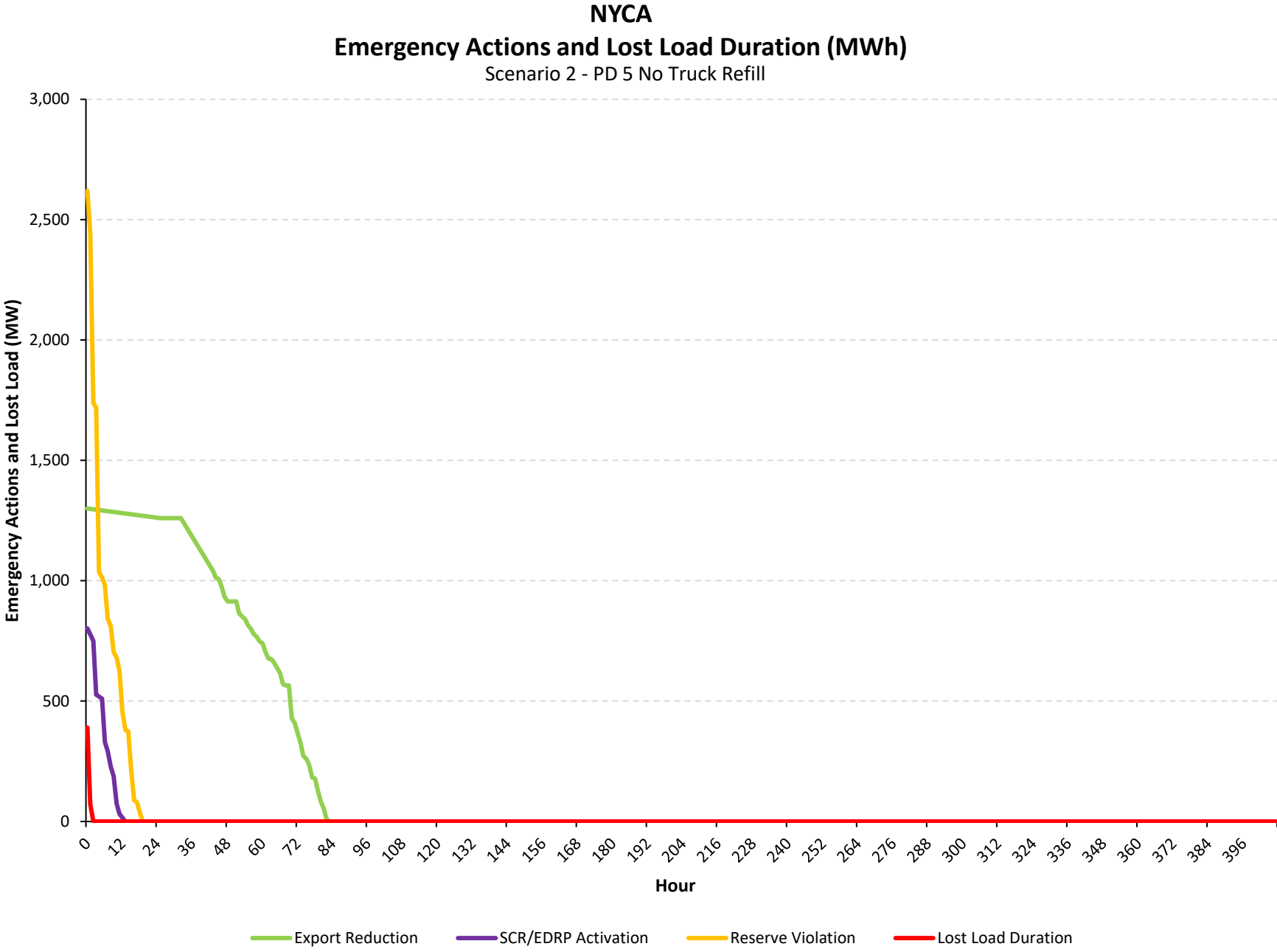


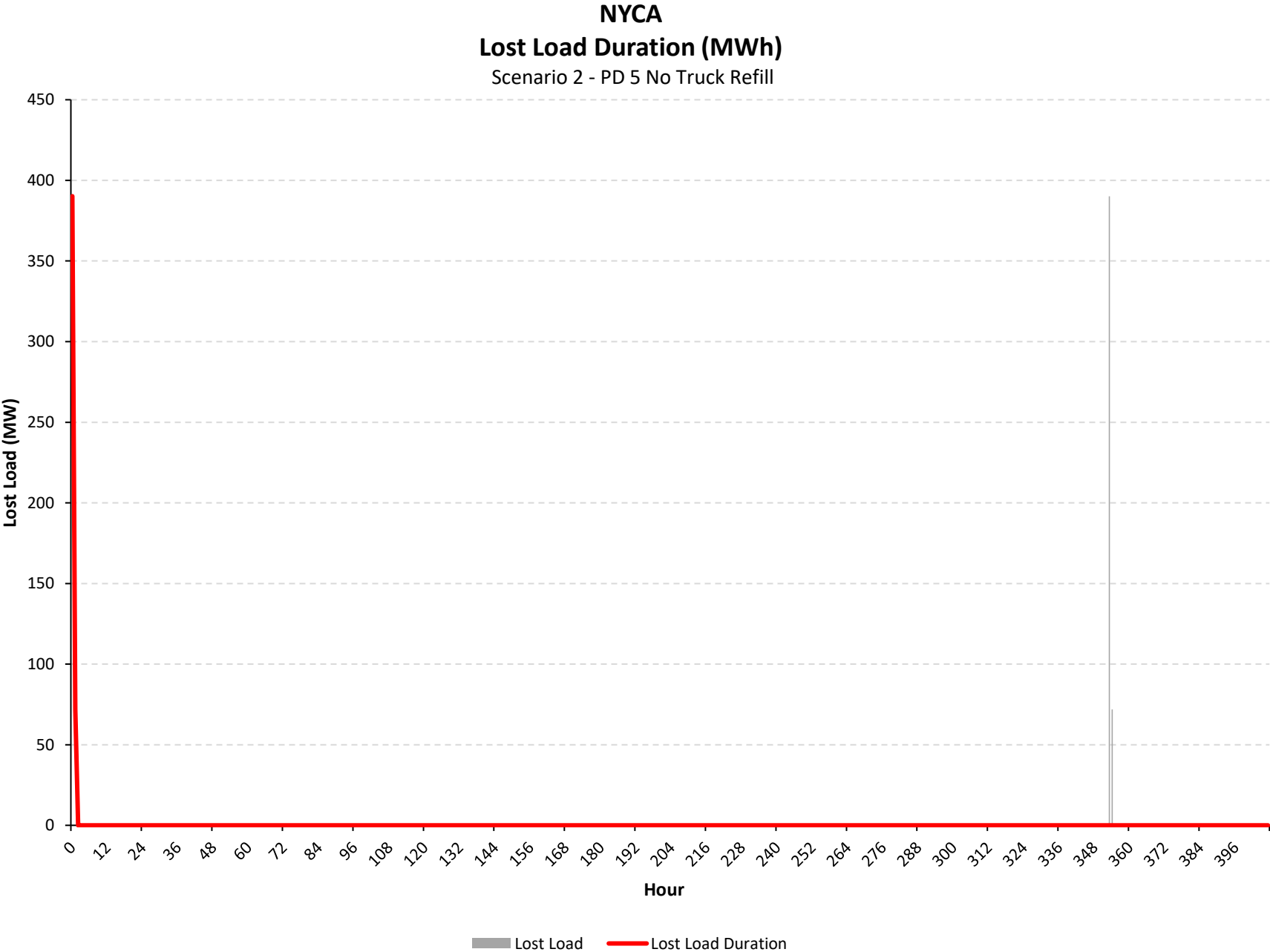
NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 2 - PD 5 No Truck Refill





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



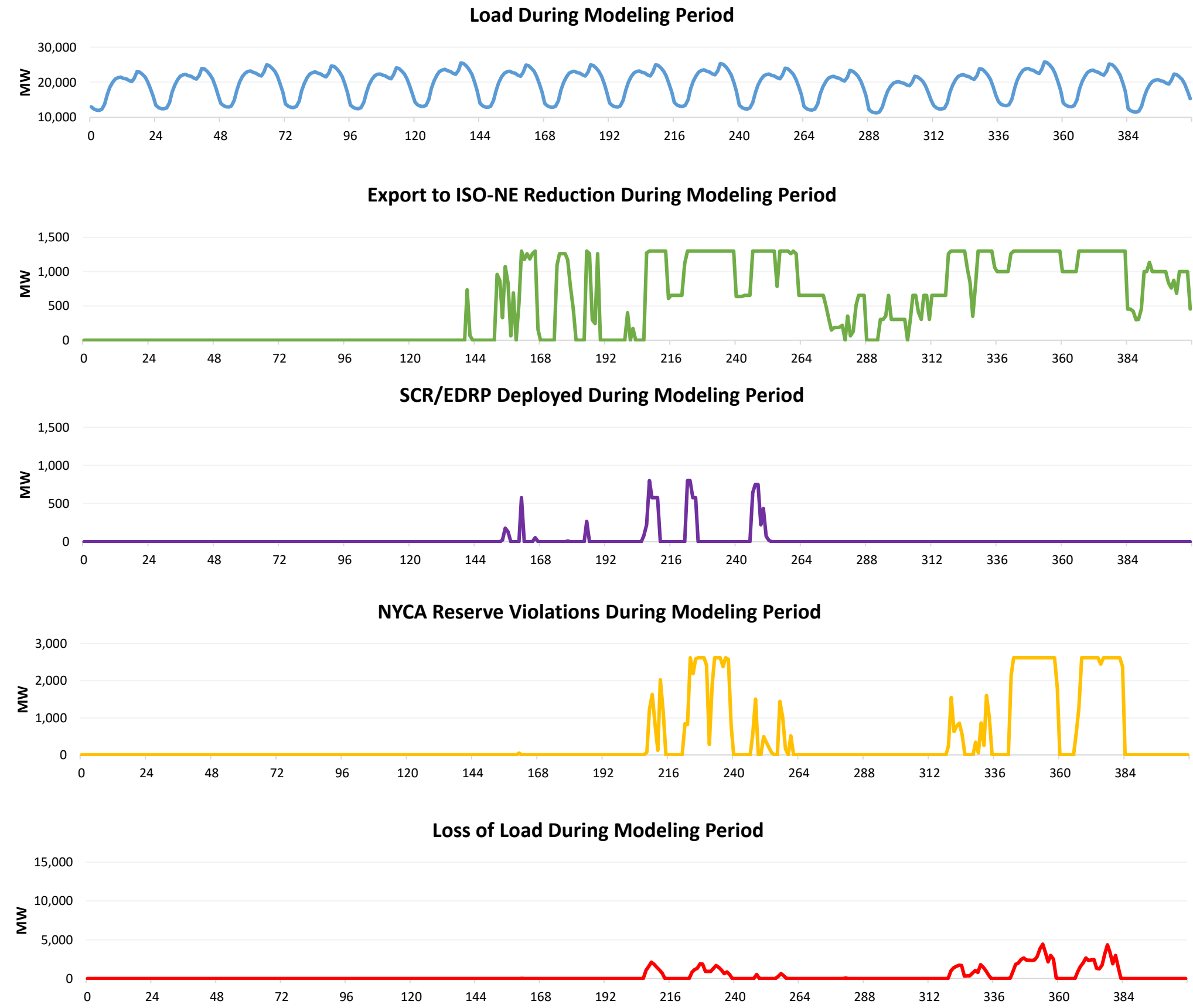


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 6 No Barge Refill (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 2 - PD 6 No Barge Refill



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

Export Reductions	
Total Hrs.	225
Total MWh	211,864
Avg. MW	519.3

SCR Deployment	
Total Hrs.	24
Total MWh	9,729
Avg. MW	23.8

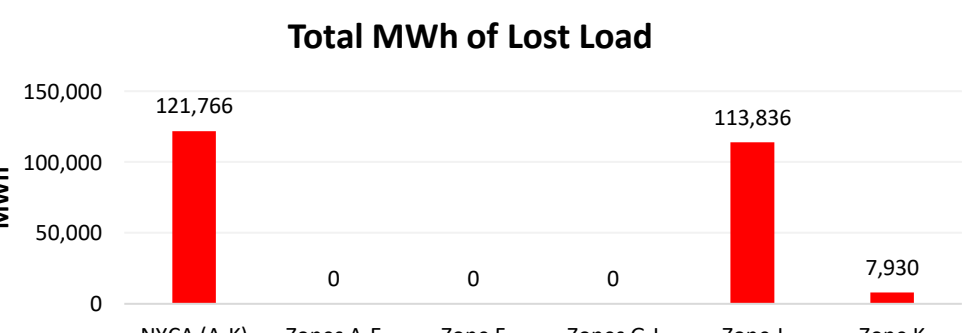
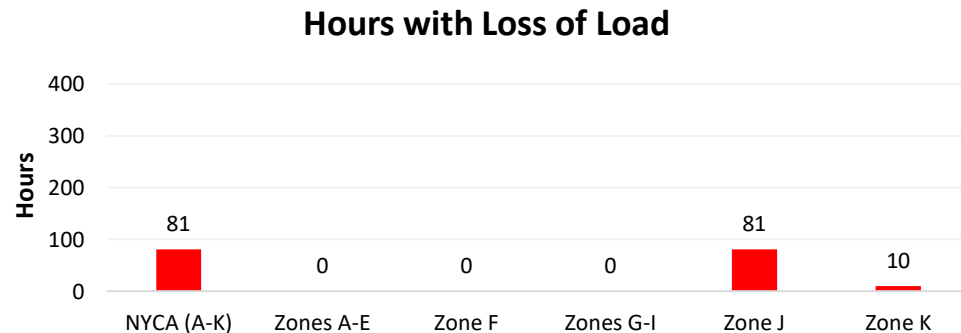
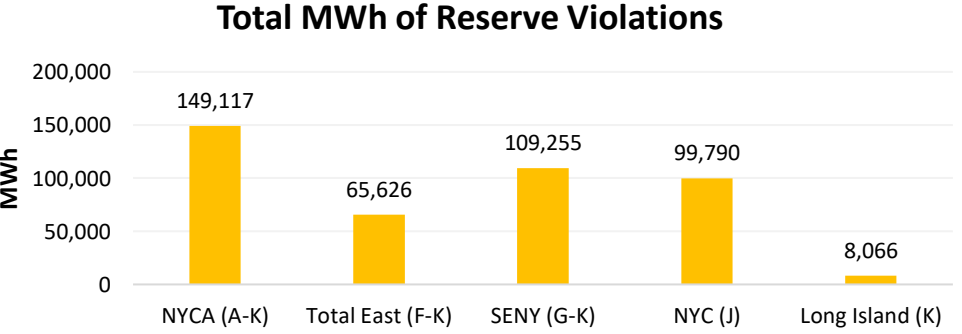
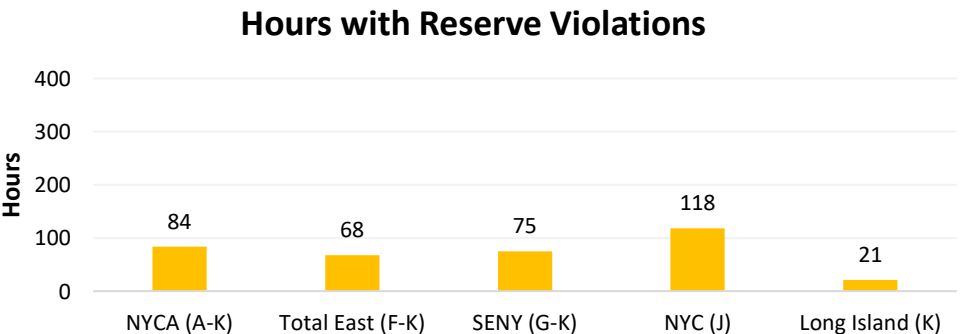
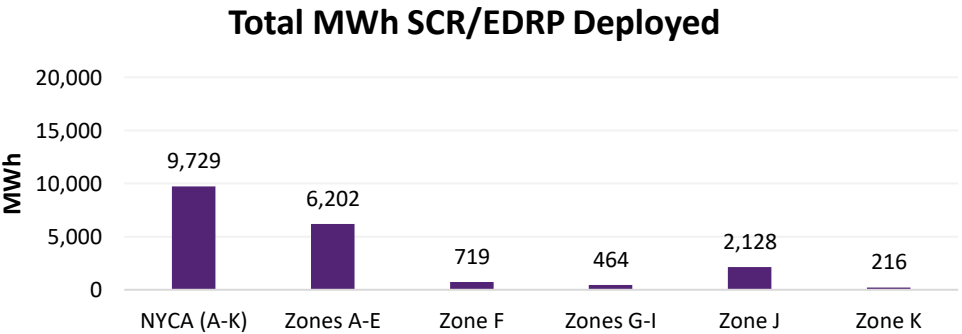
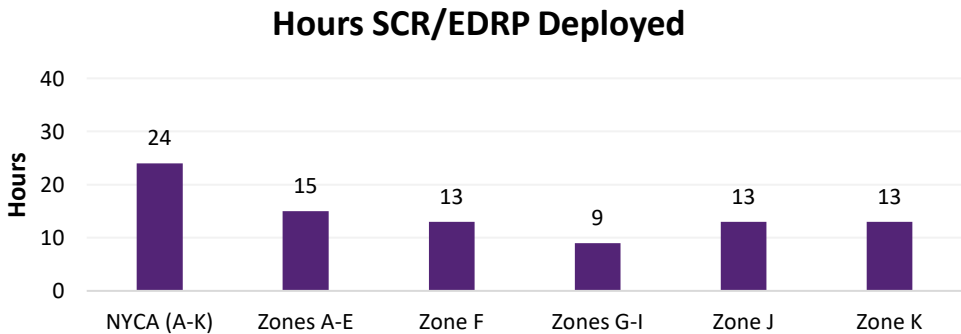
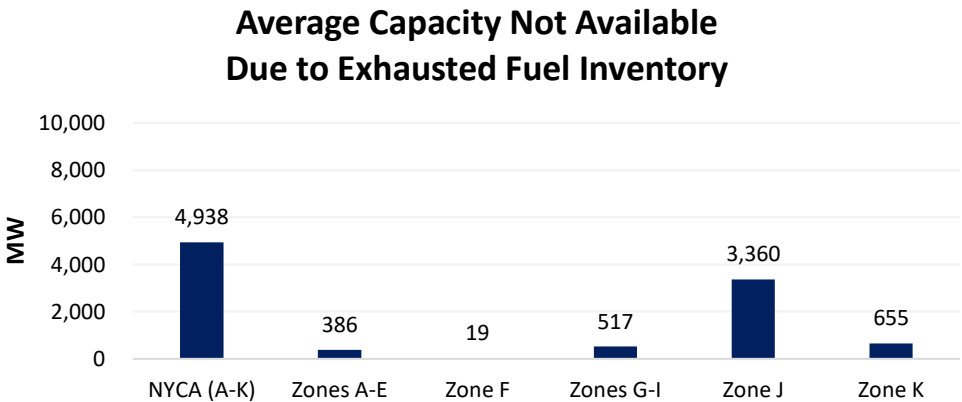
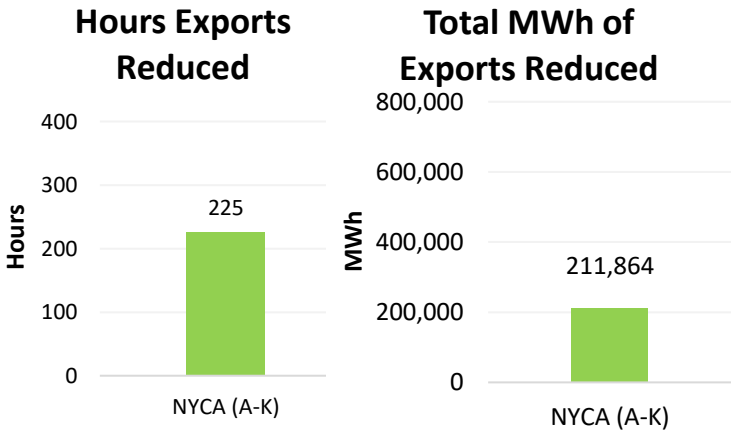
Reserve Violations	
Total Hrs.	84
Total MWh	149,117
Avg. MW	365.5
First Hour with Viol.	157

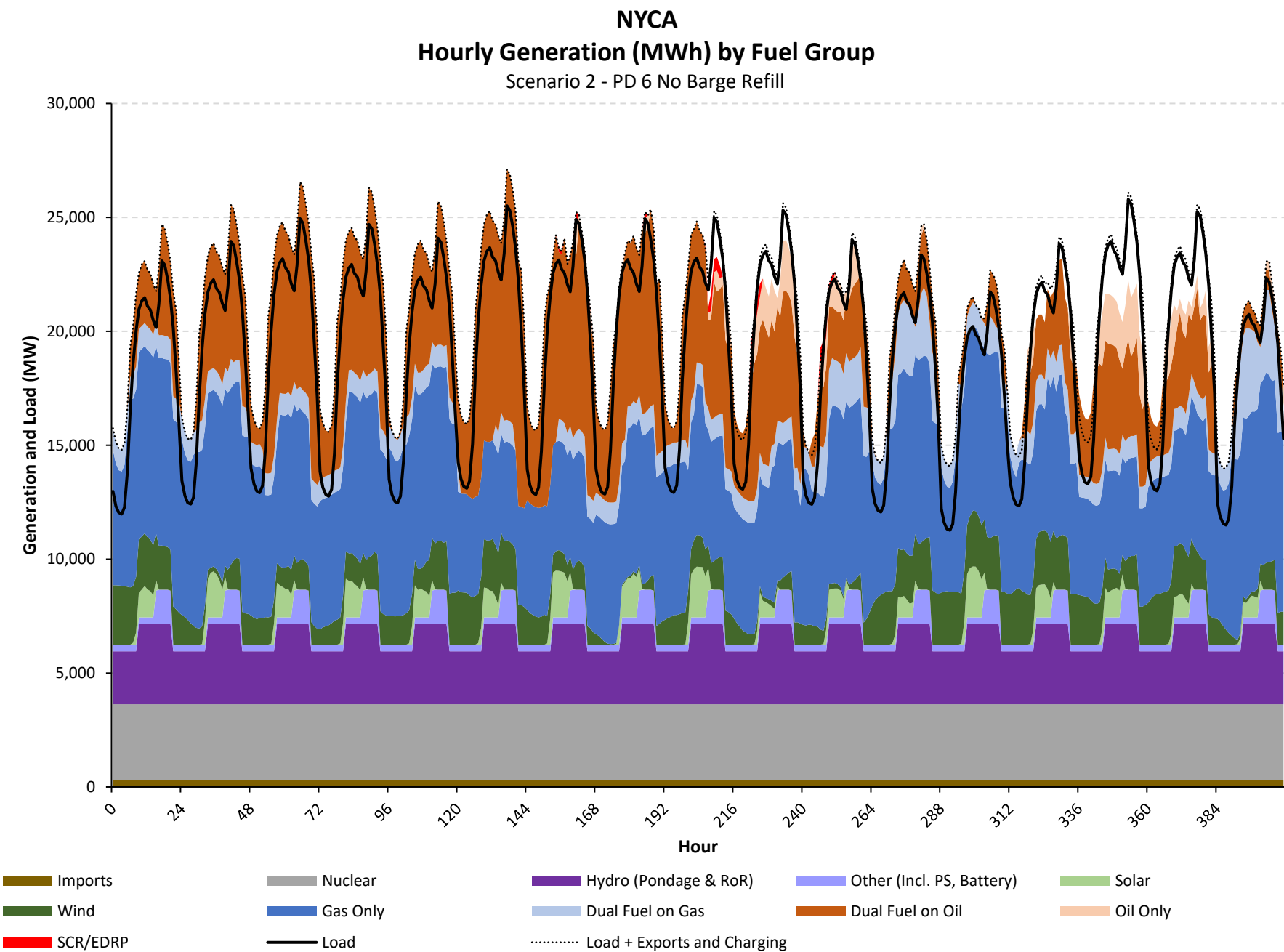
Loss of Load	
Total Hrs.	81
Total MWh	121,766
Avg. MW	298.4
First Hour with Losses	161

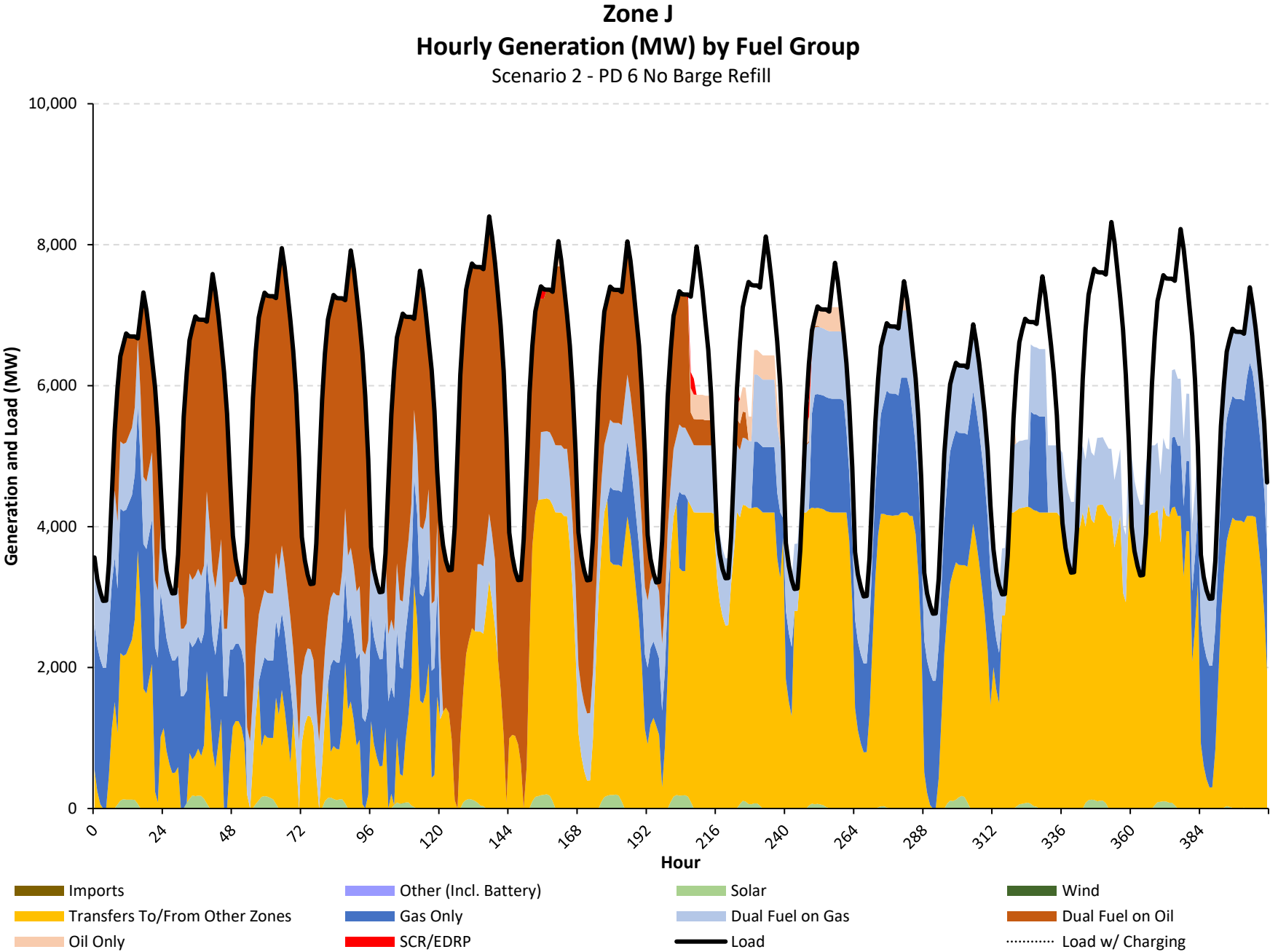
Full Period Results Summary

Case Name: Scenario 2 - PD 6 No Barge Refill

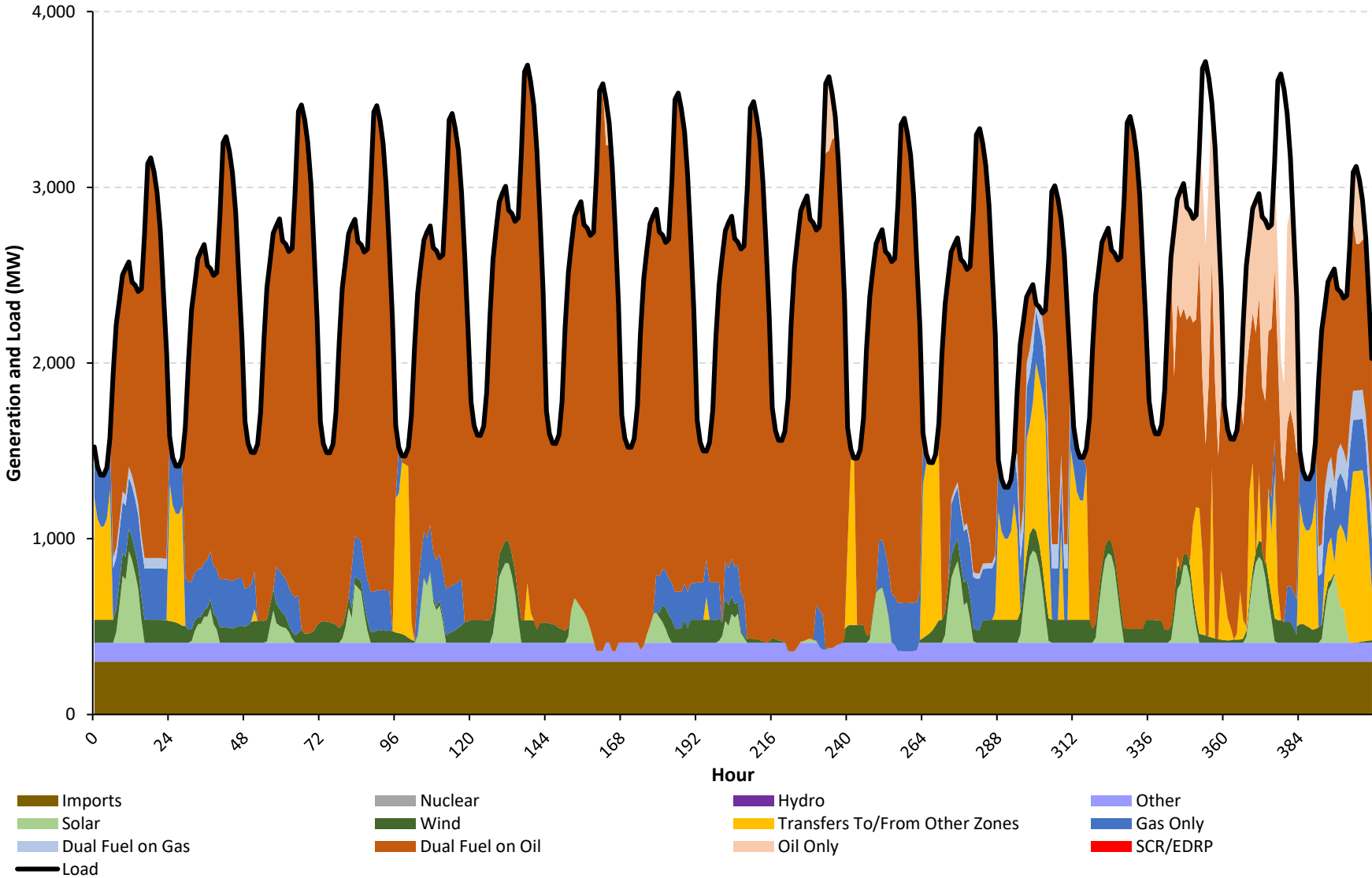
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	Historical
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero



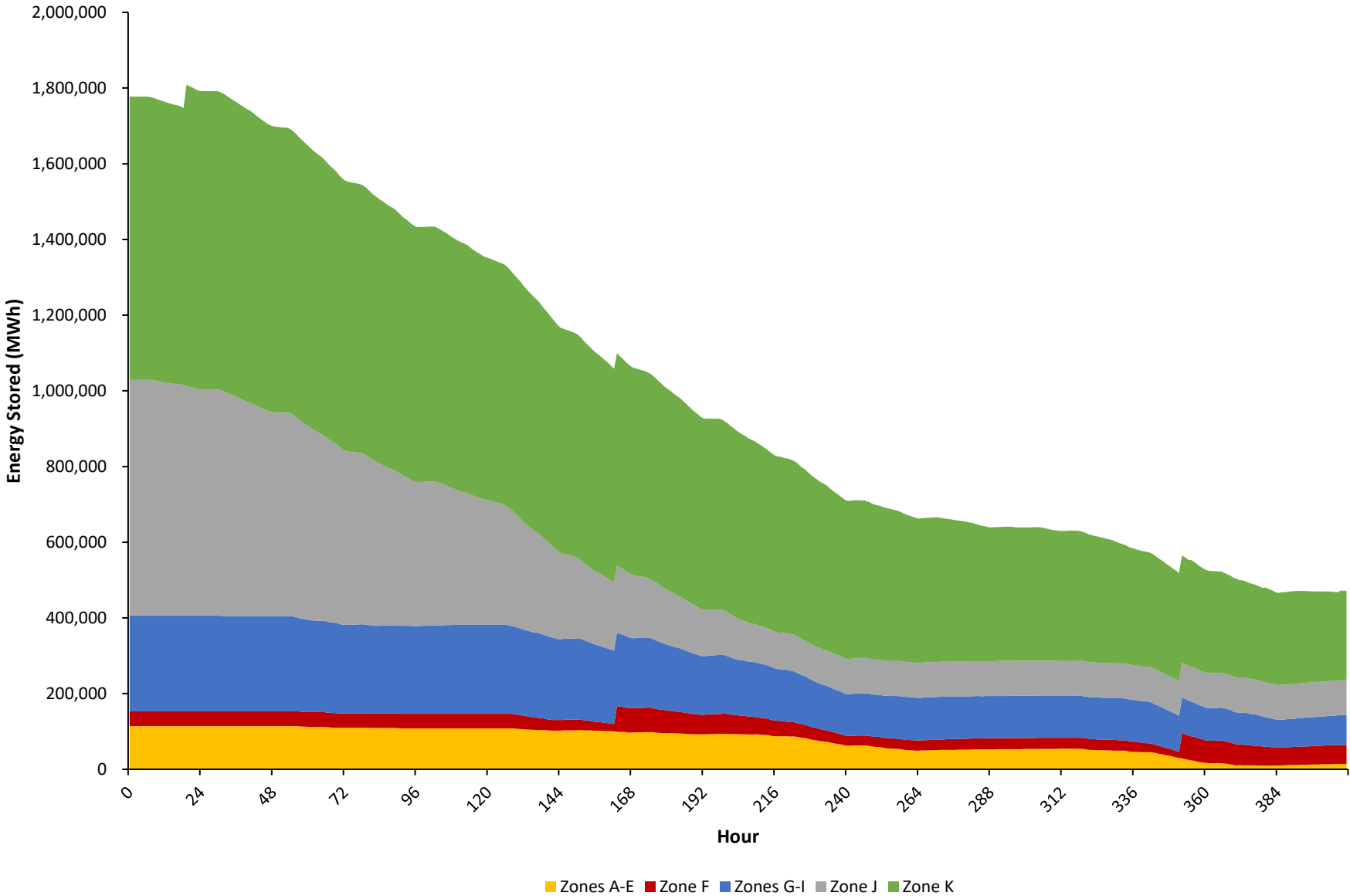


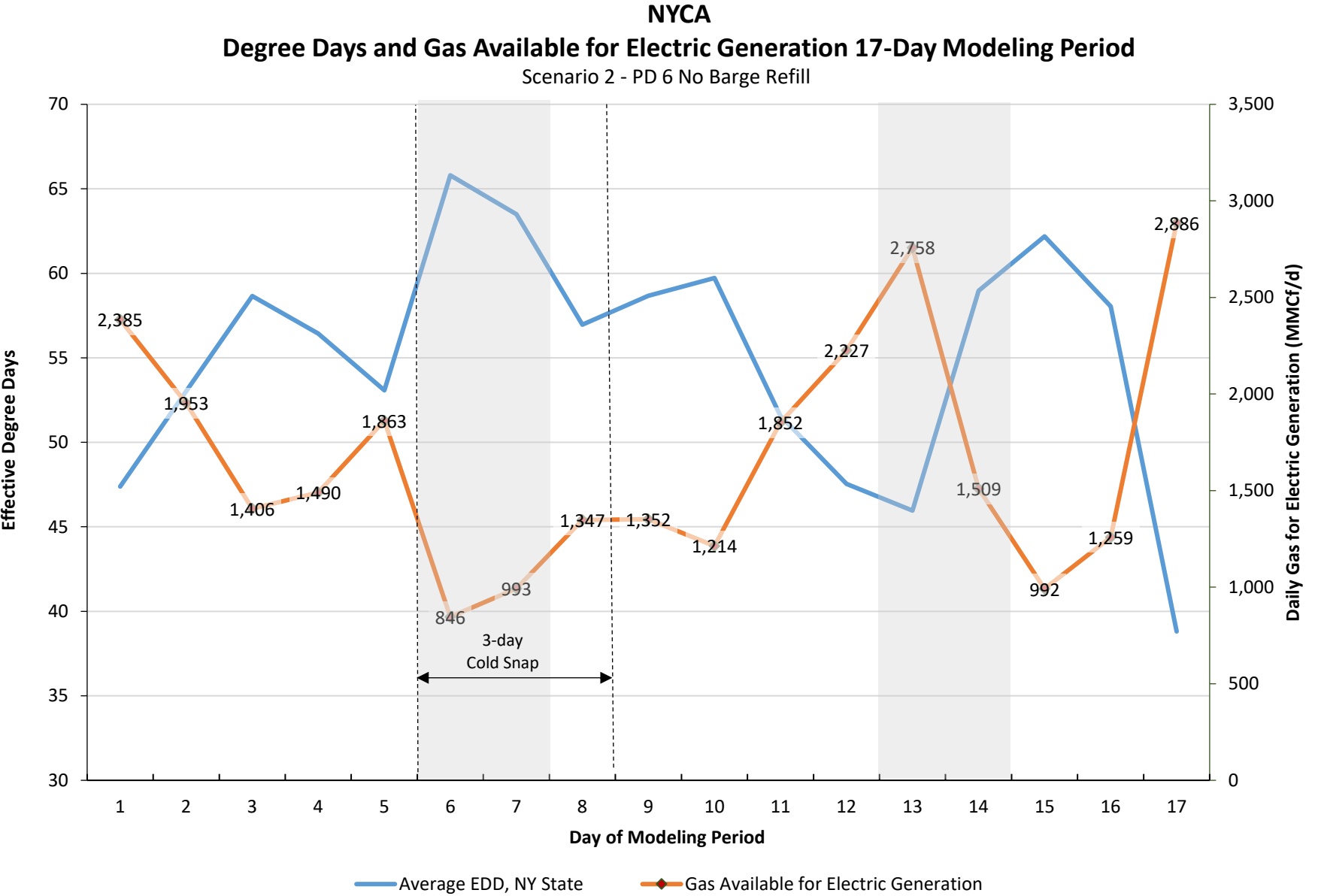


Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 6 No Barge Refill



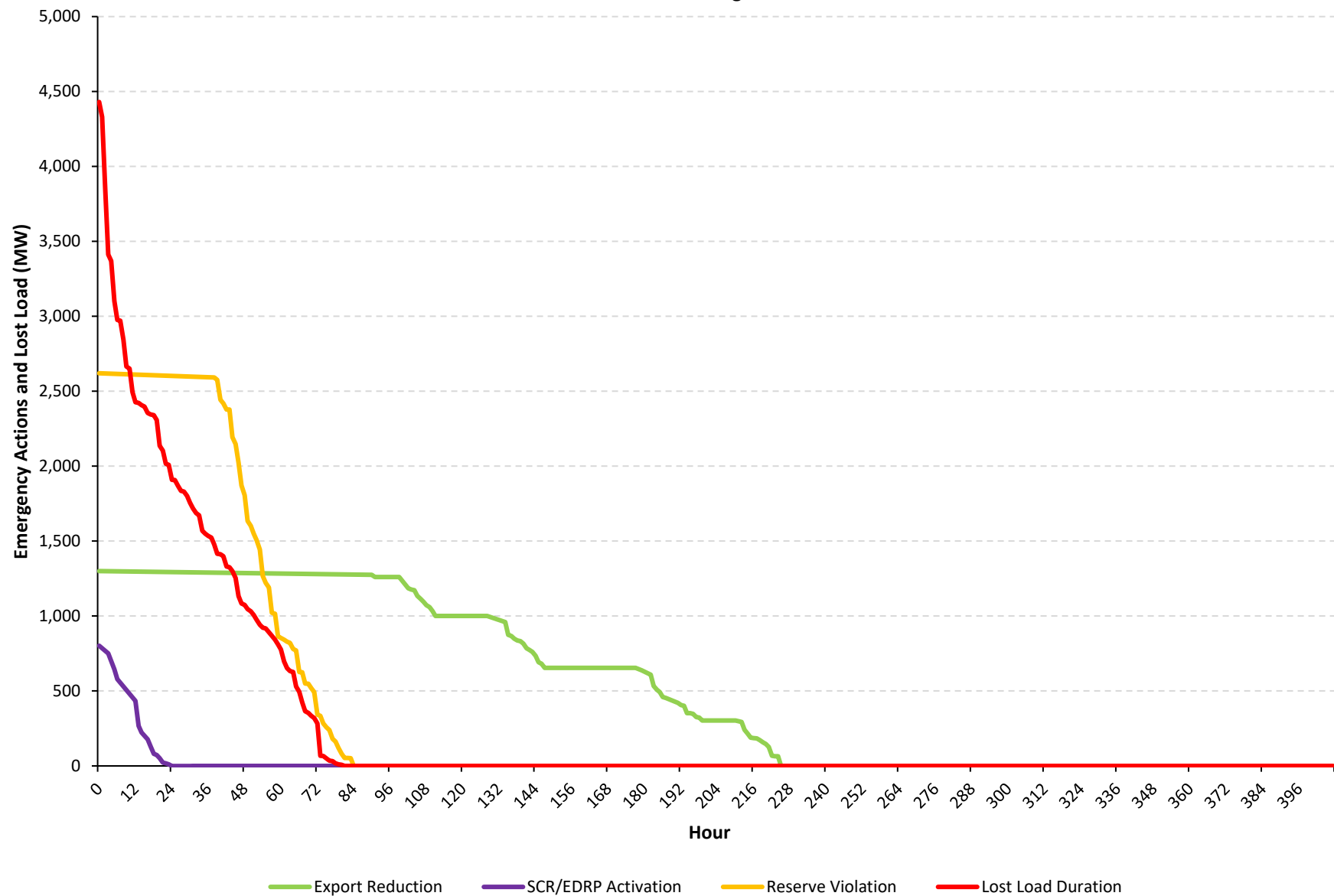
NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 2 - PD 6 No Barge Refill

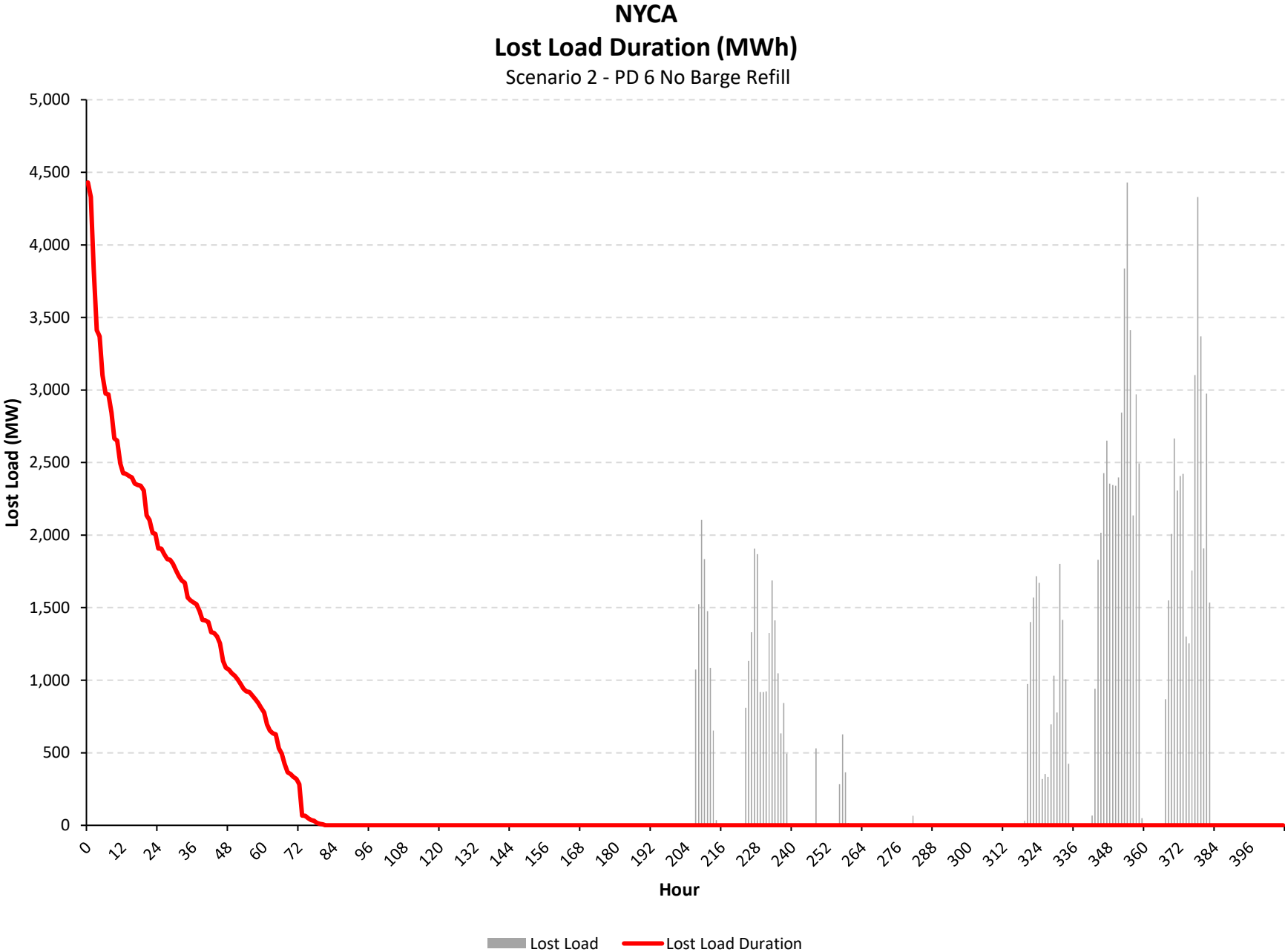




Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.

NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 2 - PD 6 No Barge Refill



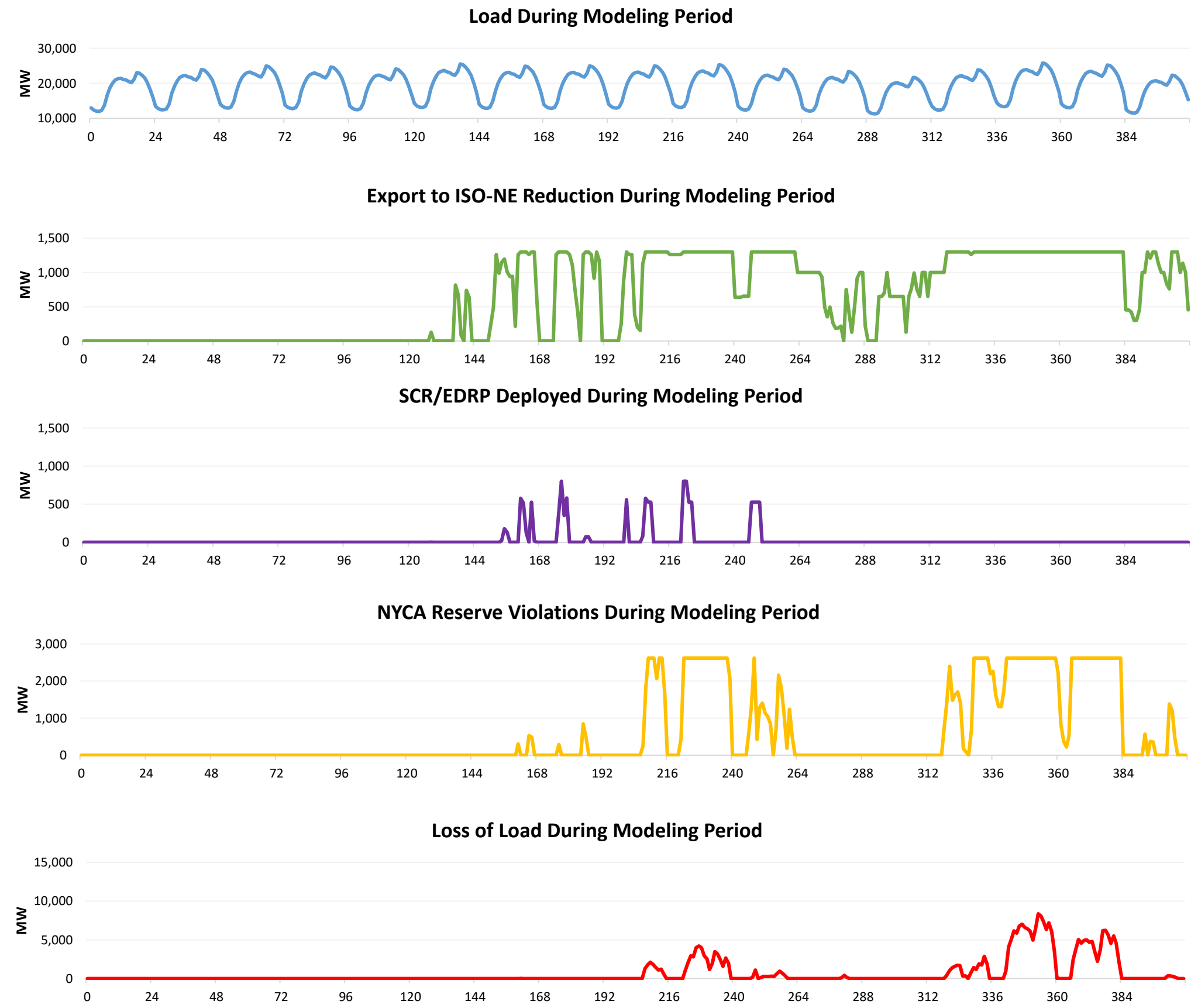


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 7 No Refill (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 2 - PD 7 No Refill



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

Export Reductions	
Total Hrs.	245
Total MWh	259,099
Avg. MW	635.0

SCR Deployment	
Total Hrs.	27
Total MWh	11,371
Avg. MW	27.9

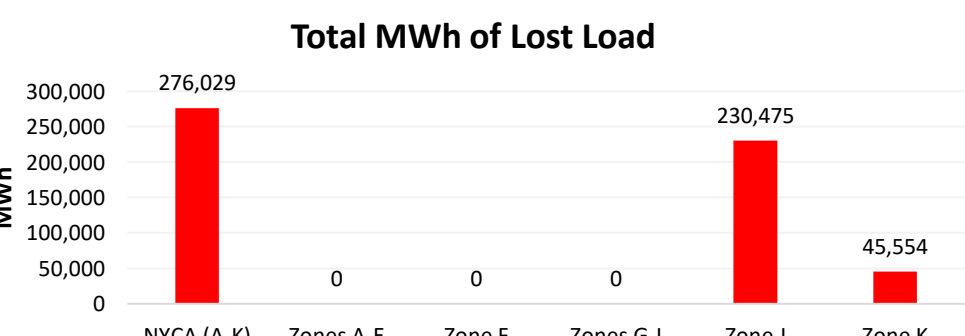
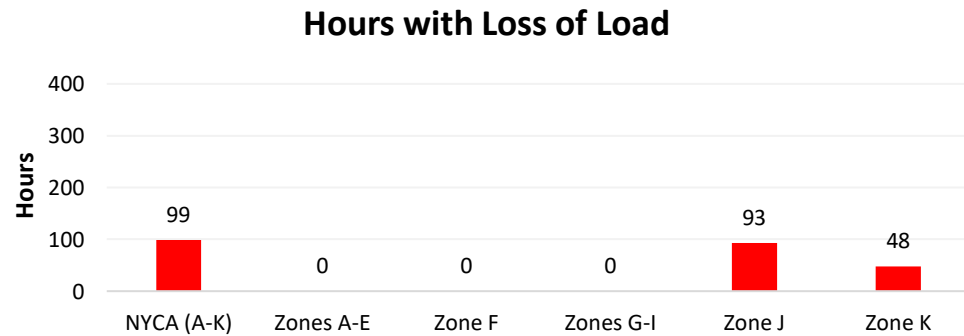
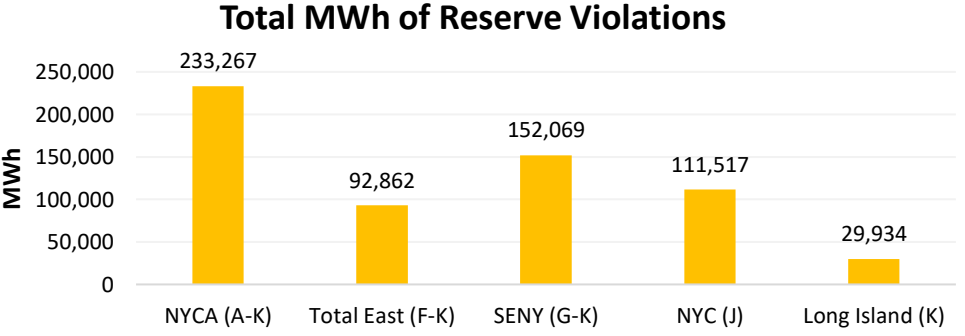
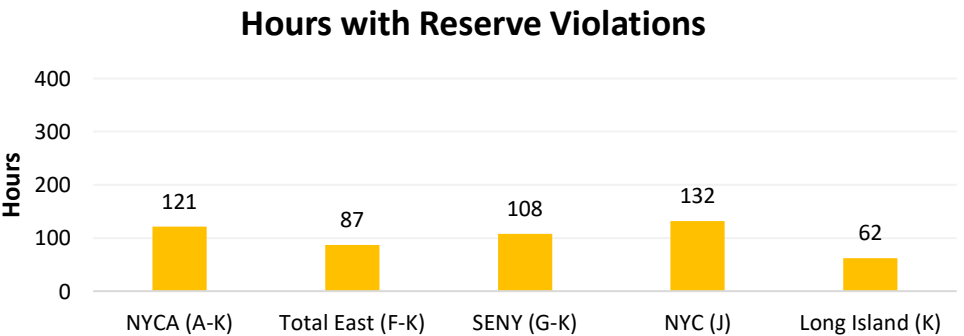
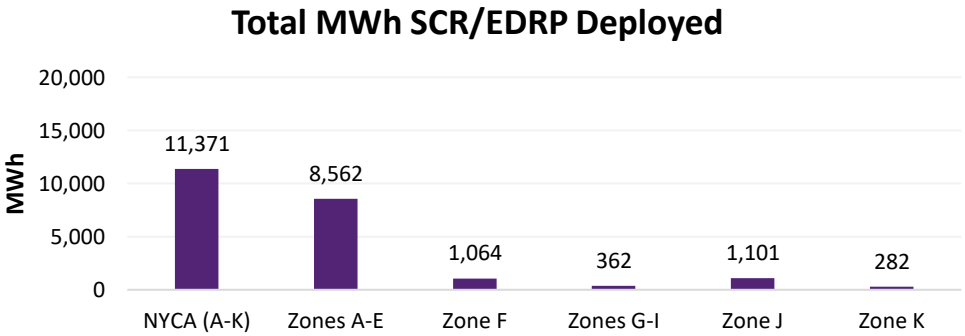
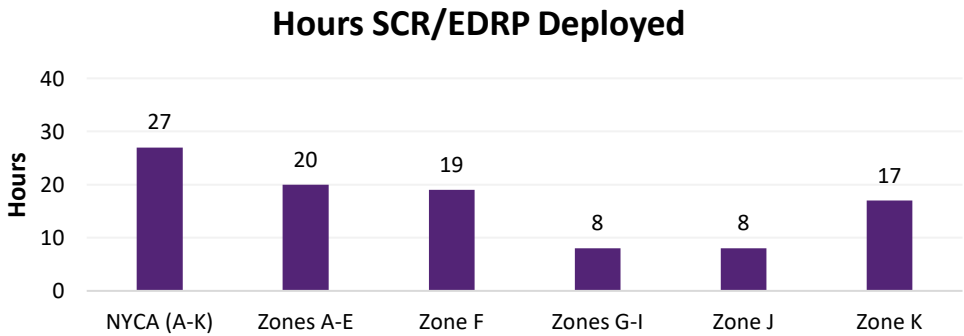
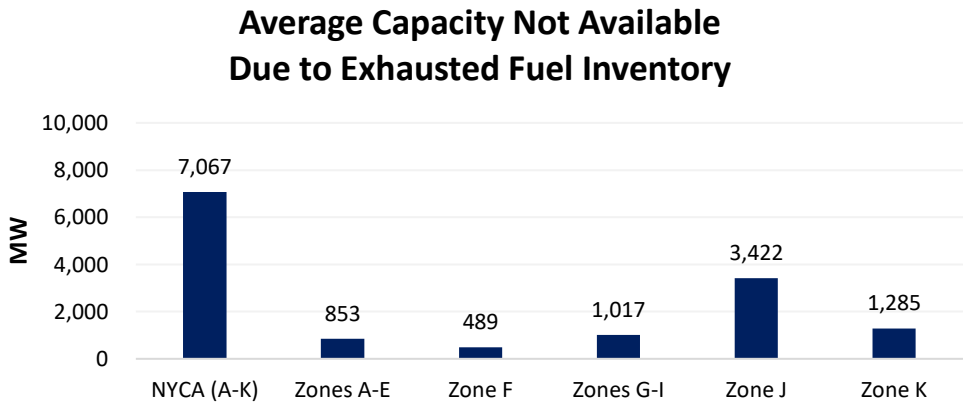
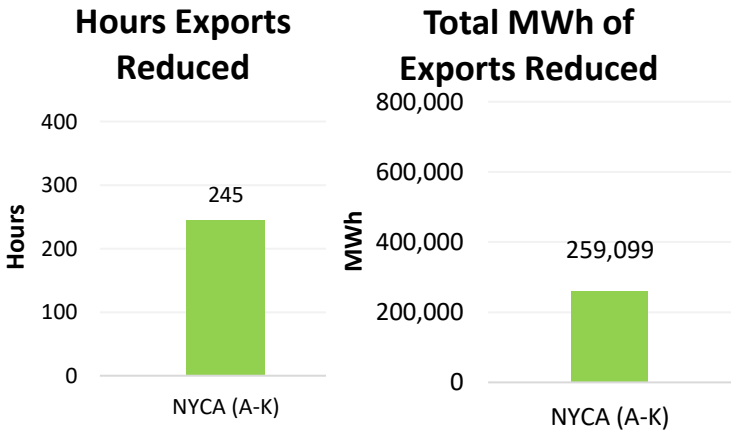
Reserve Violations	
Total Hrs.	121
Total MWh	233,267
Avg. MW	571.7
First Hour with Viol.	157

Loss of Load	
Total Hrs.	99
Total MWh	276,029
Avg. MW	676.5
First Hour with Losses	161

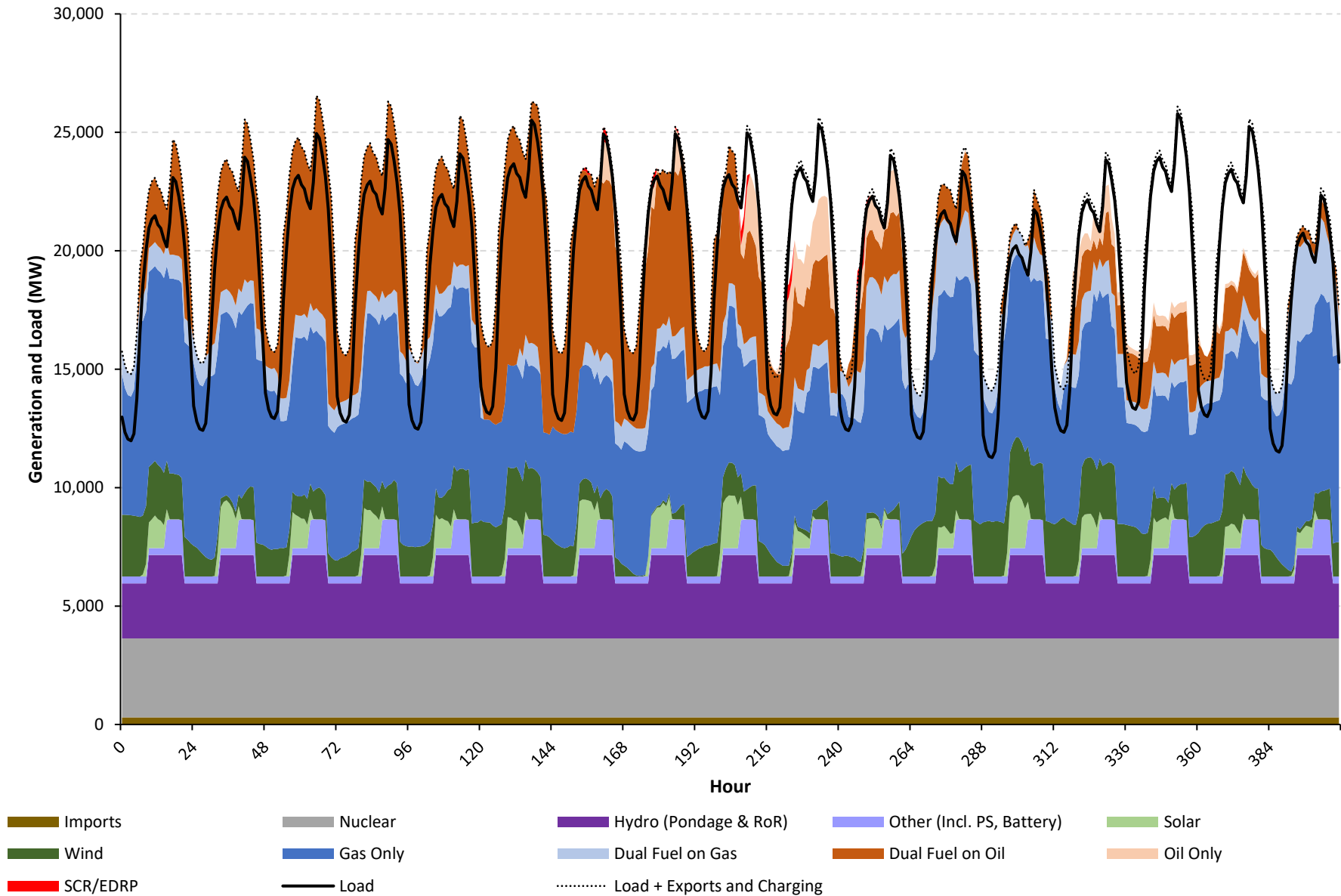
Full Period Results Summary

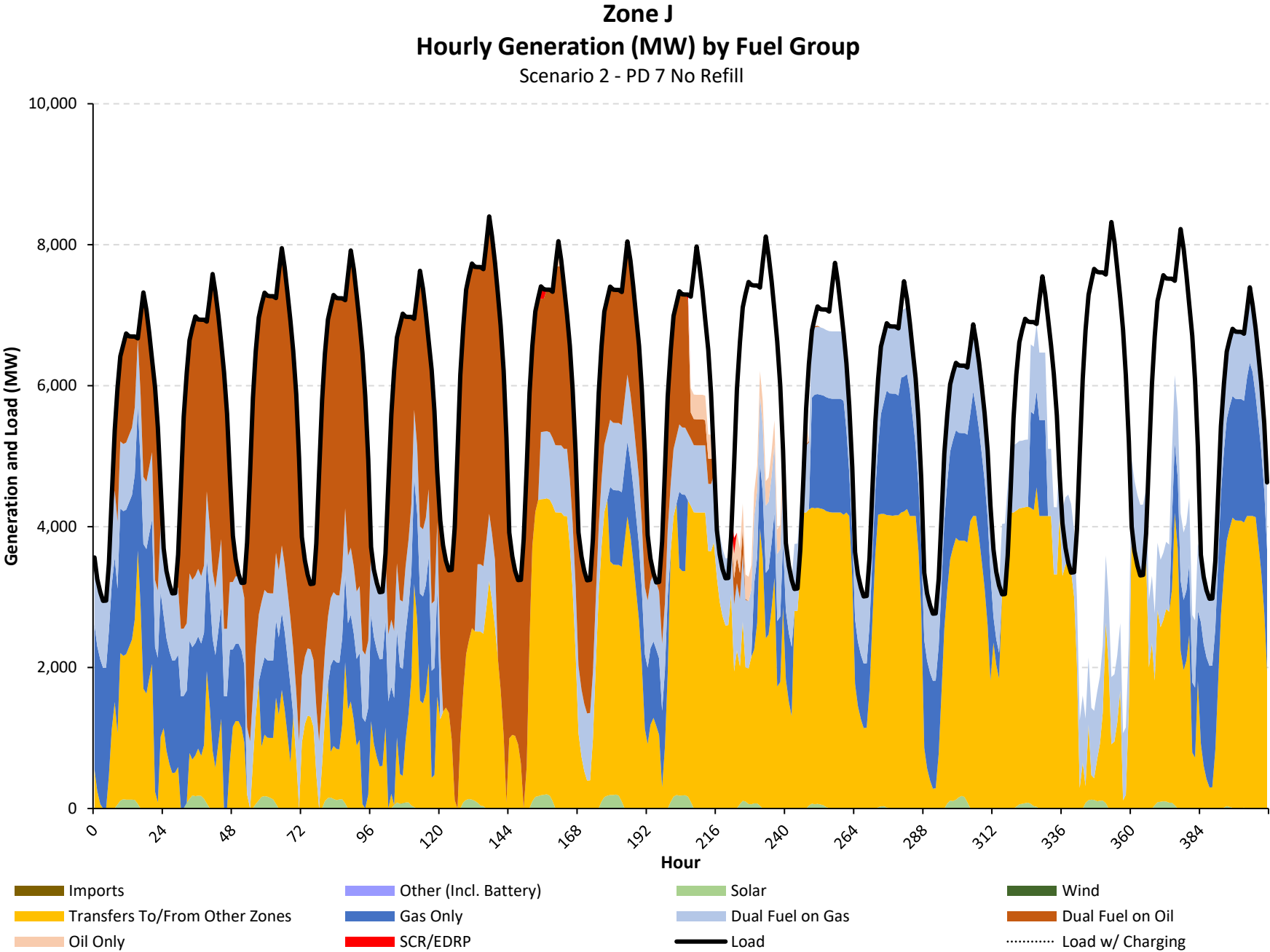
Case Name: Scenario 2 - PD 7 No Refill

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

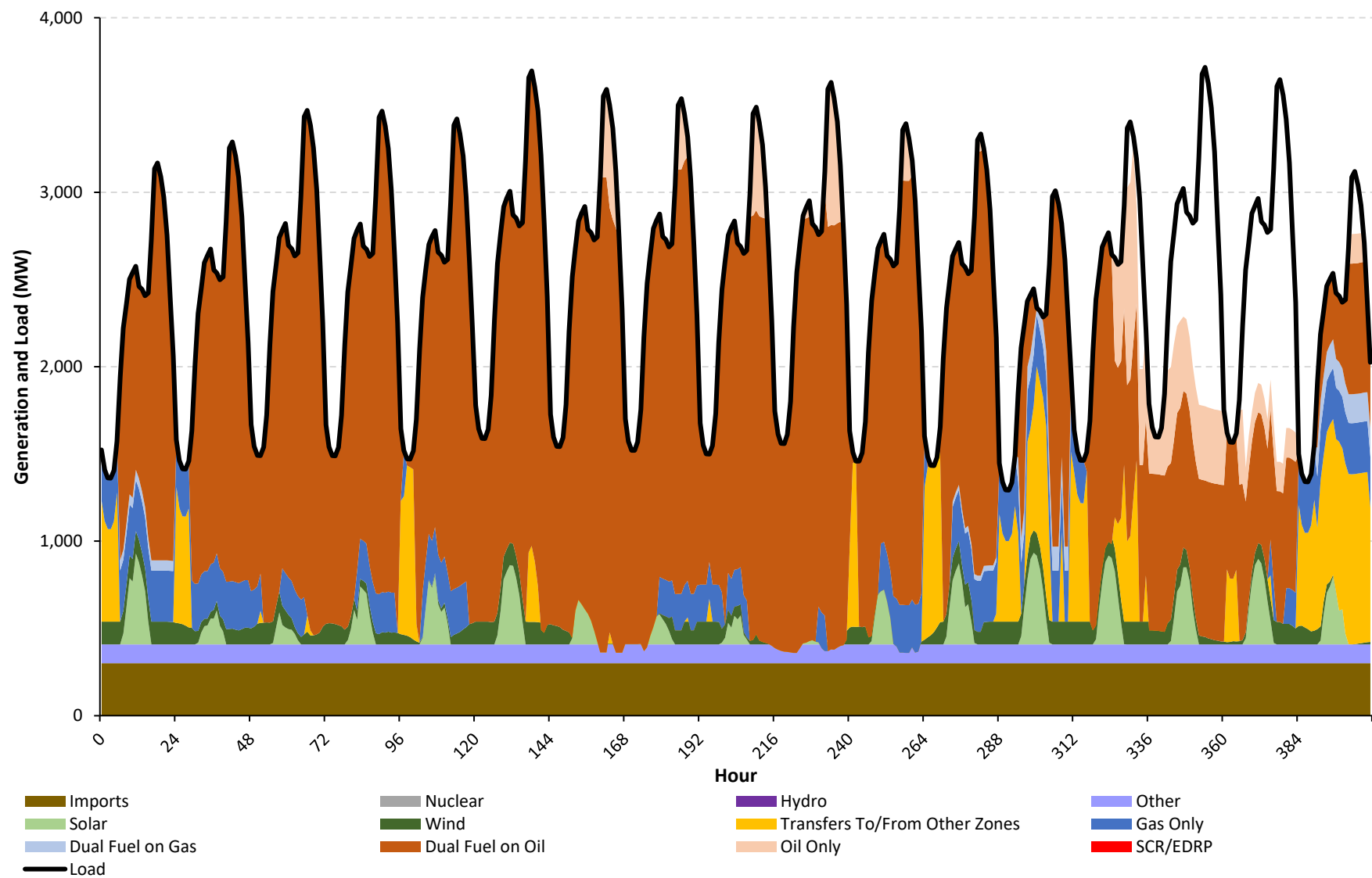


NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 2 - PD 7 No Refill

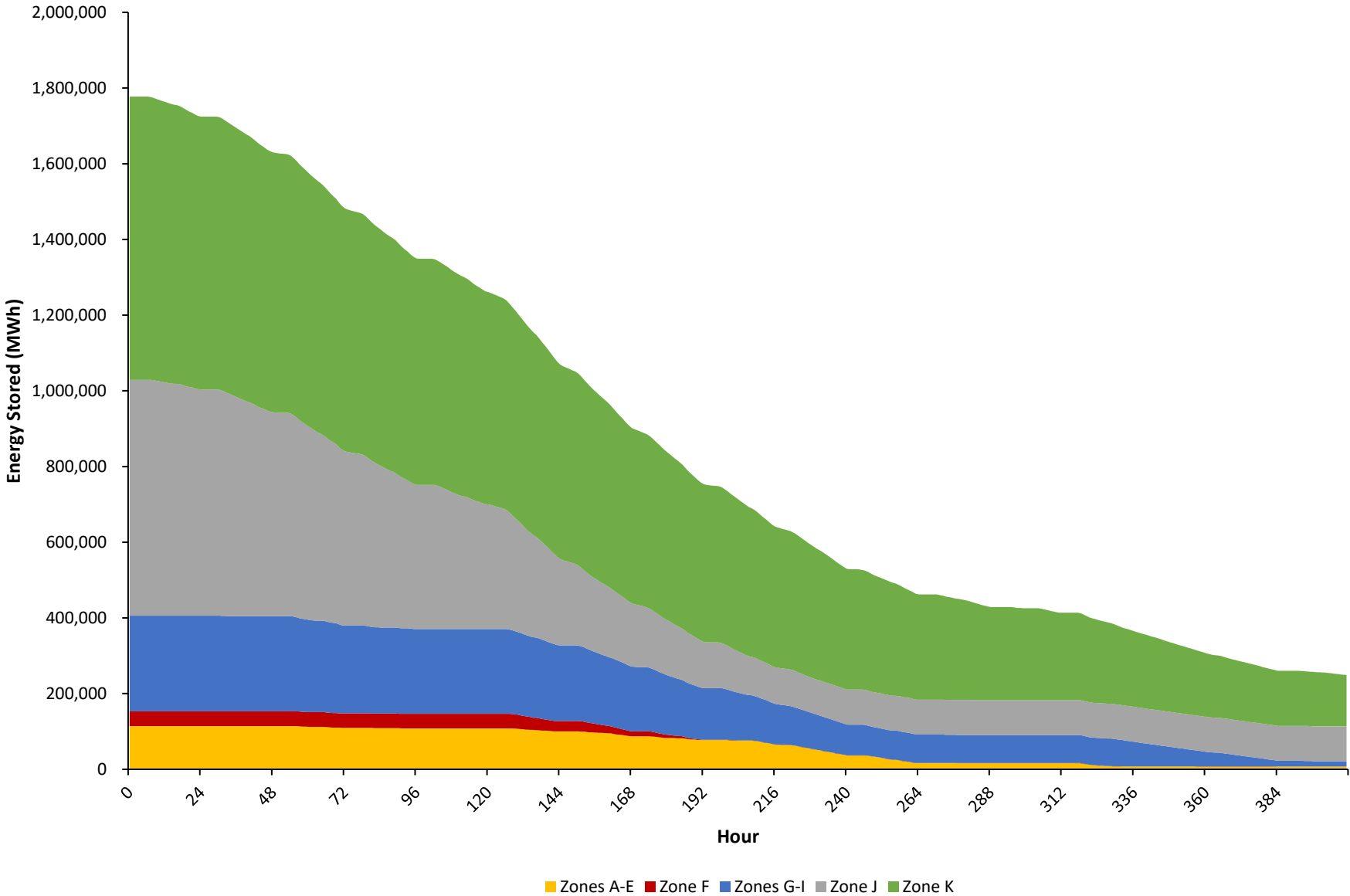




Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 7 No Refill

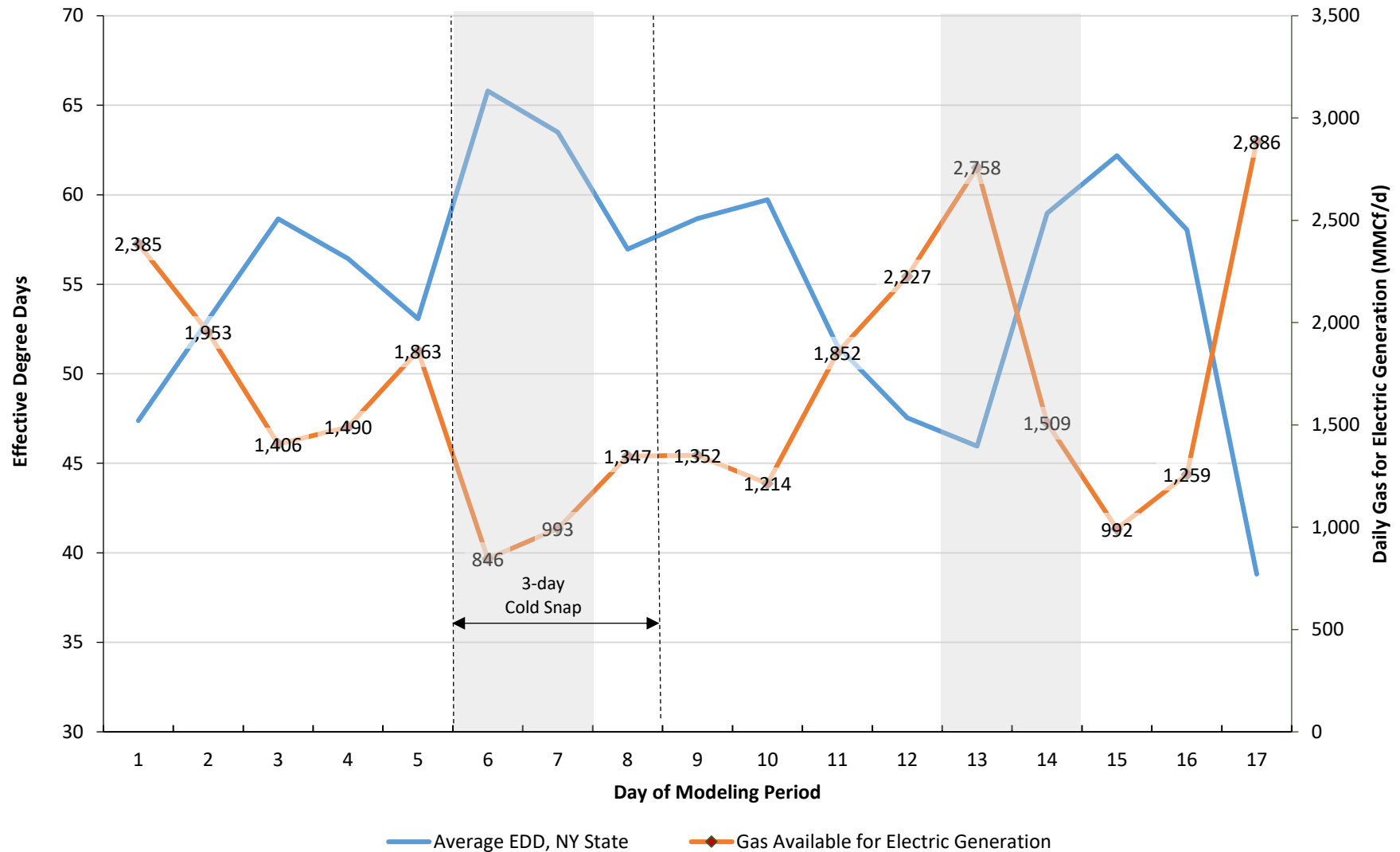


NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 2 - PD 7 No Refill



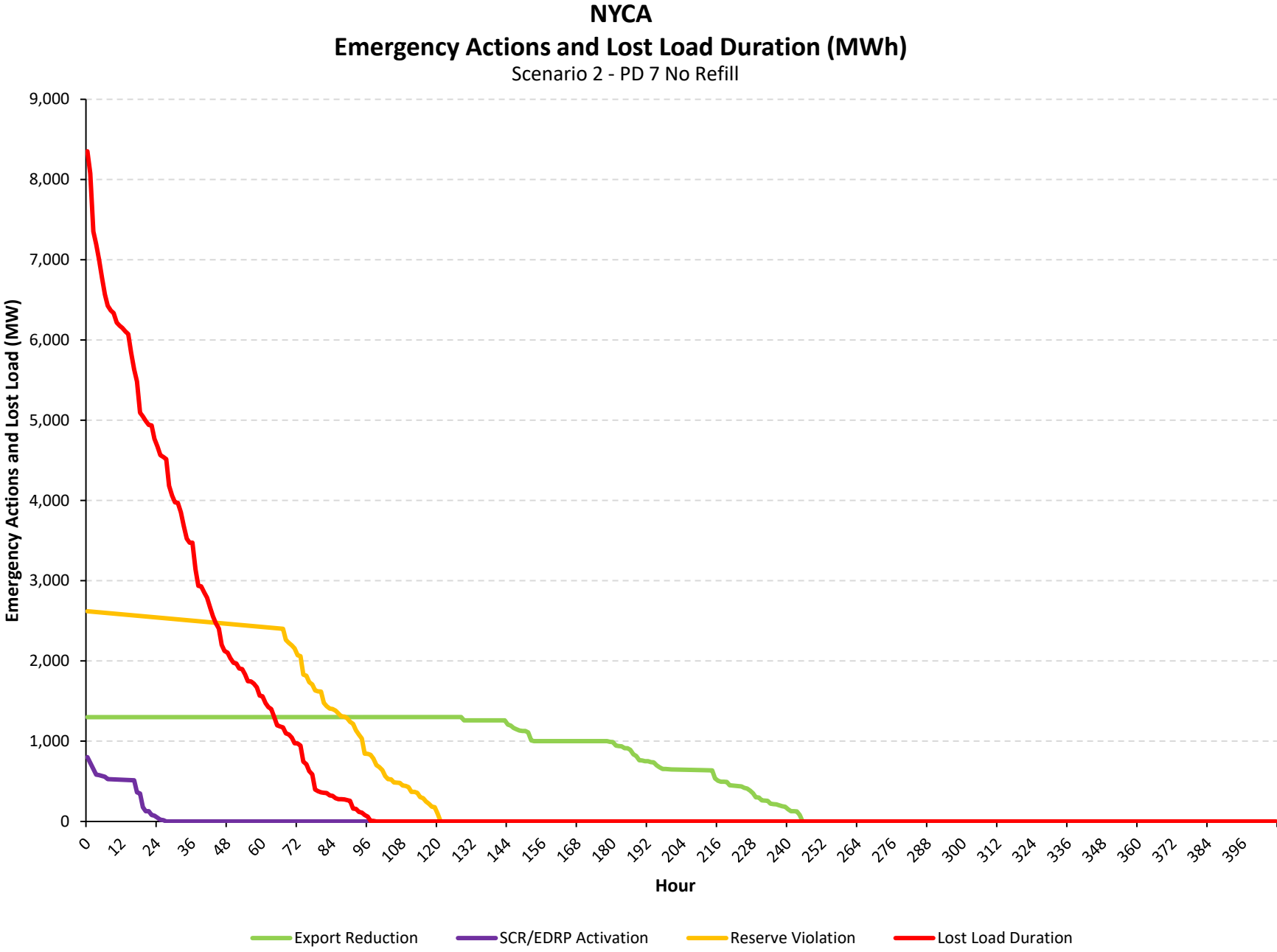
NYCA **Degree Days and Gas Available for Electric Generation 17-Day Modeling Period**

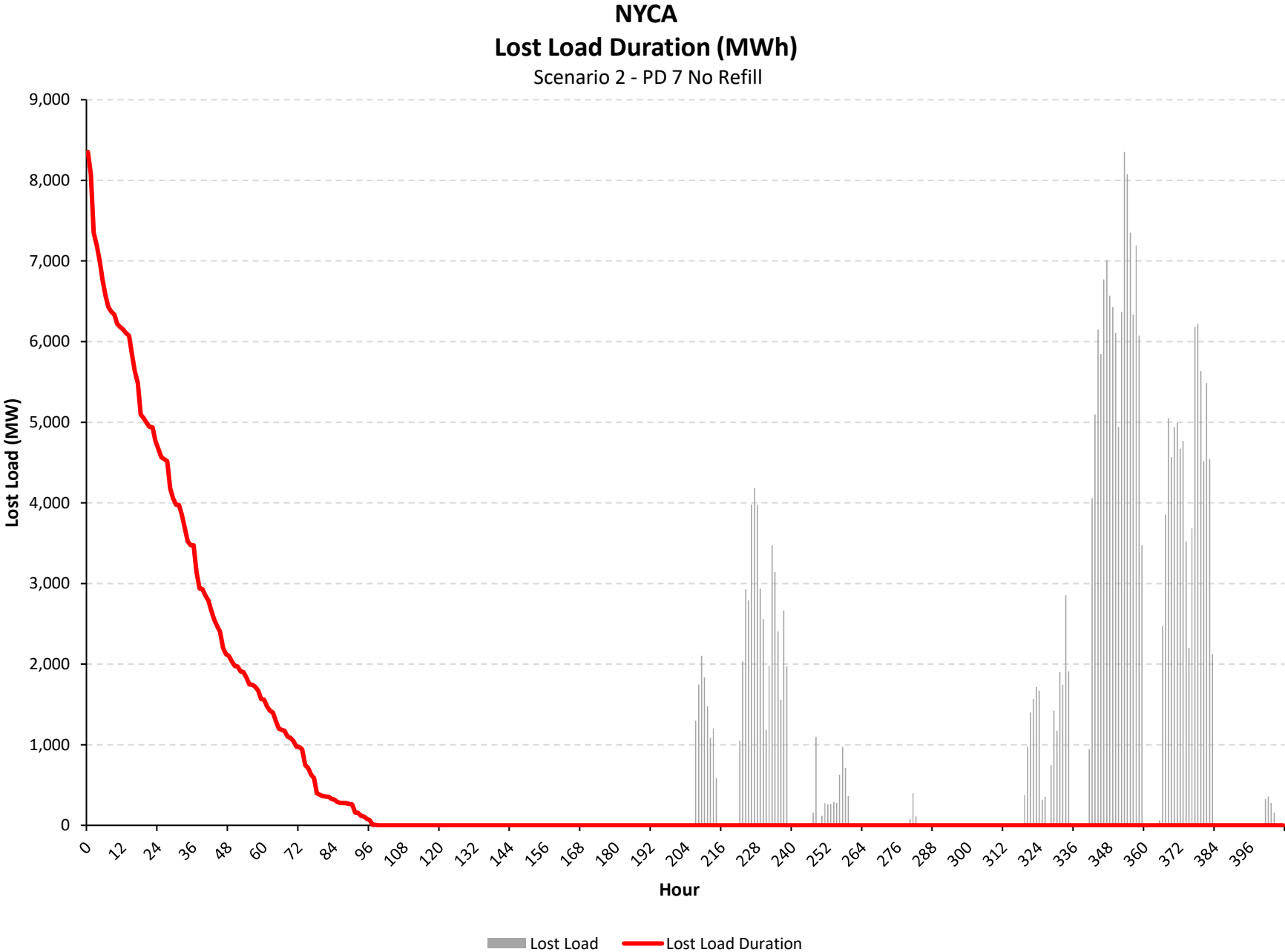
Scenario 2 - PD 7 No Refill



Notes:

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



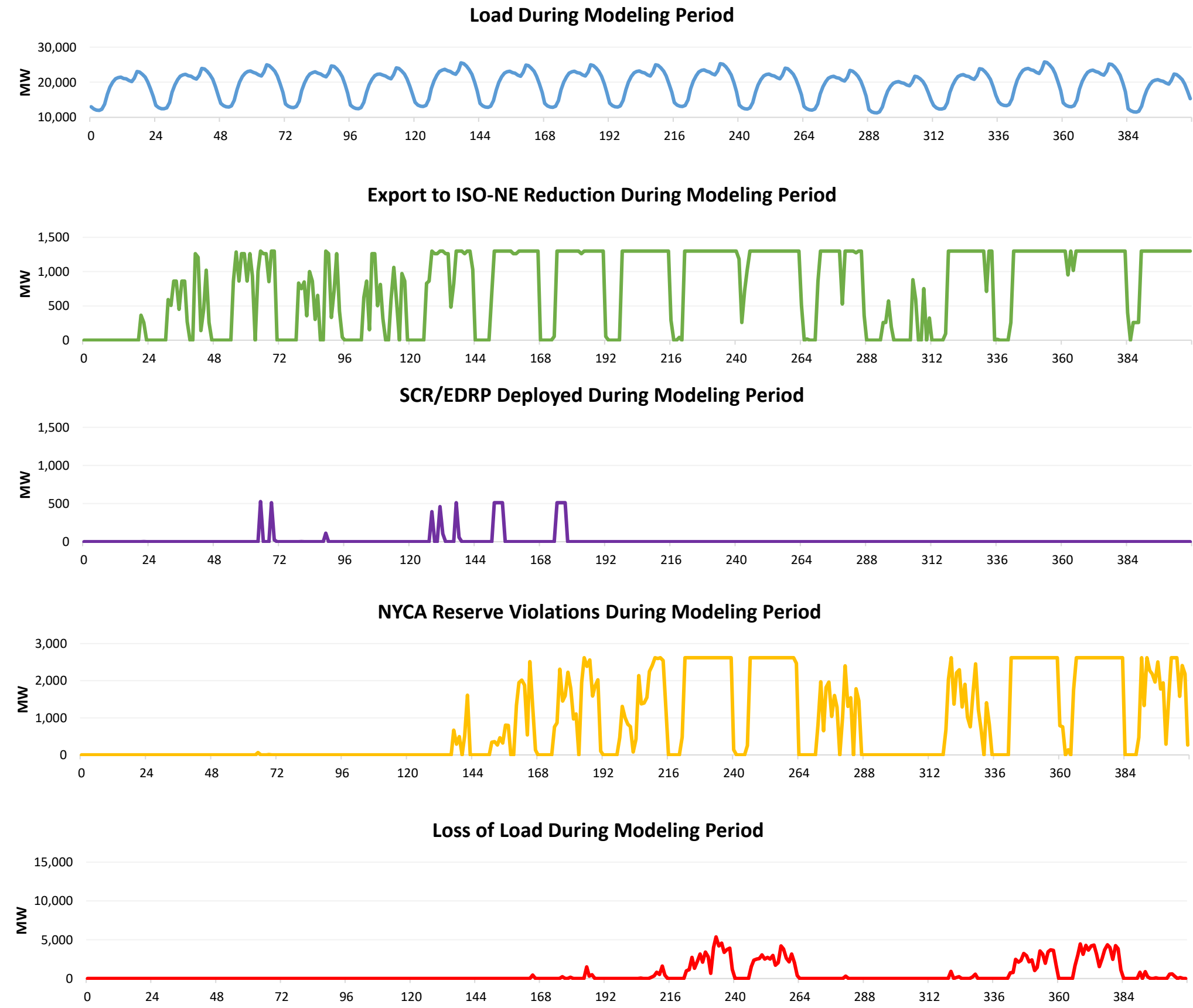


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 8 Non-Firm Gas Unavailable (F-K) (Winter 2023/2024)

Hourly Results Summary

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



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

Export Reductions	
Total Hrs.	291
Total MWh	319,746
Avg. MW	783.7

SCR Deployment	
Total Hrs.	17
Total MWh	6,779
Avg. MW	16.6

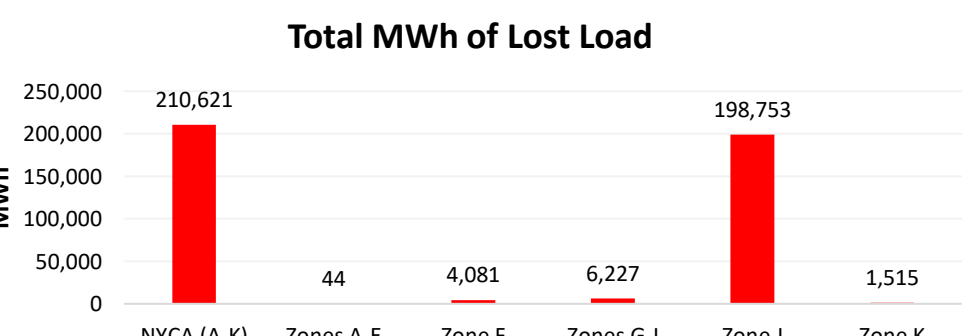
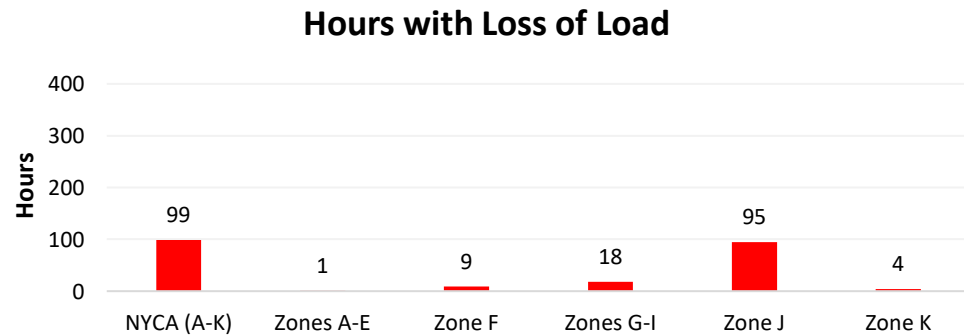
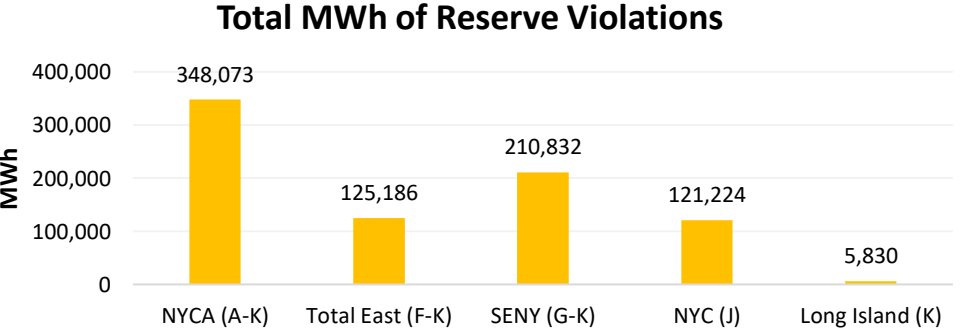
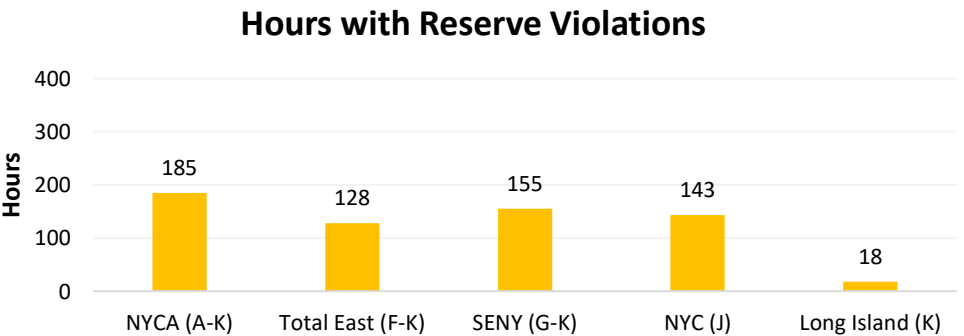
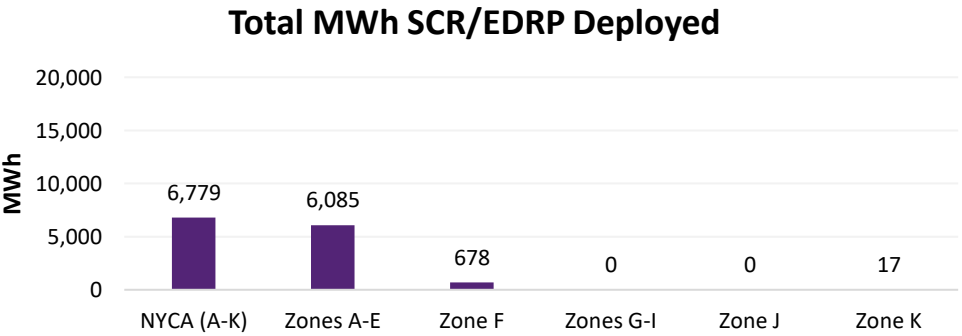
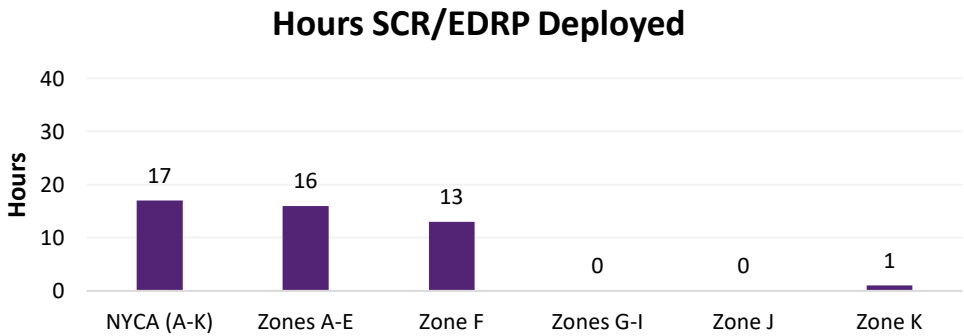
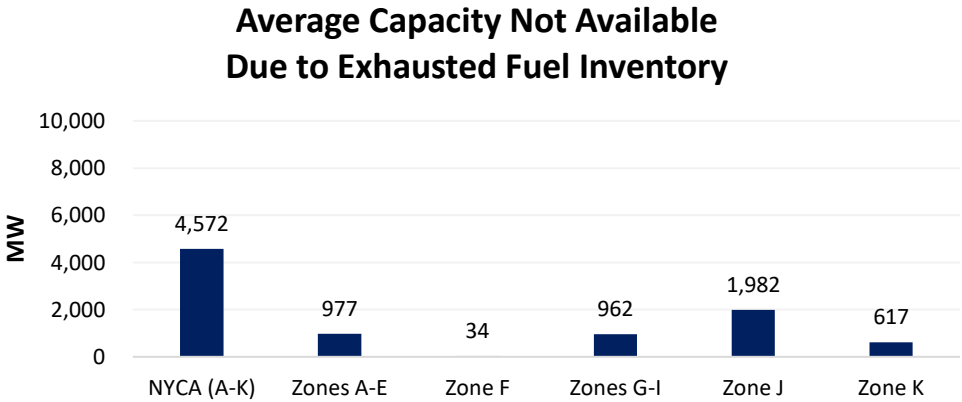
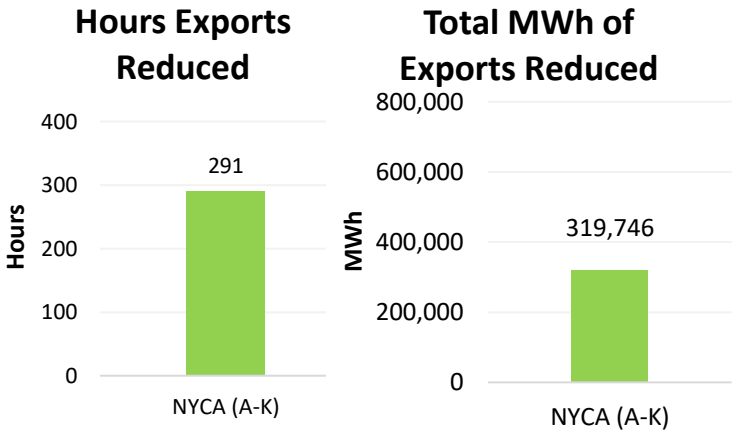
Reserve Violations	
Total Hrs.	185
Total MWh	348,073
Avg. MW	853.1
First Hour with Viol.	65

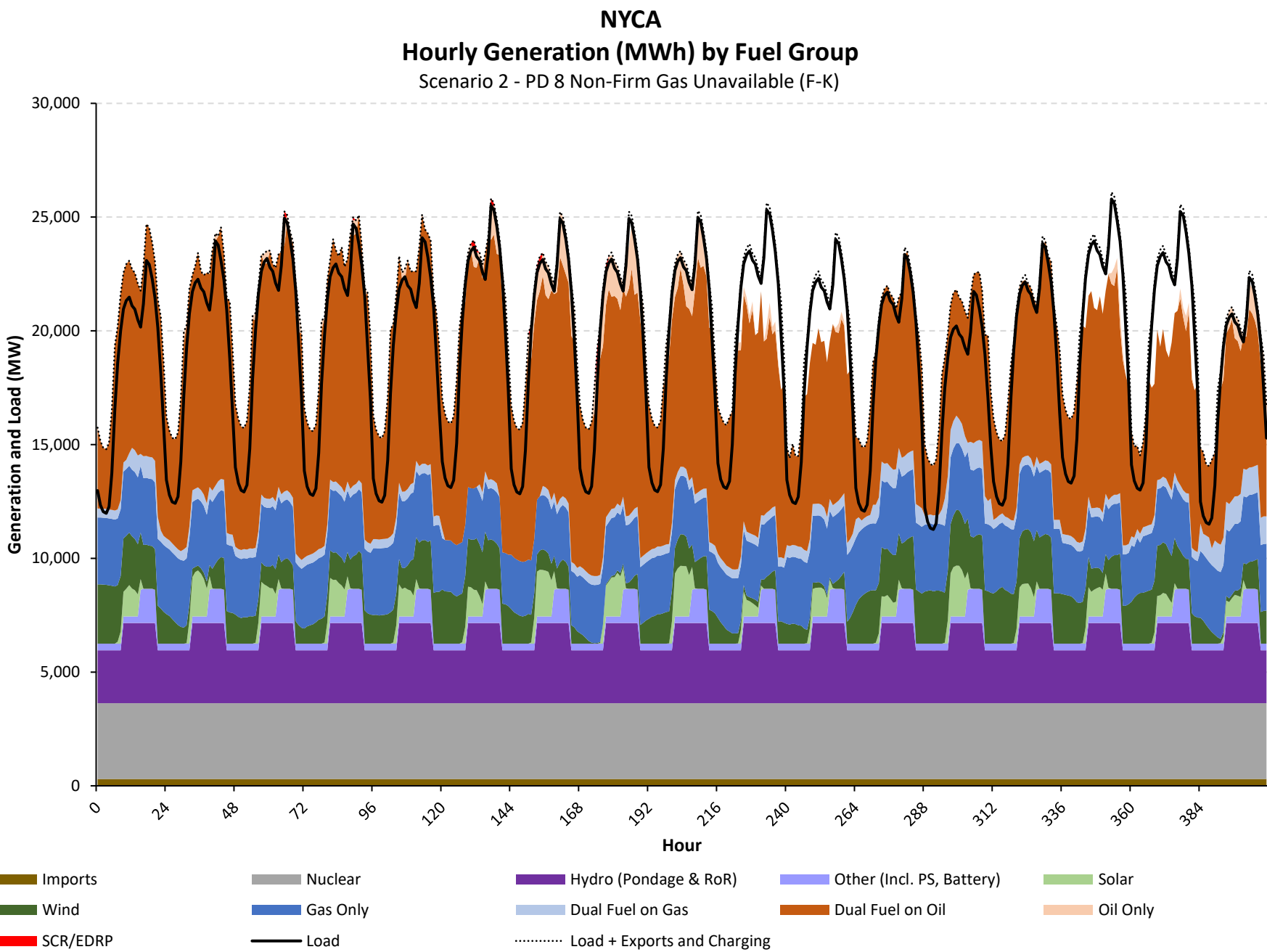
Loss of Load	
Total Hrs.	99
Total MWh	210,621
Avg. MW	516.2
First Hour with Losses	165

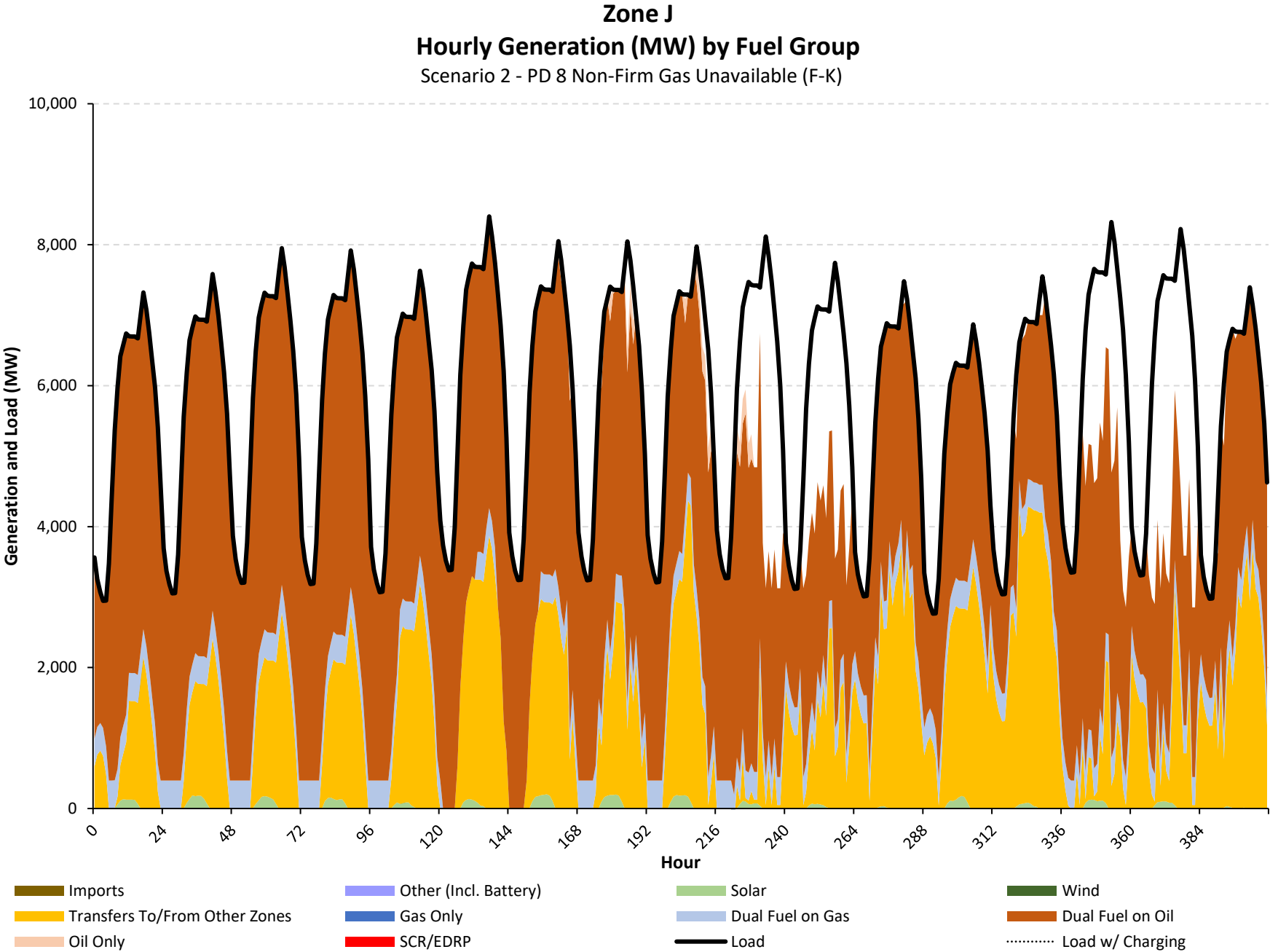
Full Period Results Summary

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

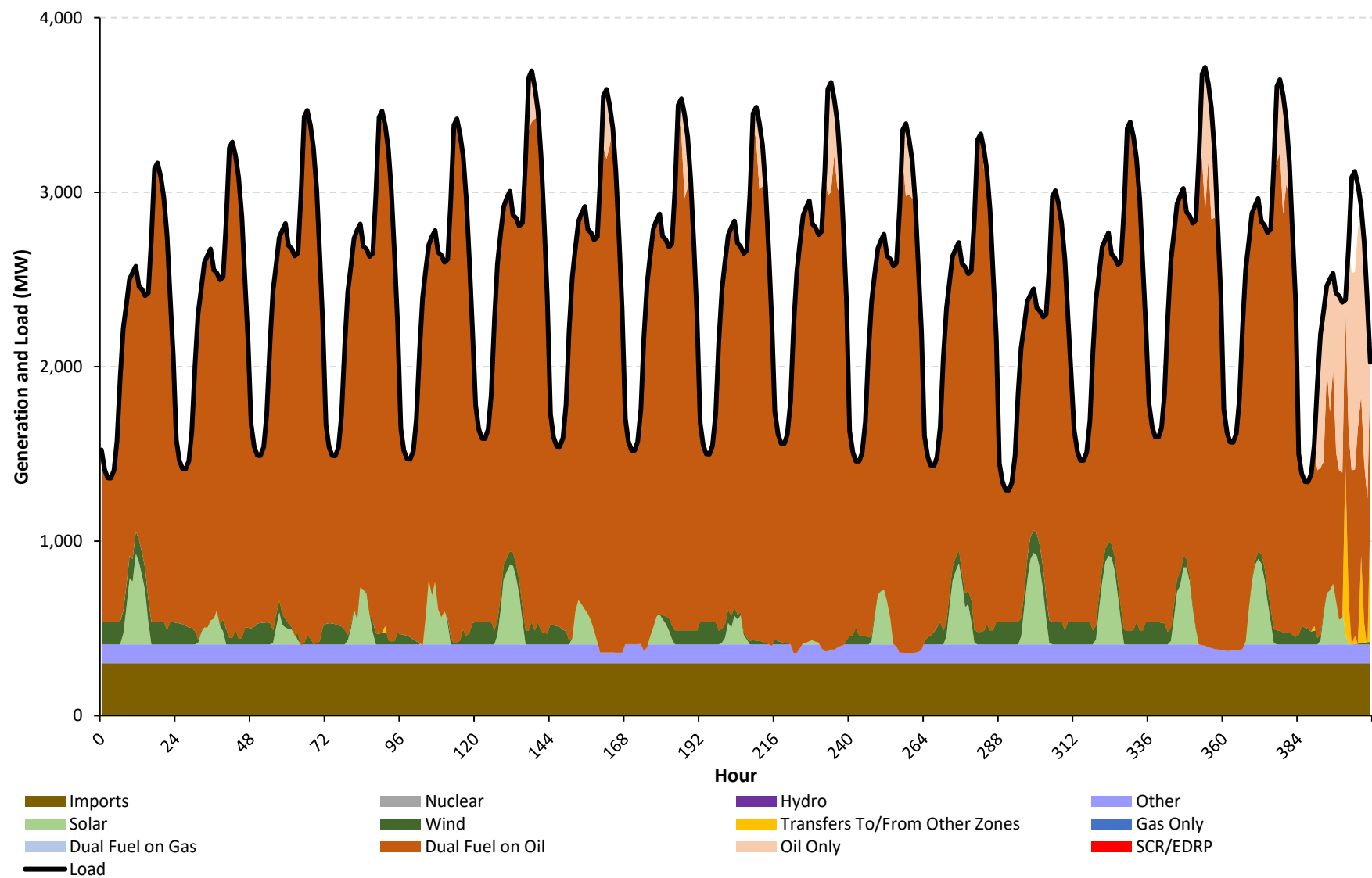
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	Historical
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

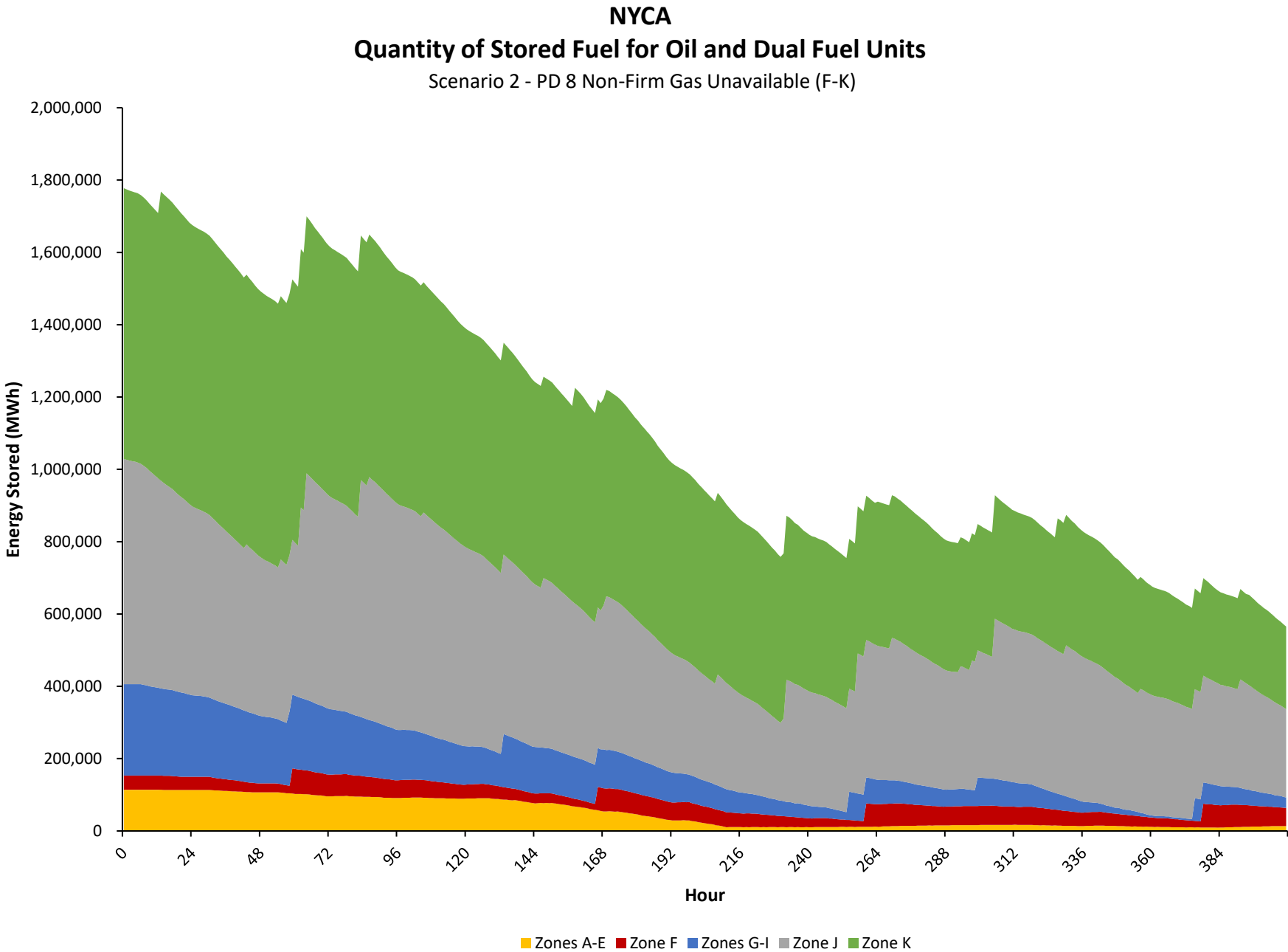


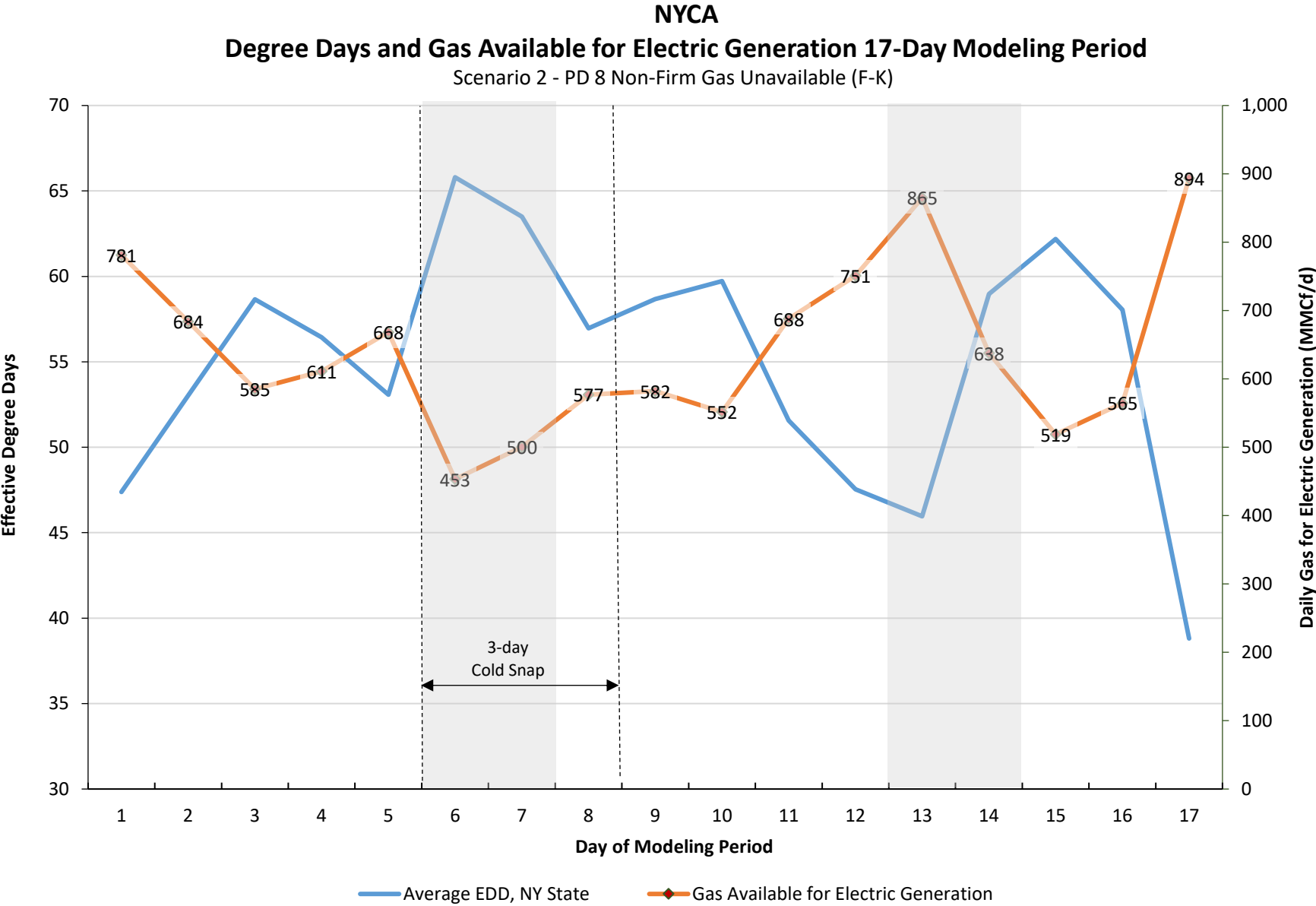




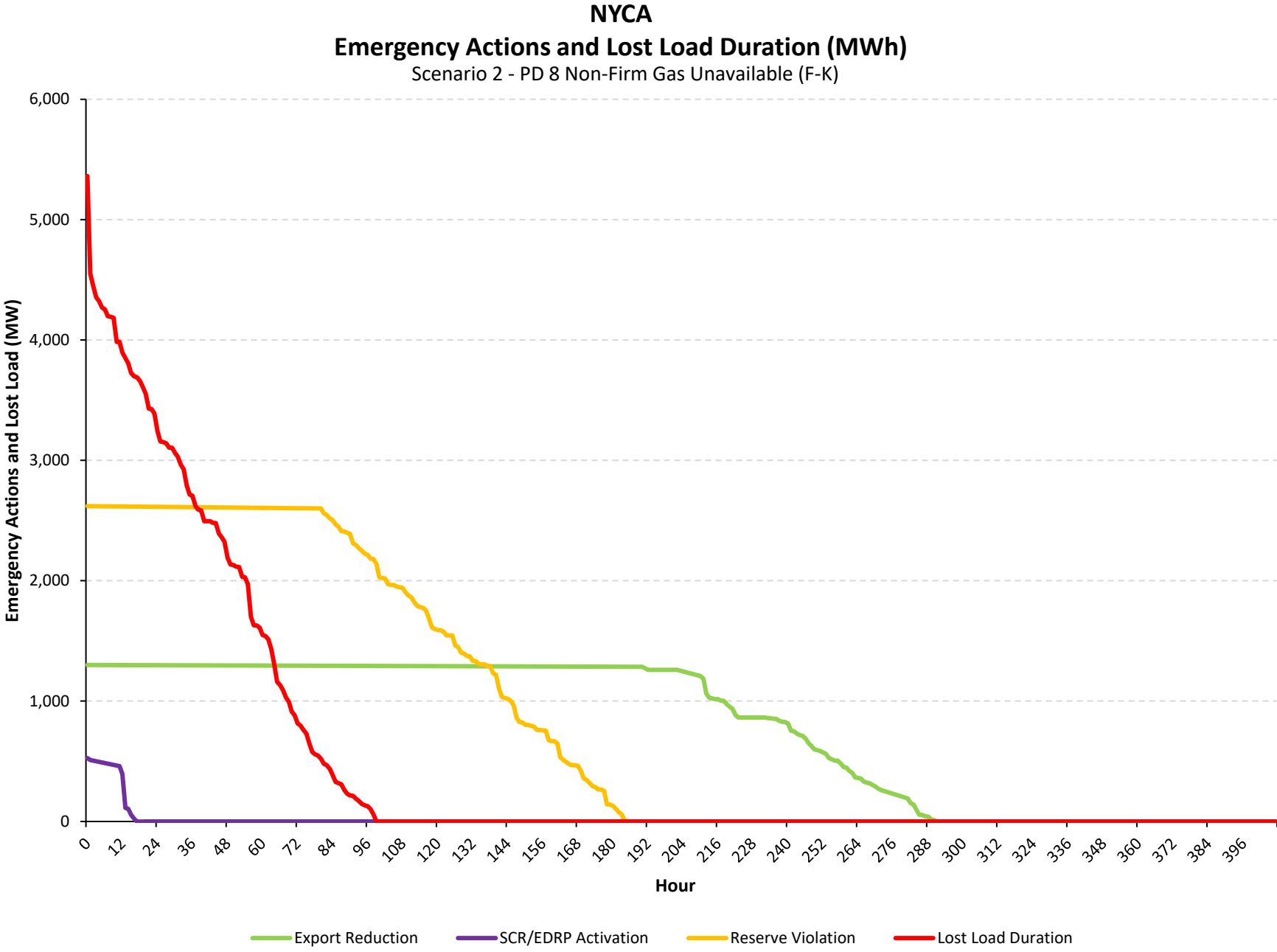
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 8 Non-Firm Gas Unavailable (F-K)

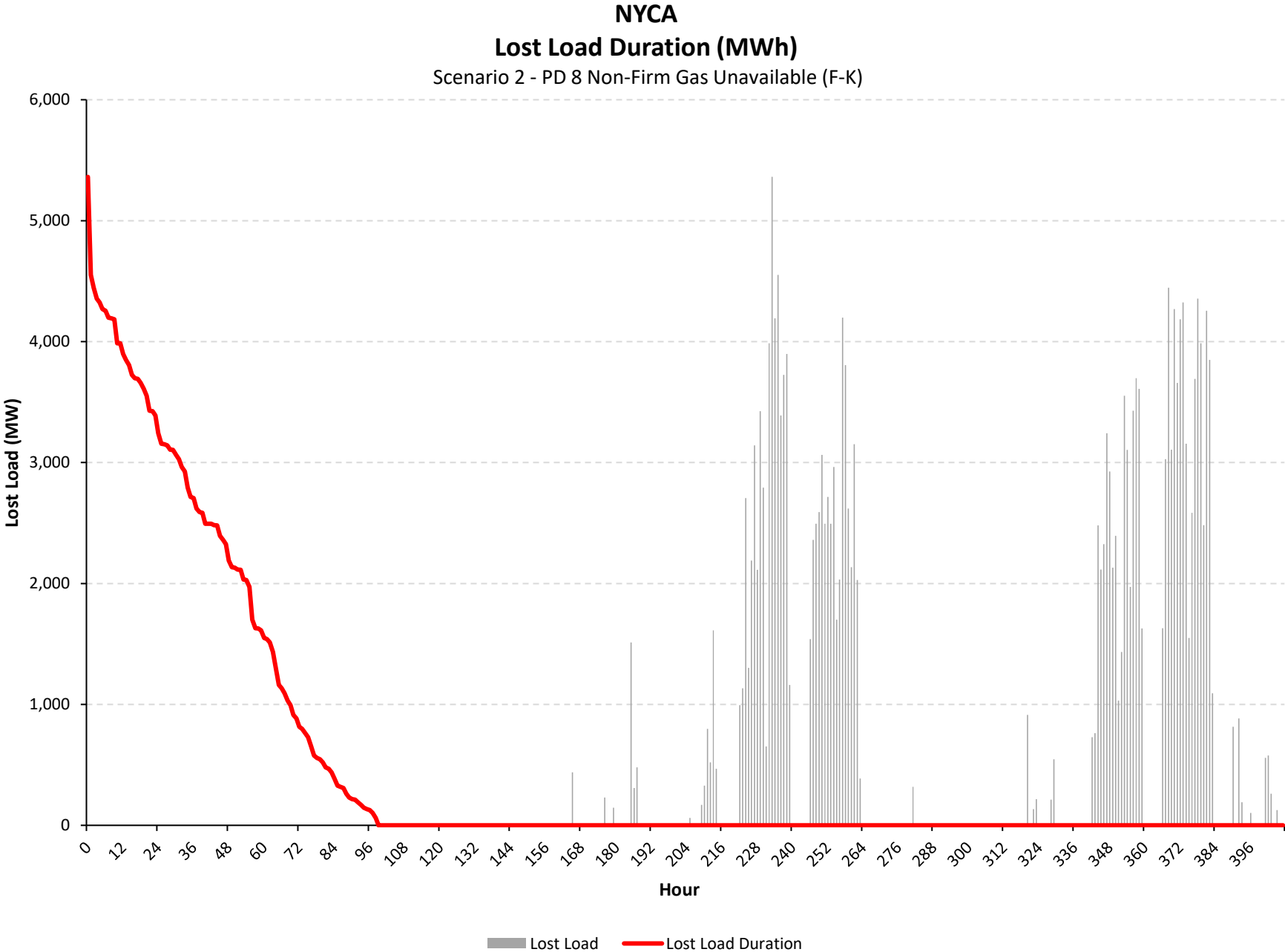






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



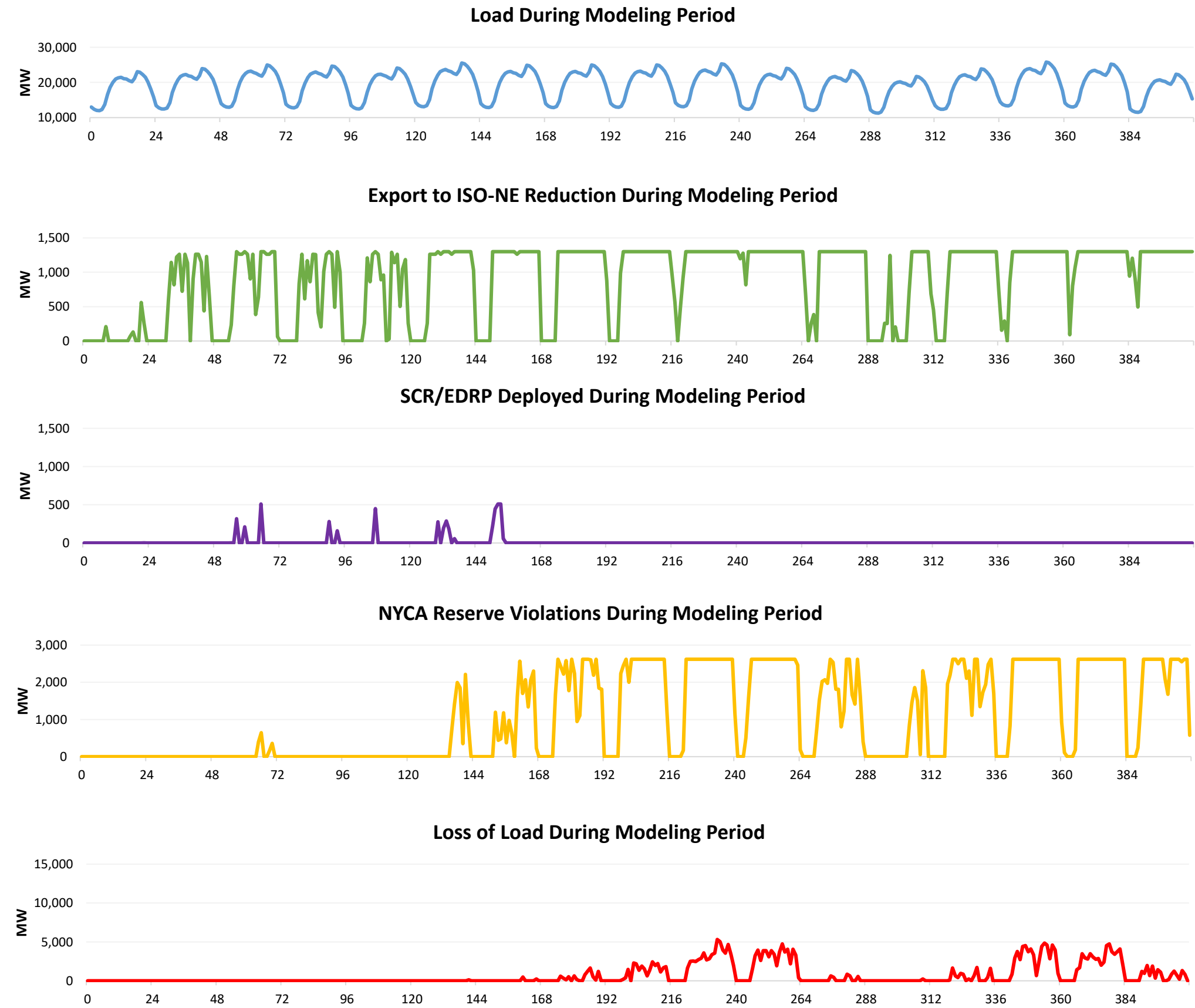


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 9 Non-Firm Gas Unavailable (NYCA) (Winter 2023/2024)

Hourly Results Summary

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



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

Export Reductions	
Total Hrs.	317
Total MWh	365,569
Avg. MW	896.0

SCR Deployment	
Total Hrs.	16
Total MWh	4,684
Avg. MW	11.5

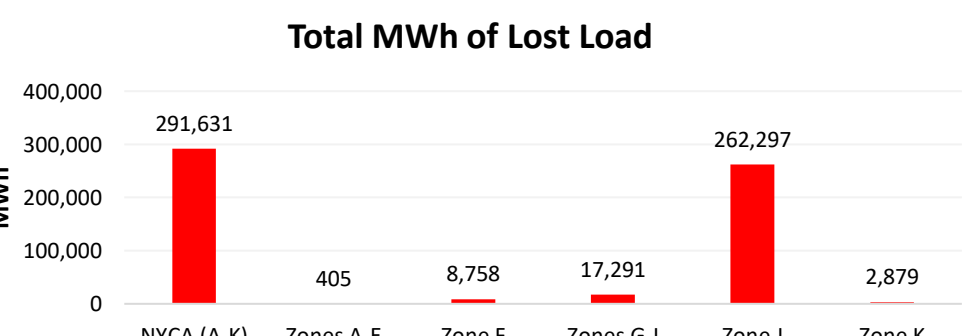
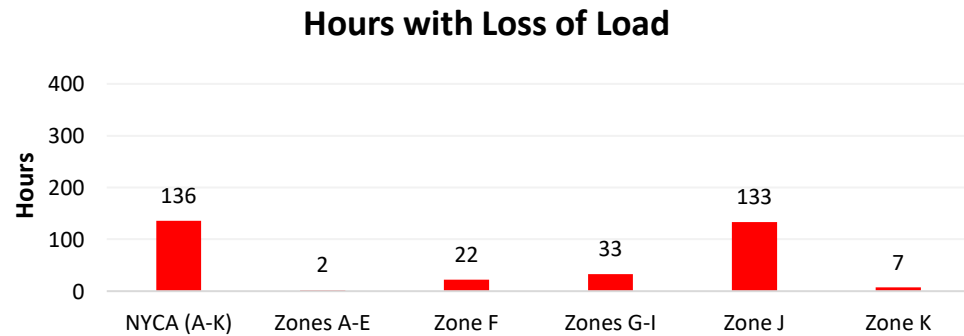
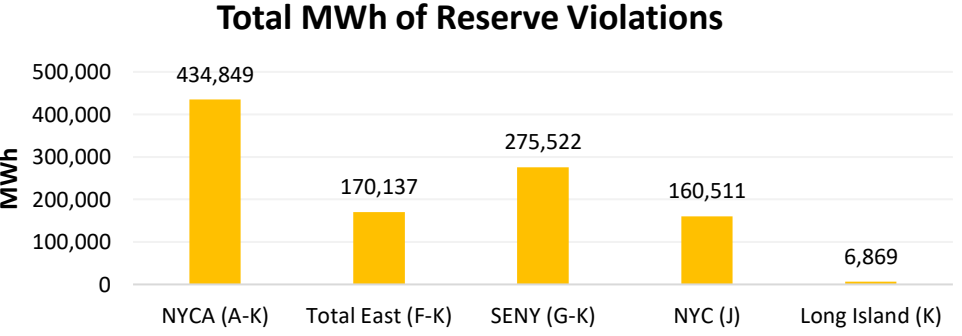
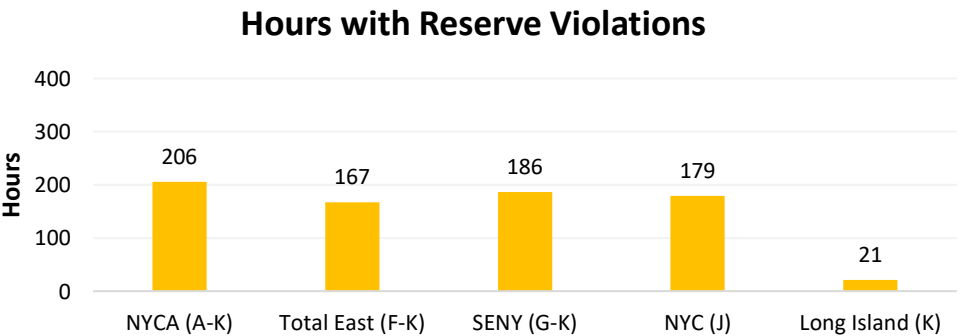
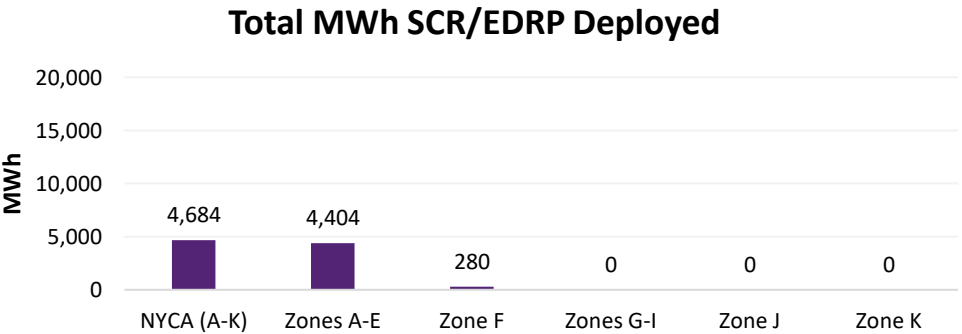
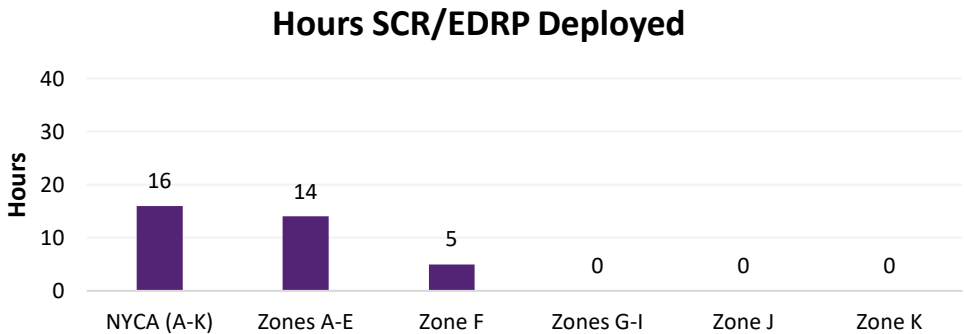
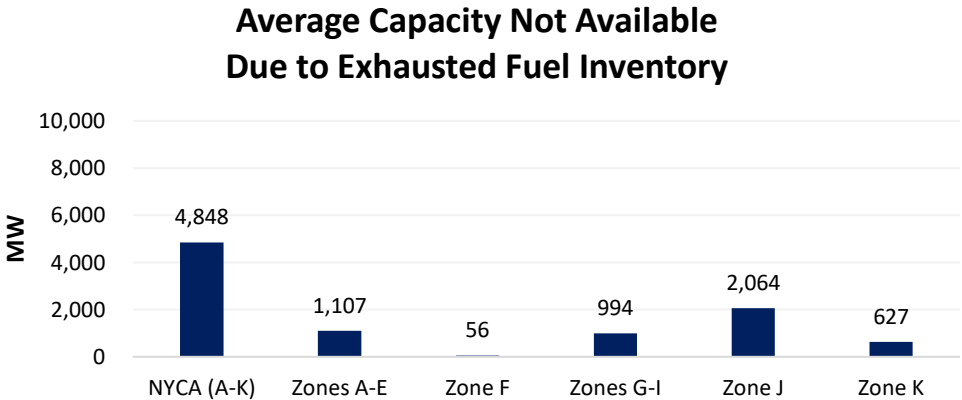
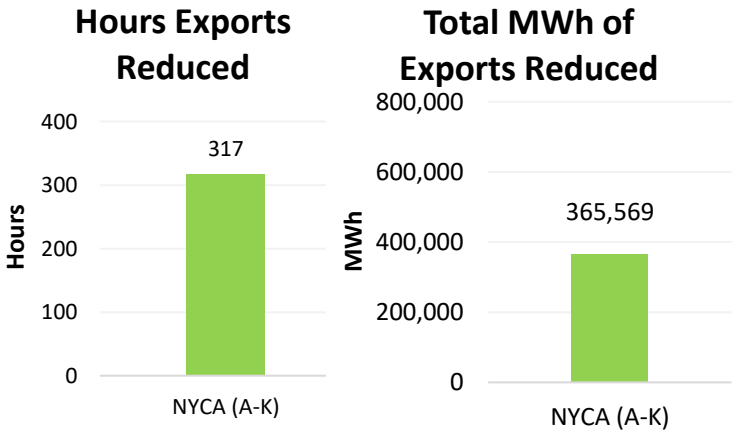
Reserve Violations	
Total Hrs.	206
Total MWh	434,849
Avg. MW	1,065.8
First Hour with Viol.	65

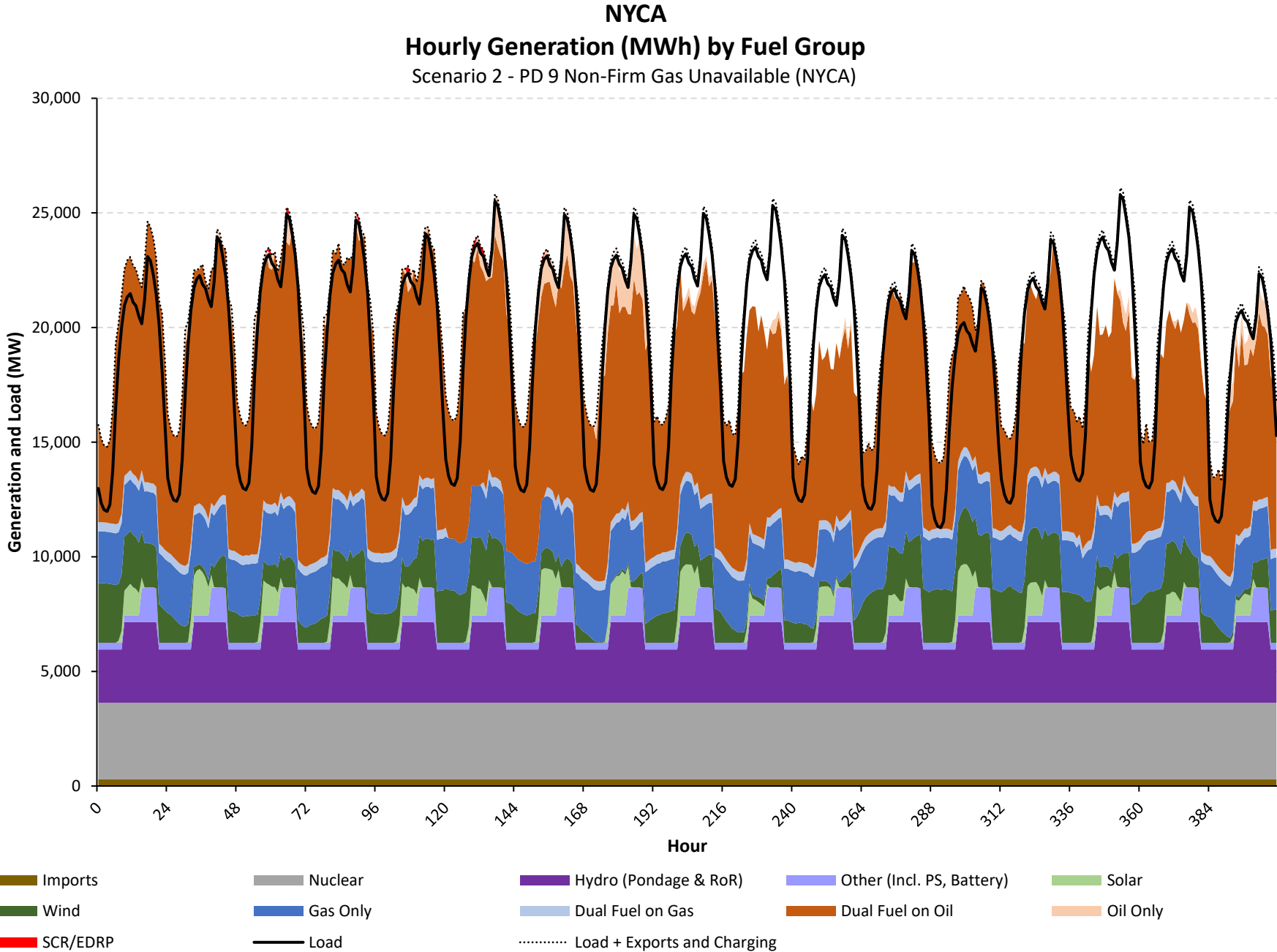
Loss of Load	
Total Hrs.	136
Total MWh	291,631
Avg. MW	714.8
First Hour with Losses	141

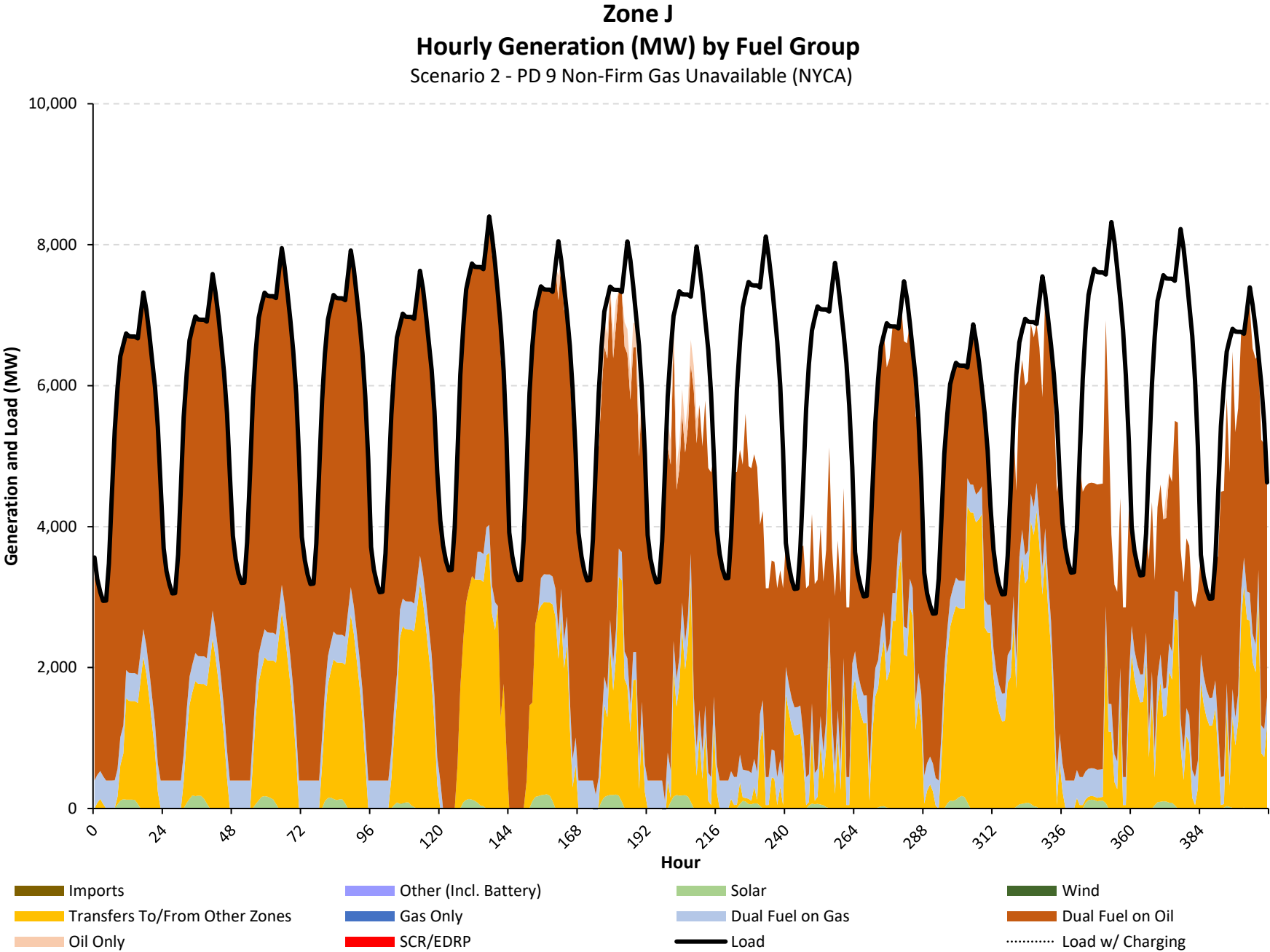
Full Period Results Summary

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

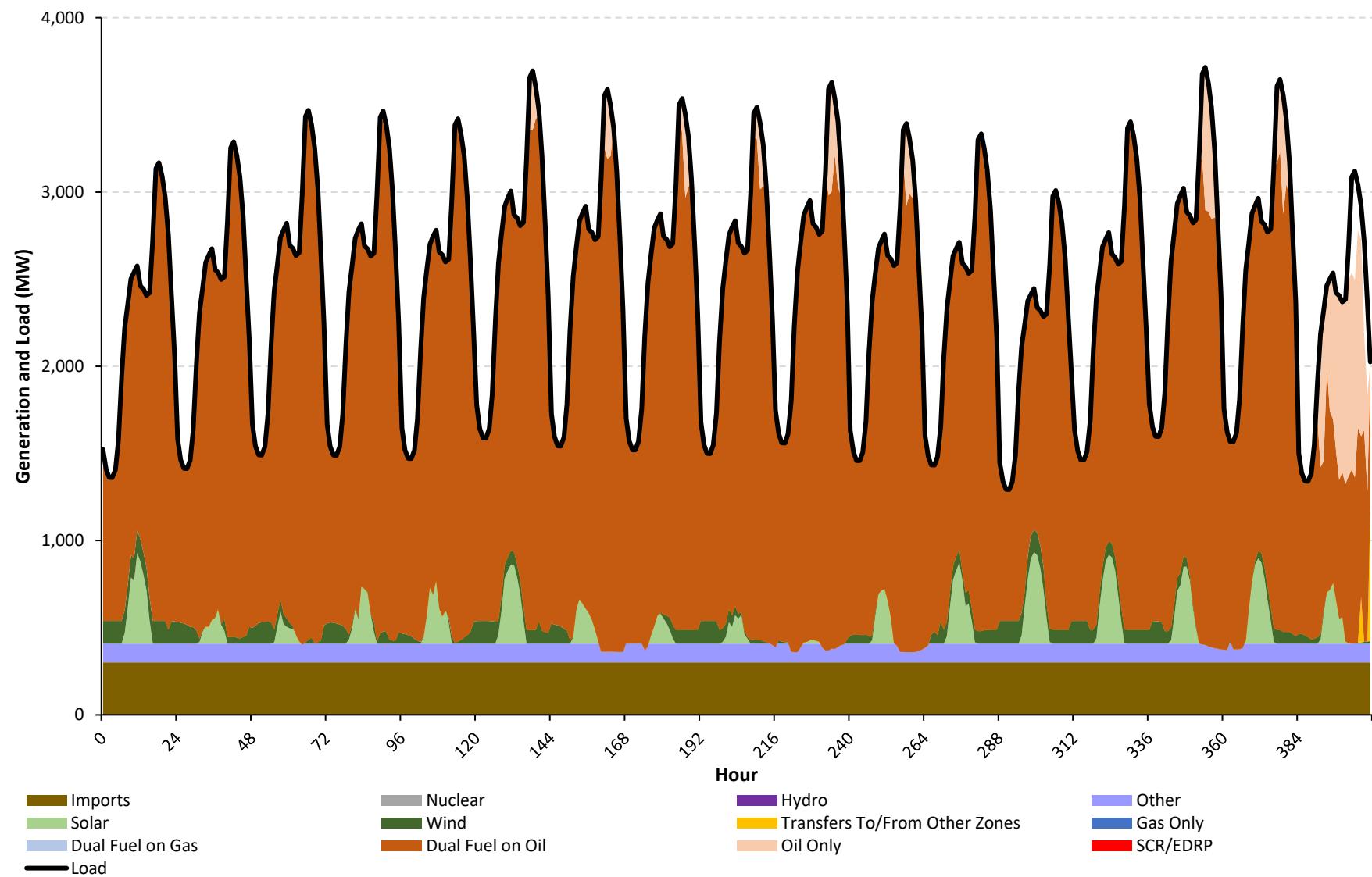
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	Historical
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

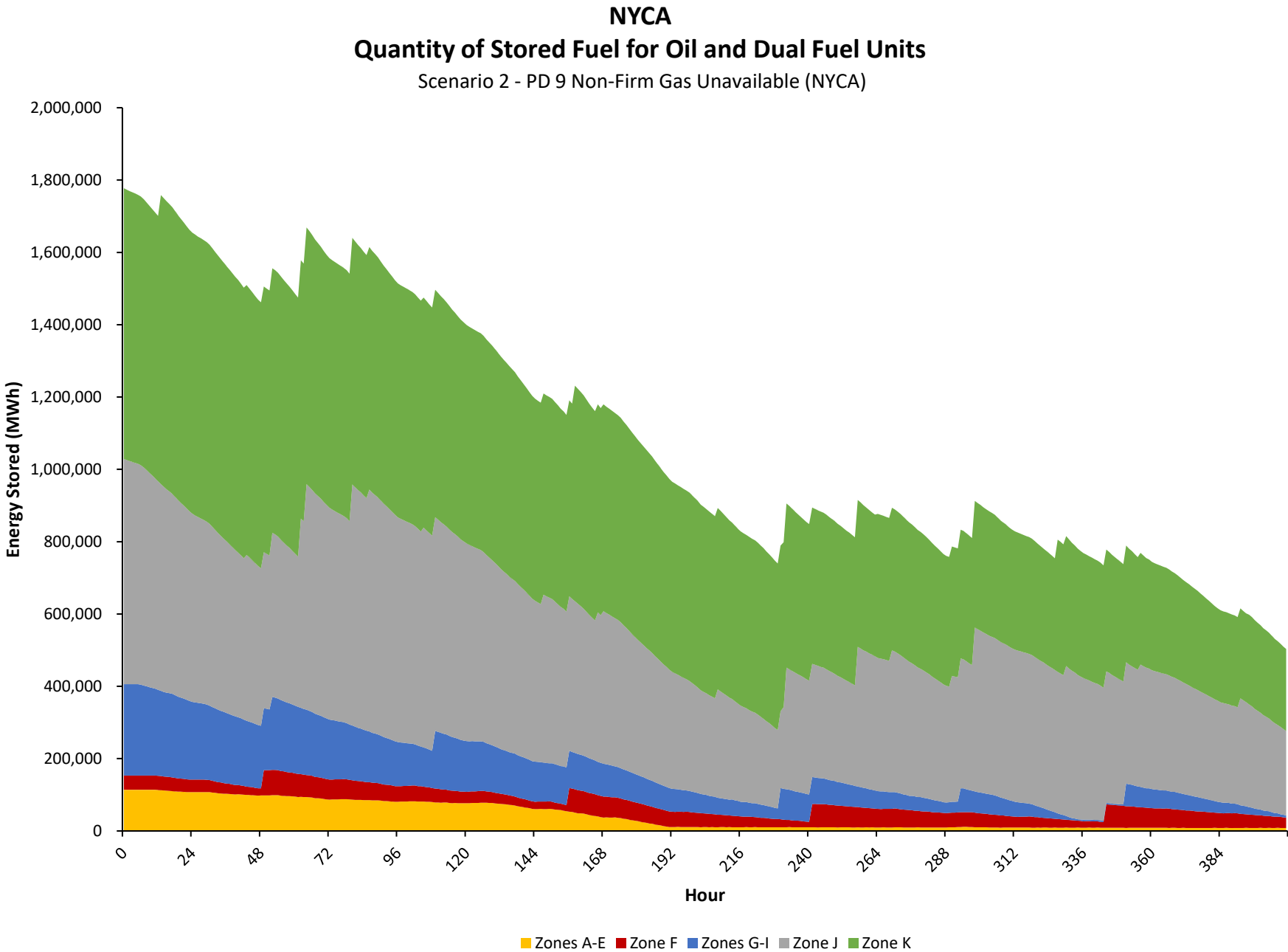


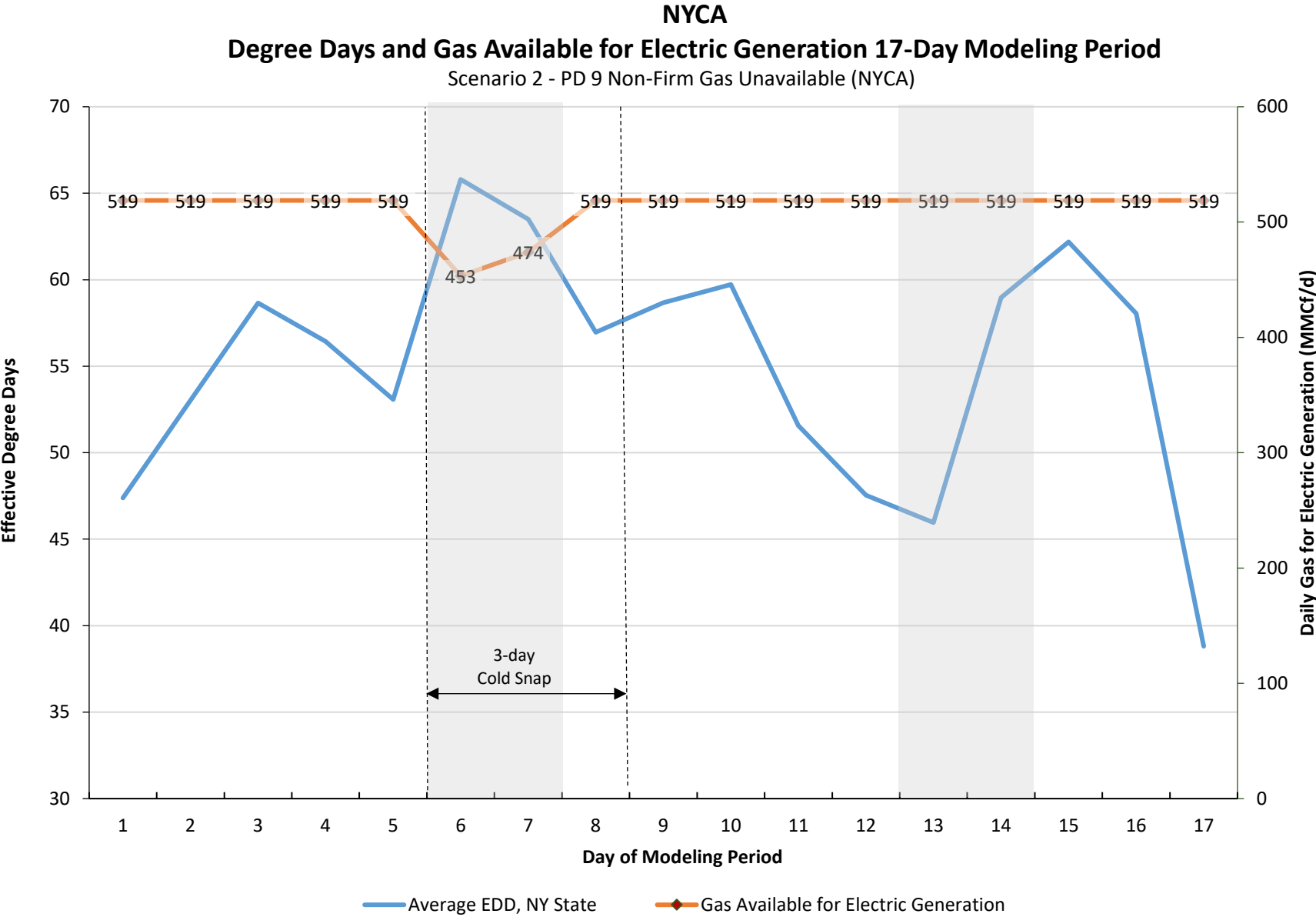




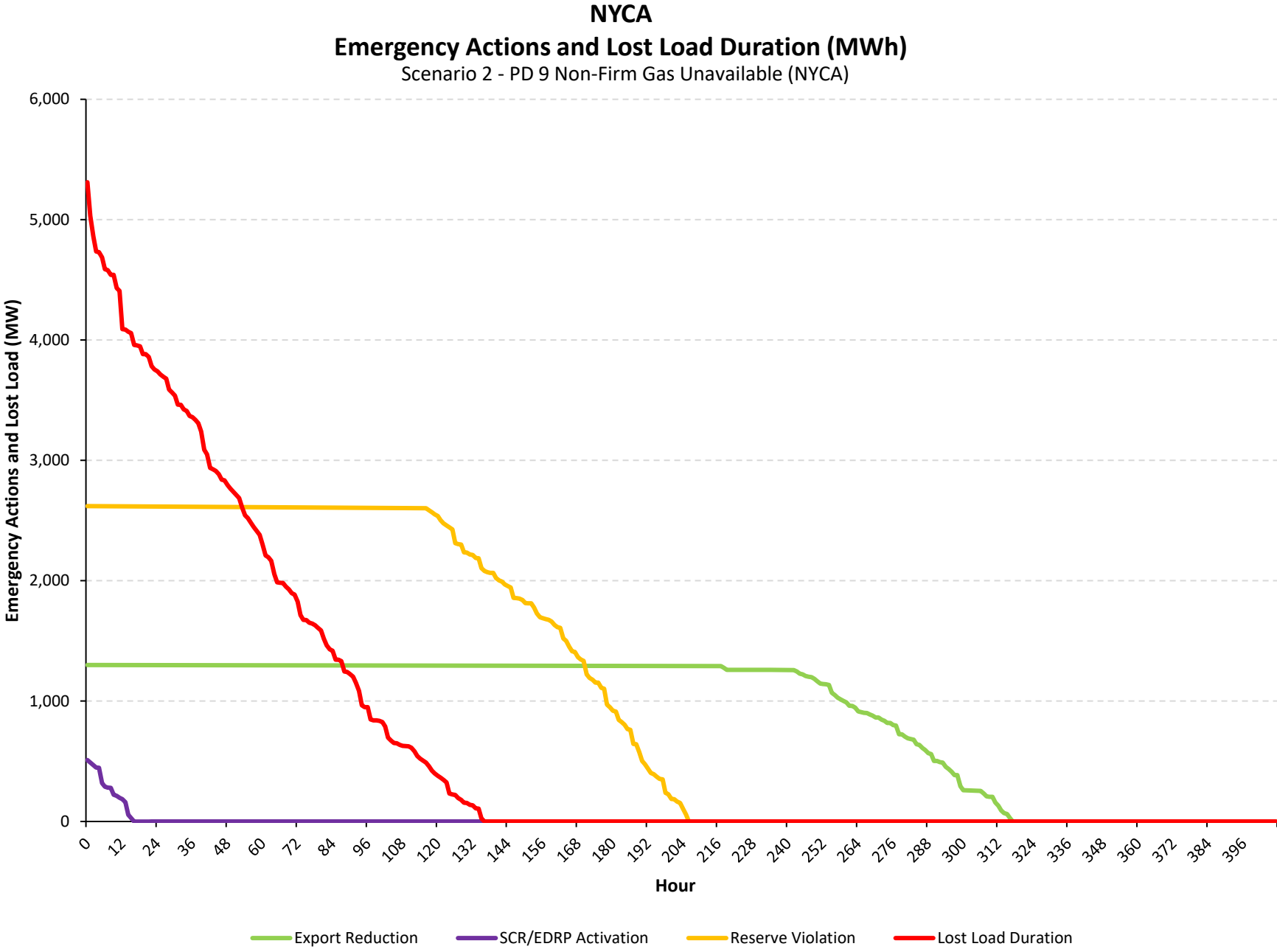
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 9 Non-Firm Gas Unavailable (NYCA)

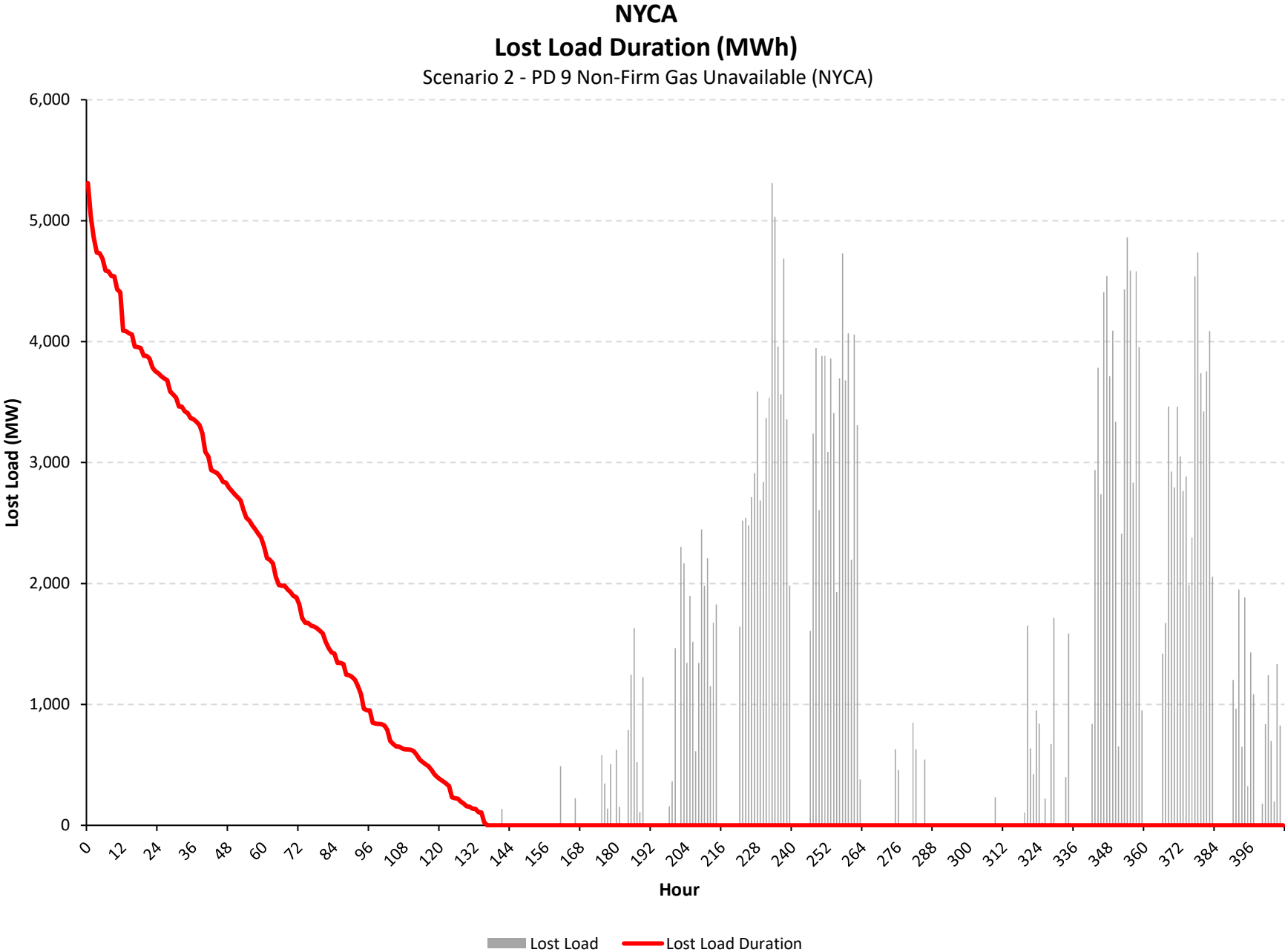






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



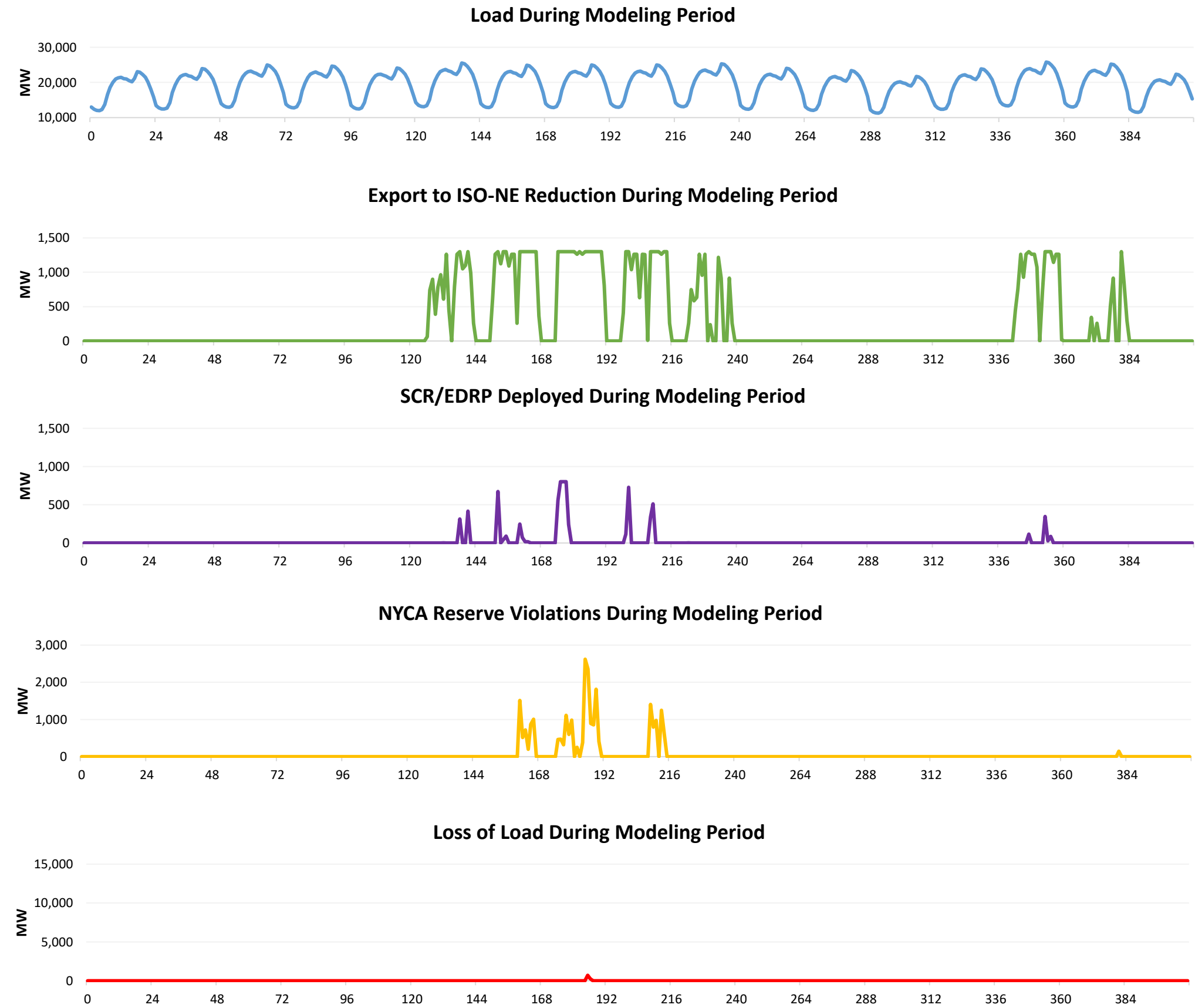


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 10 Non-Firm Gas Unavailable (4 days) (Winter 2023/2024)

Hourly Results Summary

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



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

Export Reductions	
Total Hrs.	107
Total MWh	107,882
Avg. MW	264.4

SCR Deployment	
Total Hrs.	22
Total MWh	7,368
Avg. MW	18.1

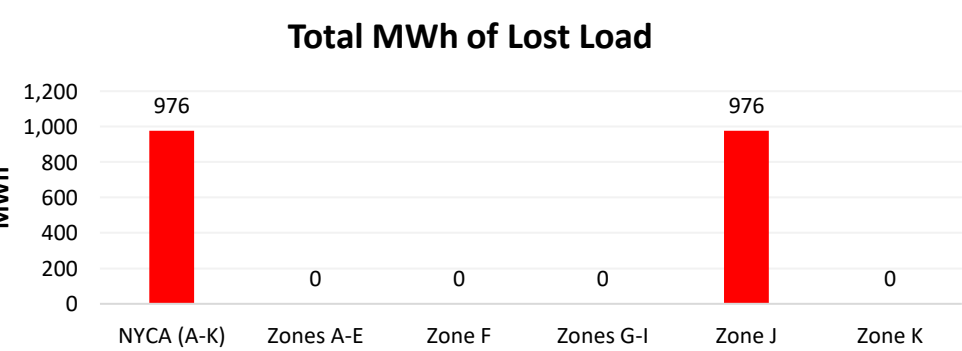
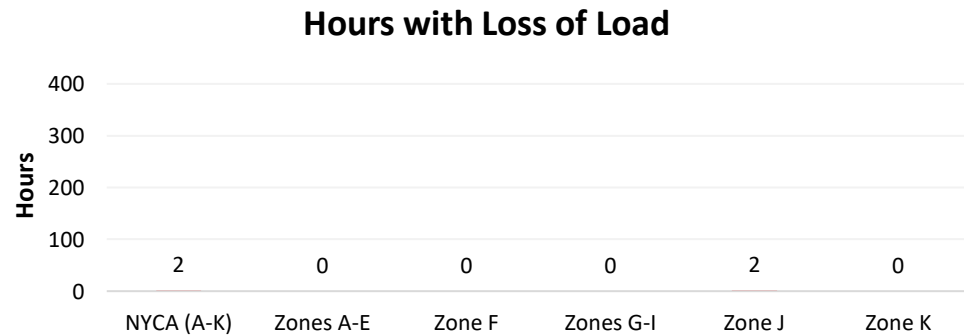
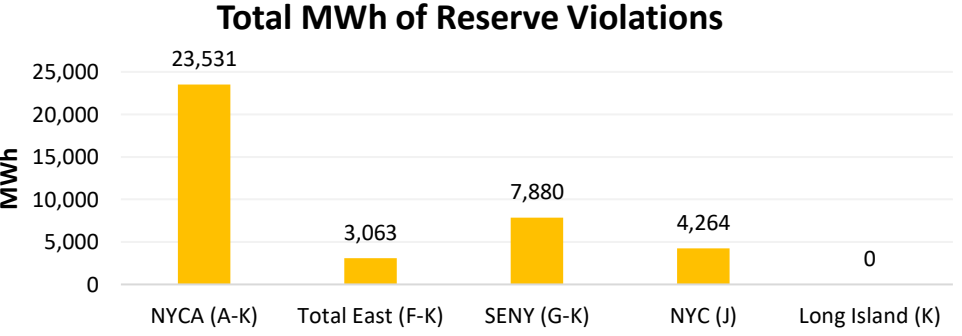
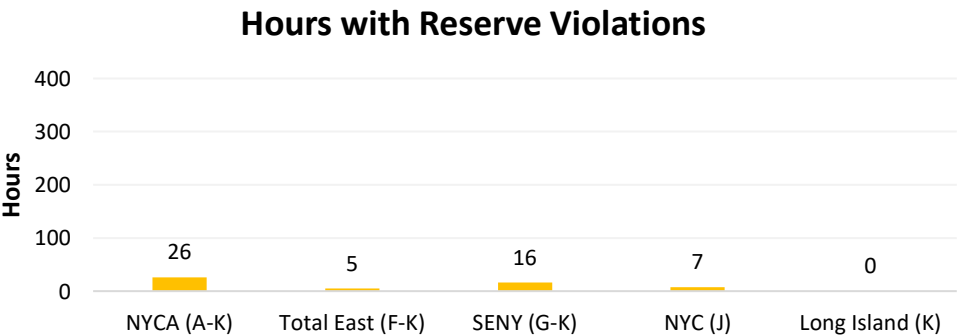
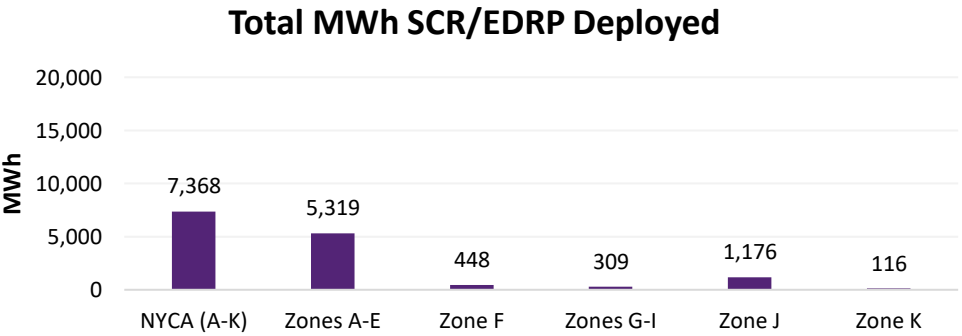
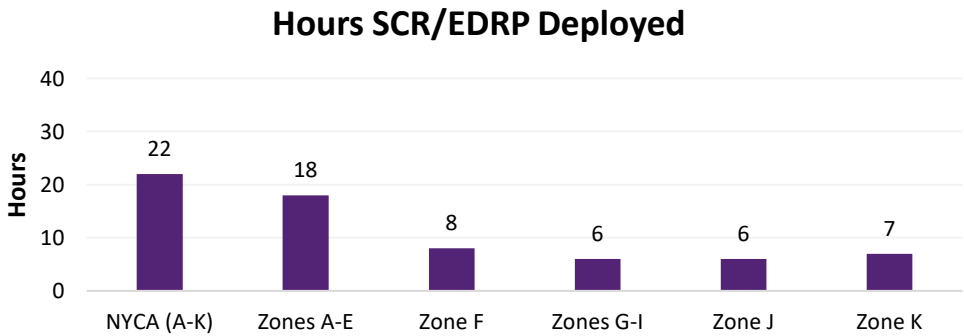
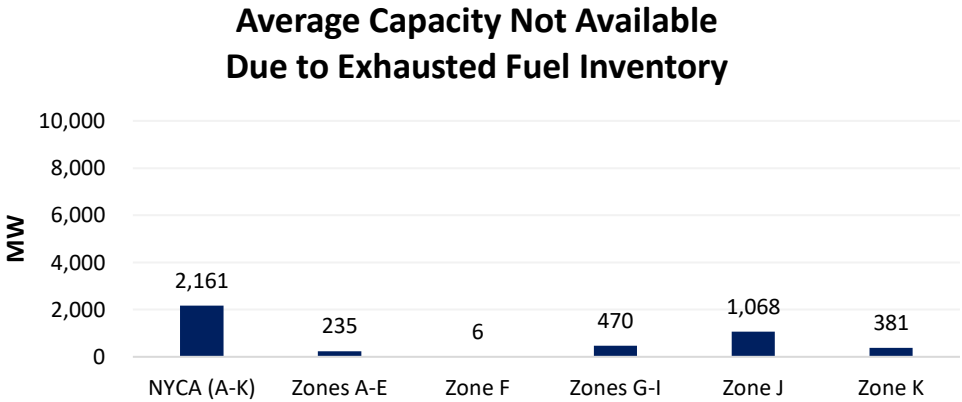
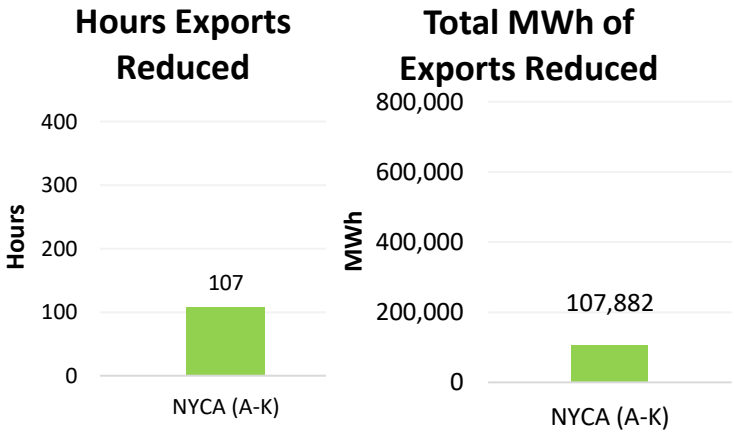
Reserve Violations	
Total Hrs.	26
Total MWh	23,531
Avg. MW	57.7
First Hour with Viol.	161

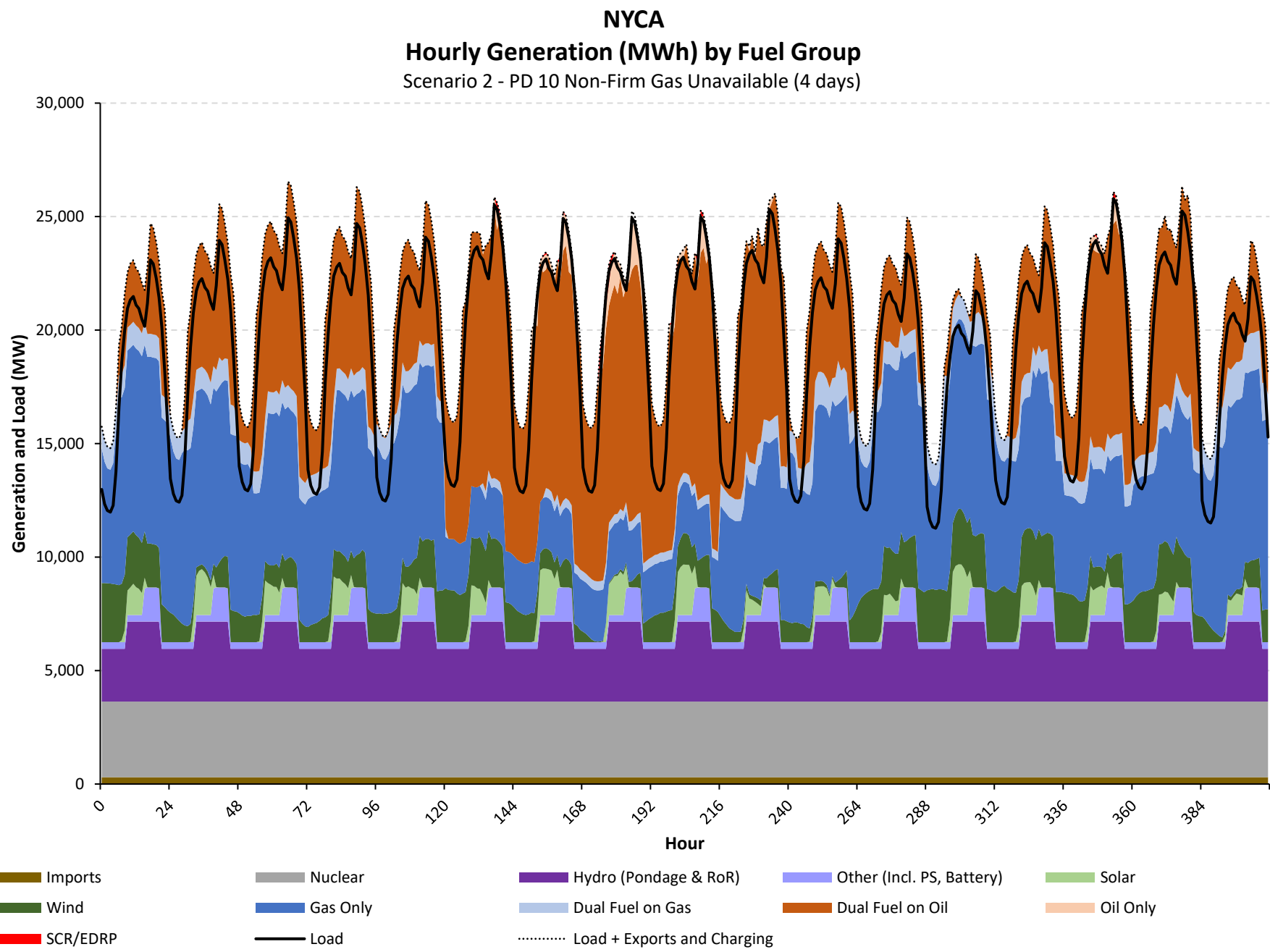
Loss of Load	
Total Hrs.	2
Total MWh	976
Avg. MW	2.4
First Hour with Losses	185

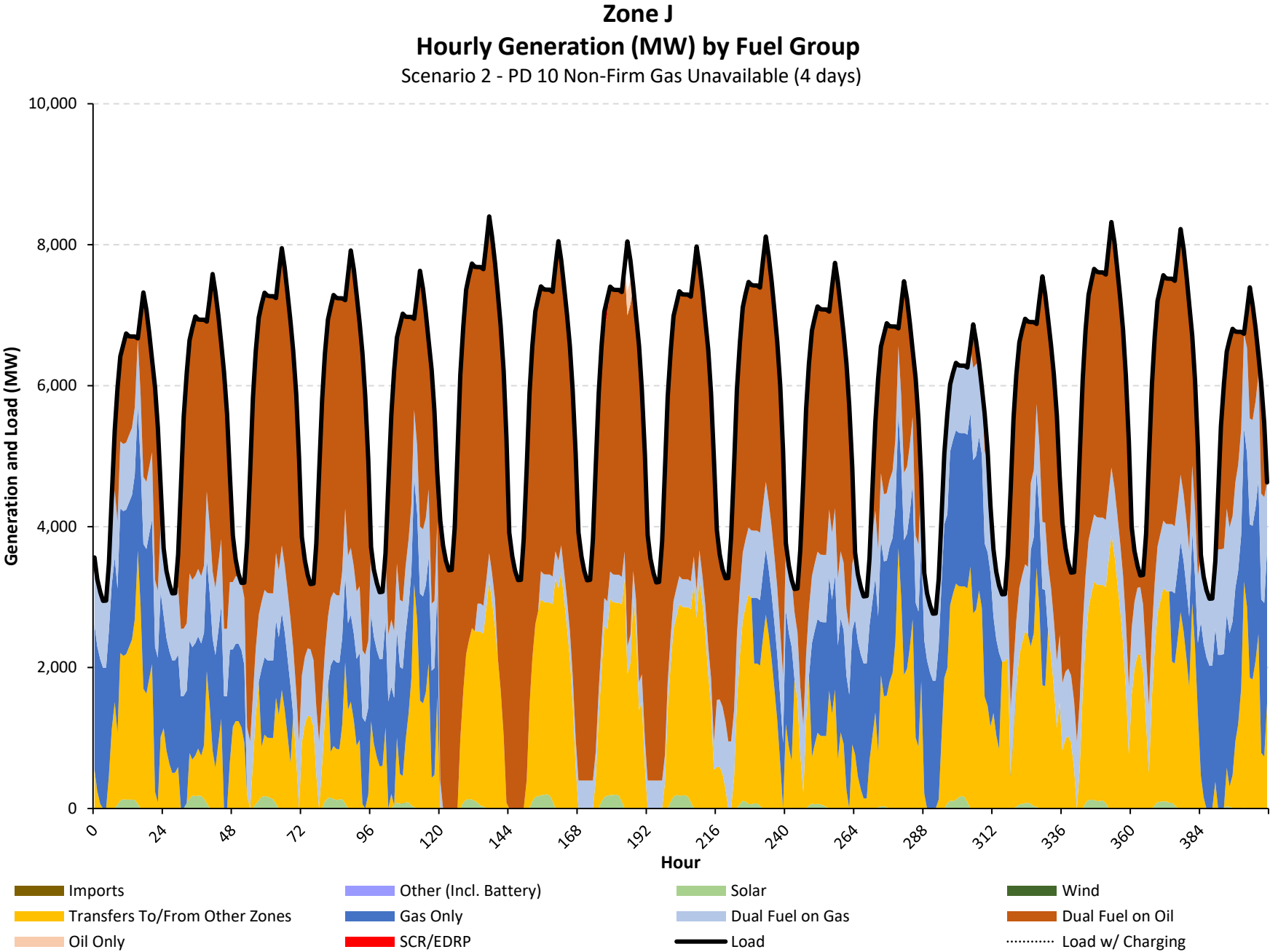
Full Period Results Summary

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

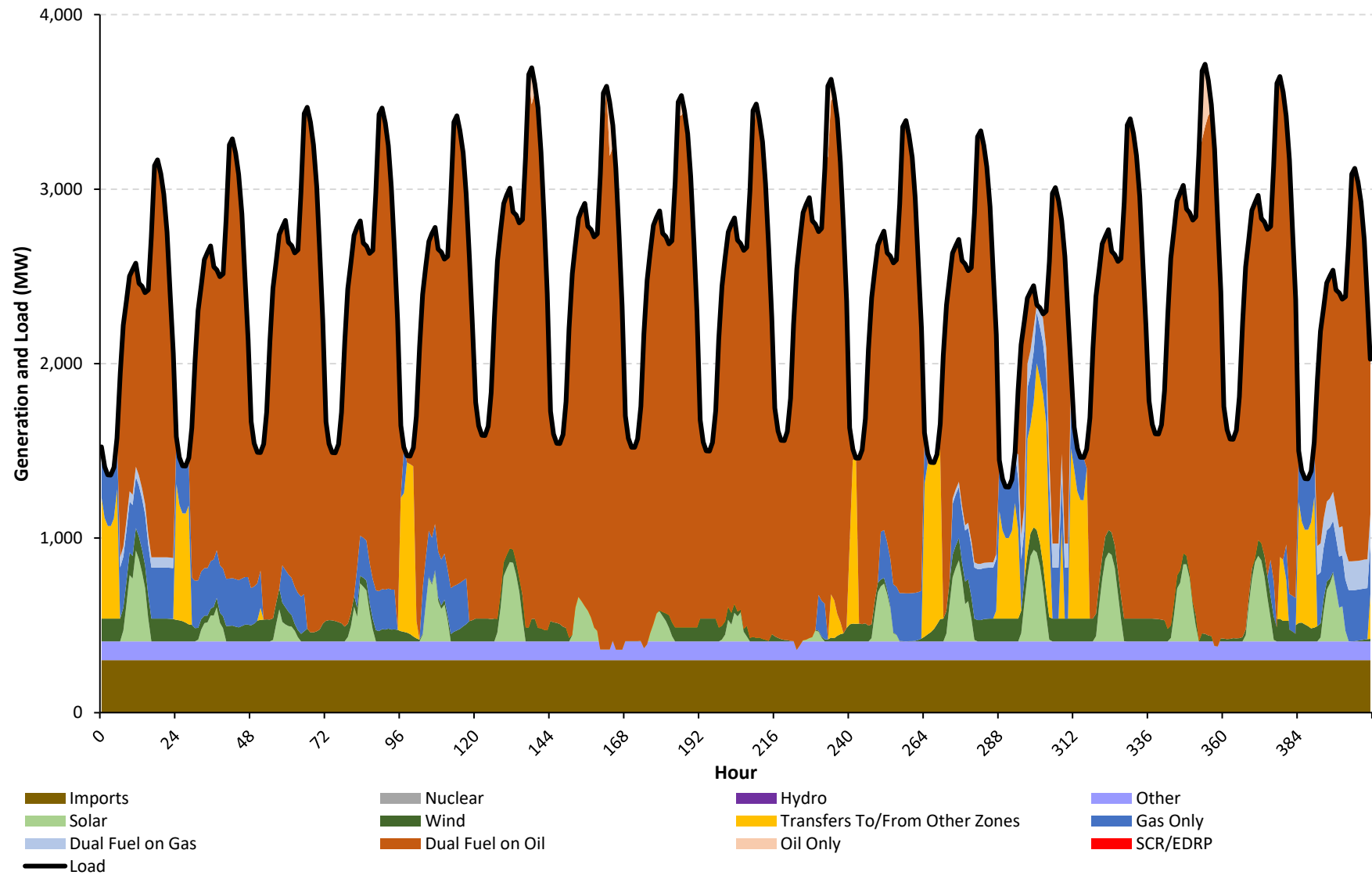
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	Historical
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

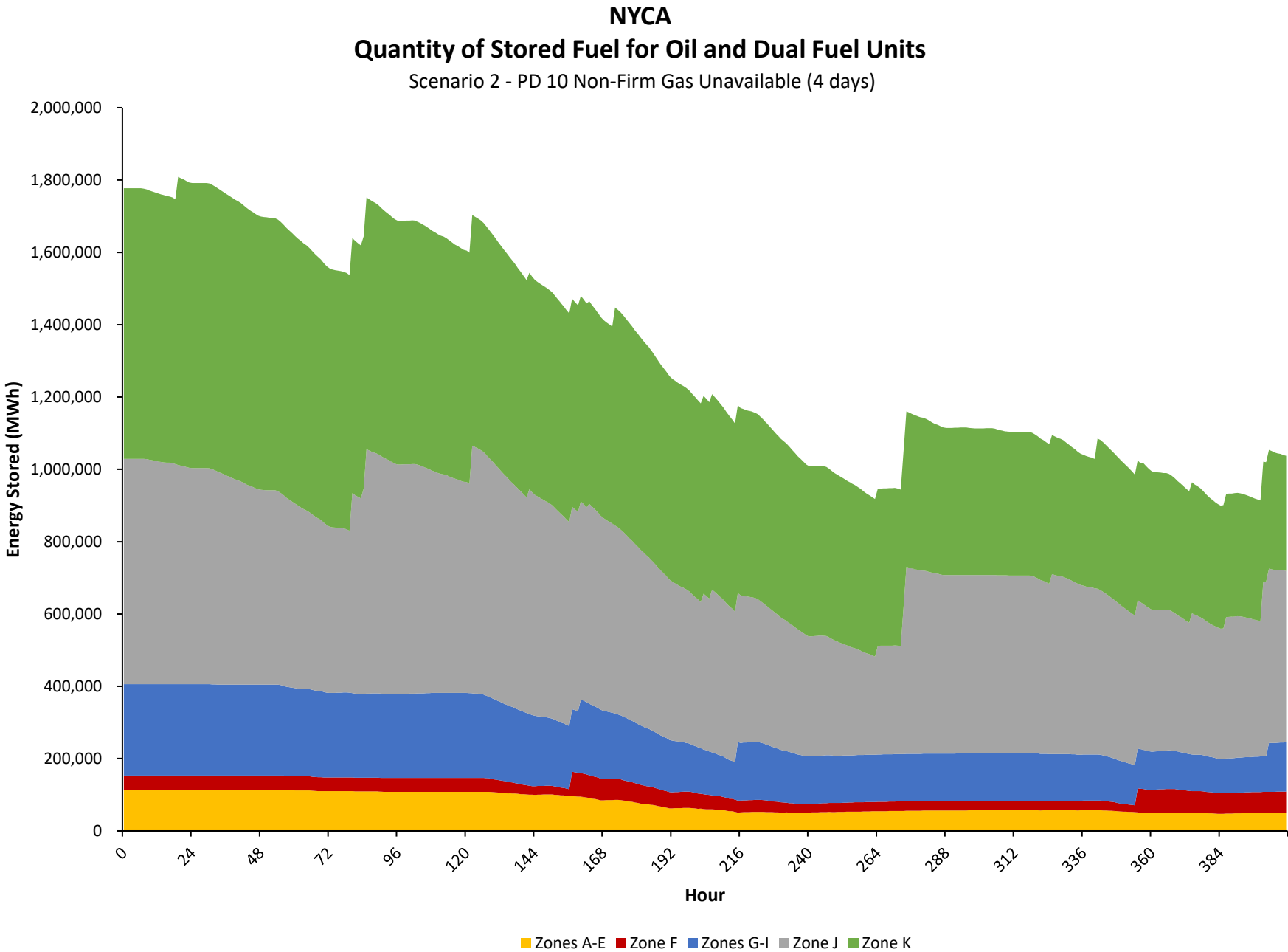


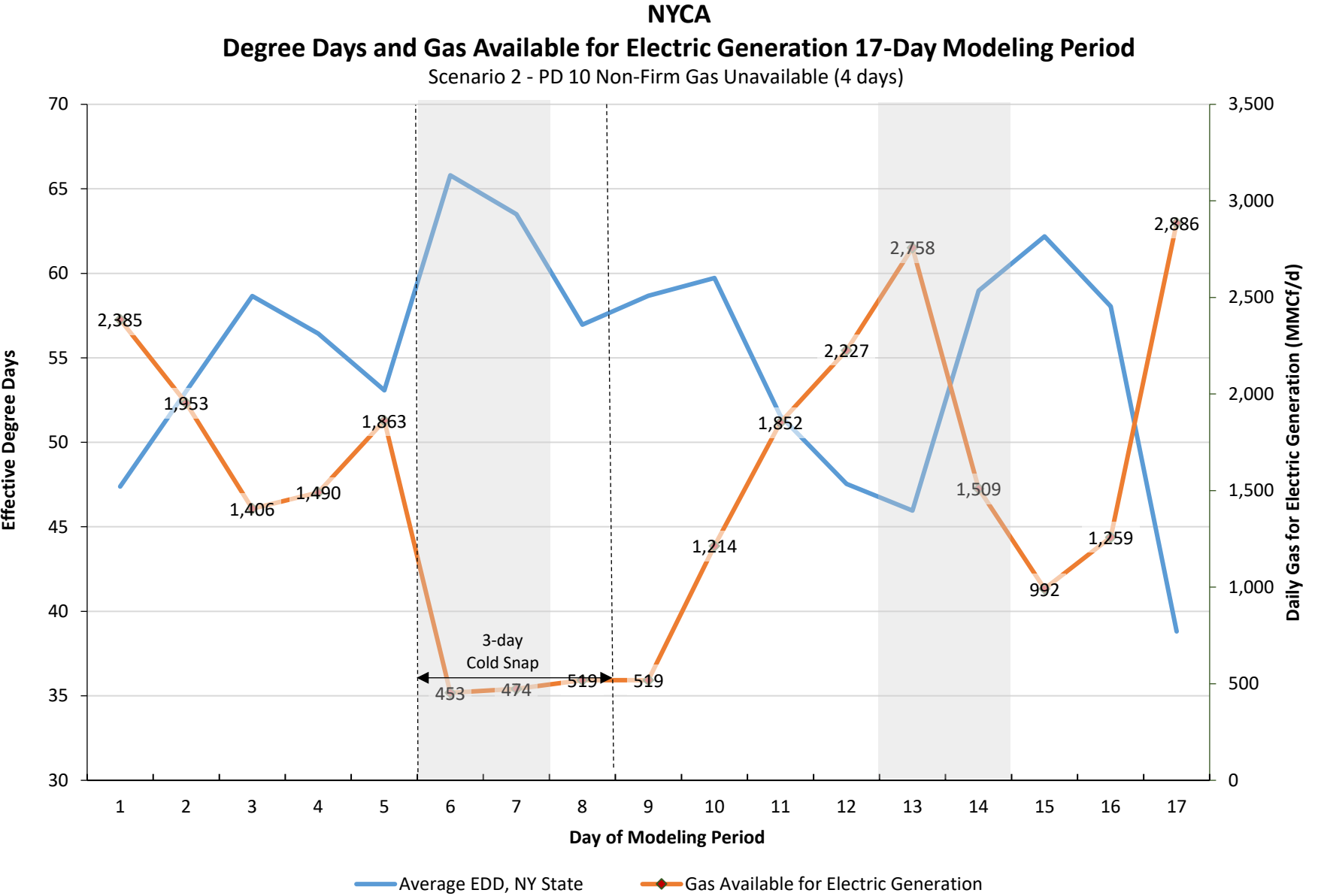




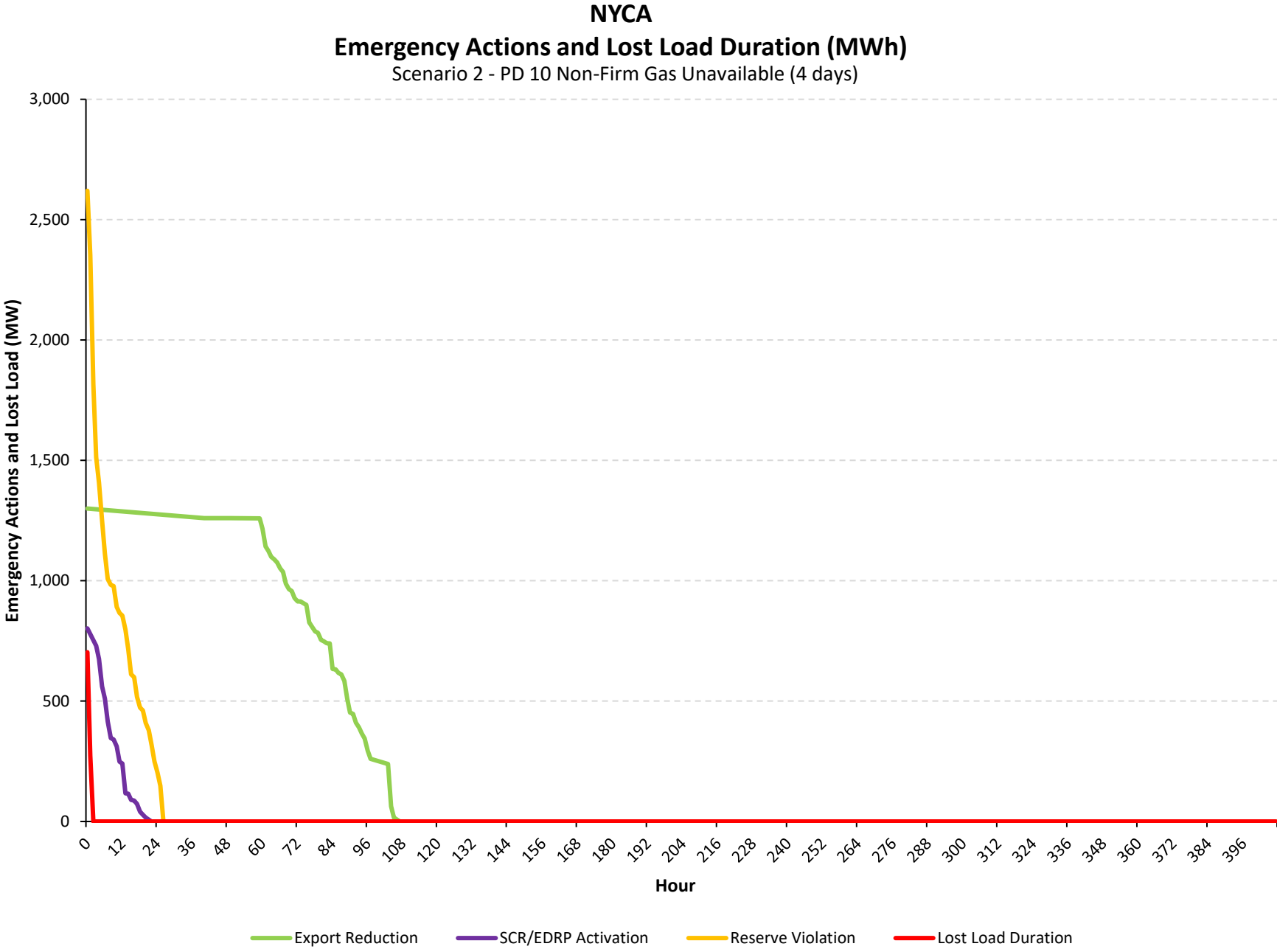
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 10 Non-Firm Gas Unavailable (4 days)

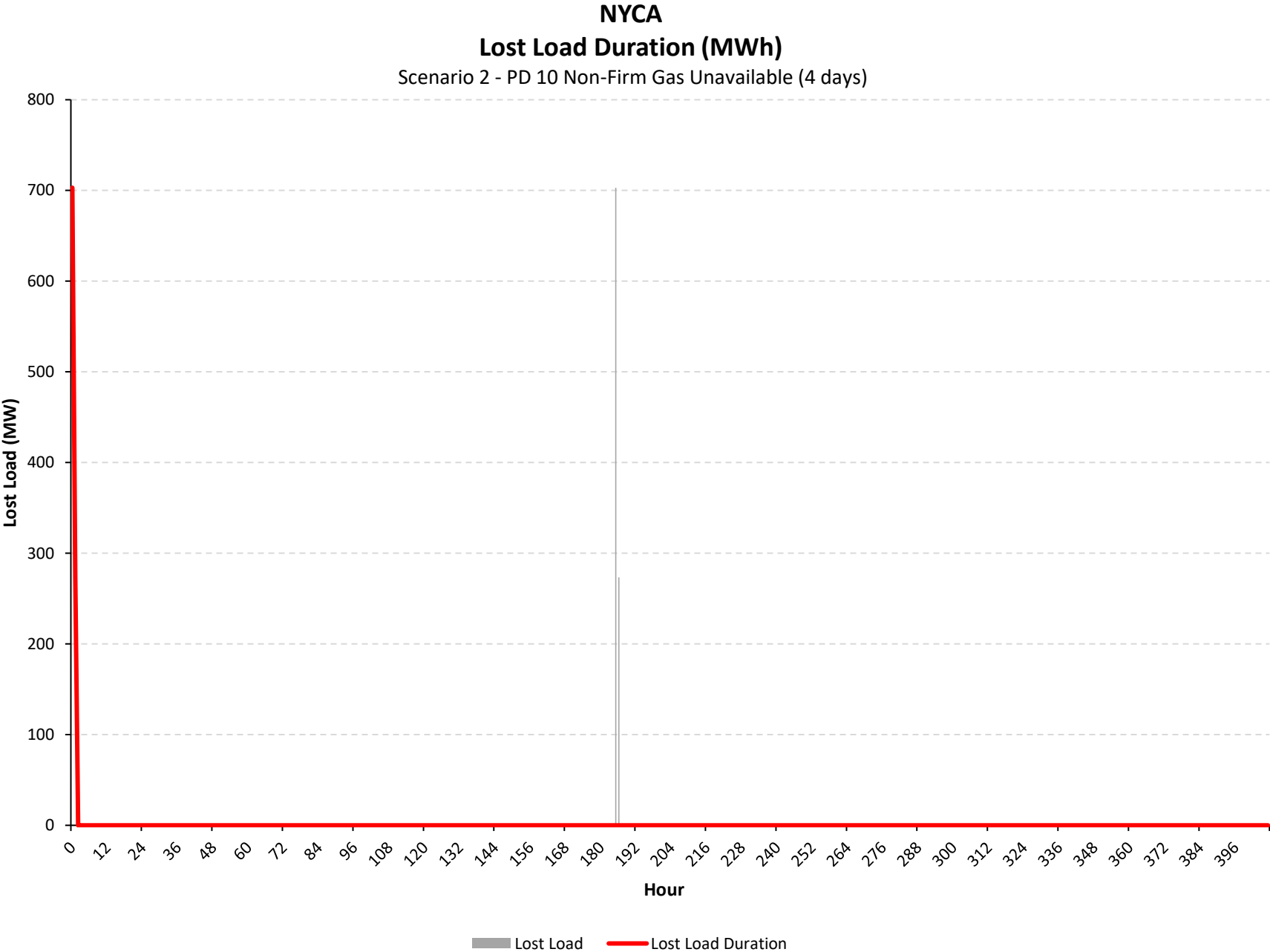






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



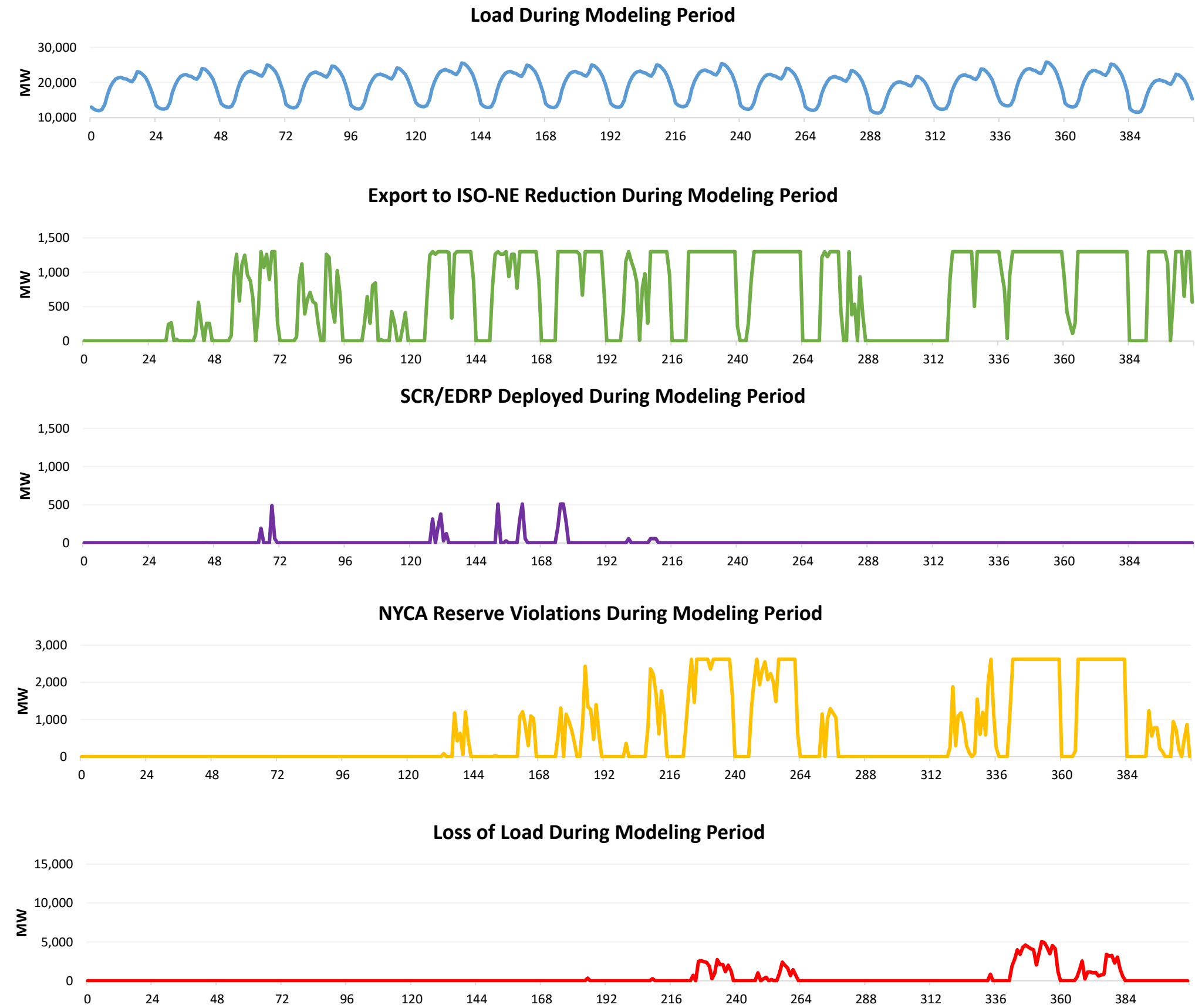


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 11 Combination Disruption (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 2 - PD 11 Combination Disruption



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

Export Reductions	
Total Hrs.	256
Total MWh	271,672
Avg. MW	665.9

SCR Deployment	
Total Hrs.	21
Total MWh	4,943
Avg. MW	12.1

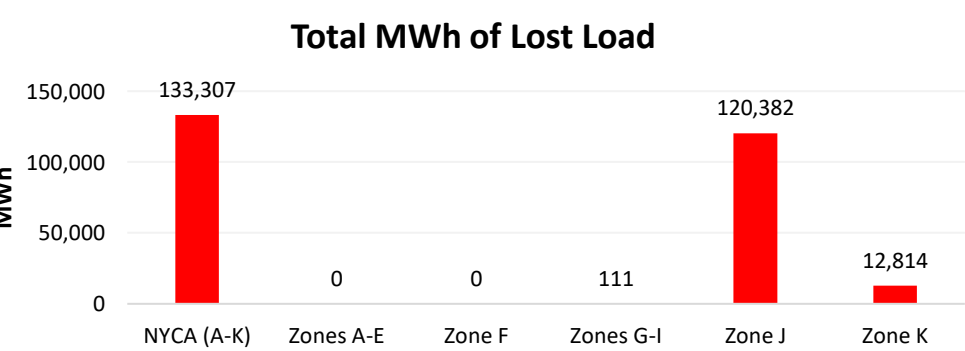
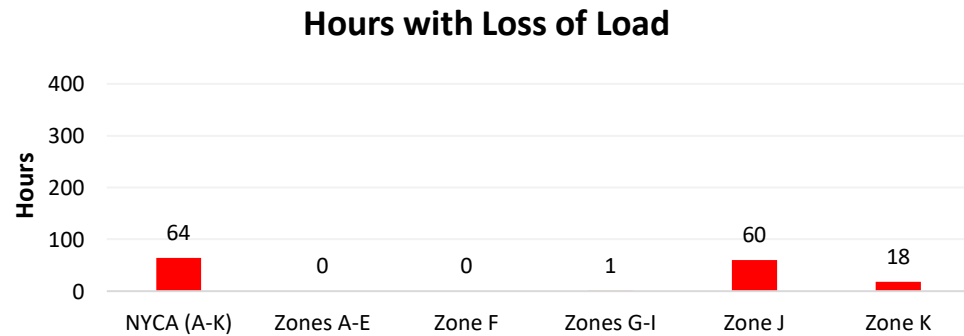
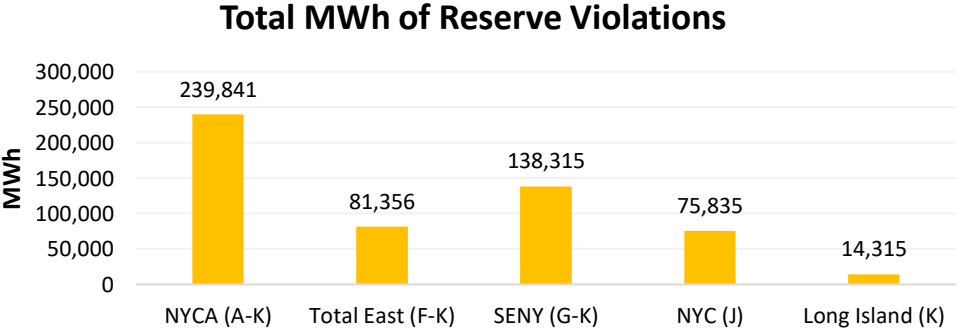
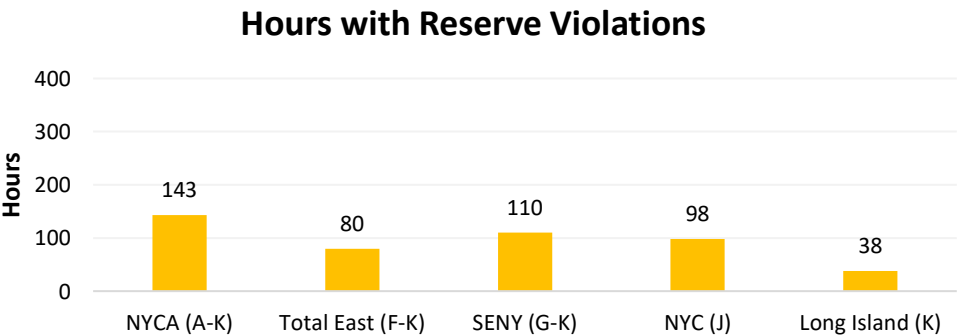
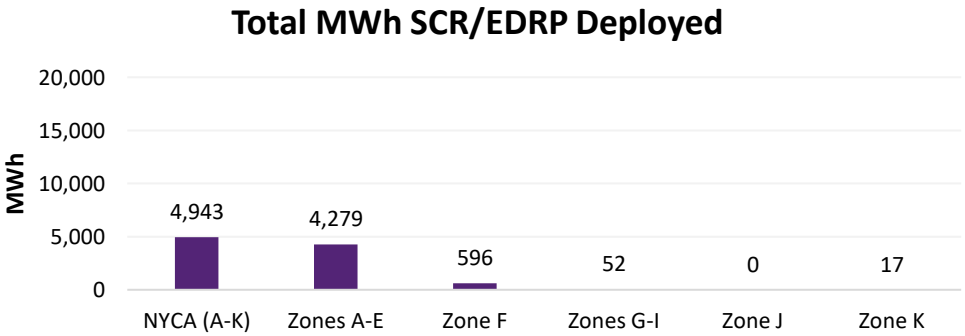
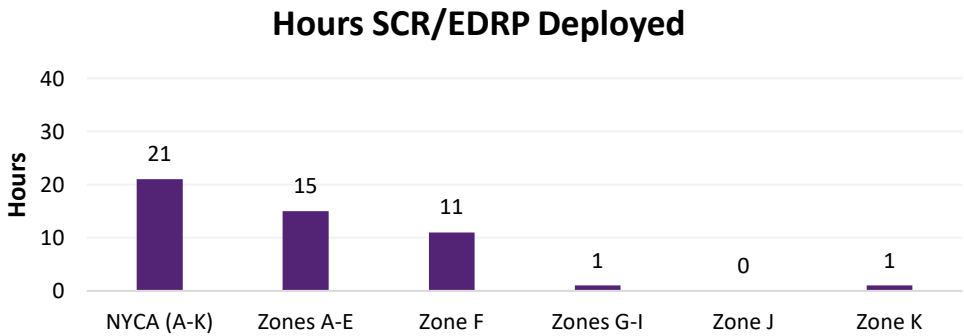
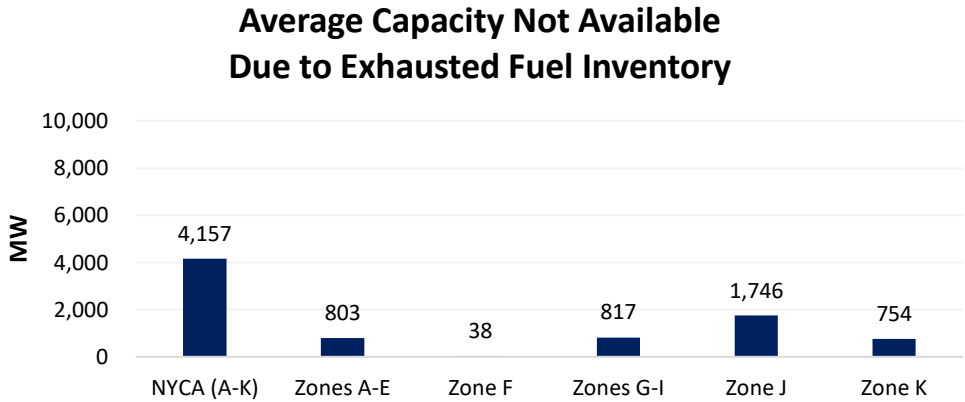
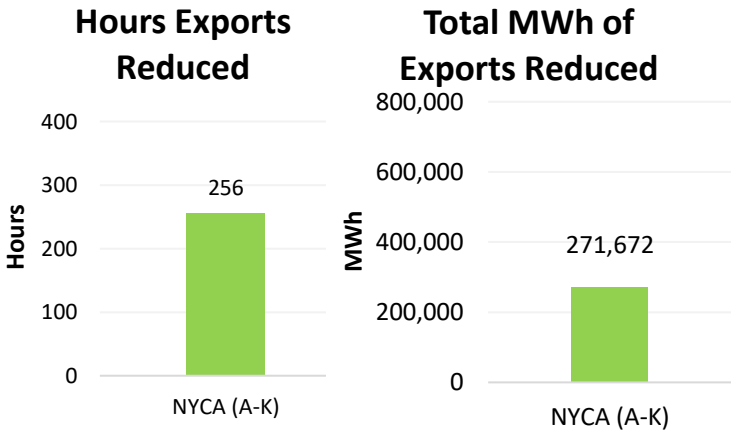
Reserve Violations	
Total Hrs.	143
Total MWh	239,841
Avg. MW	587.8
First Hour with Viol.	133

Loss of Load	
Total Hrs.	64
Total MWh	133,307
Avg. MW	326.7
First Hour with Losses	185

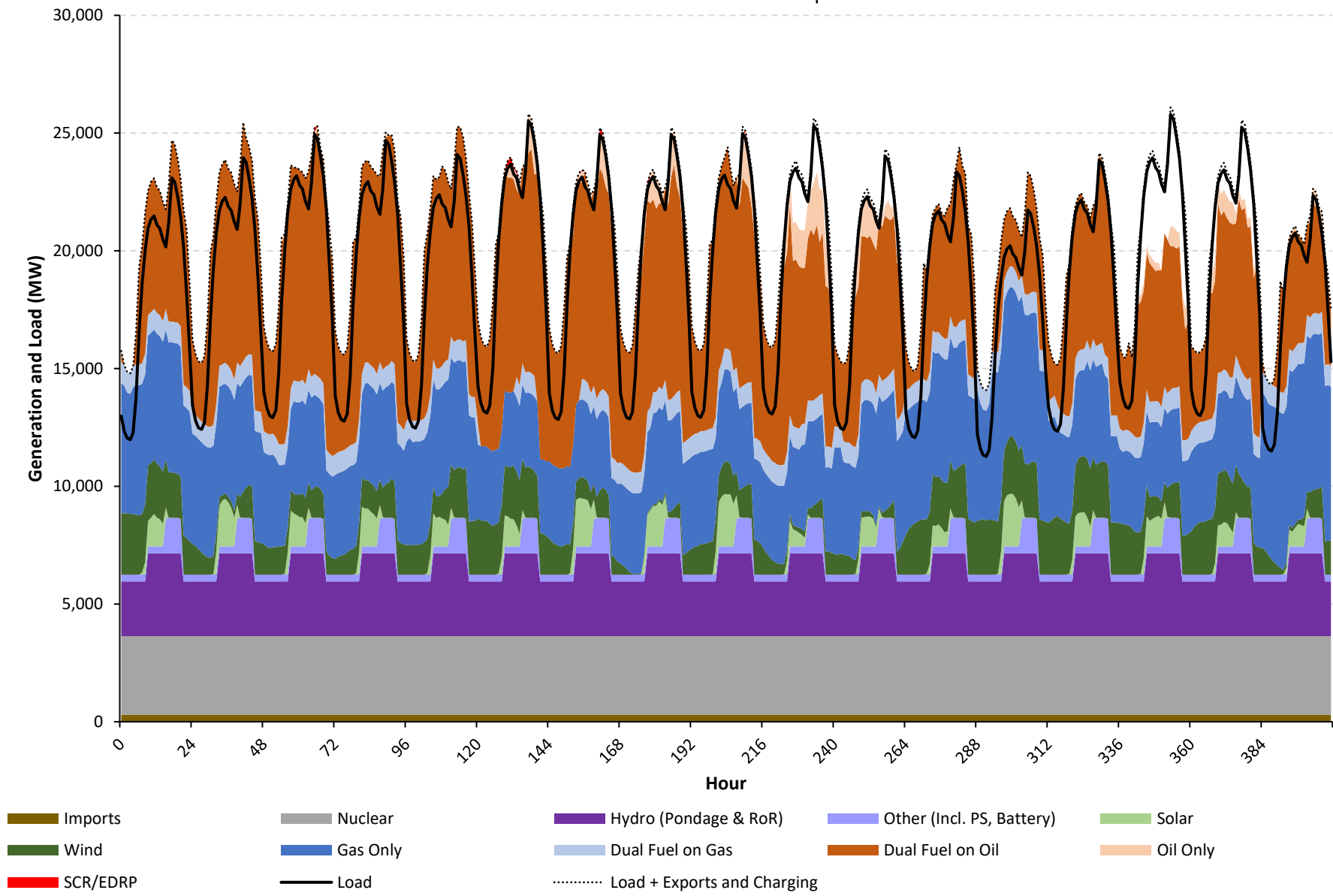
Full Period Results Summary

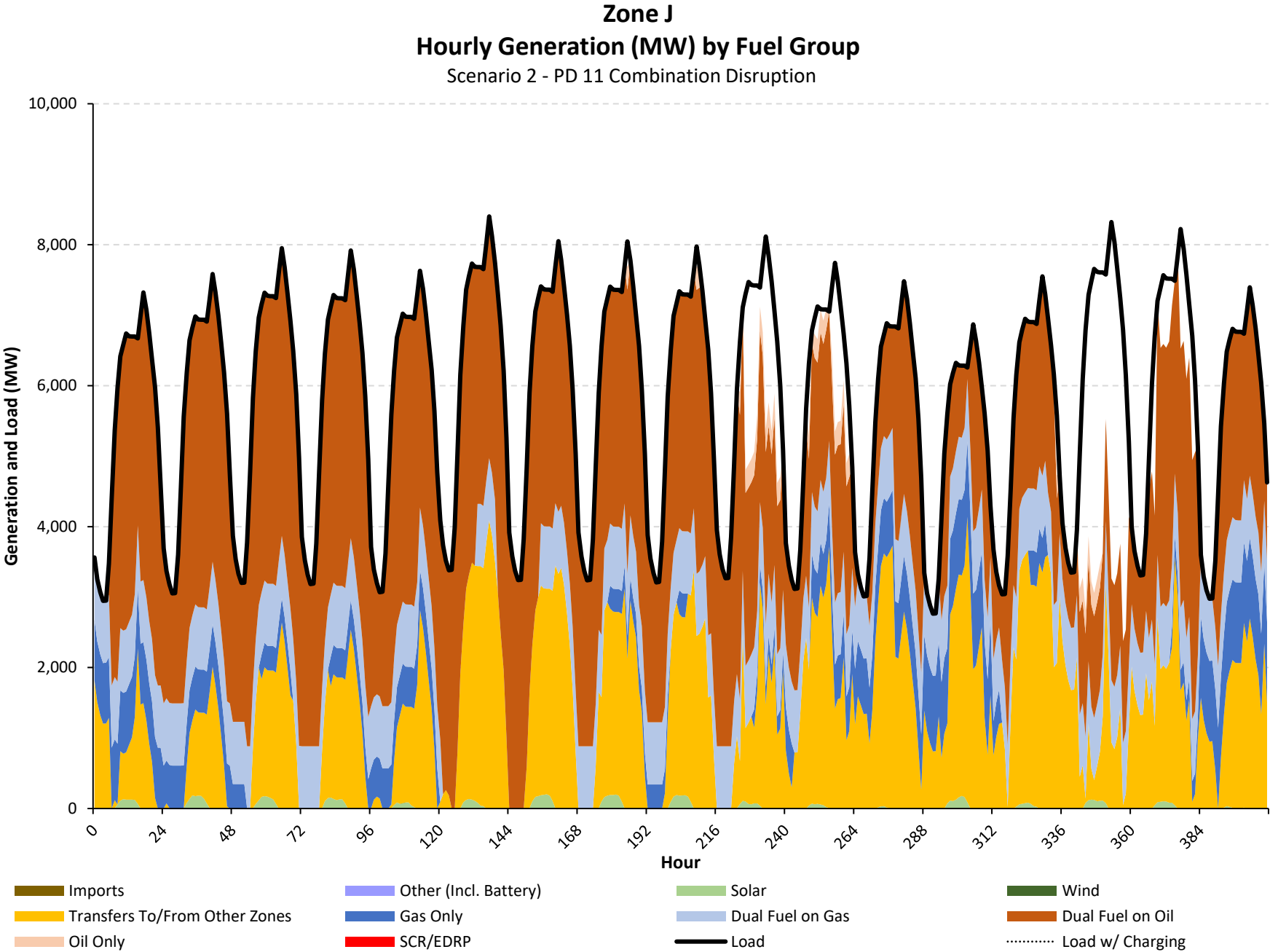
Case Name: Scenario 2 - PD 11 Combination Disruption

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

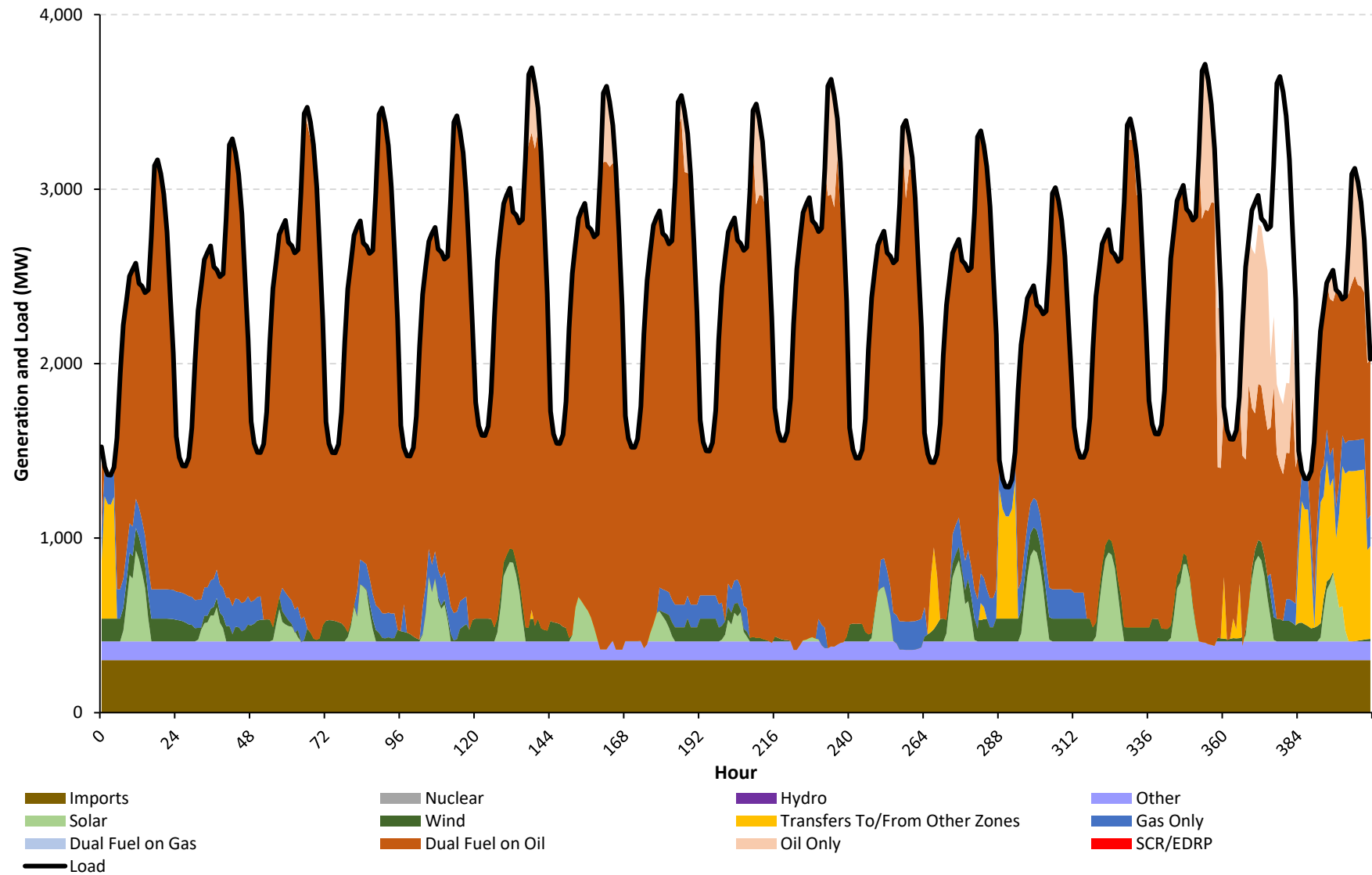


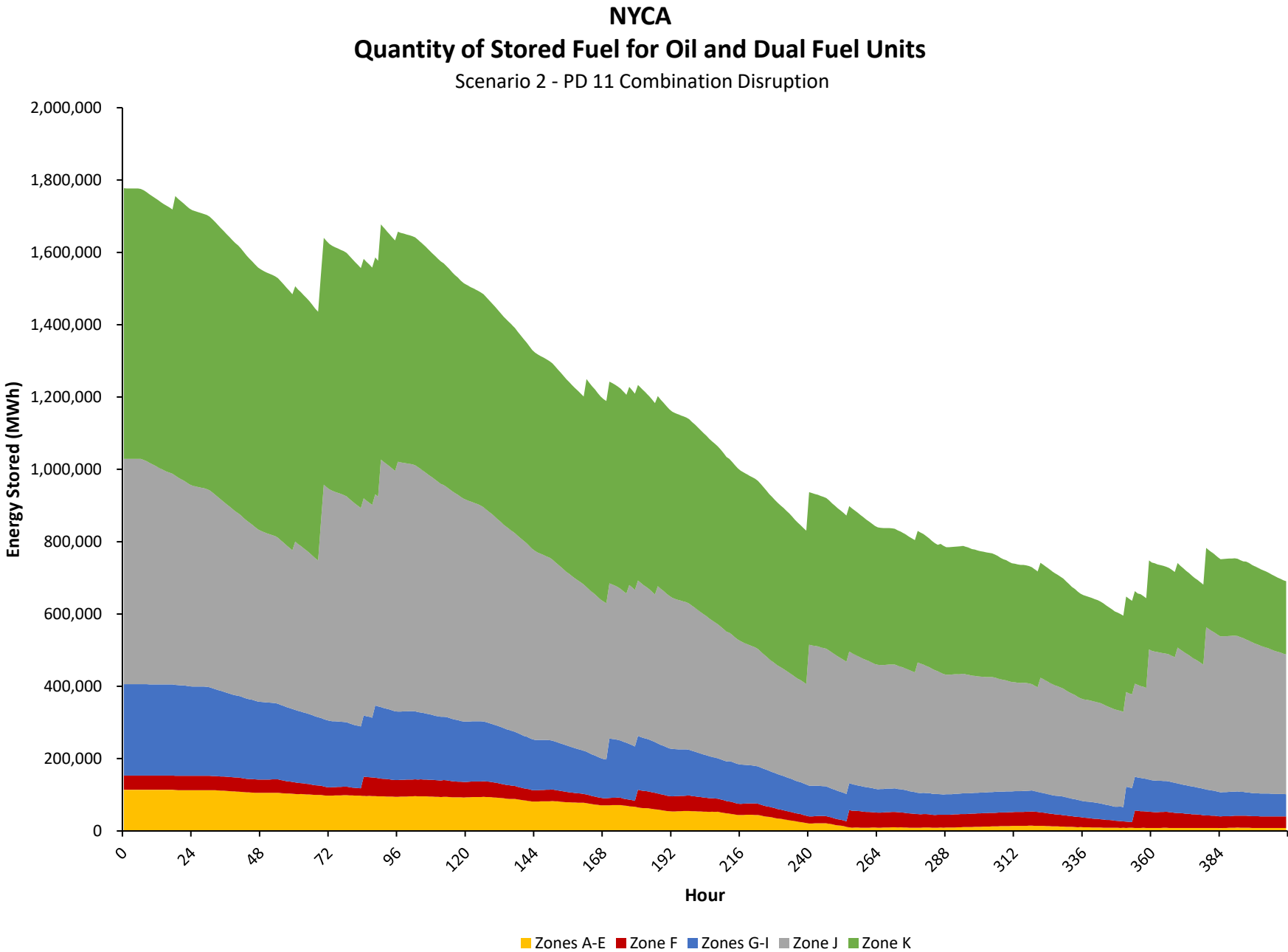
NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 2 - PD 11 Combination Disruption

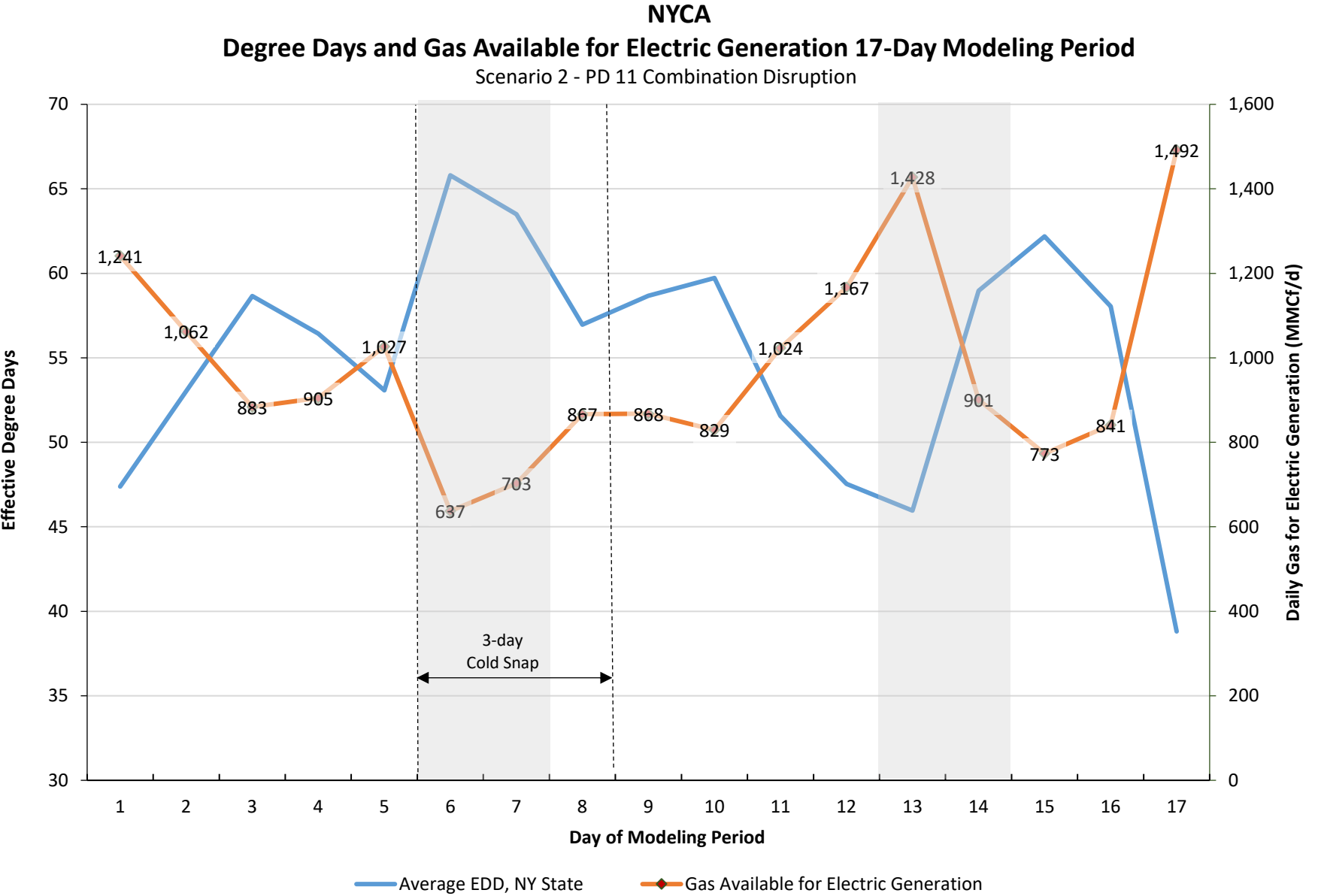




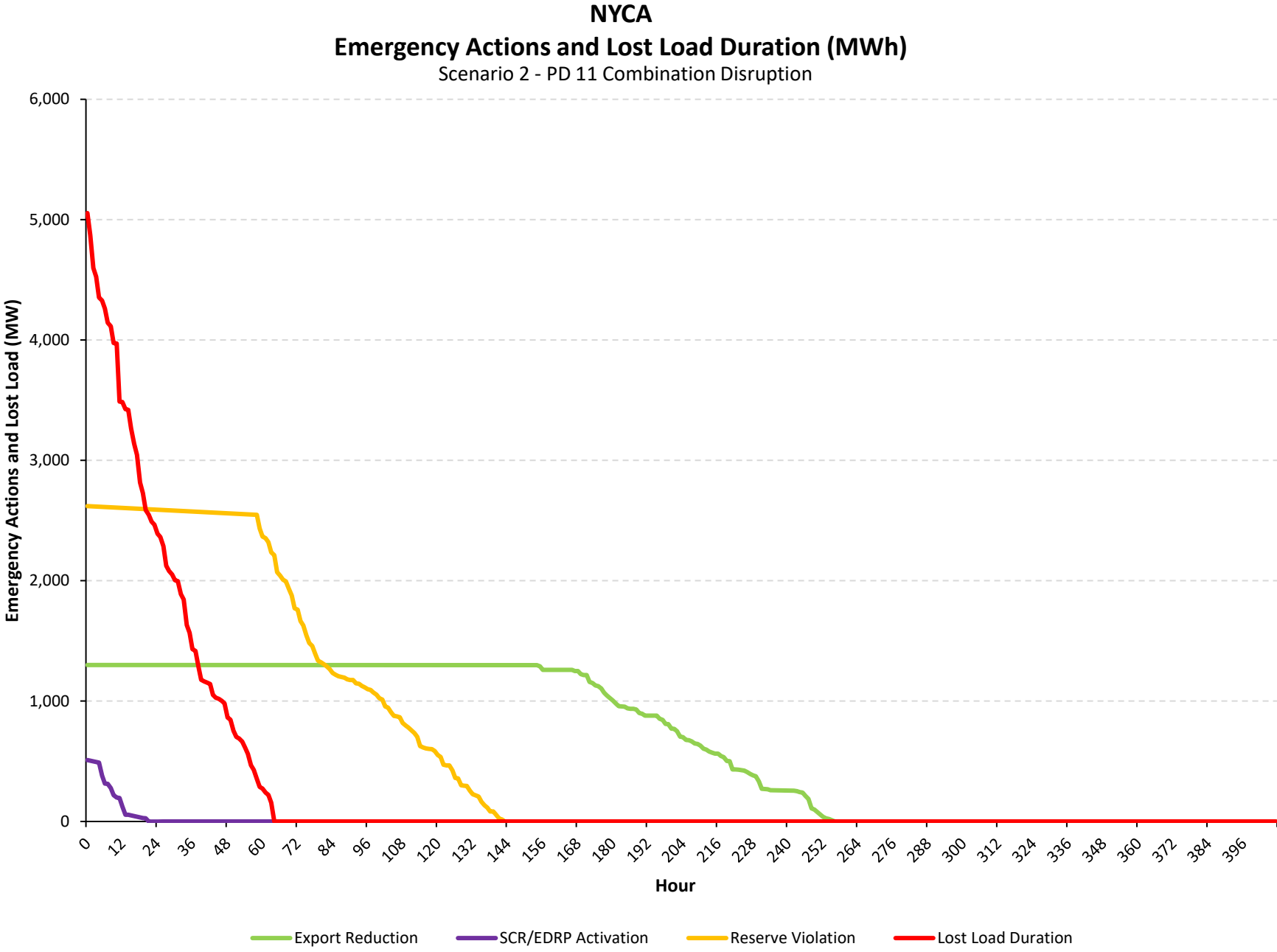
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 2 - PD 11 Combination Disruption

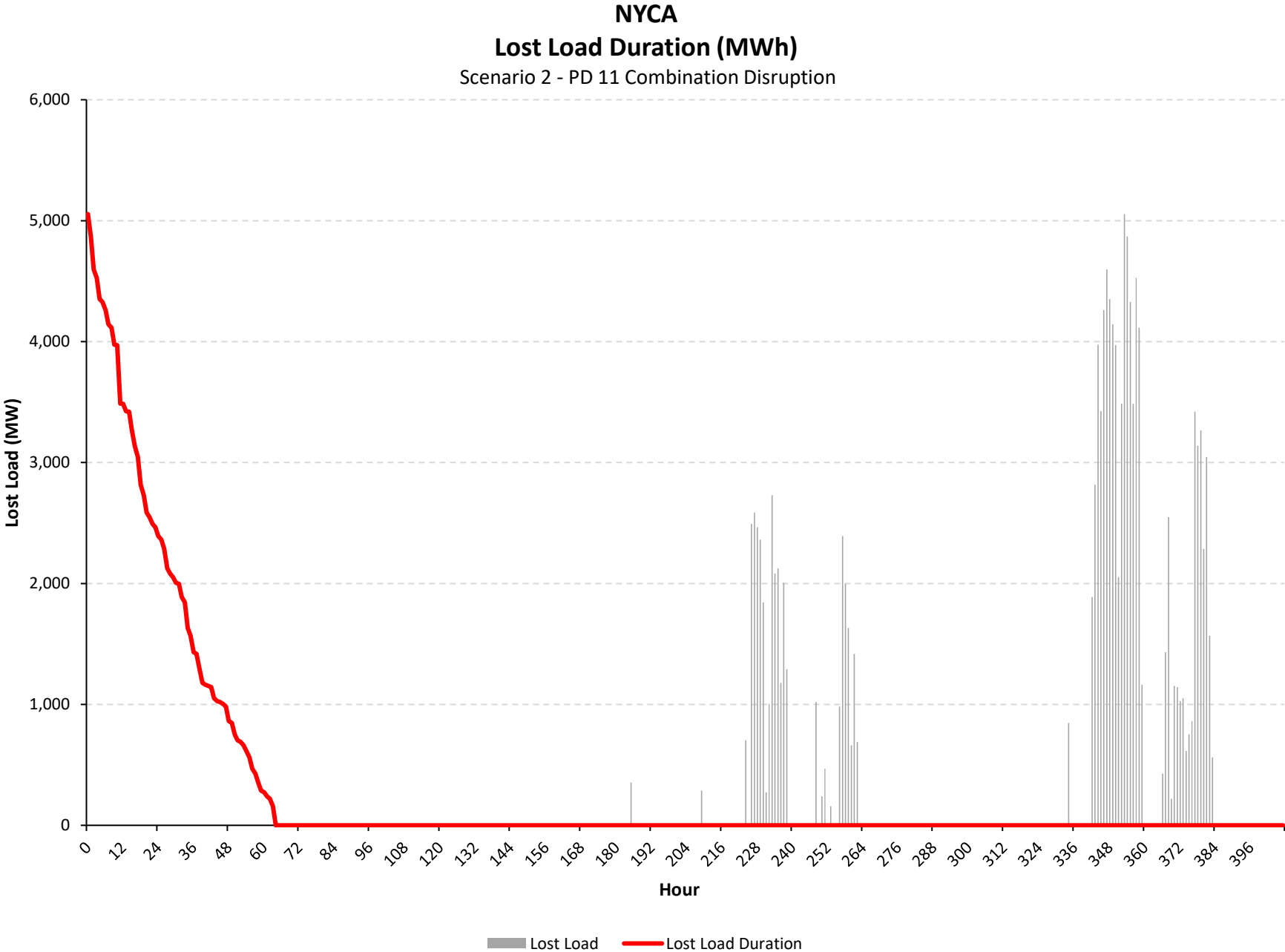






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



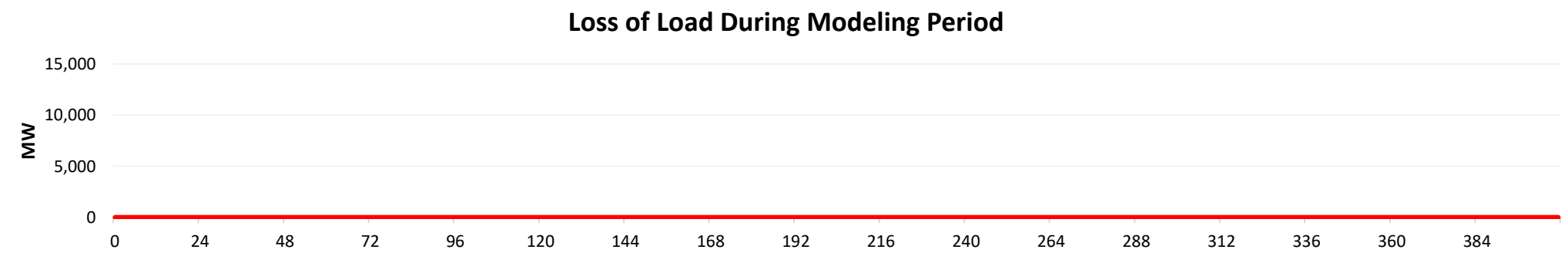
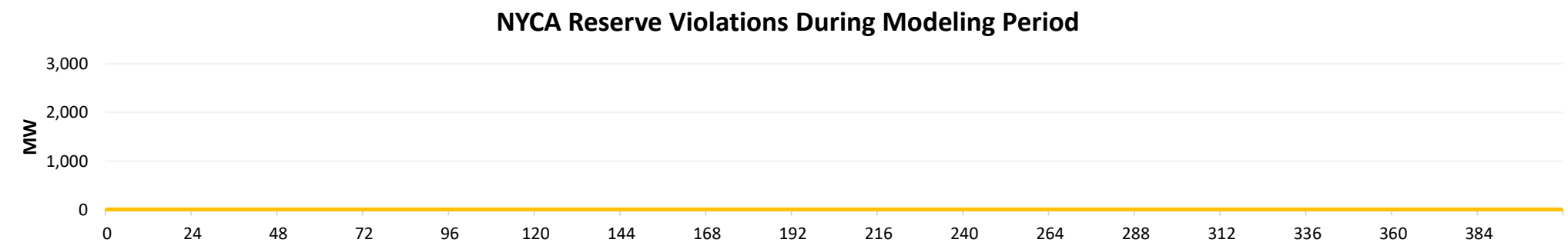
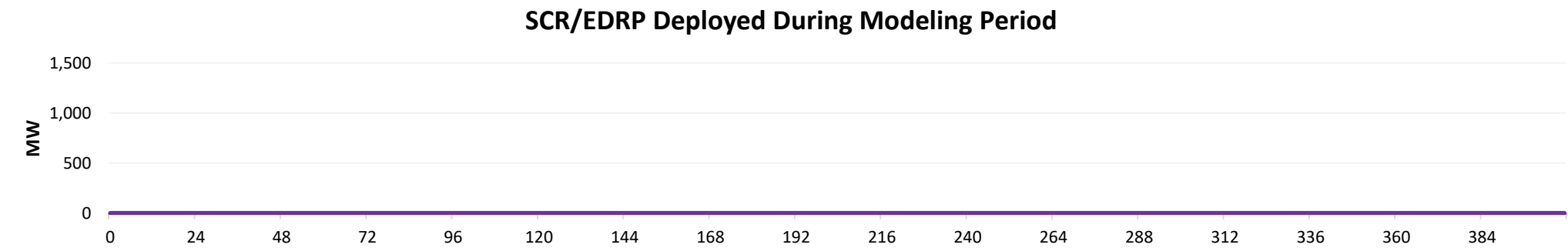
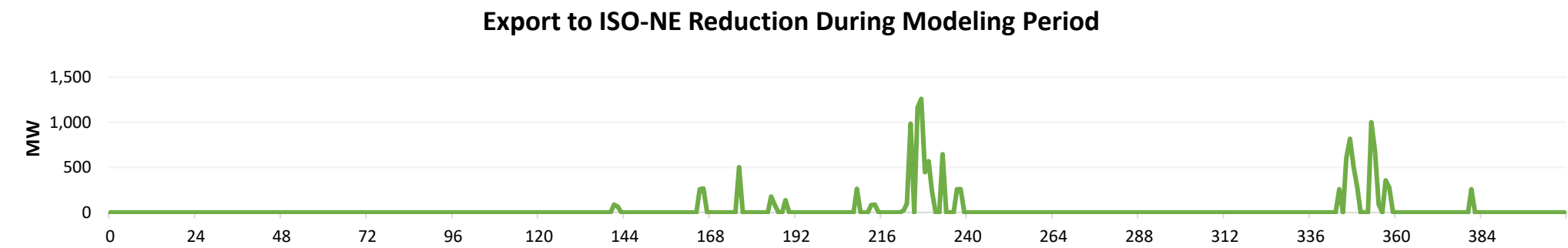
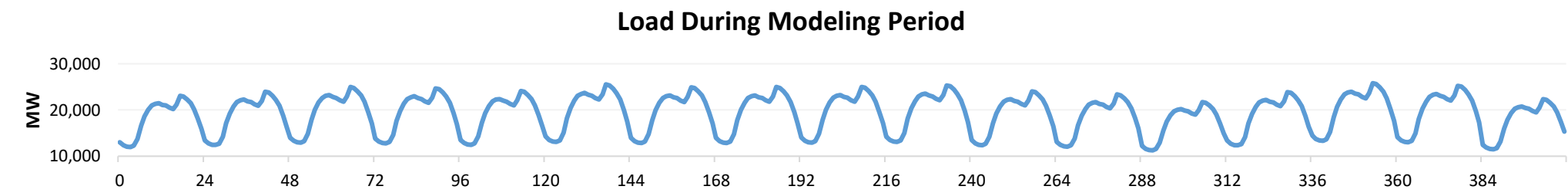


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 1 No Disruptions (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 3 - PD 1 No Disruptions



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

Export Reductions	
Total Hrs.	33
Total MWh	13,070
Avg. MW	32.0

SCR Deployment	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0

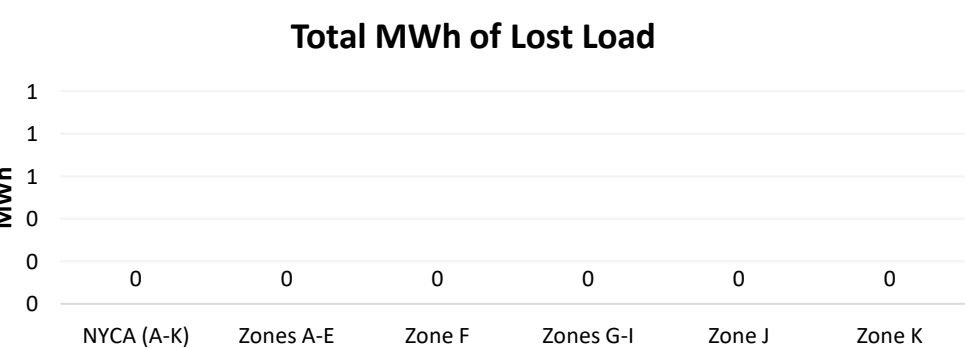
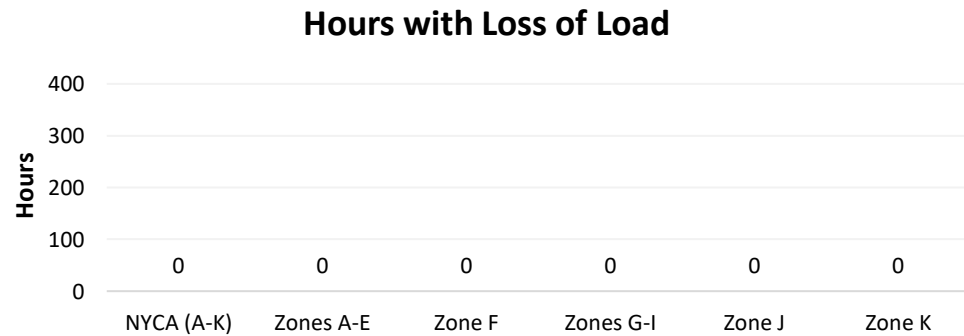
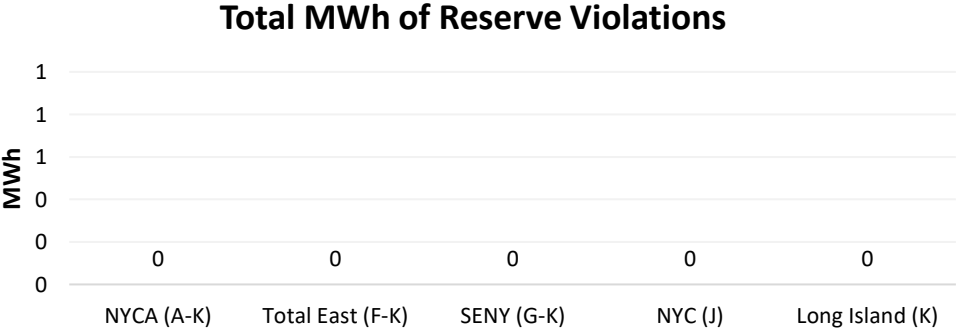
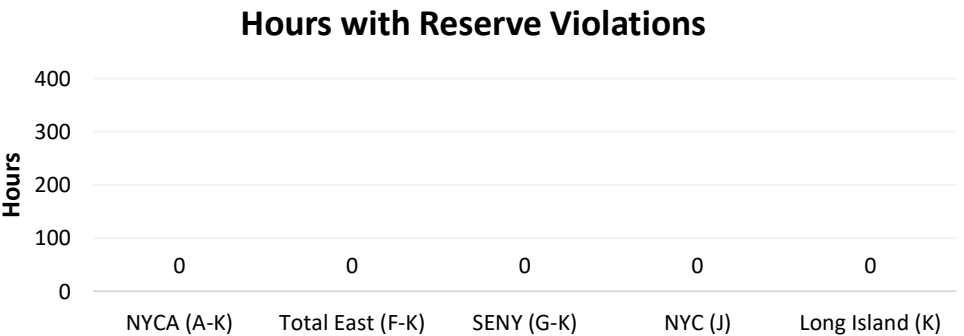
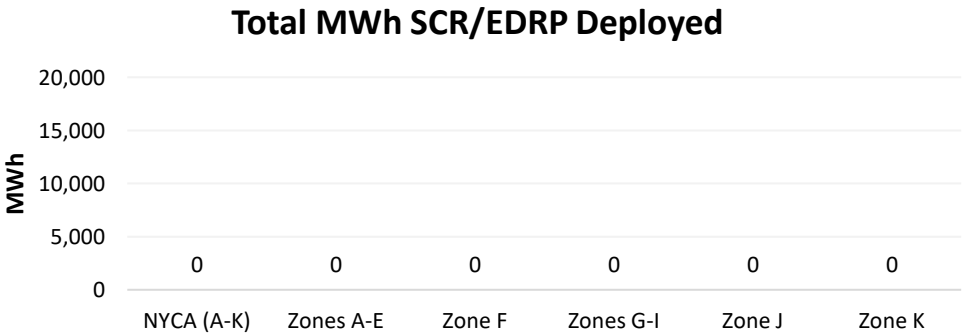
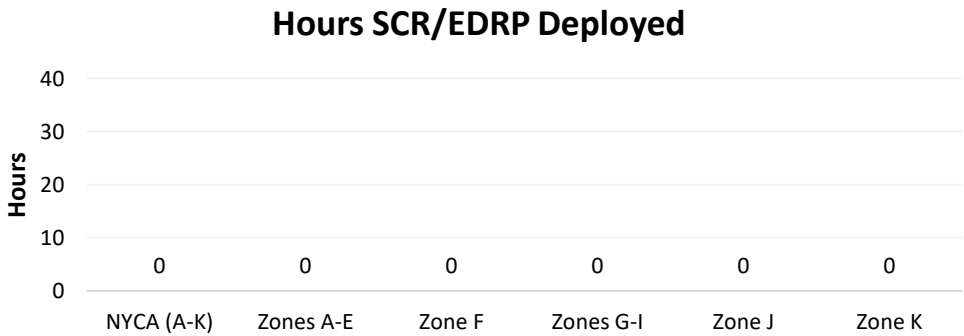
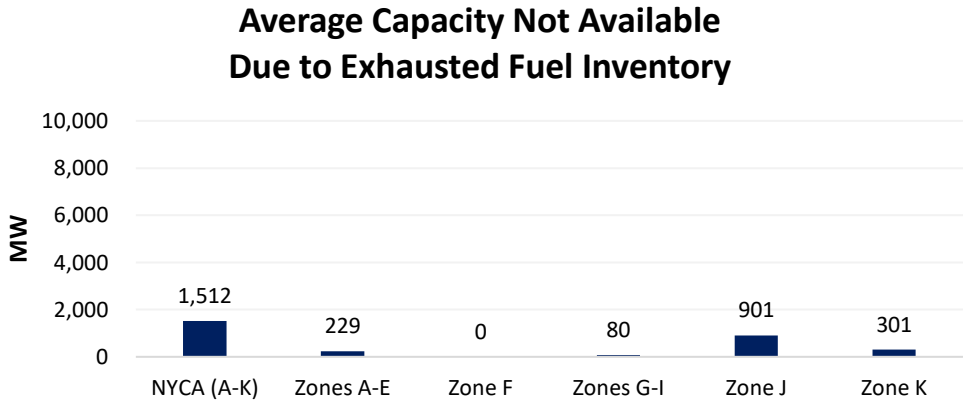
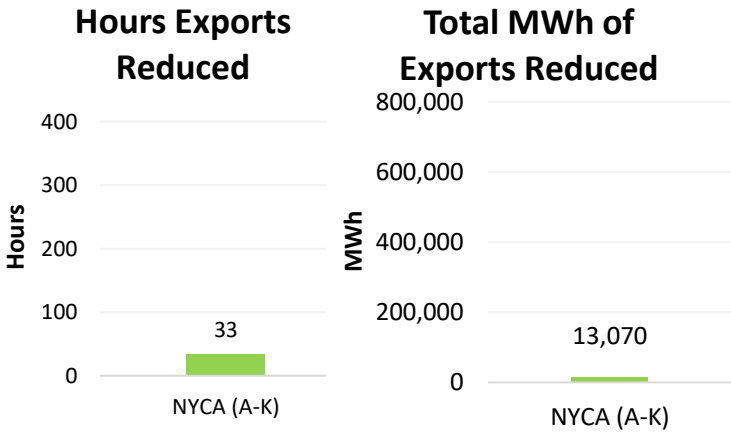
Reserve Violations	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Viol.	

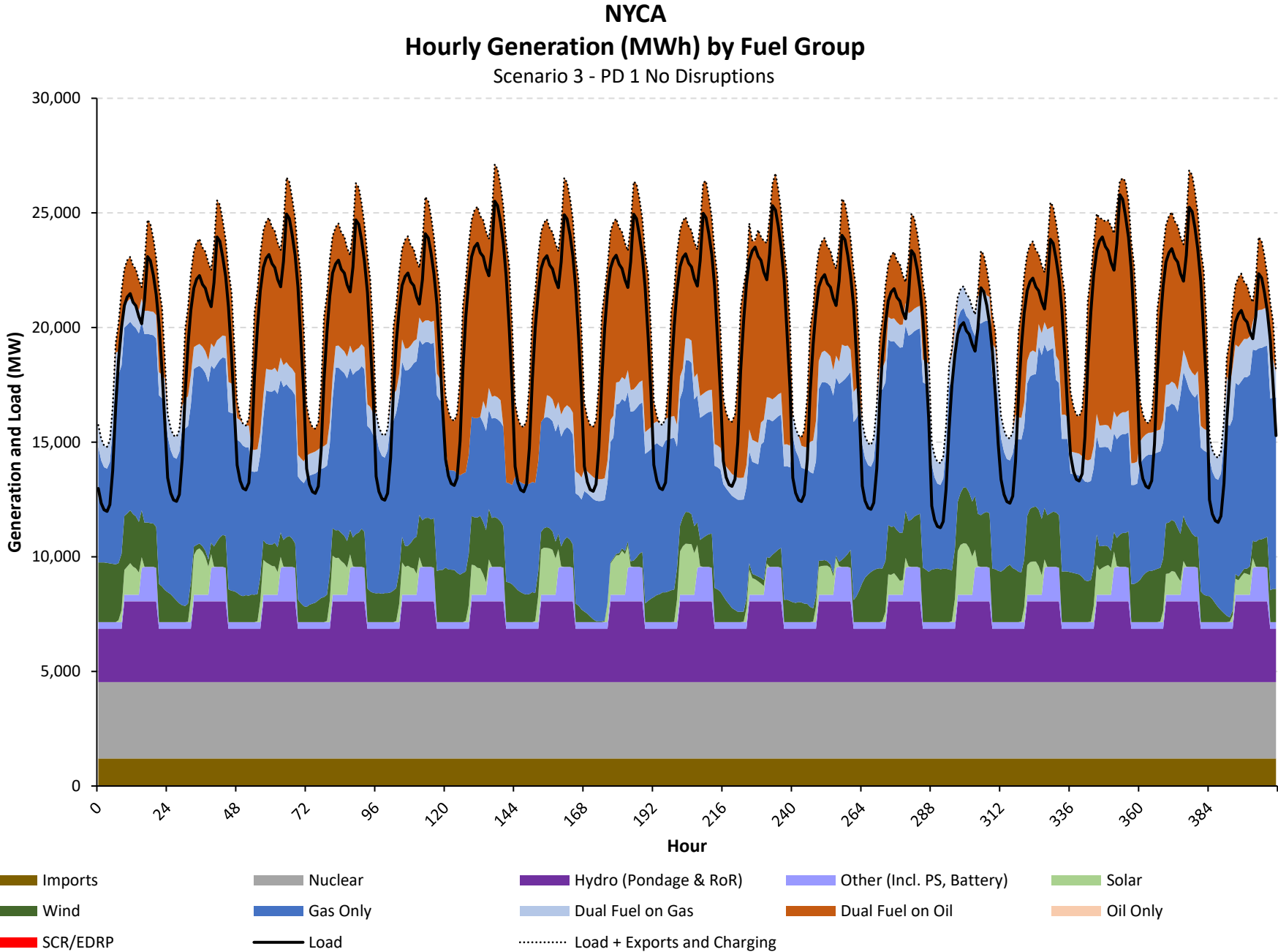
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

Full Period Results Summary

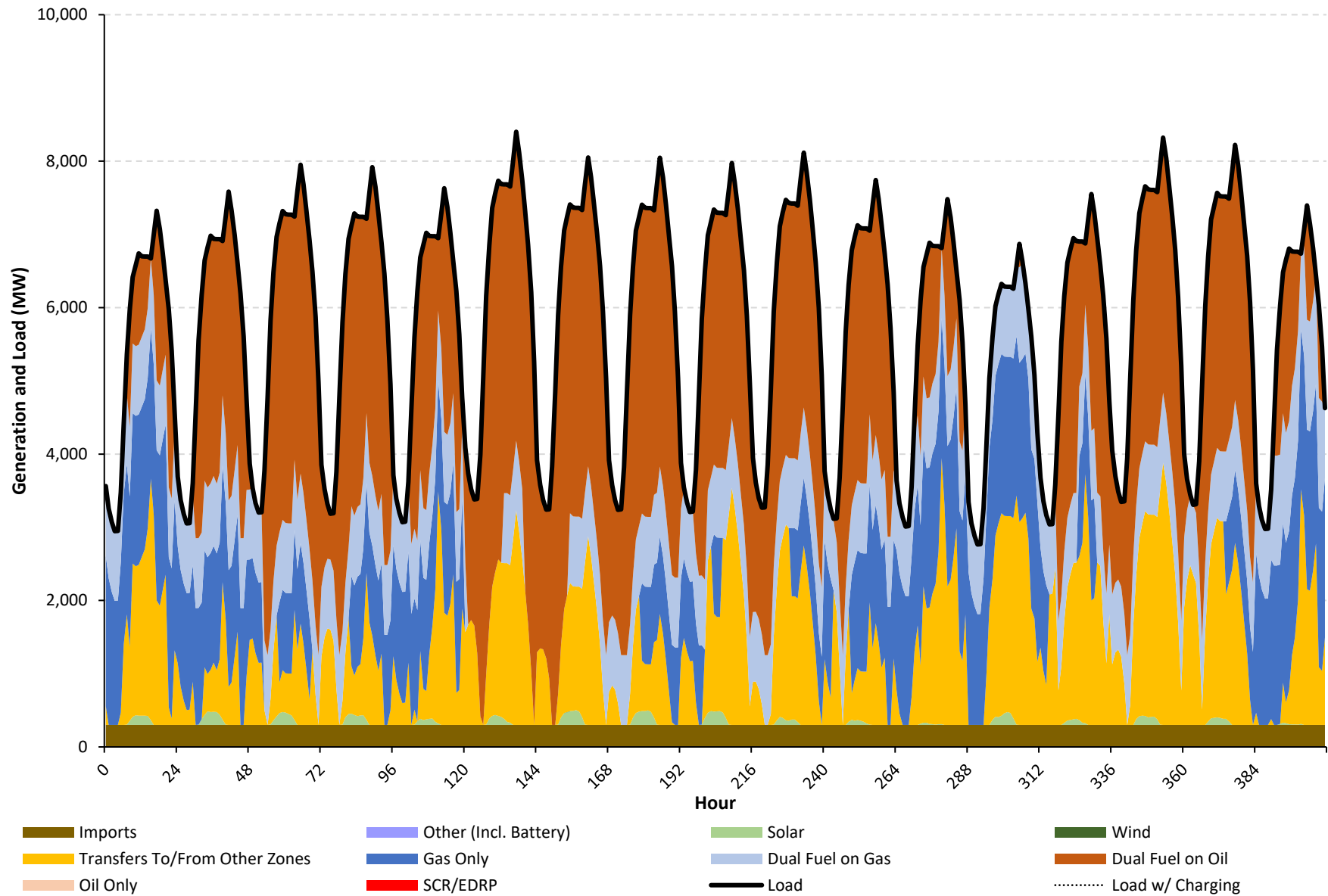
Case Name: Scenario 3 - PD 1 No Disruptions

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

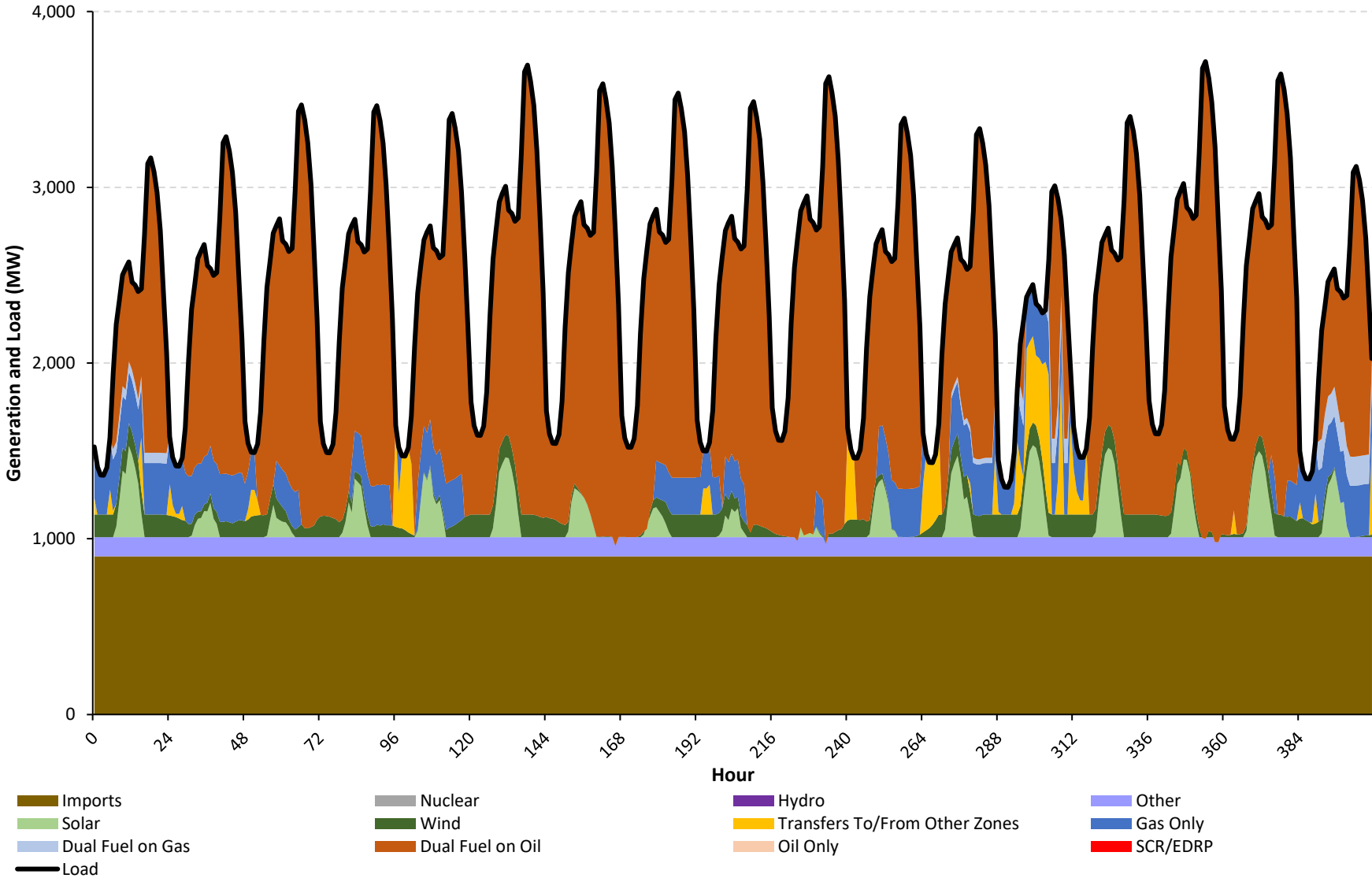




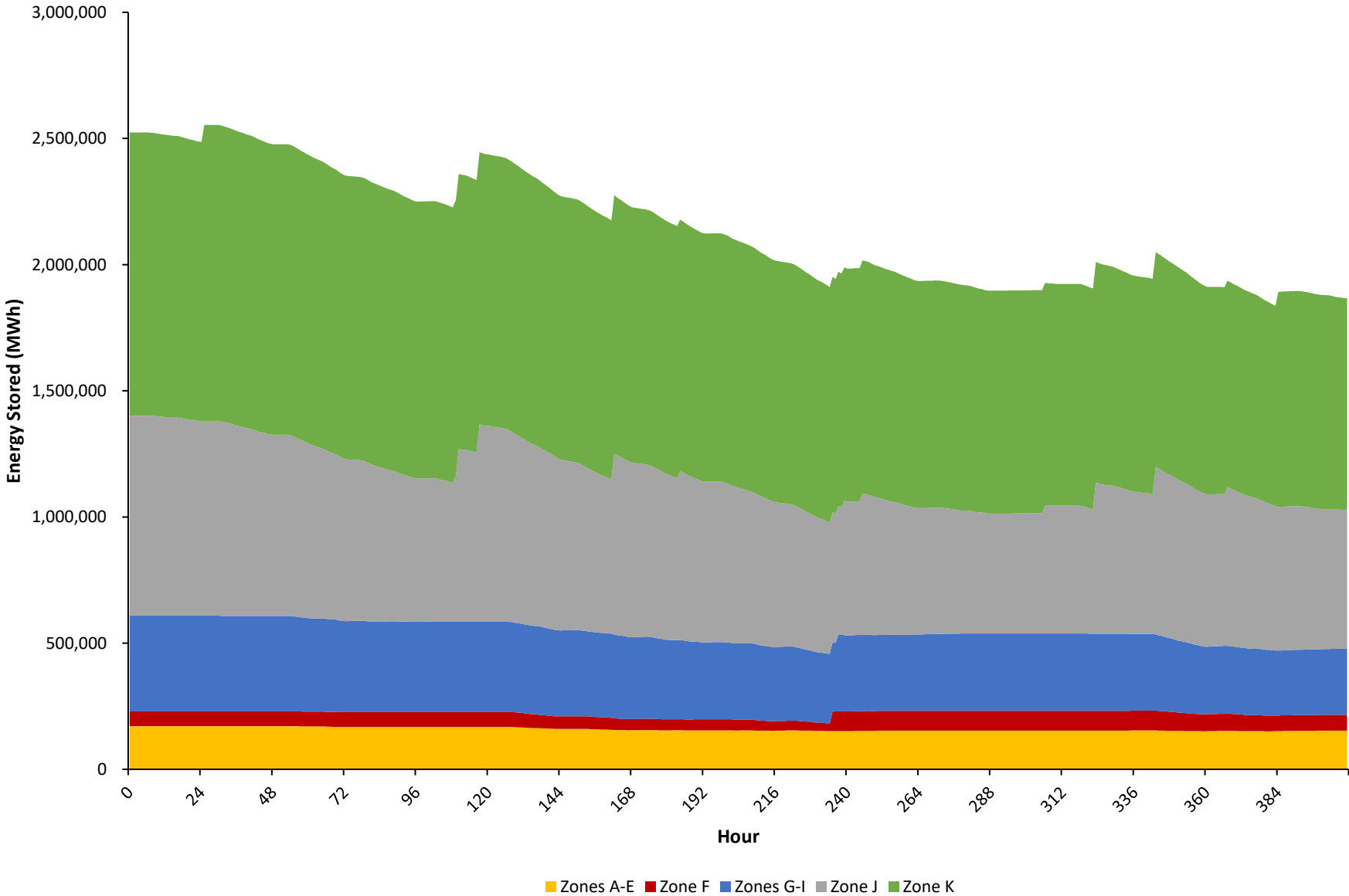
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 1 No Disruptions



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

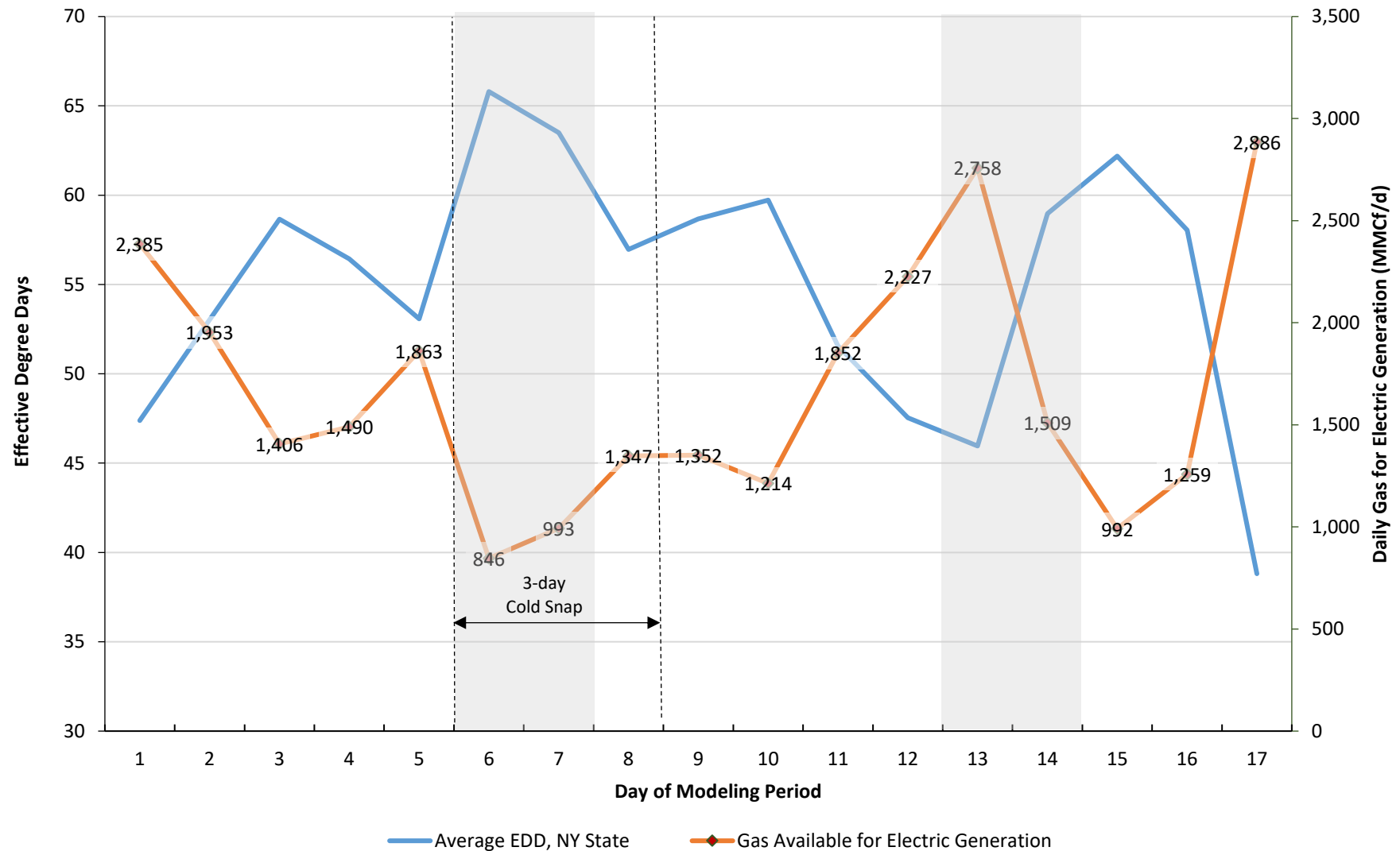


NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 3 - PD 1 No Disruptions



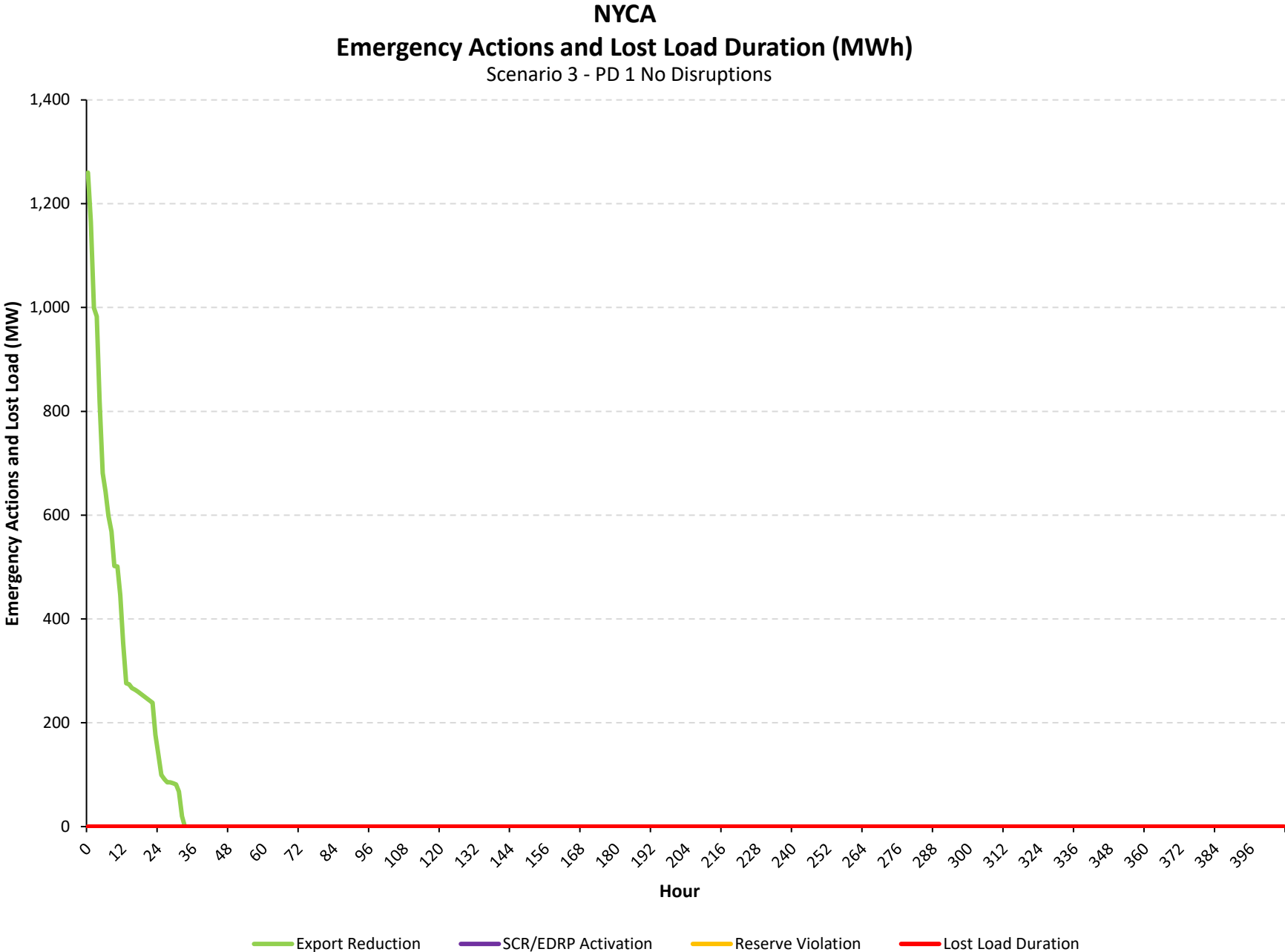
NYCA **Degree Days and Gas Available for Electric Generation 17-Day Modeling Period**

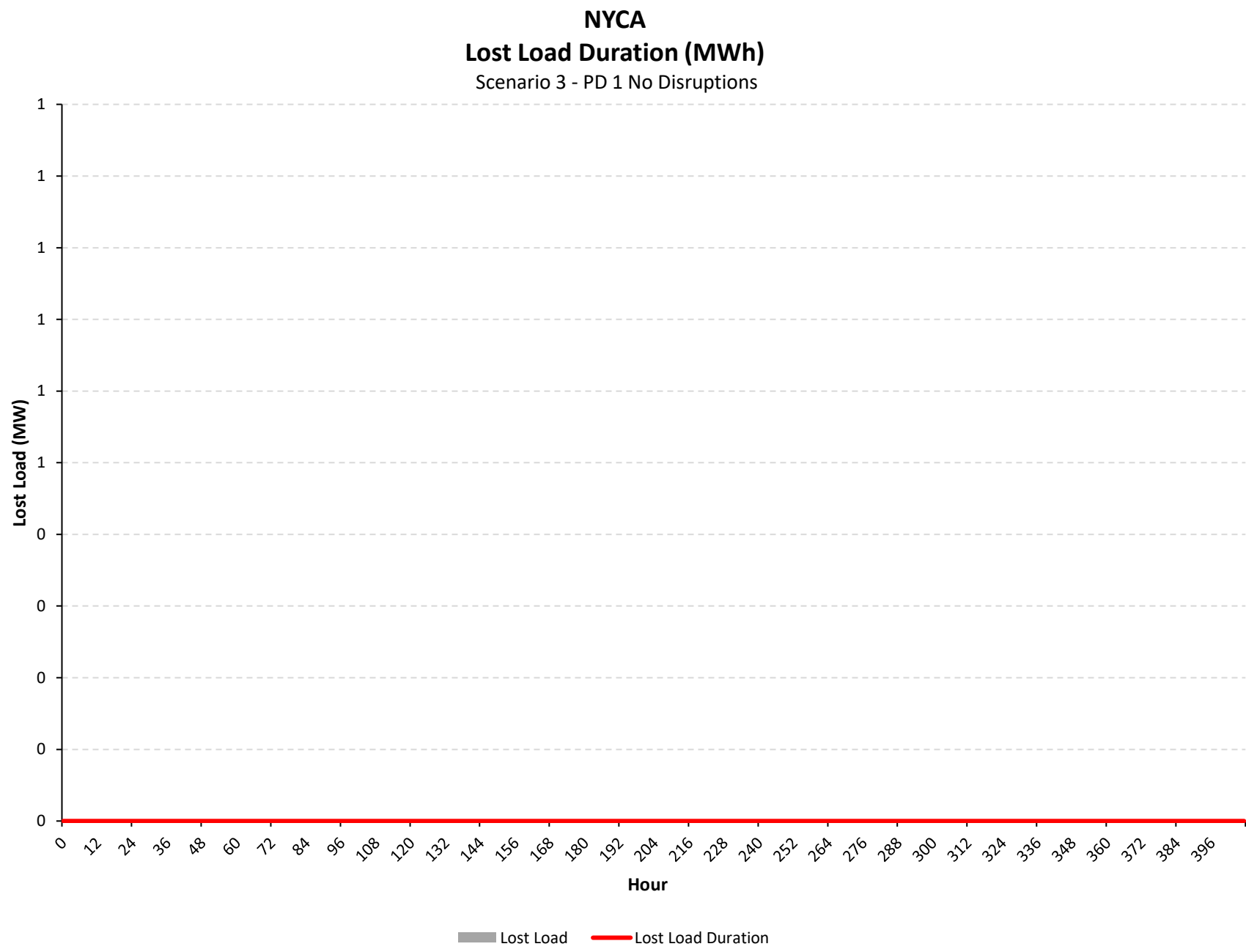
Scenario 3 - PD 1 No Disruptions



Notes:

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



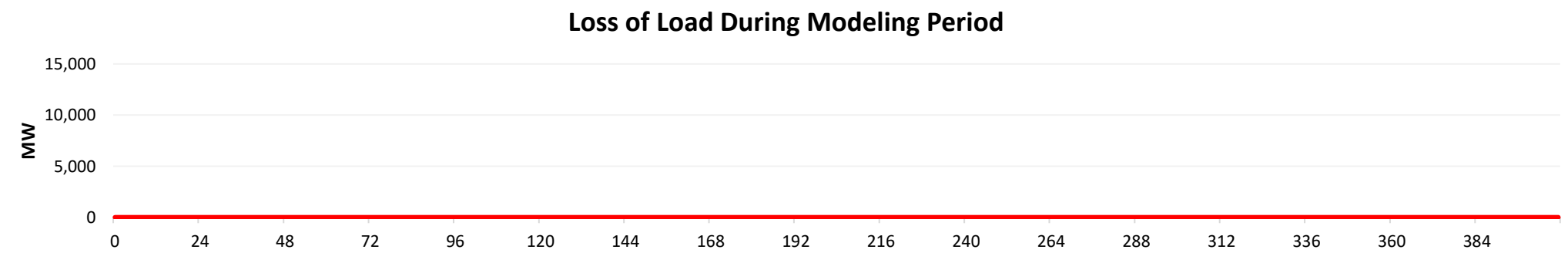
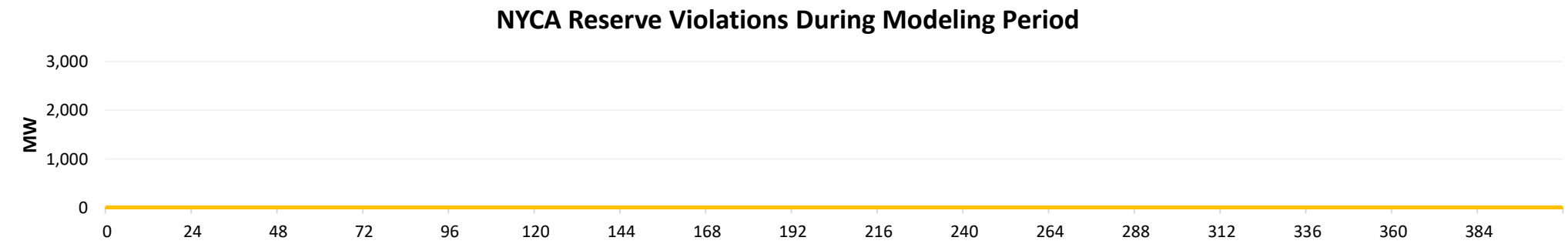
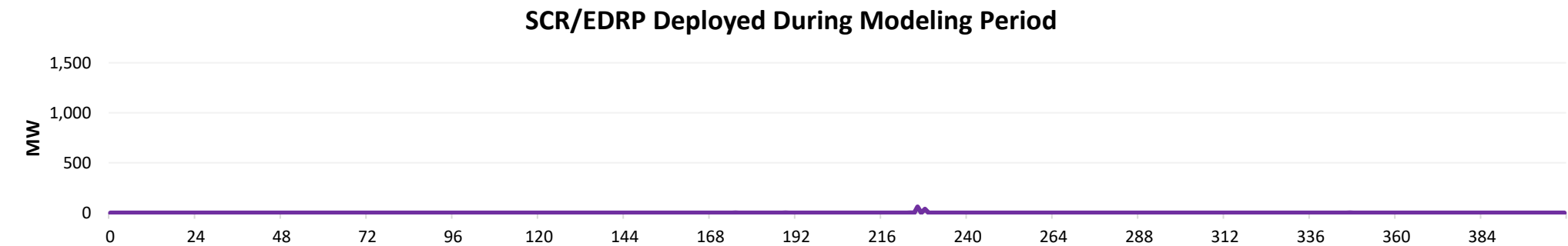
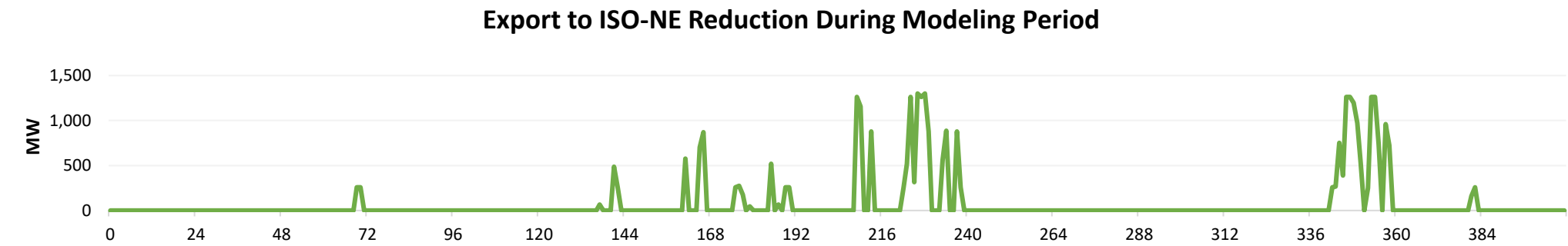
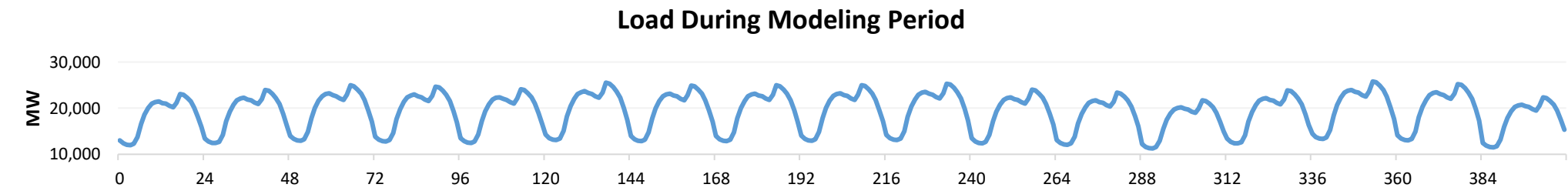


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 2 High Outage (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 3 - PD 2 High Outage



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

Export Reductions	
Total Hrs.	48
Total MWh	30,815
Avg. MW	75.5

SCR Deployment	
Total Hrs.	2
Total MWh	101
Avg. MW	0.2

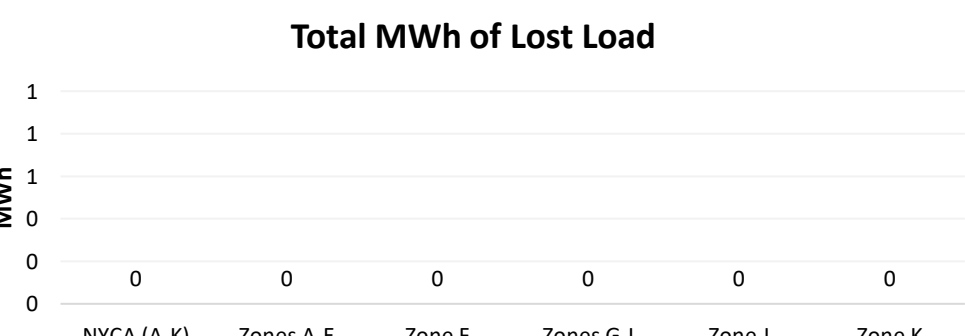
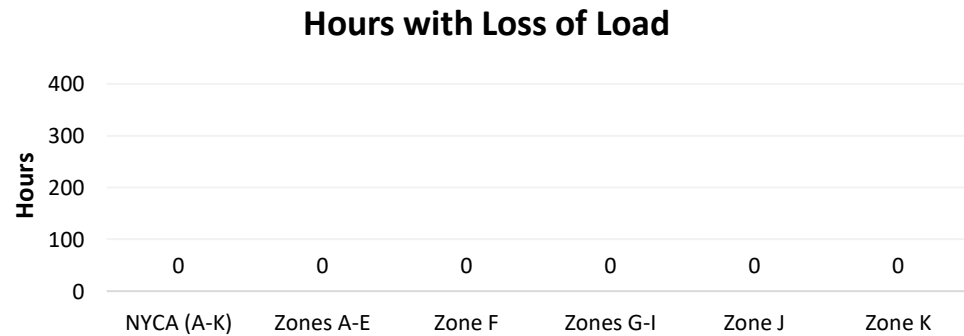
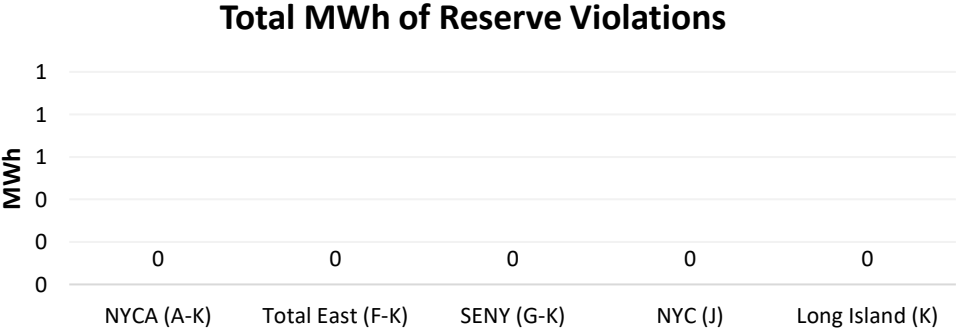
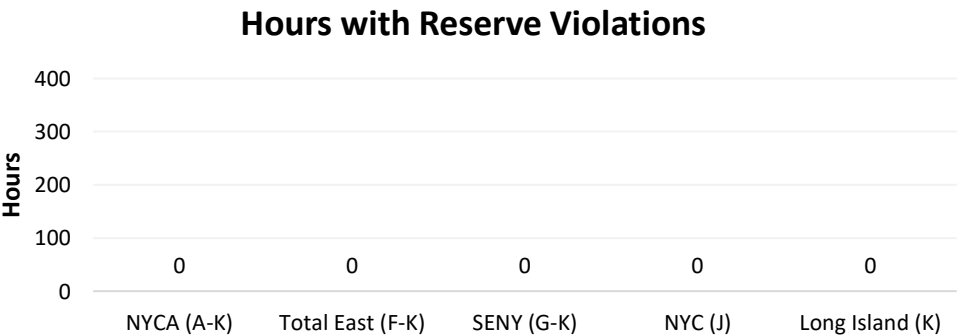
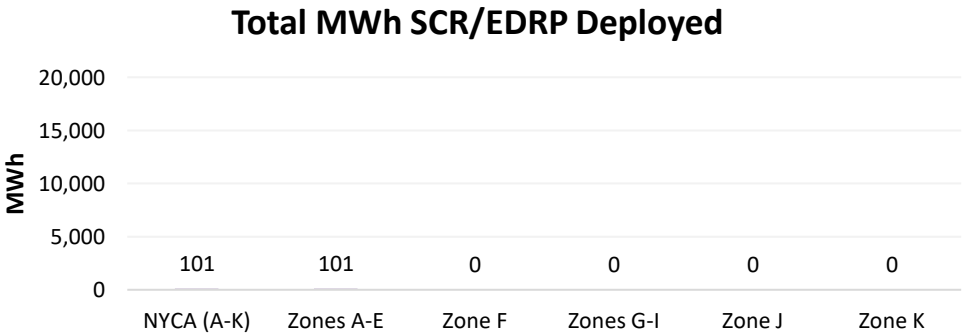
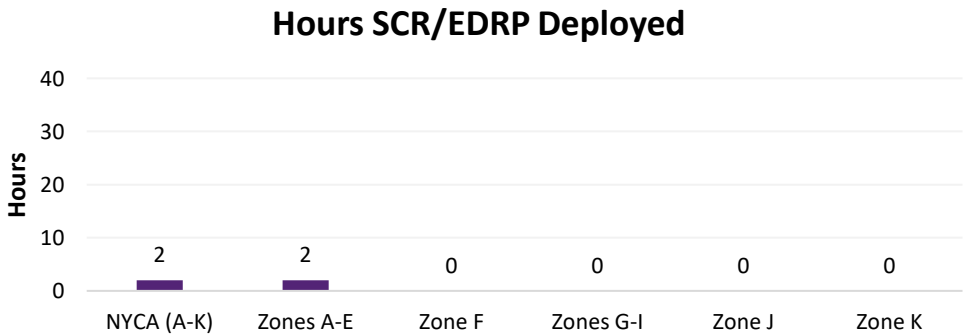
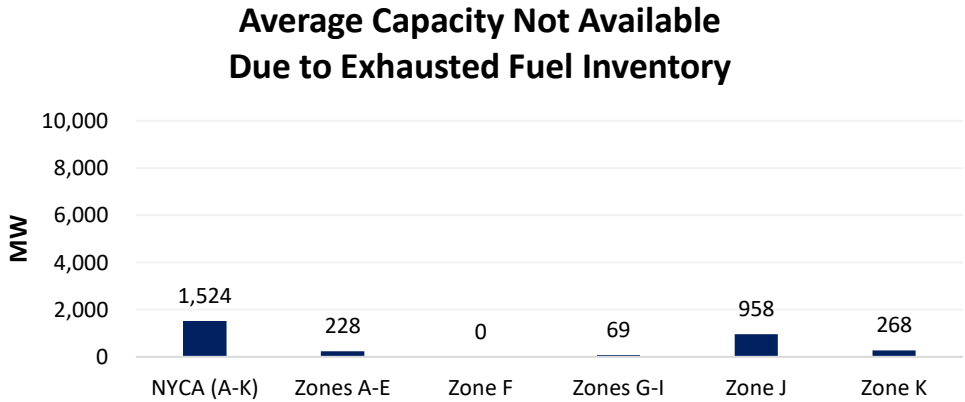
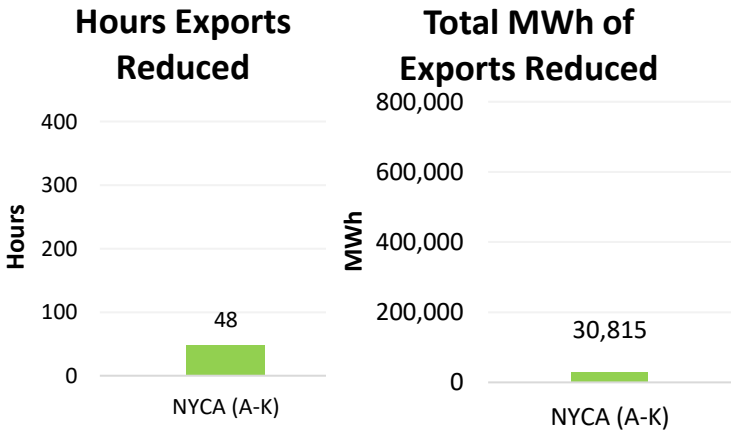
Reserve Violations	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Viol.	

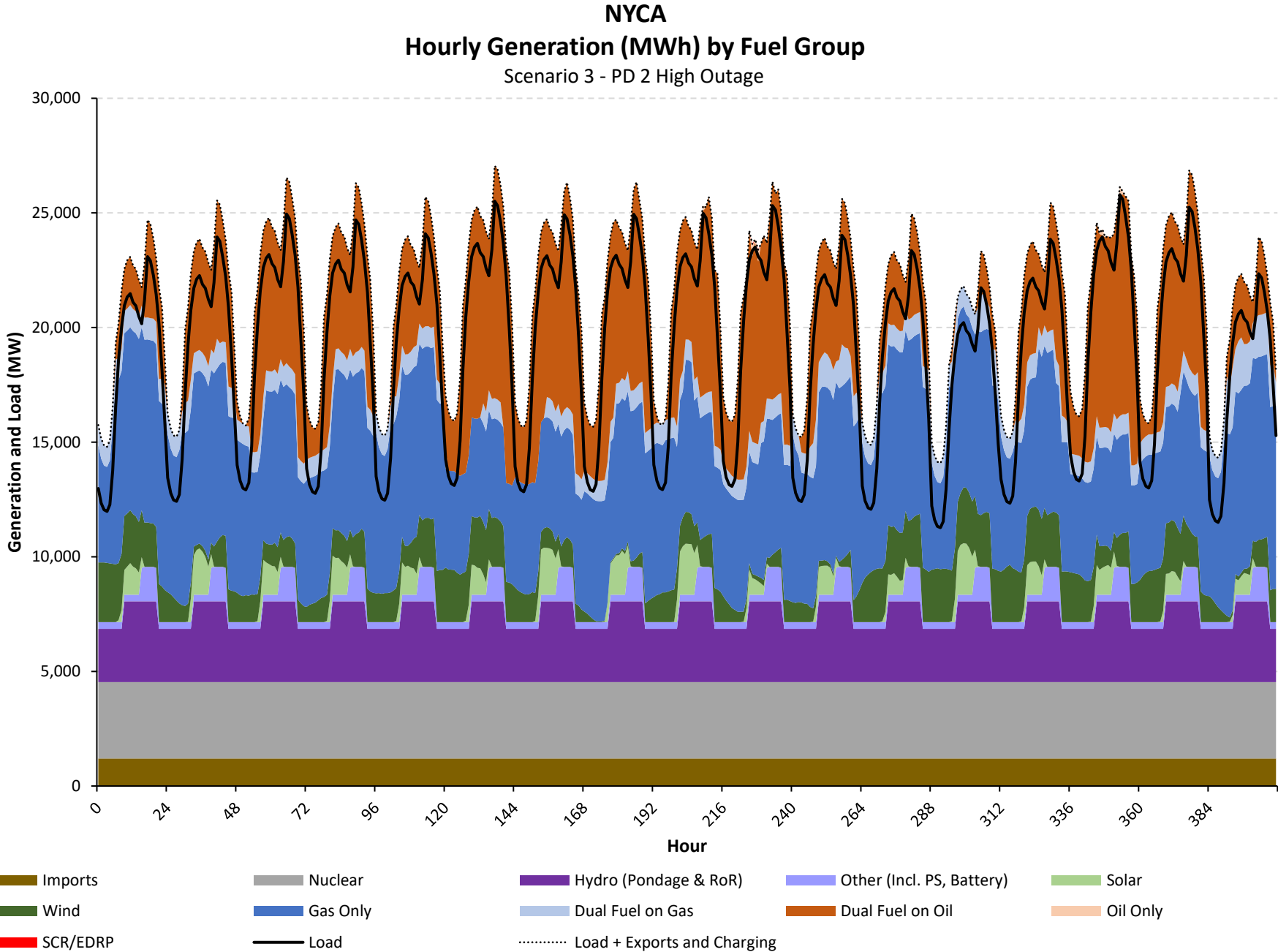
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

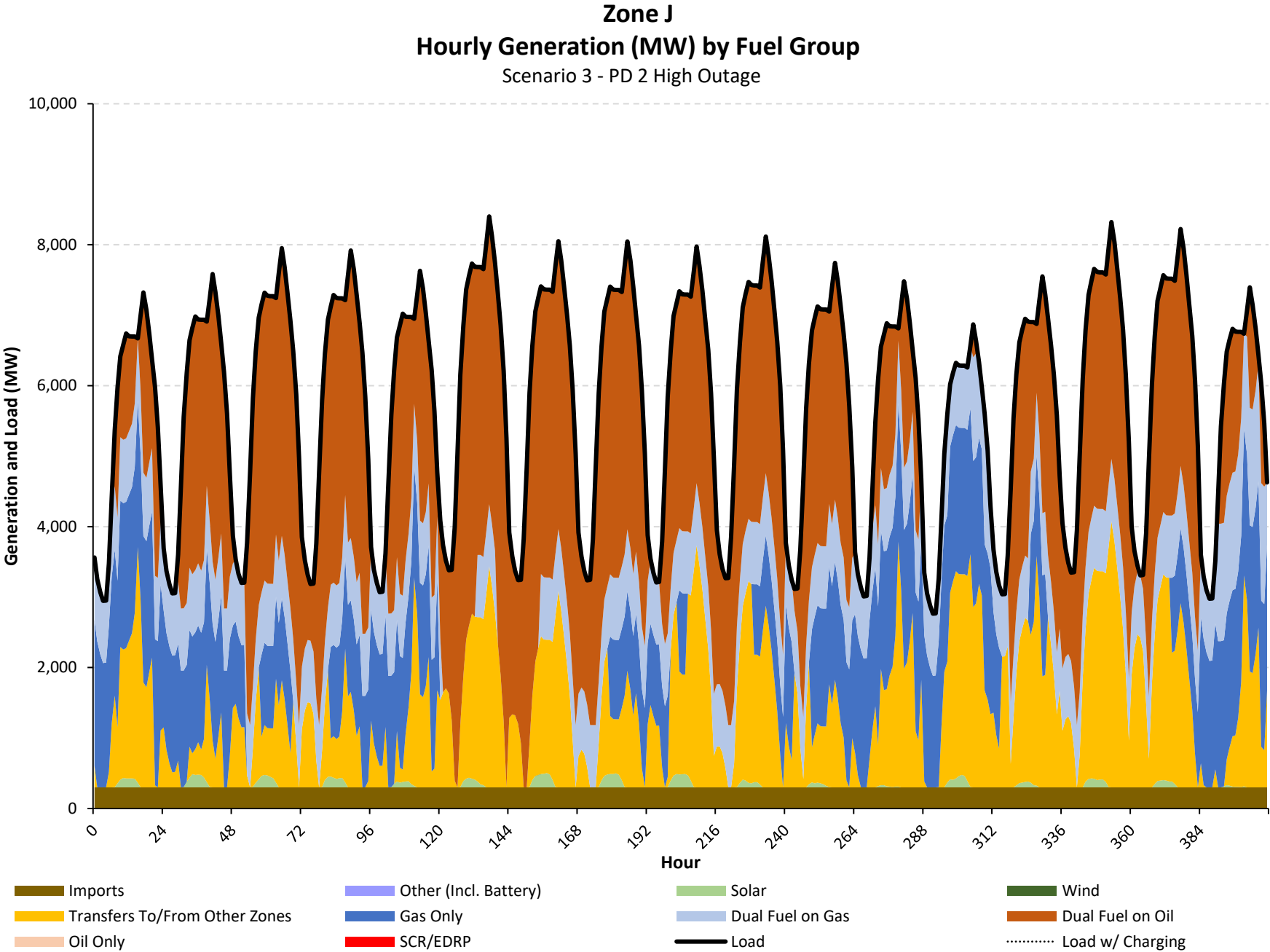
Full Period Results Summary

Case Name: Scenario 3 - PD 2 High Outage

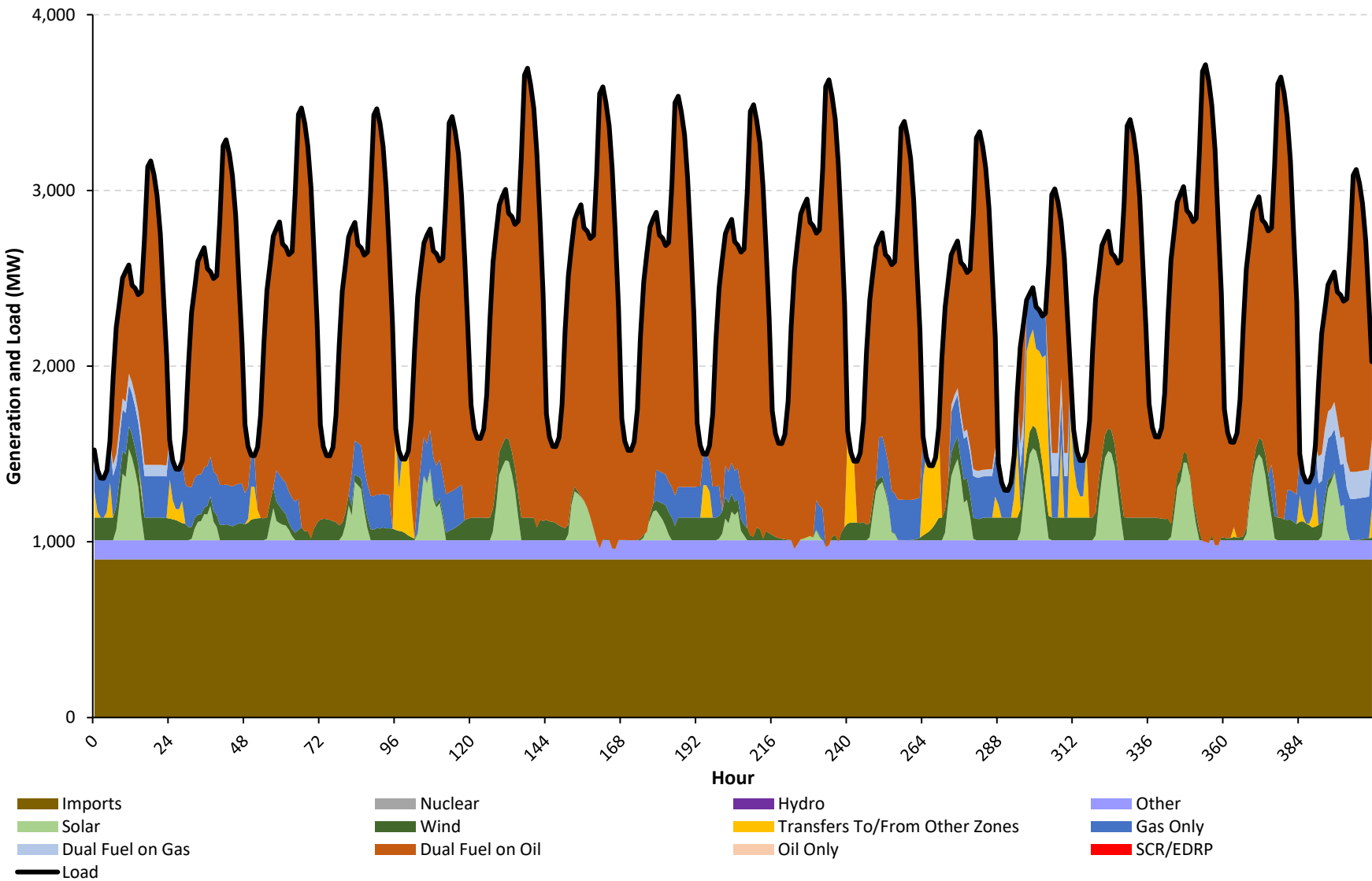
Case Summary	
Derate (EFORD) Increase:	High
Starting Storage:	High
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

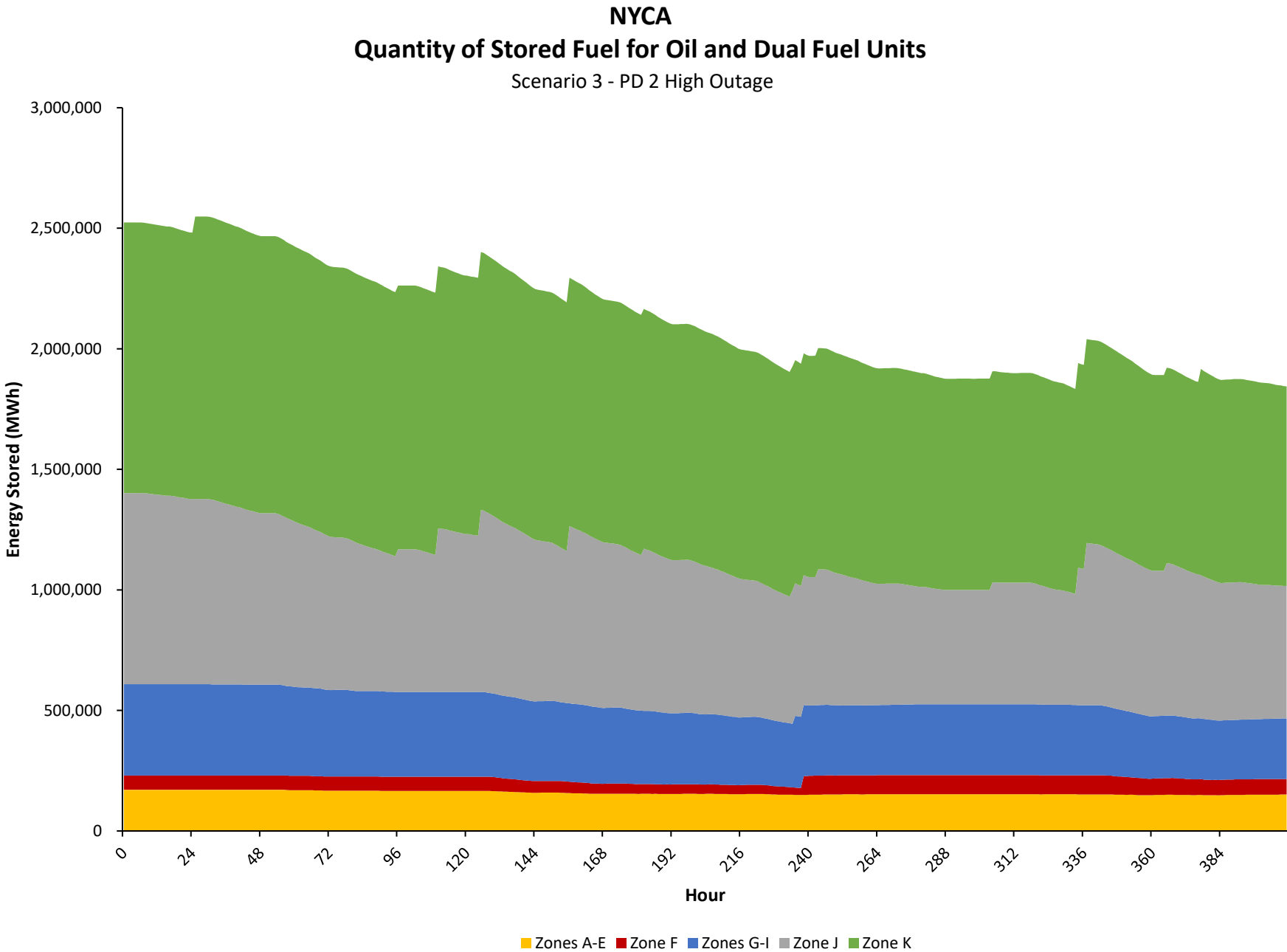


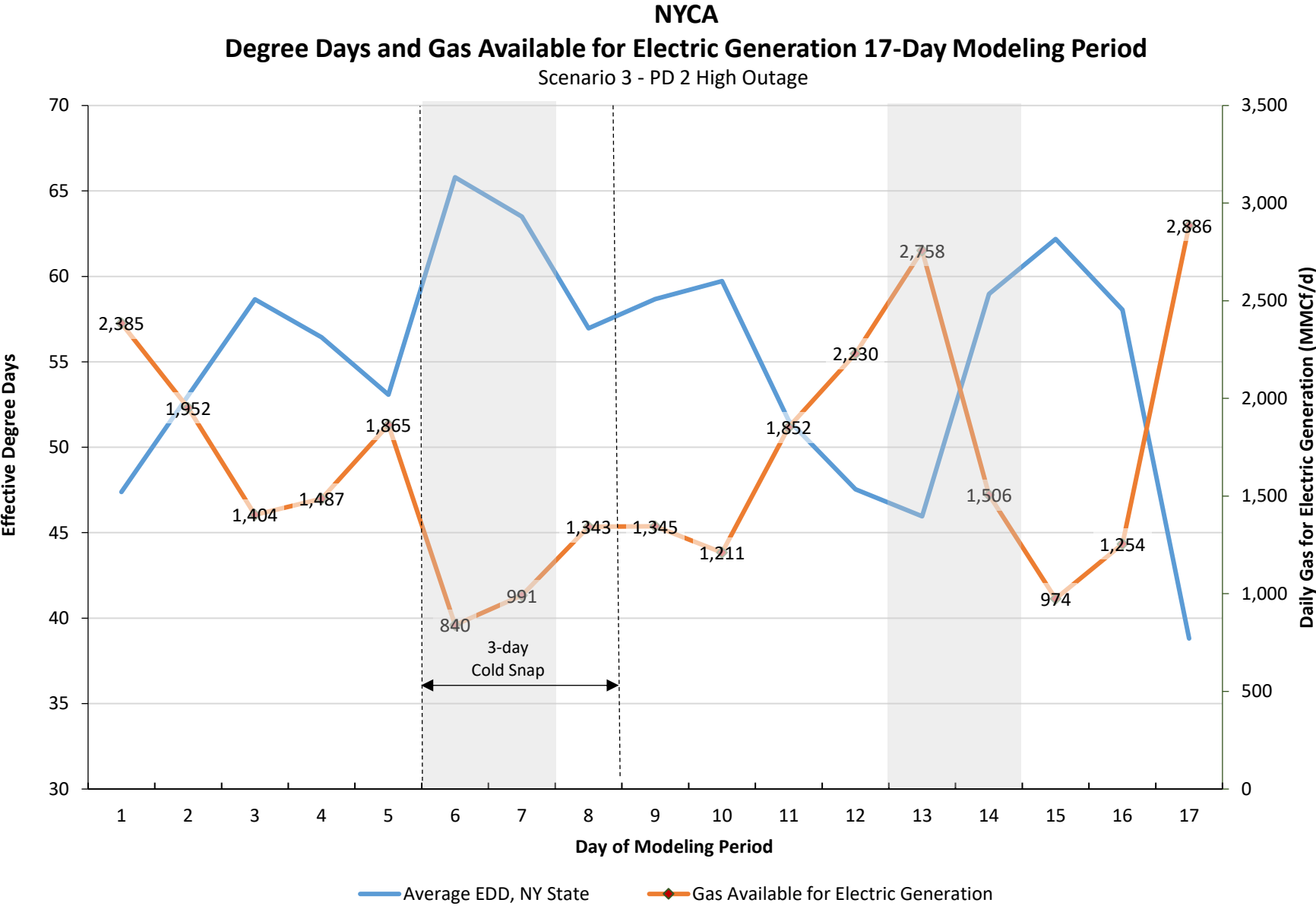




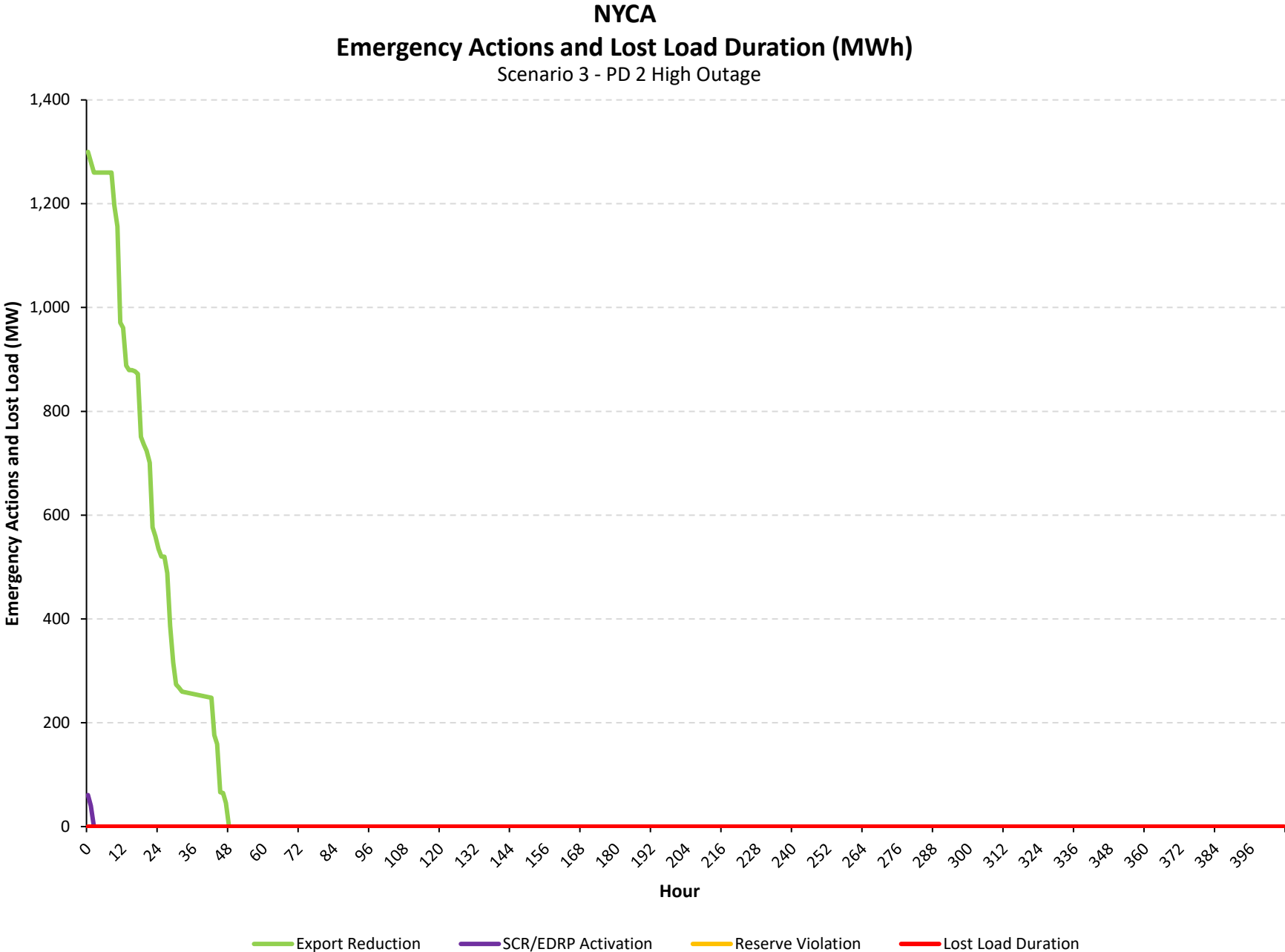
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 2 High Outage

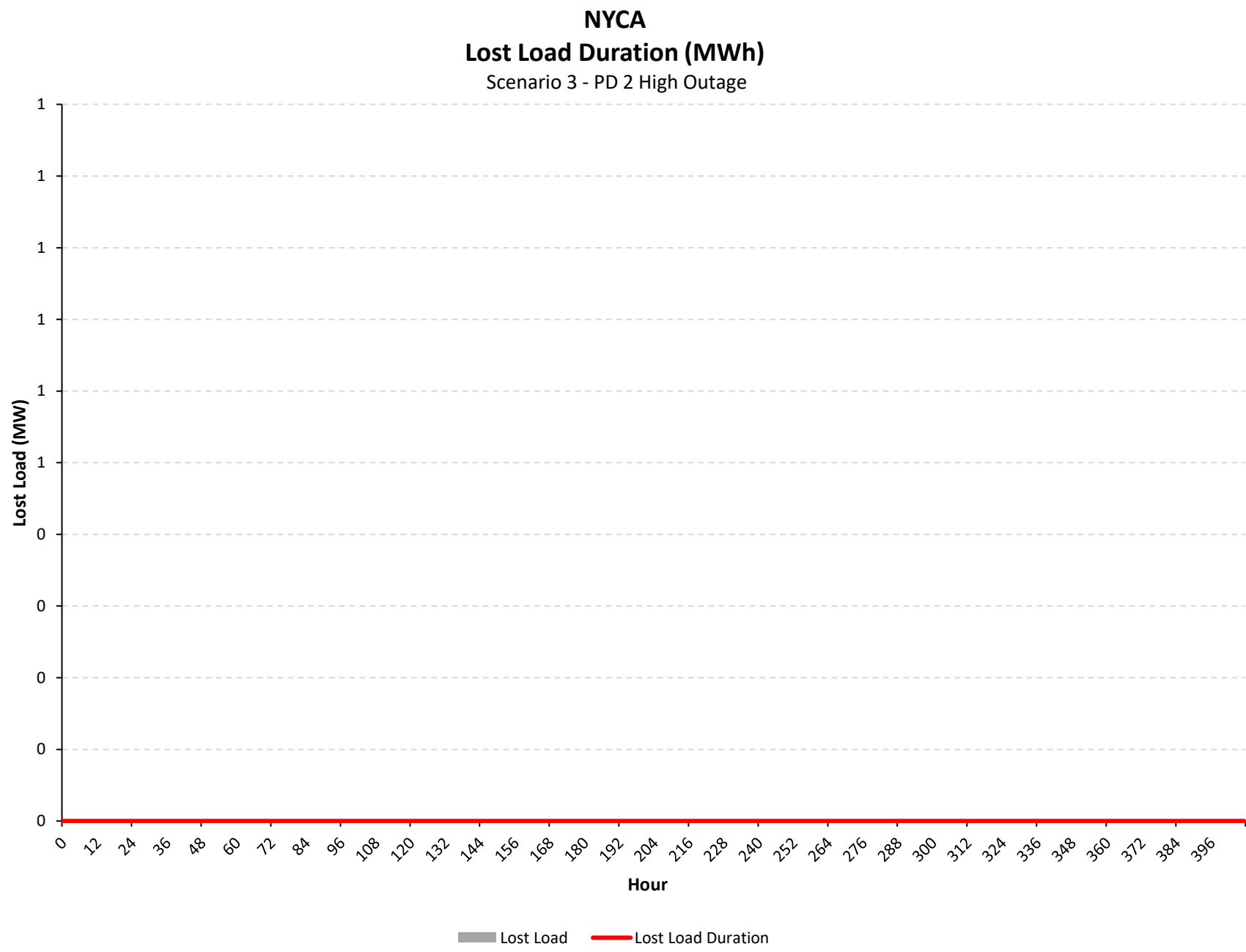






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



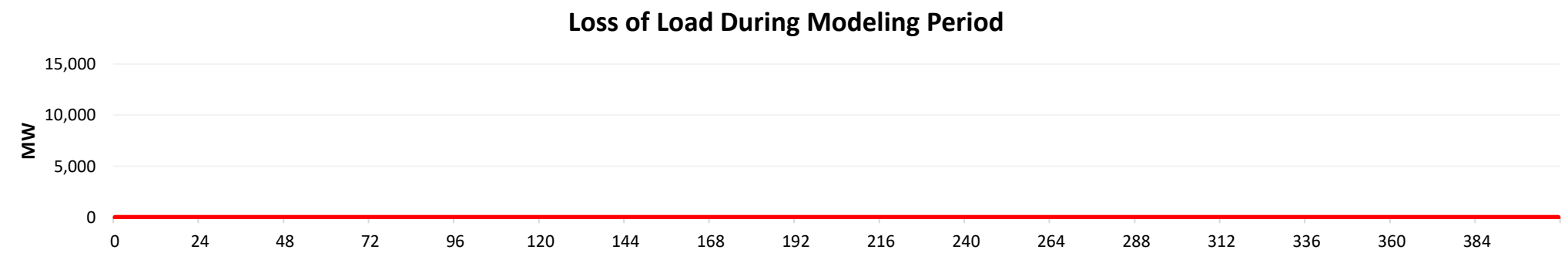
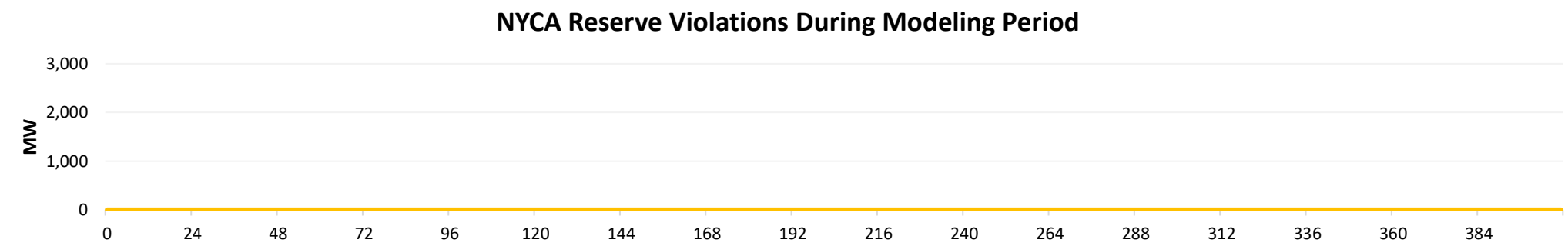
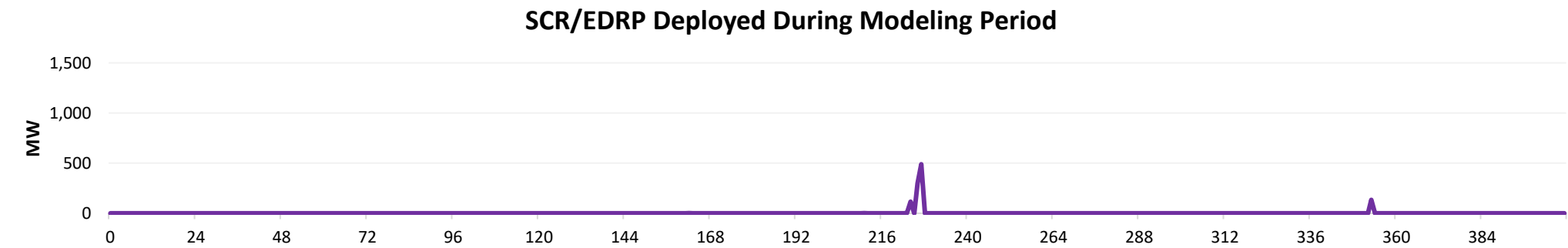
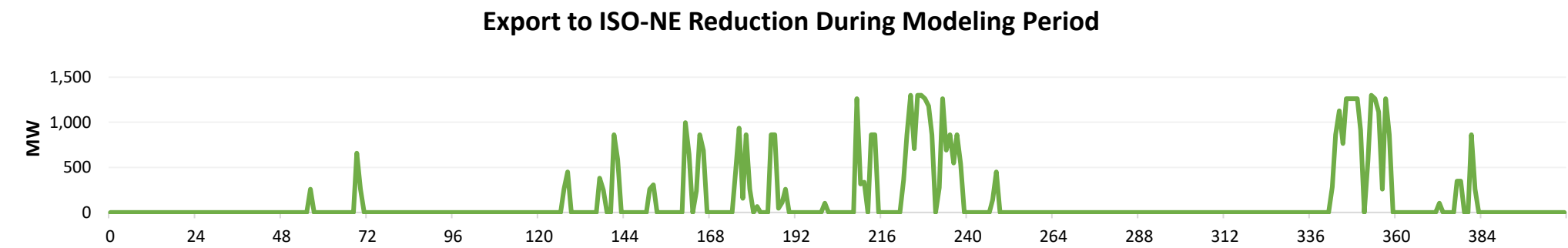
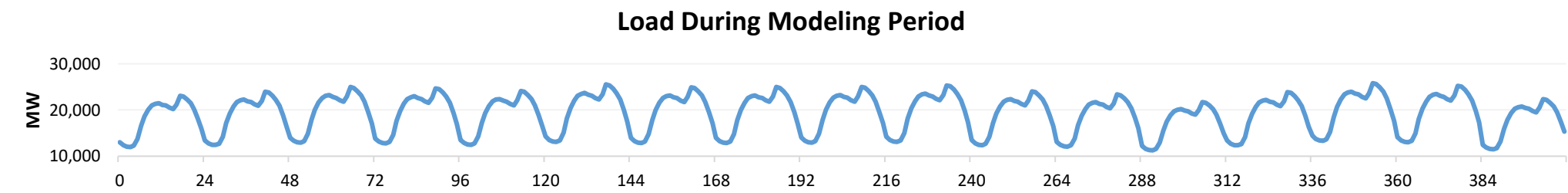


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 3 SENY Deactivation (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 3 - PD 3 SENY Deactivation



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

Export Reductions	
Total Hrs.	72
Total MWh	48,874
Avg. MW	119.8

SCR Deployment	
Total Hrs.	4
Total MWh	1,036
Avg. MW	2.5

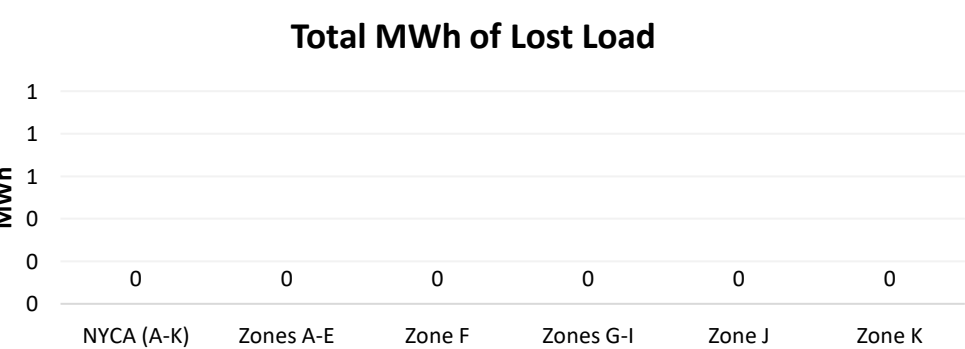
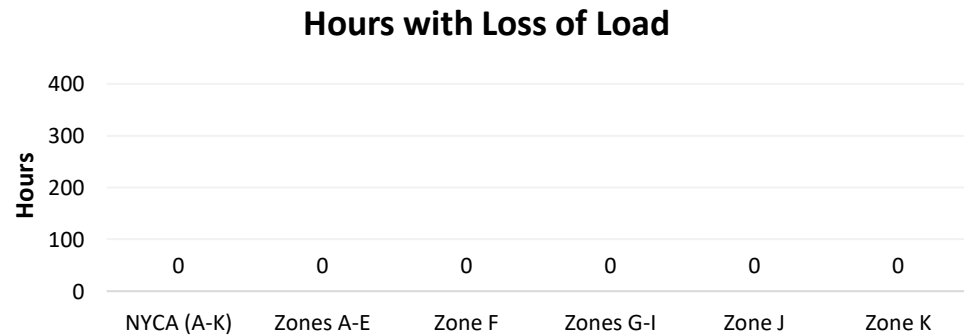
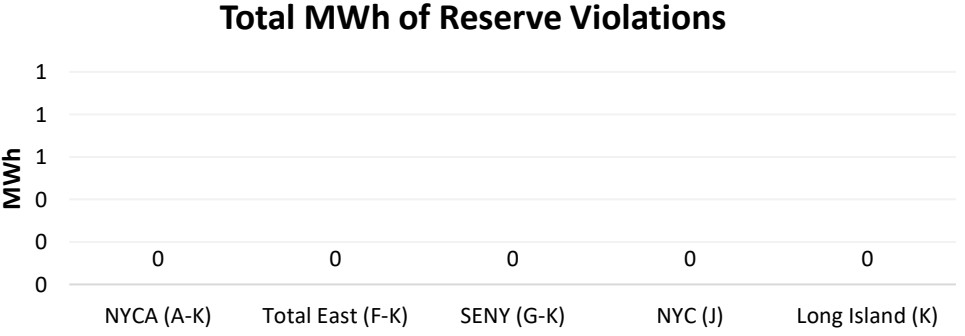
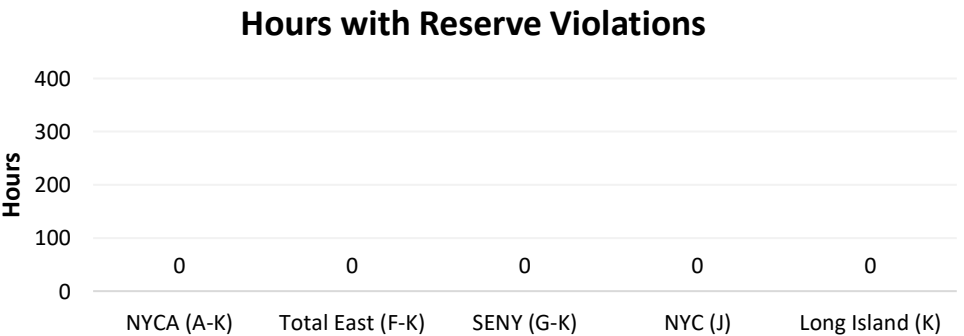
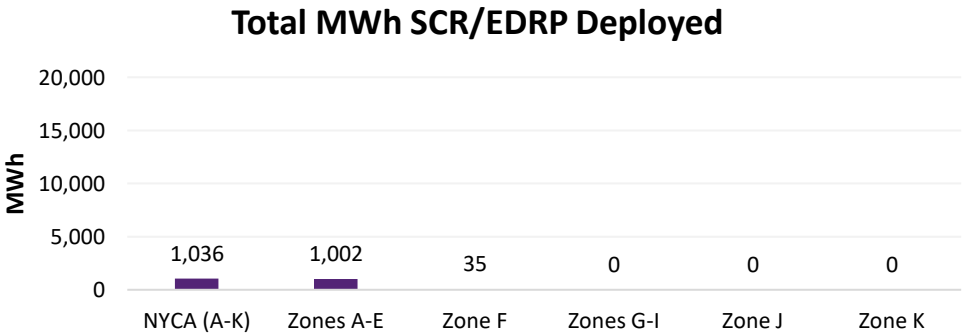
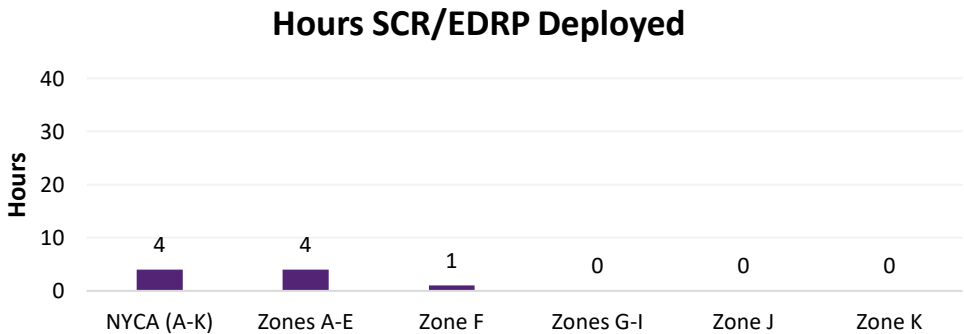
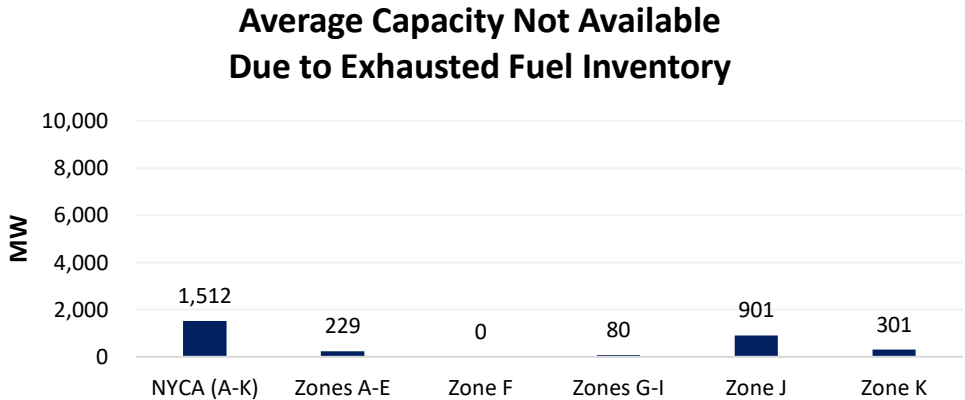
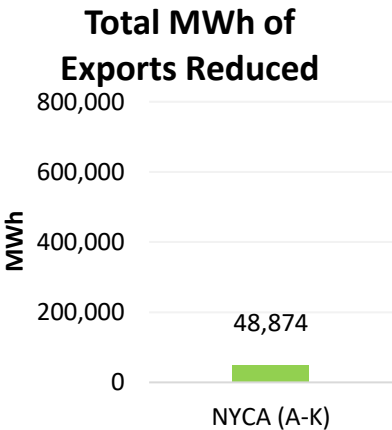
Reserve Violations	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Viol.	

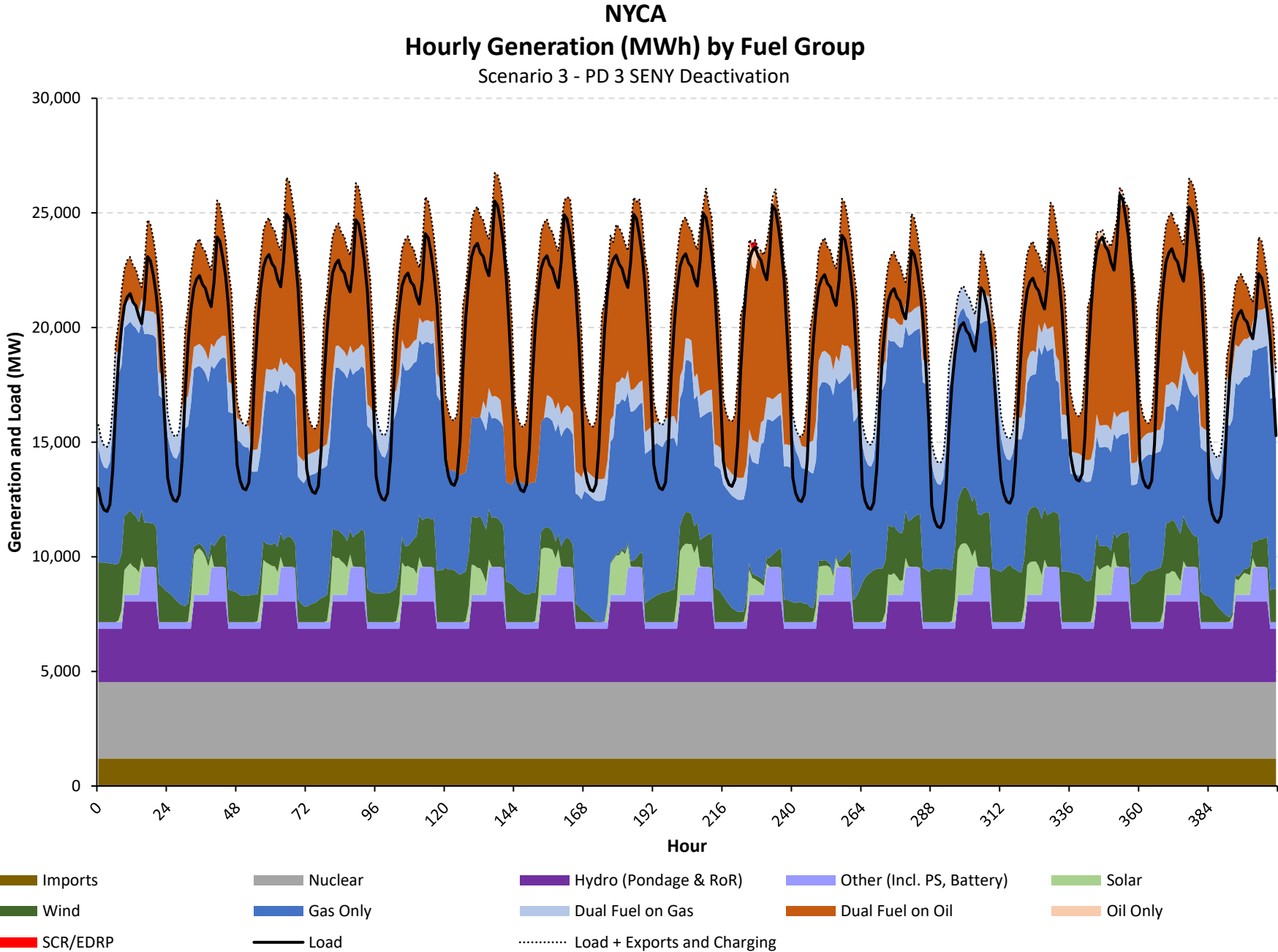
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

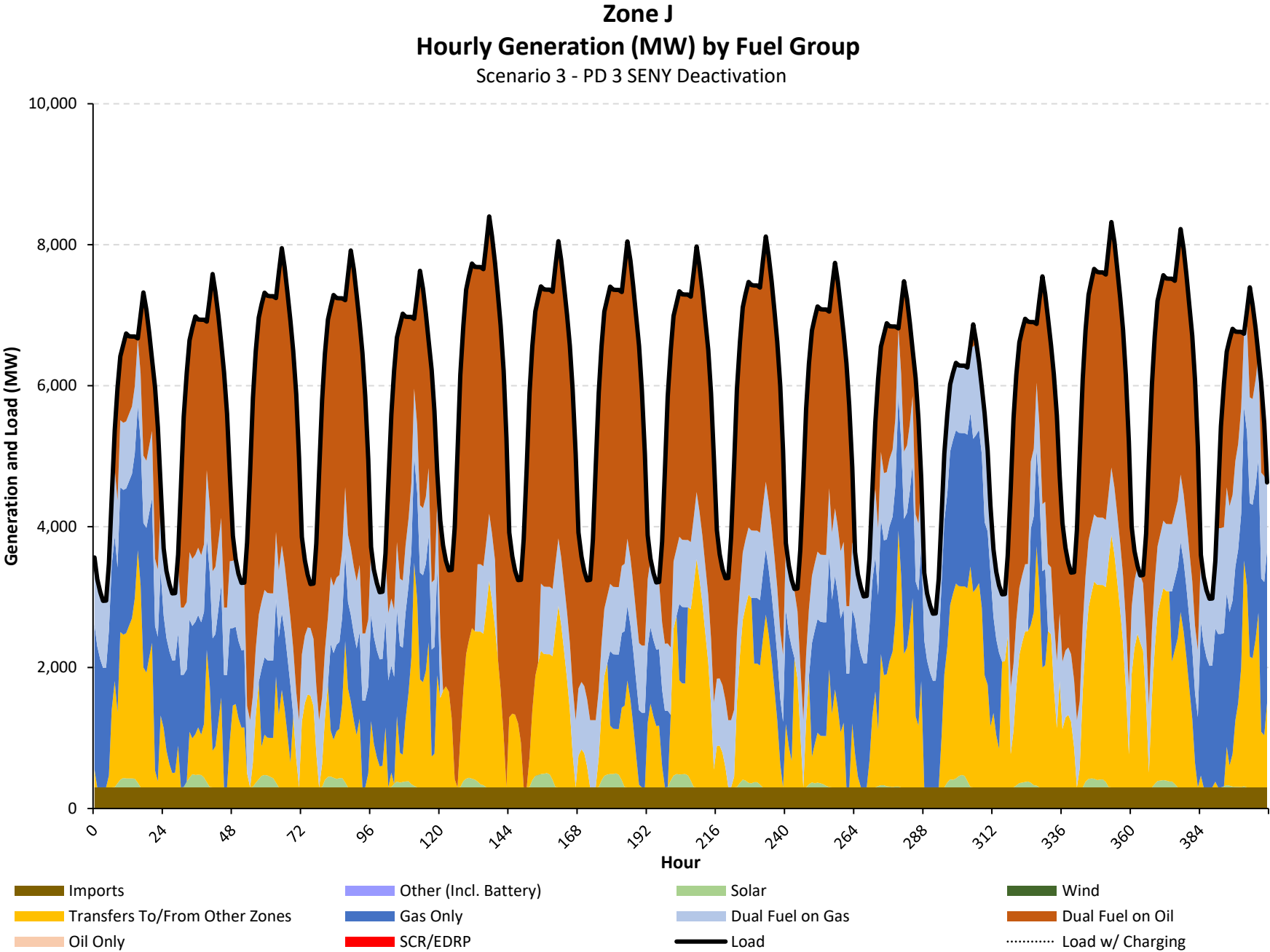
Full Period Results Summary

Case Name: Scenario 3 - PD 3 SENY Deactivation

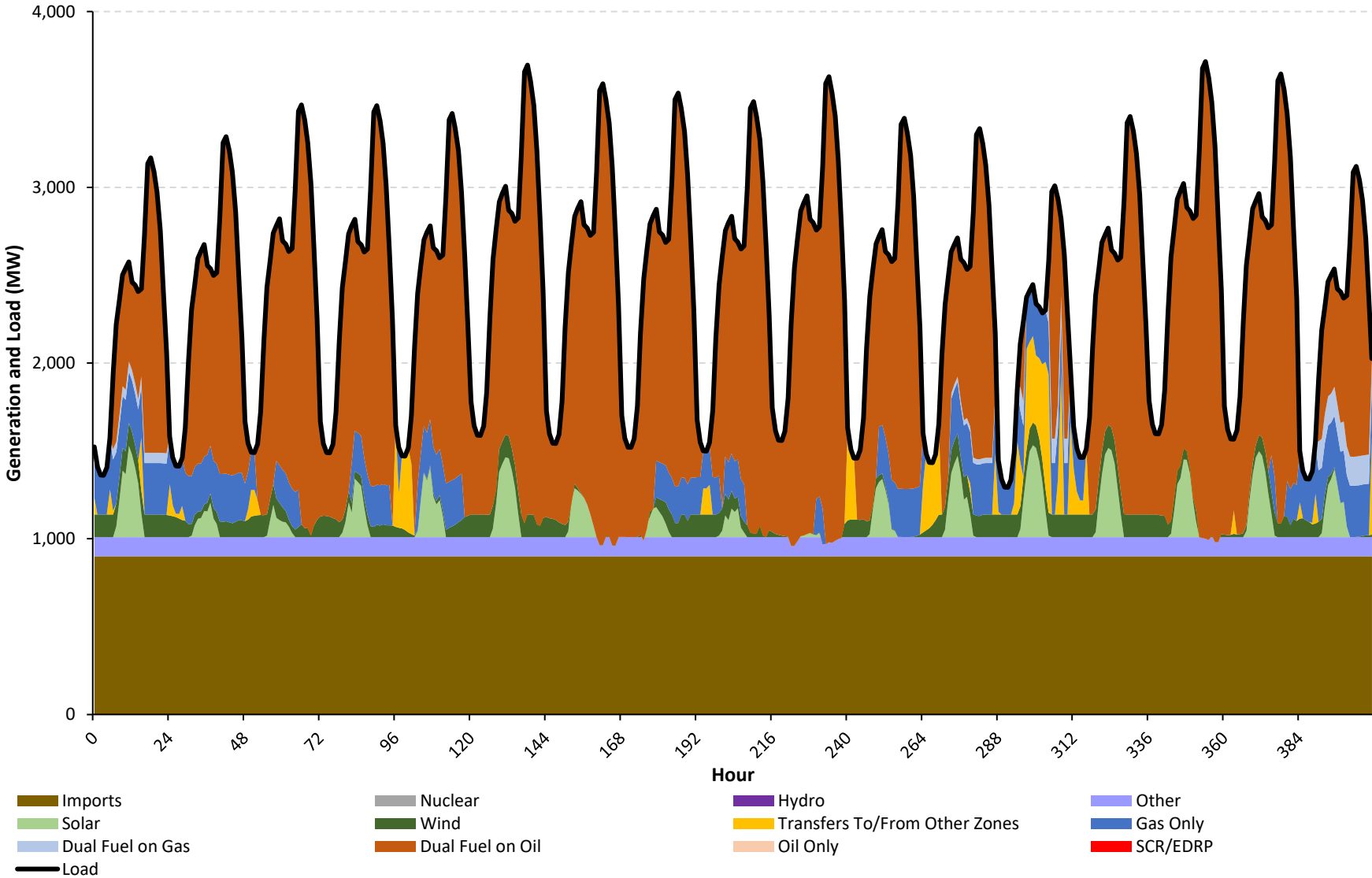
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	High
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	All

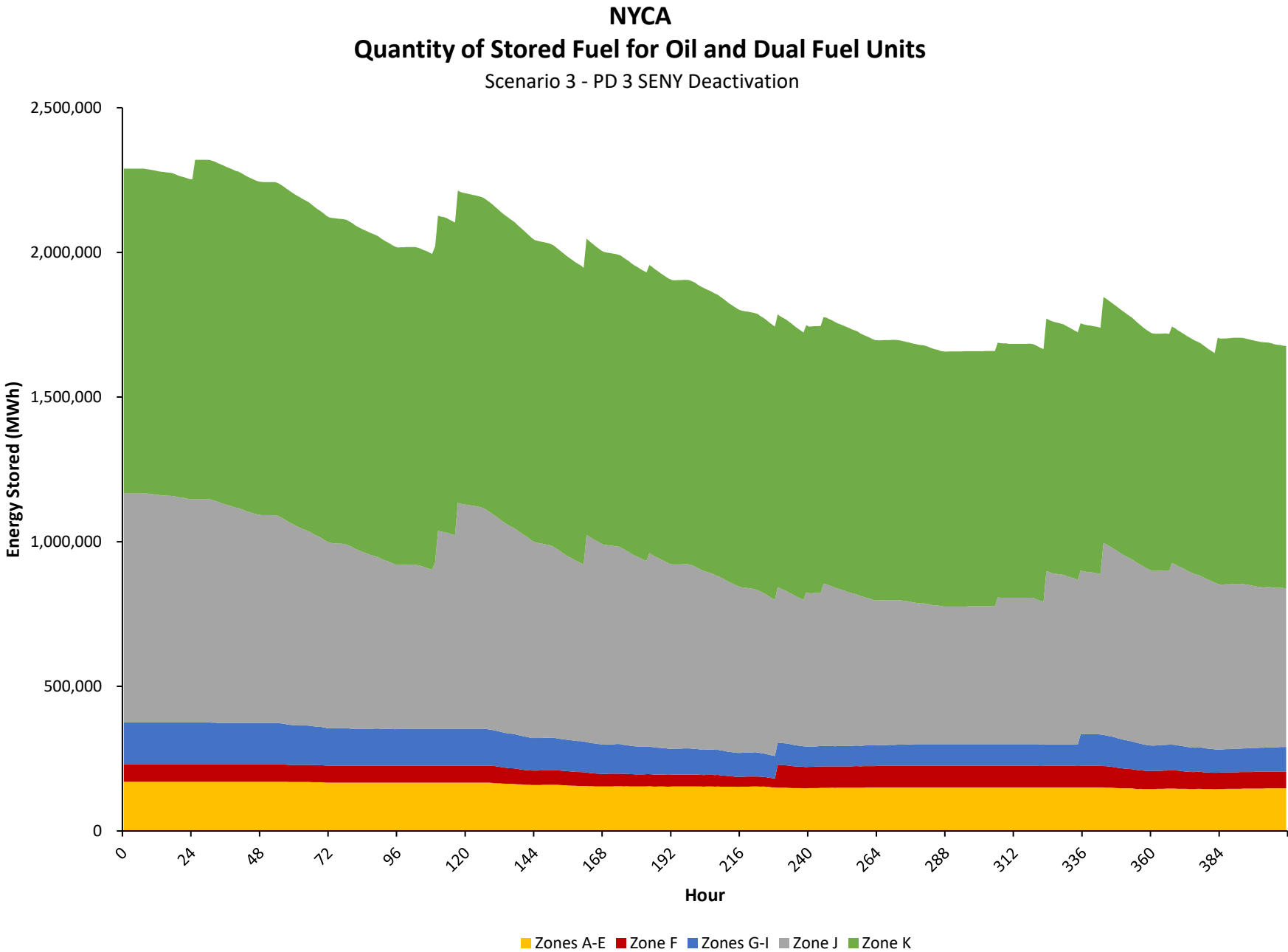


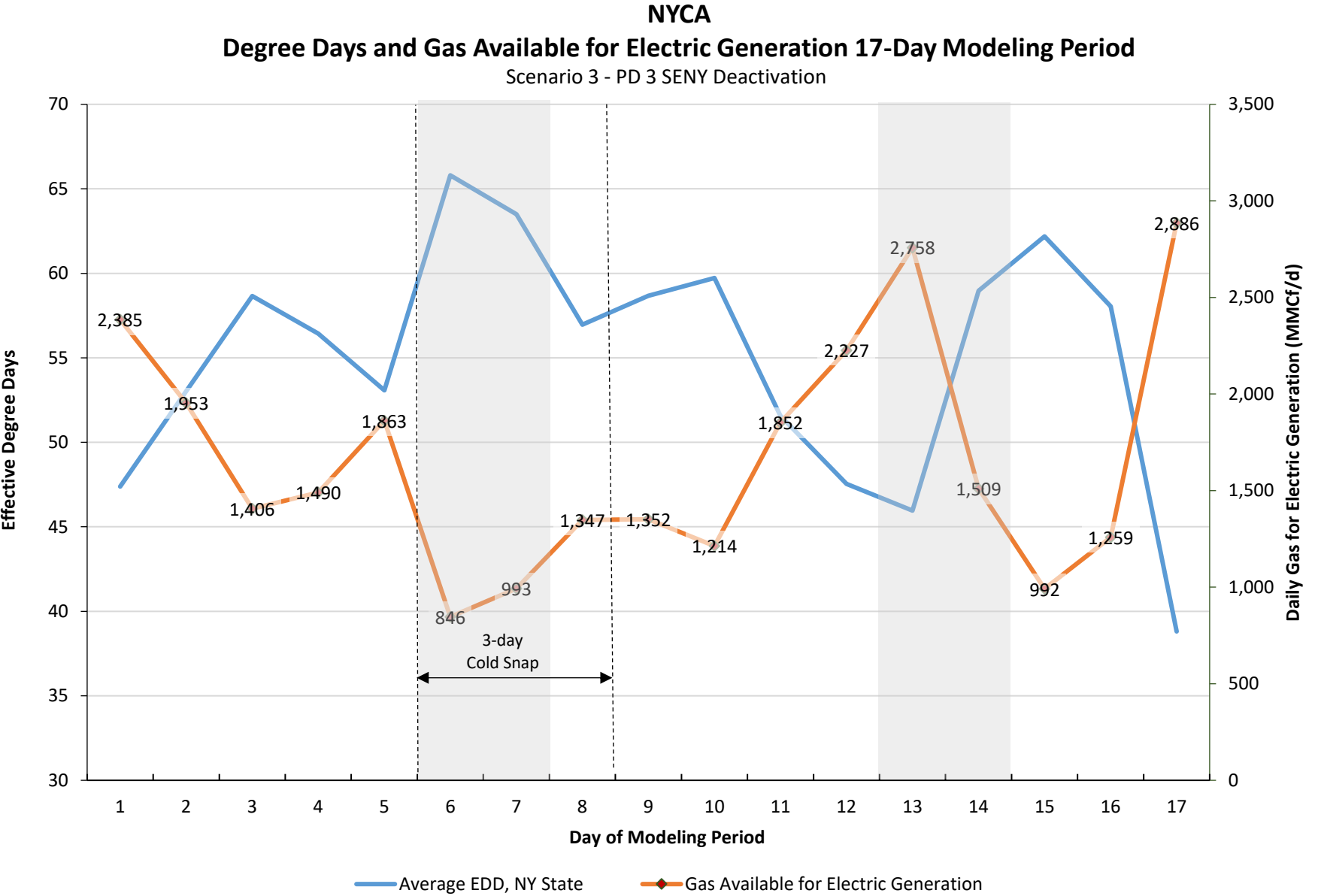




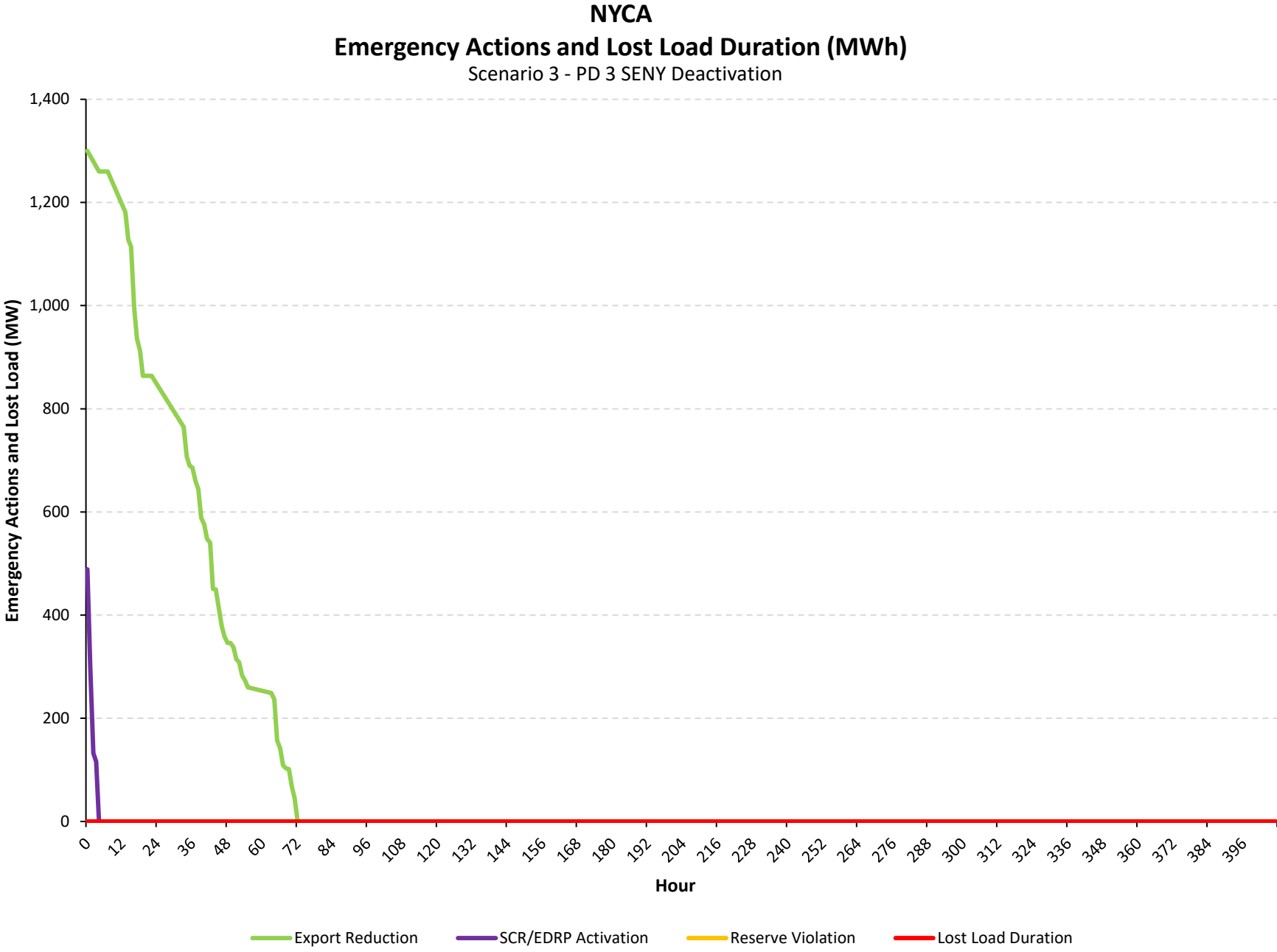
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 3 SENY Deactivation

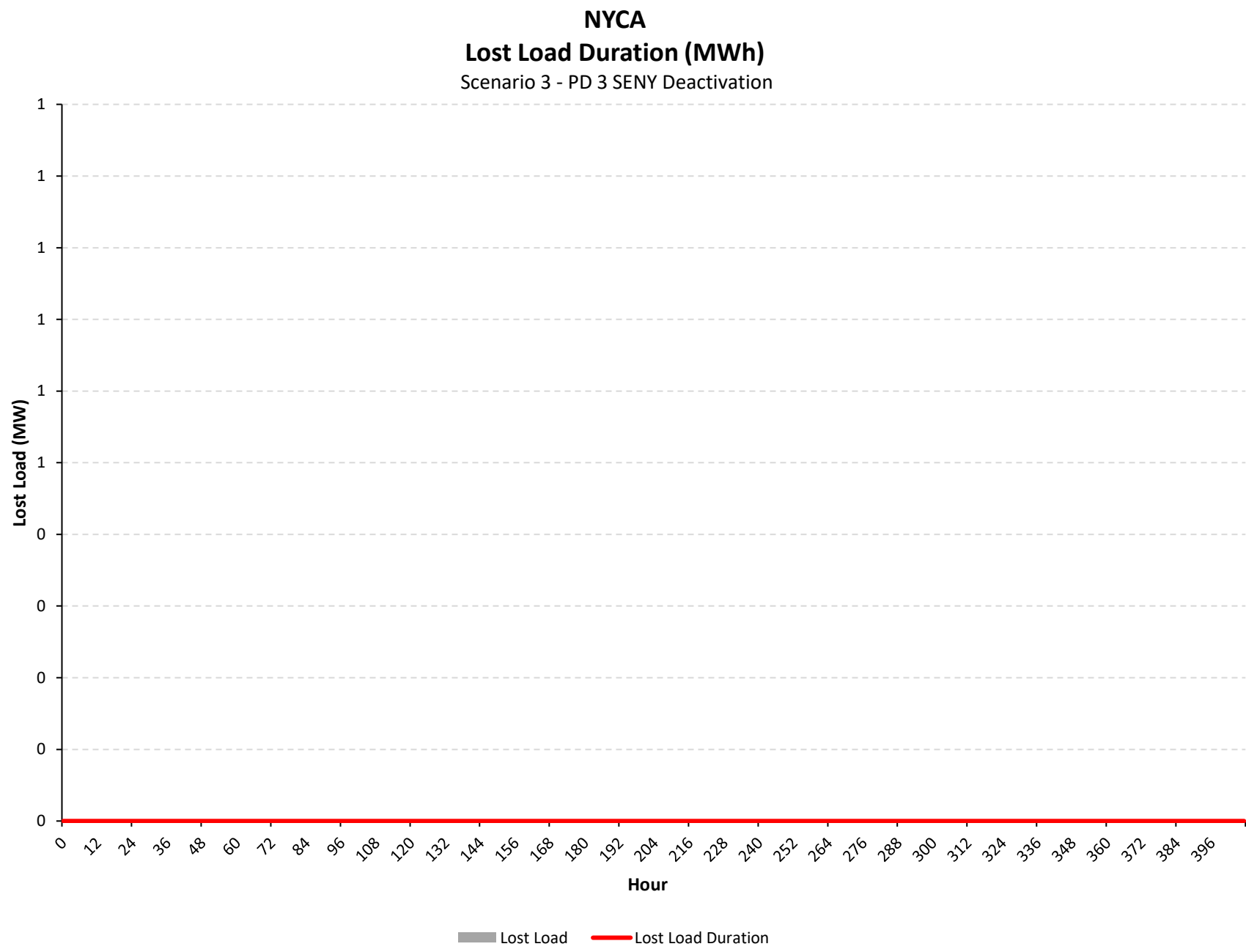






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



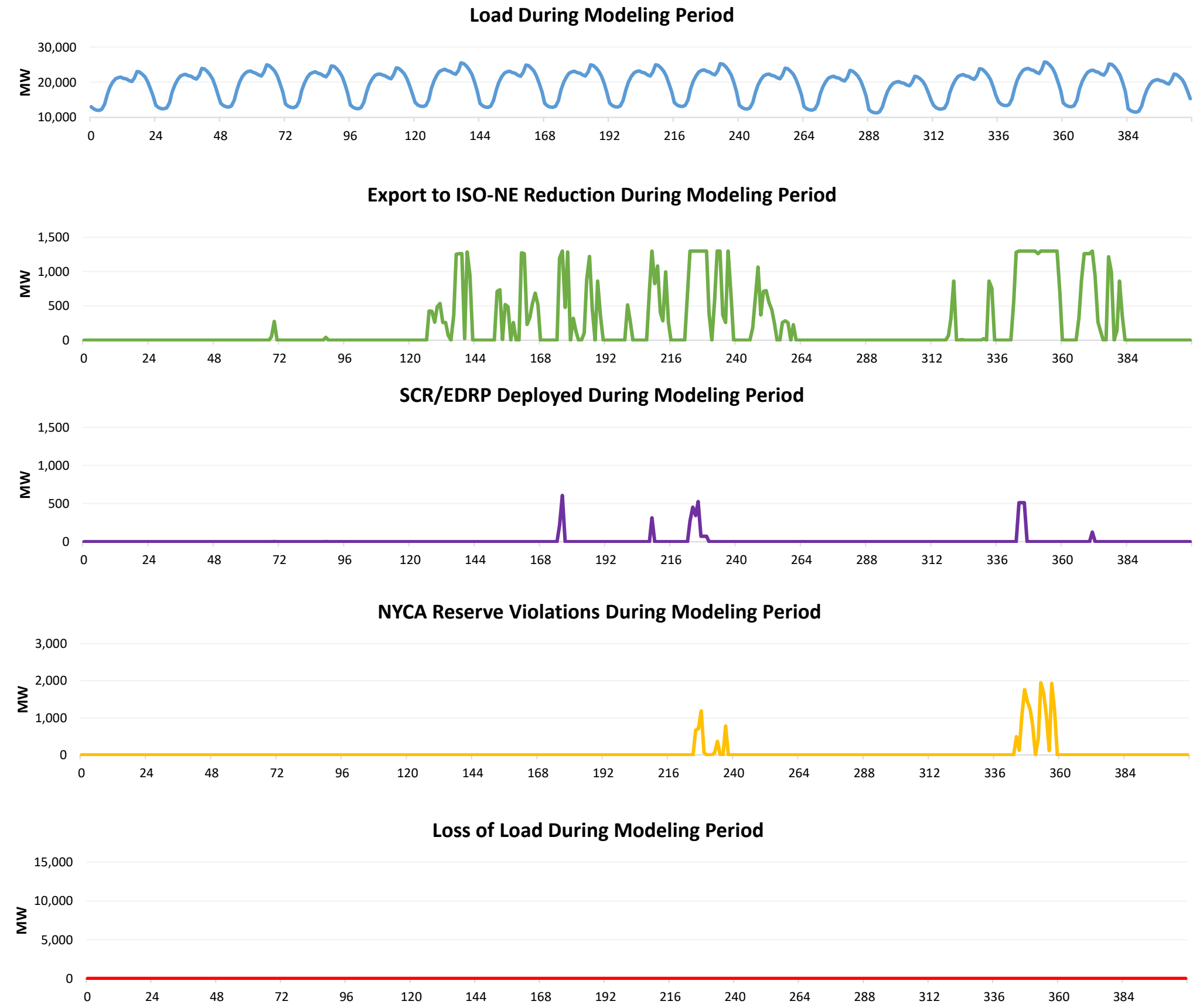


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 4 Nuclear Station Outage (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 3 - PD 4 Nuclear Station Outage



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

Export Reductions	
Total Hrs.	121
Total MWh	90,232
Avg. MW	221.2

SCR Deployment	
Total Hrs.	14
Total MWh	4,604
Avg. MW	11.3

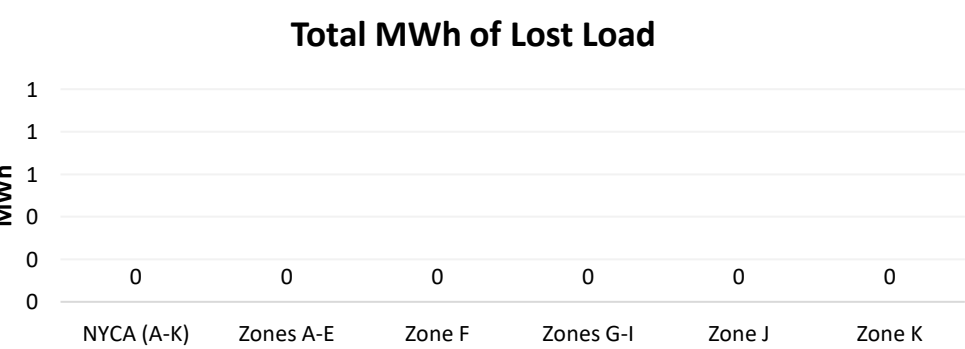
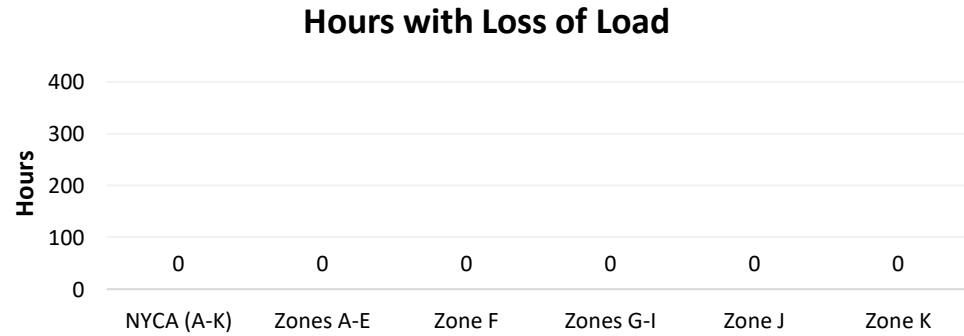
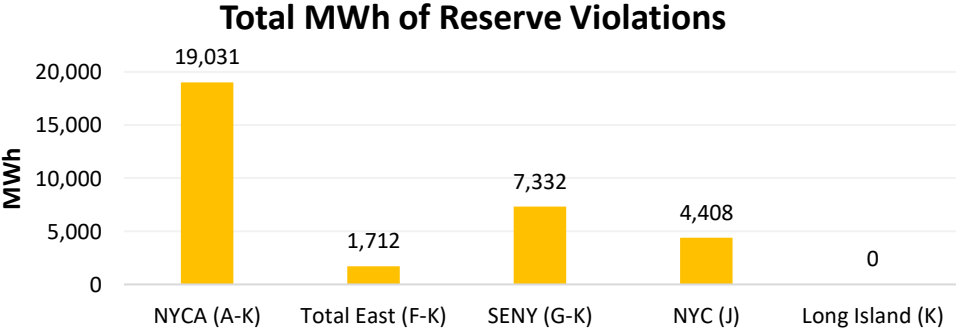
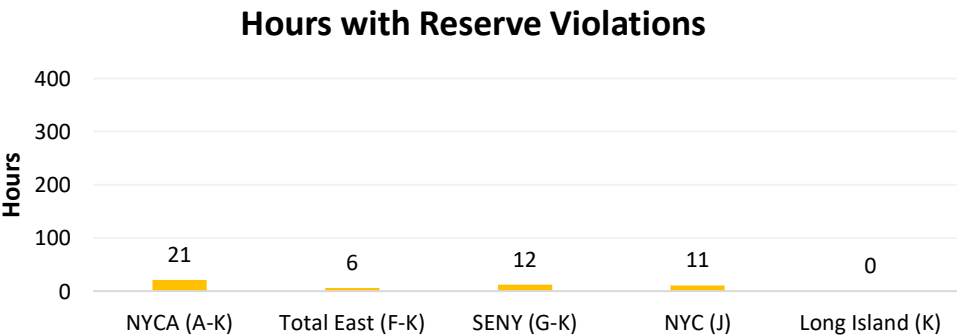
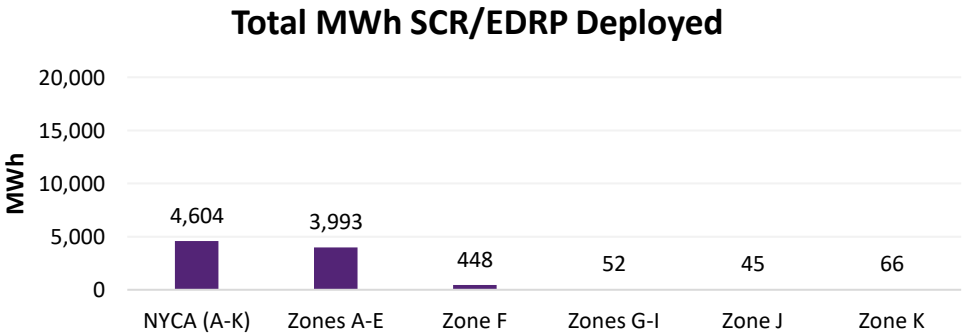
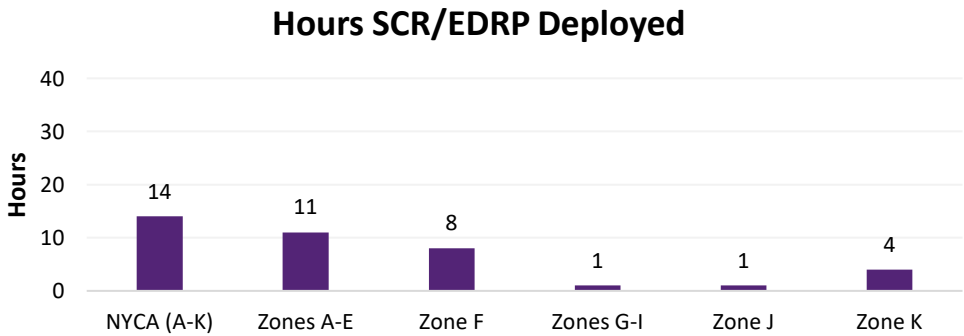
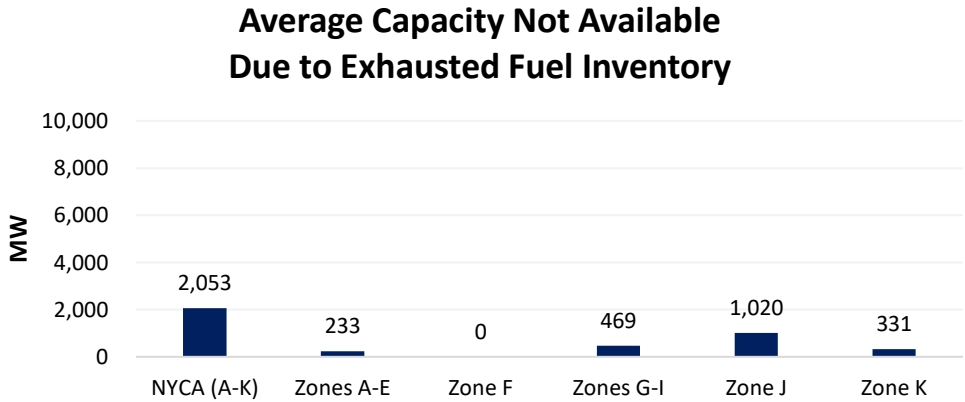
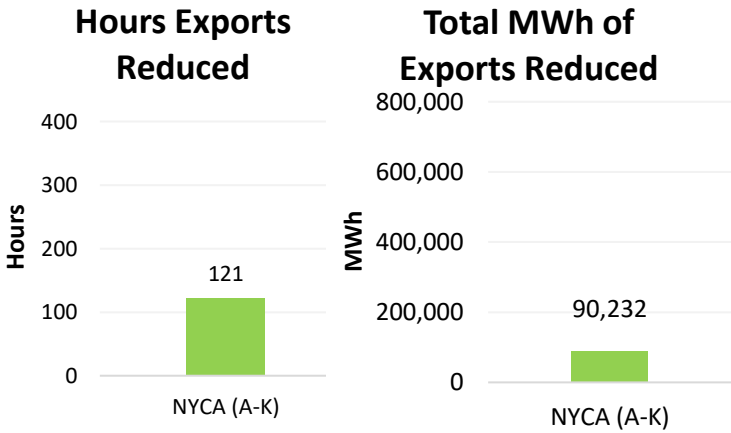
Reserve Violations	
Total Hrs.	21
Total MWh	19,031
Avg. MW	46.6
First Hour with Viol.	224

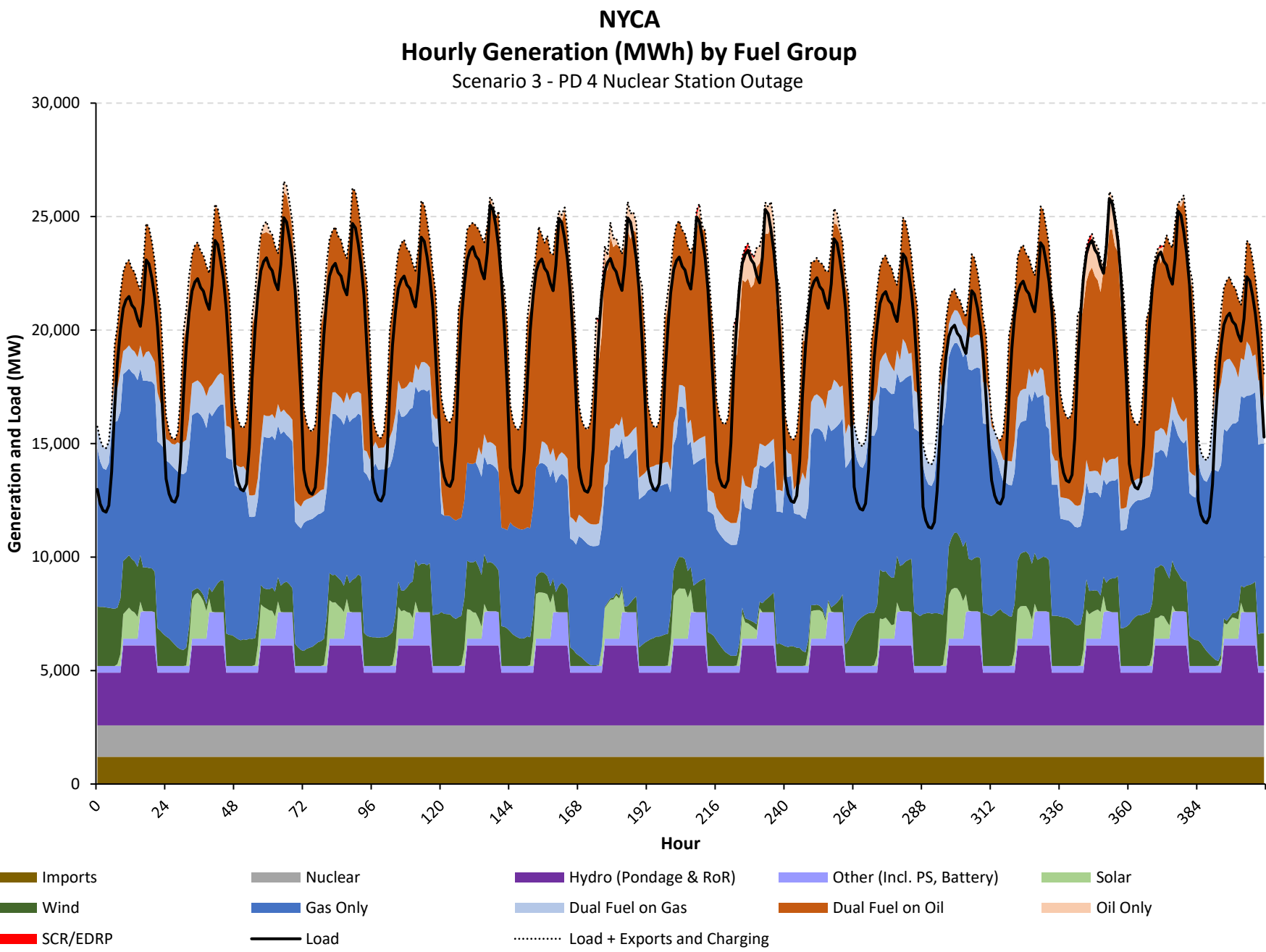
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

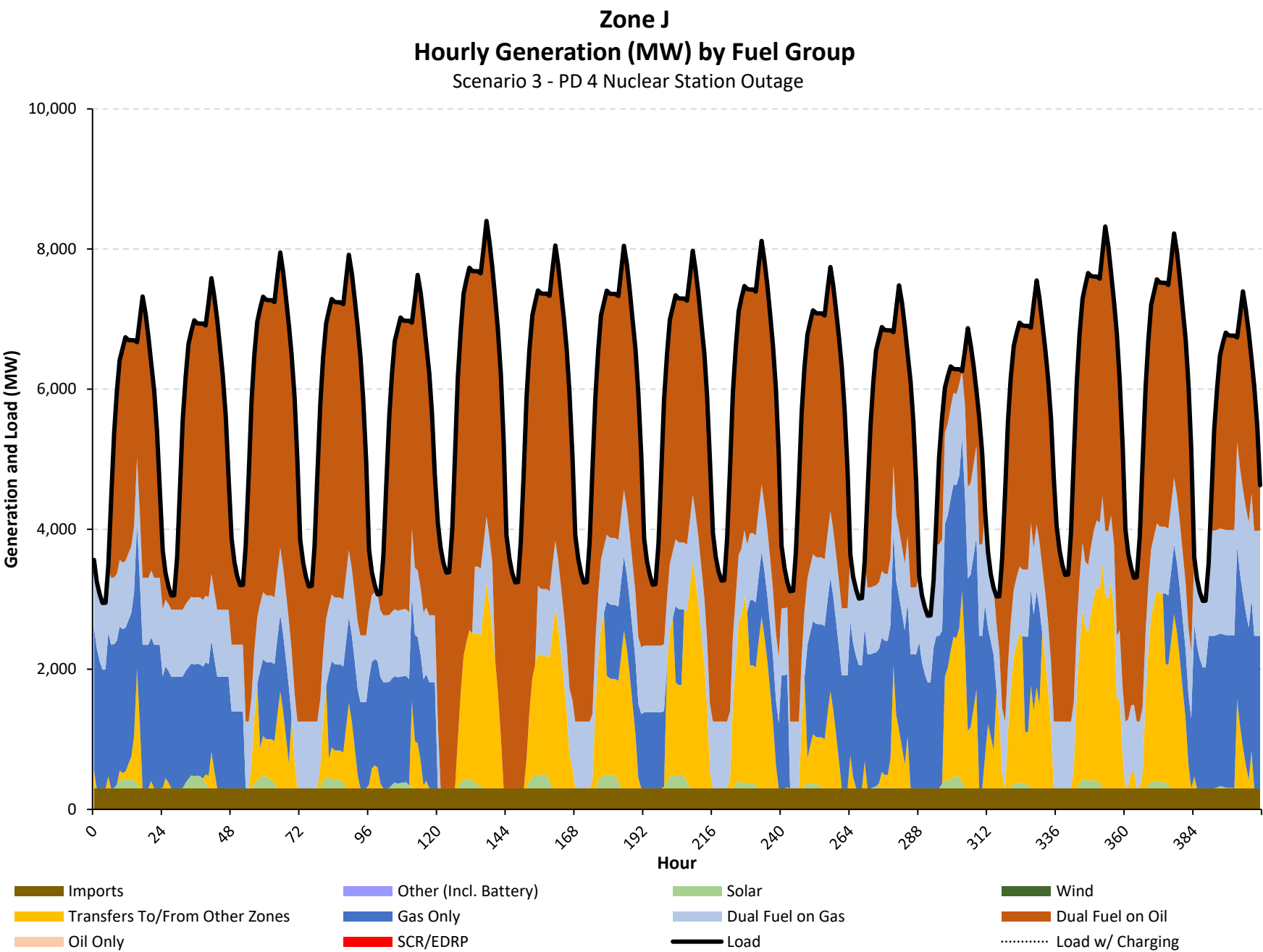
Full Period Results Summary

Case Name: Scenario 3 - PD 4 Nuclear Station Outage

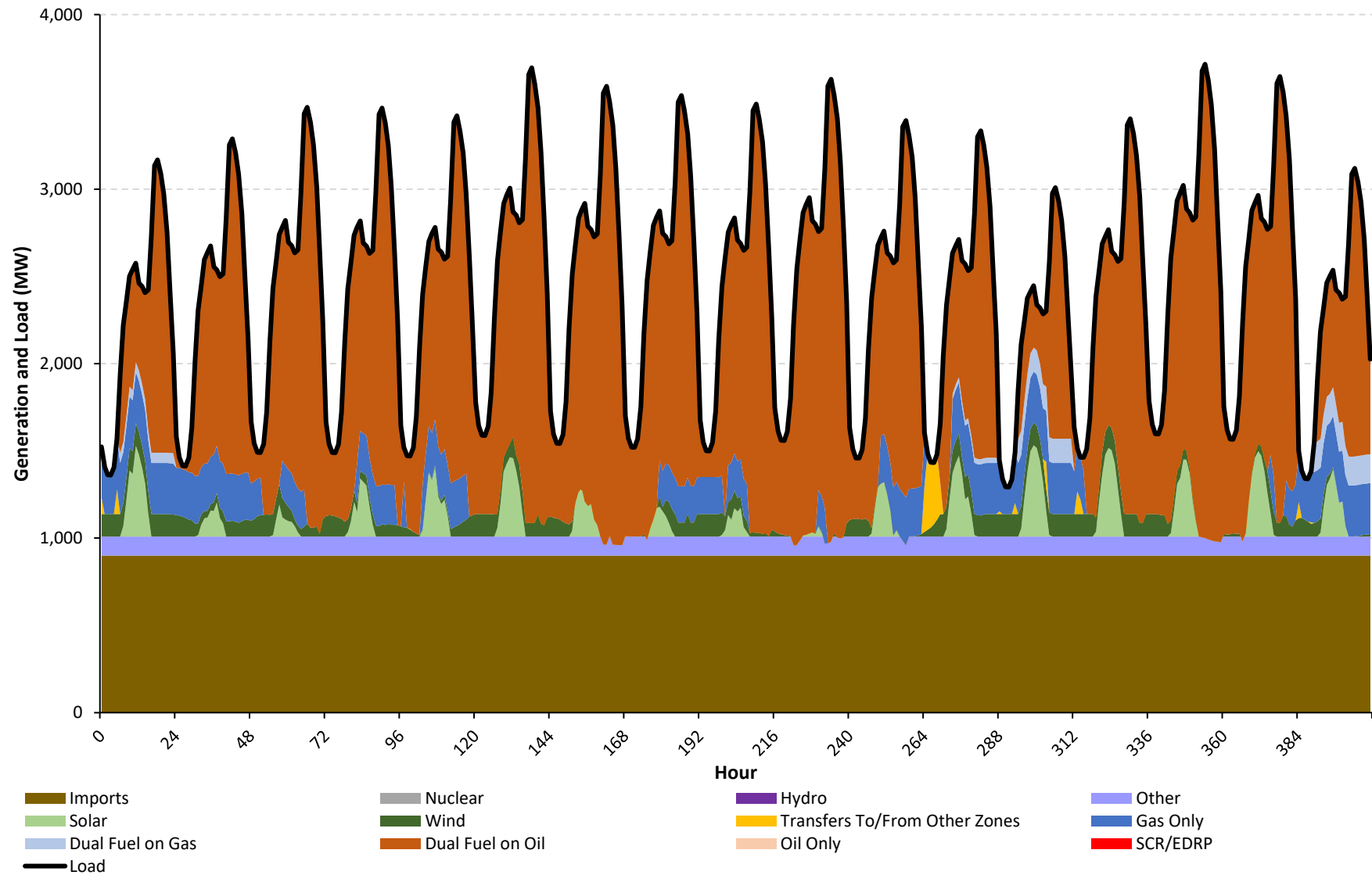
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	High
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	All



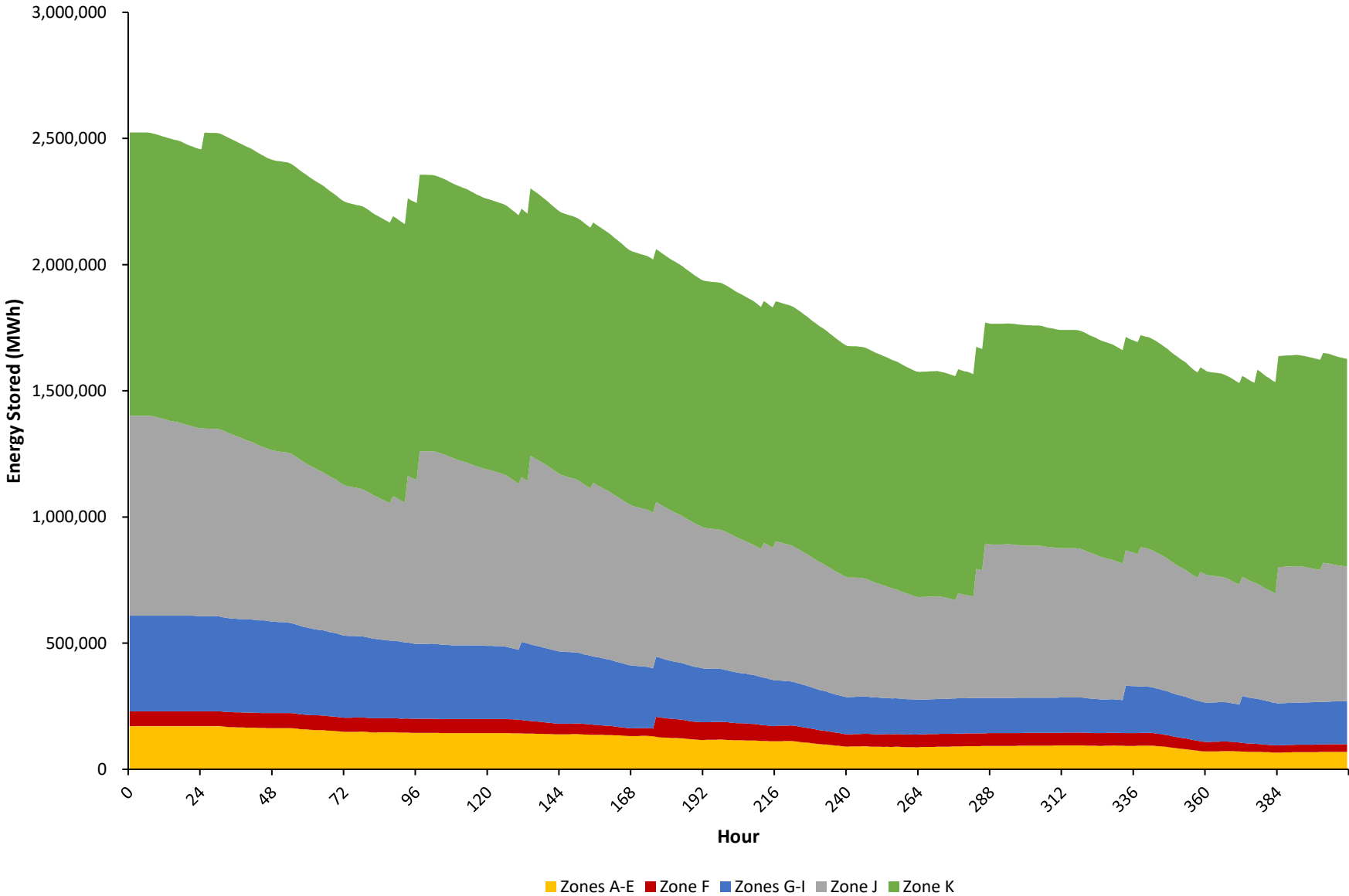


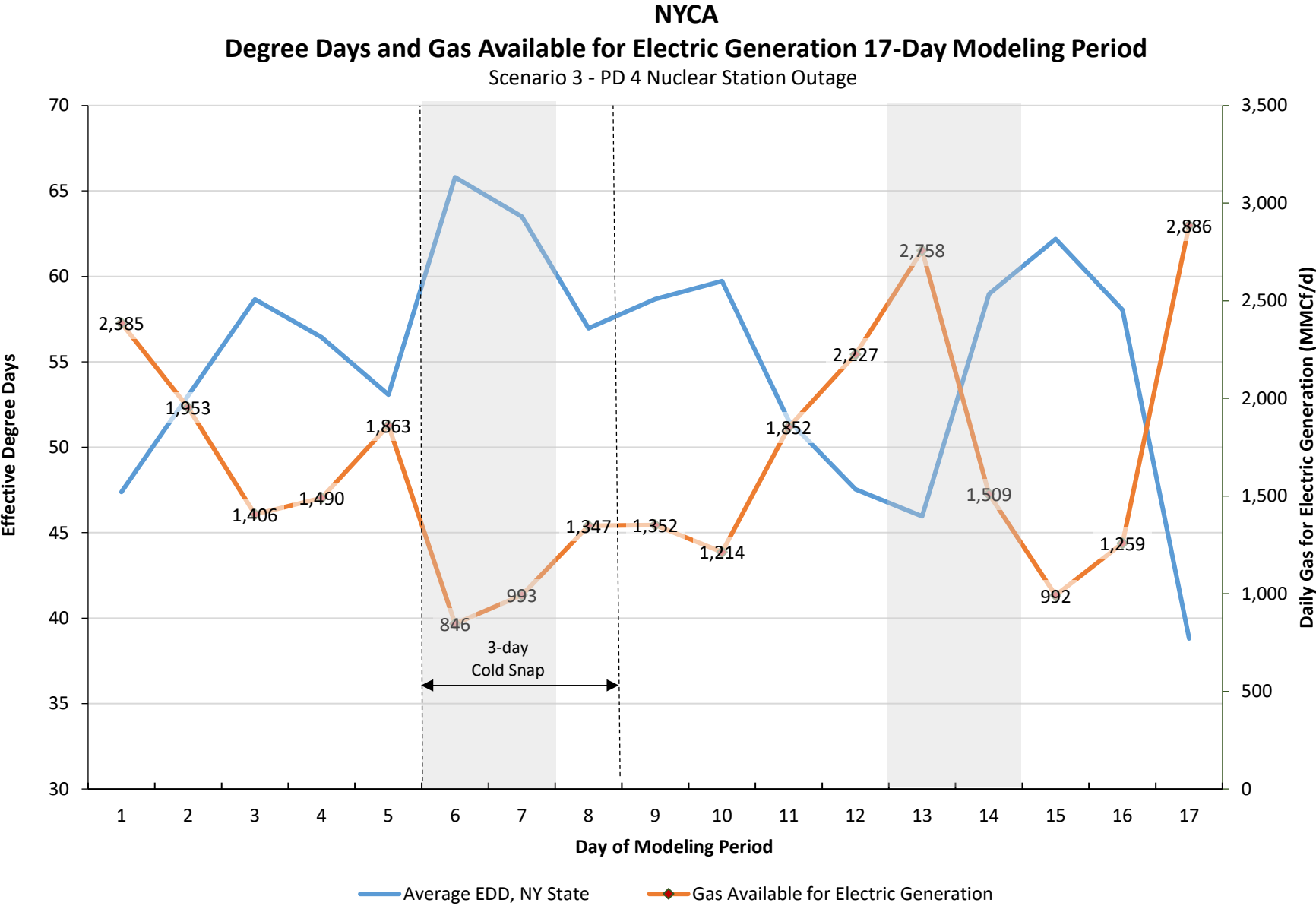


Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 4 Nuclear Station Outage

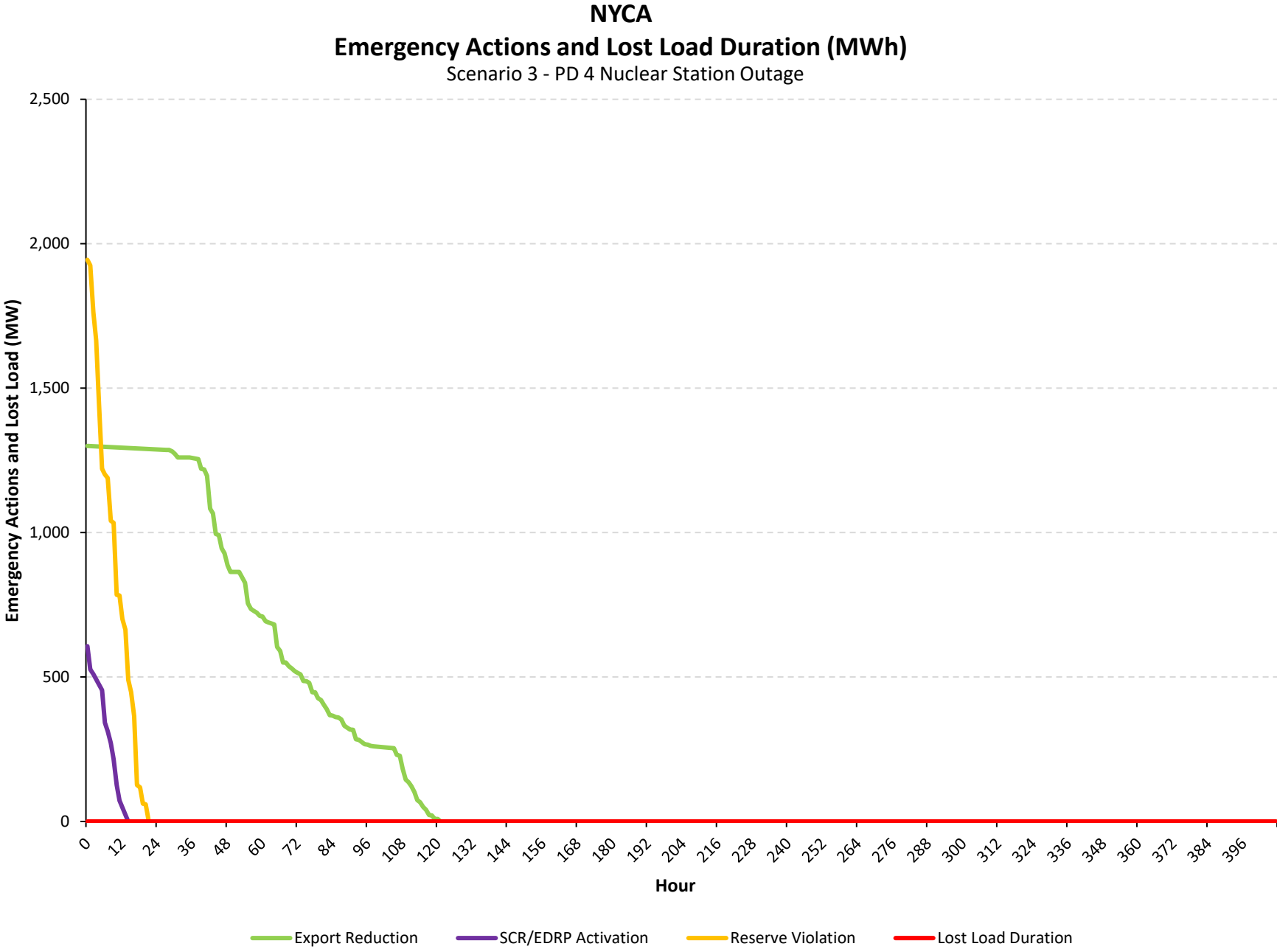


NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 3 - PD 4 Nuclear Station Outage





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



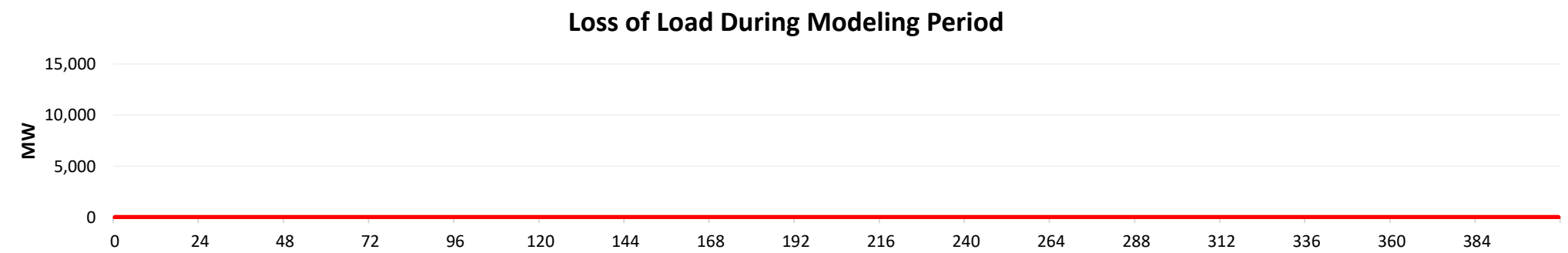
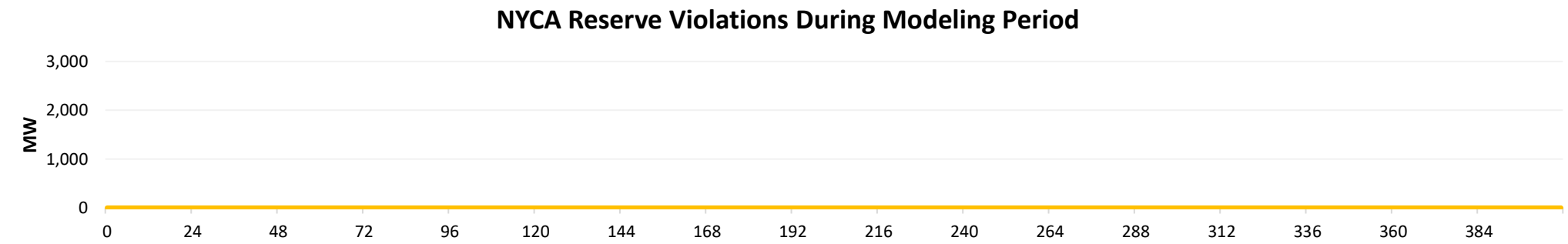
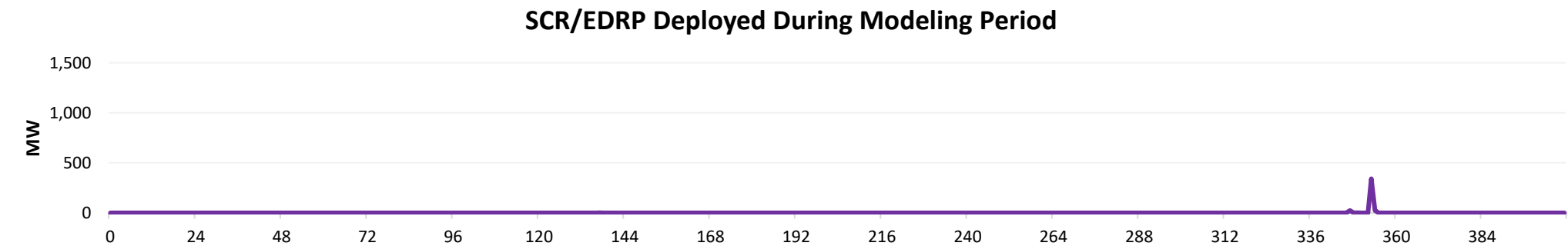
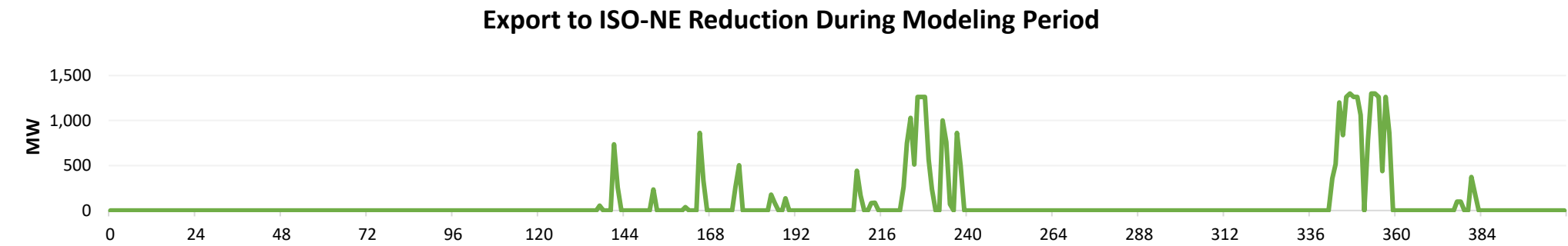
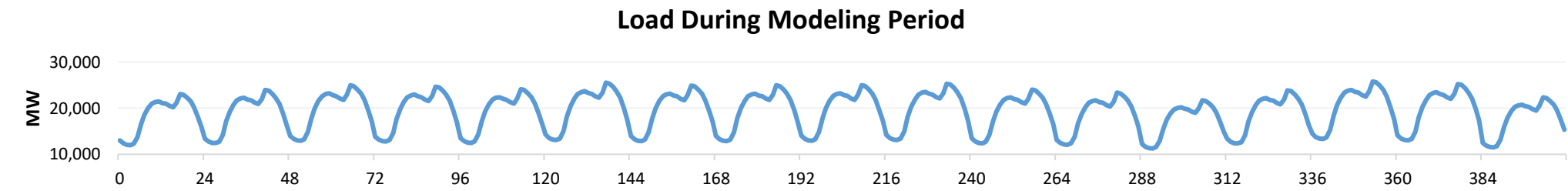


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 5 No Truck Refill (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 3 - PD 5 No Truck Refill



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

Export Reductions	
Total Hrs.	50
Total MWh	31,793
Avg. MW	77.9

SCR Deployment	
Total Hrs.	3
Total MWh	387
Avg. MW	0.9

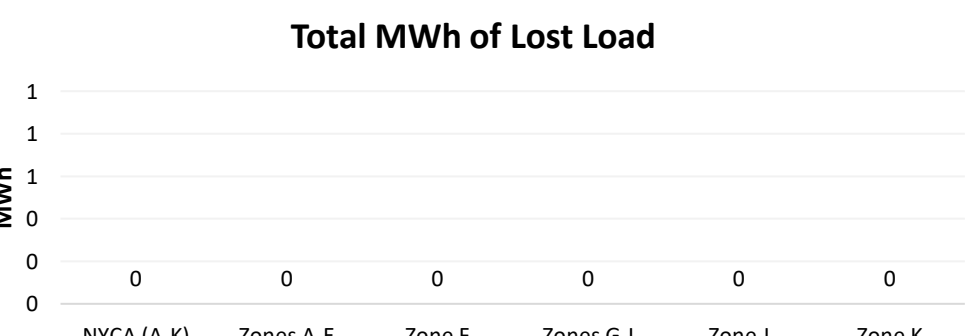
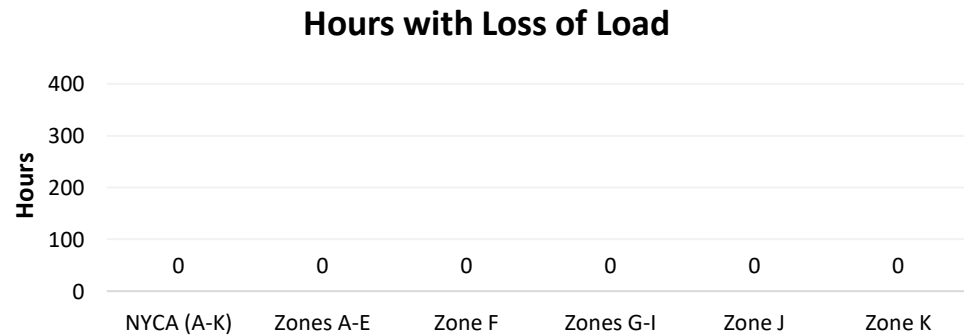
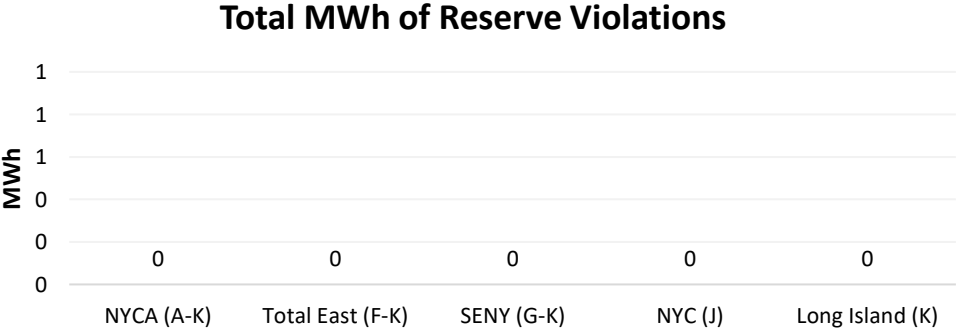
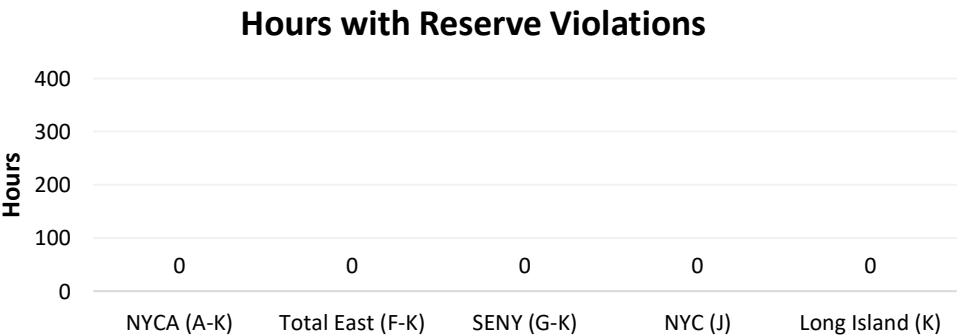
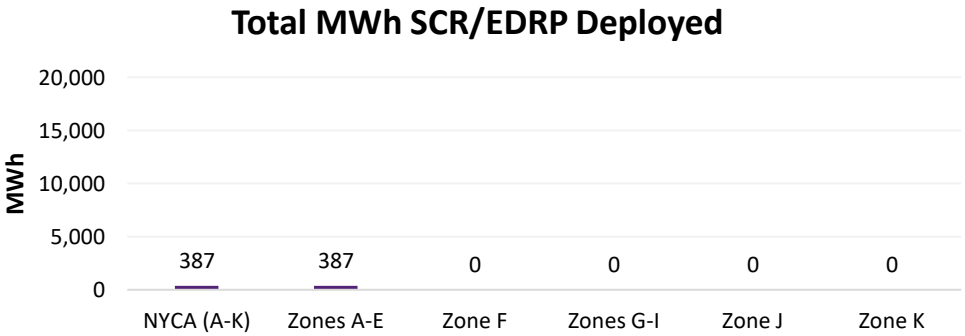
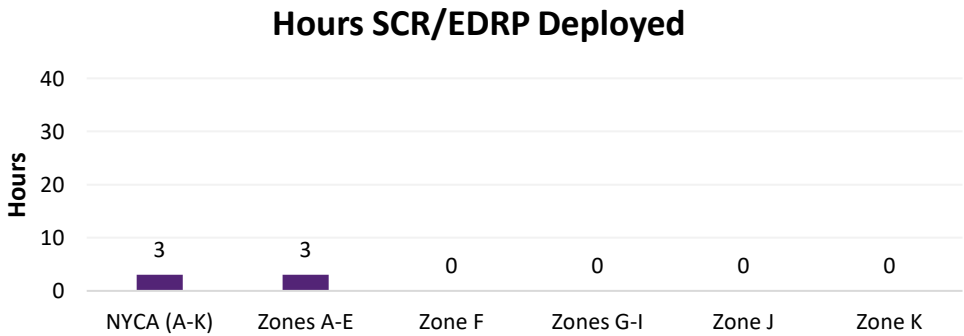
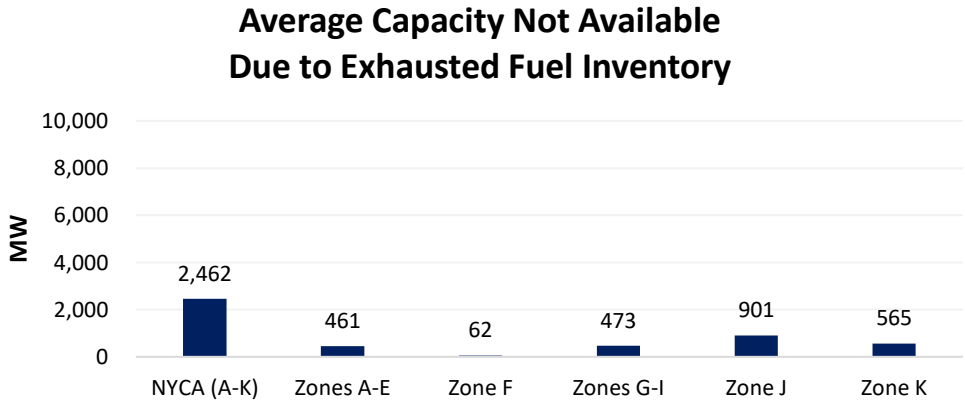
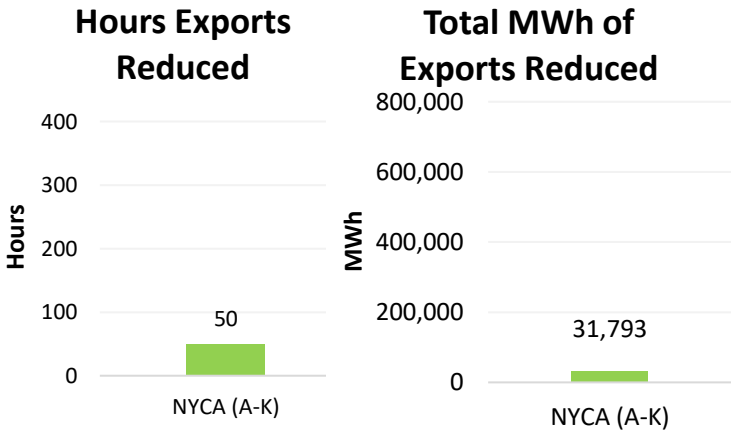
Reserve Violations	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Viol.	

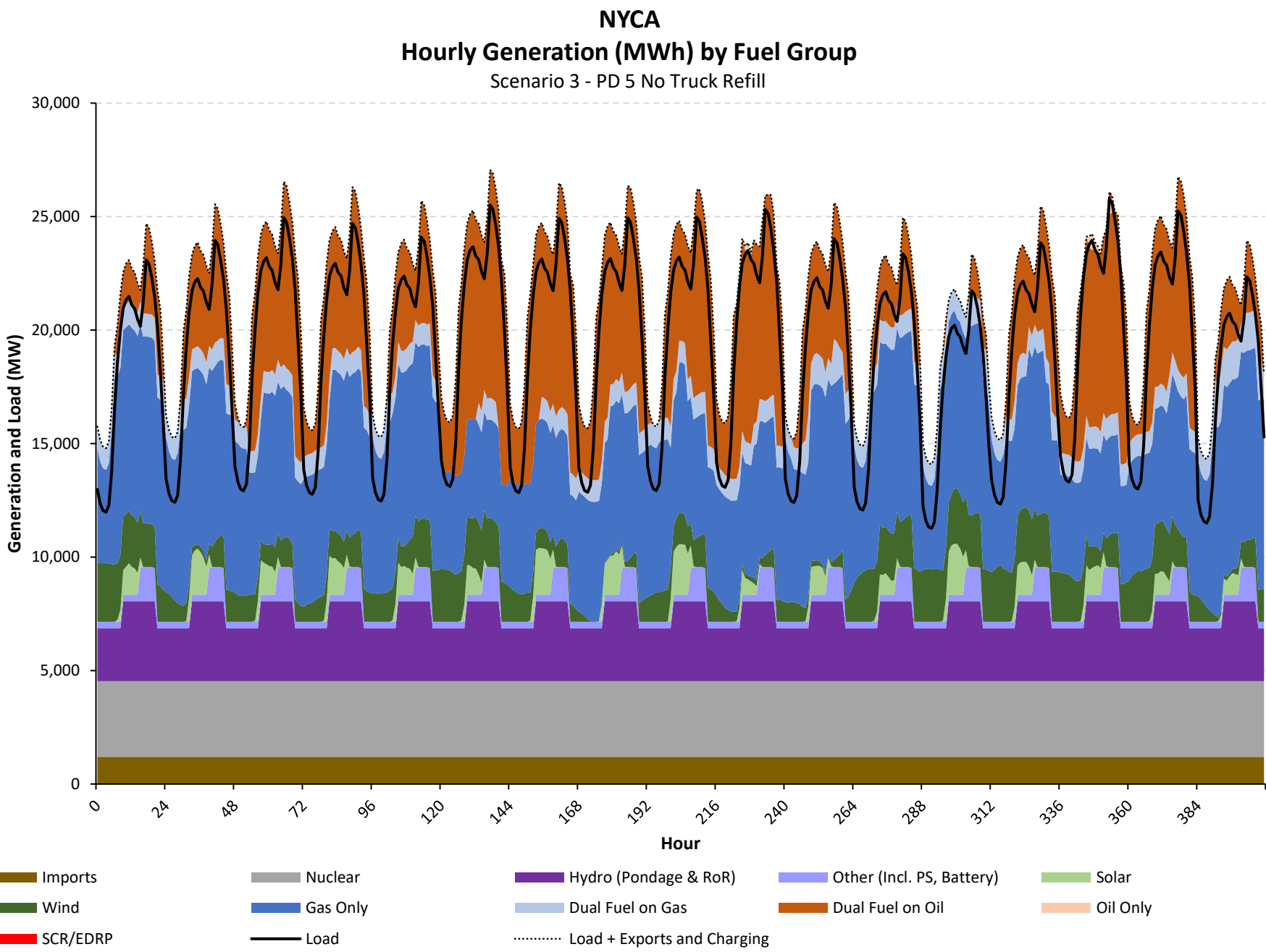
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

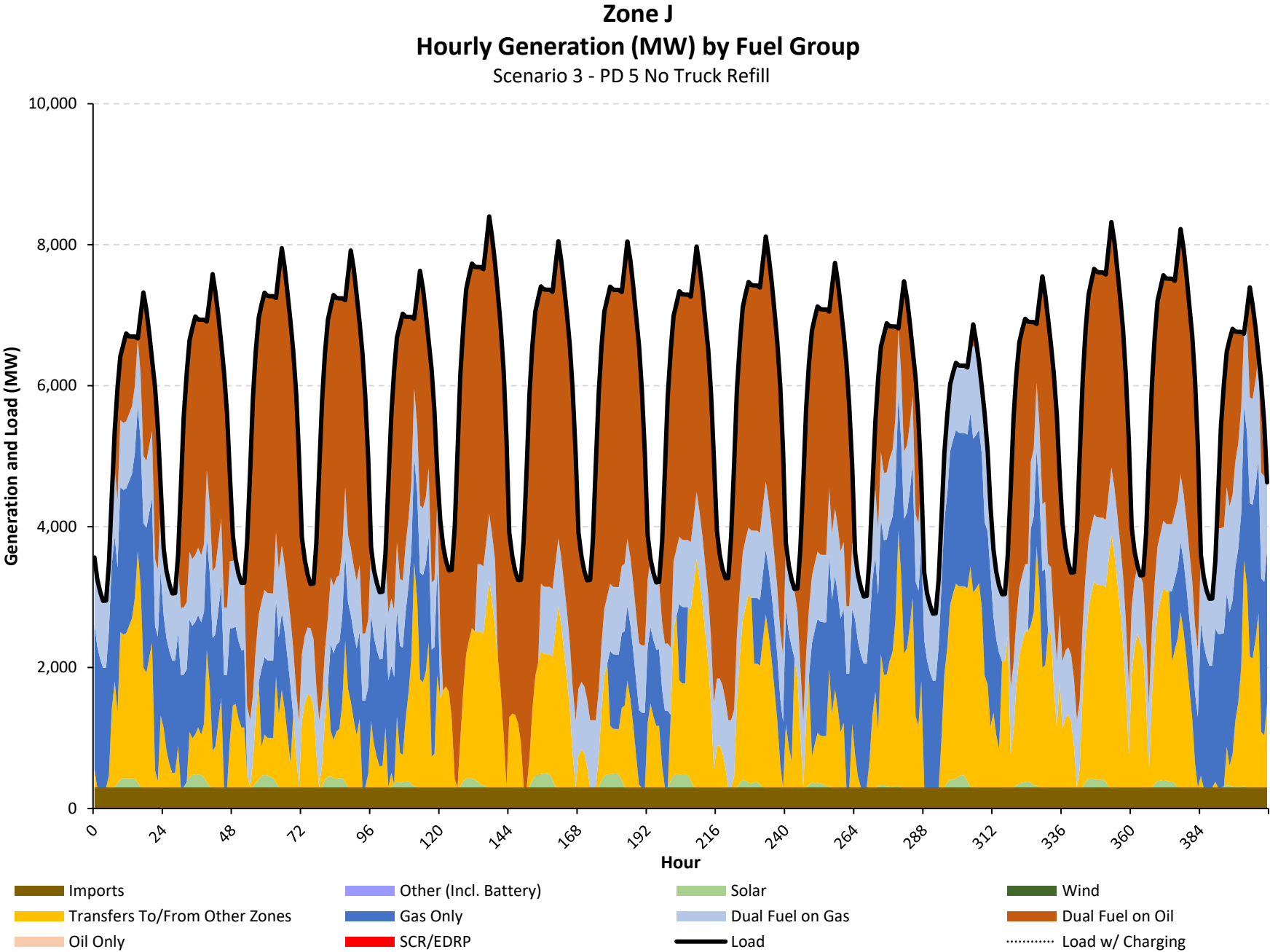
Full Period Results Summary

Case Name: Scenario 3 - PD 5 No Truck Refill

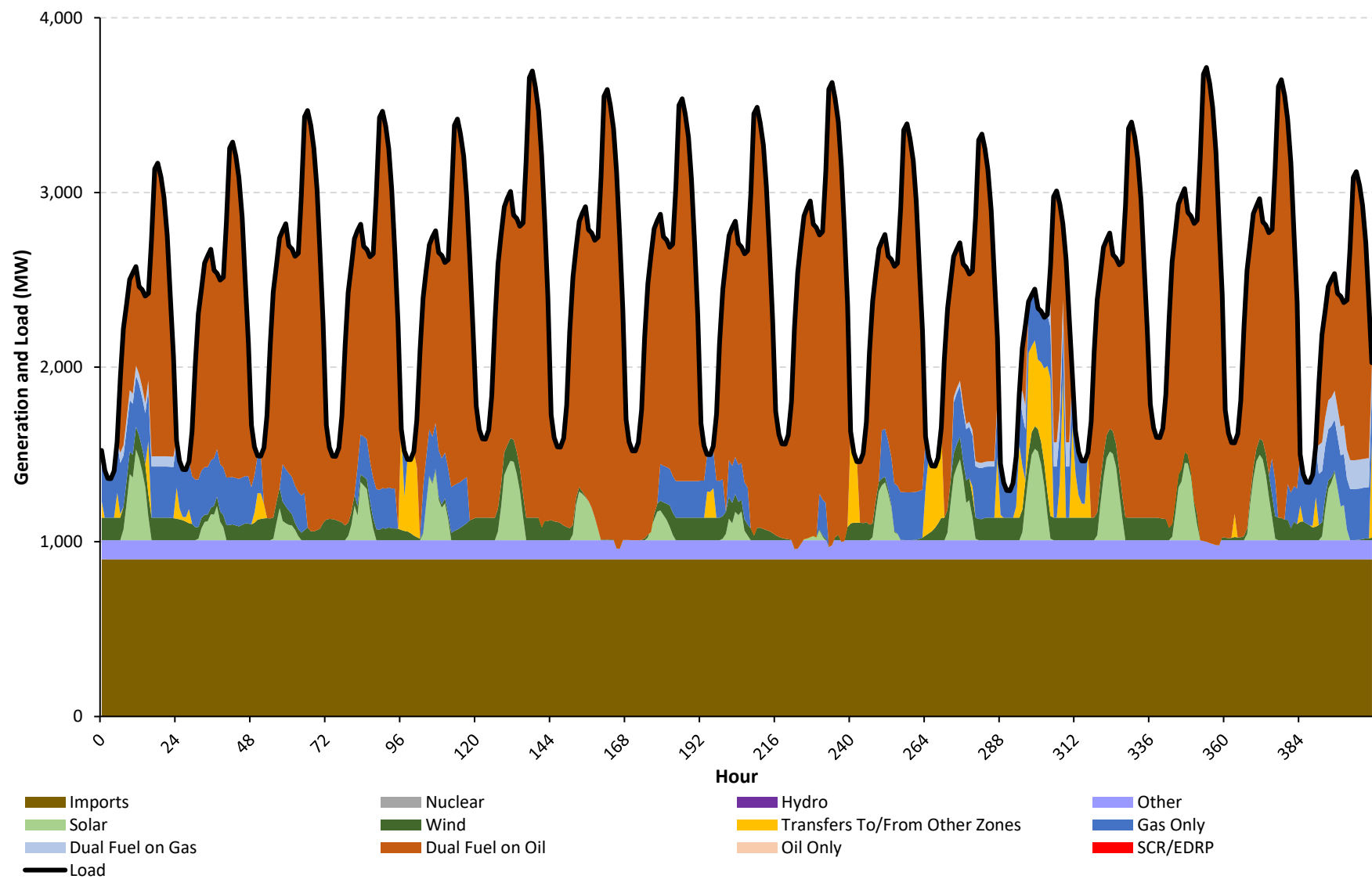
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	High
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All



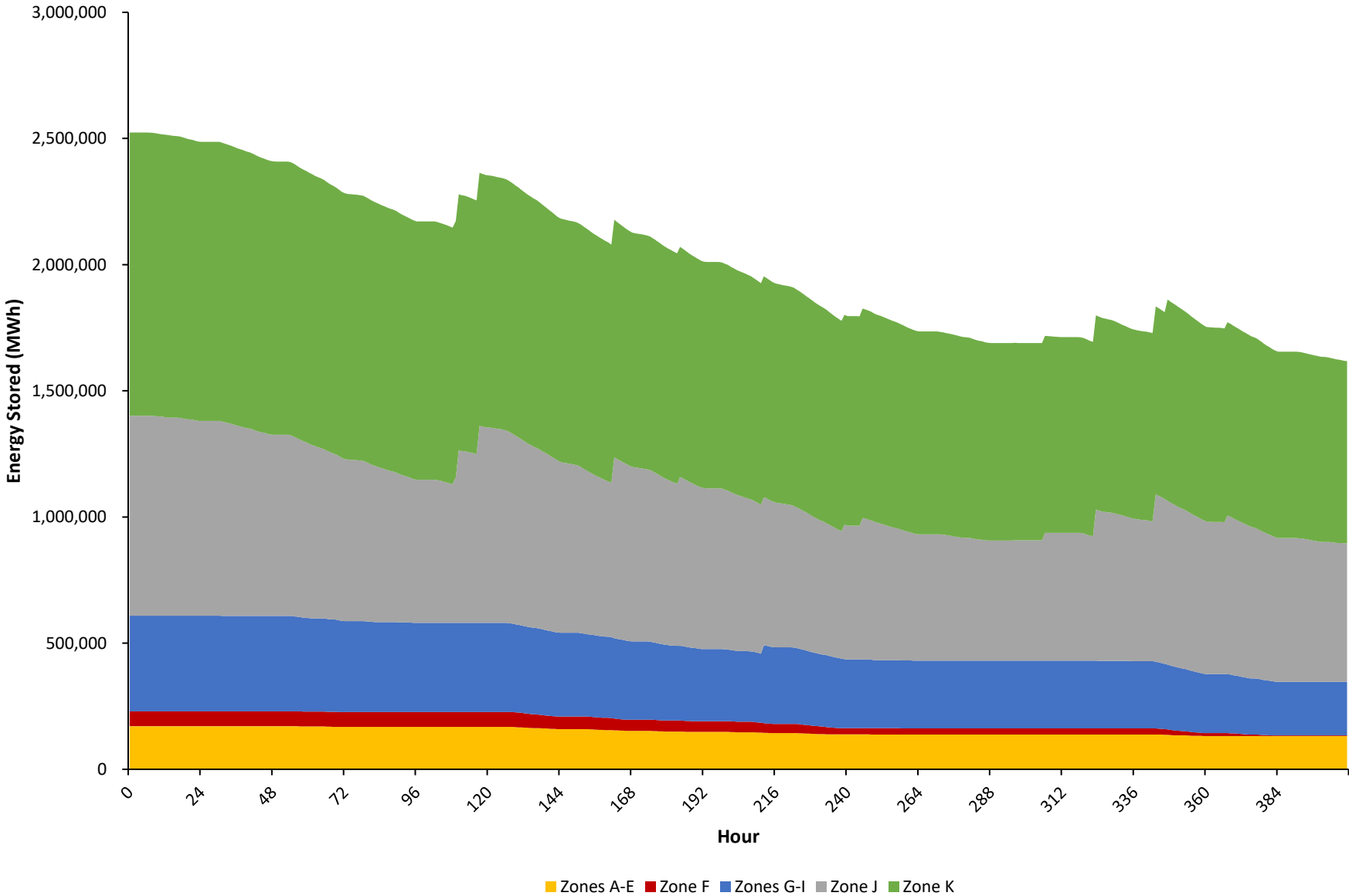




Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 5 No Truck Refill

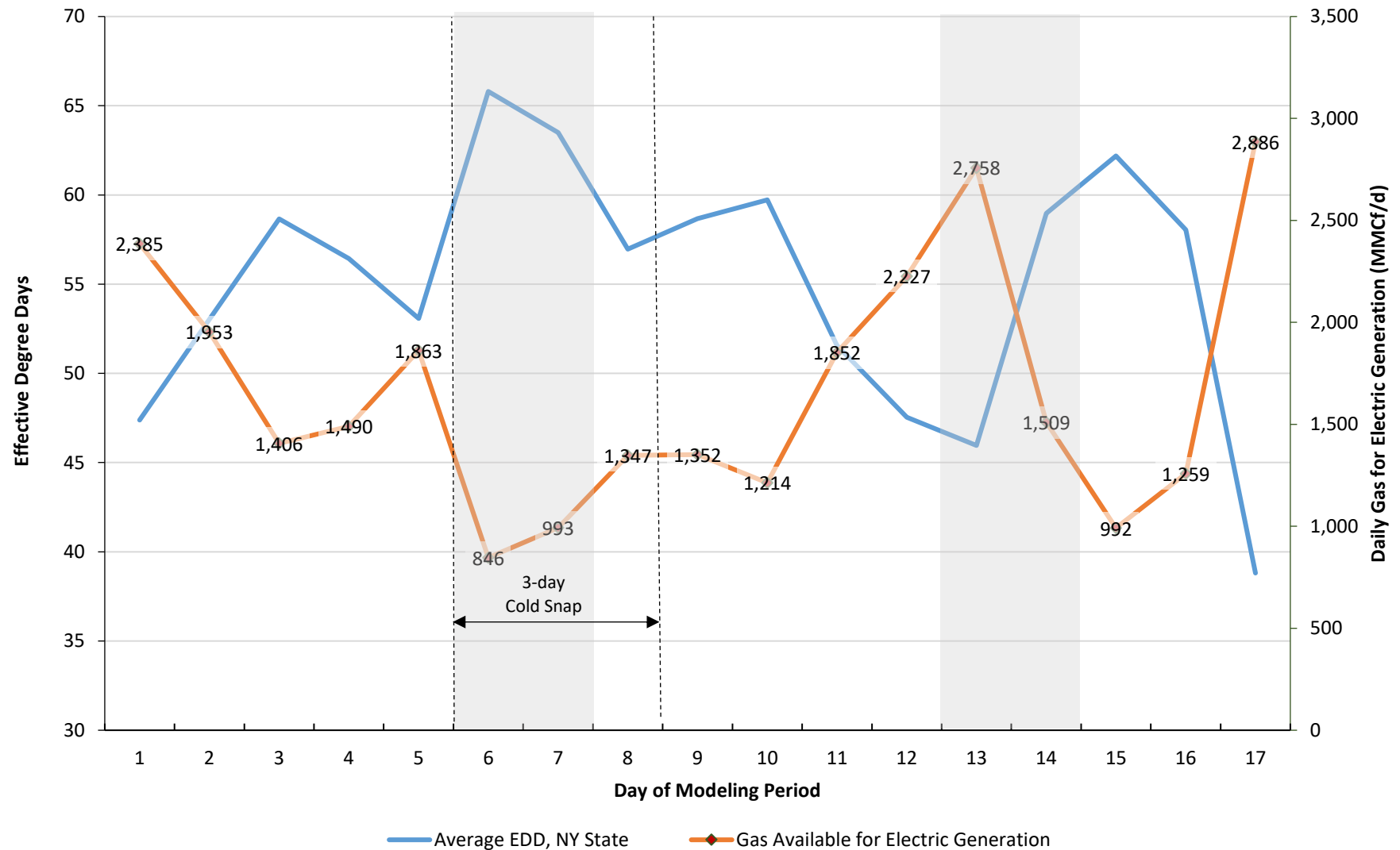


NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 3 - PD 5 No Truck Refill



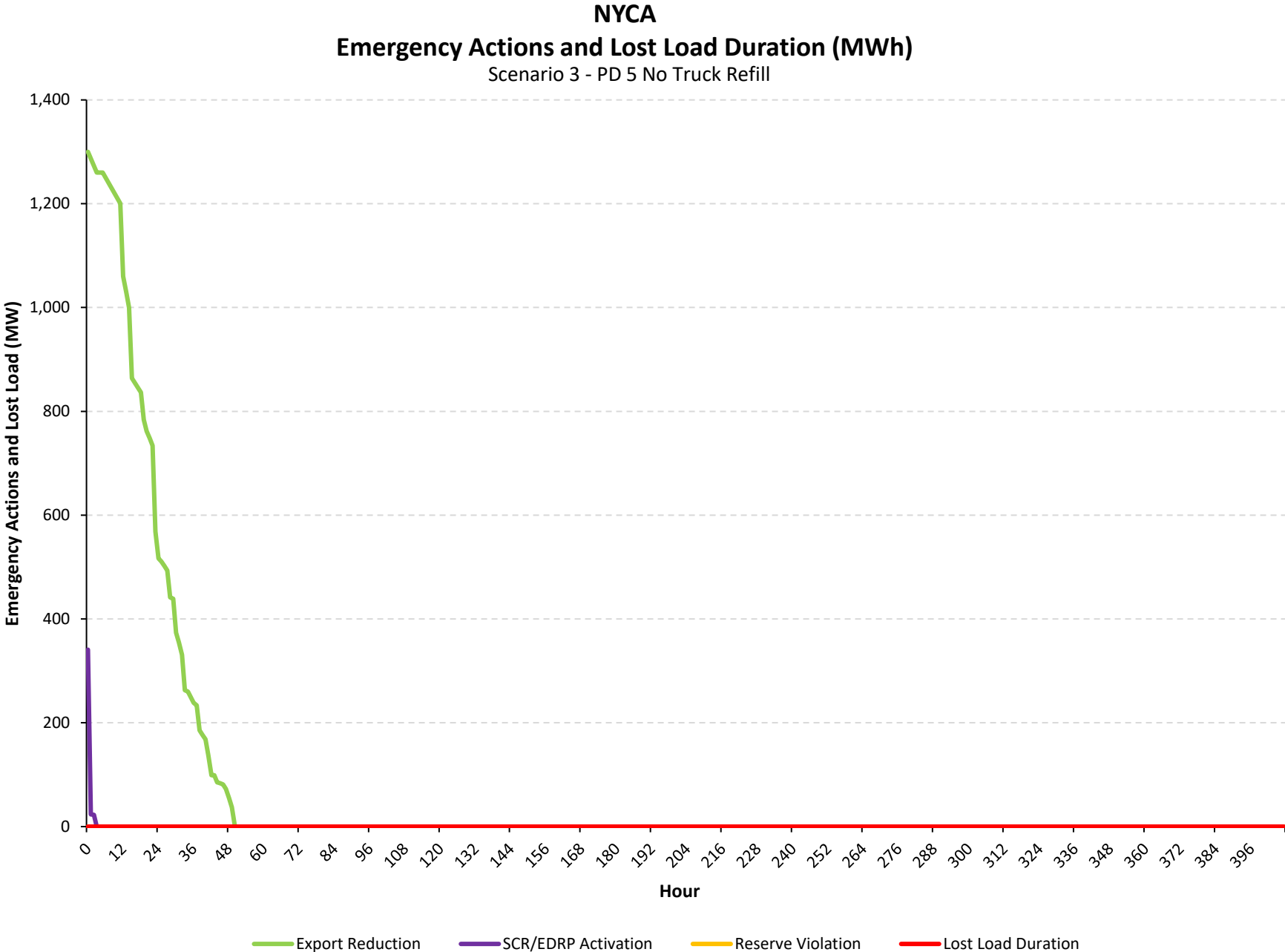
NYCA **Degree Days and Gas Available for Electric Generation 17-Day Modeling Period**

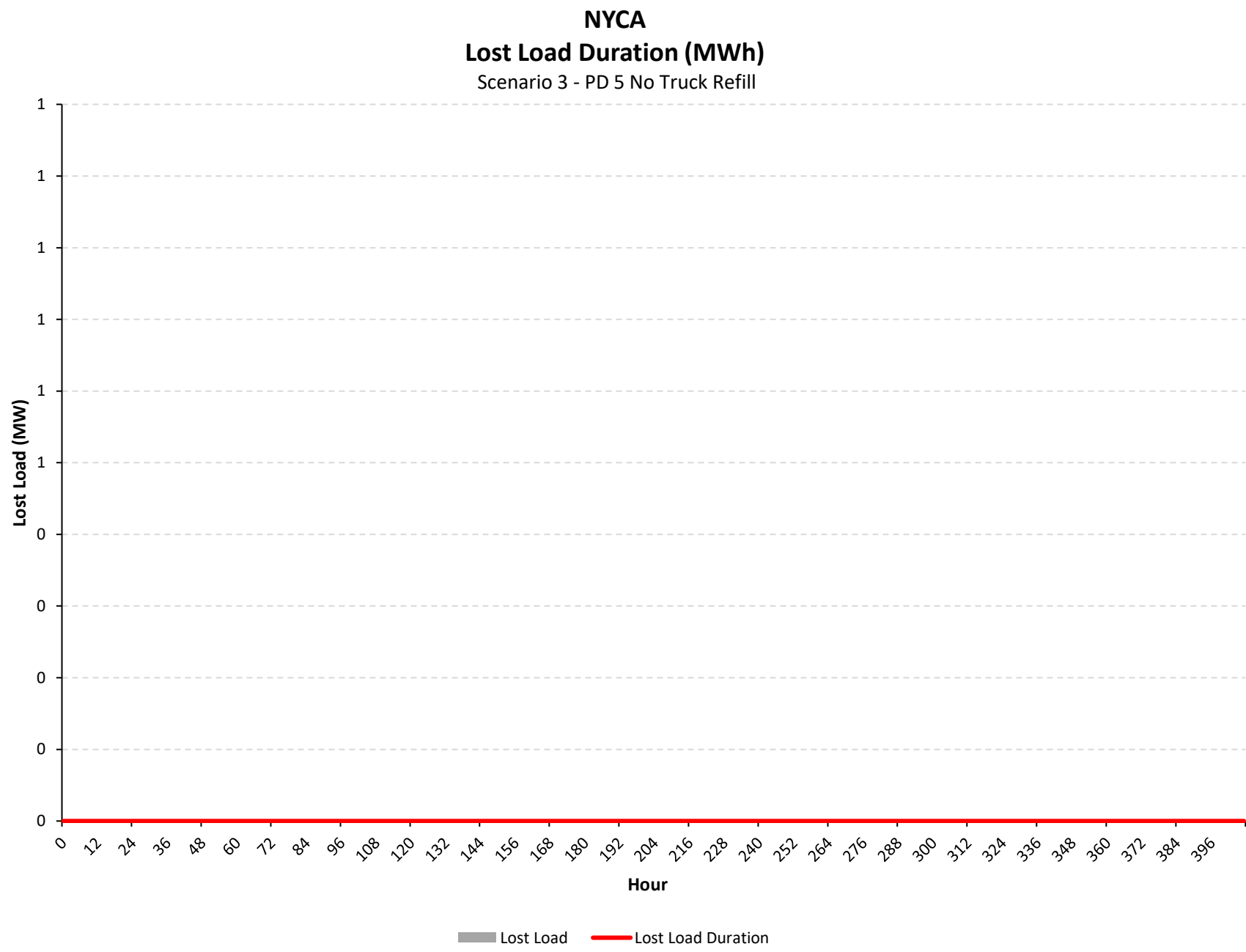
Scenario 3 - PD 5 No Truck Refill



Notes:

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



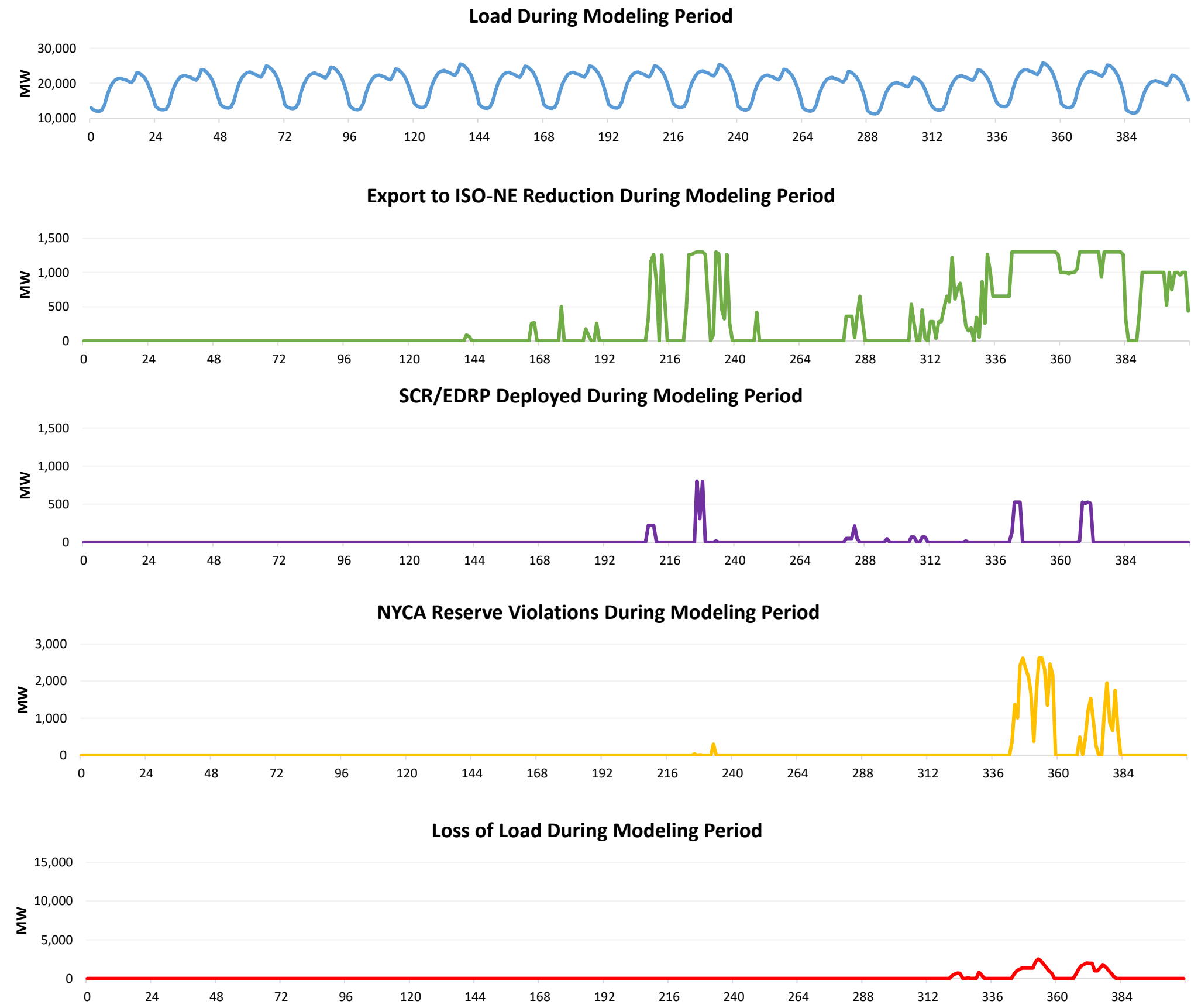


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 6 No Barge Refill (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 3 - PD 6 No Barge Refill



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

Export Reductions	
Total Hrs.	134
Total MWh	111,643
Avg. MW	273.6

SCR Deployment	
Total Hrs.	28
Total MWh	7,150
Avg. MW	17.5

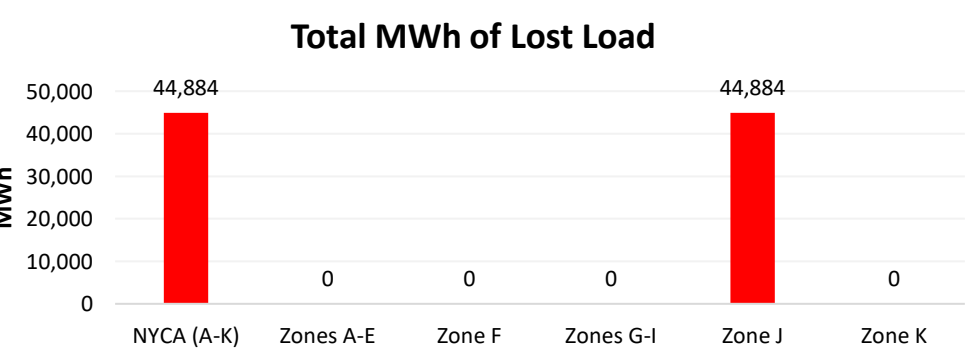
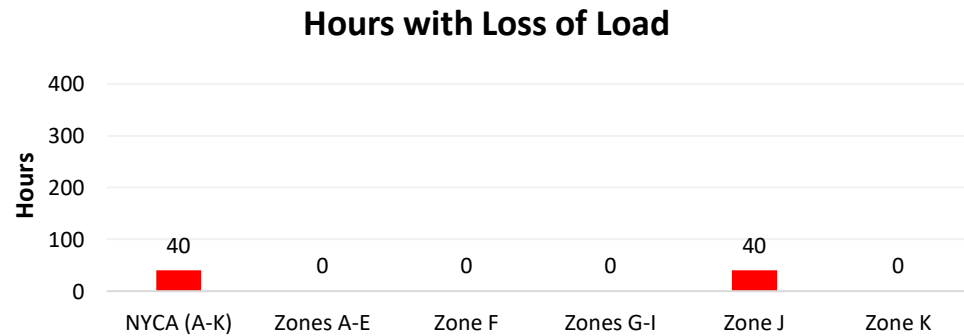
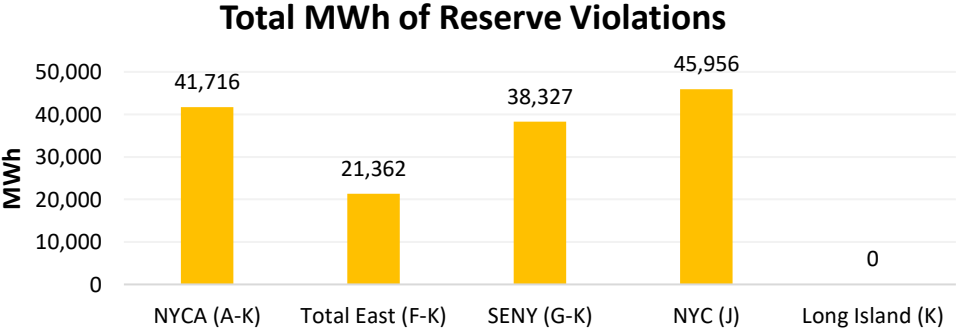
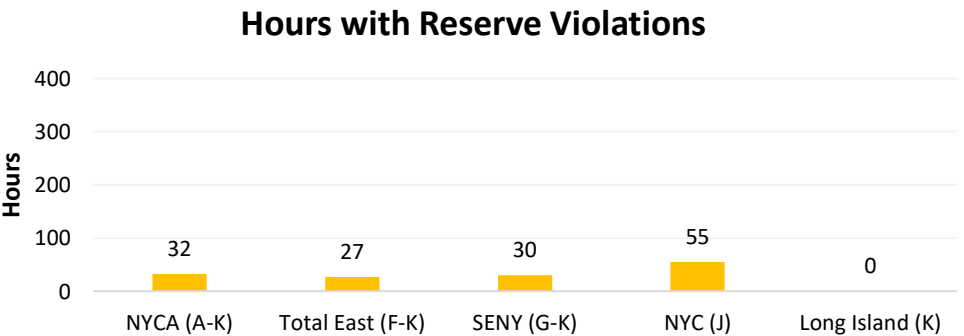
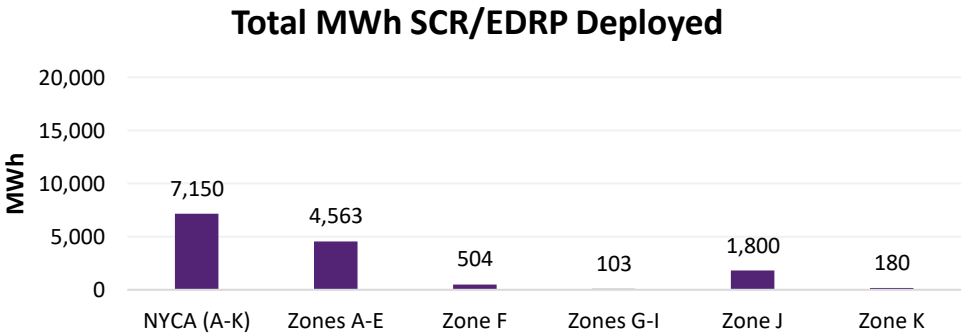
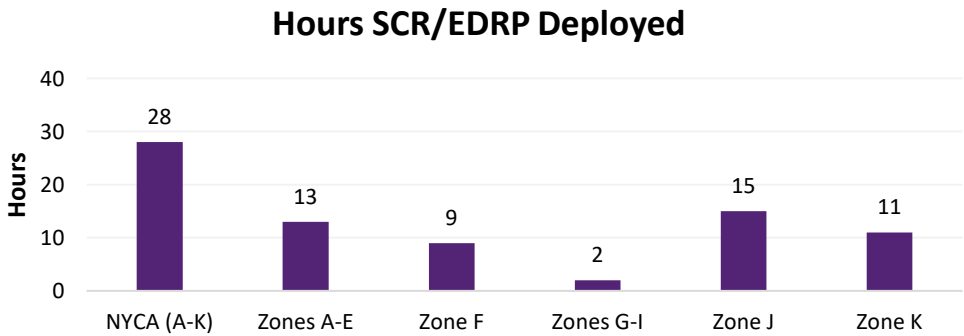
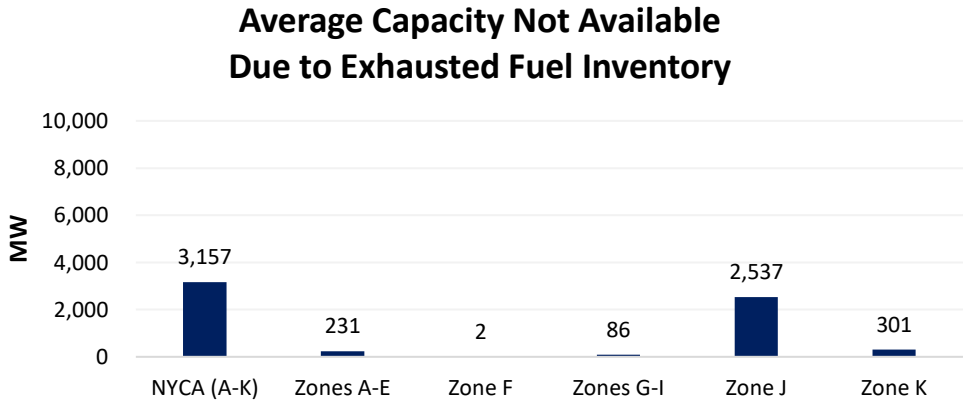
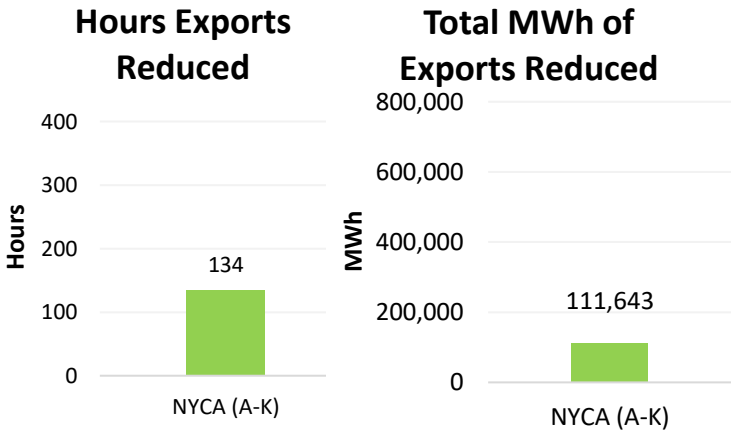
Reserve Violations	
Total Hrs.	32
Total MWh	41,716
Avg. MW	102.2
First Hour with Viol.	208

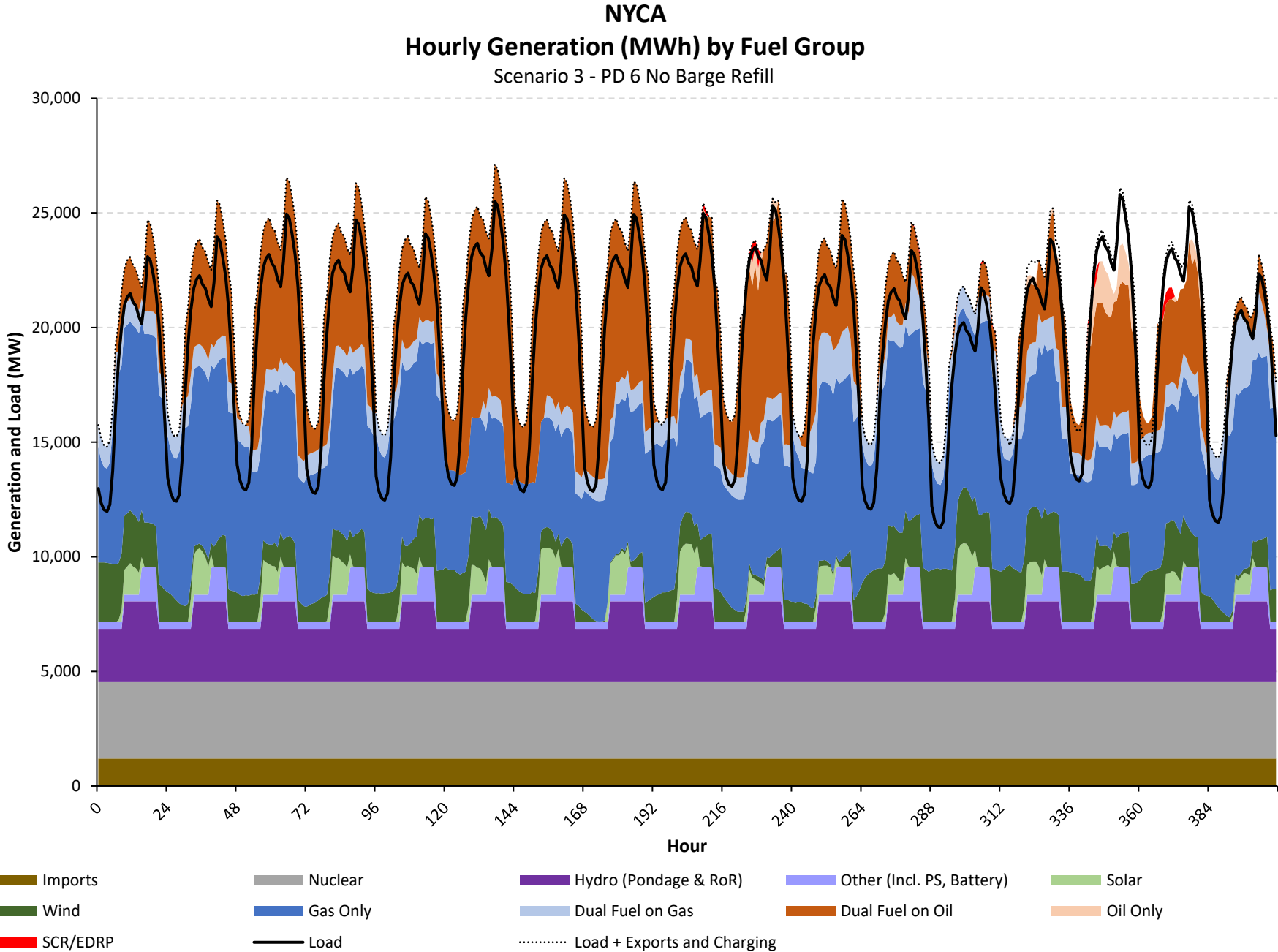
Loss of Load	
Total Hrs.	40
Total MWh	44,884
Avg. MW	110.0
First Hour with Losses	321

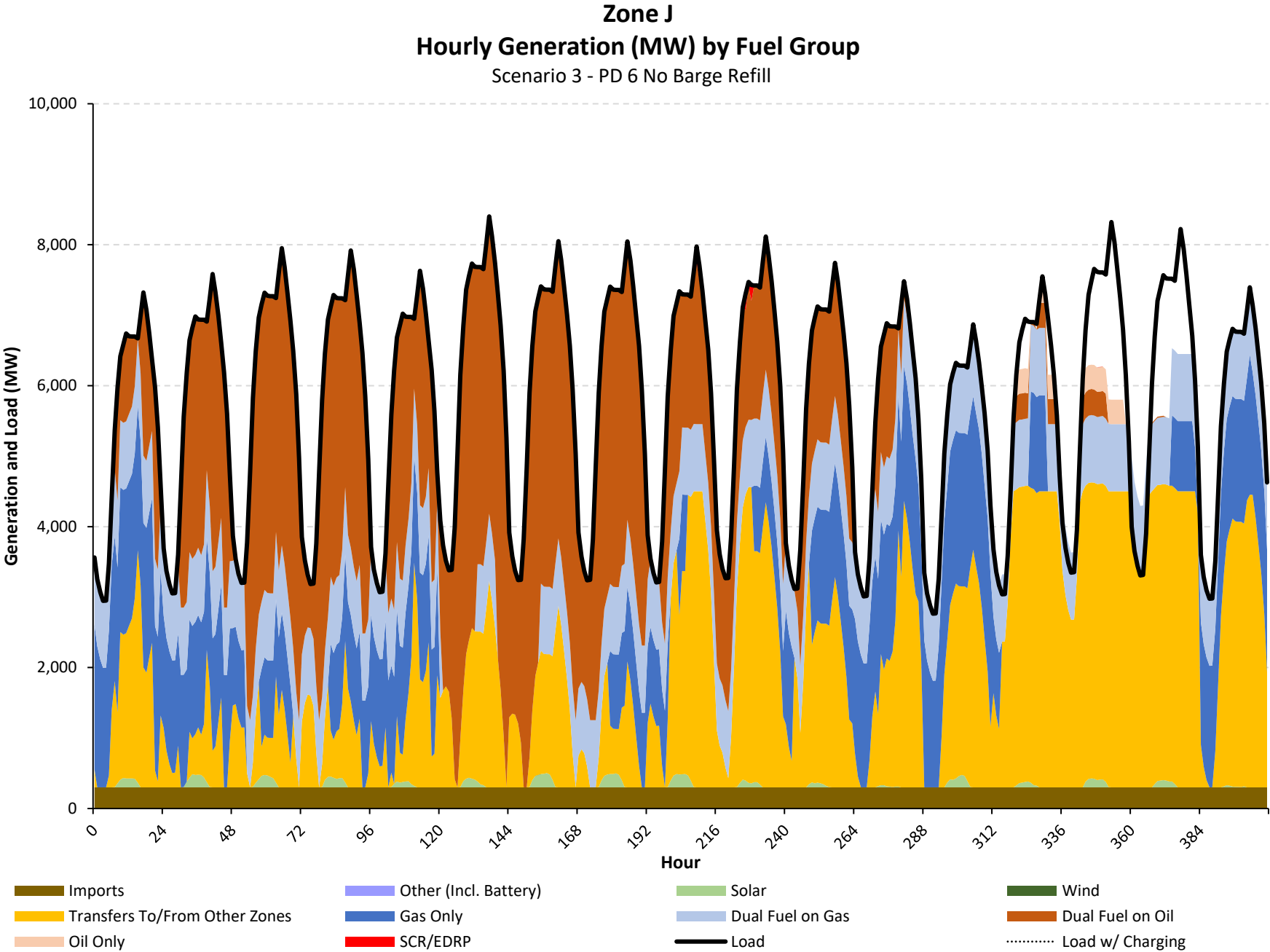
Full Period Results Summary

Case Name: Scenario 3 - PD 6 No Barge Refill

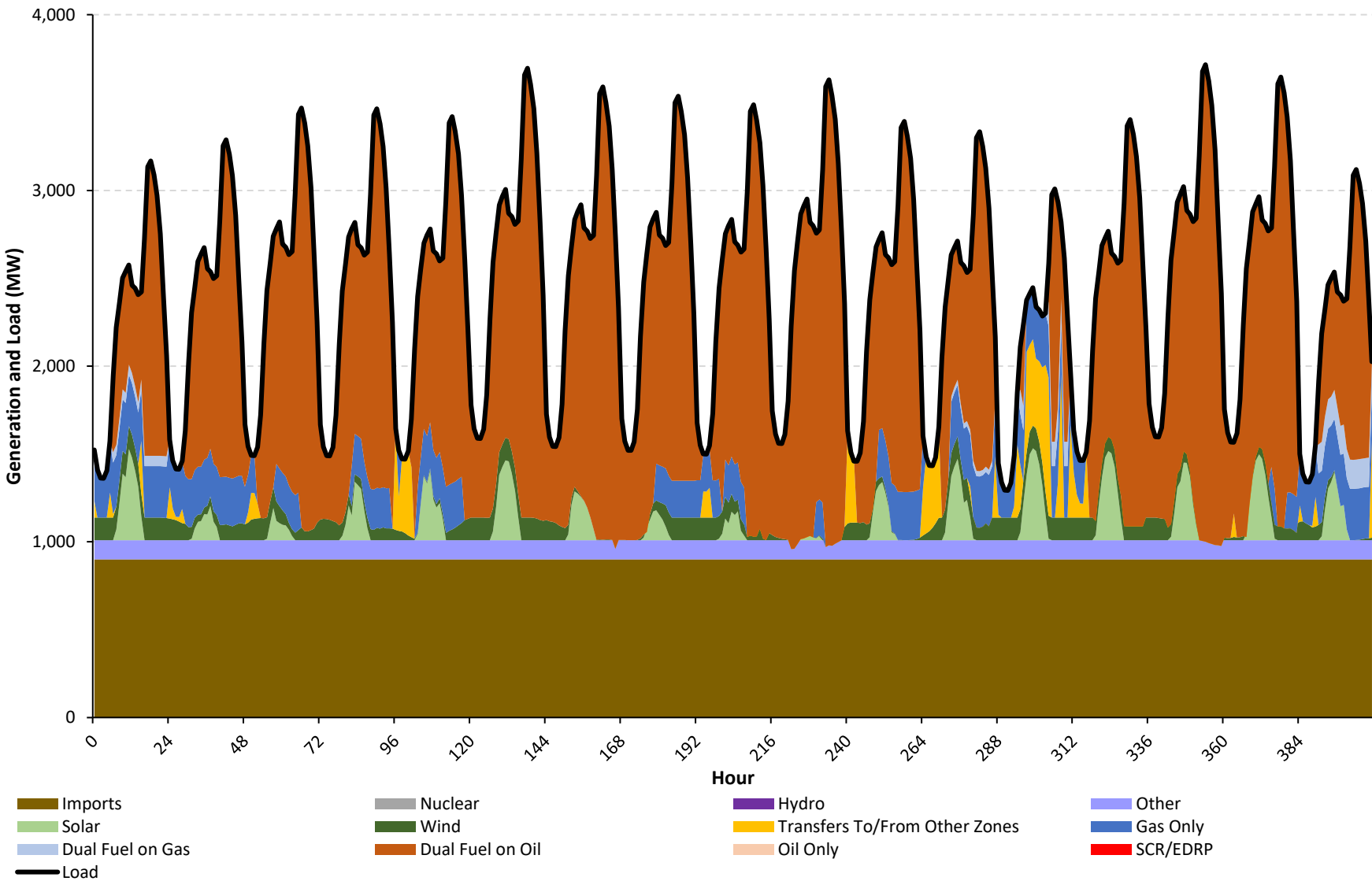
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	High
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All



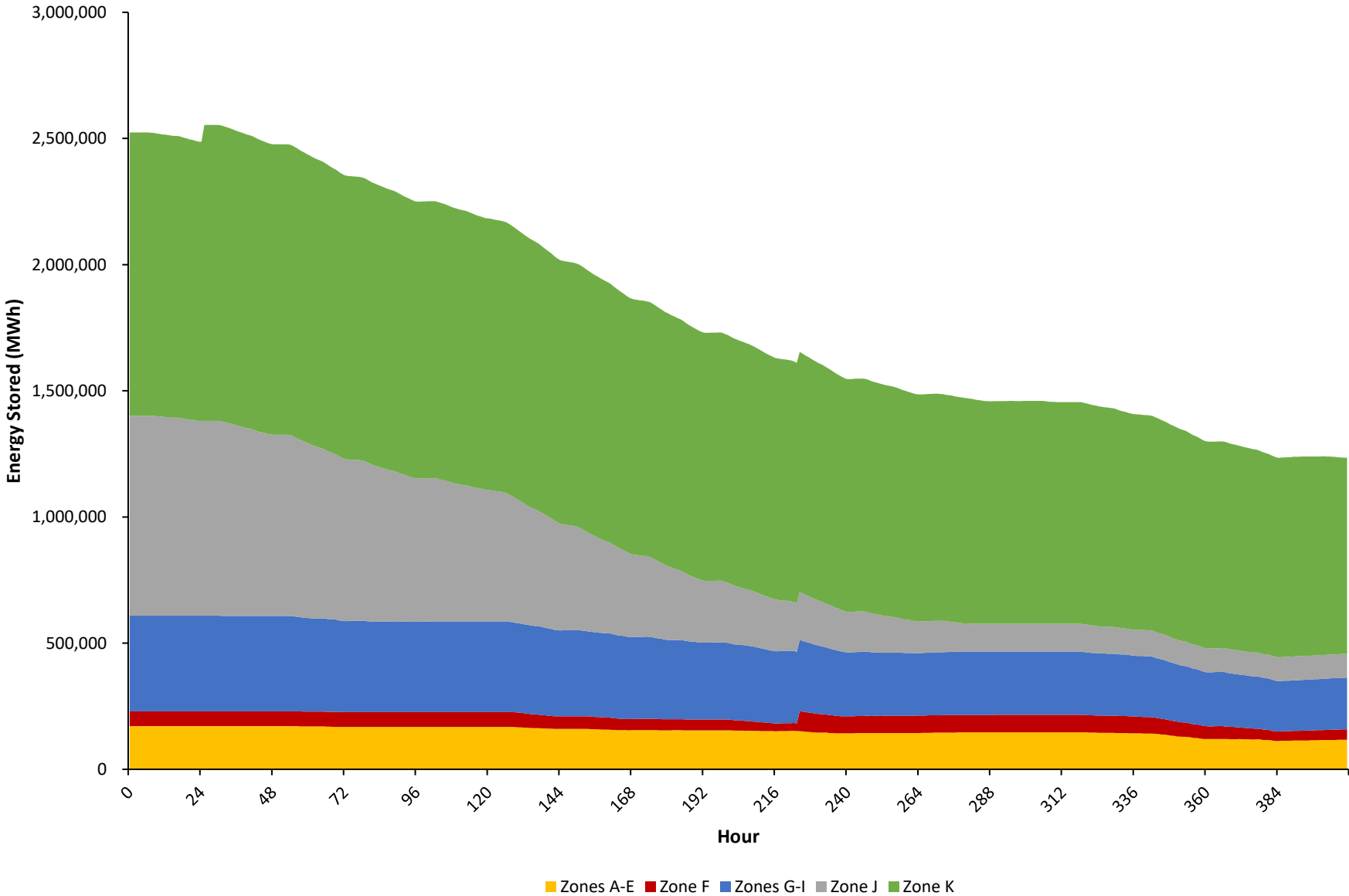


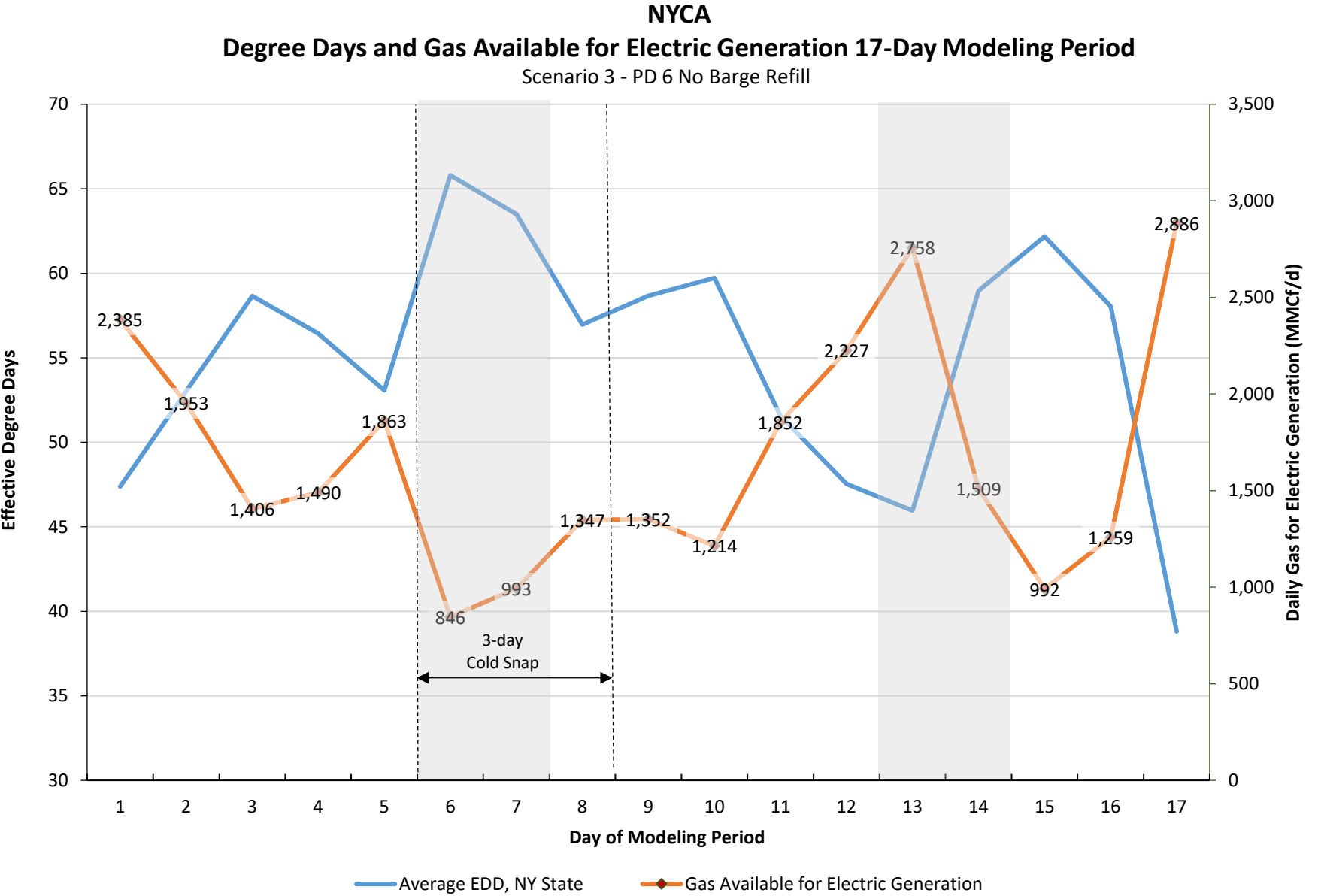


Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 6 No Barge Refill

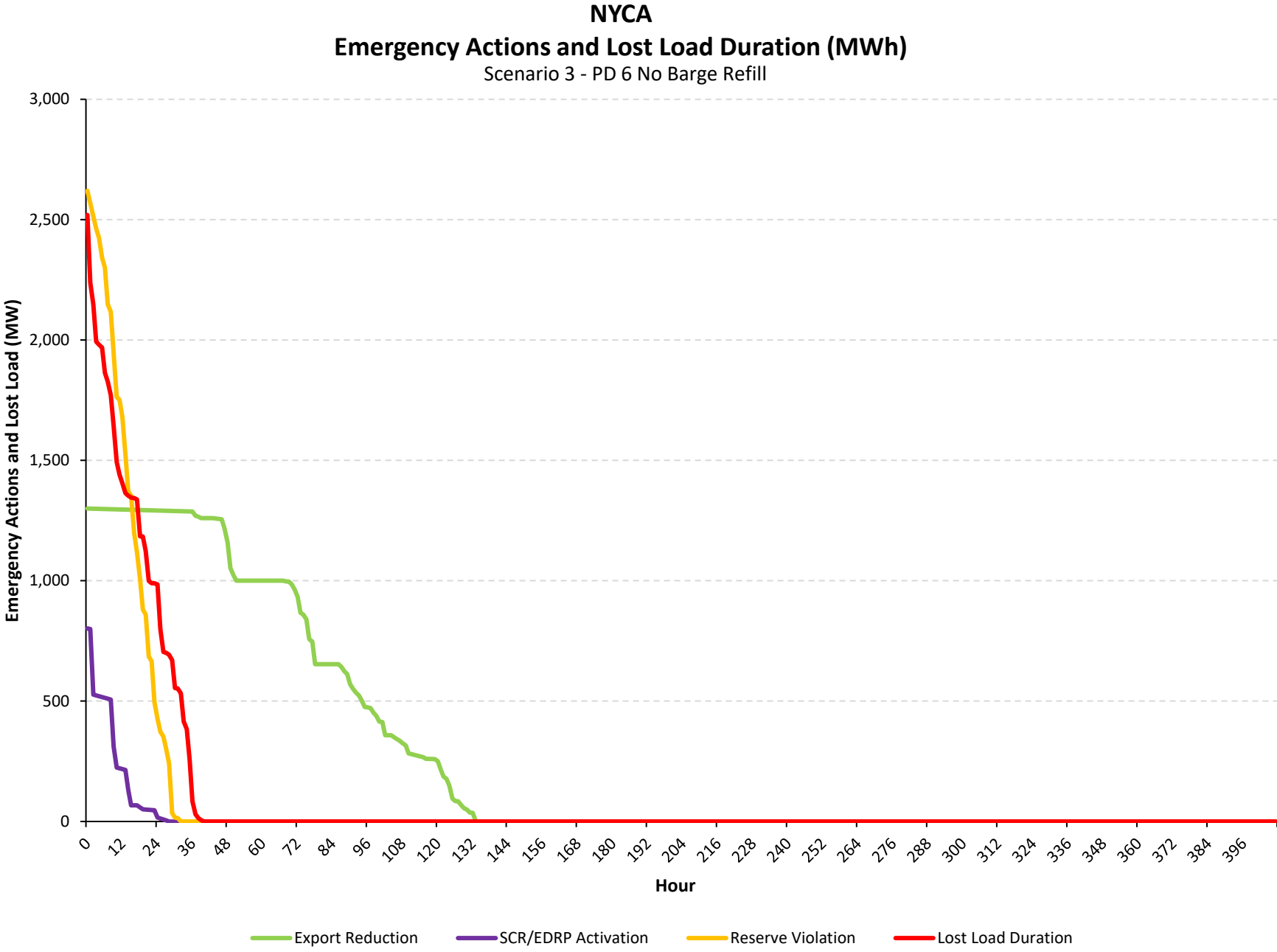


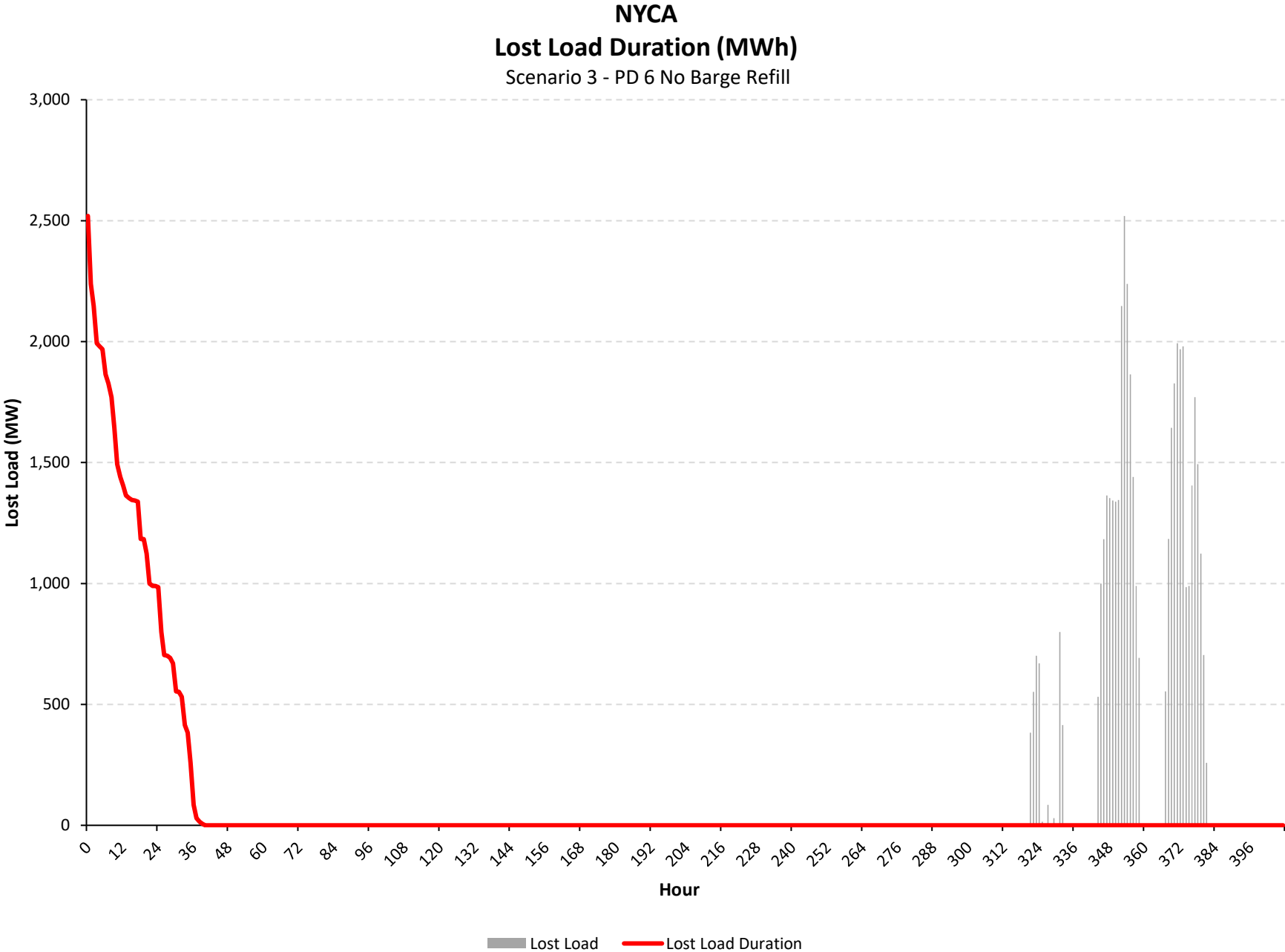
NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 3 - PD 6 No Barge Refill





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



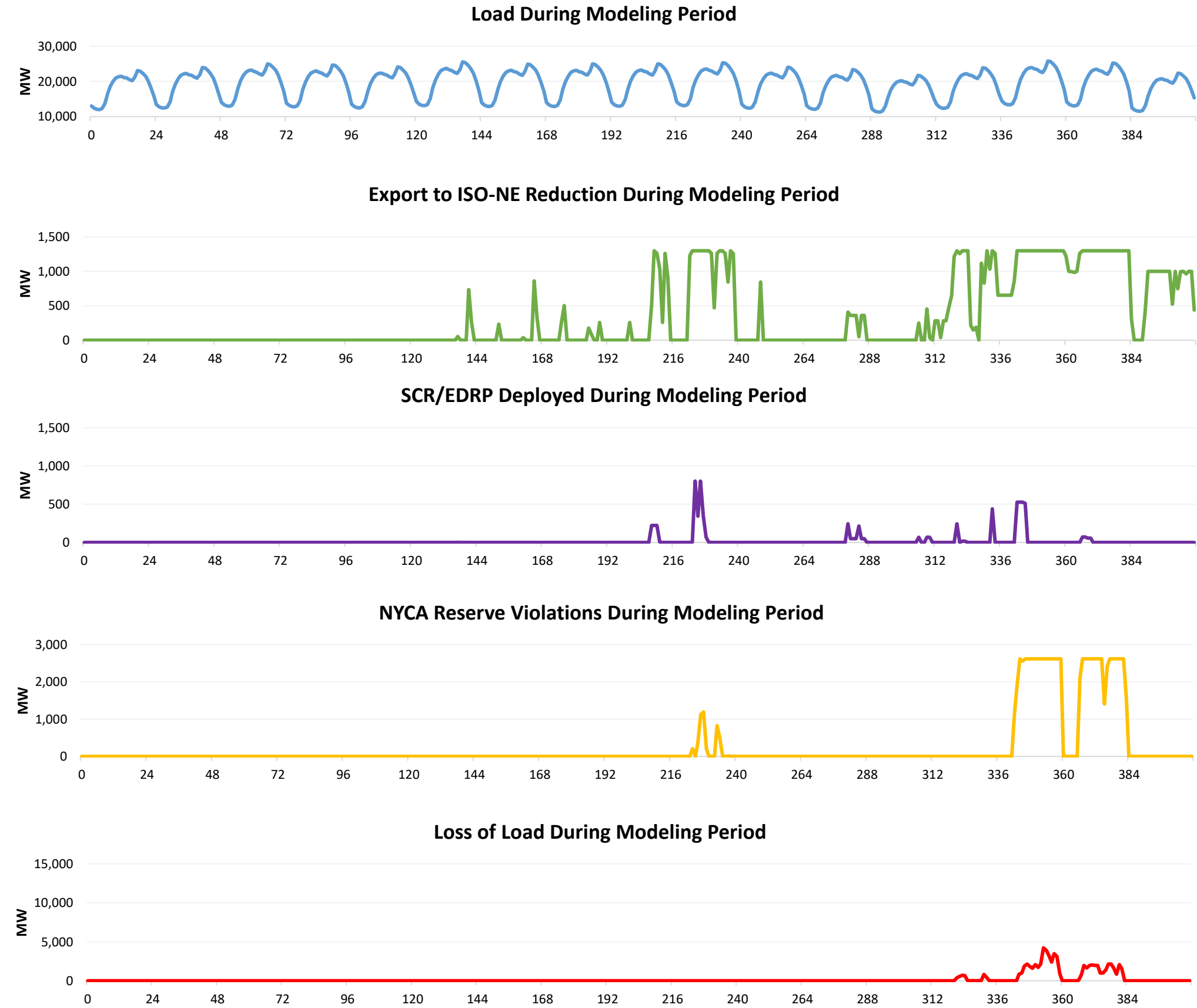


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 7 No Refill (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 3 - PD 7 No Refill



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

Export Reductions	
Total Hrs.	139
Total MWh	127,812
Avg. MW	313.3

SCR Deployment	
Total Hrs.	32
Total MWh	7,018
Avg. MW	17.2

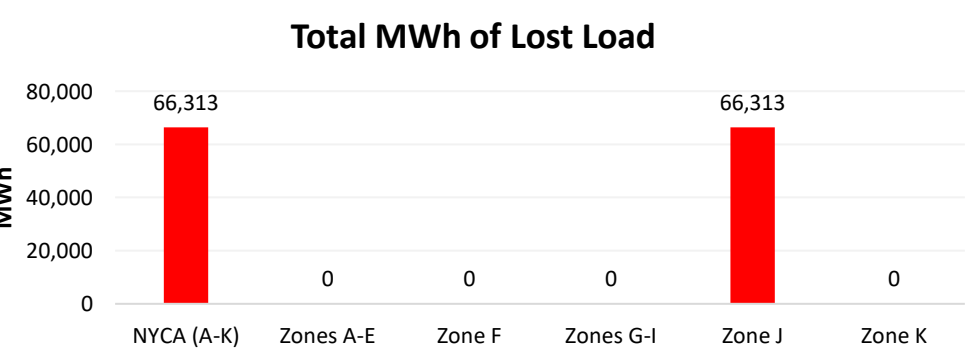
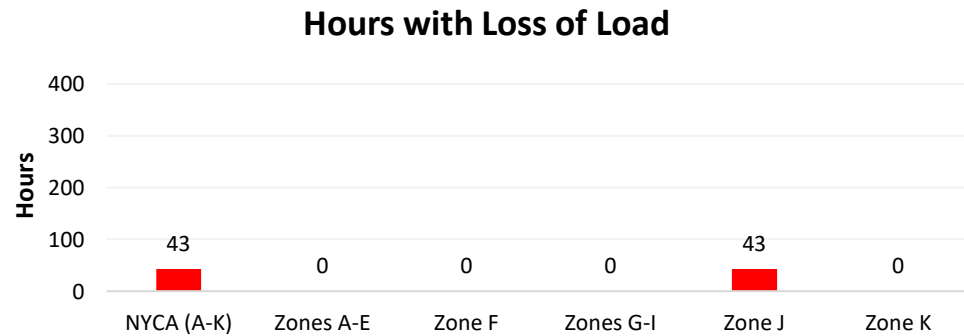
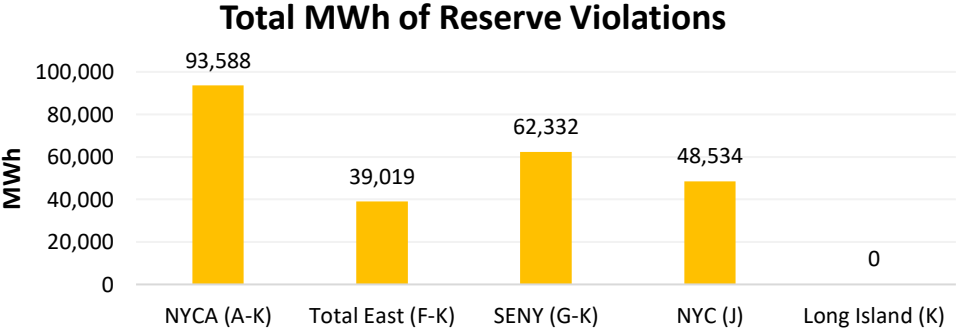
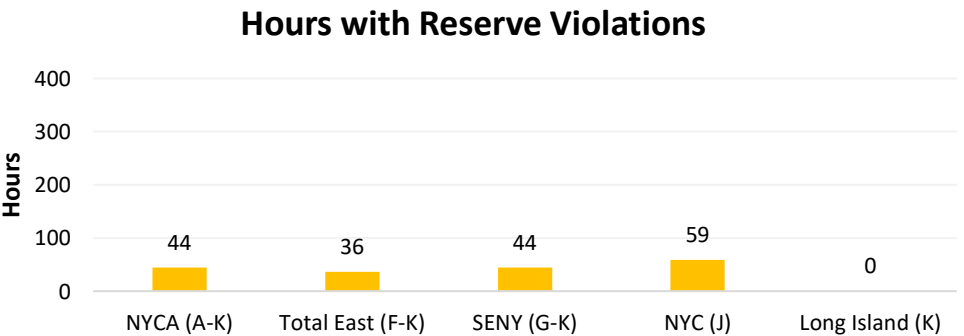
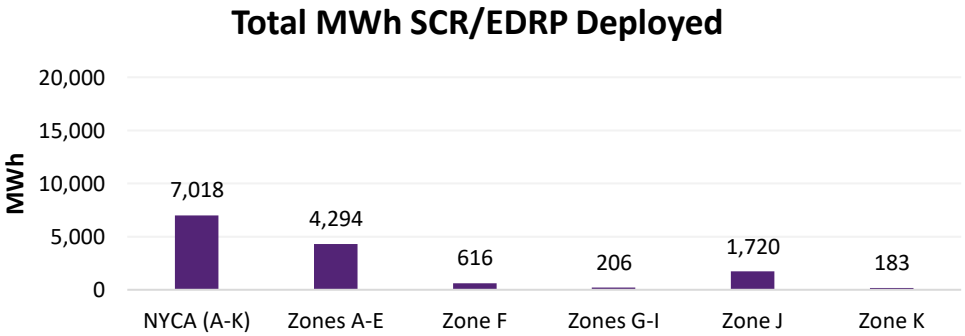
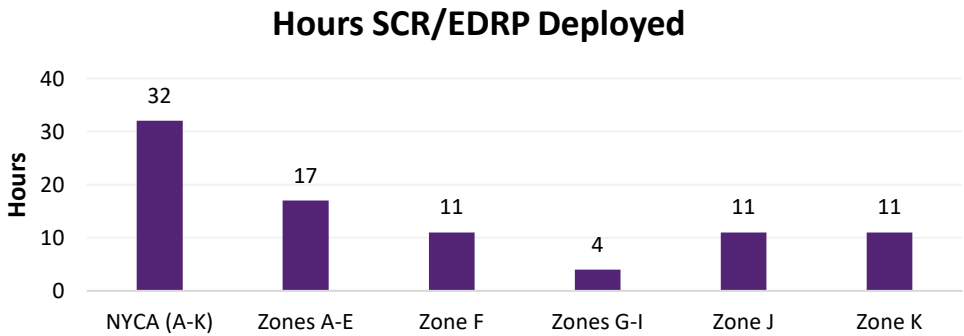
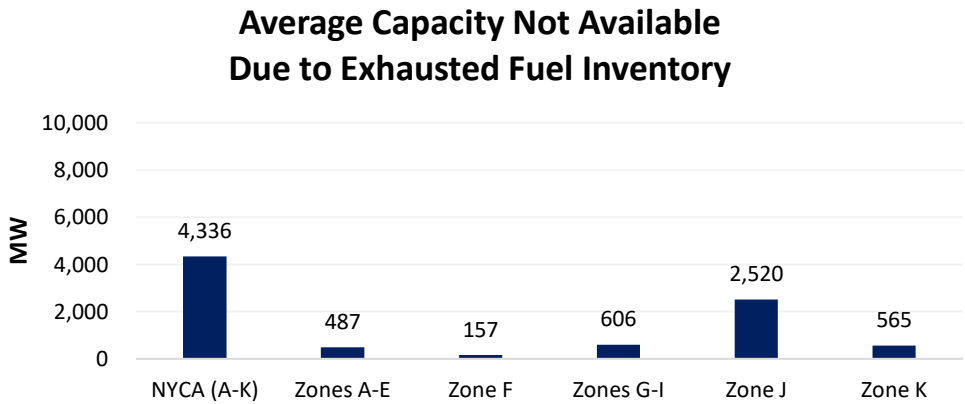
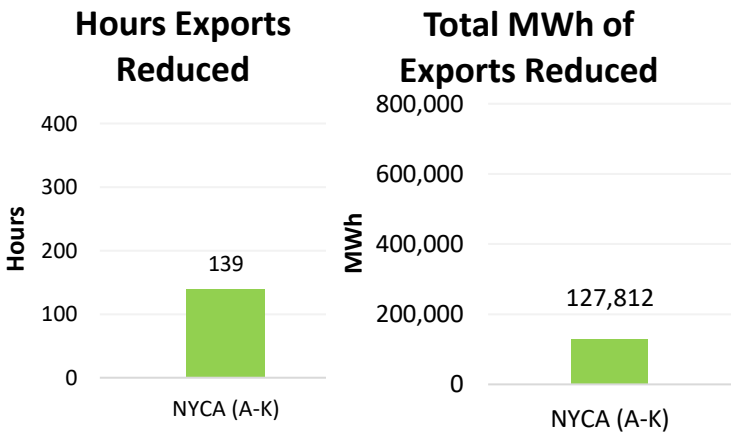
Reserve Violations	
Total Hrs.	44
Total MWh	93,588
Avg. MW	229.4
First Hour with Viol.	208

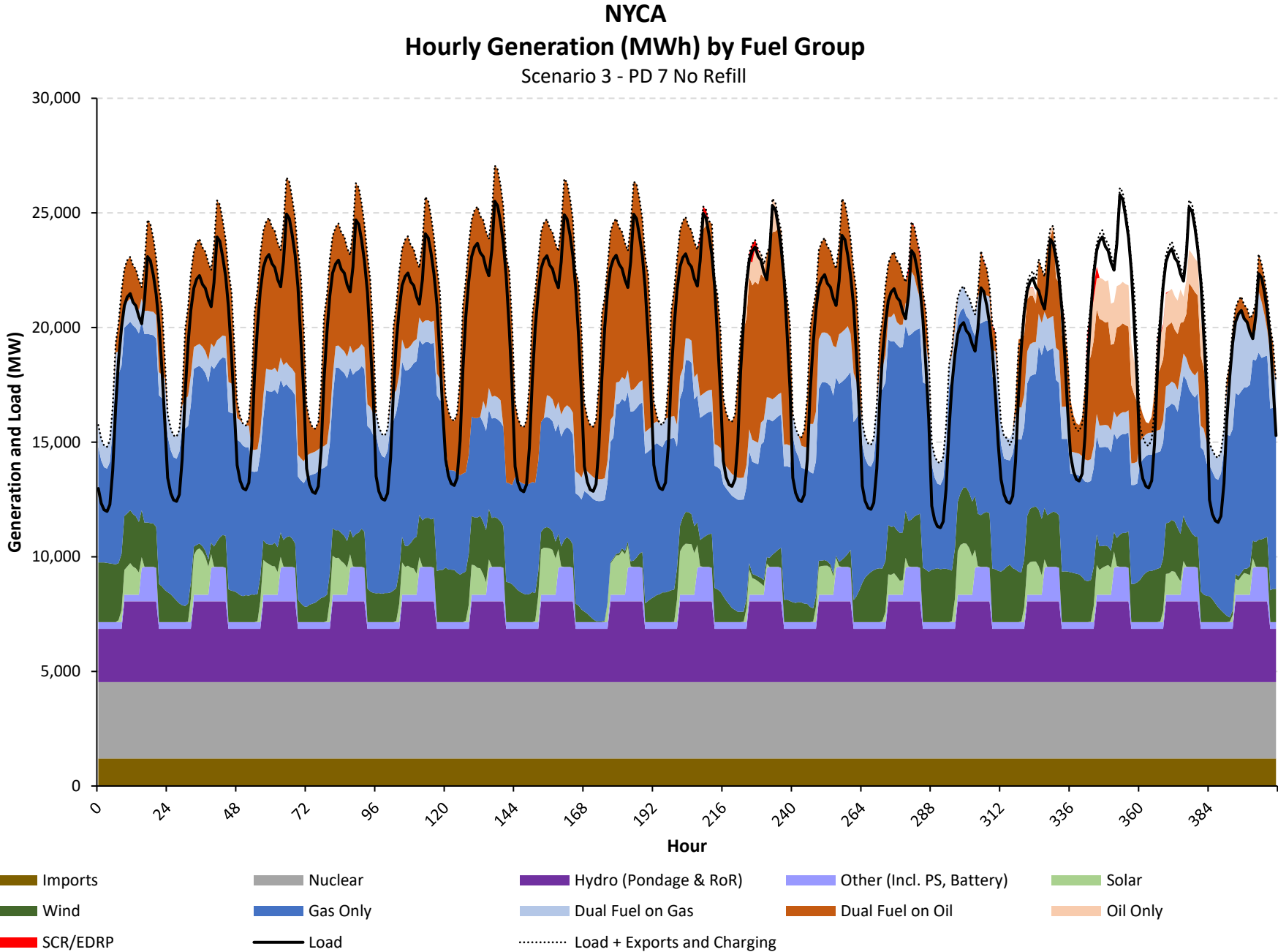
Loss of Load	
Total Hrs.	43
Total MWh	66,313
Avg. MW	162.5
First Hour with Losses	321

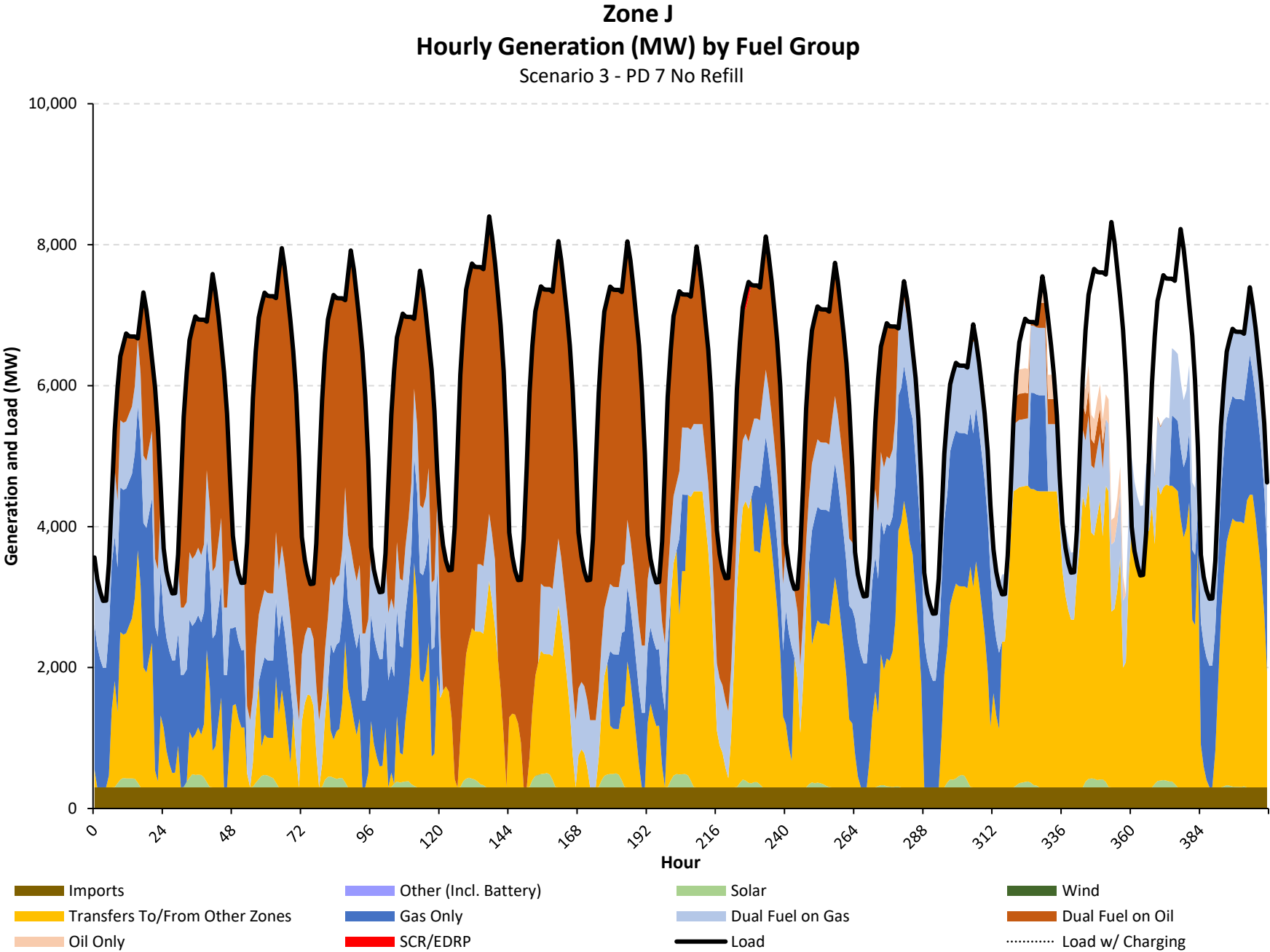
Full Period Results Summary

Case Name: Scenario 3 - PD 7 No Refill

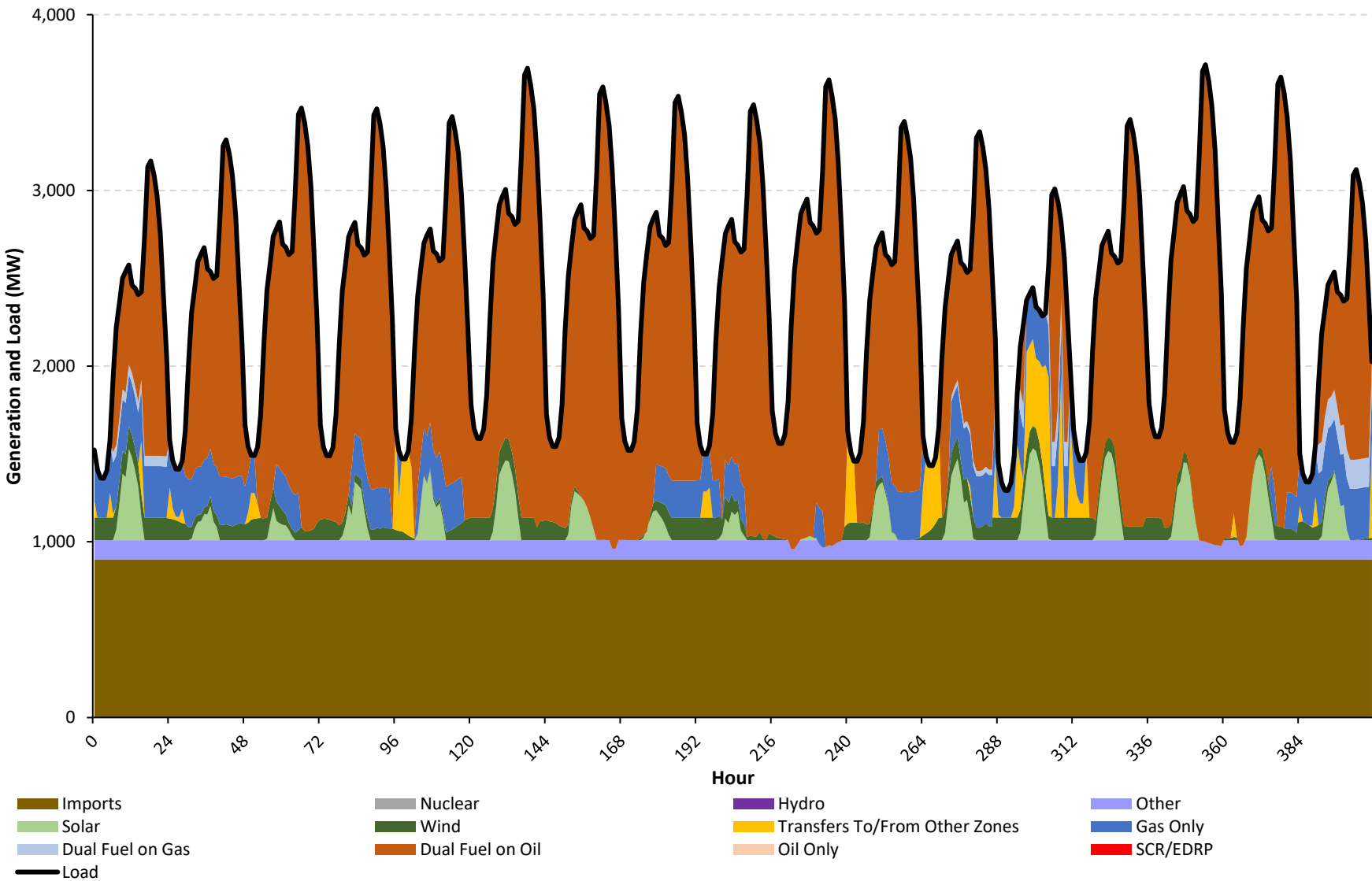
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	High
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All



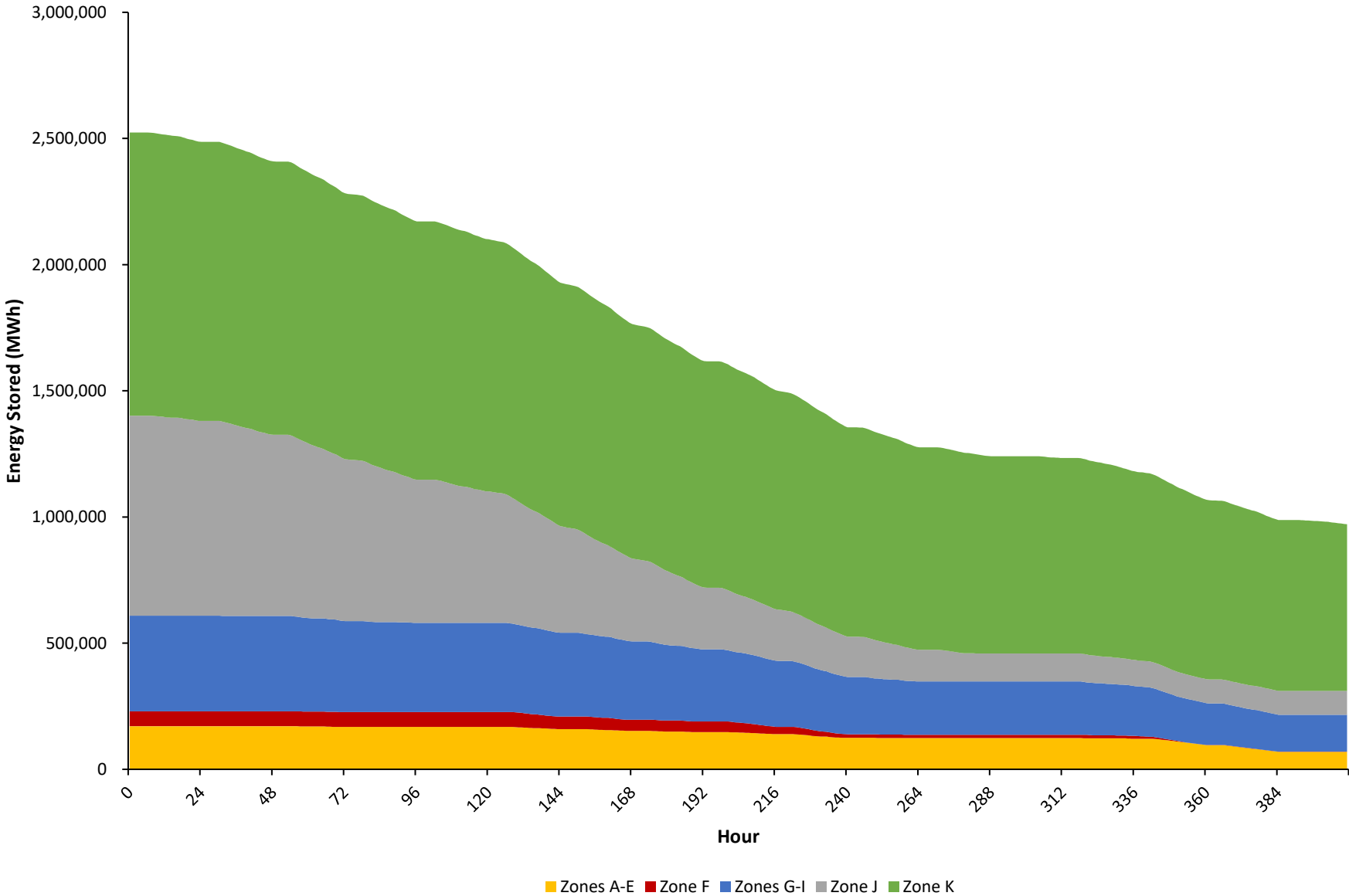




Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 7 No Refill

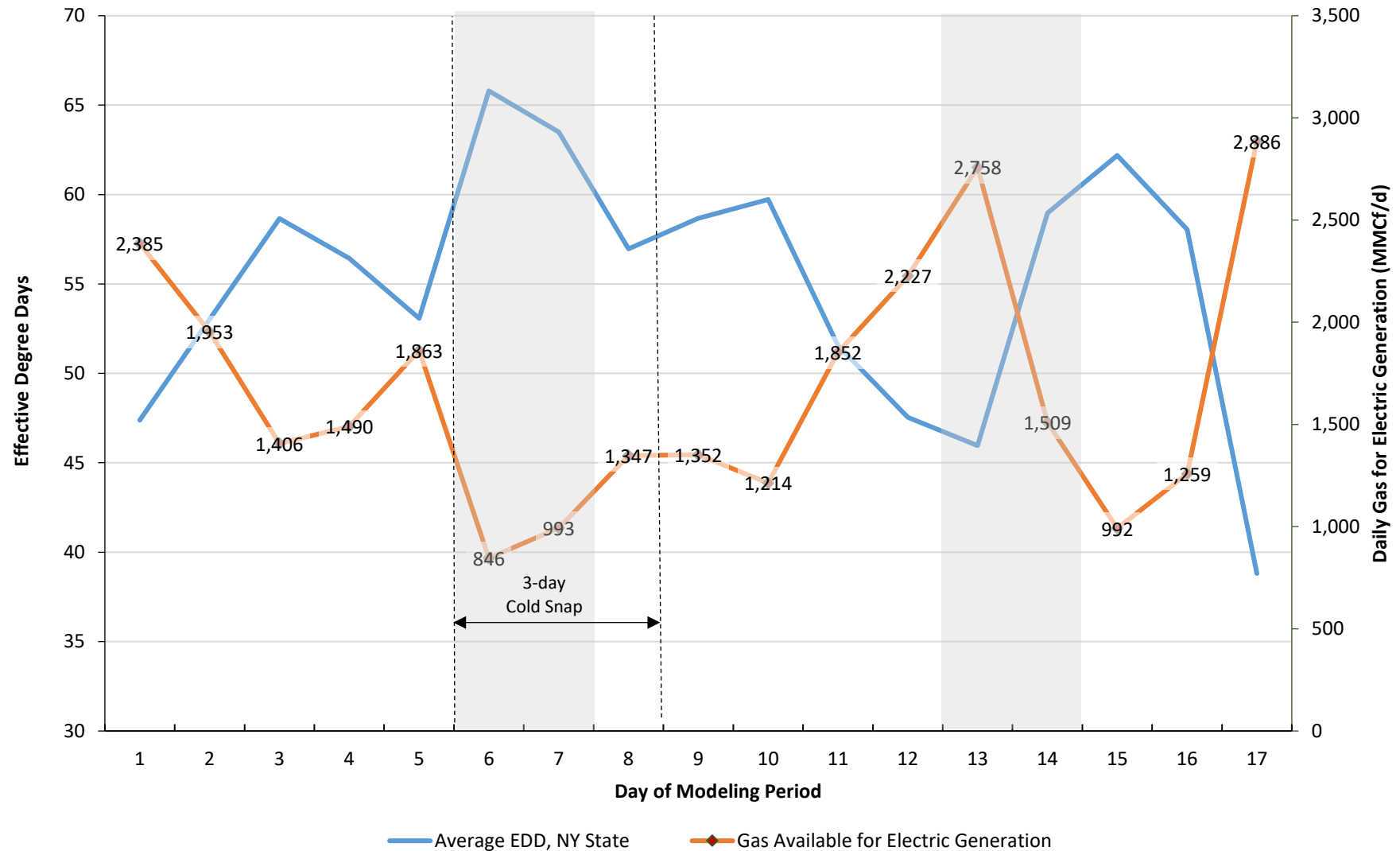


NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 3 - PD 7 No Refill



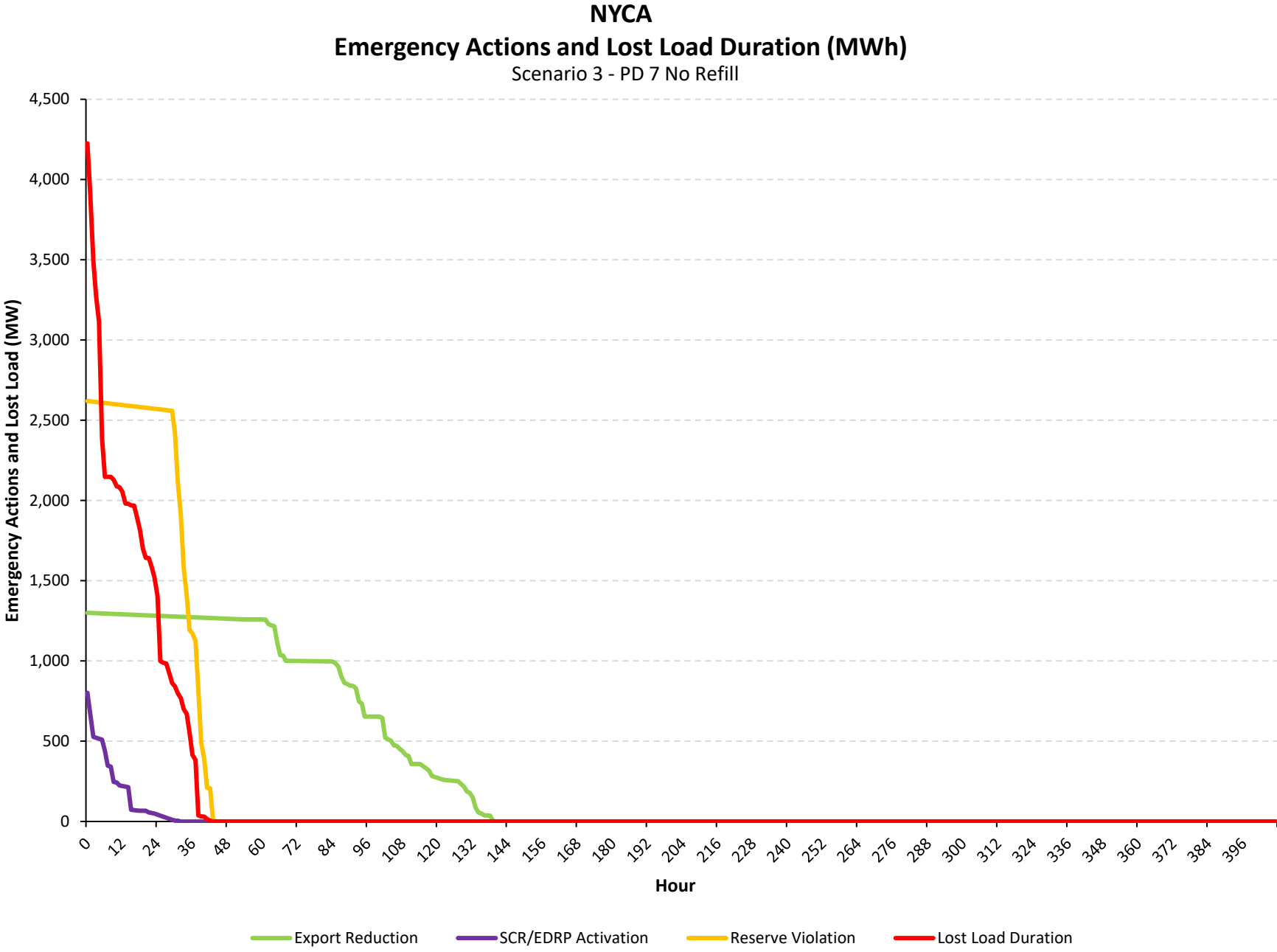
NYCA **Degree Days and Gas Available for Electric Generation 17-Day Modeling Period**

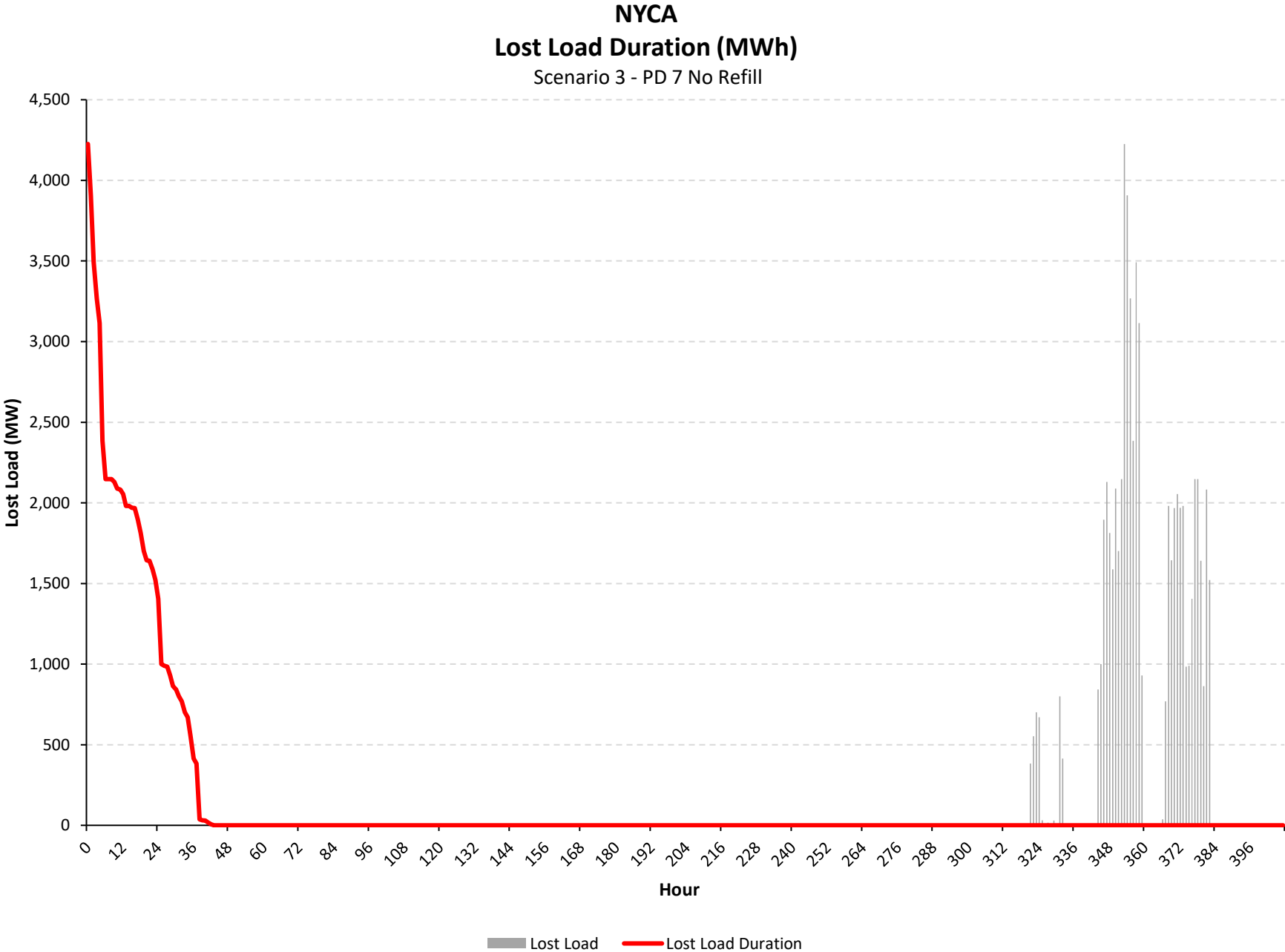
Scenario 3 - PD 7 No Refill



Notes:

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



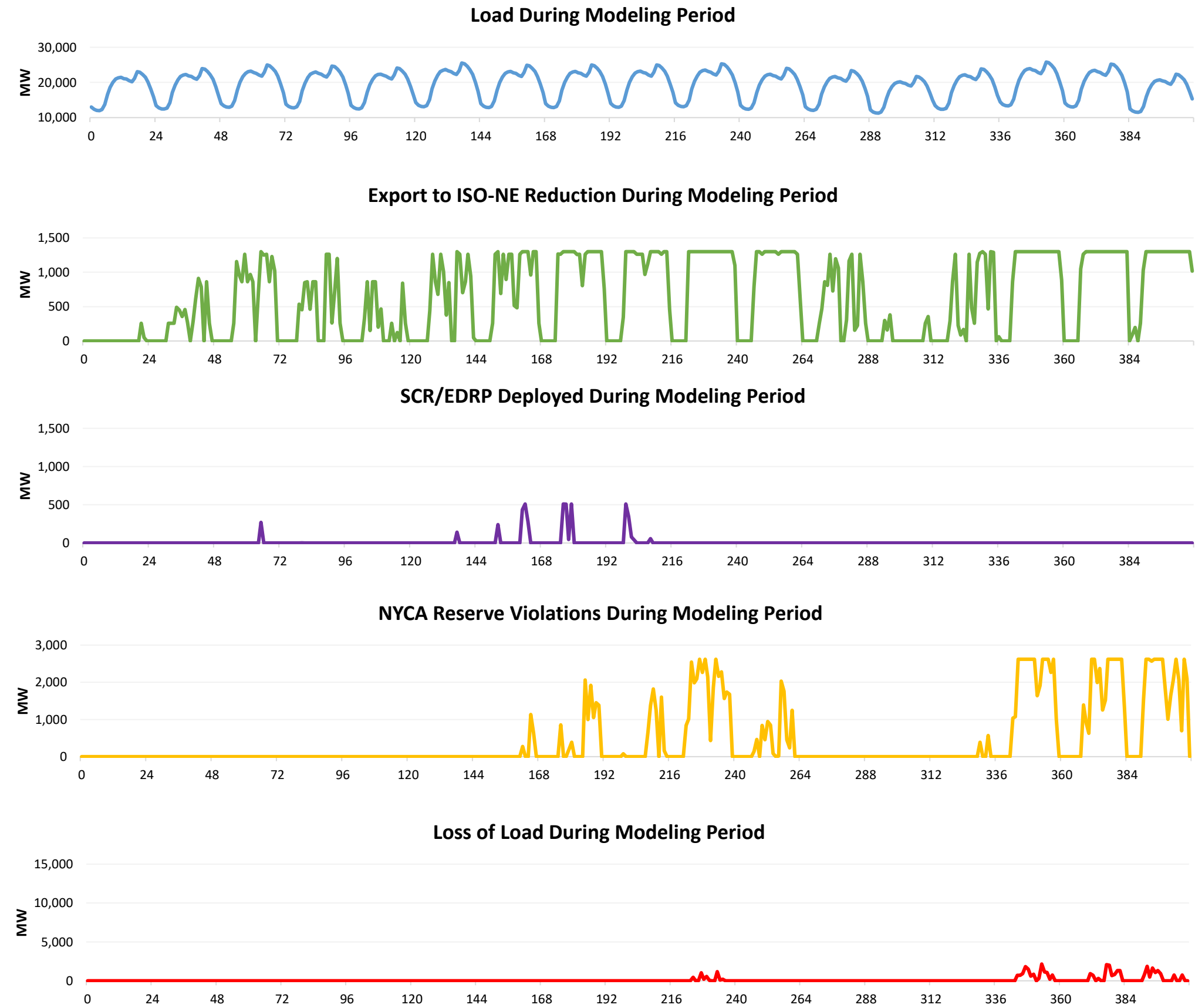


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 8 Non-Firm Gas Unavailable (F-K) (Winter 2023/2024)

Hourly Results Summary

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



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

Export Reductions	
Total Hrs.	258
Total MWh	254,648
Avg. MW	624.1

SCR Deployment	
Total Hrs.	15
Total MWh	4,488
Avg. MW	11.0

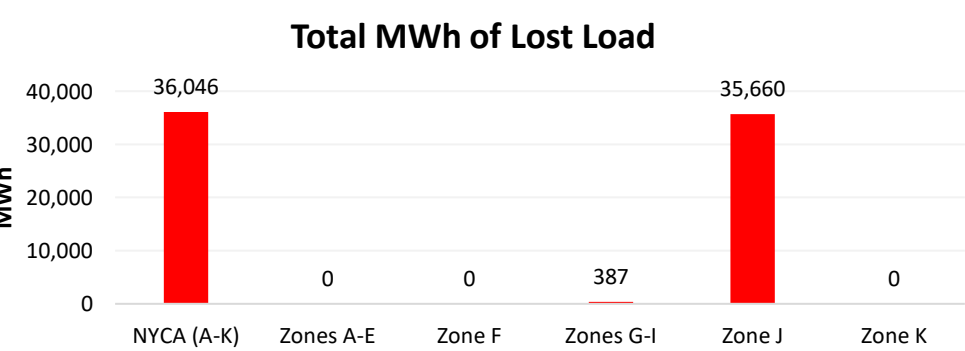
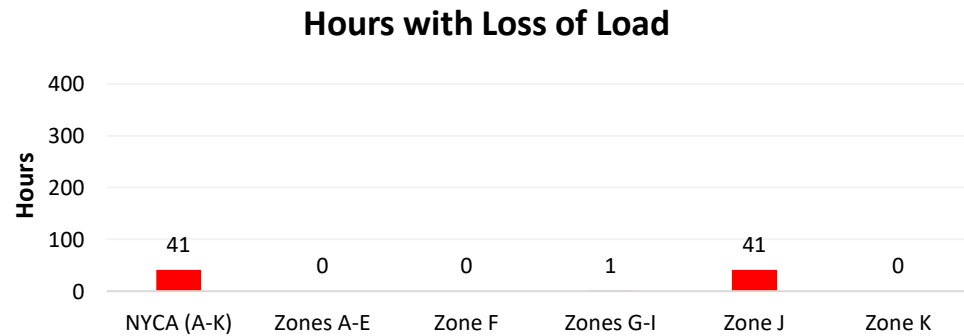
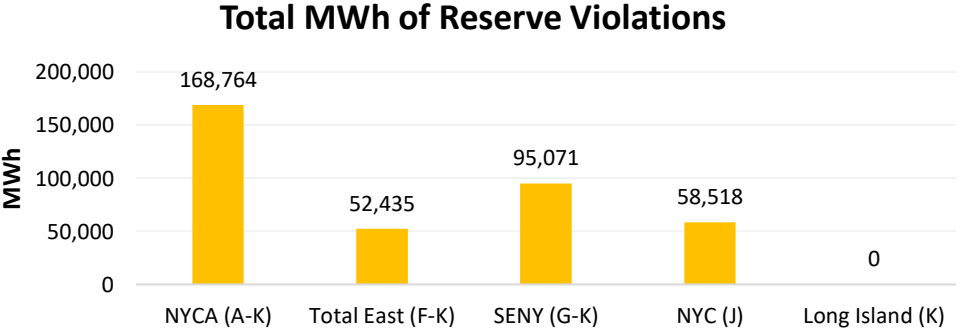
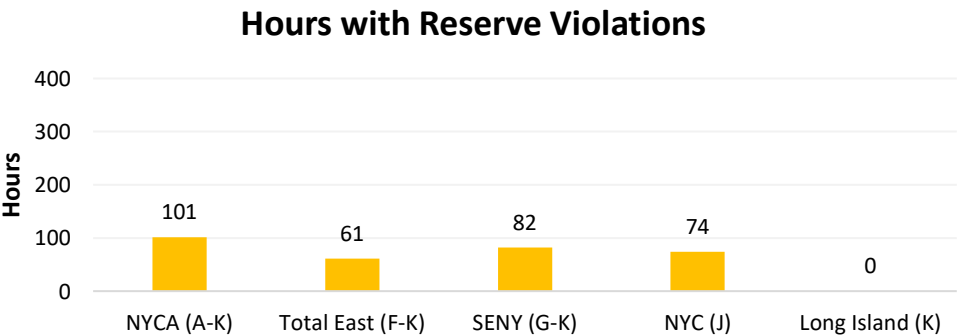
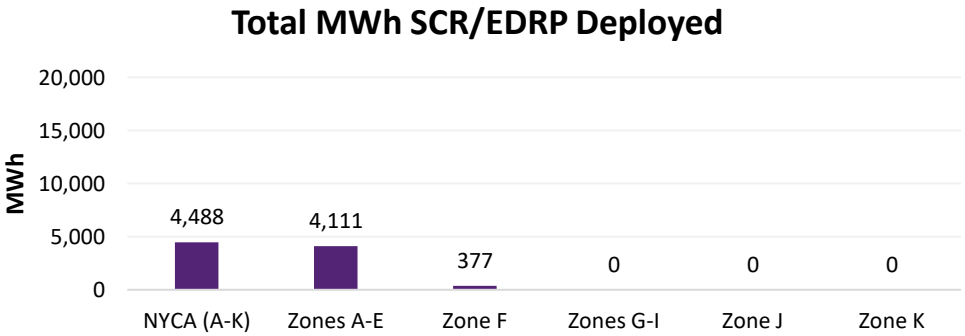
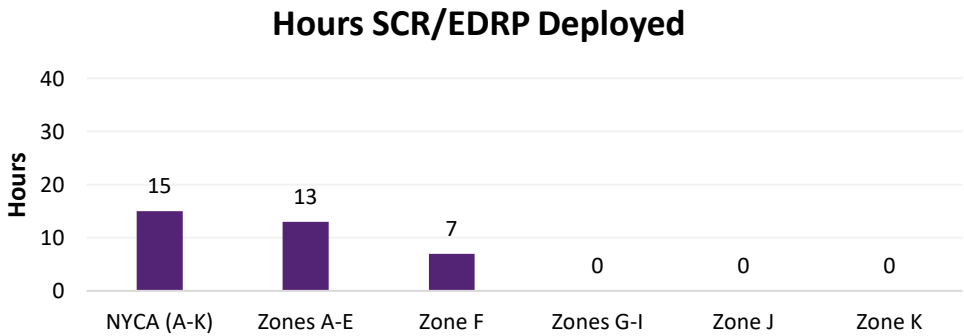
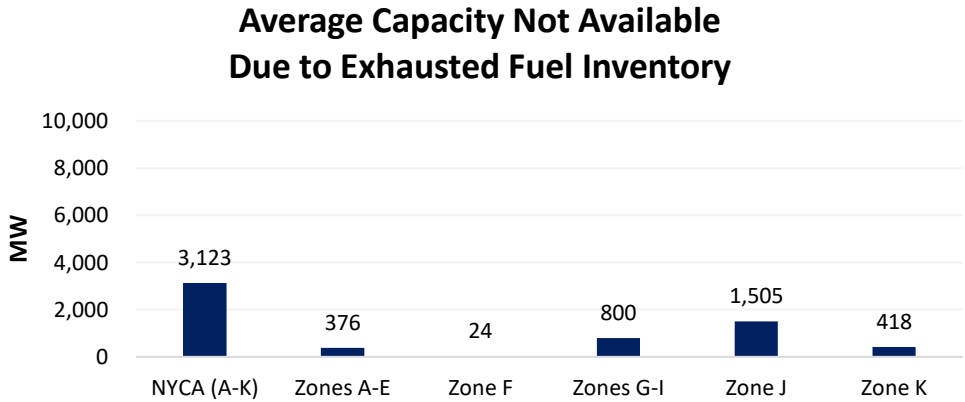
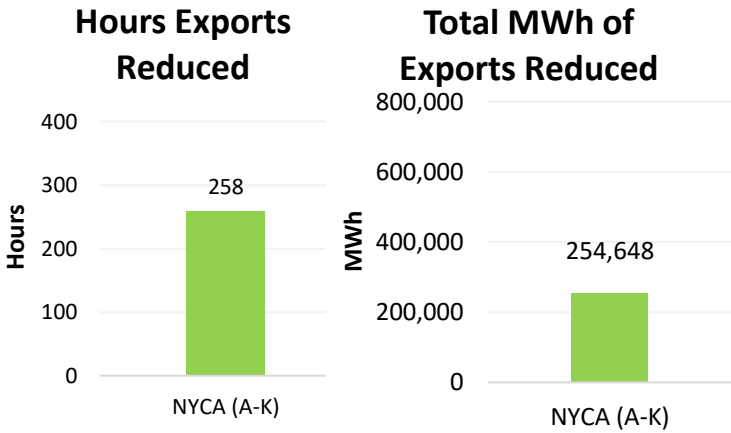
Reserve Violations	
Total Hrs.	101
Total MWh	168,764
Avg. MW	413.6
First Hour with Viol.	162

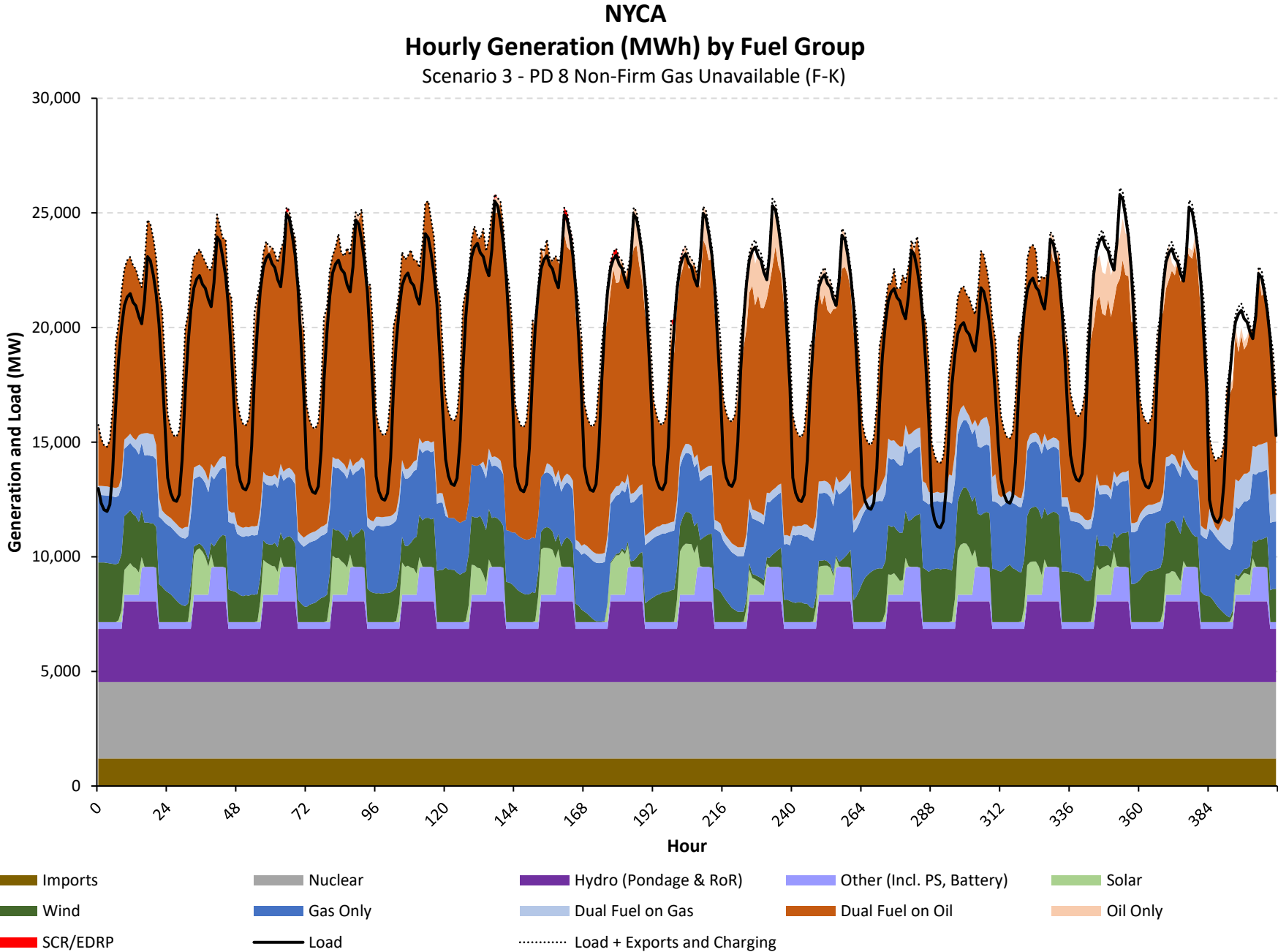
Loss of Load	
Total Hrs.	41
Total MWh	36,046
Avg. MW	88.3
First Hour with Losses	224

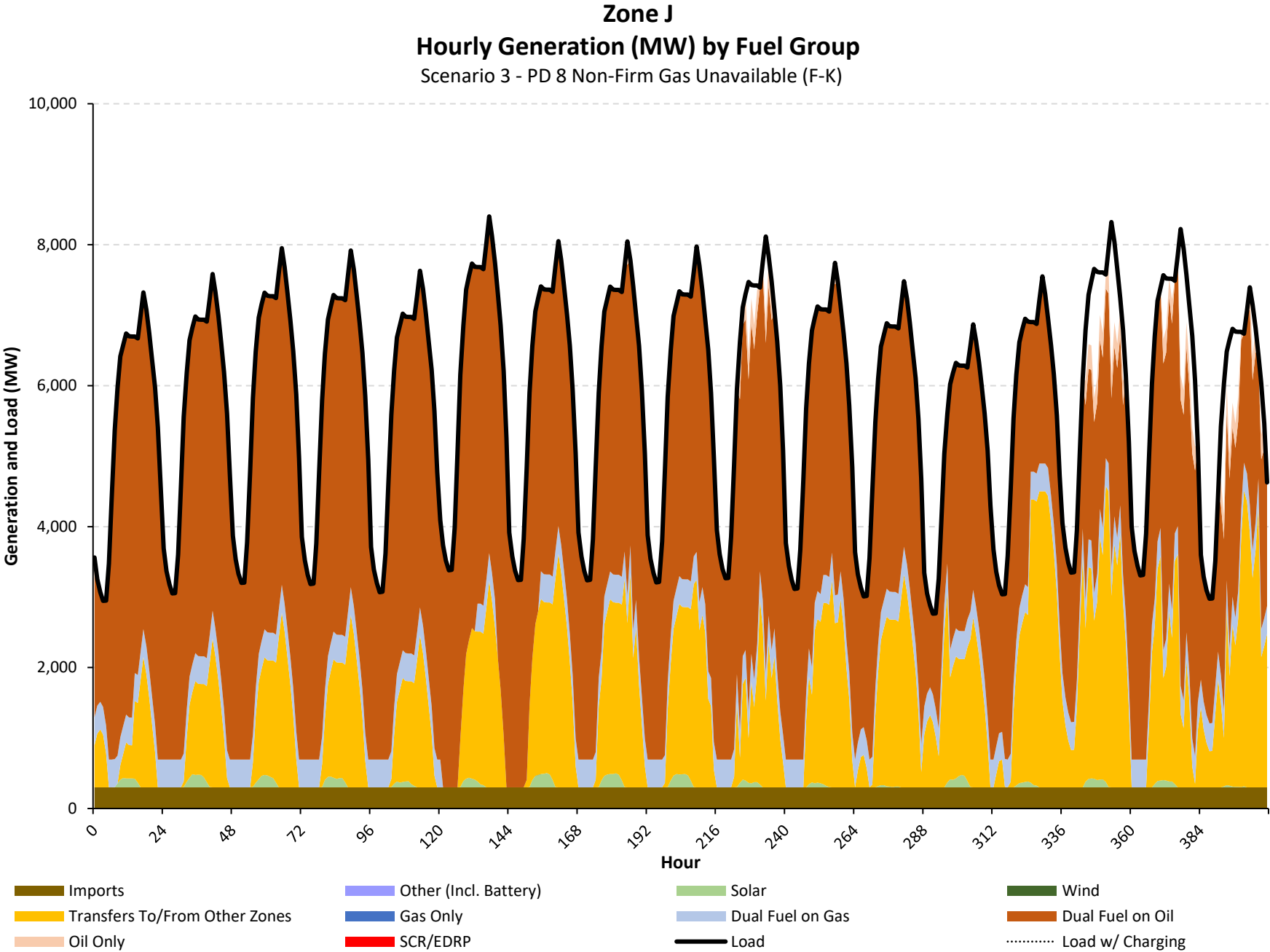
Full Period Results Summary

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

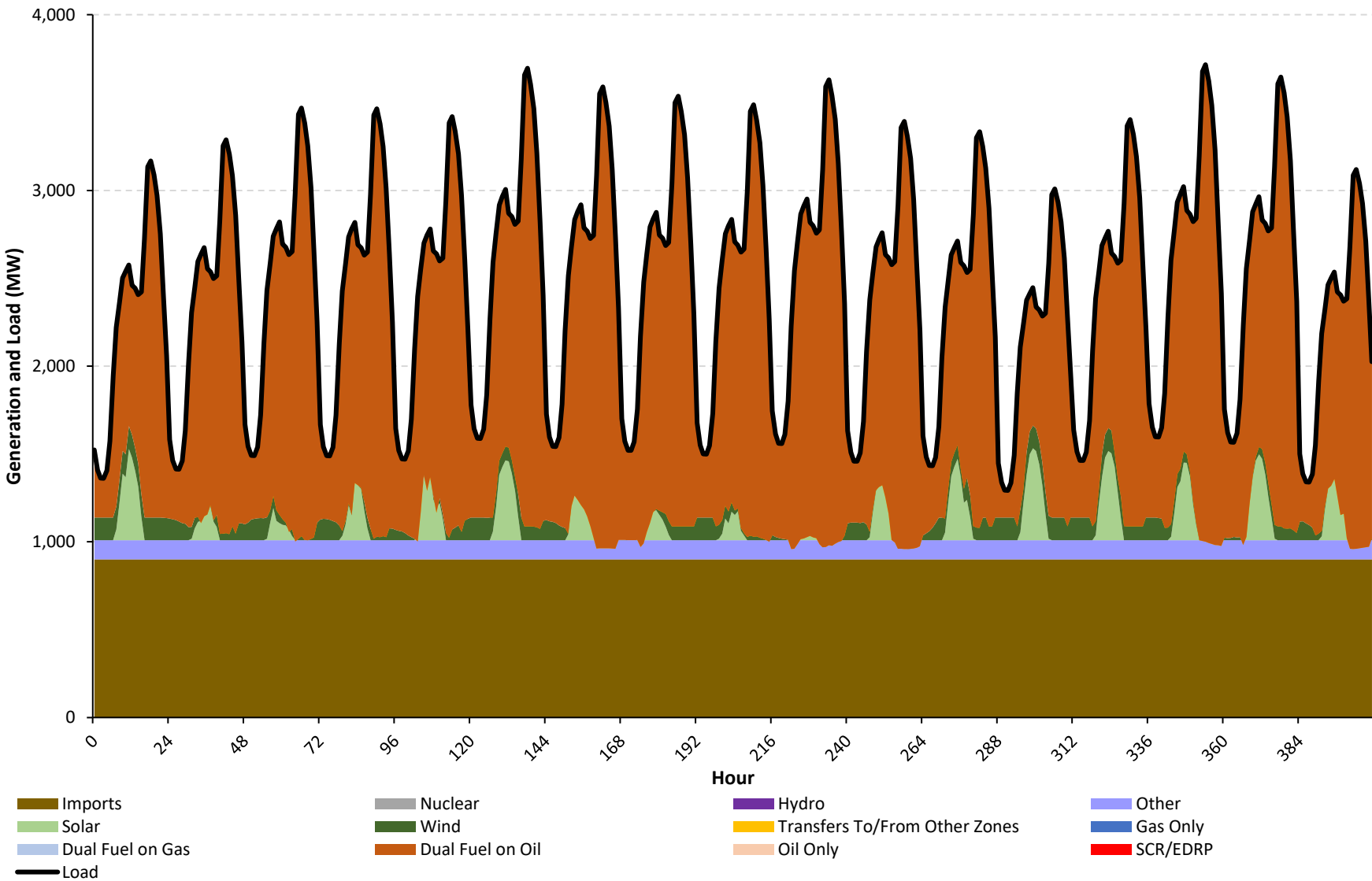
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	High
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

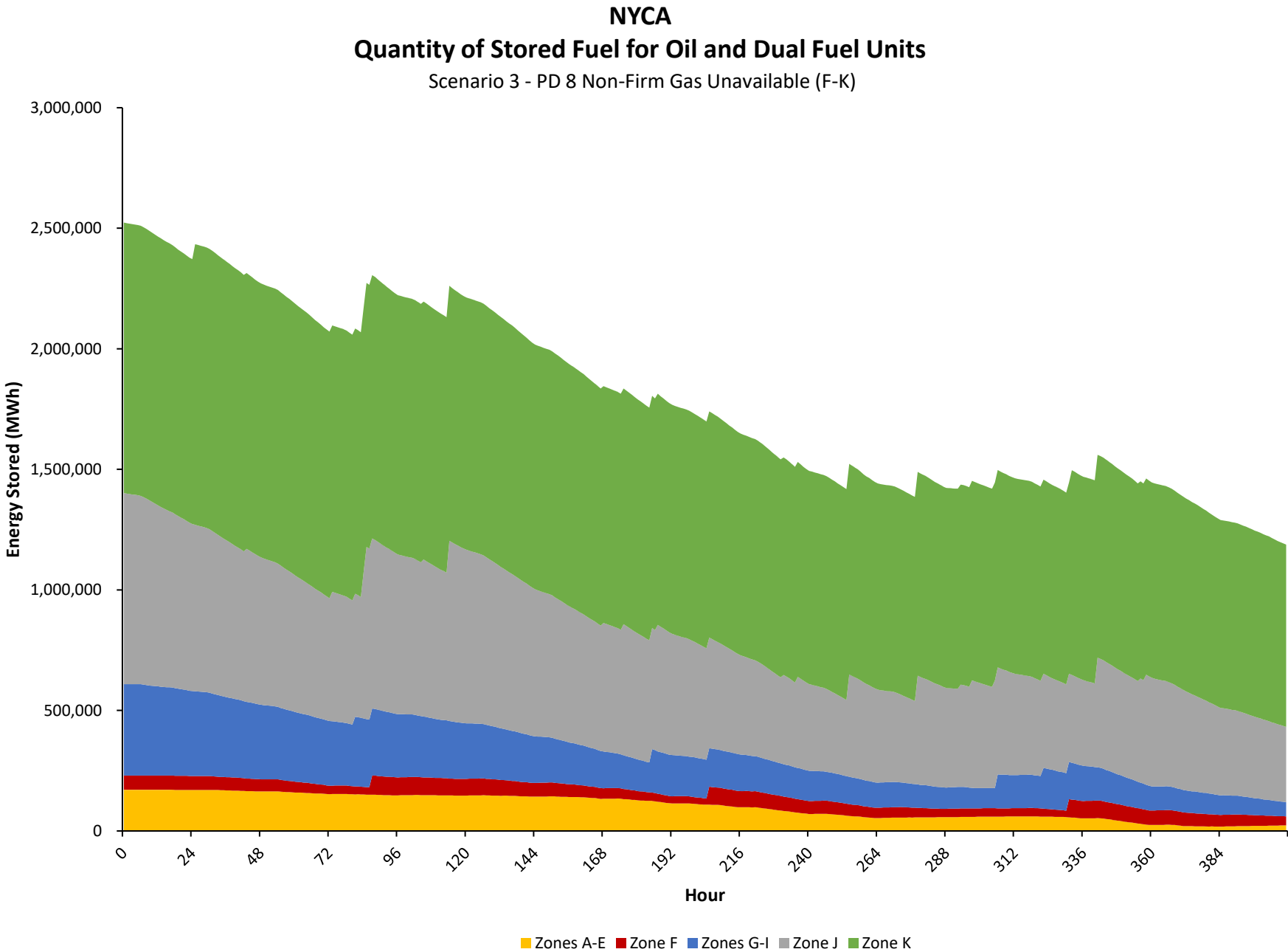


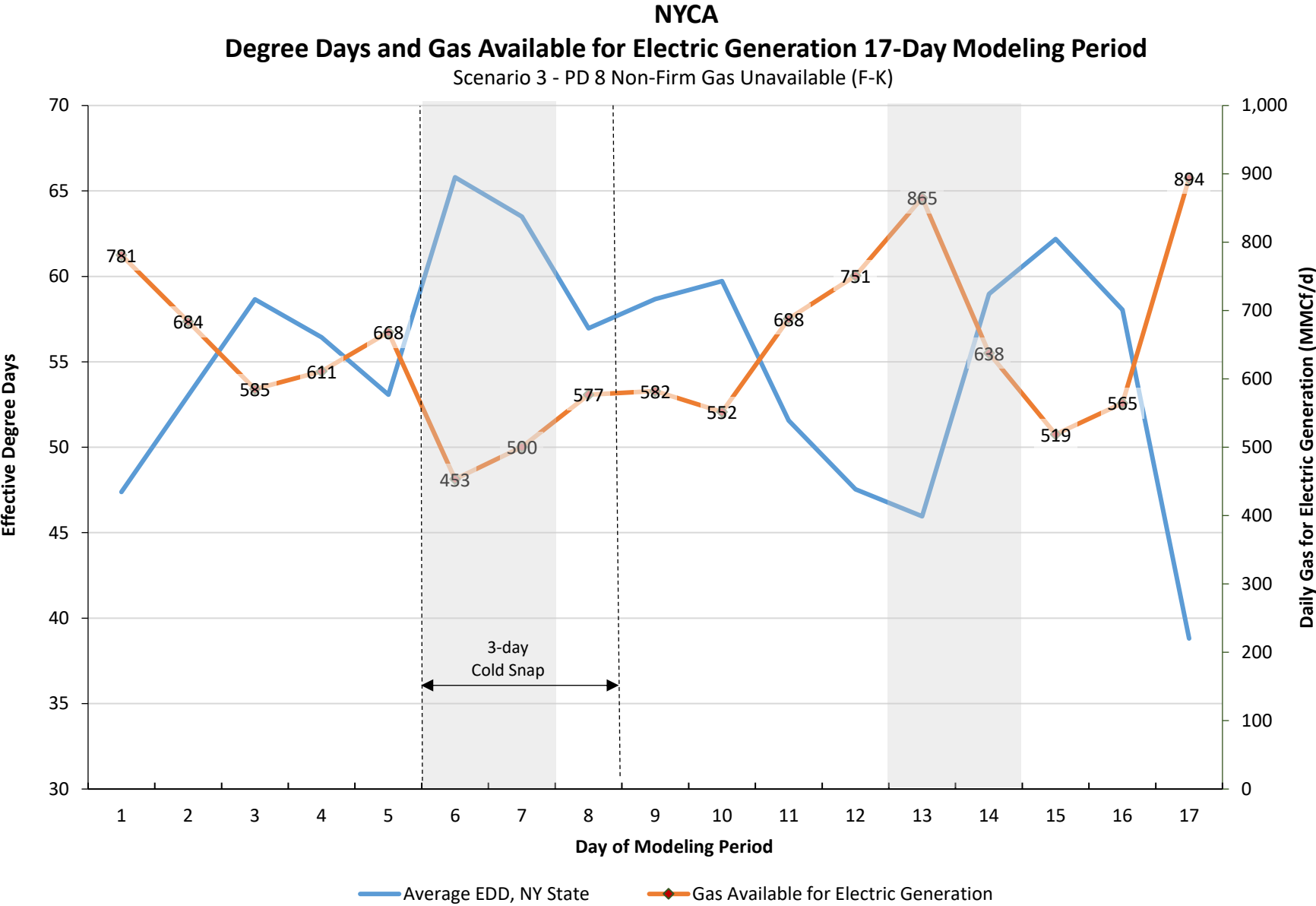




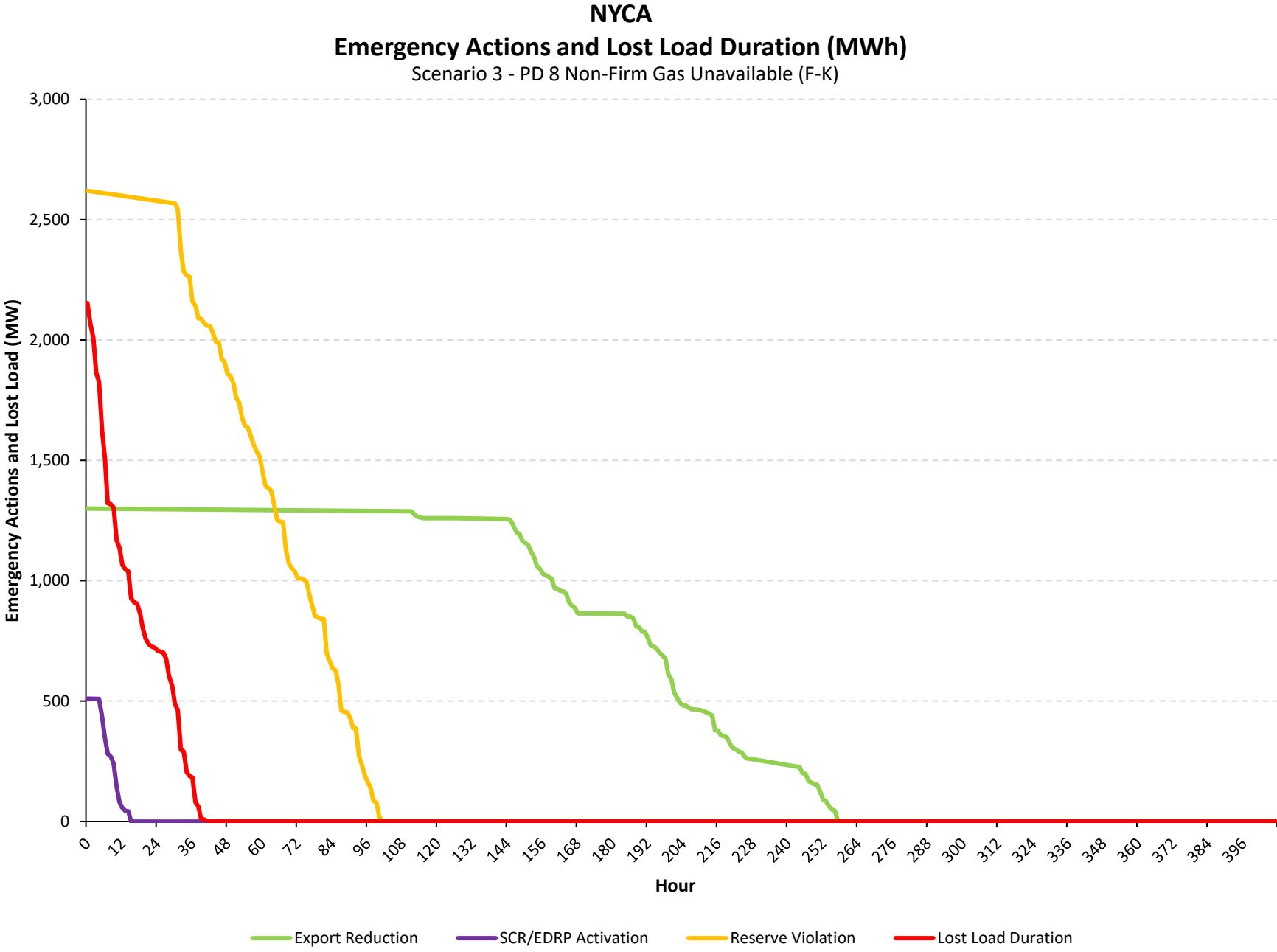
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 8 Non-Firm Gas Unavailable (F-K)

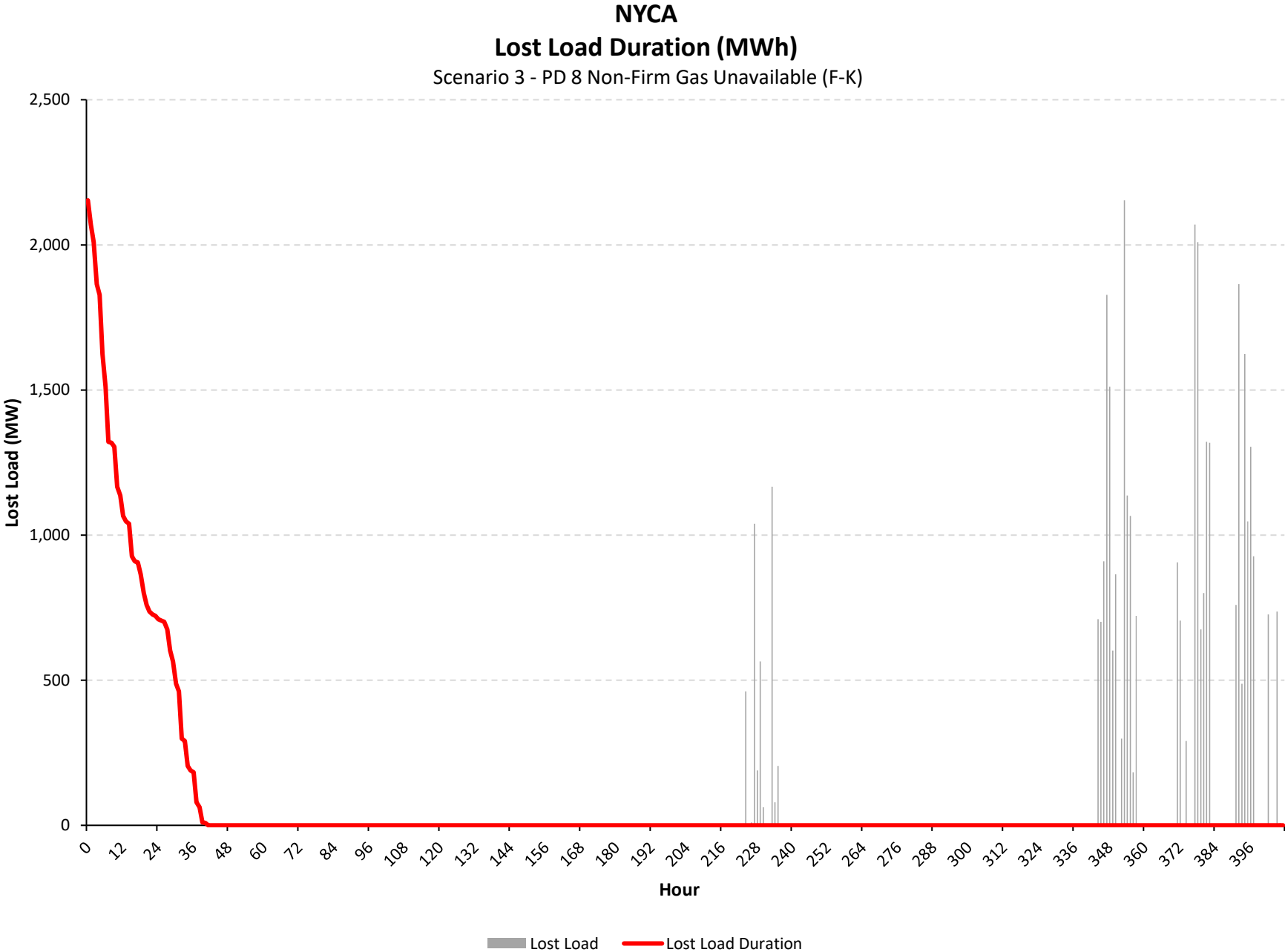






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



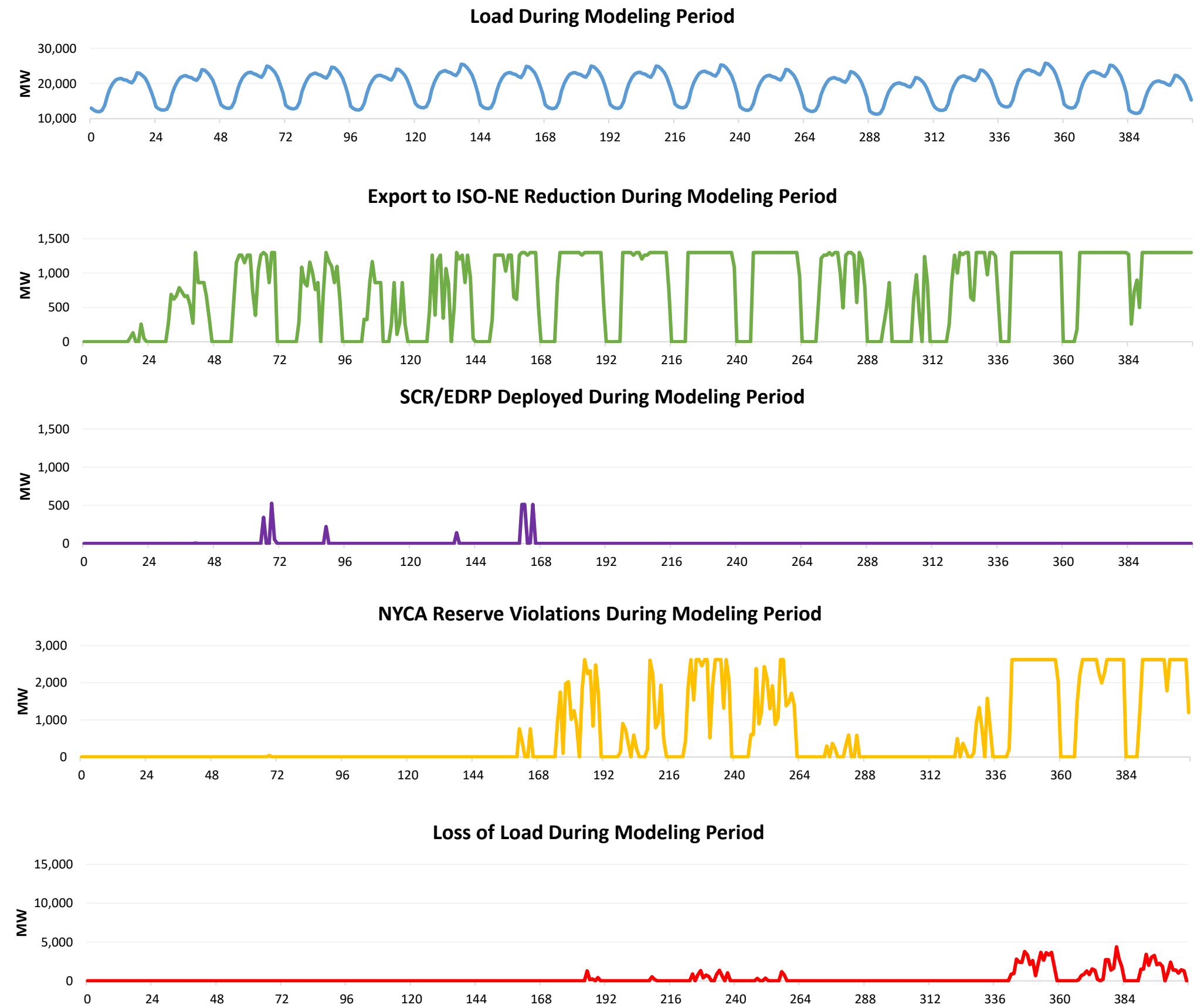


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 9 Non-Firm Gas Unavailable (NYCA) (Winter 2023/2024)

Hourly Results Summary

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



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

Export Reductions	
Total Hrs.	277
Total MWh	298,011
Avg. MW	730.4

SCR Deployment	
Total Hrs.	10
Total MWh	2,832
Avg. MW	6.9

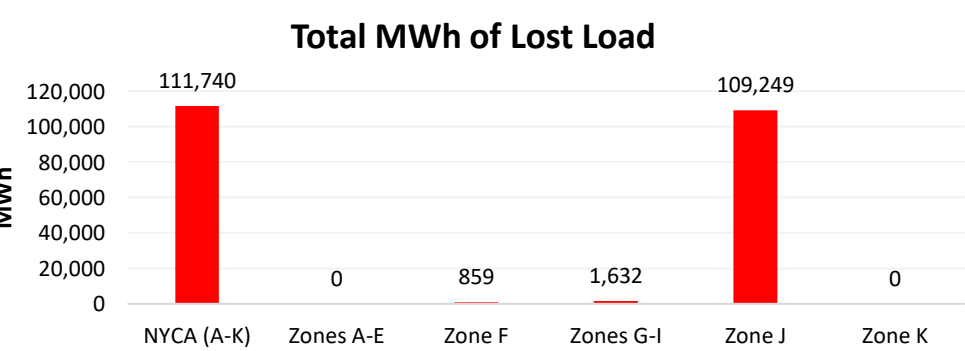
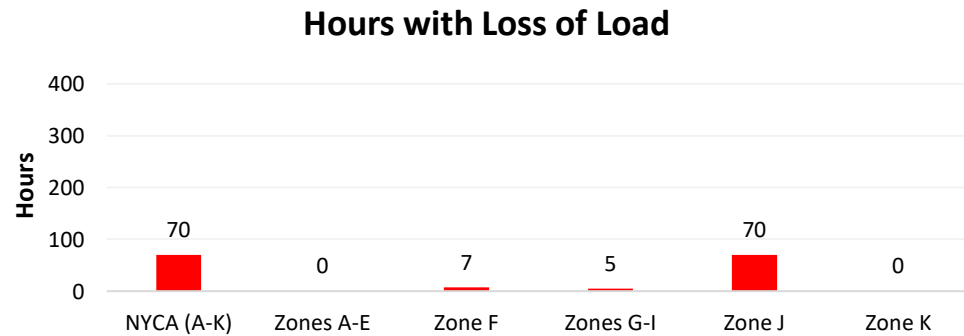
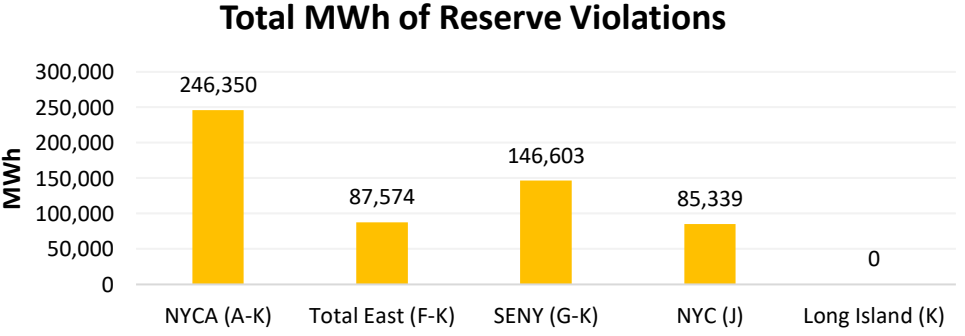
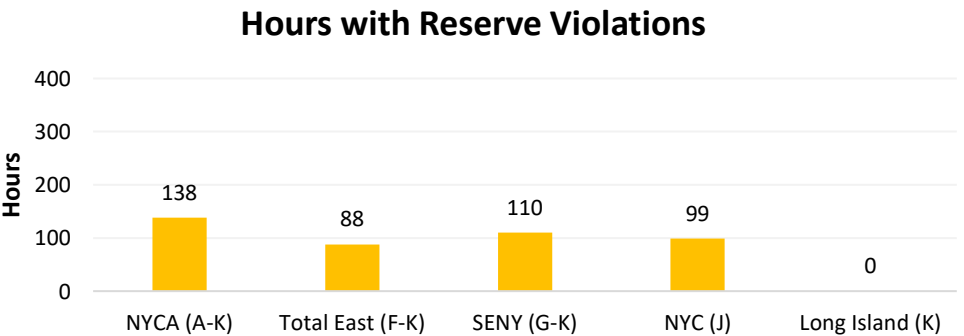
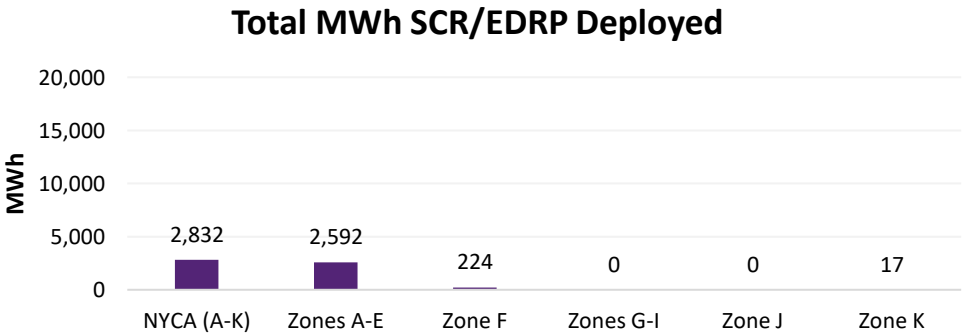
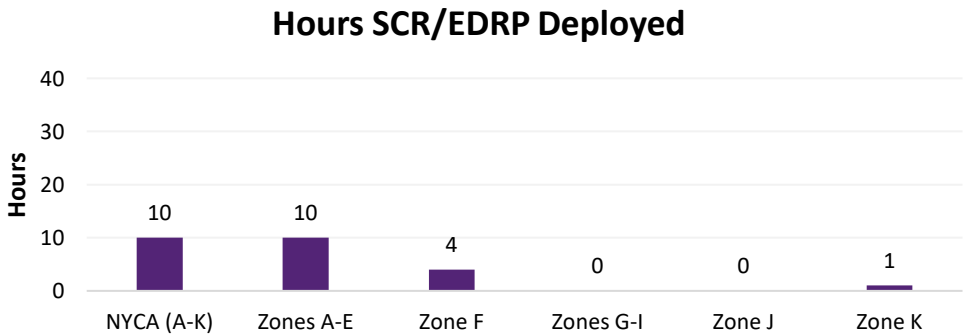
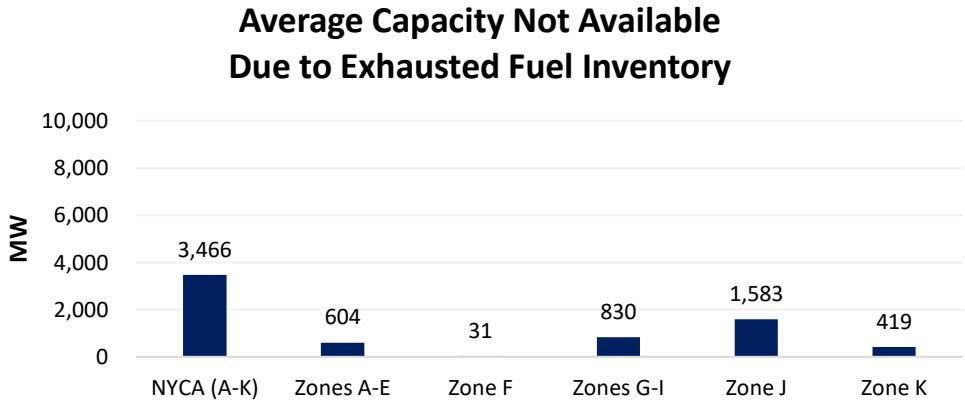
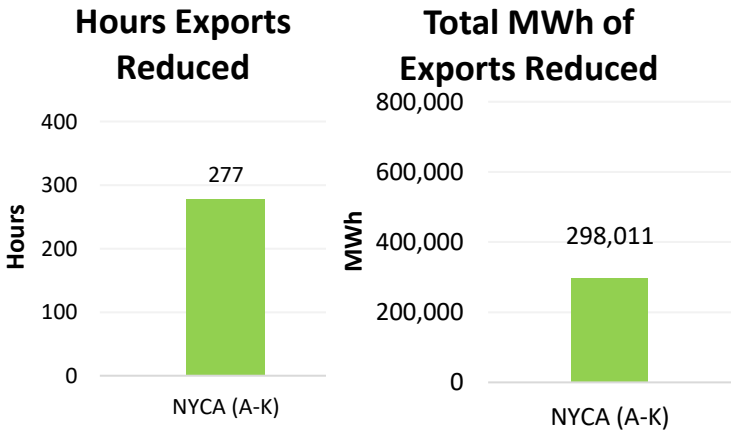
Reserve Violations	
Total Hrs.	138
Total MWh	246,350
Avg. MW	603.8
First Hour with Viol.	69

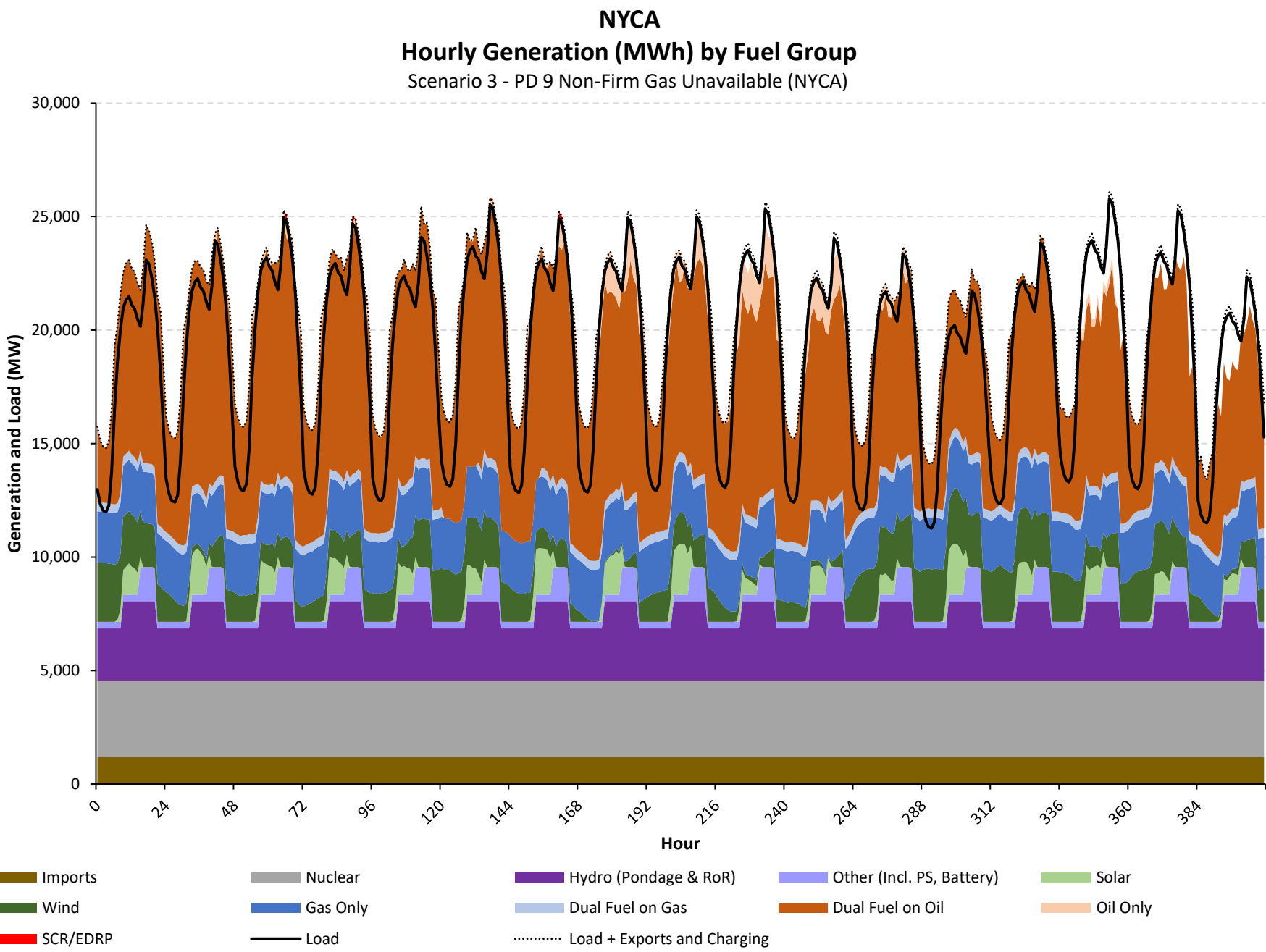
Loss of Load	
Total Hrs.	70
Total MWh	111,740
Avg. MW	273.9
First Hour with Losses	185

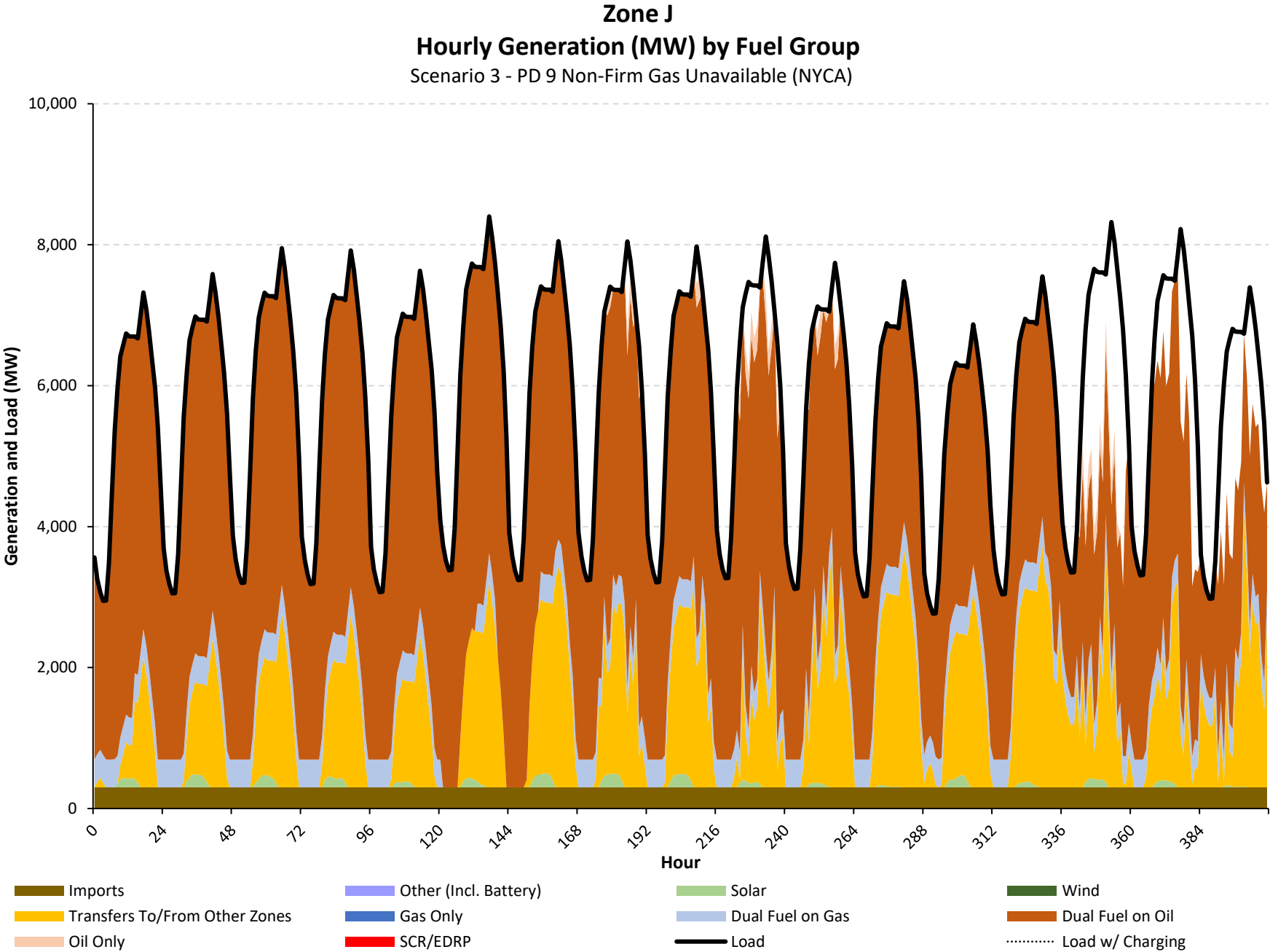
Full Period Results Summary

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

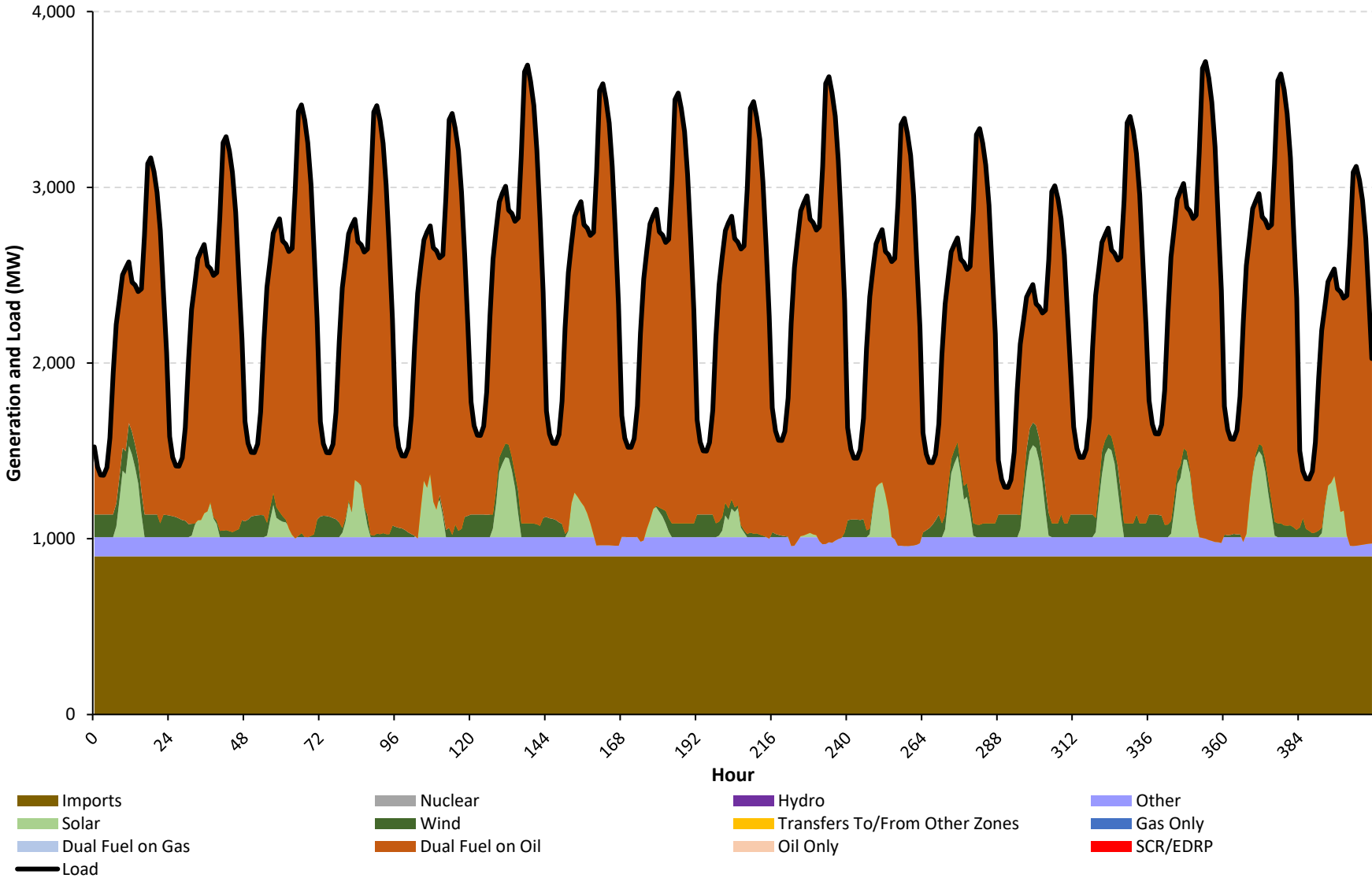
Case Summary	
Derate (EFORd) Increase:	Off
Starting Storage:	High
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

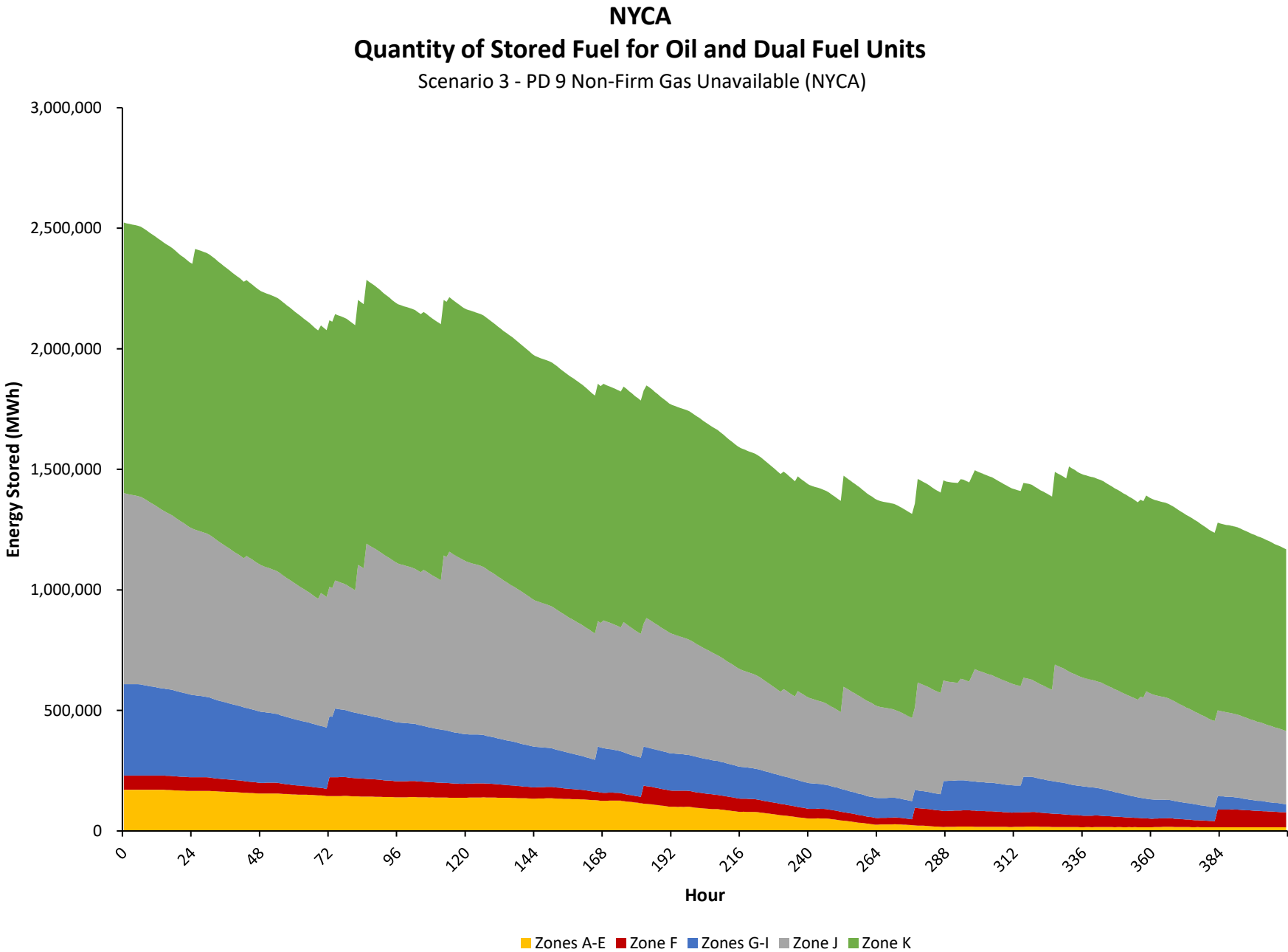


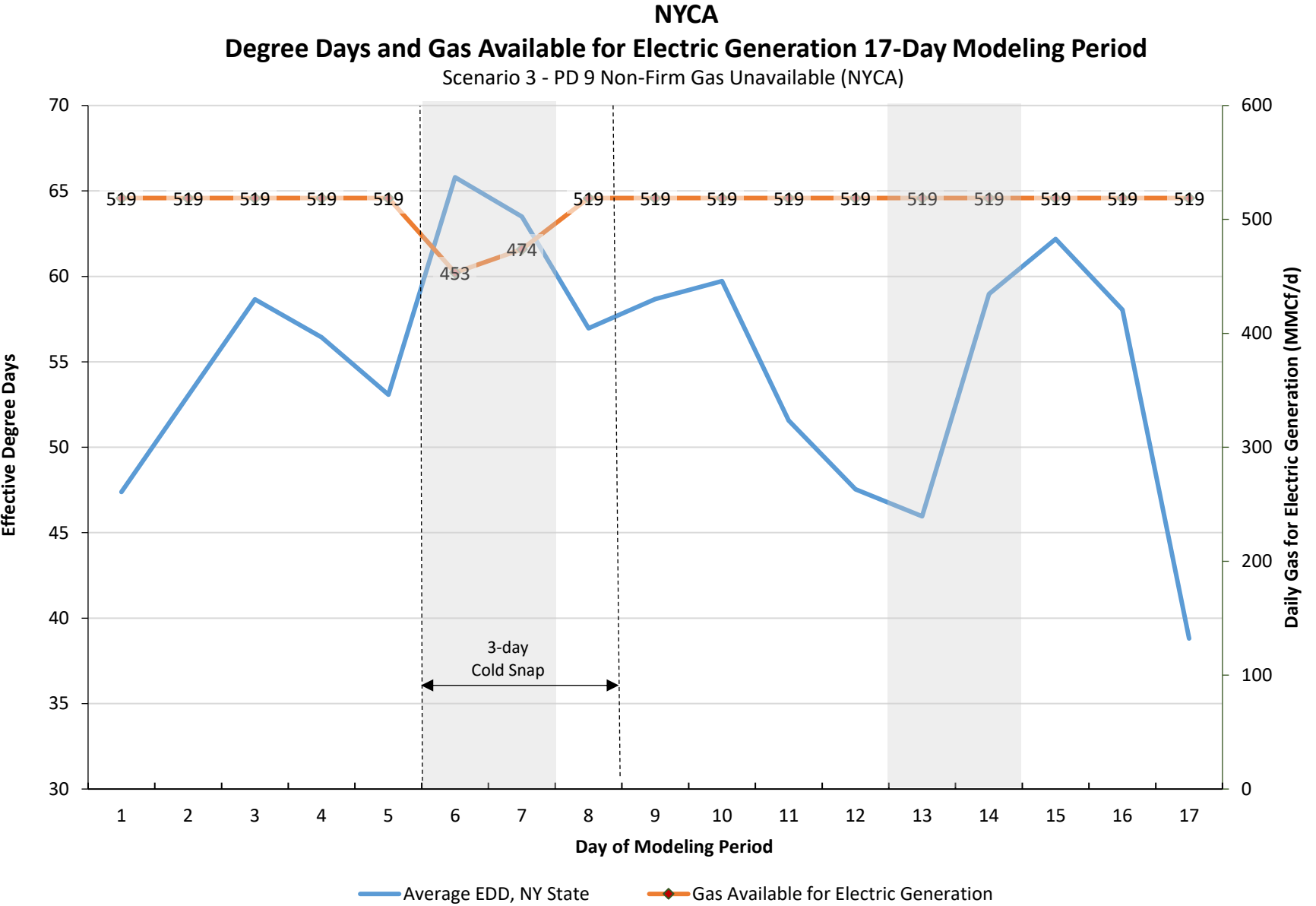




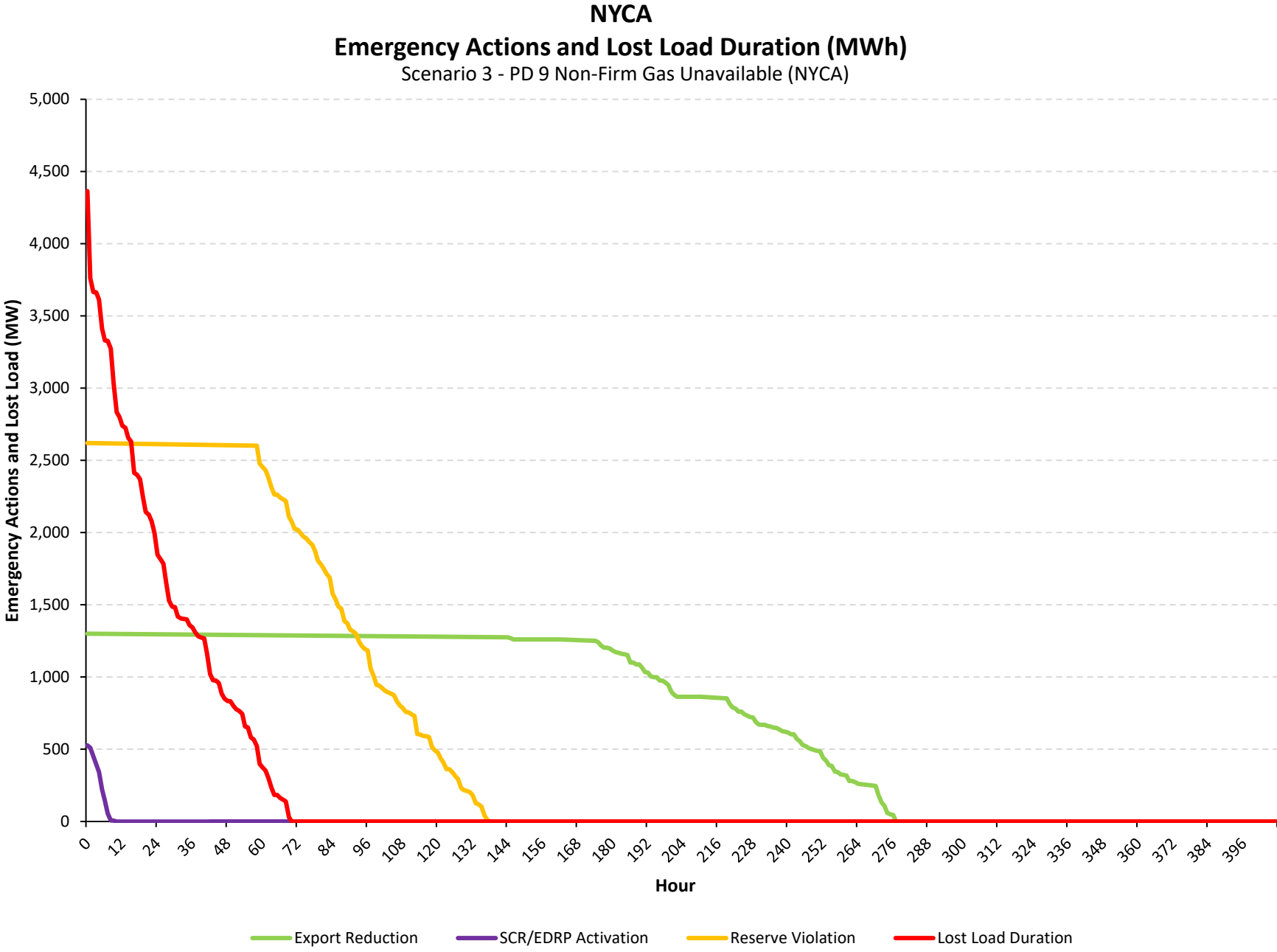
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 9 Non-Firm Gas Unavailable (NYCA)

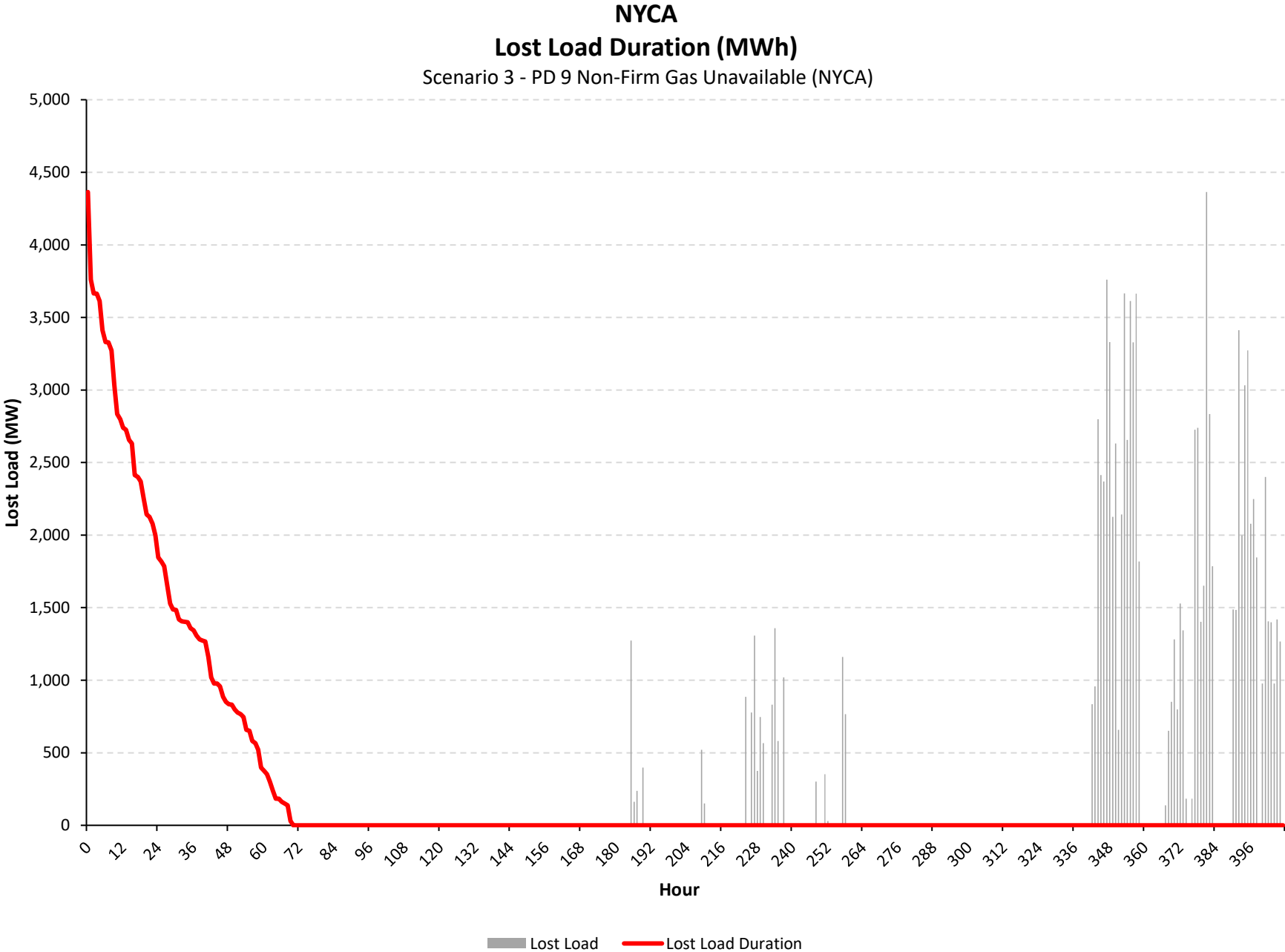






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



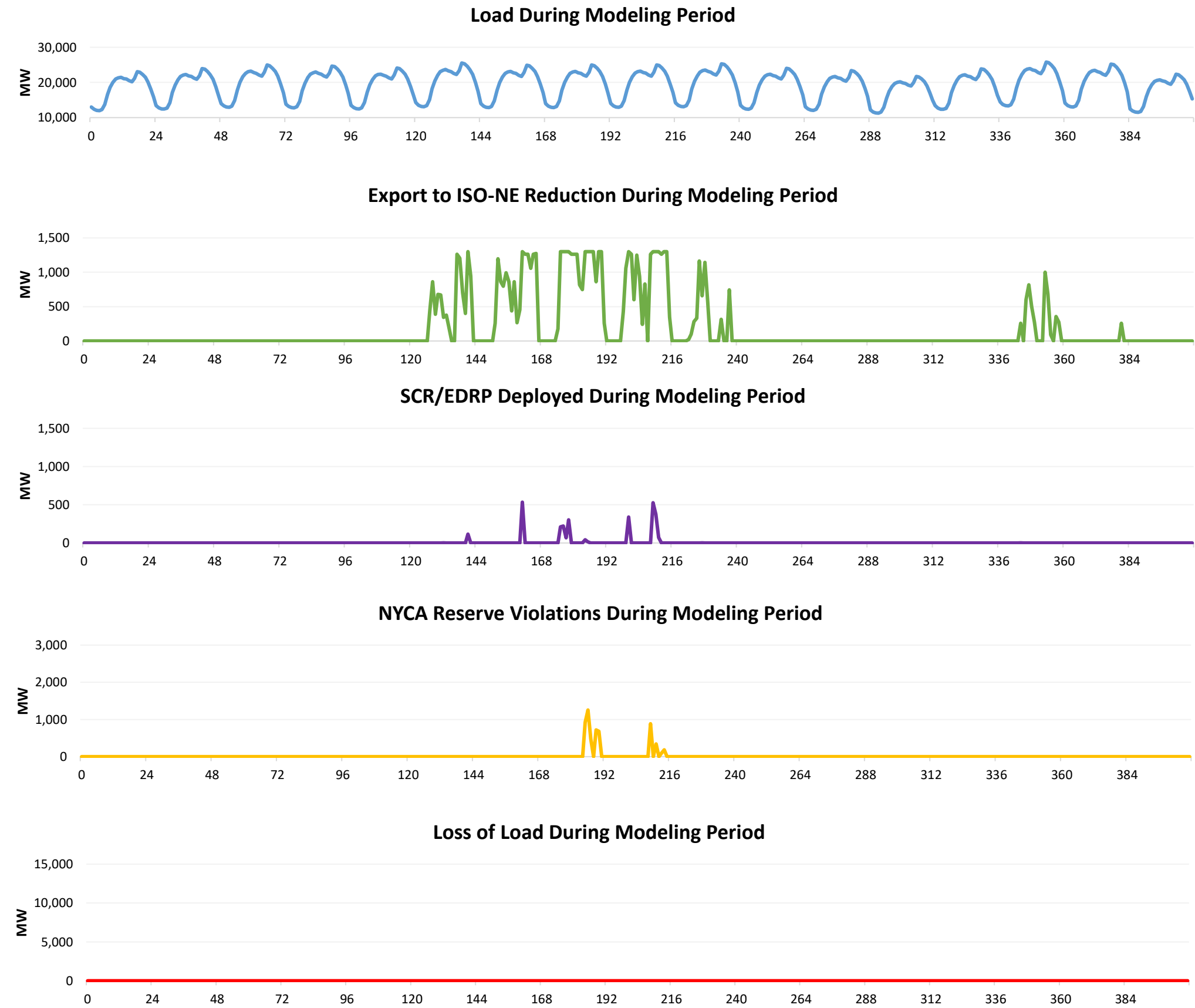


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 10 Non-Firm Gas Unavailable (4 days) (Winter 2023/2024)

Hourly Results Summary

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



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

Export Reductions	
Total Hrs.	86
Total MWh	71,558
Avg. MW	175.4

SCR Deployment	
Total Hrs.	12
Total MWh	2,822
Avg. MW	6.9

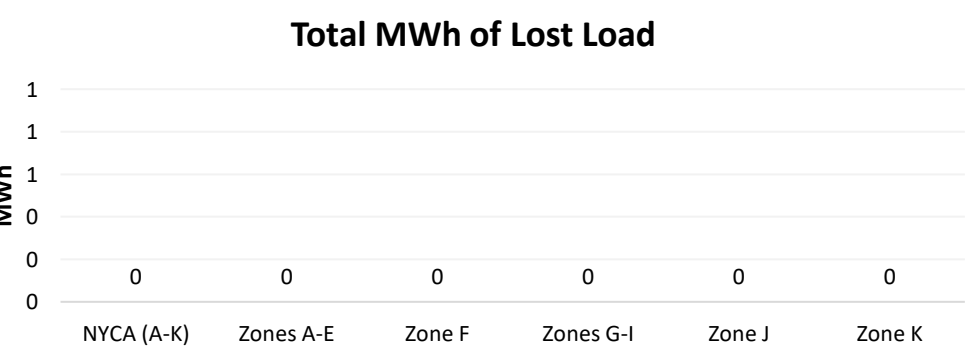
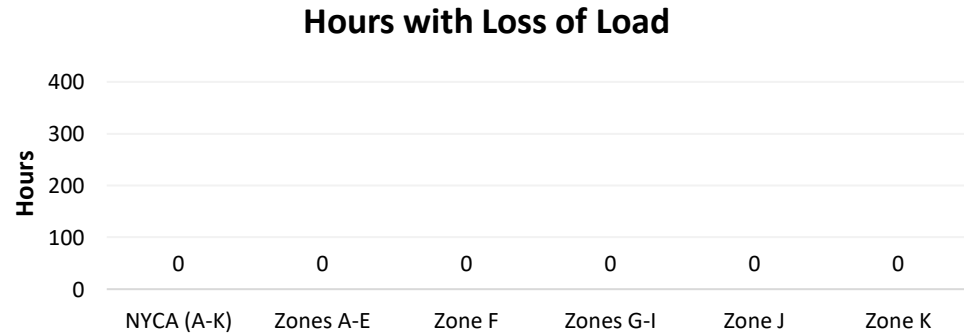
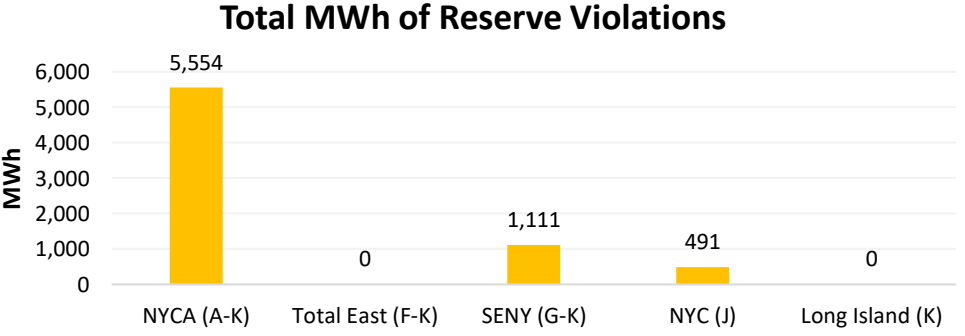
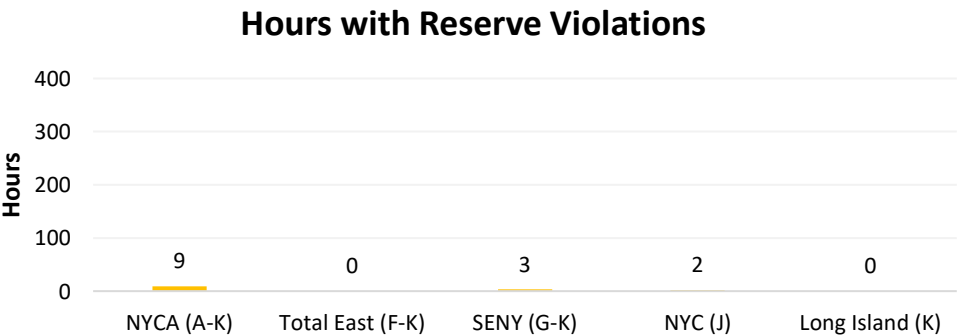
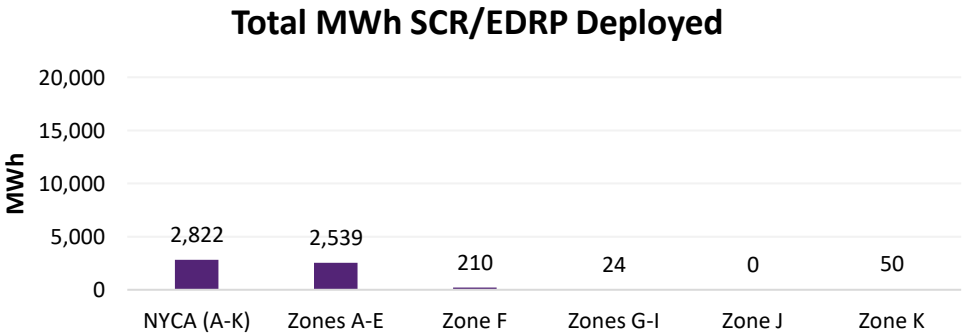
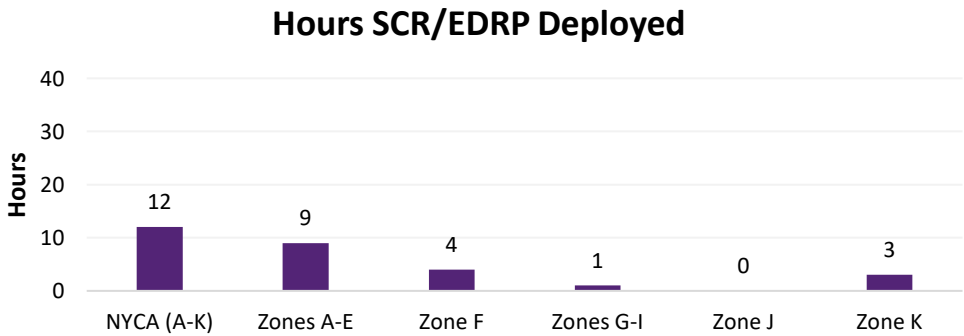
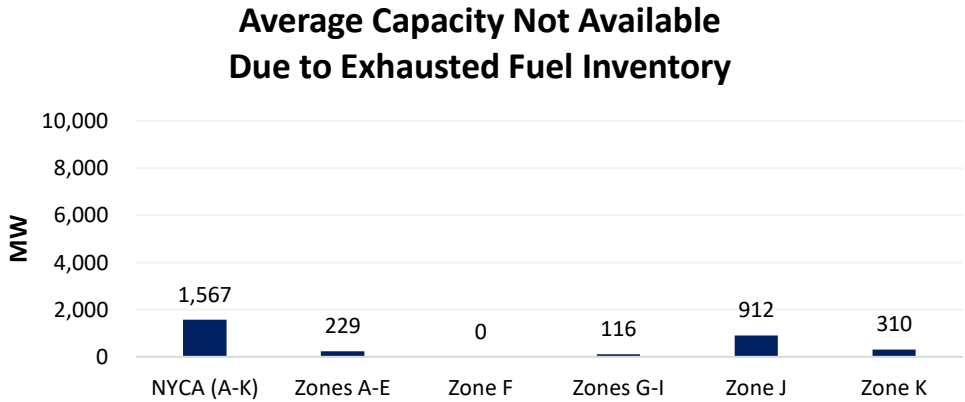
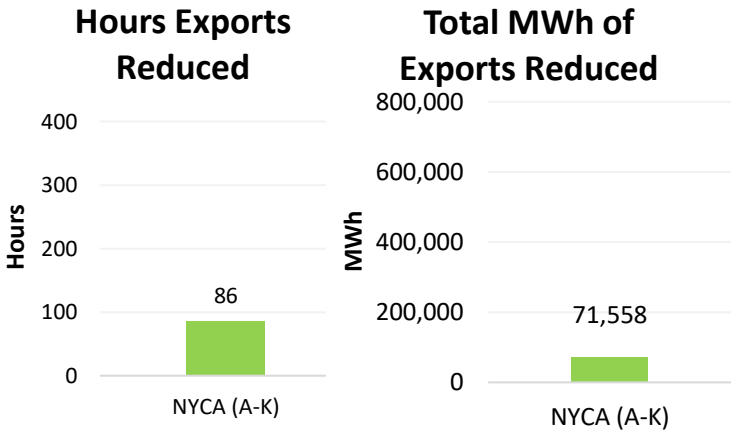
Reserve Violations	
Total Hrs.	9
Total MWh	5,554
Avg. MW	13.6
First Hour with Viol.	185

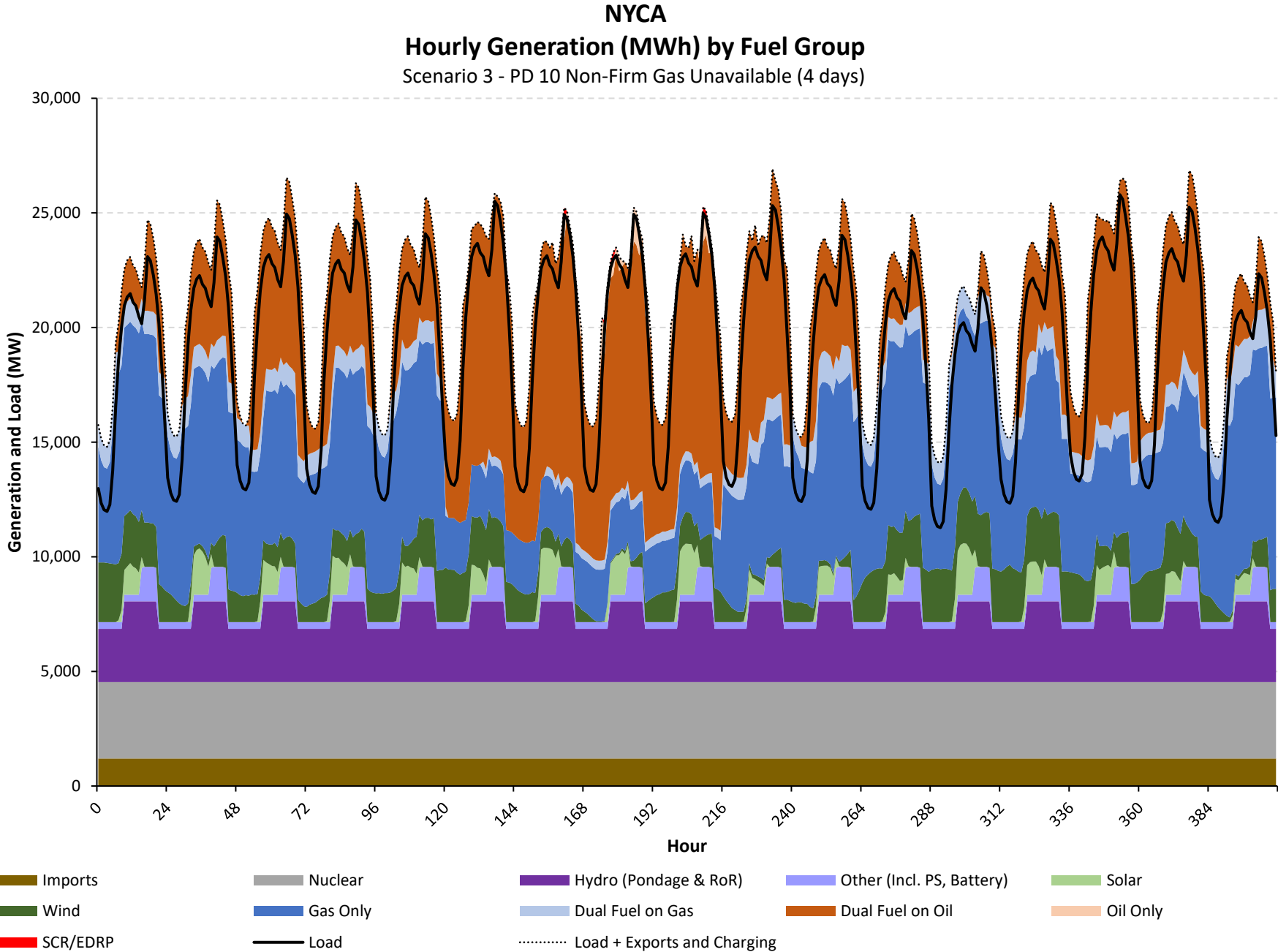
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

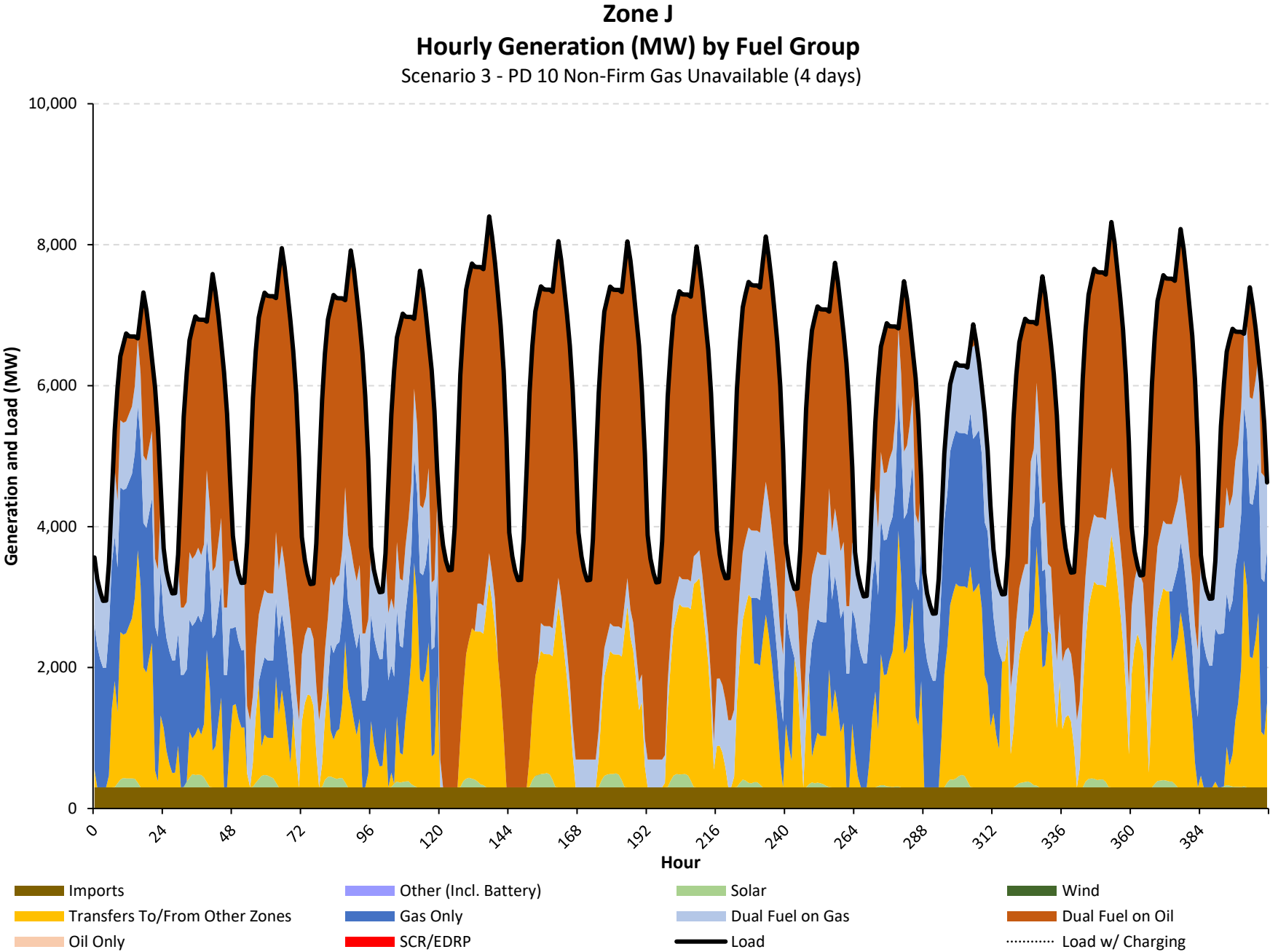
Full Period Results Summary

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

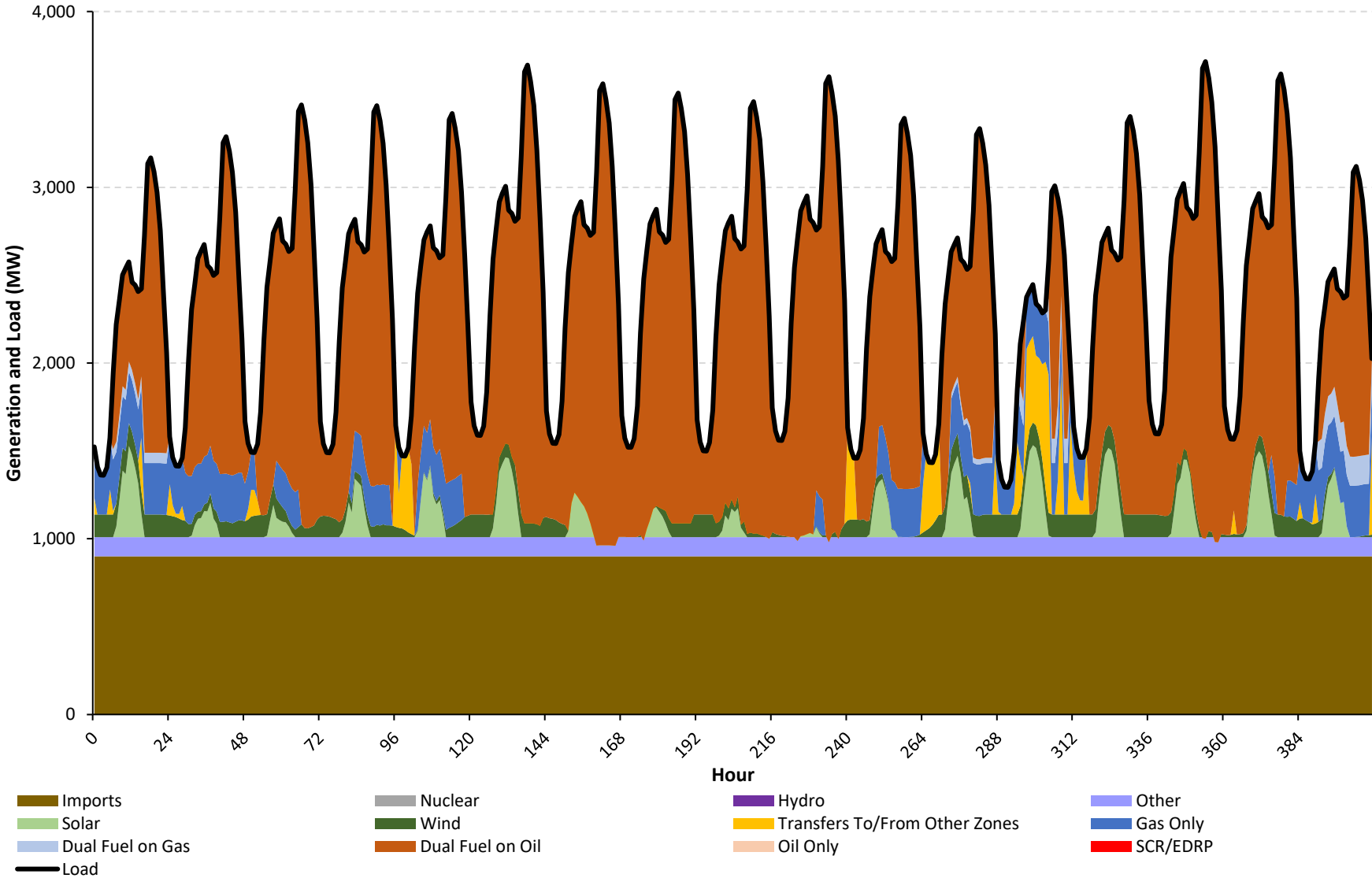
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	High
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All

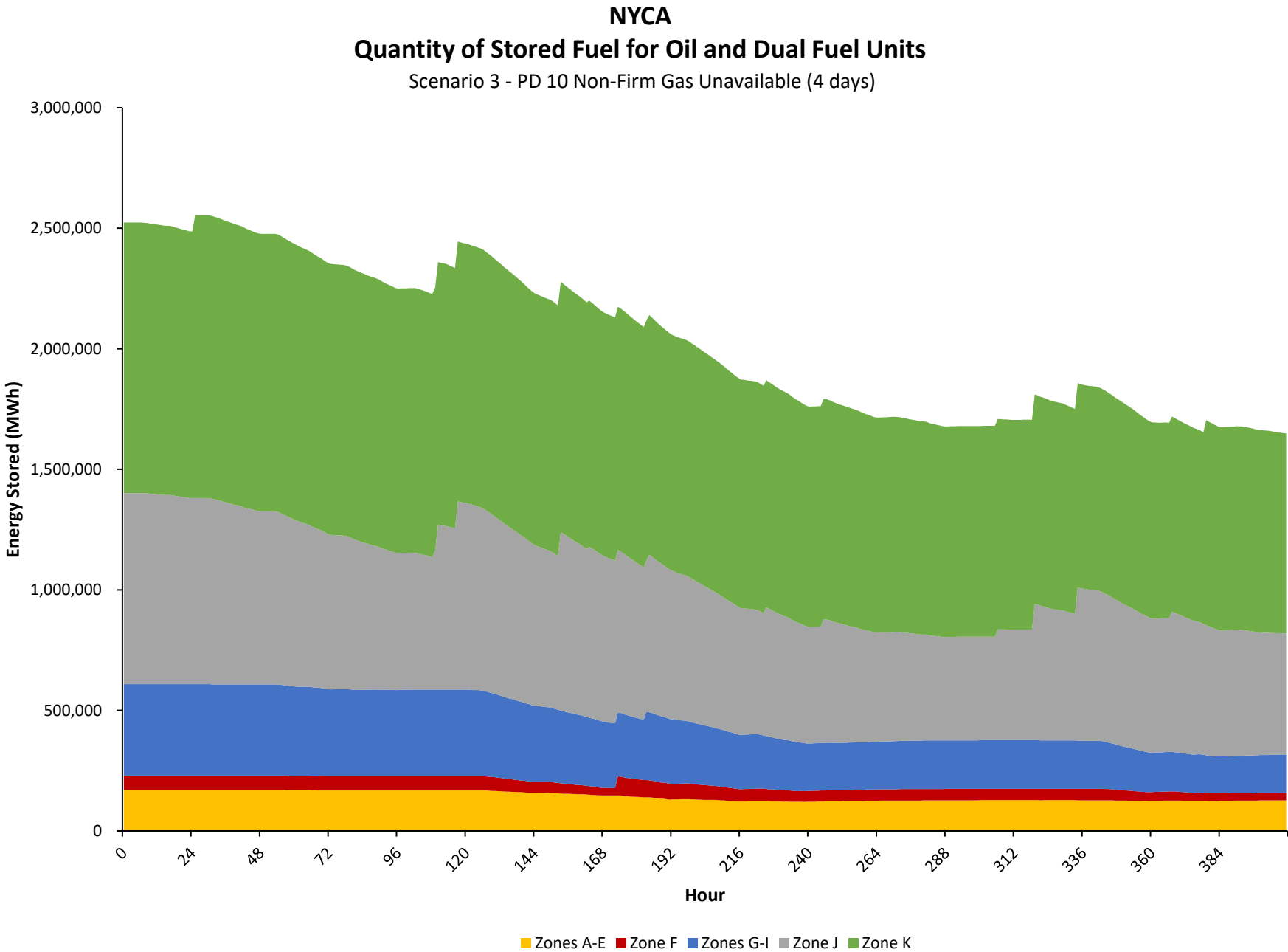


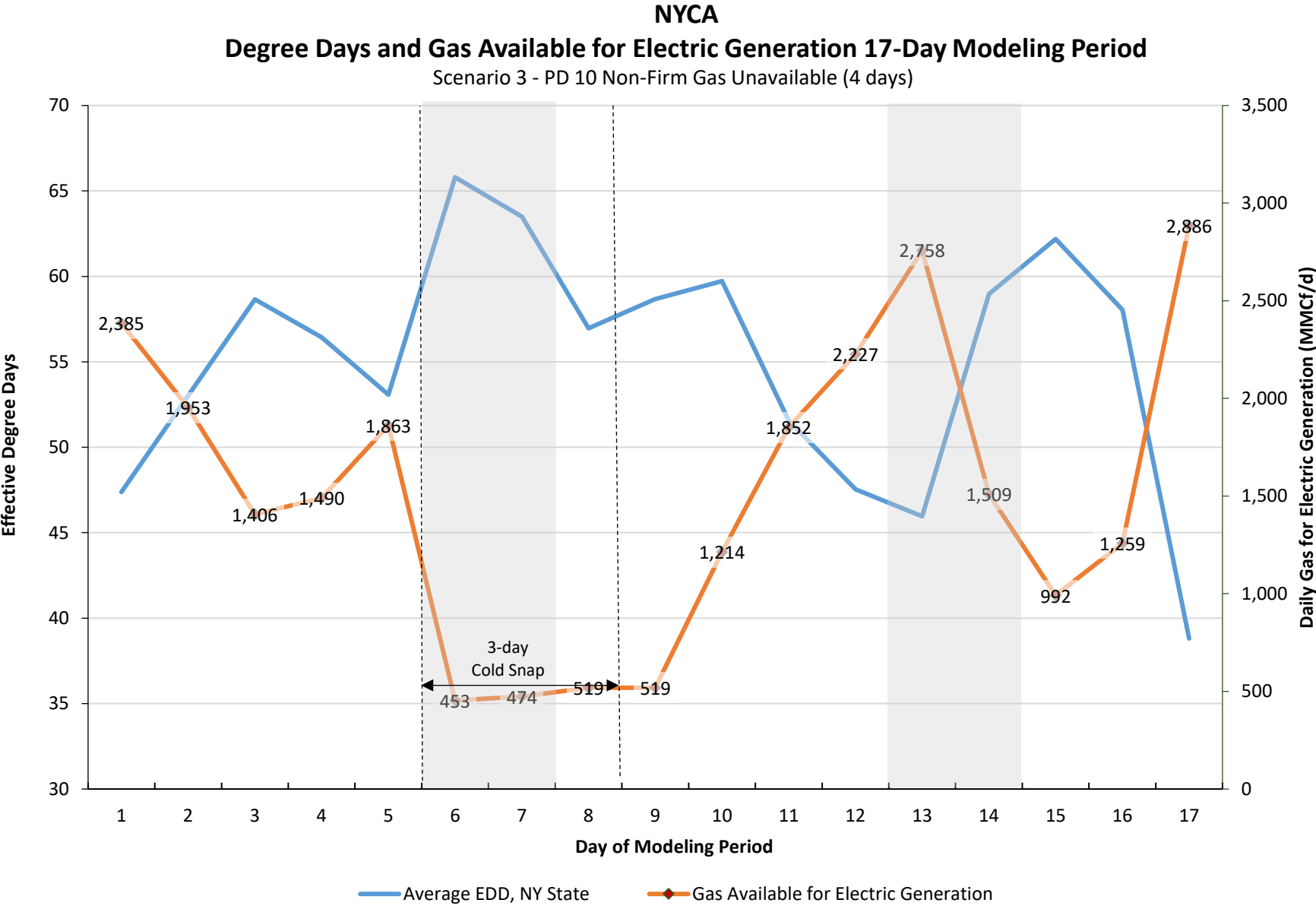




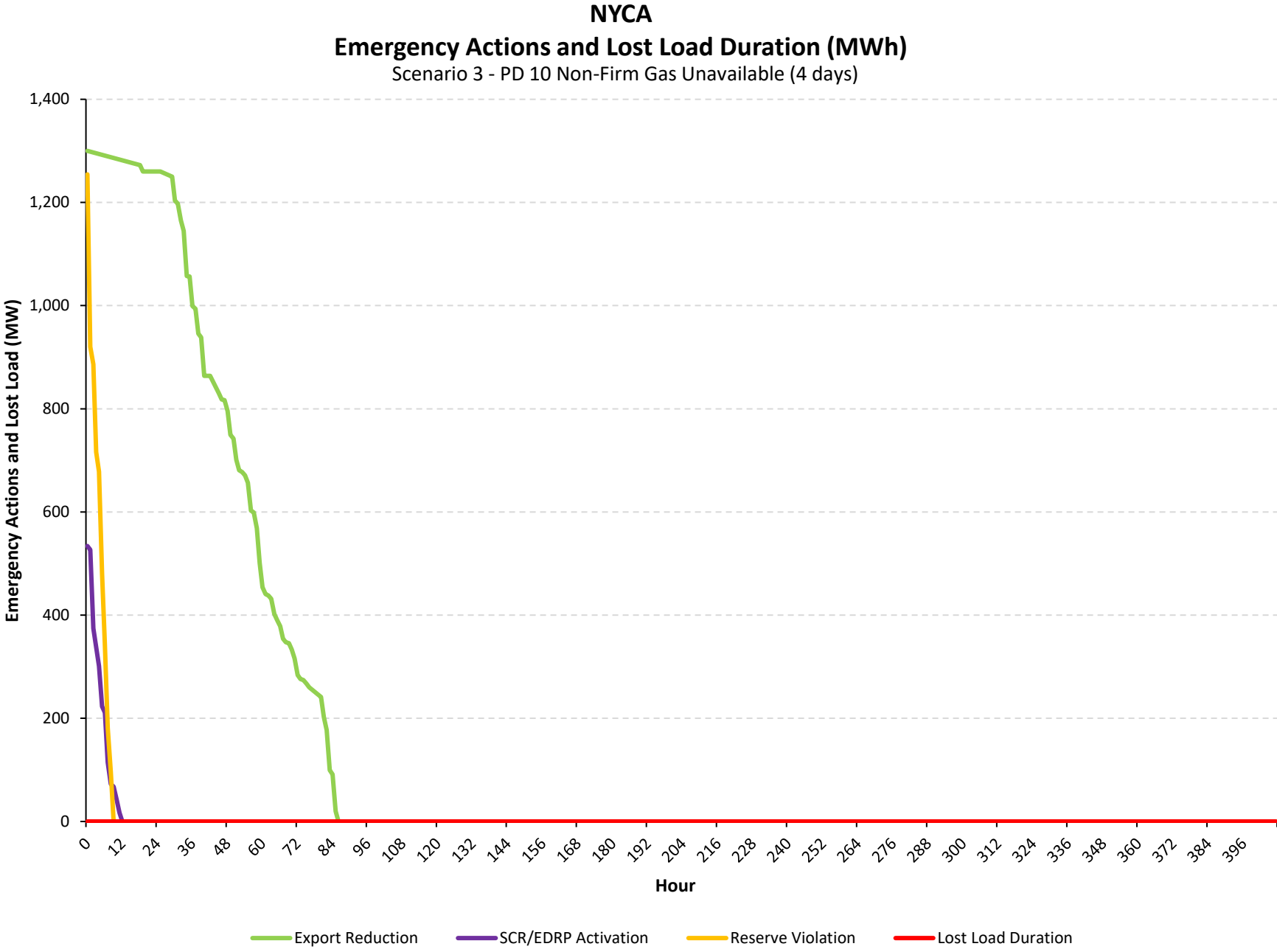
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 10 Non-Firm Gas Unavailable (4 days)

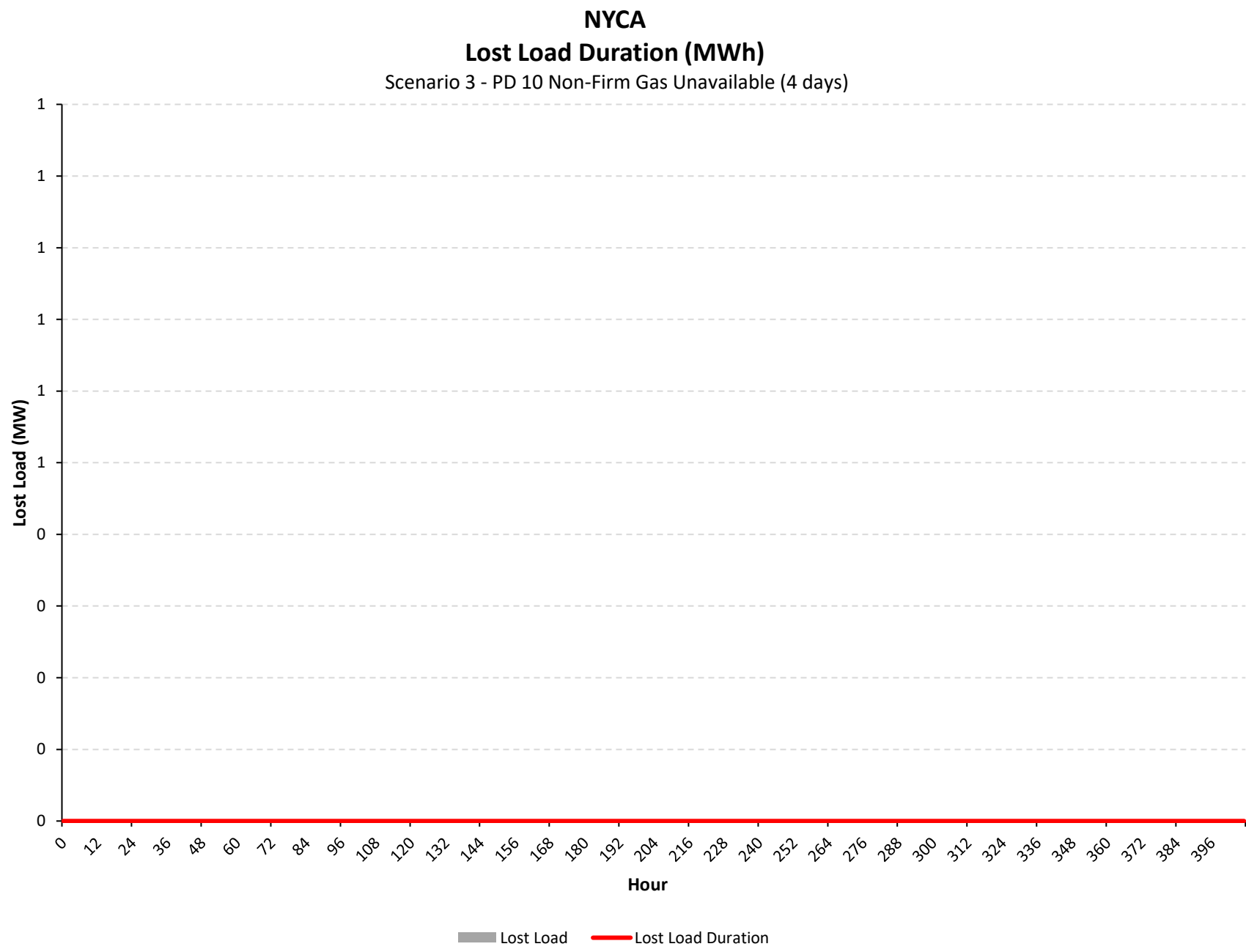






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



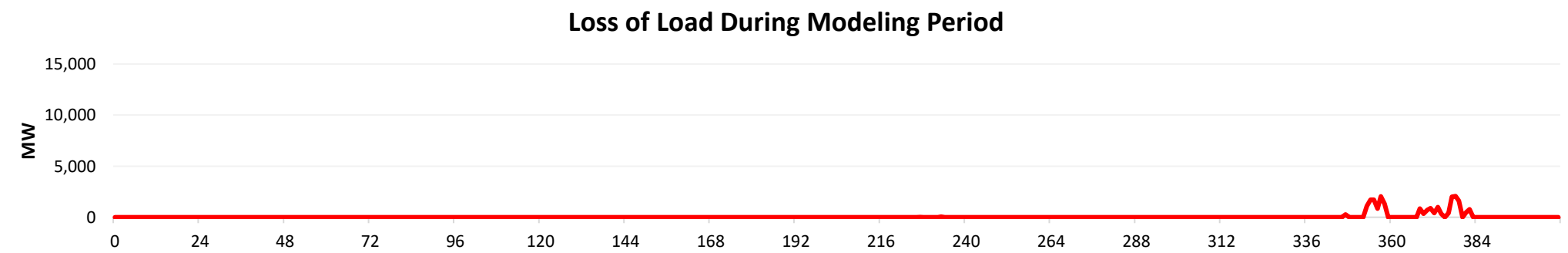
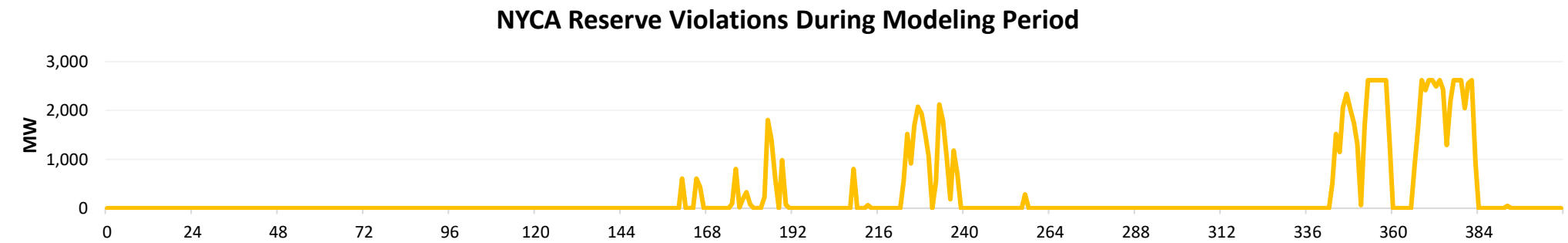
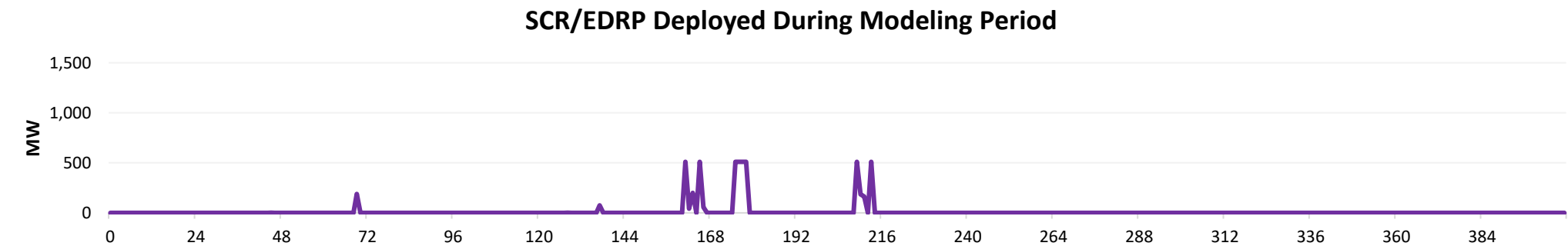
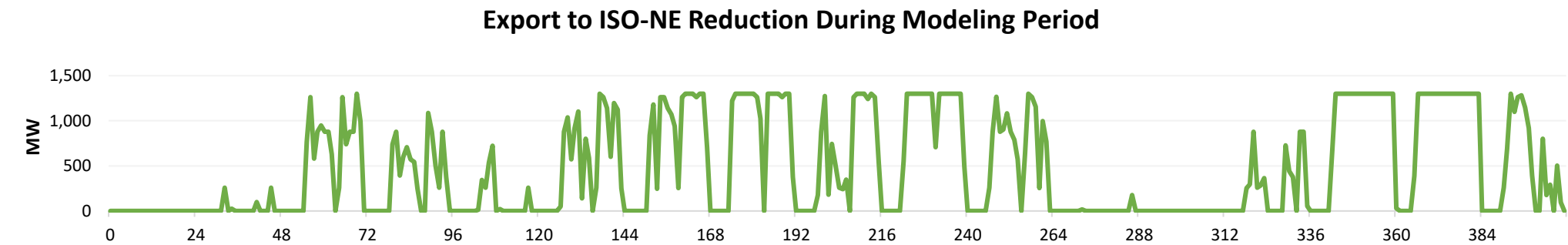
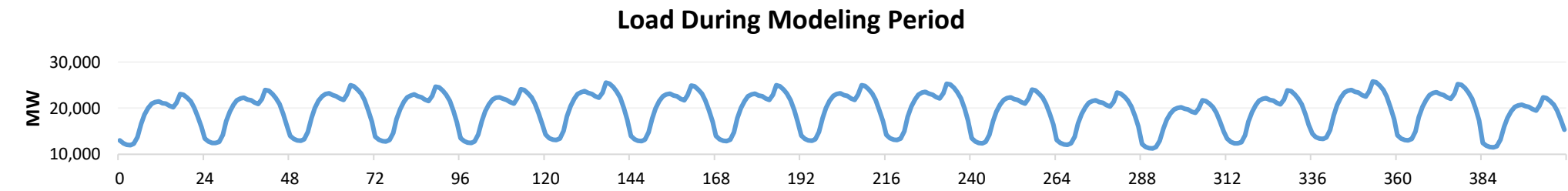


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 11 Combination Disruption (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 3 - PD 11 Combination Disruption



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

Export Reductions	
Total Hrs.	208
Total MWh	188,425
Avg. MW	461.8

SCR Deployment	
Total Hrs.	15
Total MWh	4,992
Avg. MW	12.2

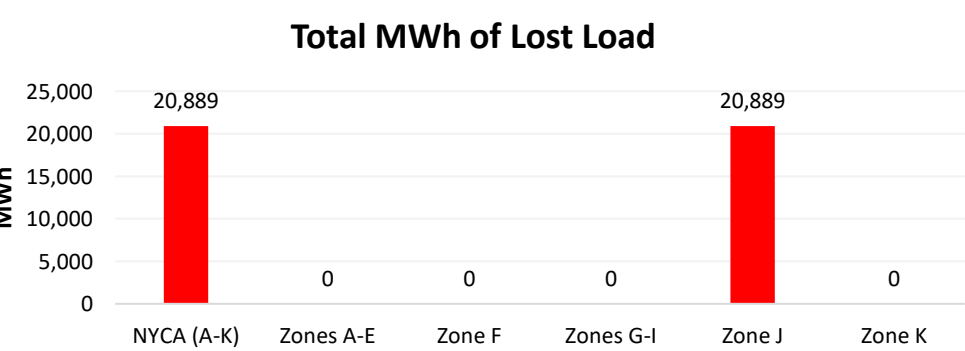
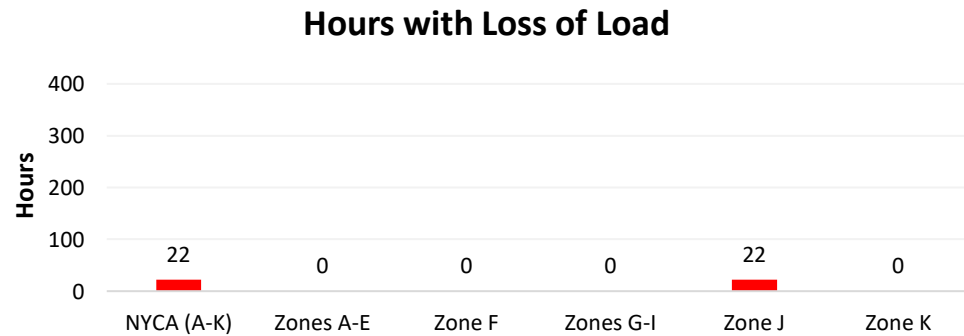
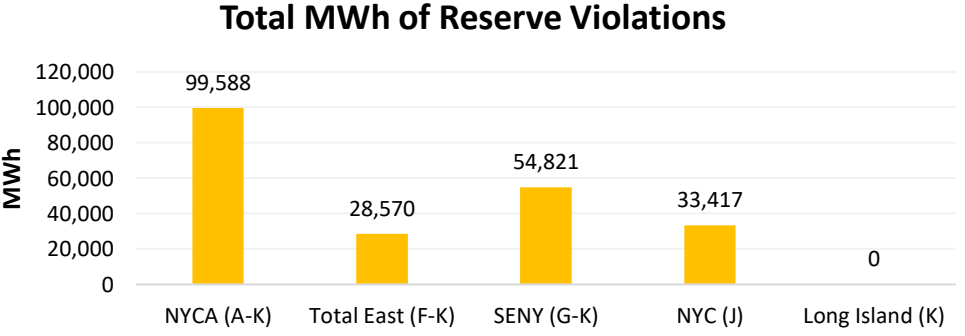
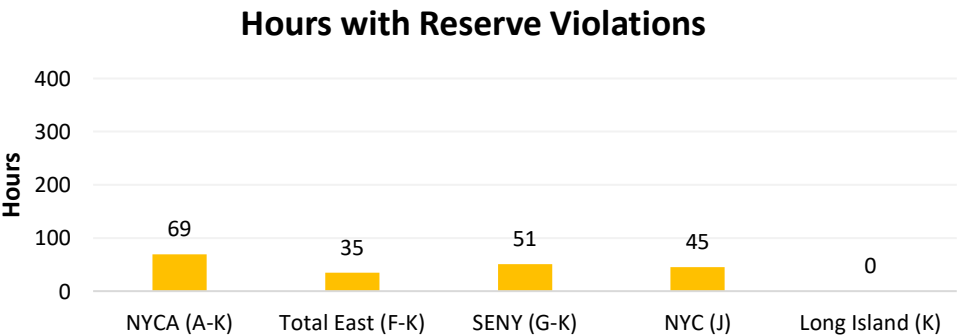
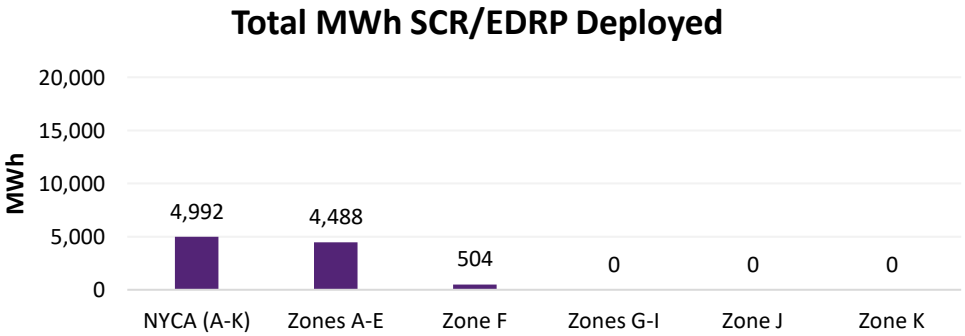
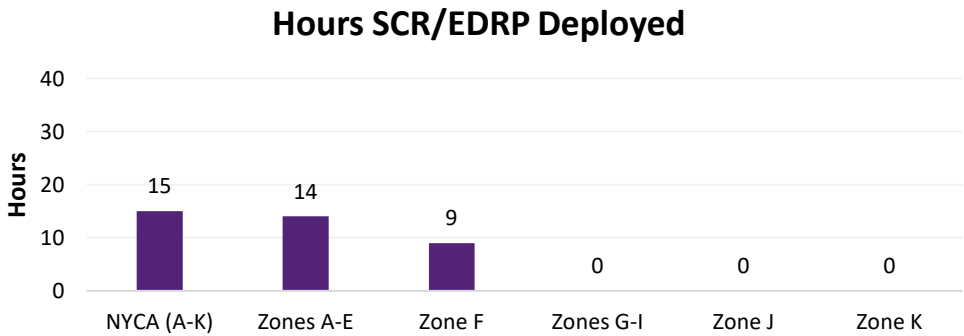
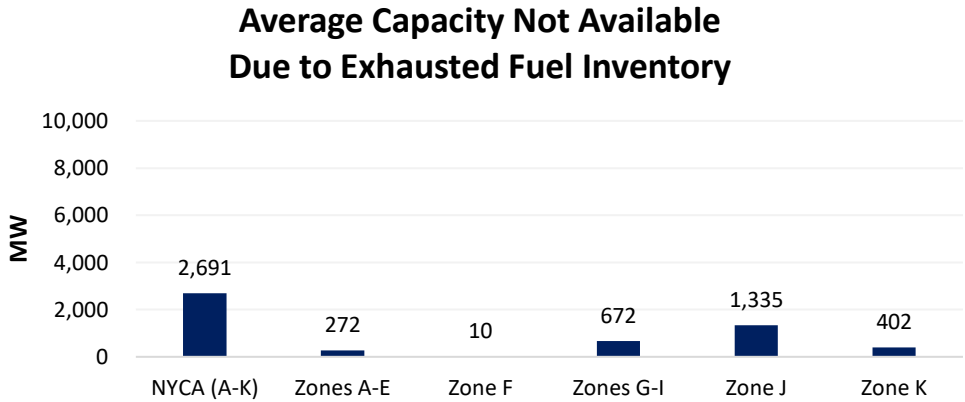
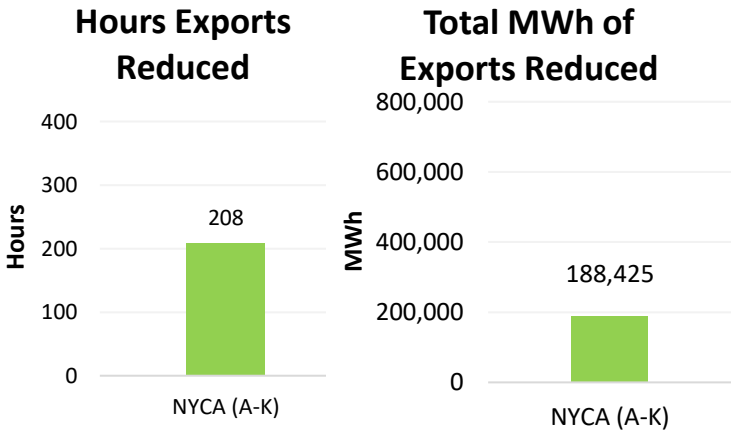
Reserve Violations	
Total Hrs.	69
Total MWh	99,588
Avg. MW	244.1
First Hour with Viol.	161

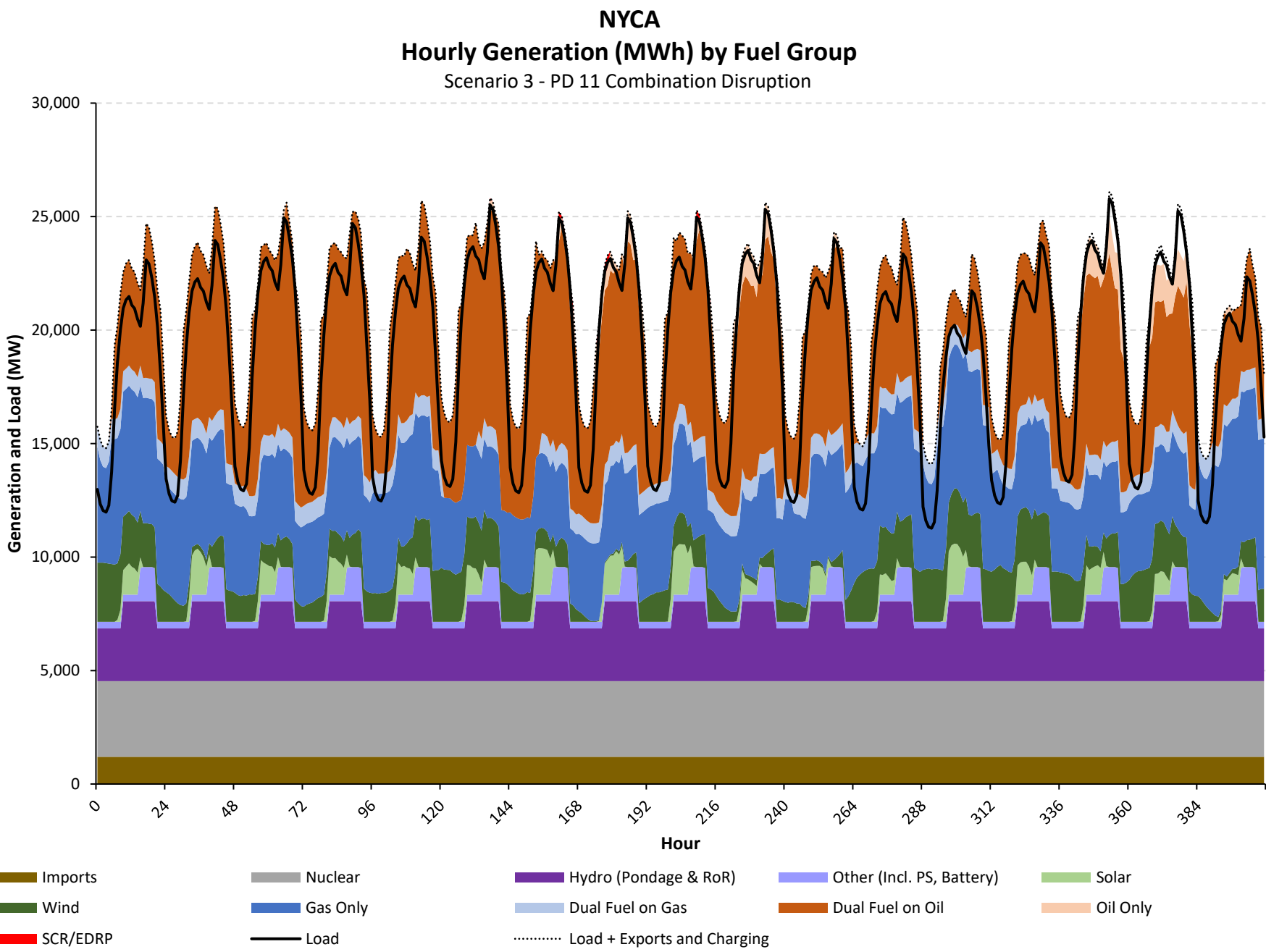
Loss of Load	
Total Hrs.	22
Total MWh	20,889
Avg. MW	51.2
First Hour with Losses	227

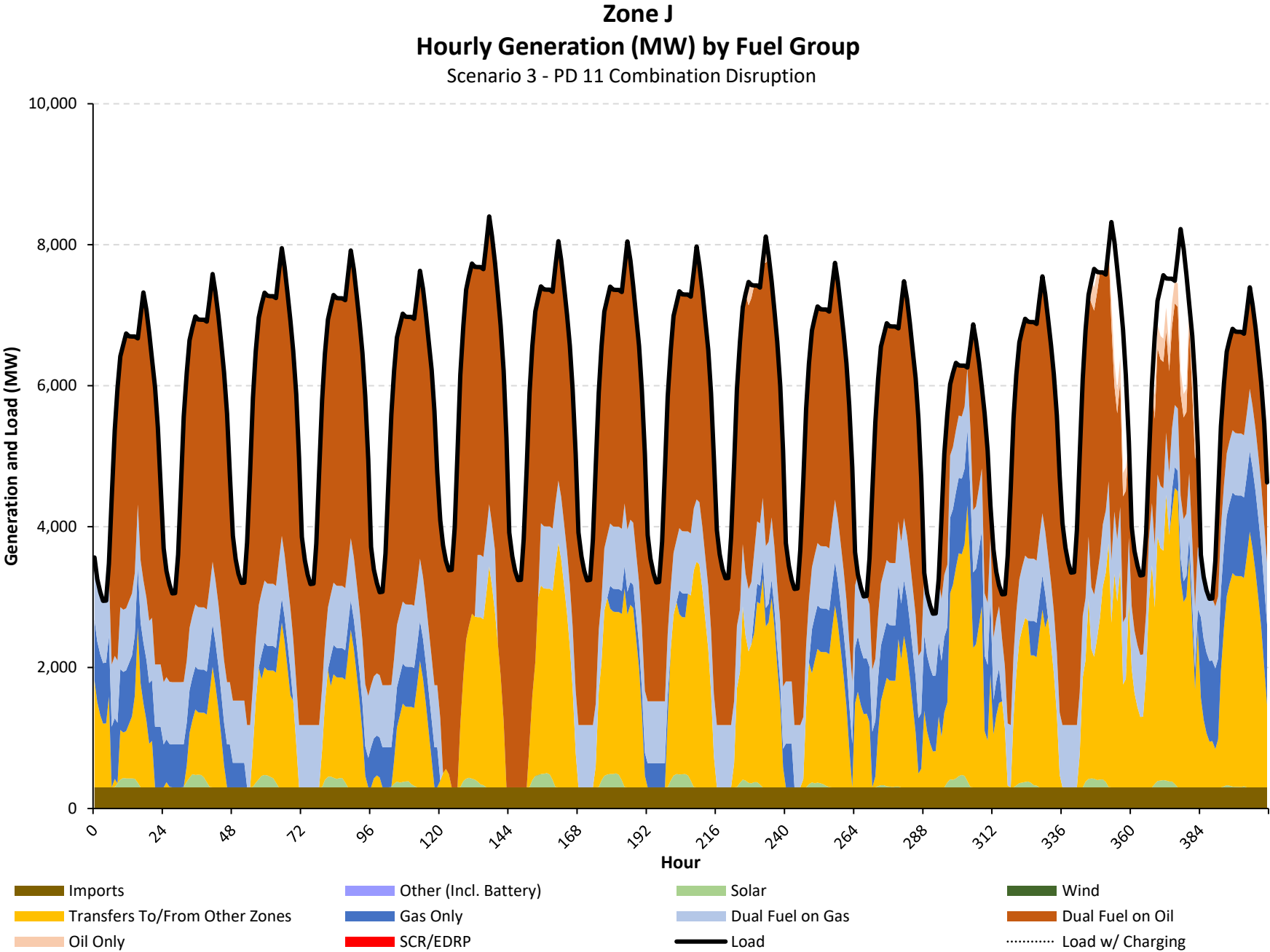
Full Period Results Summary

Case Name: Scenario 3 - PD 11 Combination Disruption

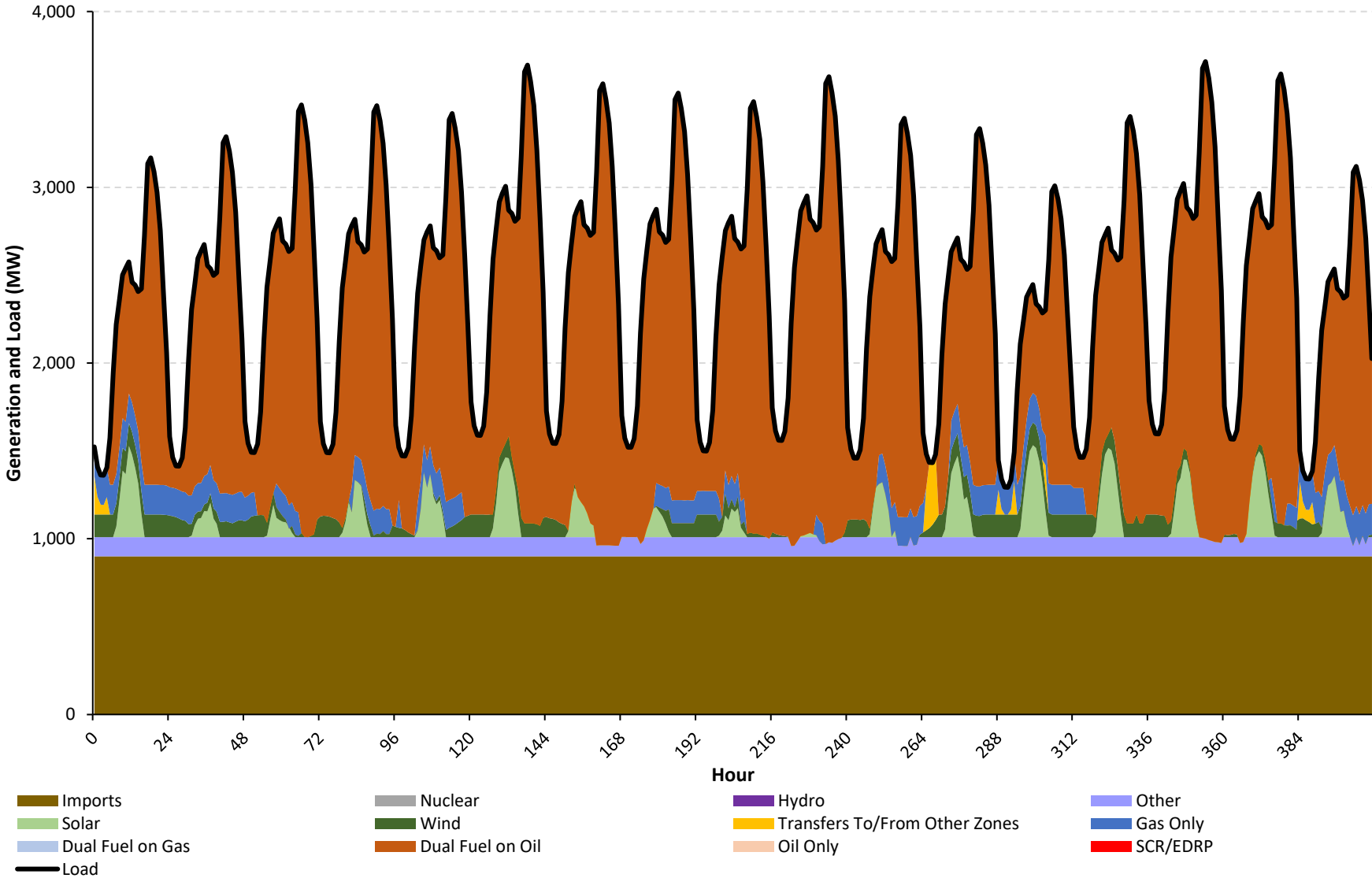
Case Summary	
Derate (EFORd) Increase:	High
Starting Storage:	High
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	All



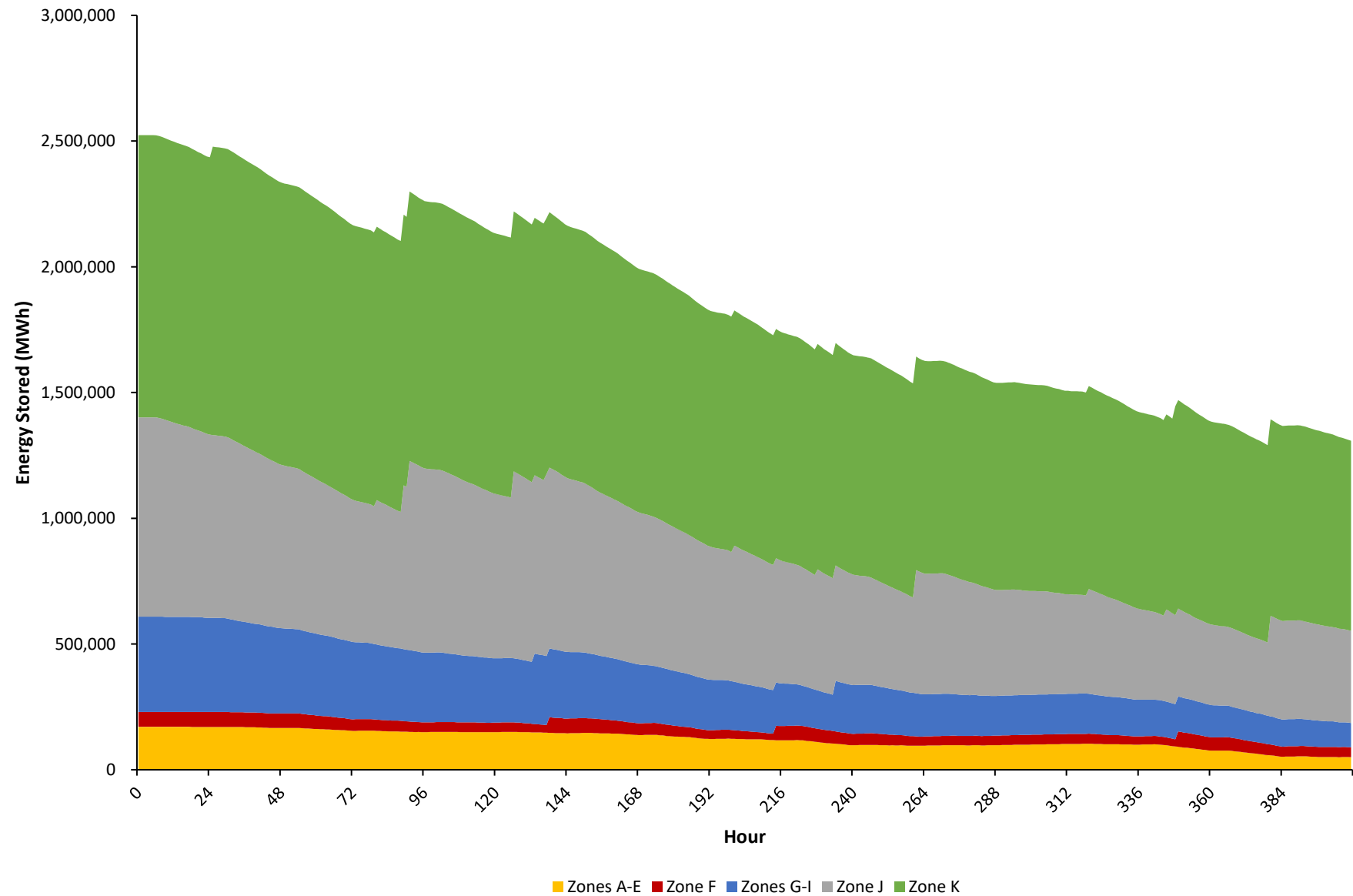


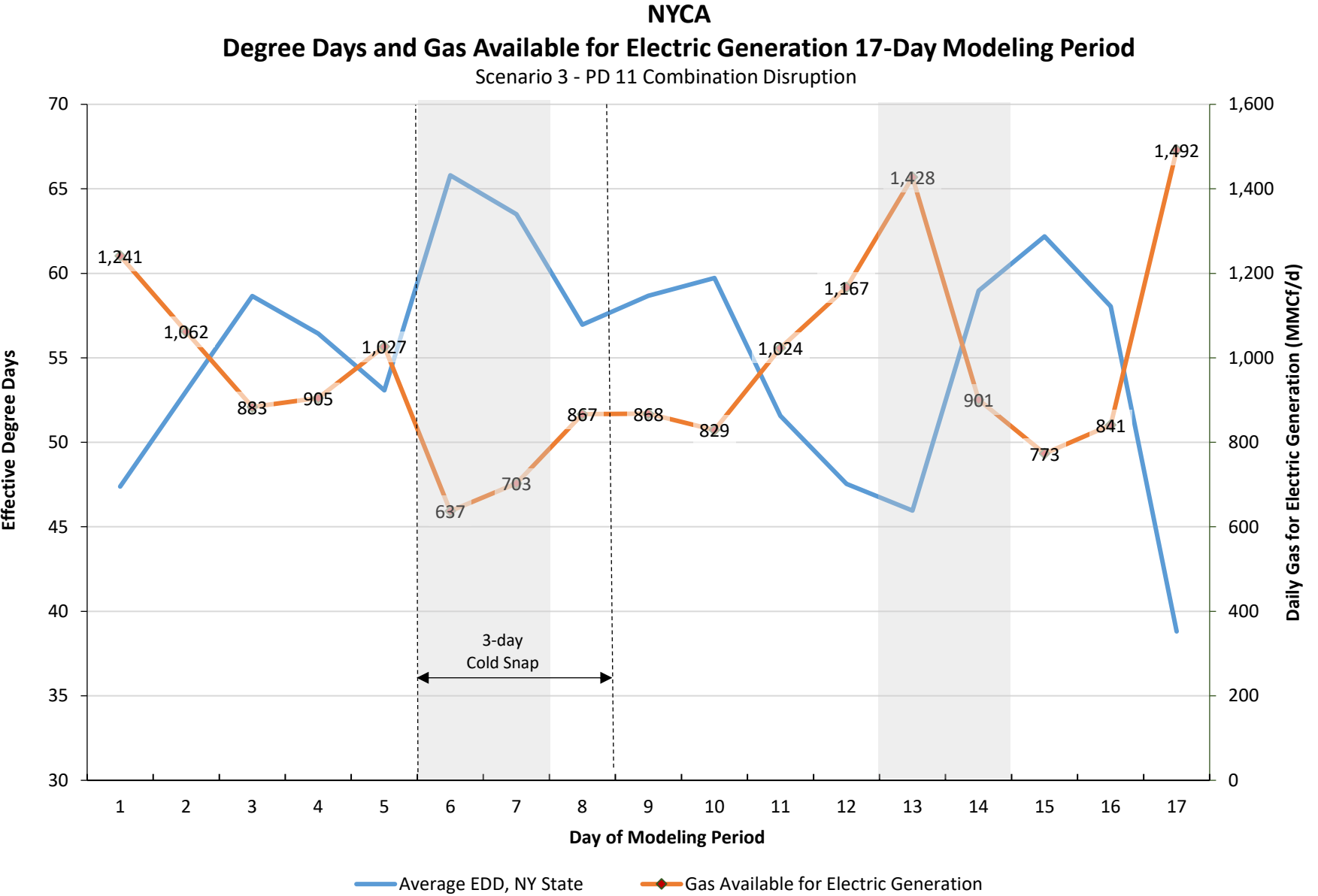


Zone K
Hourly Generation (MW) by Fuel Group
Scenario 3 - PD 11 Combination Disruption

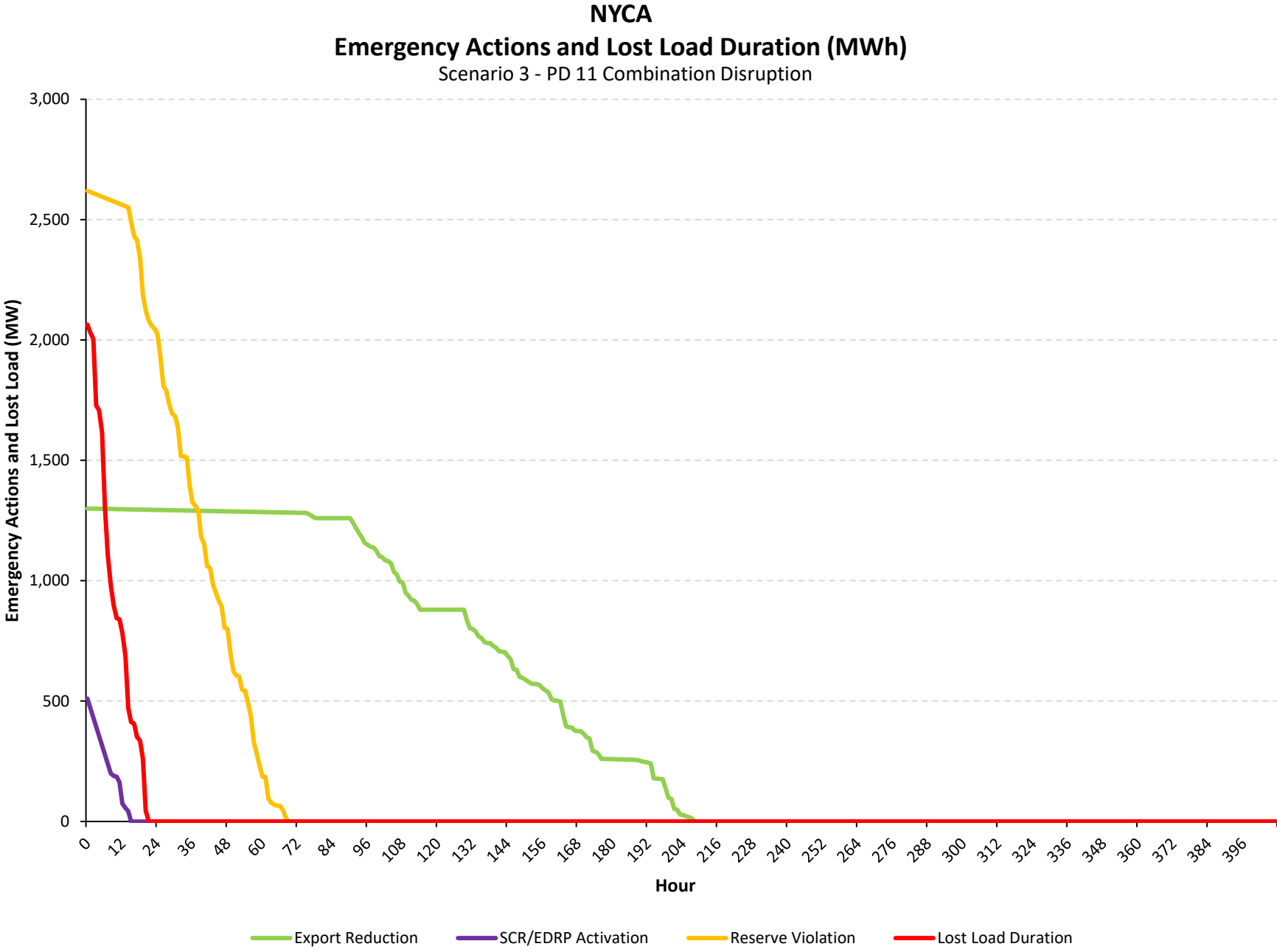


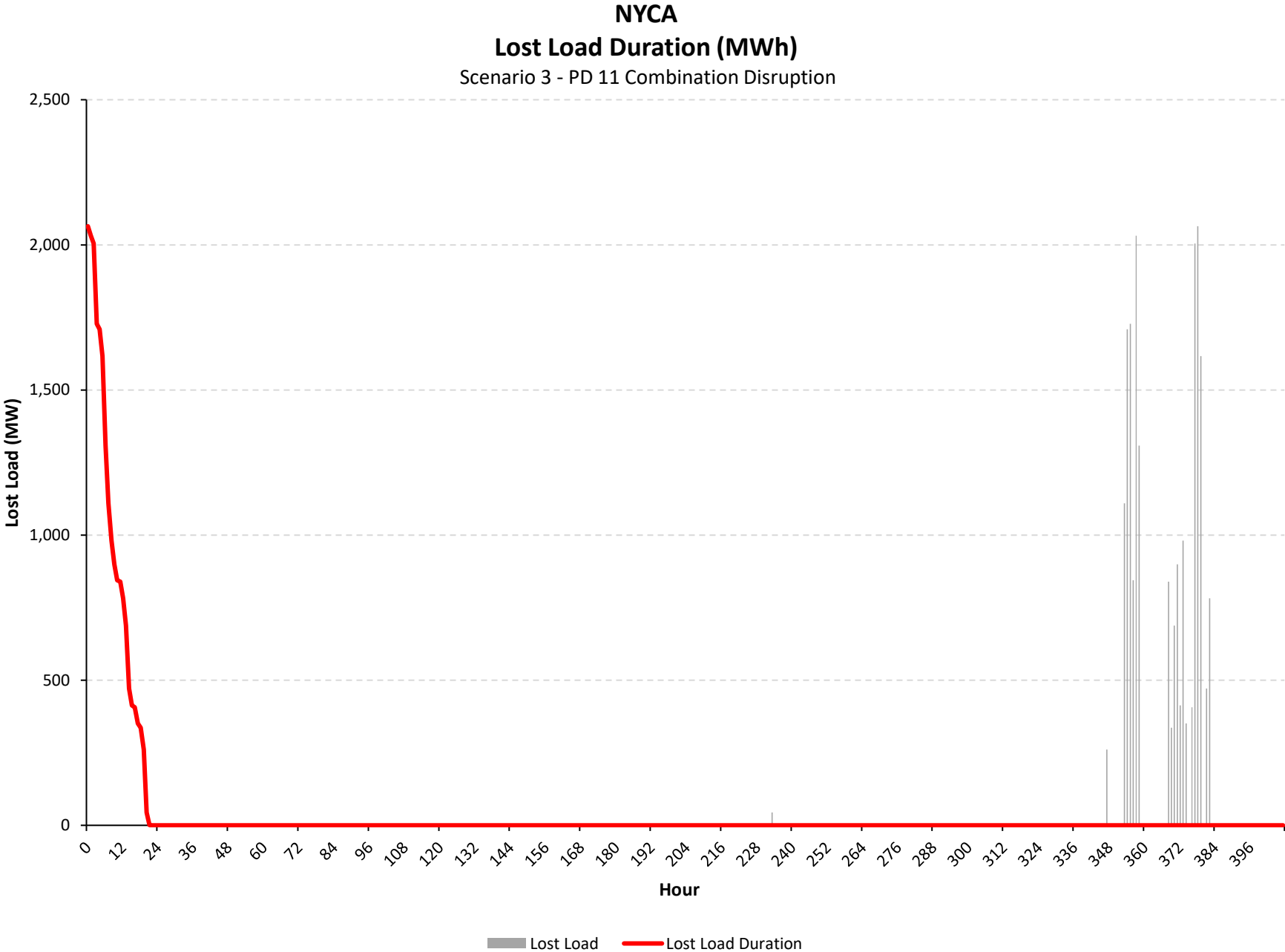
NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 3 - PD 11 Combination Disruption





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



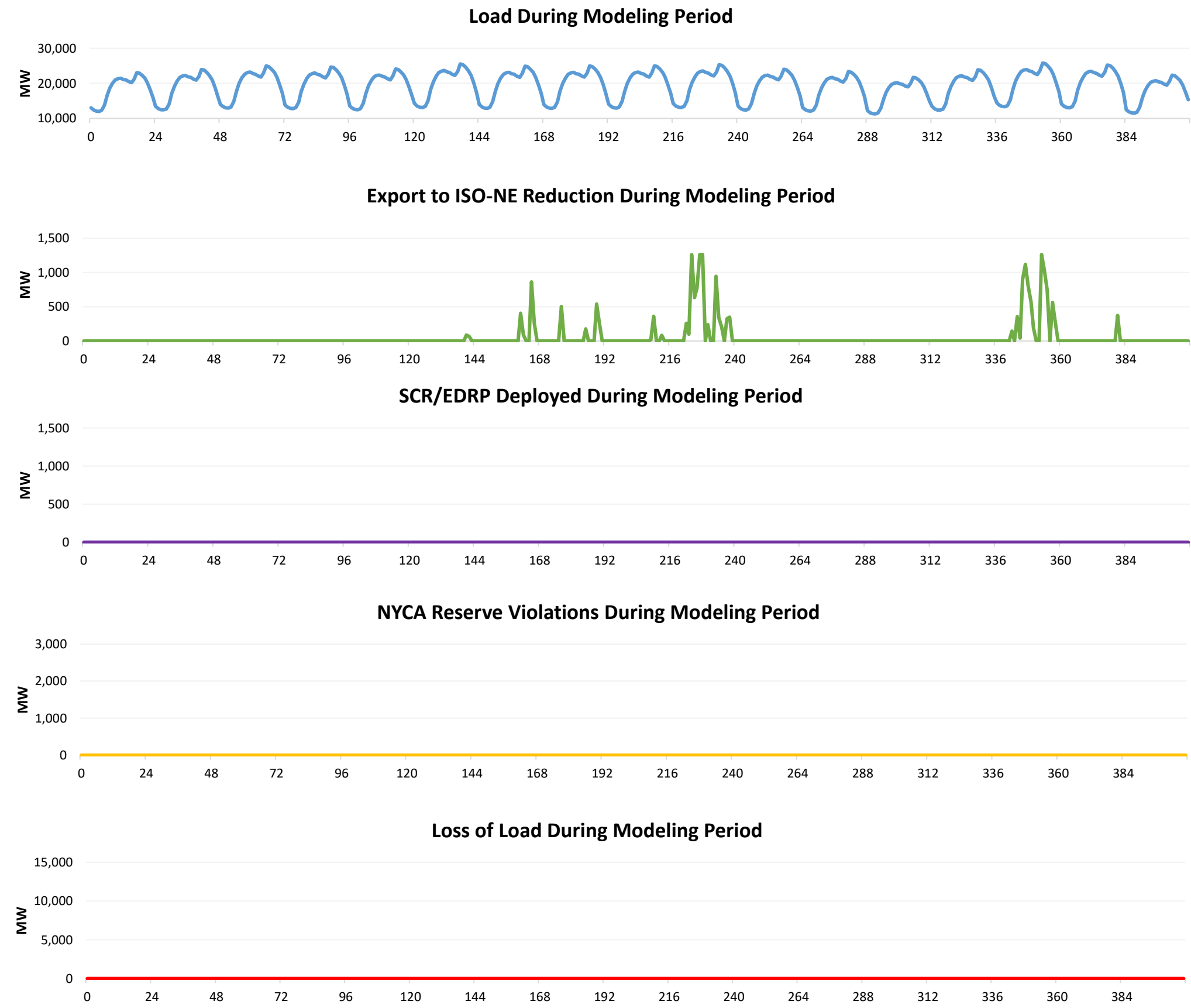


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 1 No Disruptions (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 4 - PD 1 No Disruptions



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

Export Reductions	
Total Hrs.	40
Total MWh	20,020
Avg. MW	49.1

SCR Deployment	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0

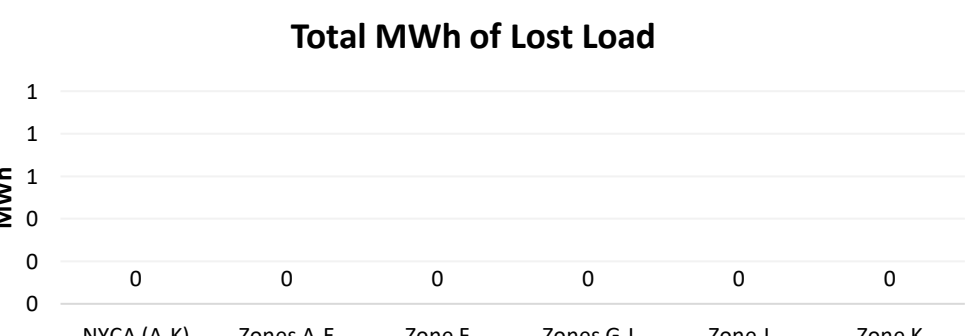
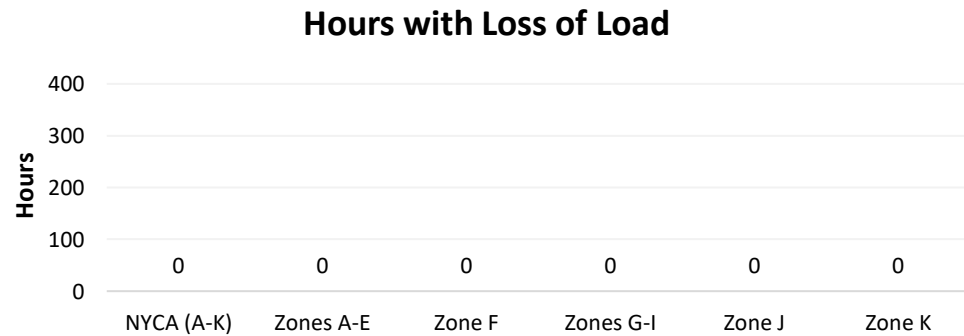
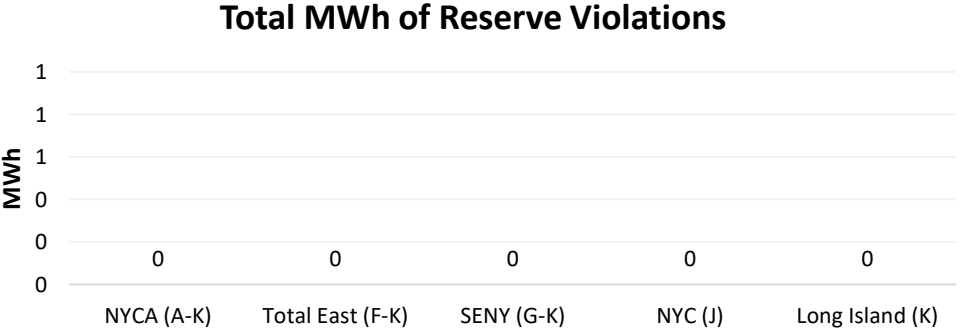
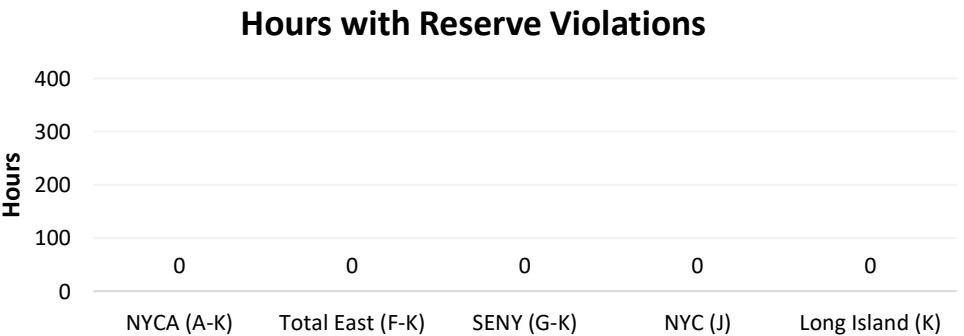
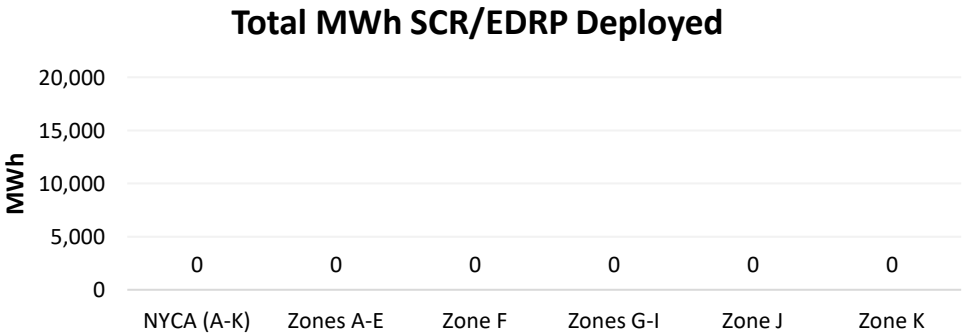
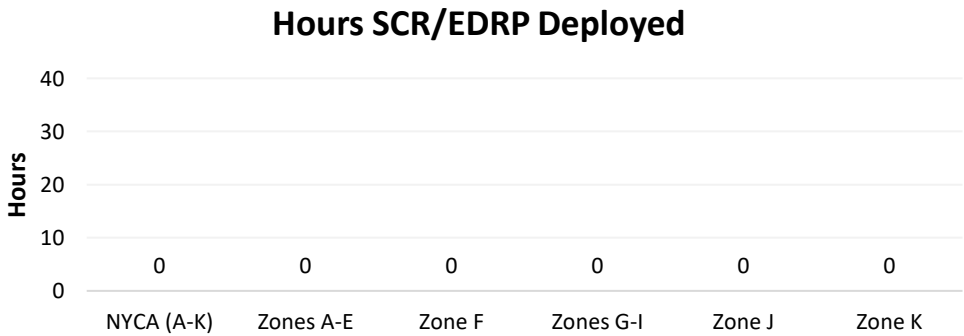
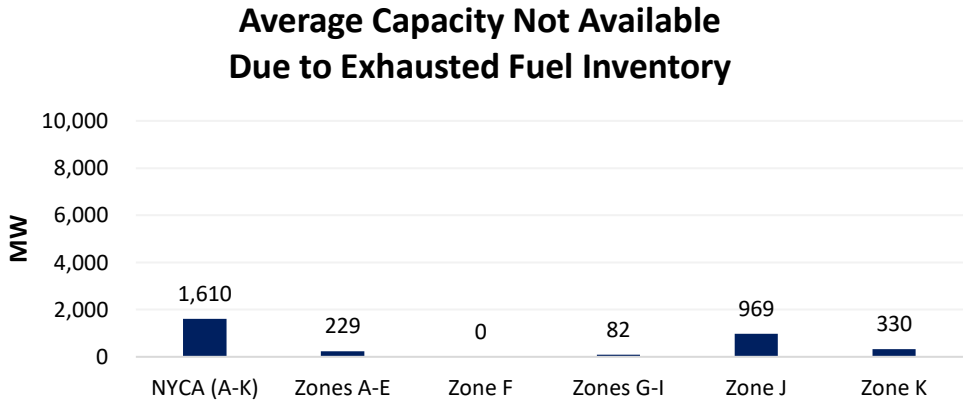
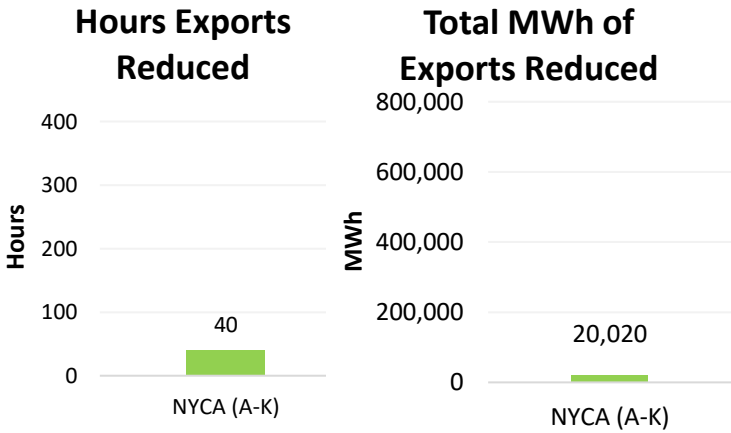
Reserve Violations	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Viol.	

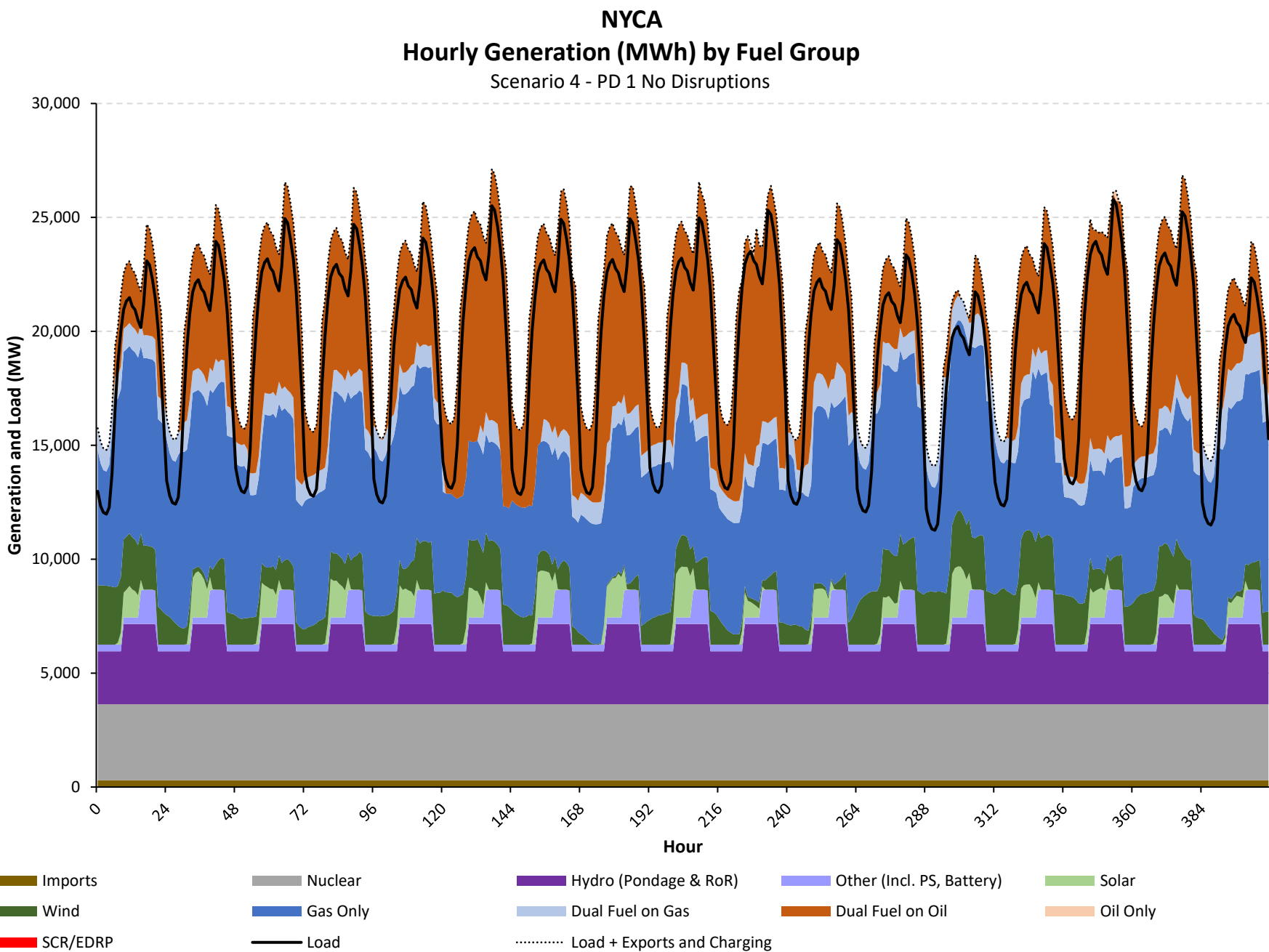
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

Full Period Results Summary

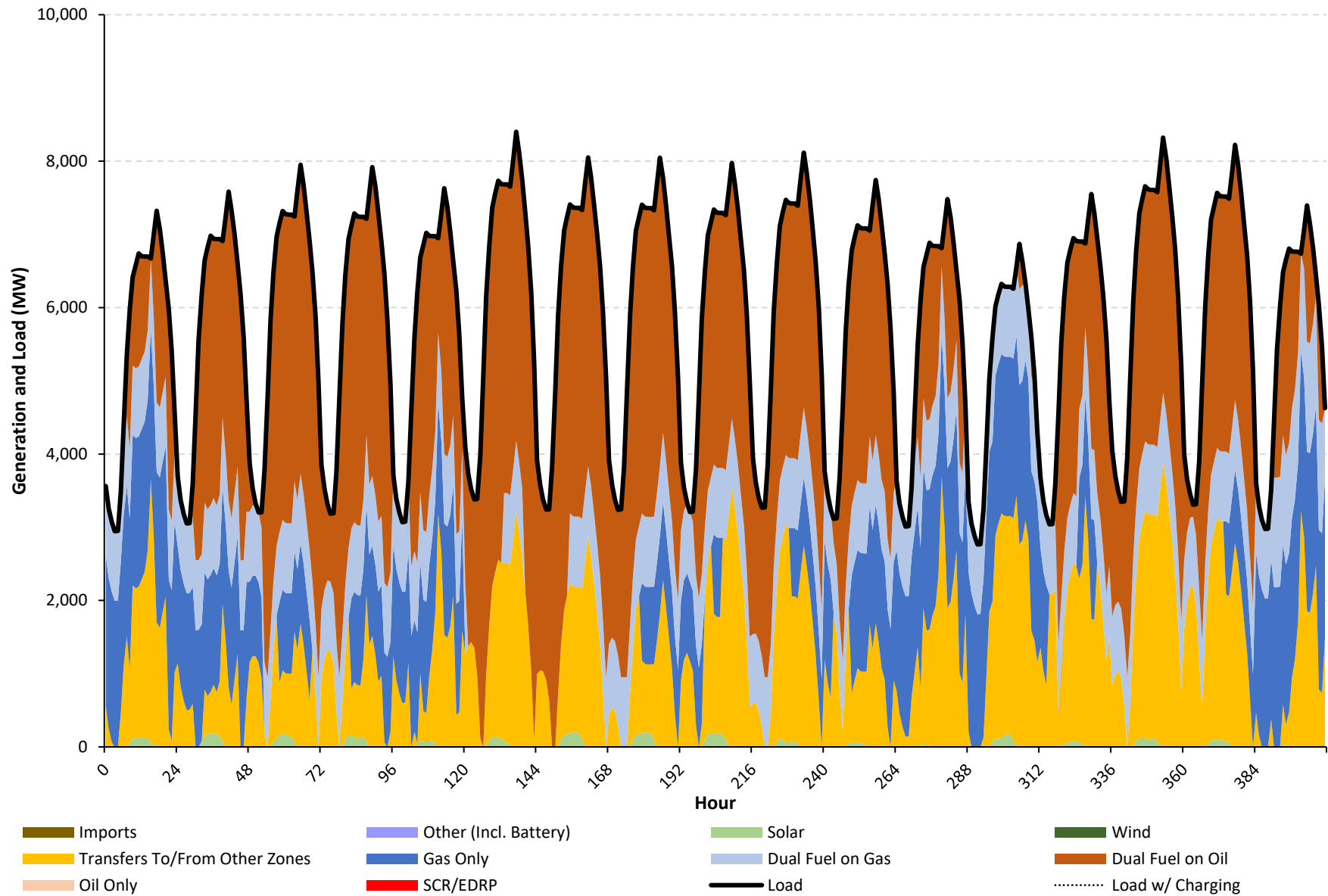
Case Name: Scenario 4 - PD 1 No Disruptions

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

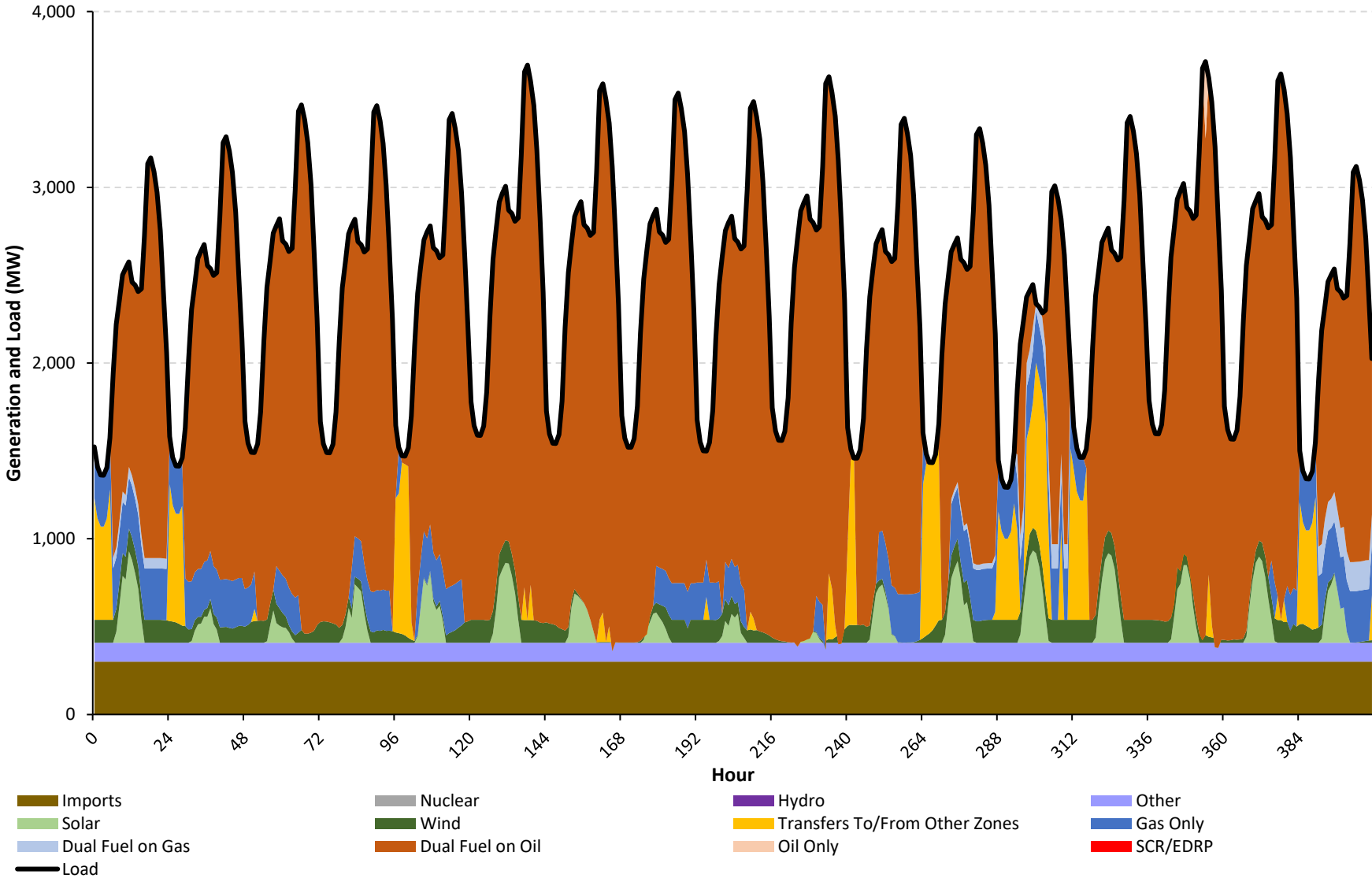




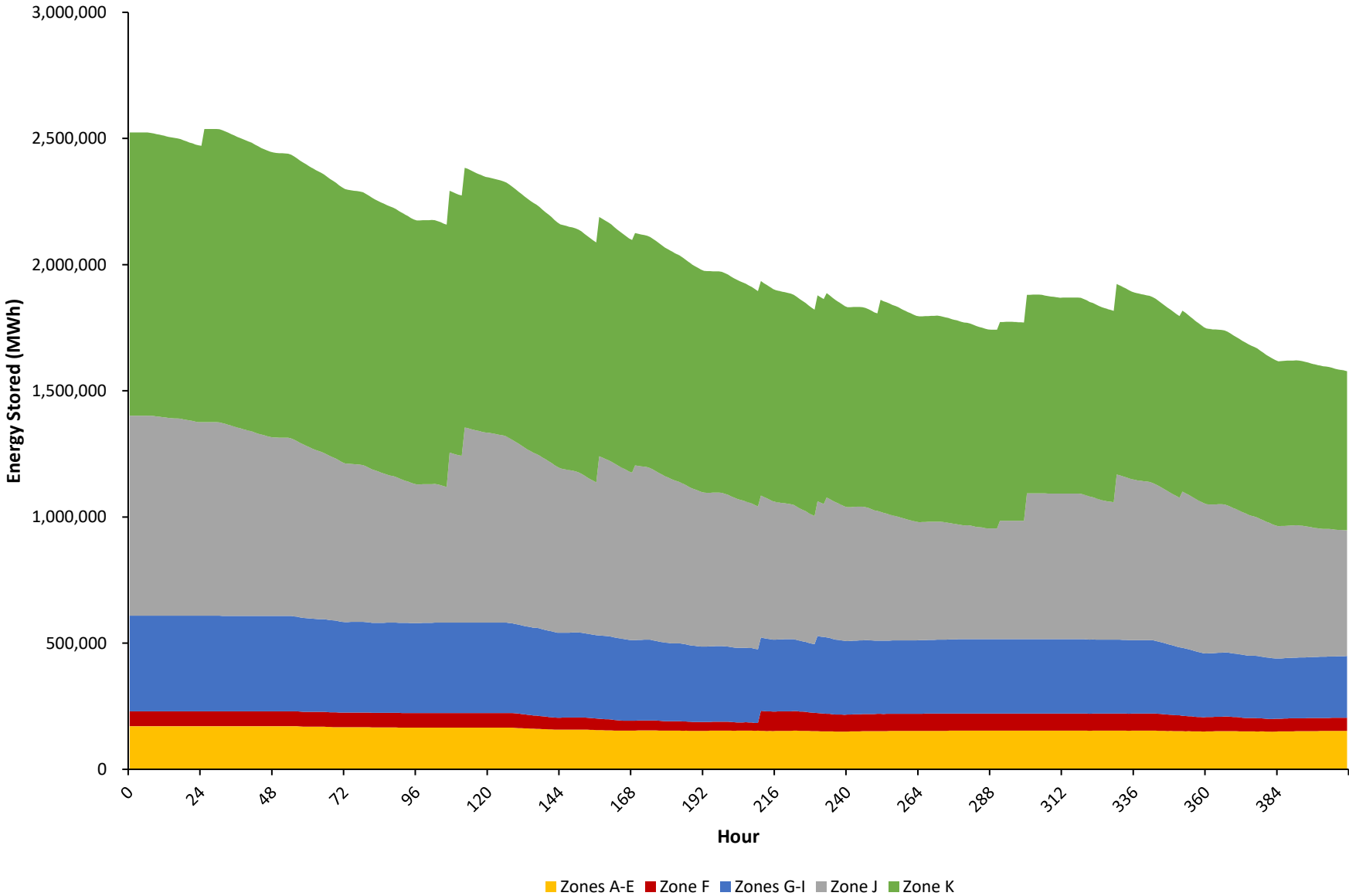
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 1 No Disruptions

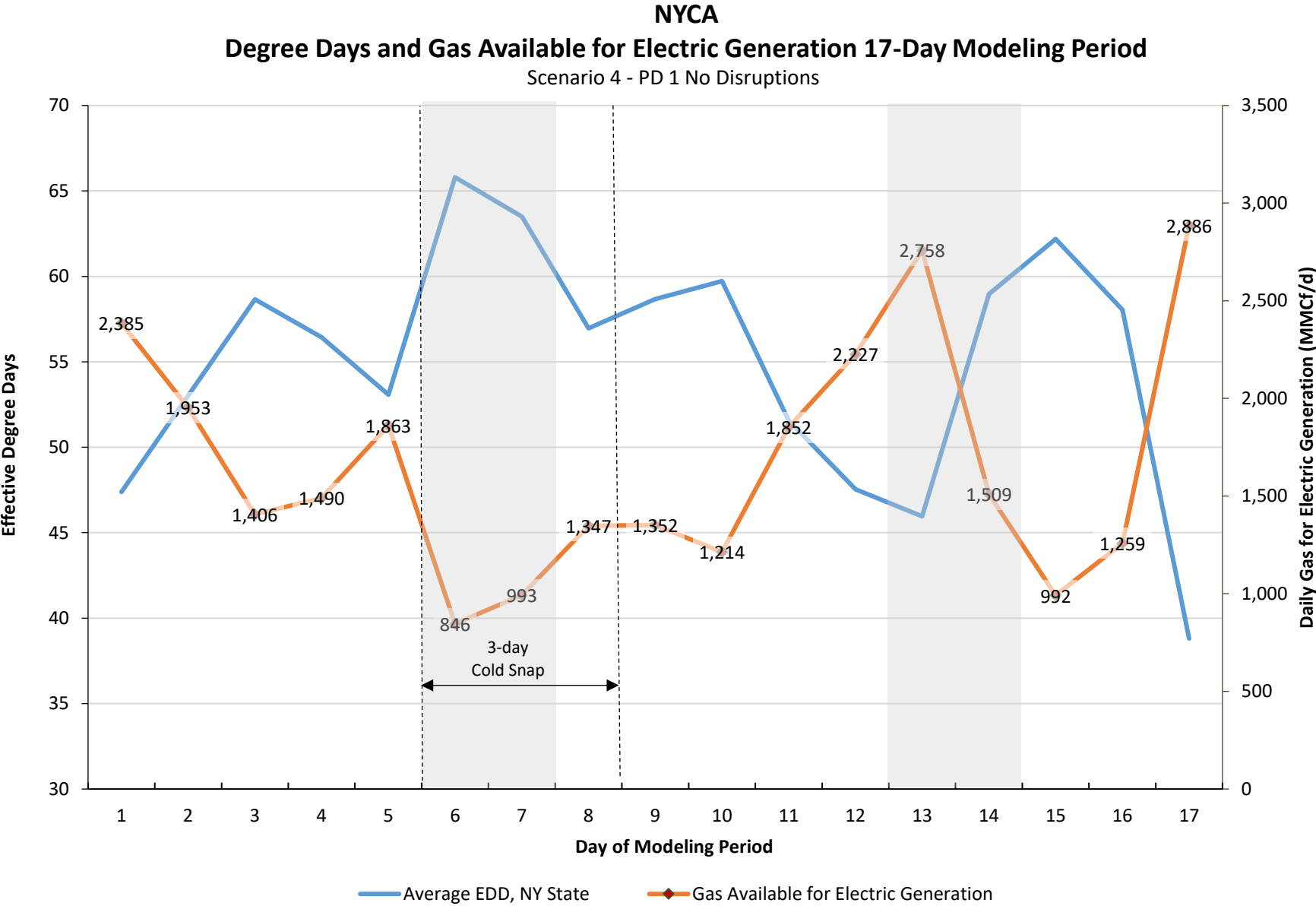


Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 1 No Disruptions

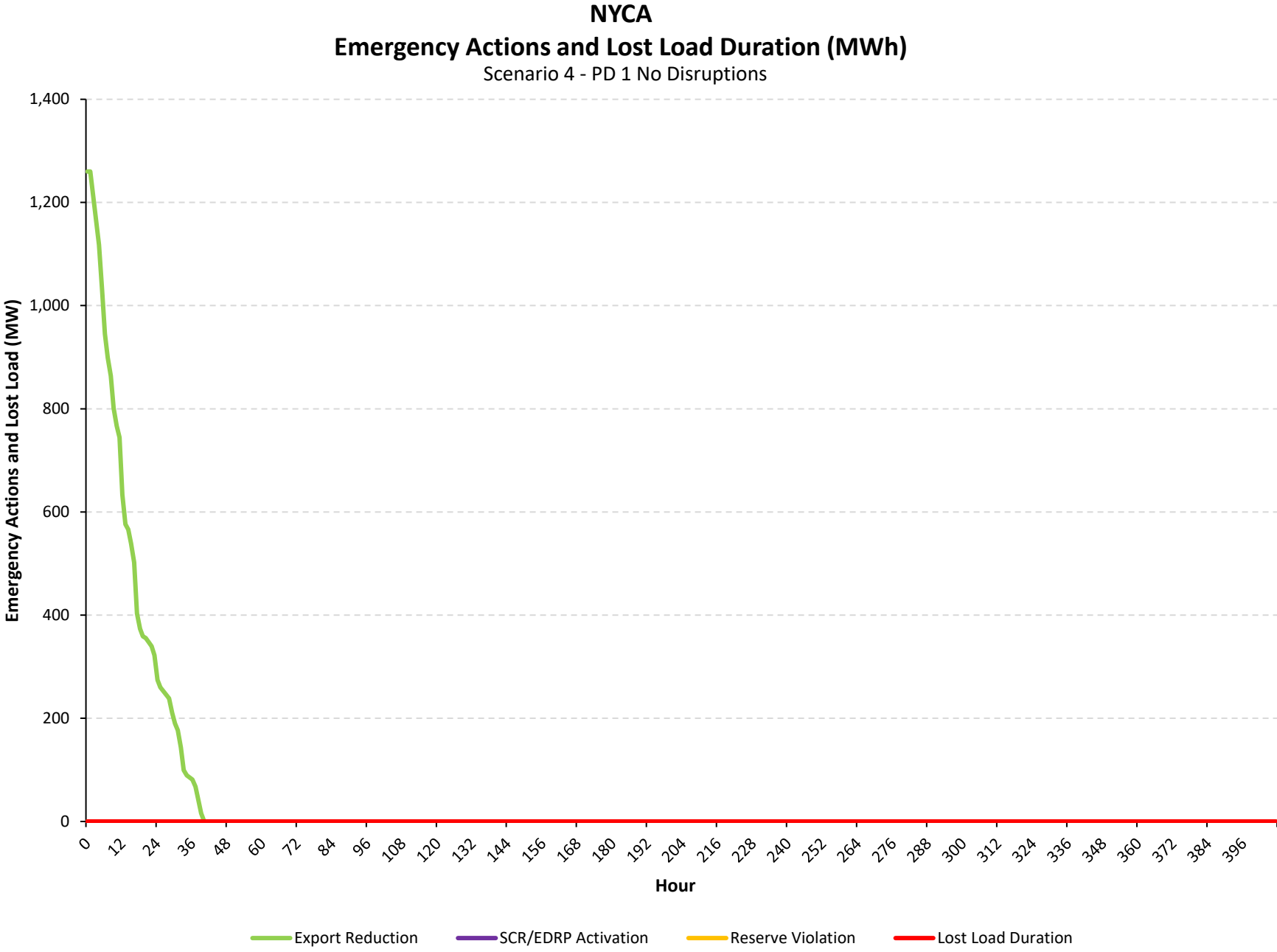


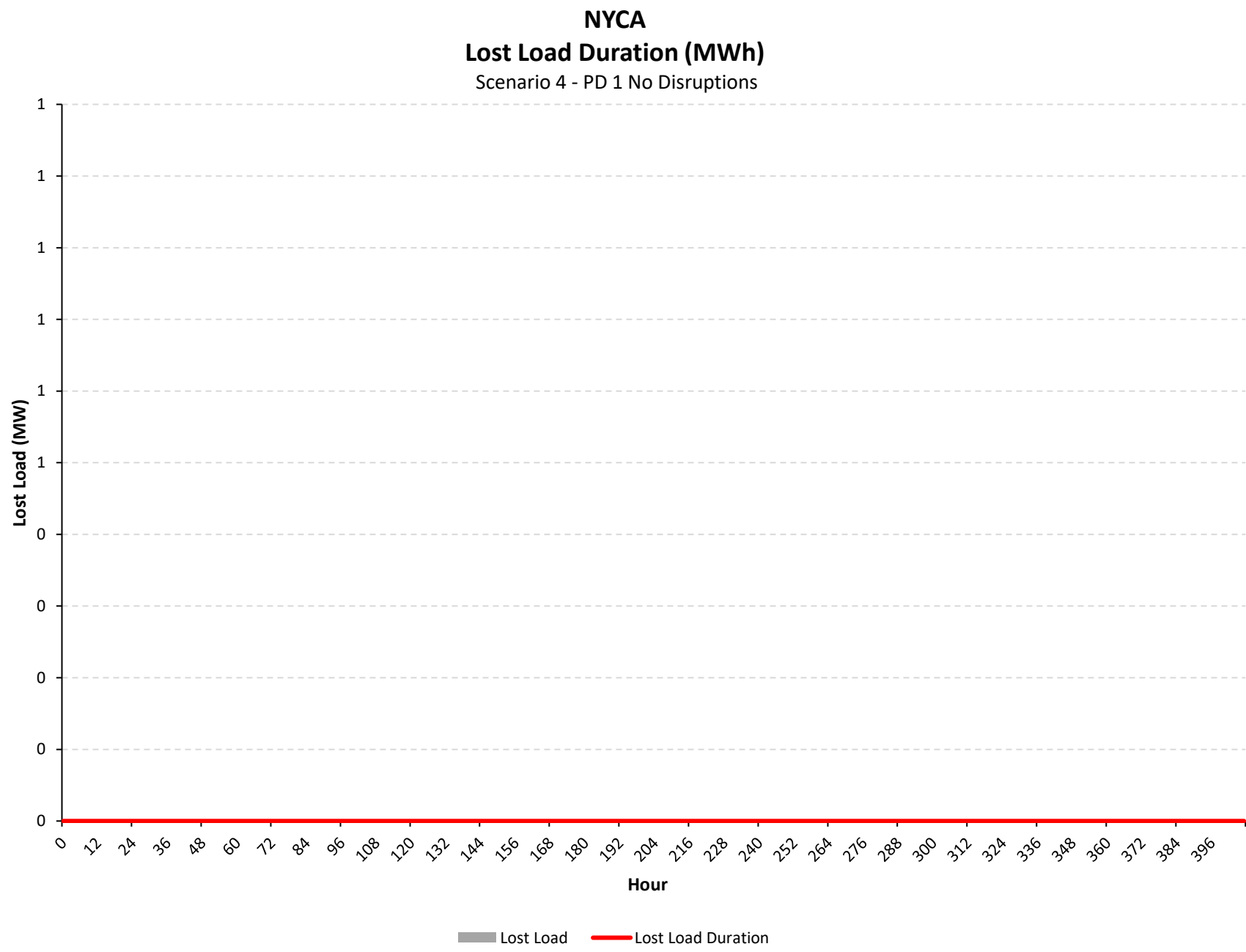
NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 4 - PD 1 No Disruptions





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



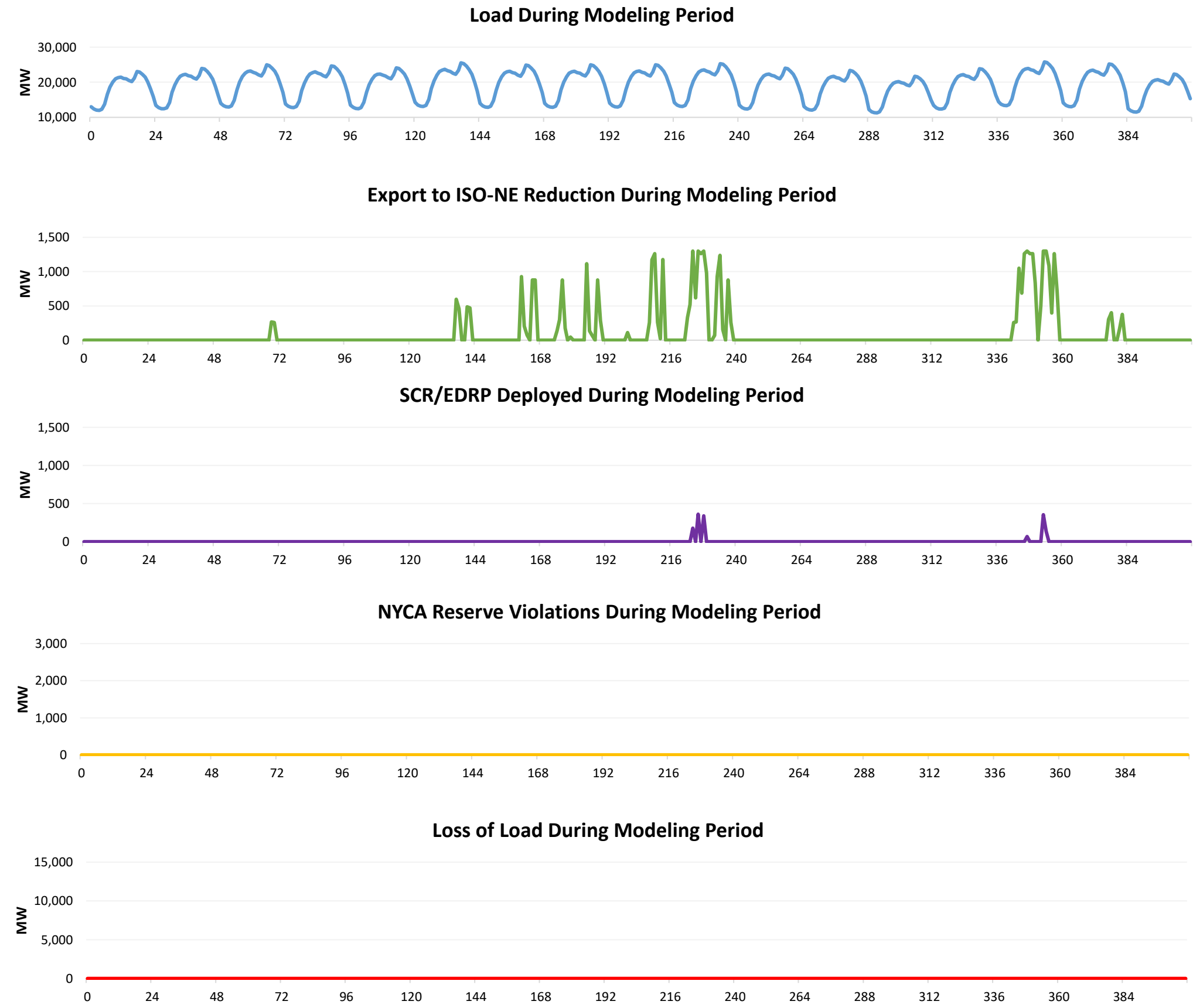


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 2 High Outage (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 4 - PD 2 High Outage



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

Export Reductions	
Total Hrs.	62
Total MWh	40,916
Avg. MW	100.3

SCR Deployment	
Total Hrs.	6
Total MWh	1,439
Avg. MW	3.5

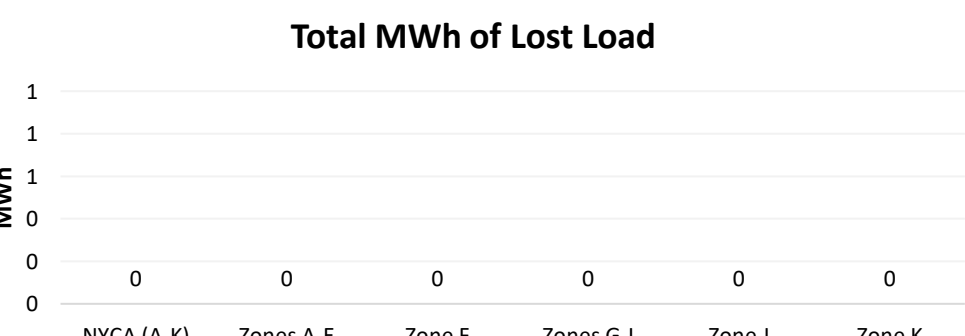
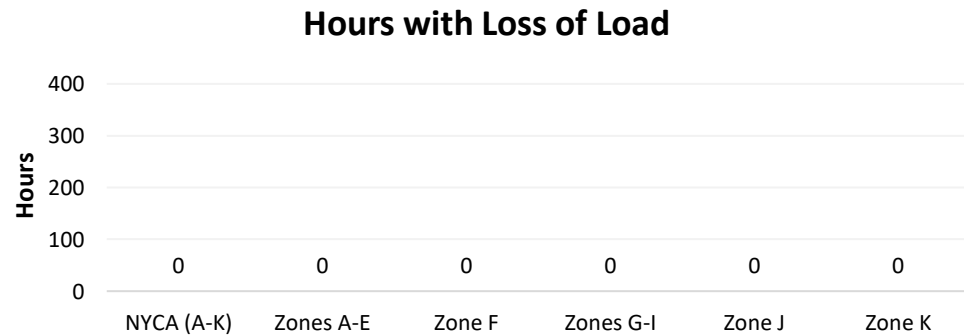
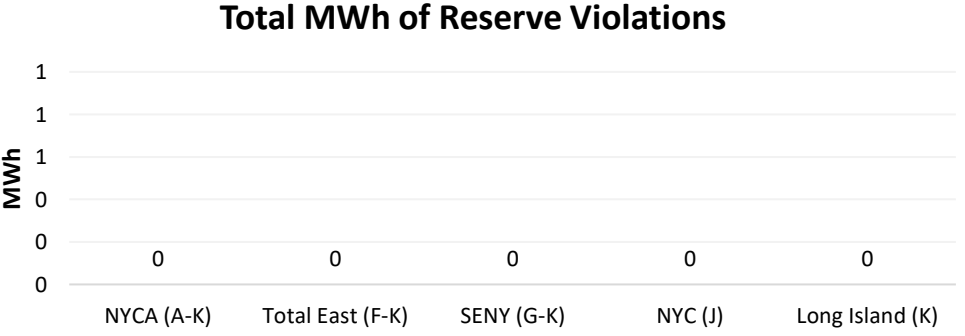
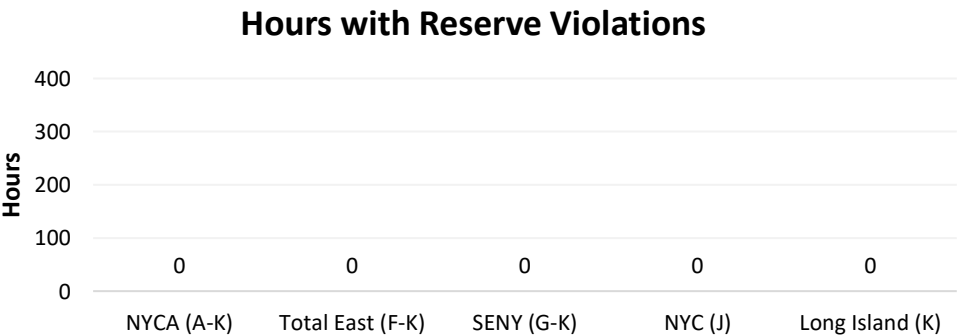
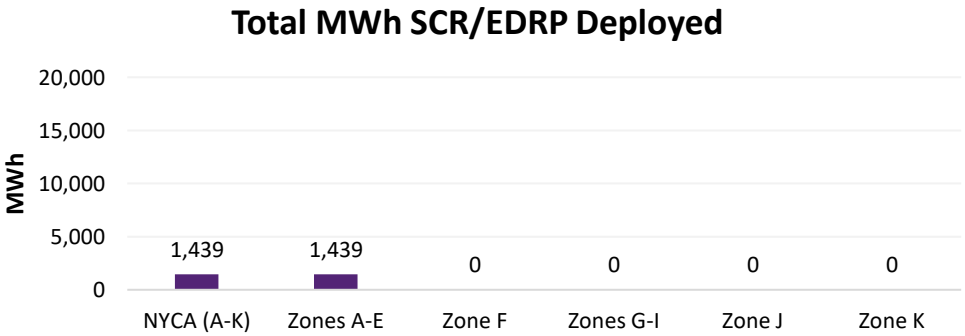
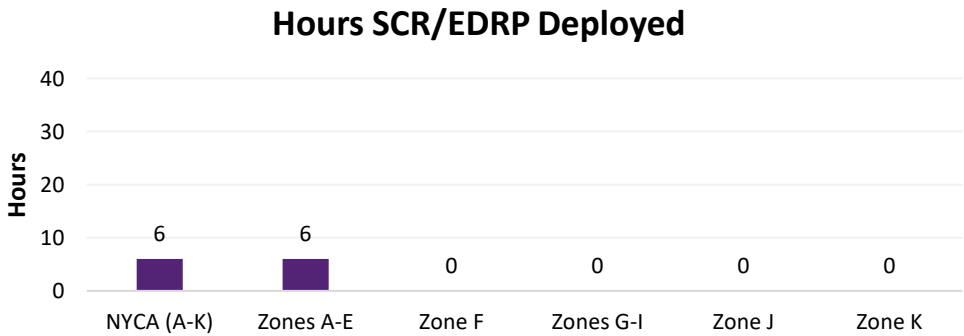
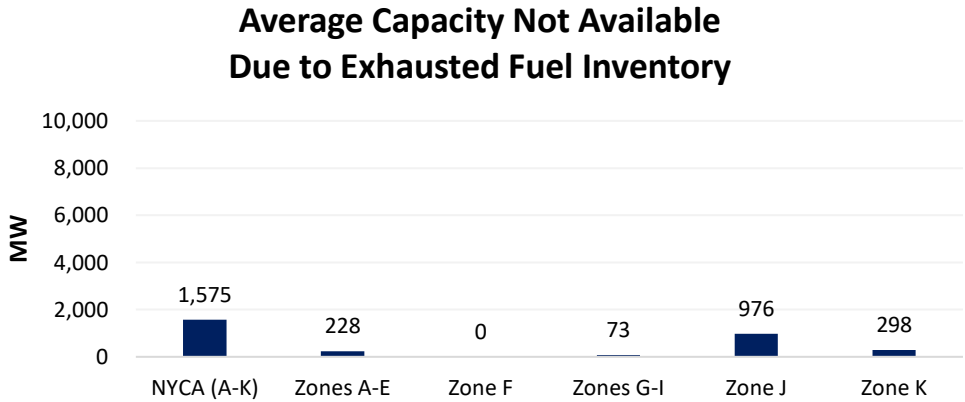
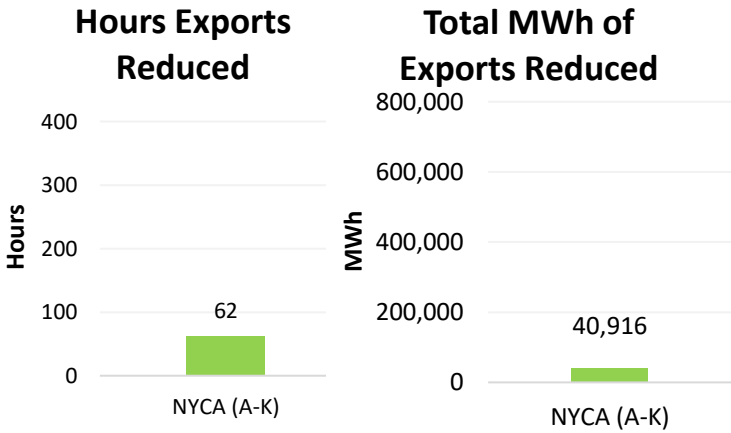
Reserve Violations	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Viol.	

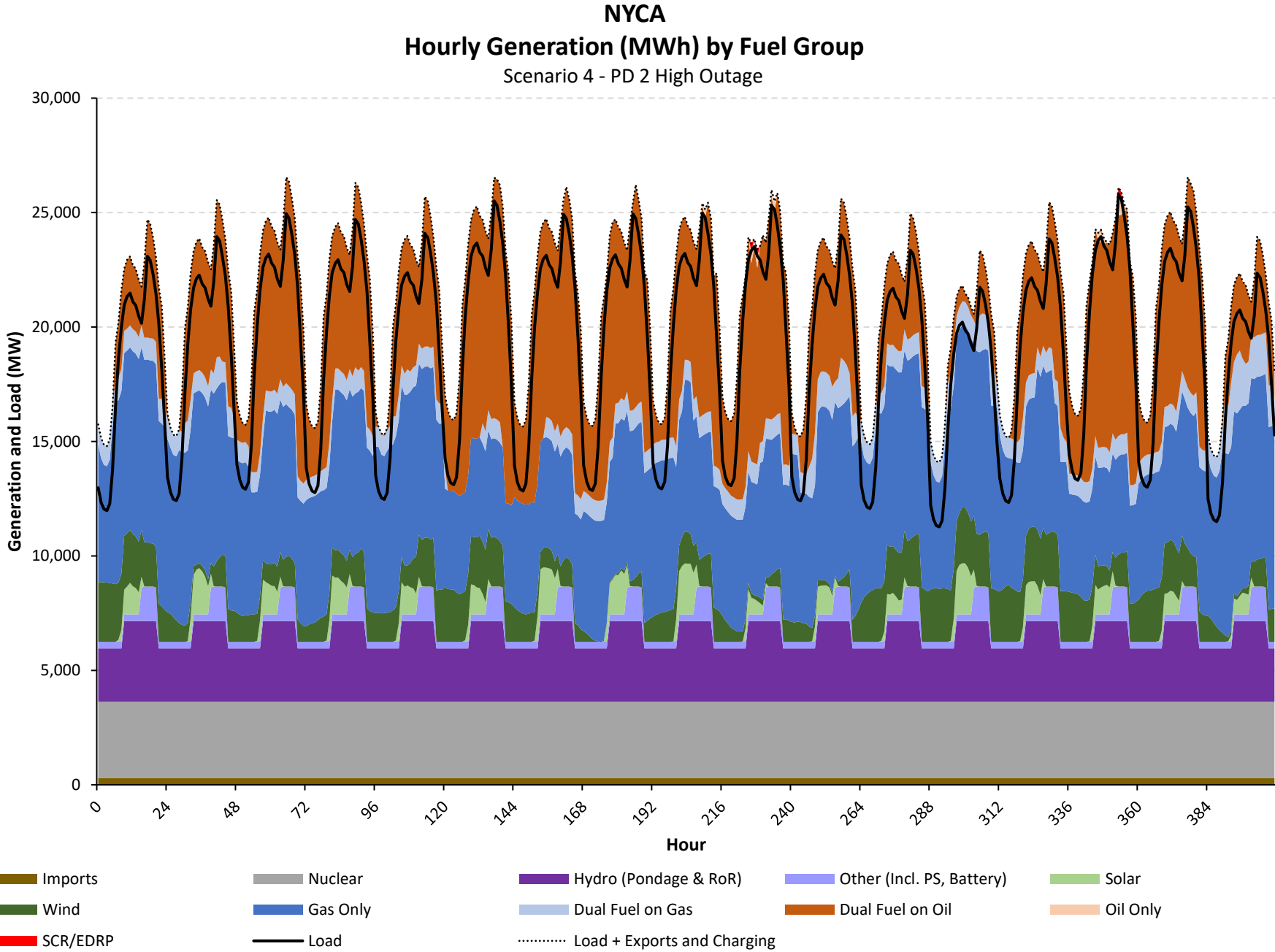
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

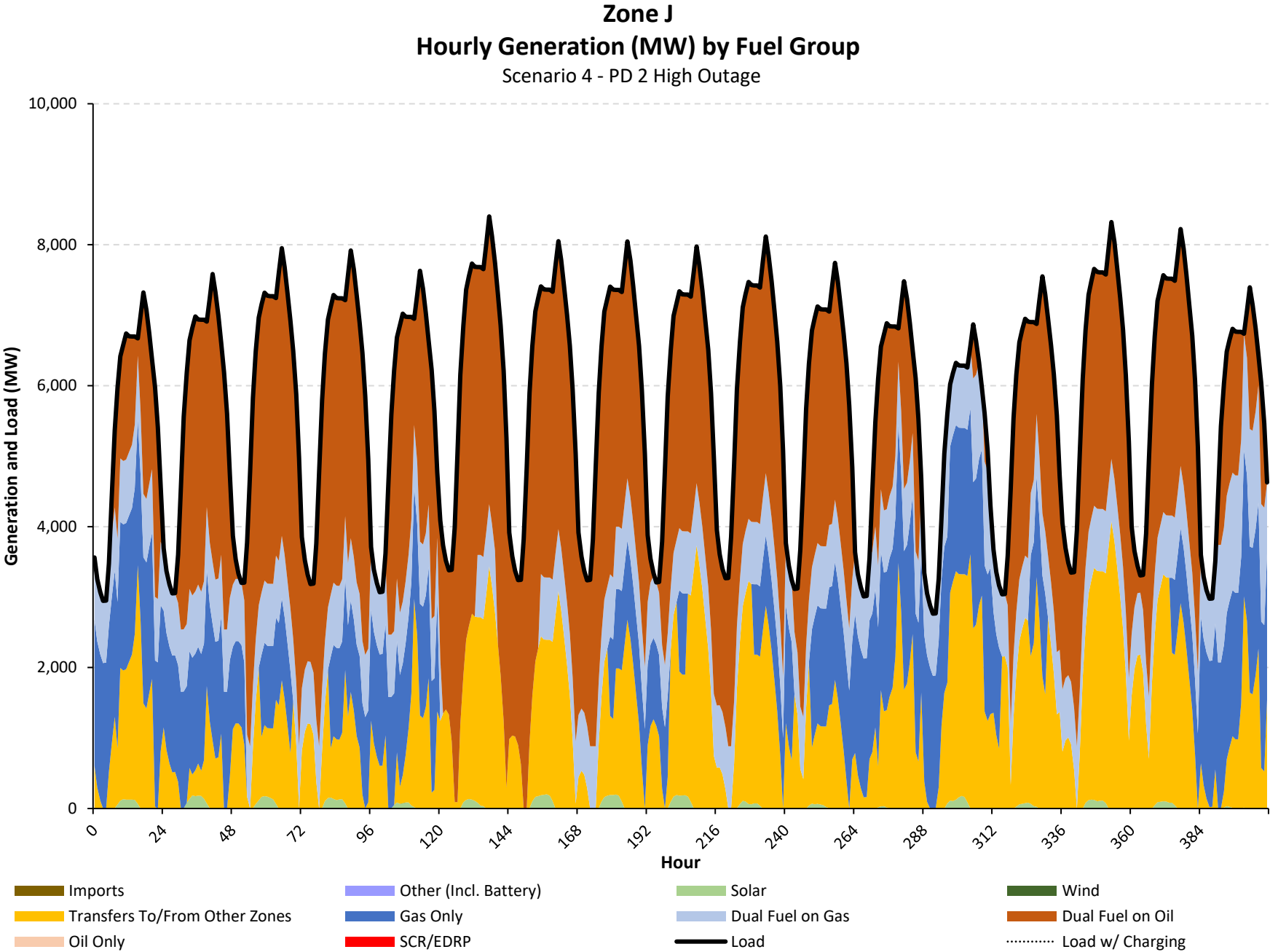
Full Period Results Summary

Case Name: Scenario 4 - PD 2 High Outage

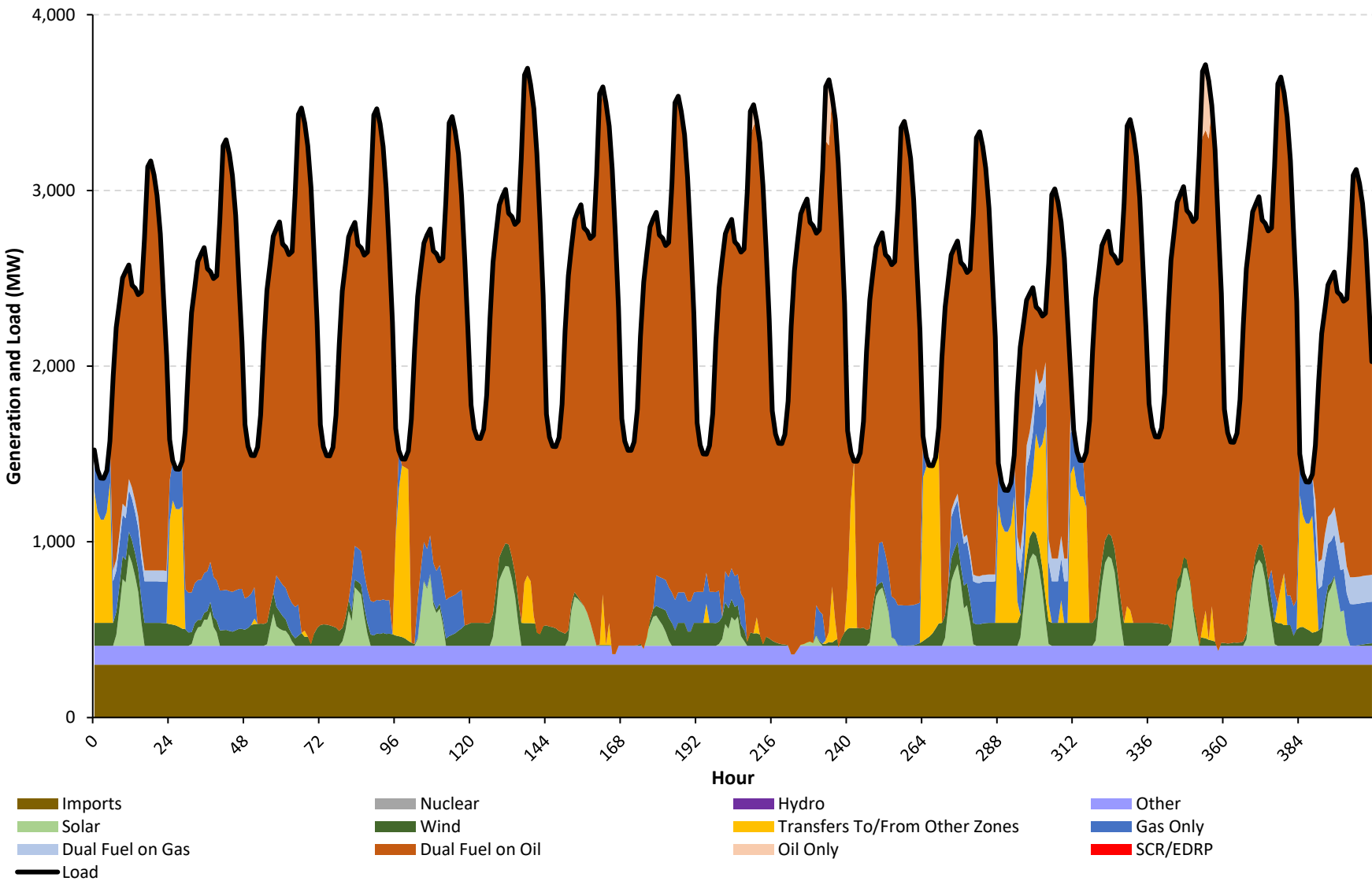
Case Summary	
Derate (EFORD) Increase:	High
Starting Storage:	High
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

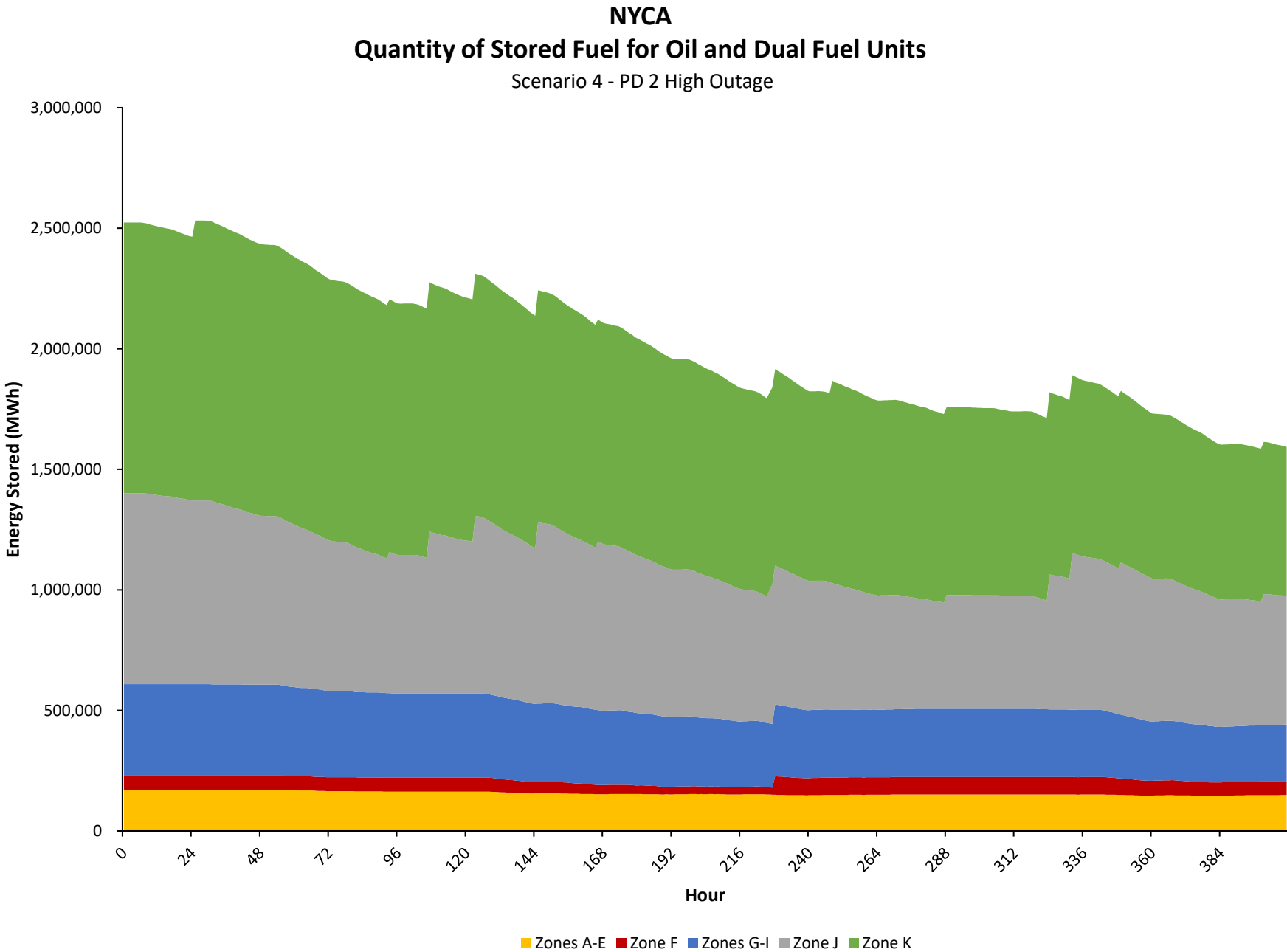


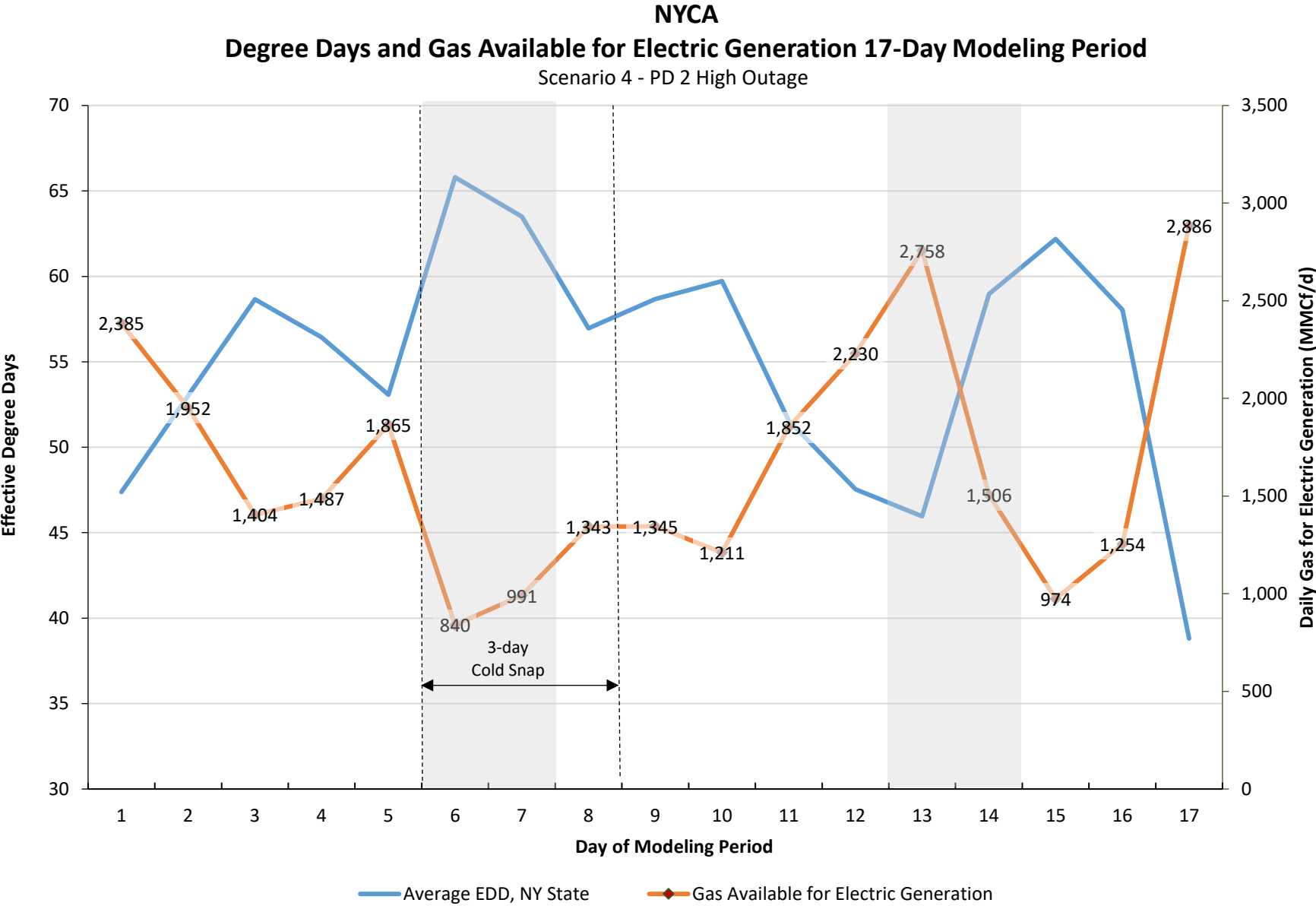




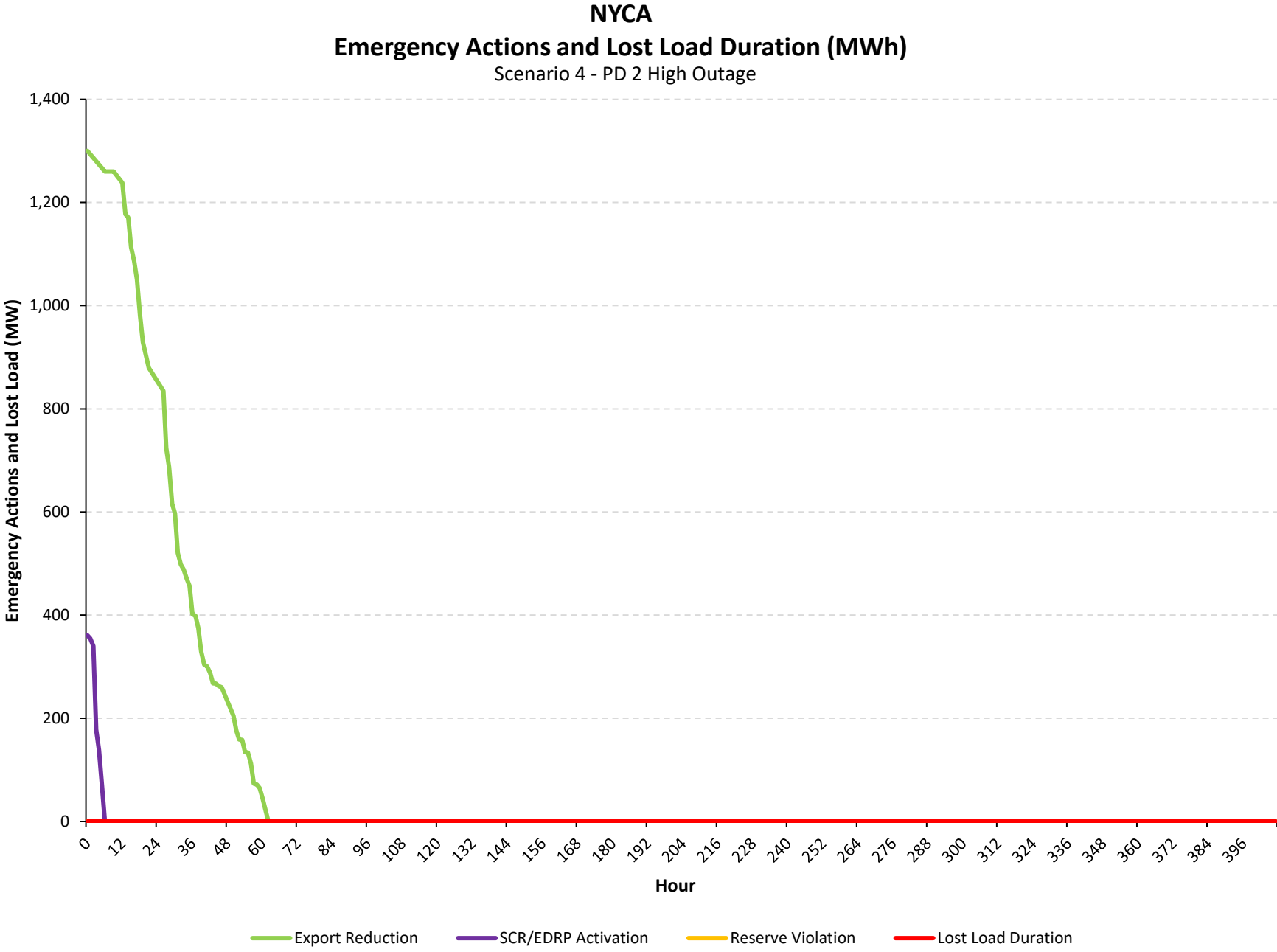
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 2 High Outage







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



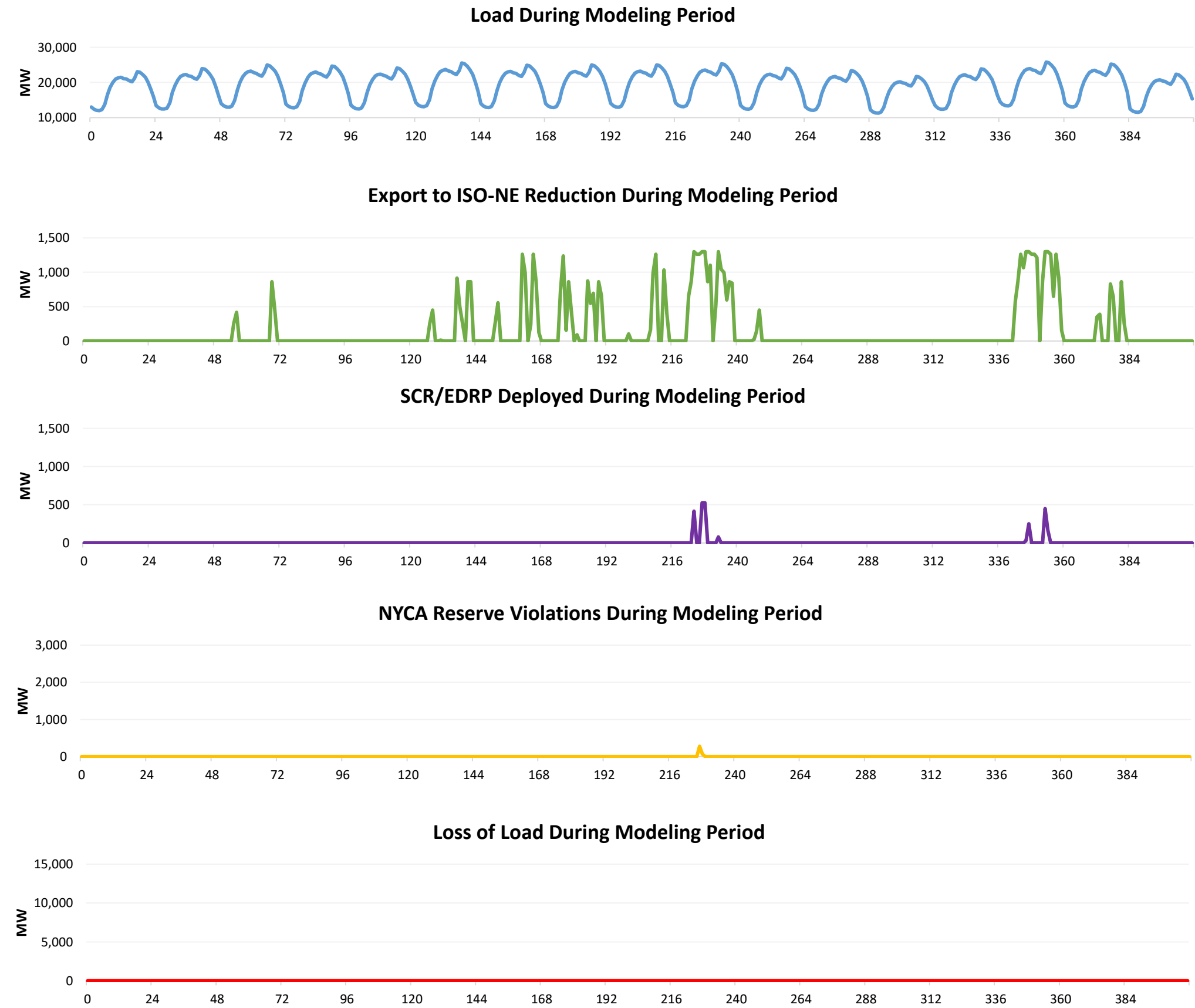


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 3 SENY Deactivation (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 4 - PD 3 SENY Deactivation



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

Export Reductions	
Total Hrs.	79
Total MWh	60,610
Avg. MW	148.6

SCR Deployment	
Total Hrs.	8
Total MWh	2,447
Avg. MW	6.0

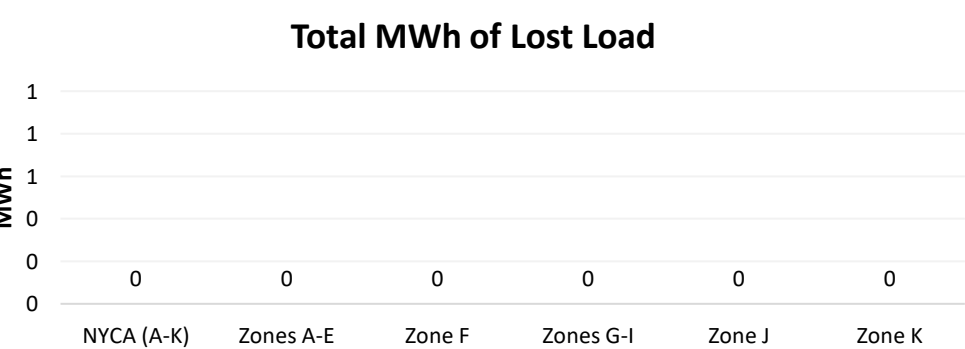
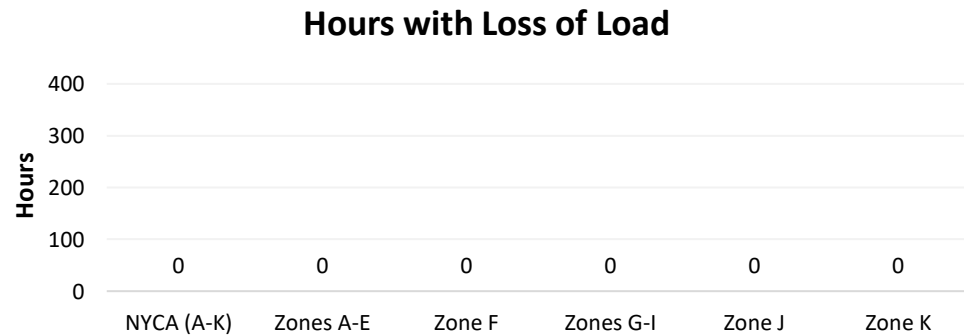
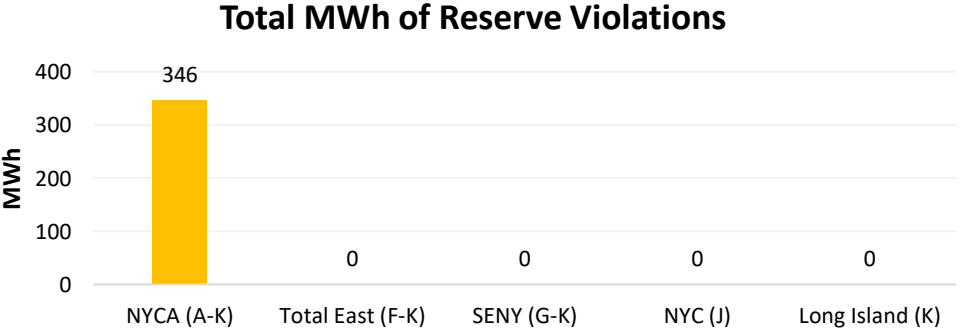
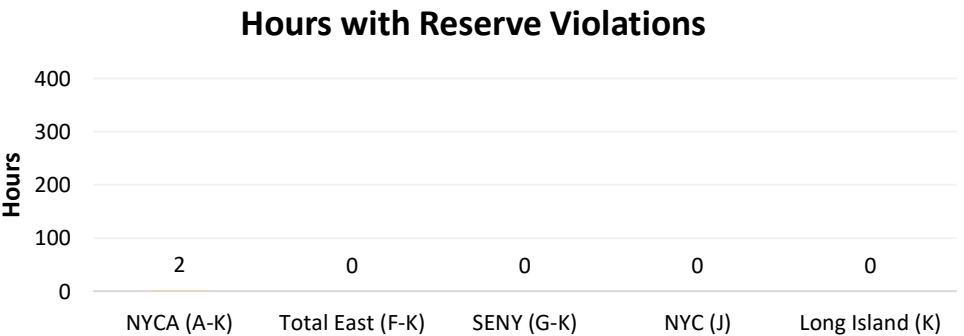
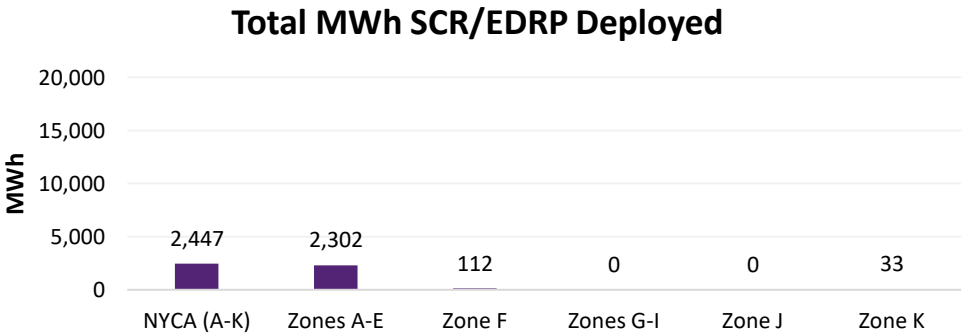
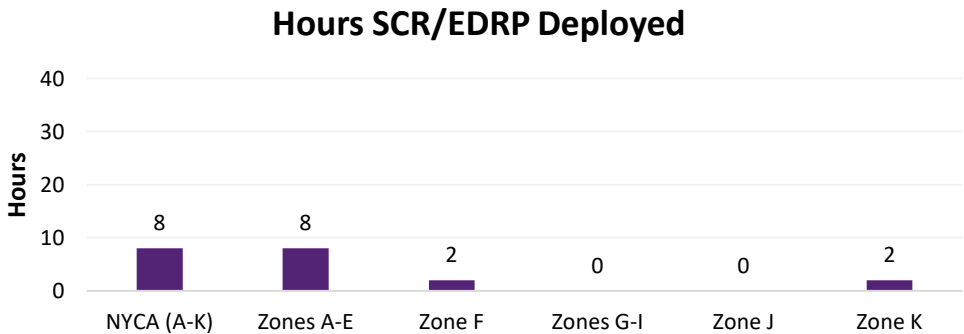
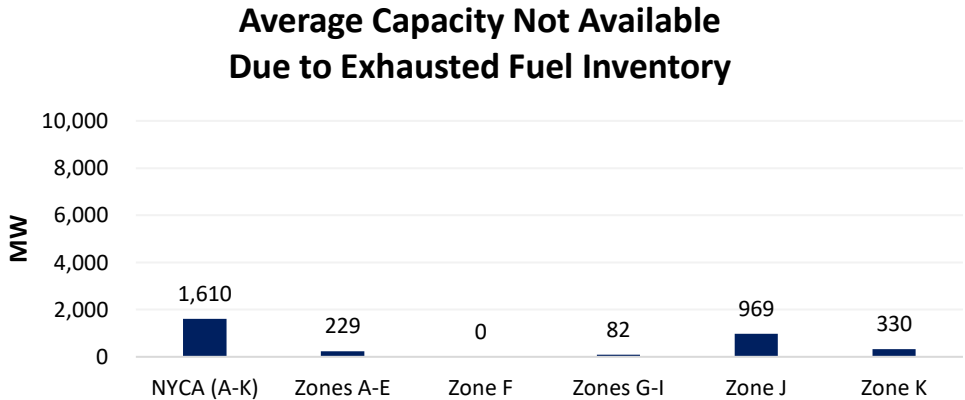
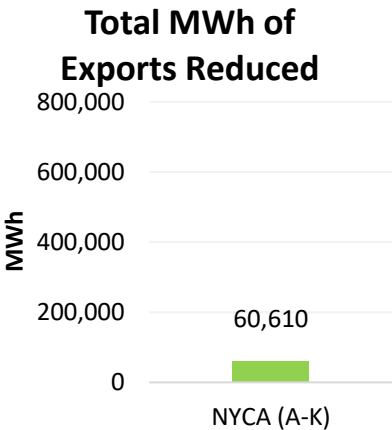
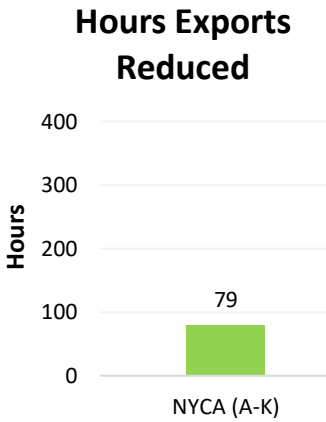
Reserve Violations	
Total Hrs.	2
Total MWh	346
Avg. MW	0.8
First Hour with Viol.	227

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

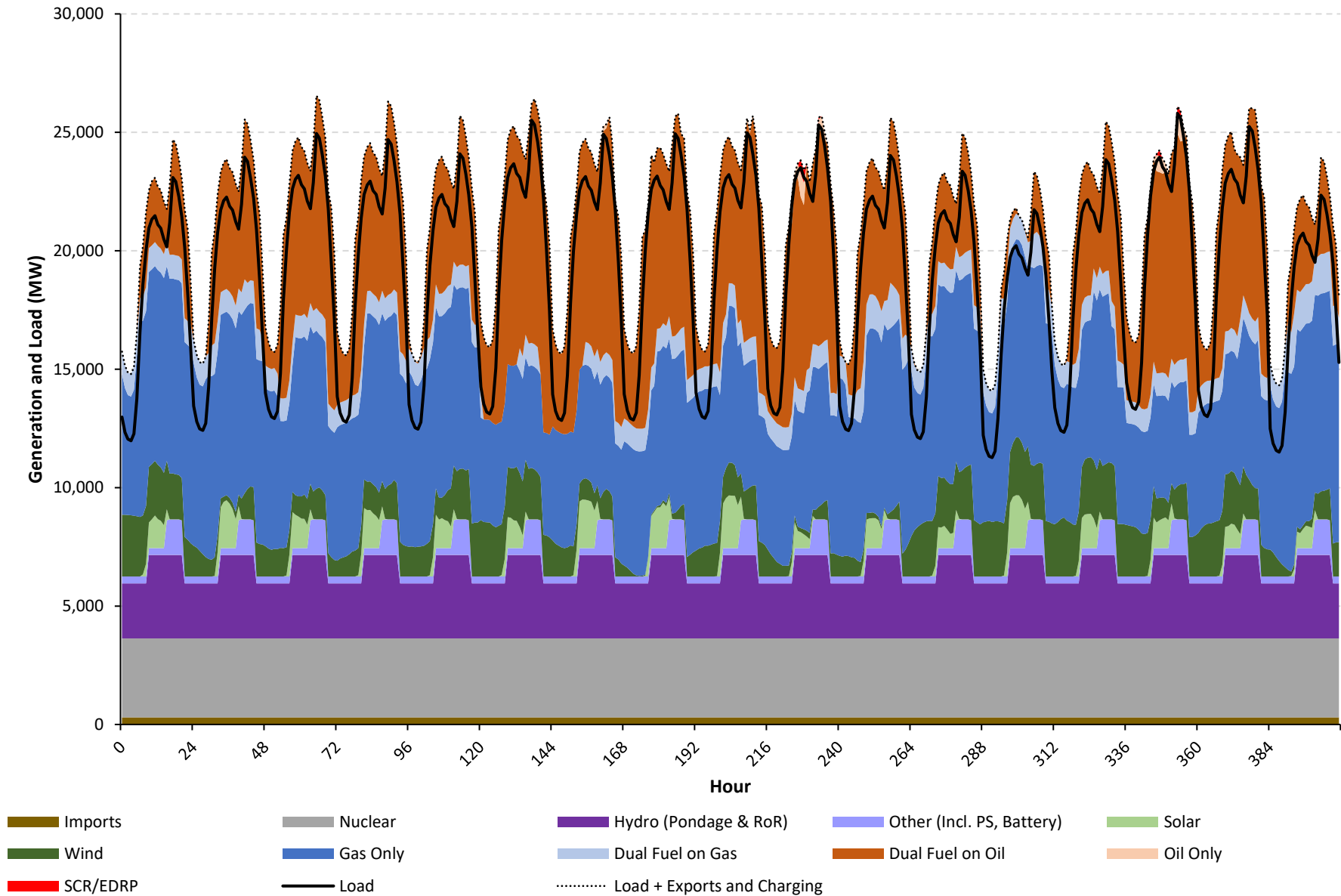
Full Period Results Summary

Case Name: Scenario 4 - PD 3 SENY Deactivation

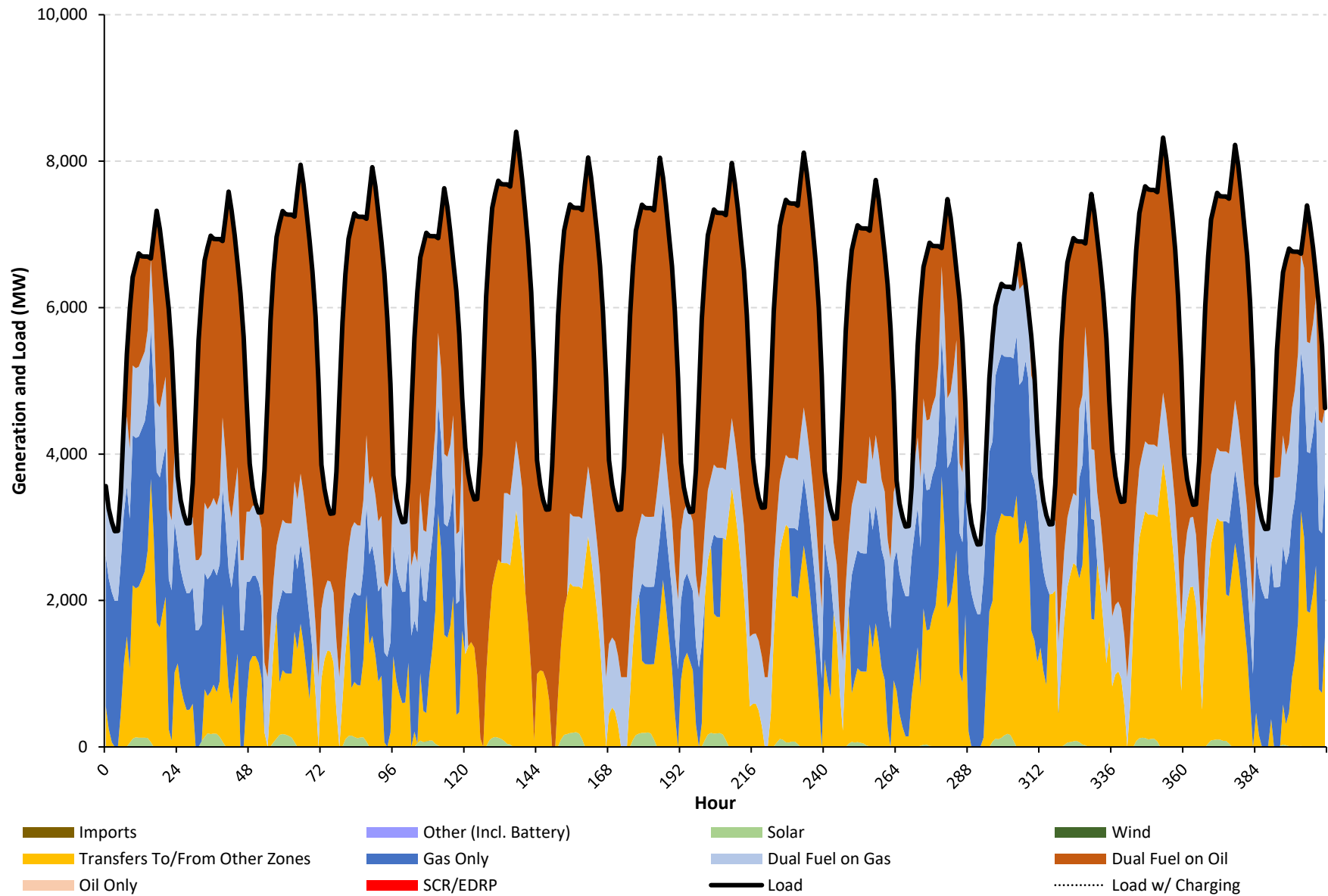
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	High
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	Roseton
Import Scenario:	Net Zero



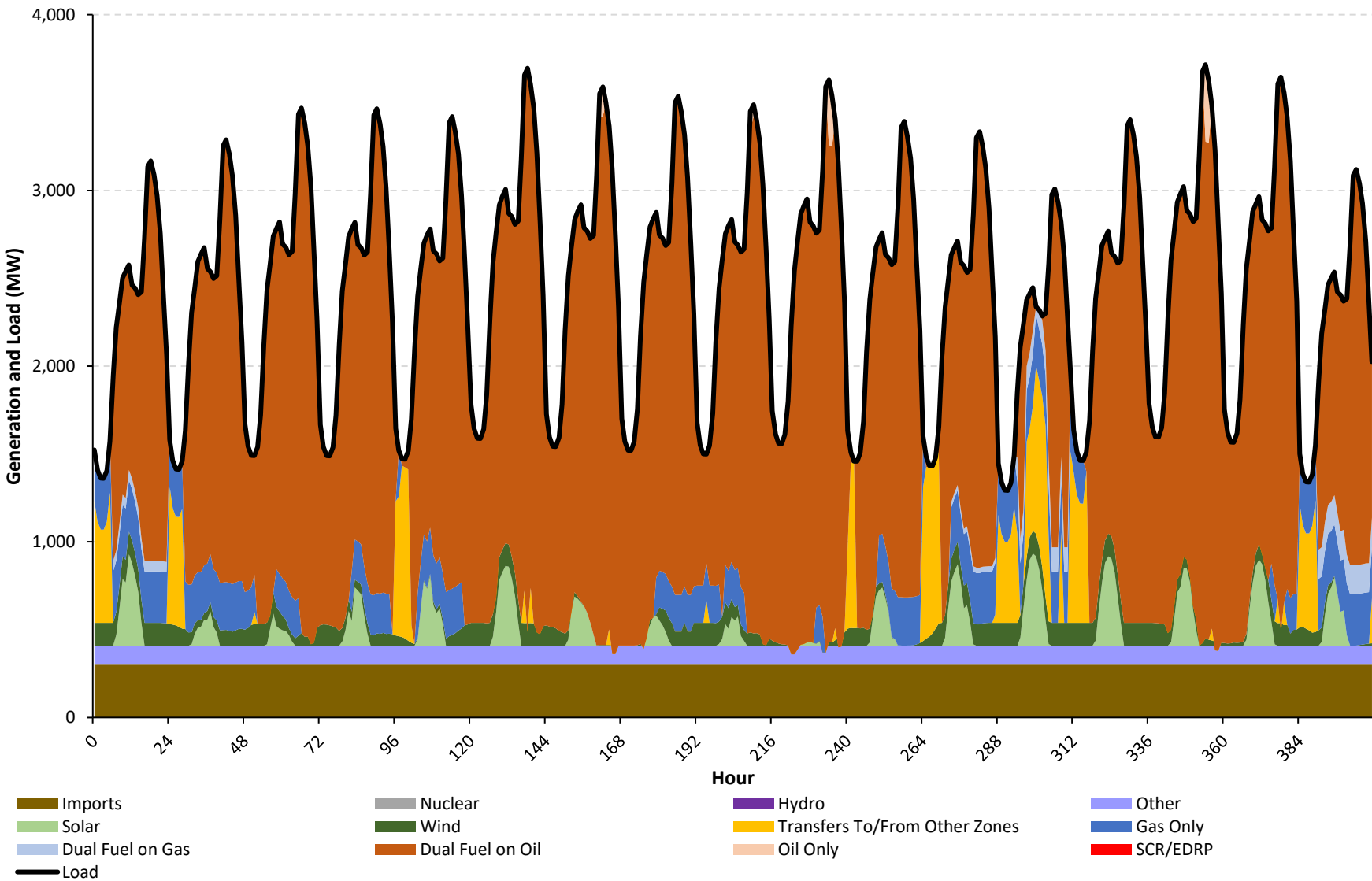
NYCA
Hourly Generation (MWh) by Fuel Group
Scenario 4 - PD 3 SENY Deactivation

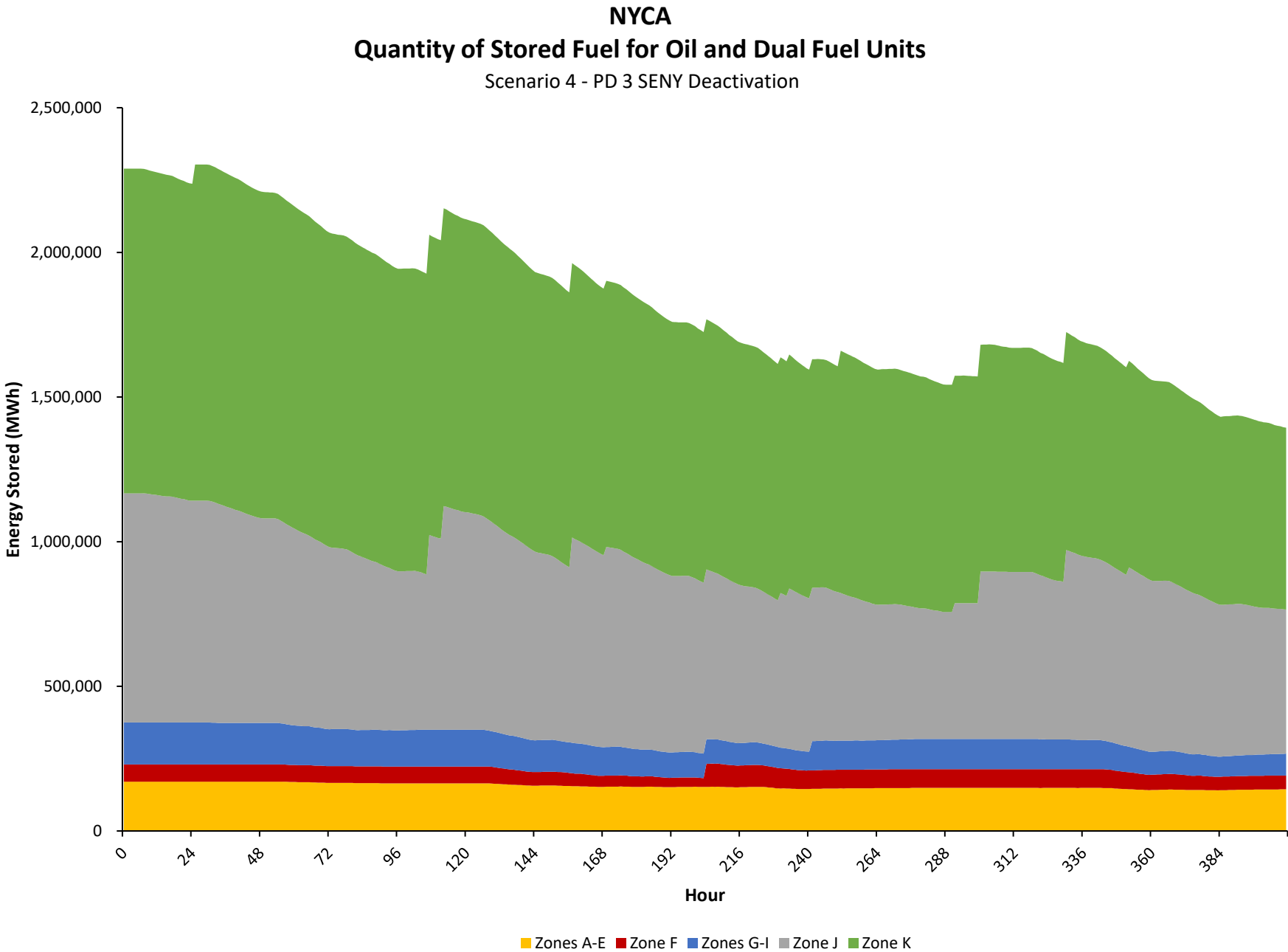


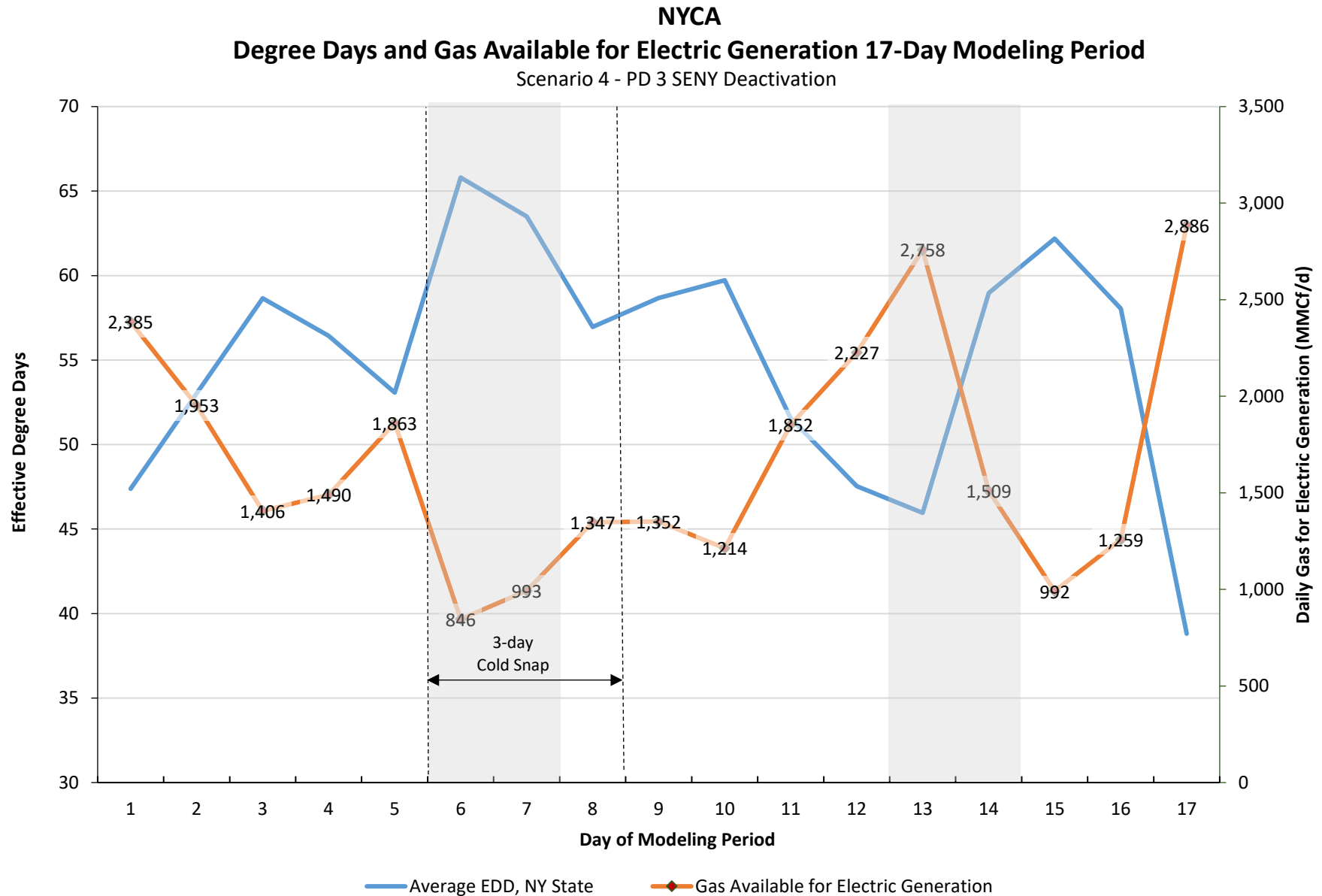
Zone J
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 3 SENY Deactivation



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



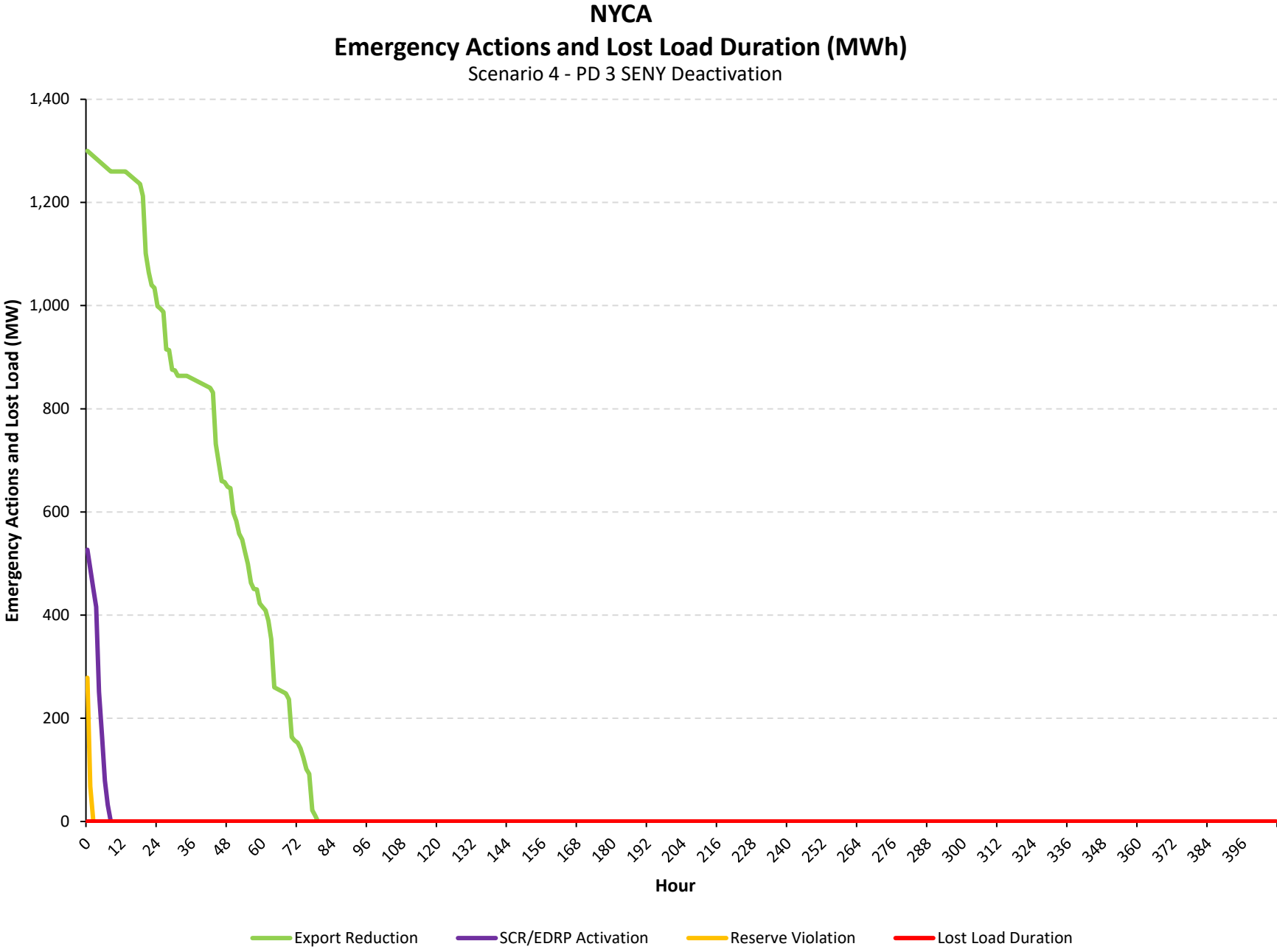


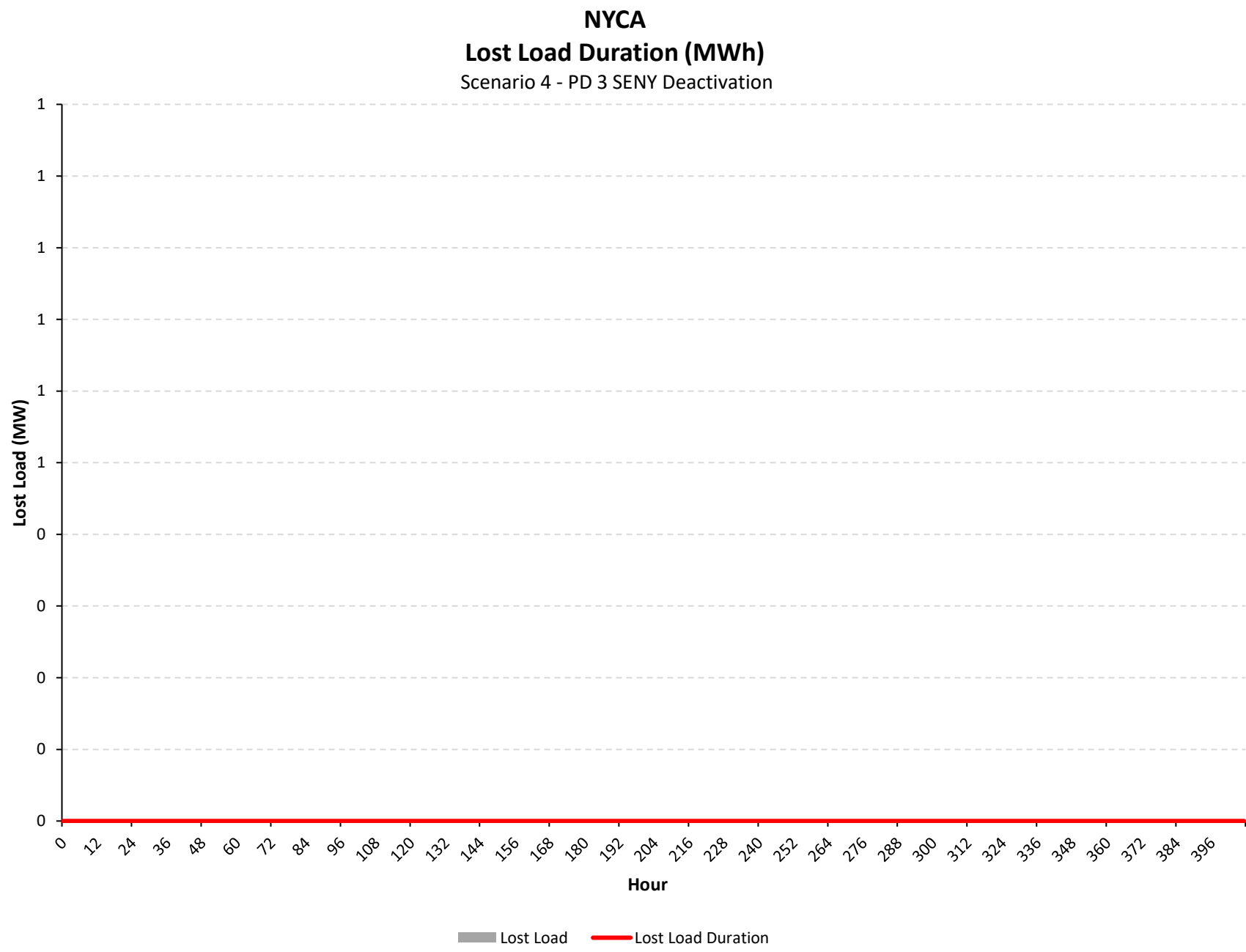


Notes:

[1] Weekends are shaded in gray.

[2] Effective degree day is defined as 65 degrees F - Temperature.



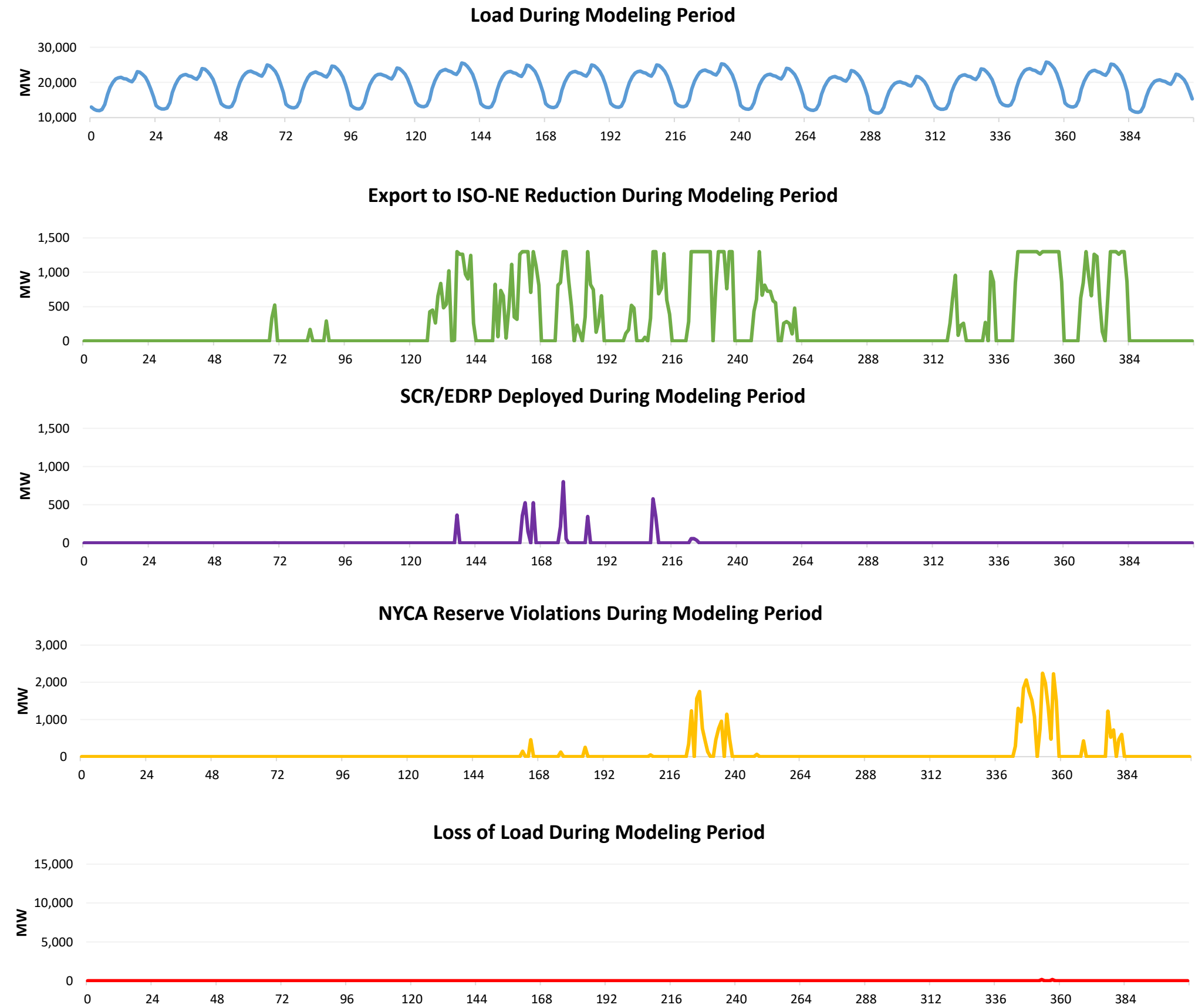


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 4 Nuclear Station Outage (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 4 - PD 4 Nuclear Station Outage



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

Export Reductions	
Total Hrs.	140
Total MWh	115,497
Avg. MW	283.1

SCR Deployment	
Total Hrs.	14
Total MWh	4,413
Avg. MW	10.8

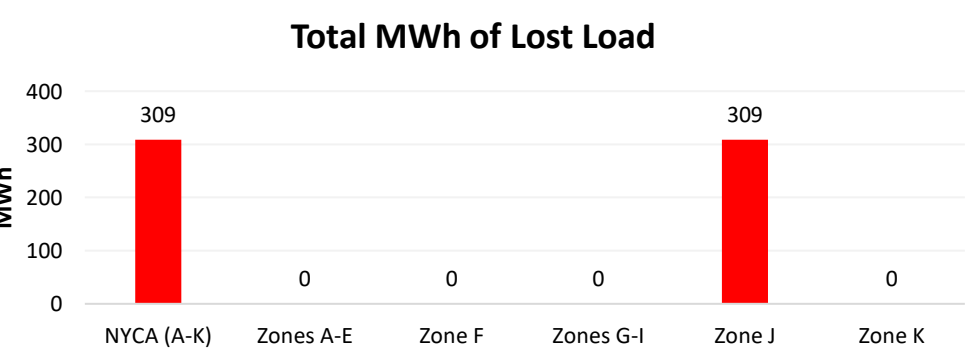
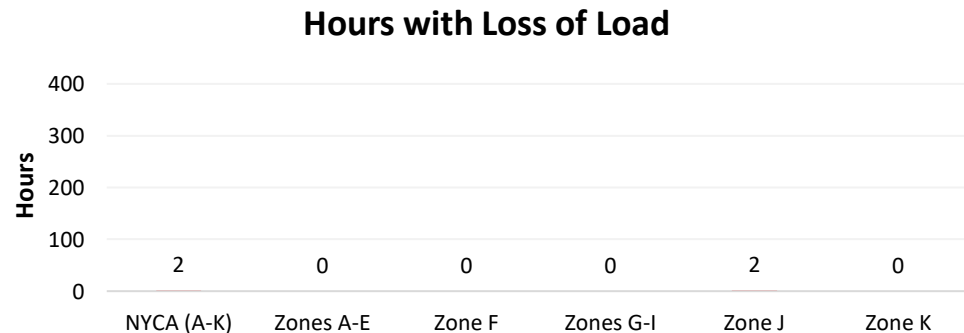
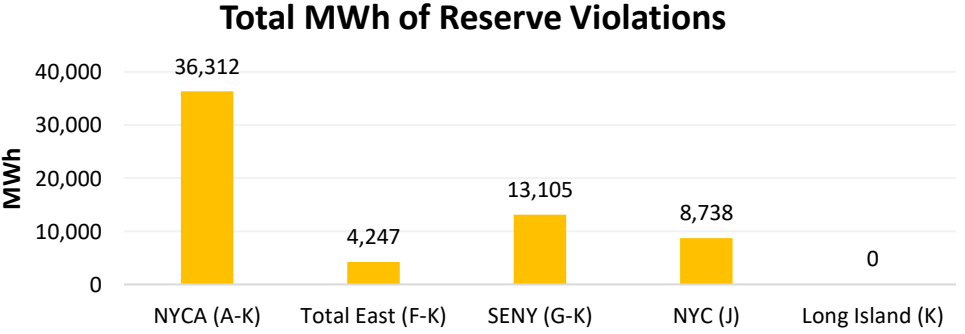
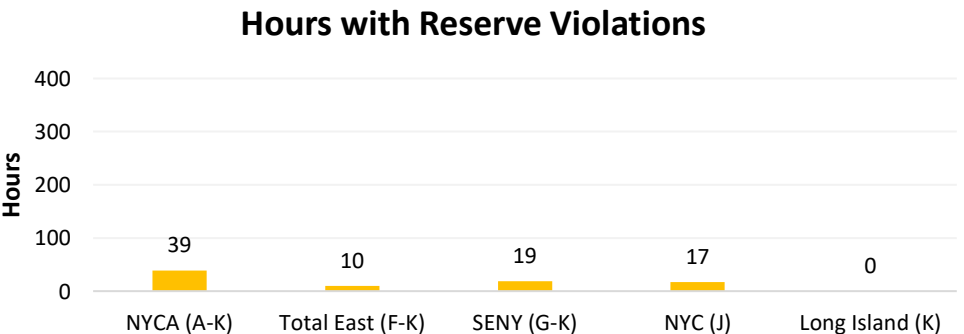
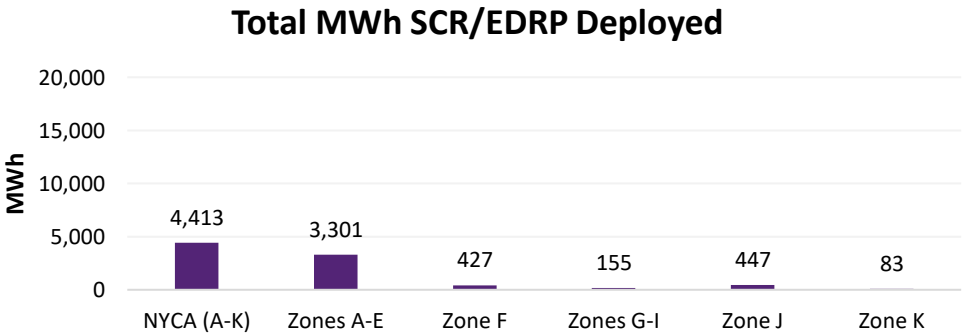
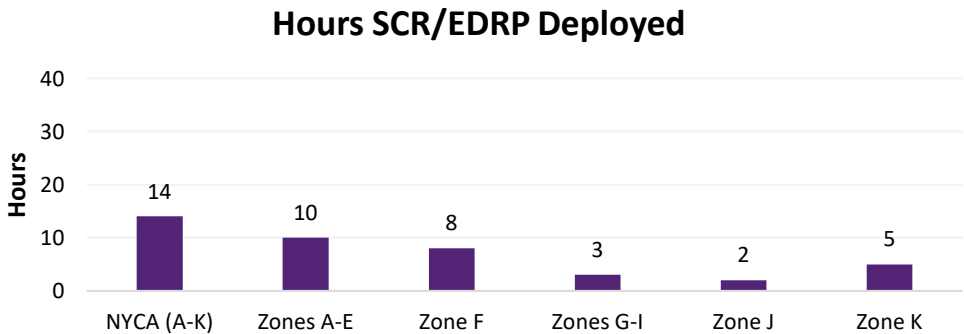
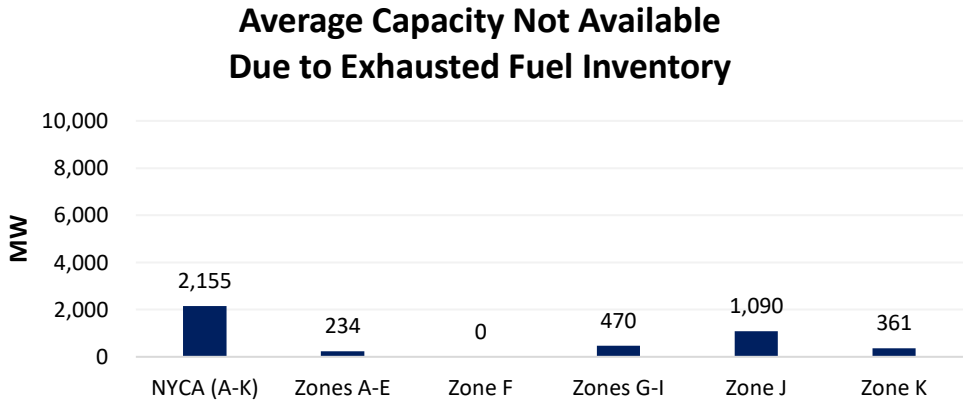
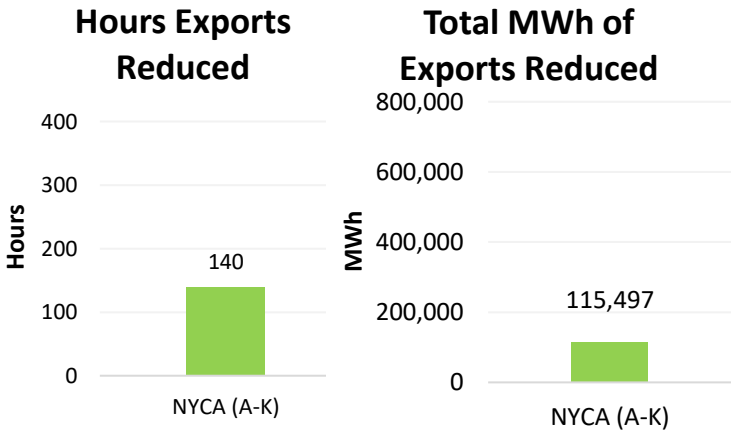
Reserve Violations	
Total Hrs.	39
Total MWh	36,312
Avg. MW	89.0
First Hour with Viol.	162

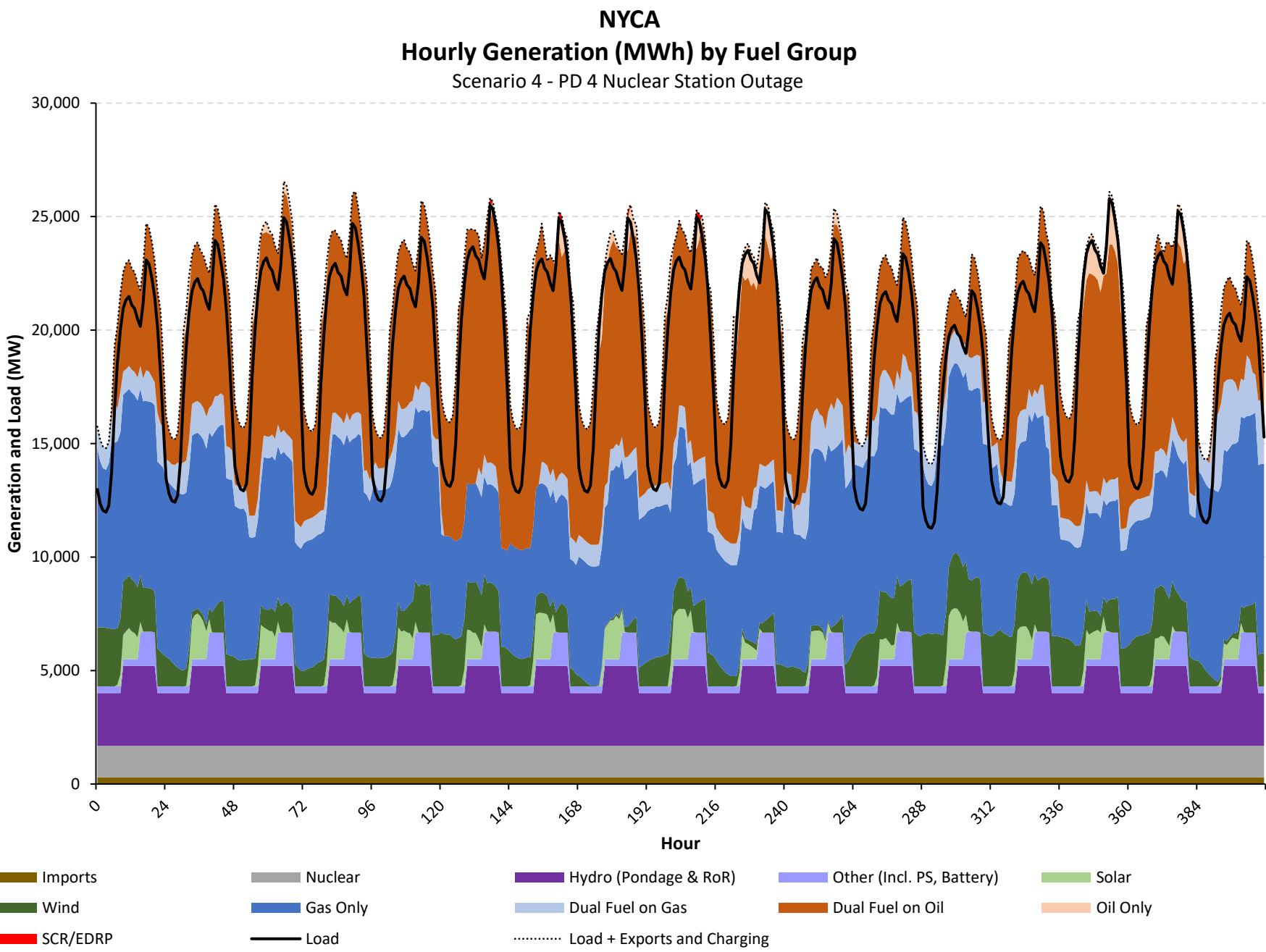
Loss of Load	
Total Hrs.	2
Total MWh	309
Avg. MW	0.8
First Hour with Losses	353

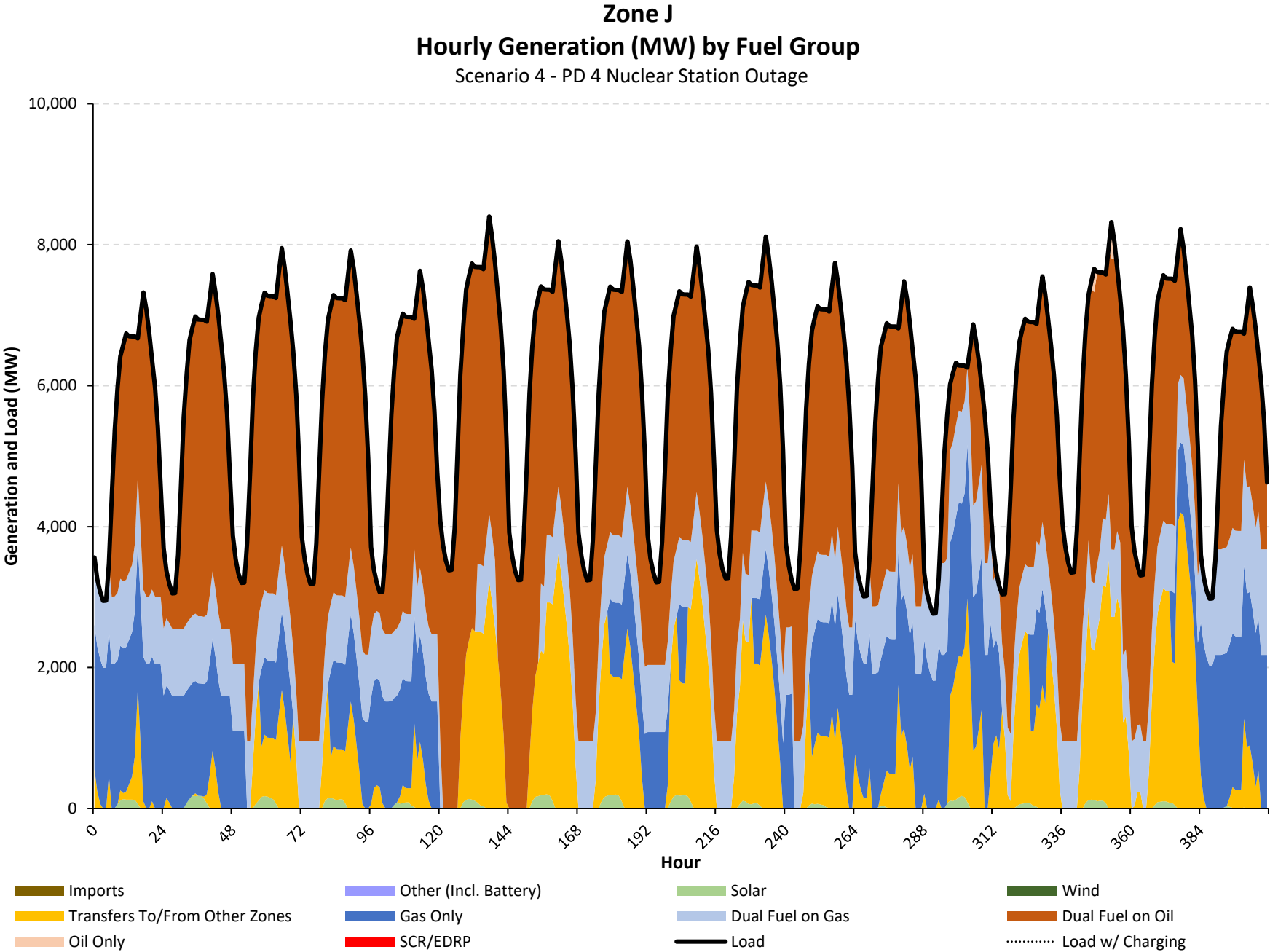
Full Period Results Summary

Case Name: Scenario 4 - PD 4 Nuclear Station Outage

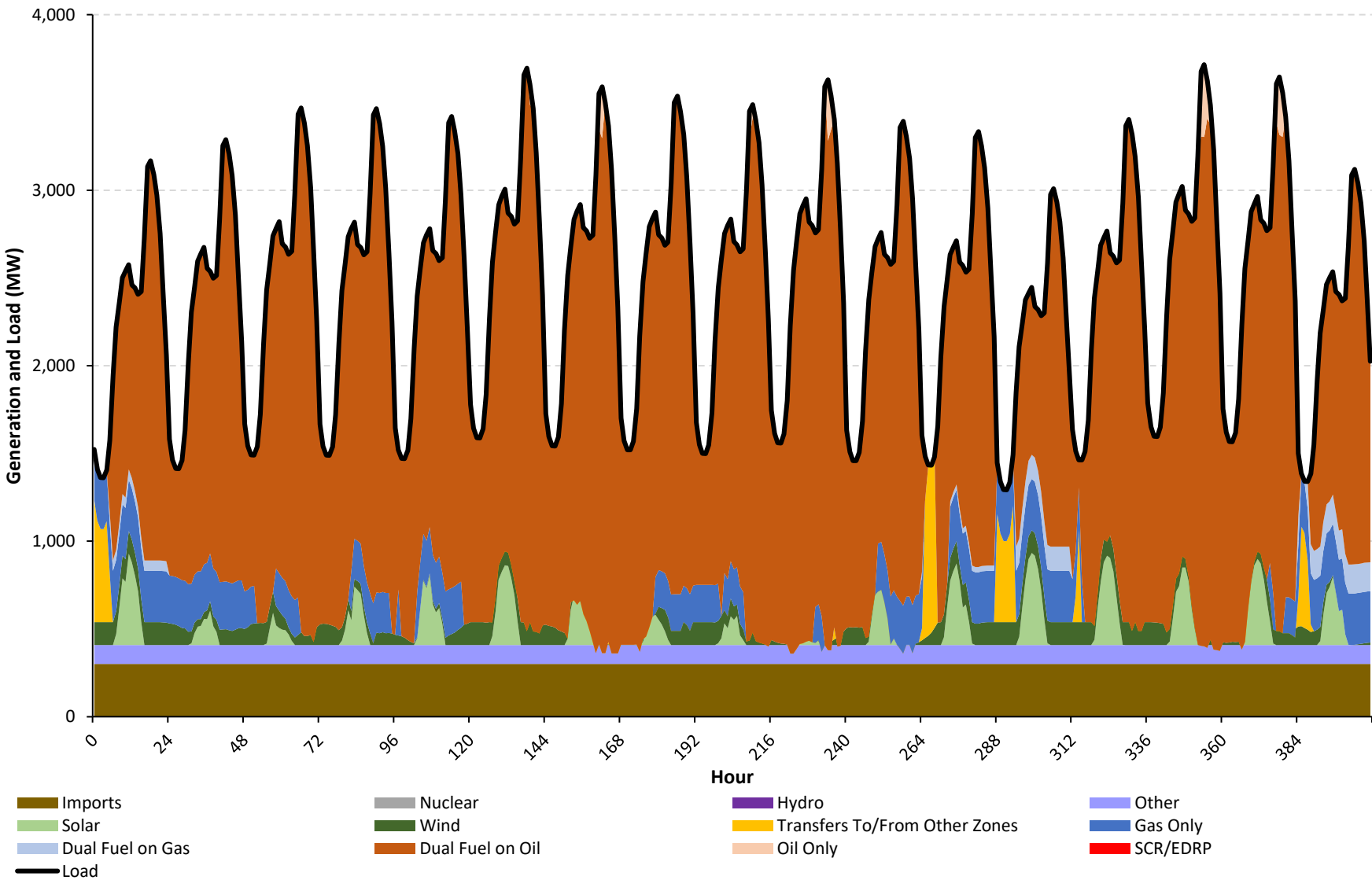
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	High
Refill Contingency:	Off
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	On
Plant Outage:	None
Import Scenario:	Net Zero



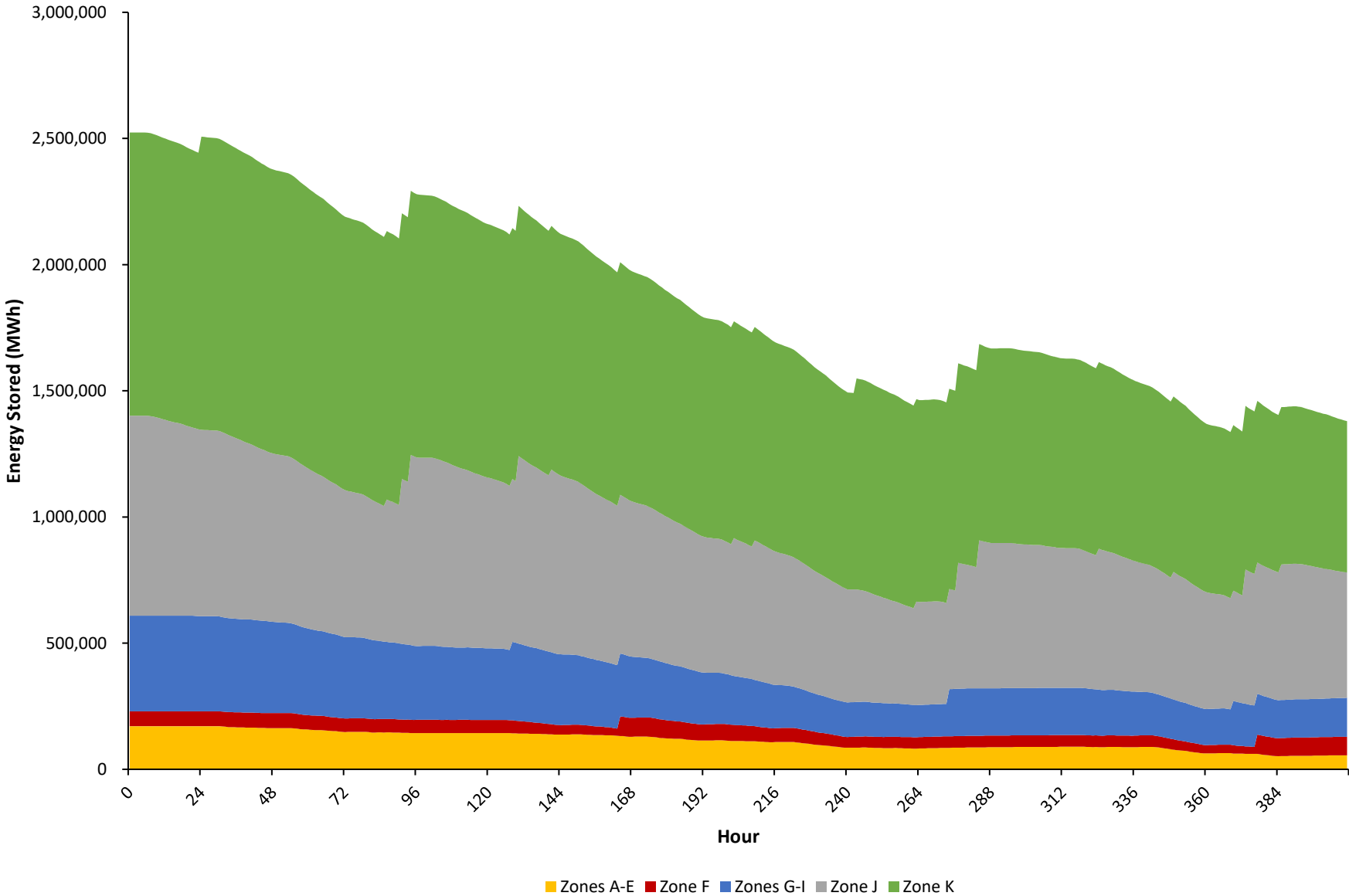




Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 4 Nuclear Station Outage

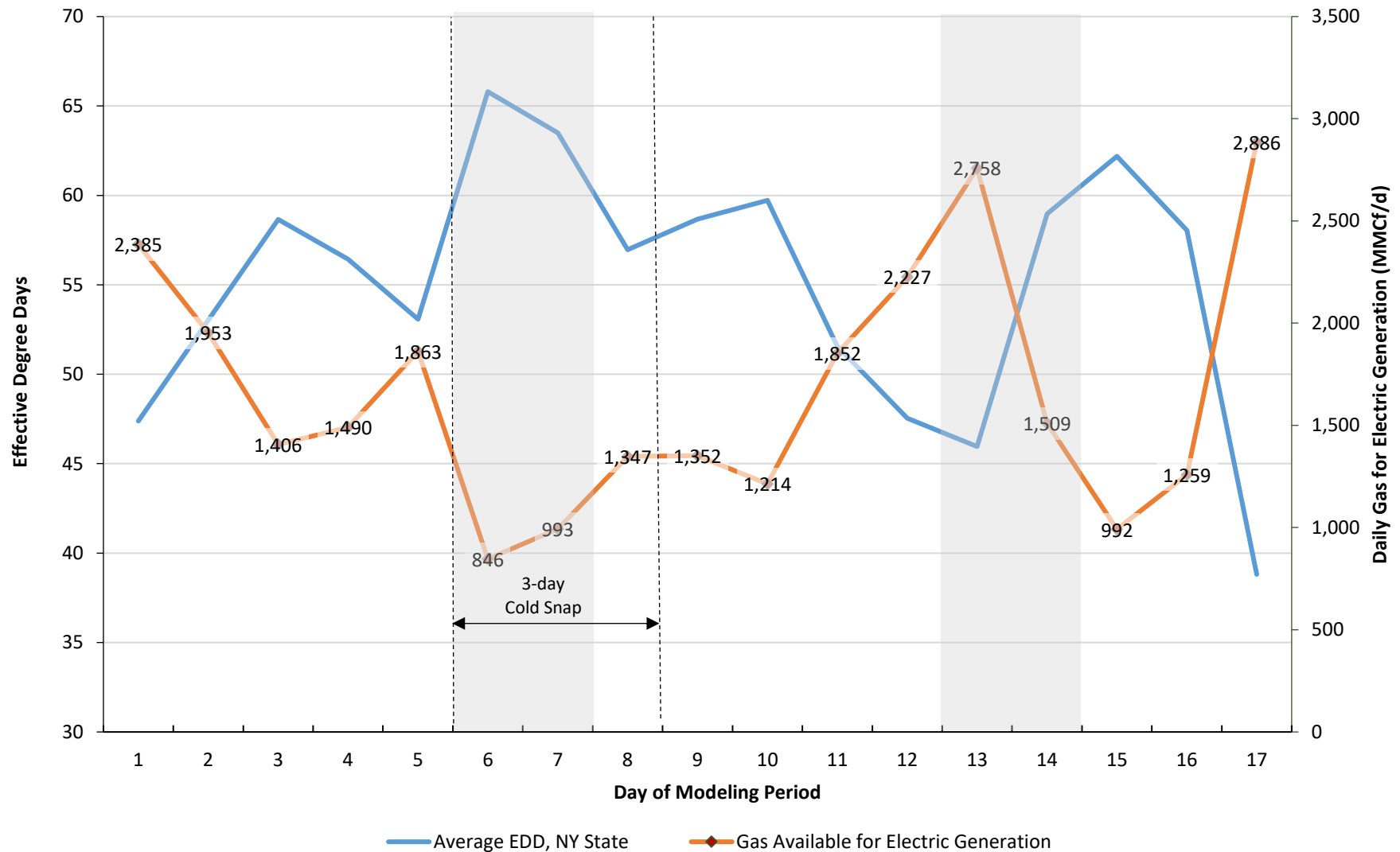


NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 4 - PD 4 Nuclear Station Outage



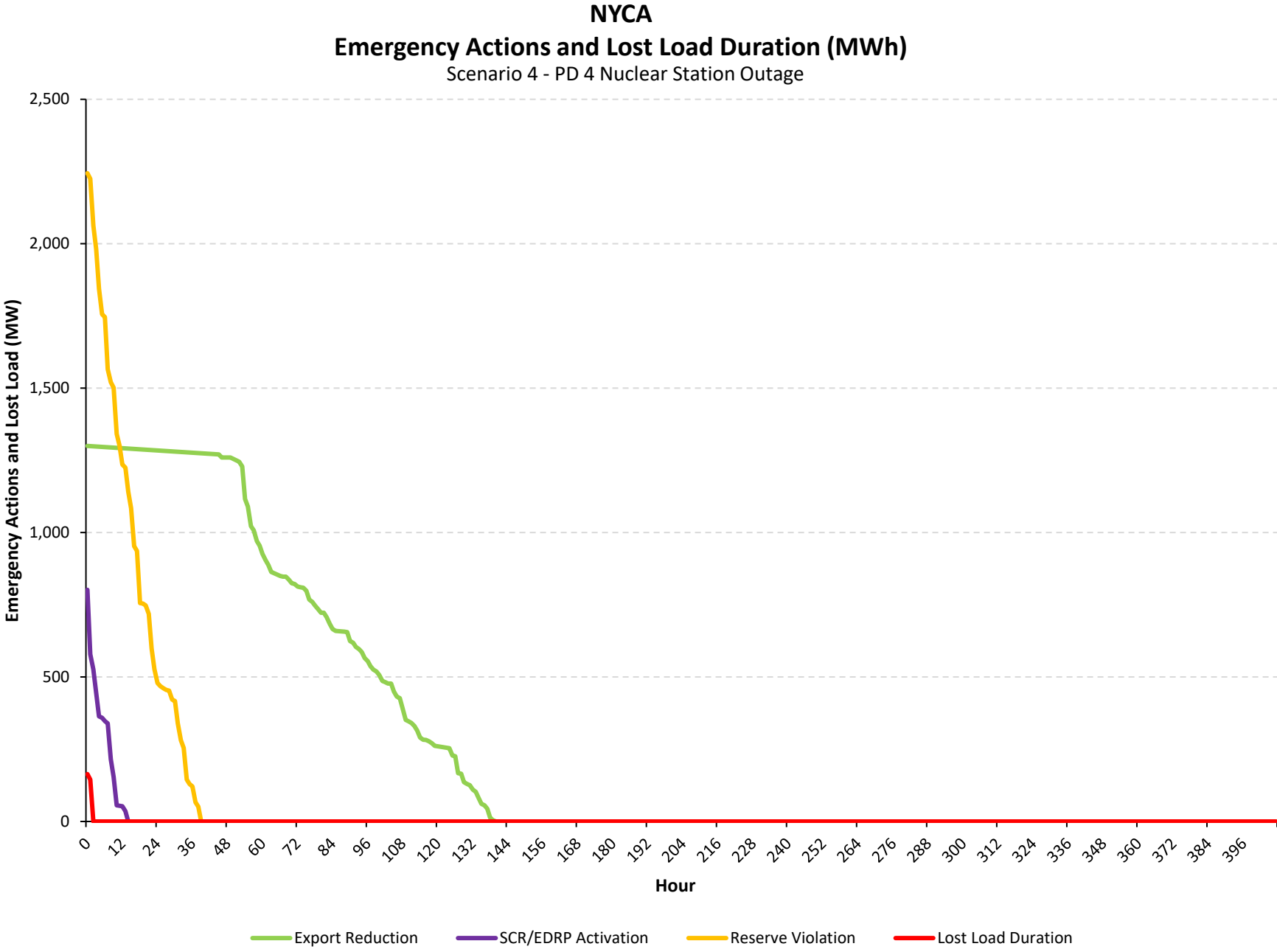
NYCA **Degree Days and Gas Available for Electric Generation 17-Day Modeling Period**

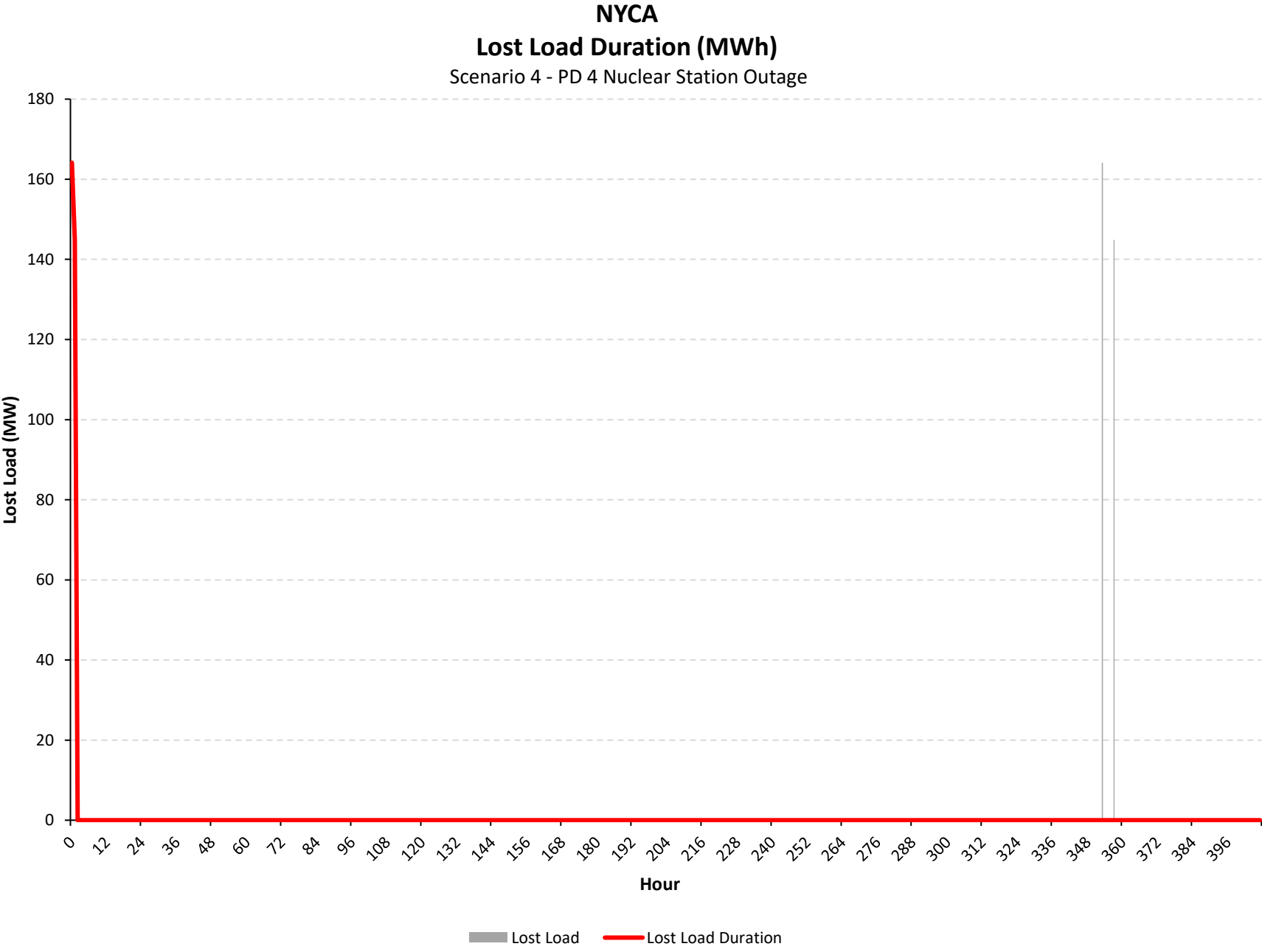
Scenario 4 - PD 4 Nuclear Station Outage



Notes:

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



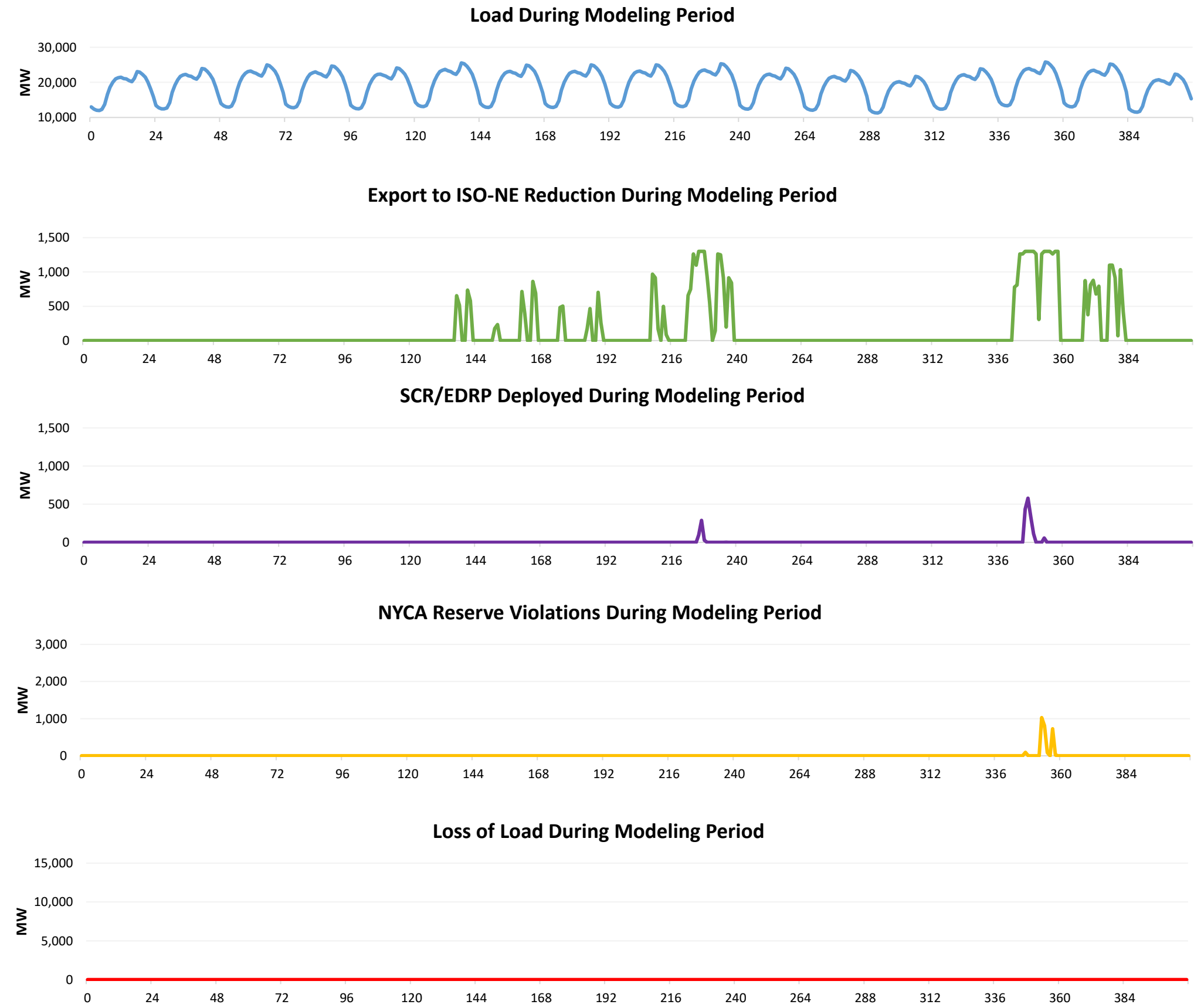


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 5 No Truck Refill (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 4 - PD 5 No Truck Refill



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

Export Reductions	
Total Hrs.	66
Total MWh	54,390
Avg. MW	133.3

SCR Deployment	
Total Hrs.	8
Total MWh	1,928
Avg. MW	4.7

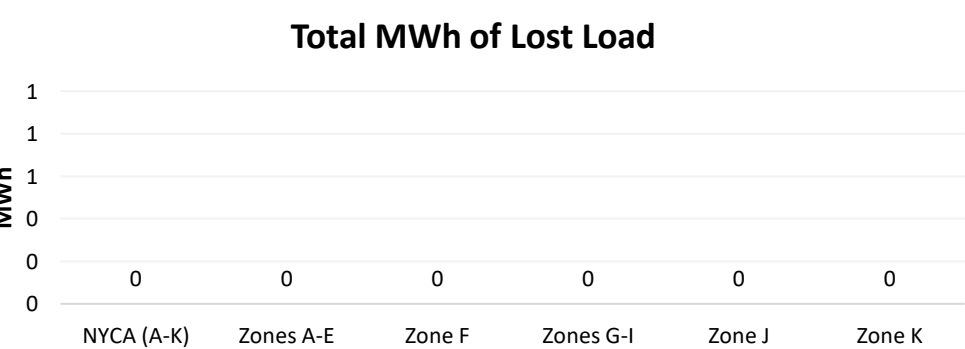
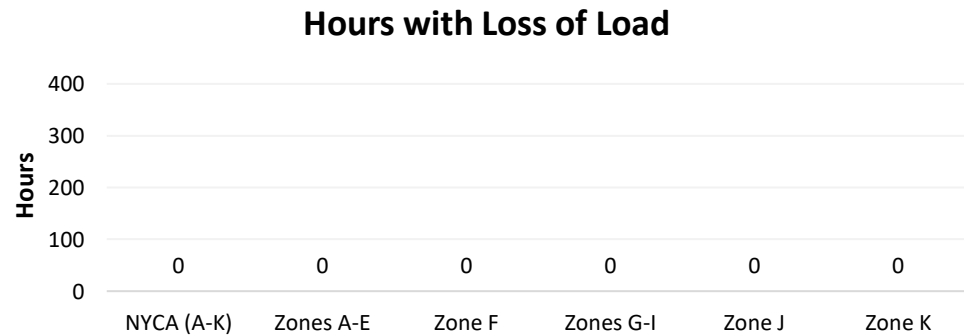
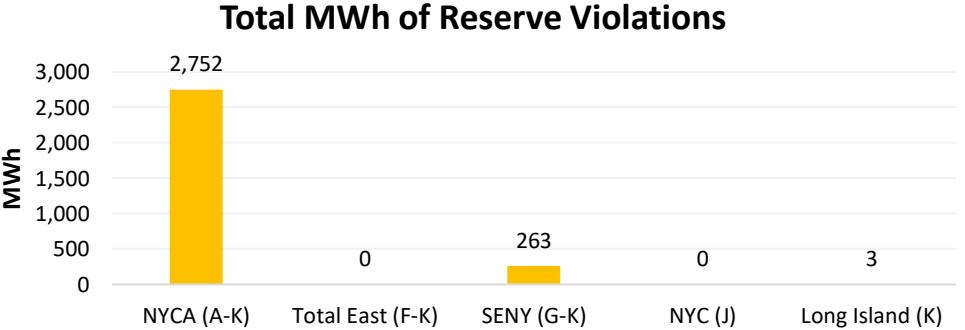
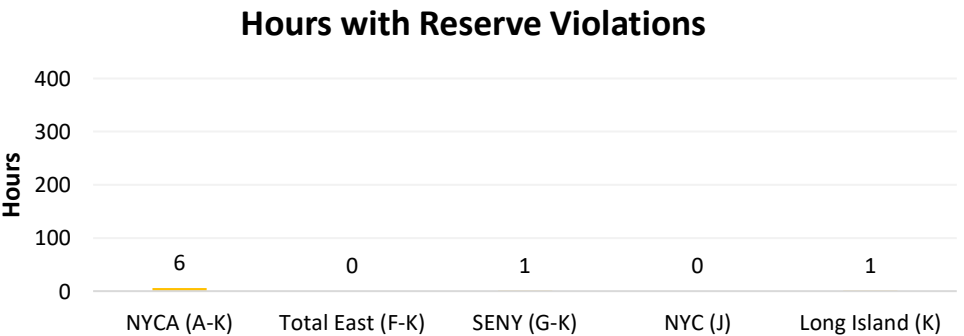
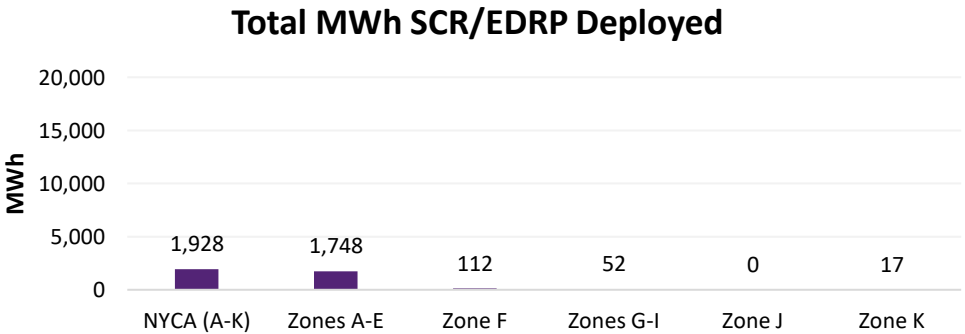
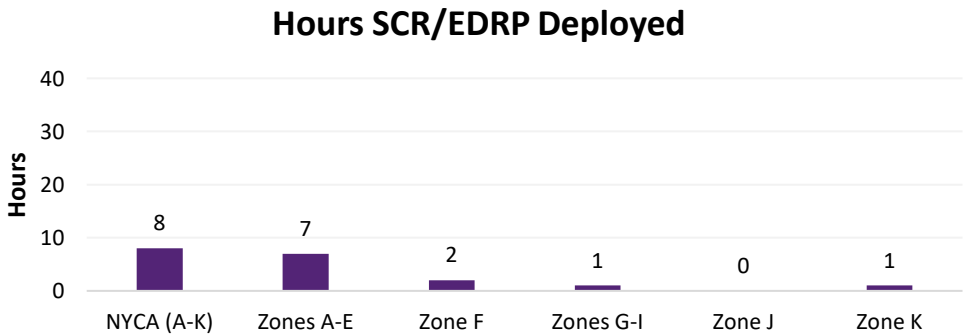
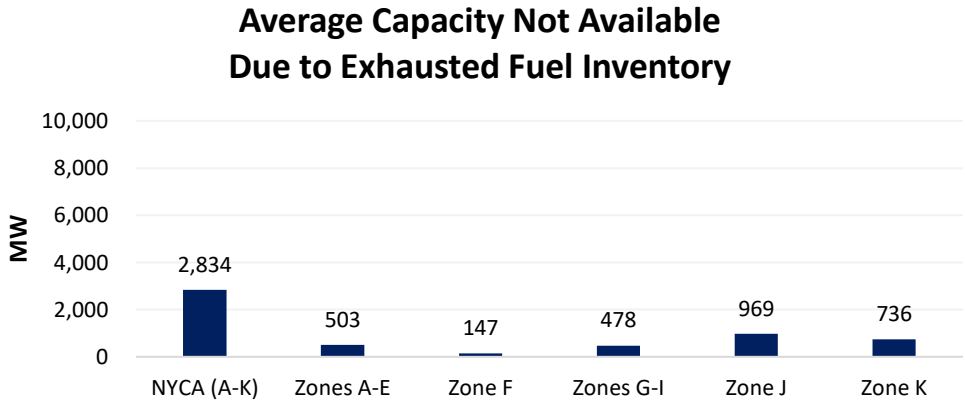
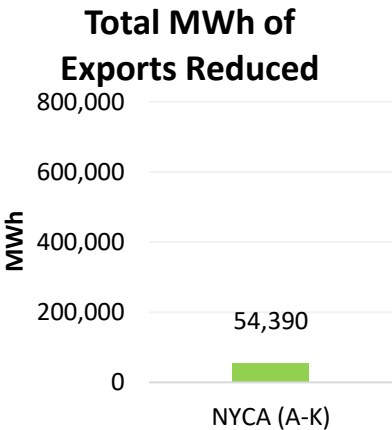
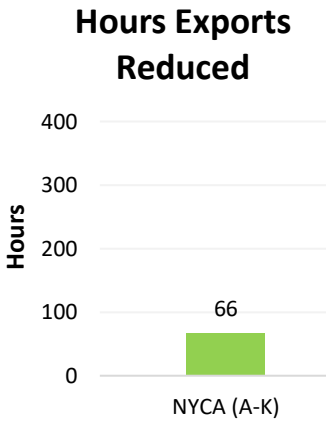
Reserve Violations	
Total Hrs.	6
Total MWh	2,752
Avg. MW	6.7
First Hour with Viol.	347

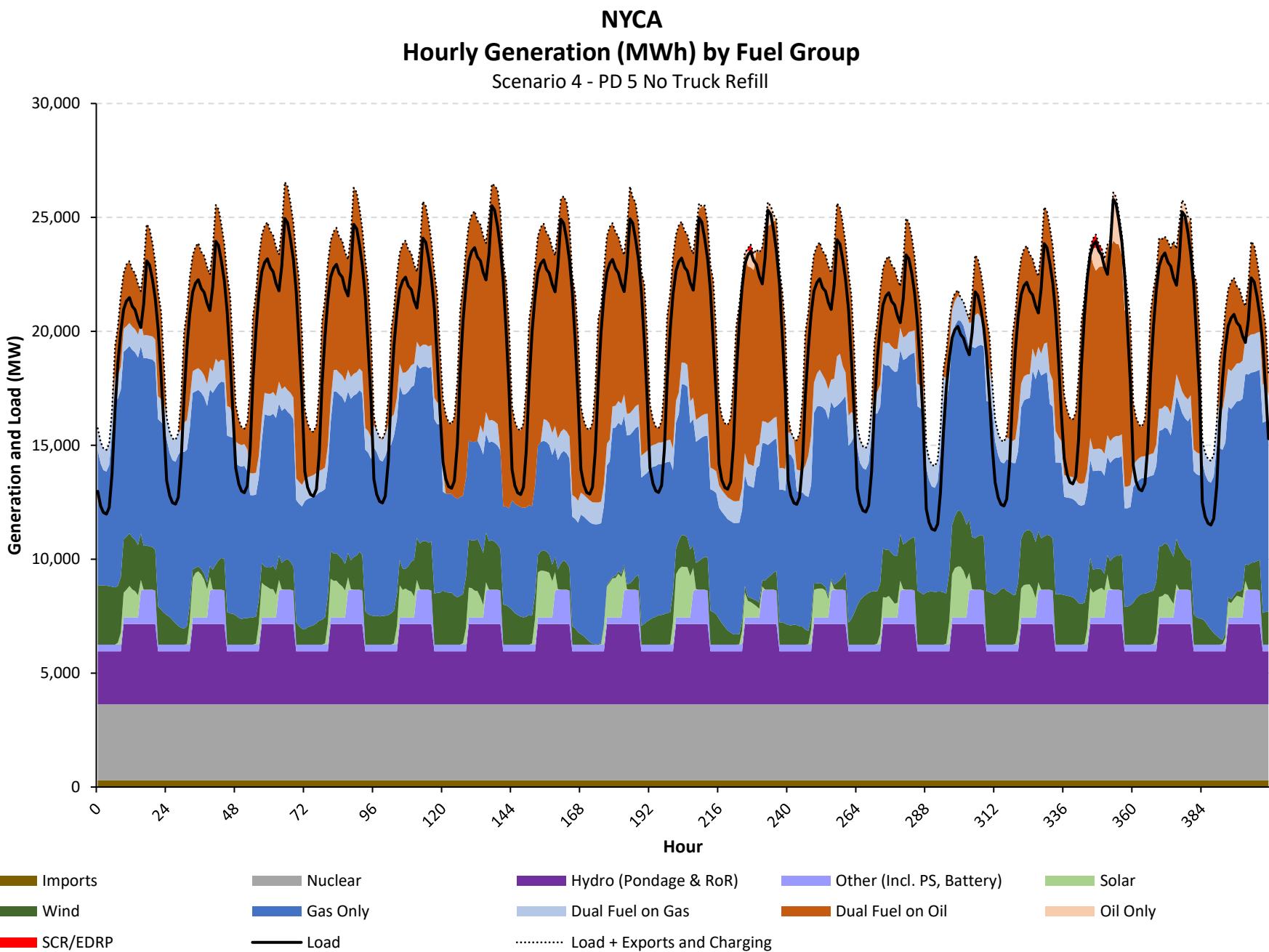
Loss of Load	
Total Hrs.	0
Total MWh	0
Avg. MW	0.0
First Hour with Losses	

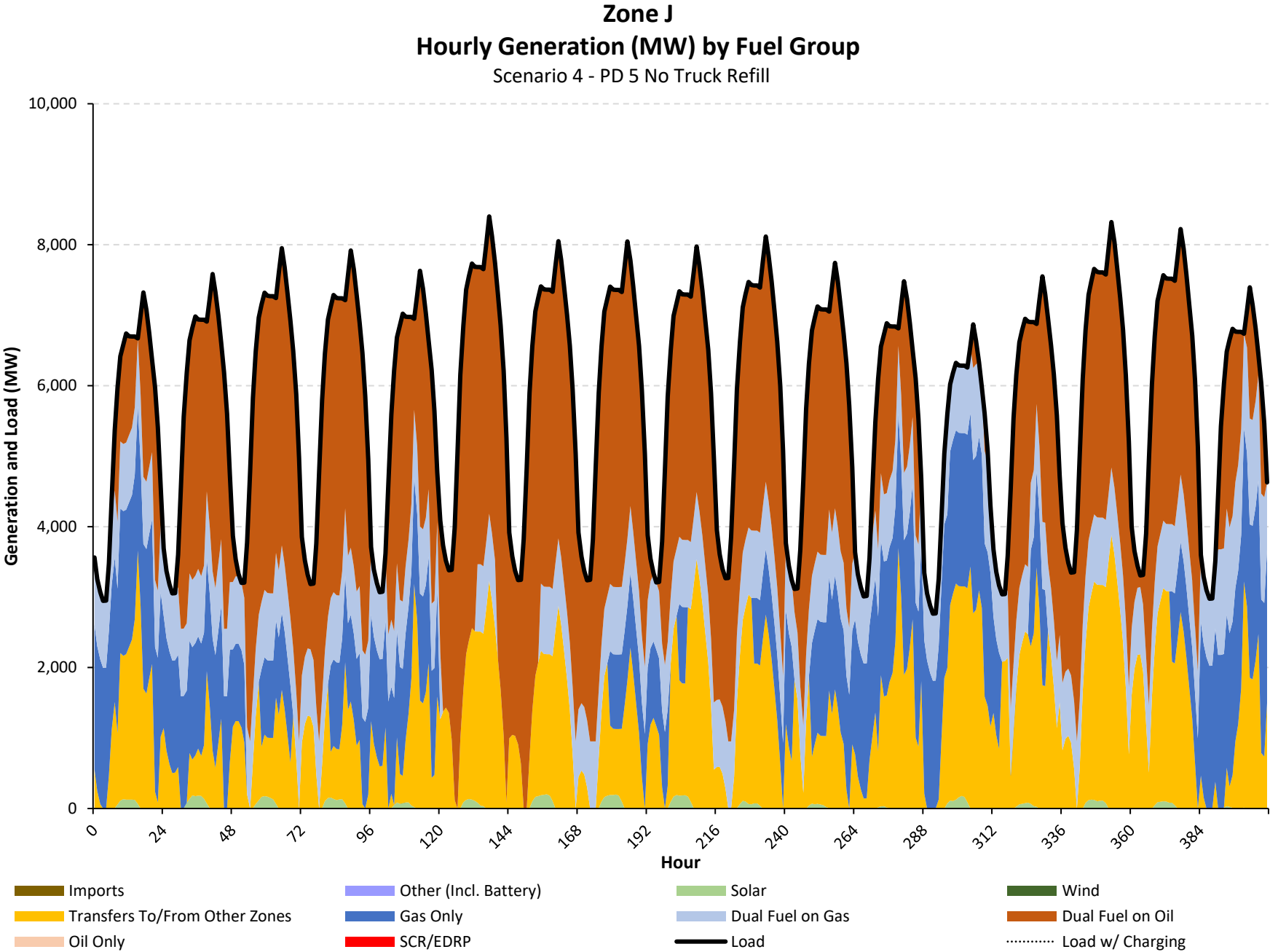
Full Period Results Summary

Case Name: Scenario 4 - PD 5 No Truck Refill

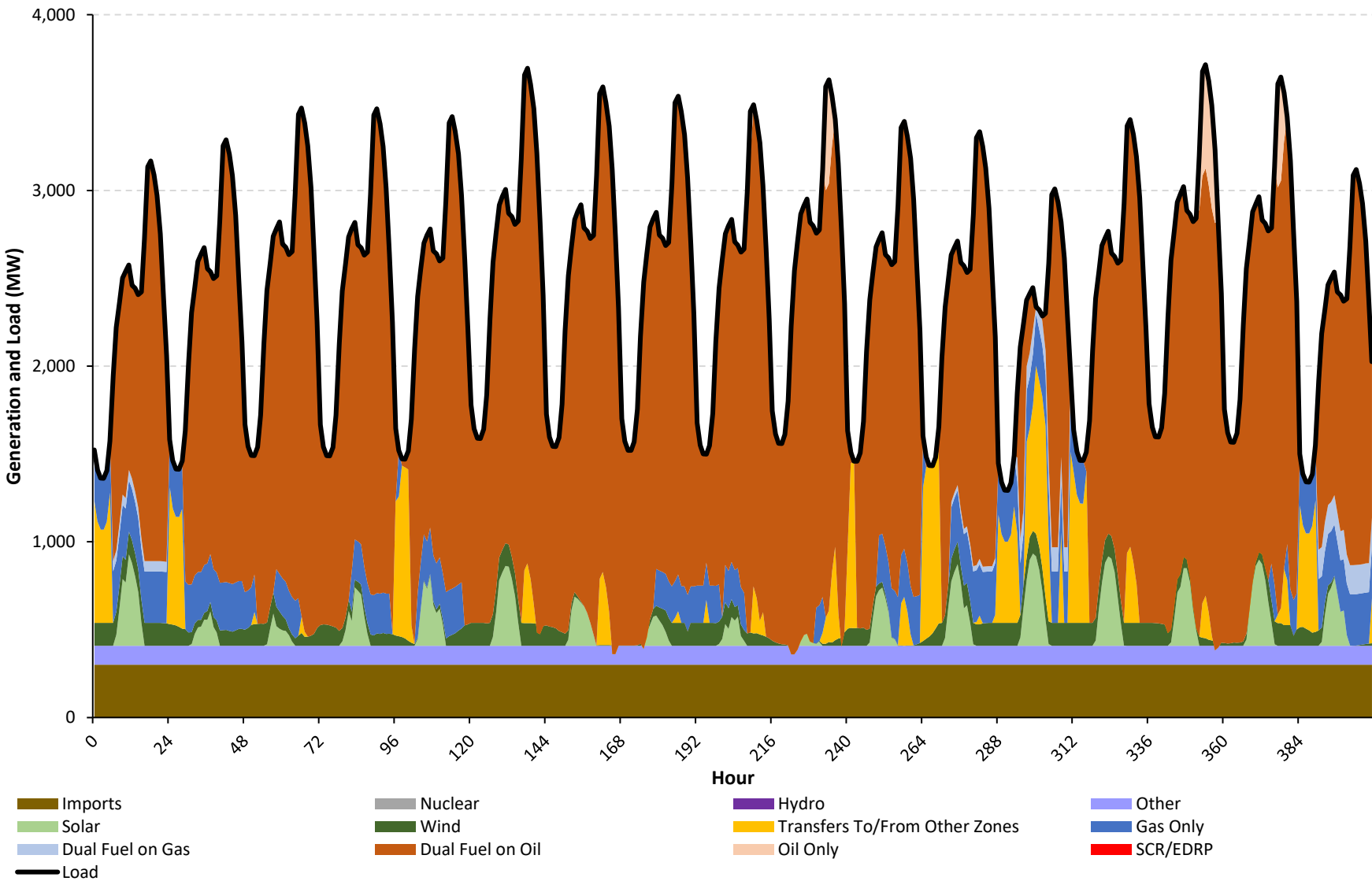
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	High
Refill Contingency:	No Trucks
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero



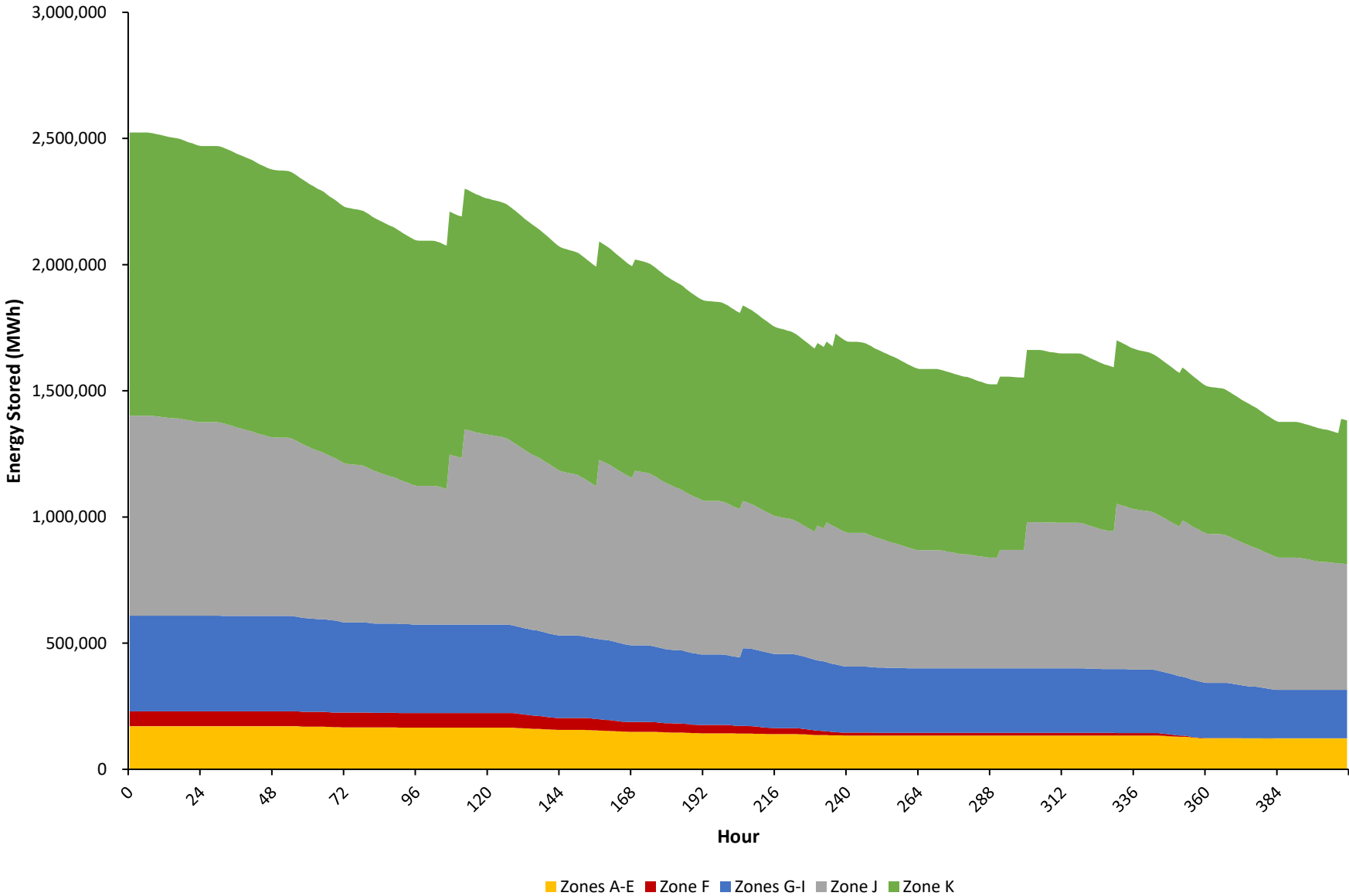


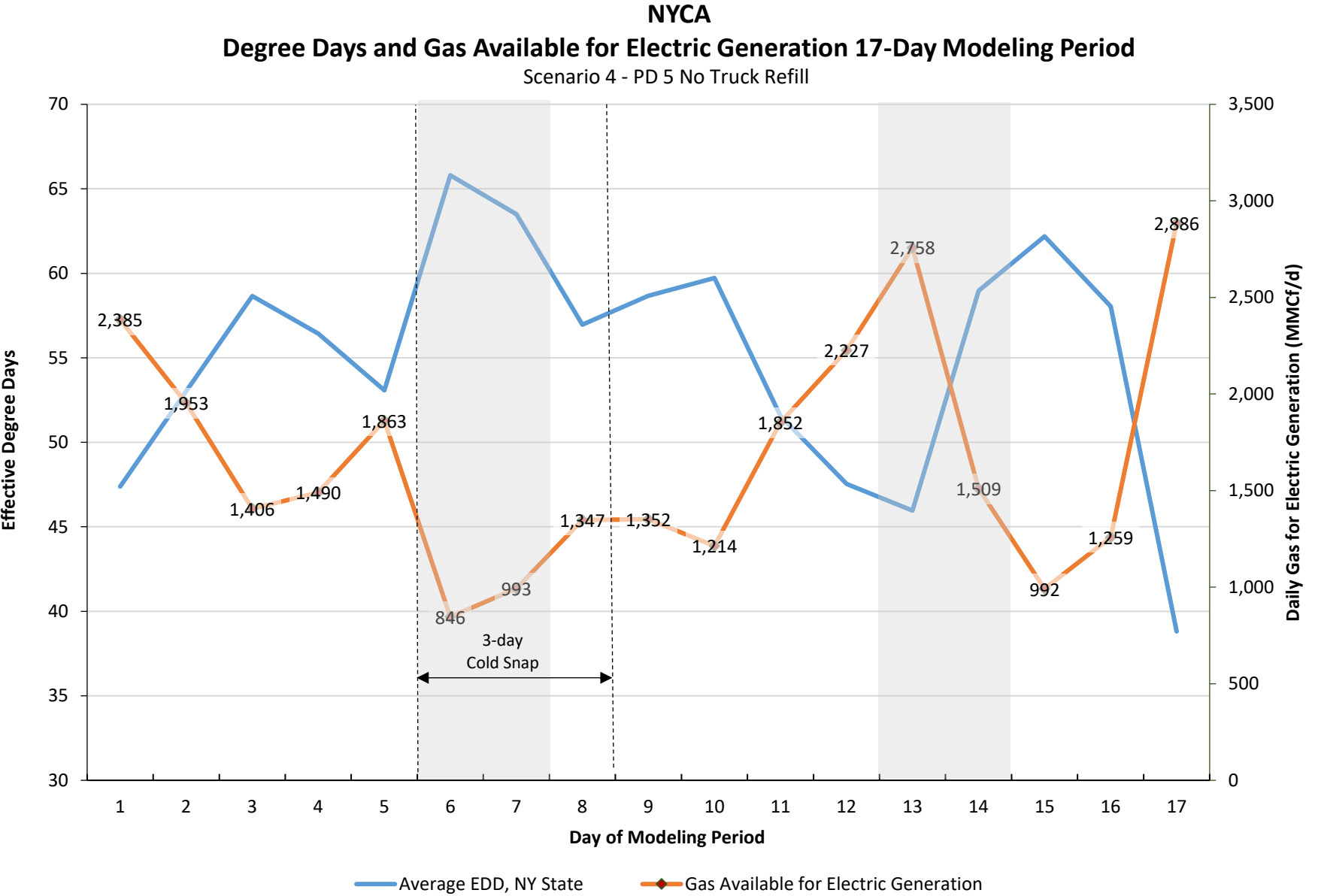


Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 5 No Truck Refill

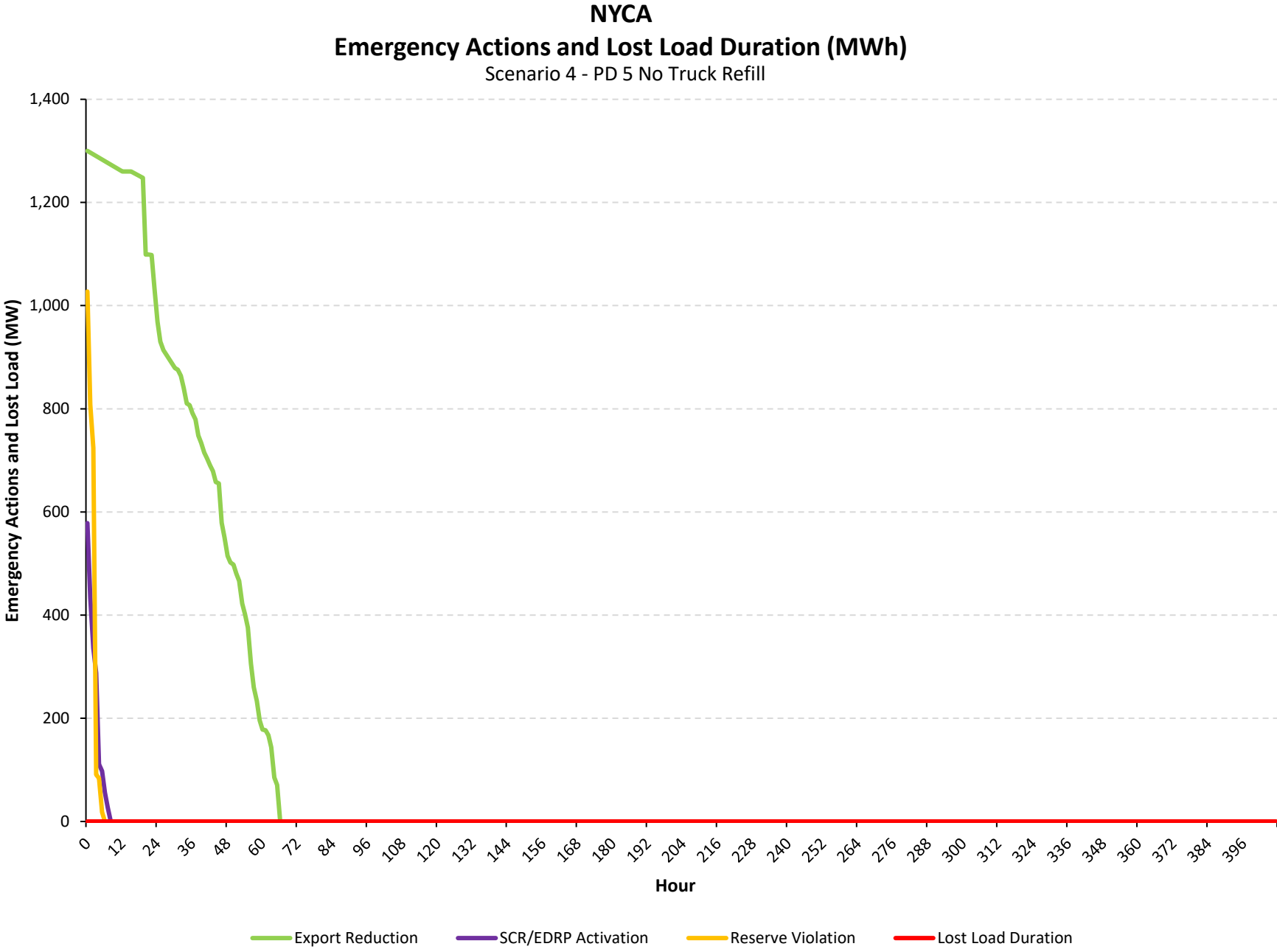


NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 4 - PD 5 No Truck Refill





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



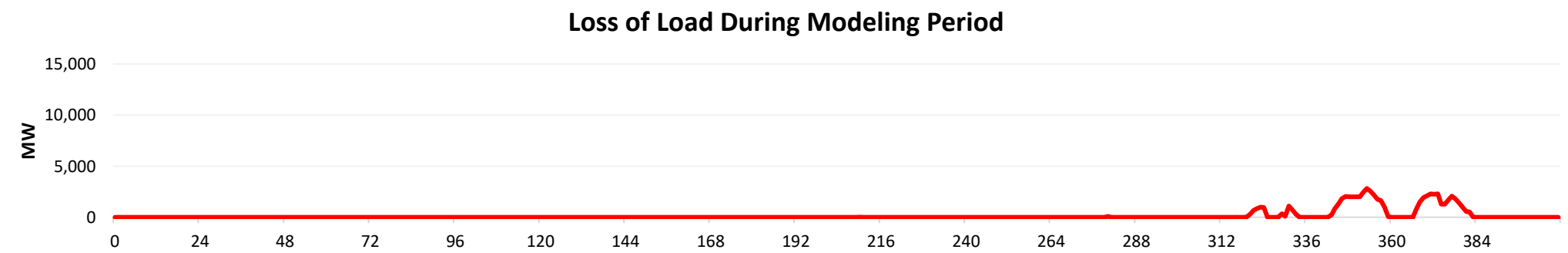
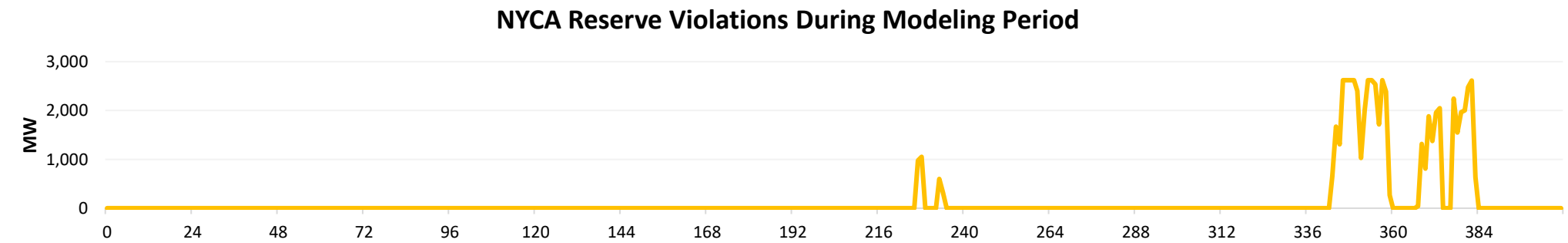
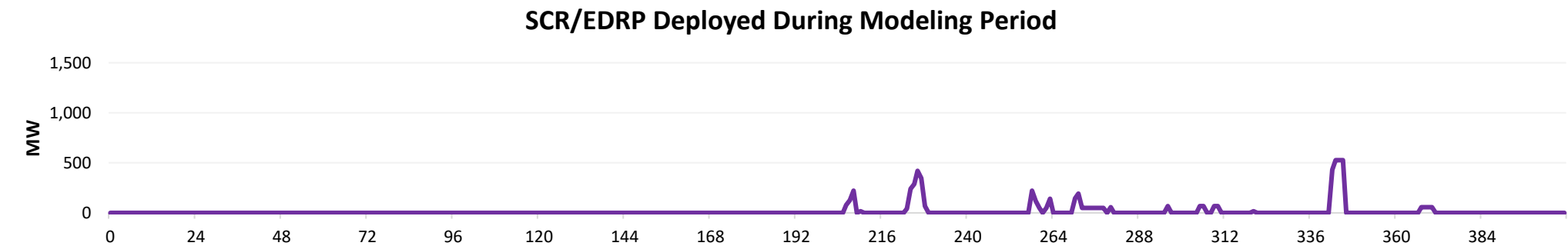
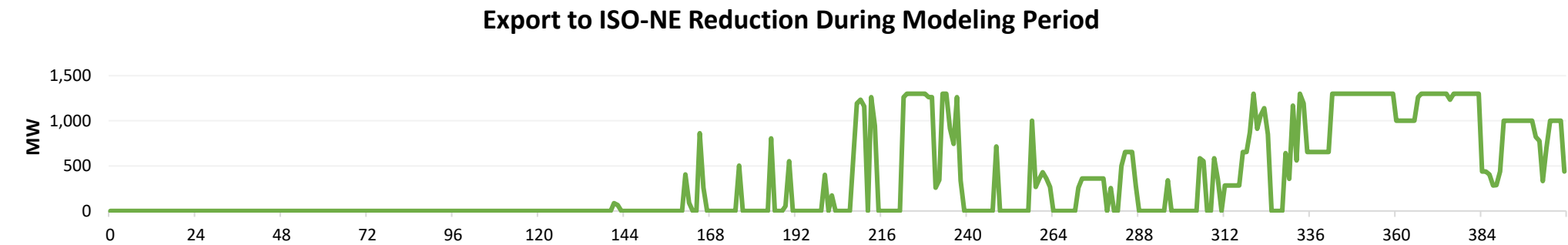
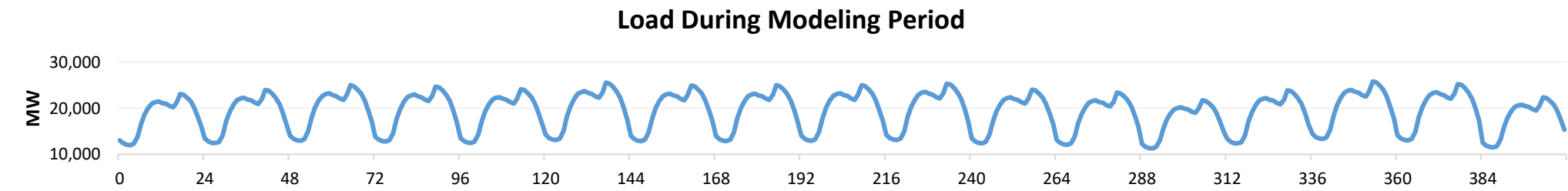


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 6 No Barge Refill (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 4 - PD 6 No Barge Refill



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

Export Reductions	
Total Hrs.	153
Total MWh	129,981
Avg. MW	318.6

SCR Deployment	
Total Hrs.	39
Total MWh	5,770
Avg. MW	14.1

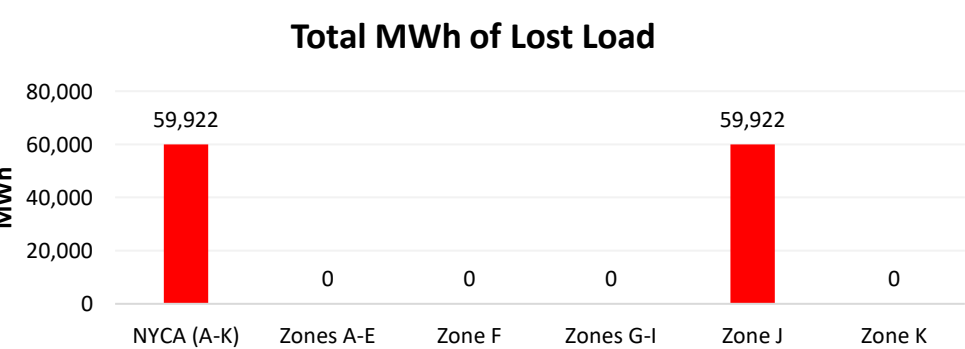
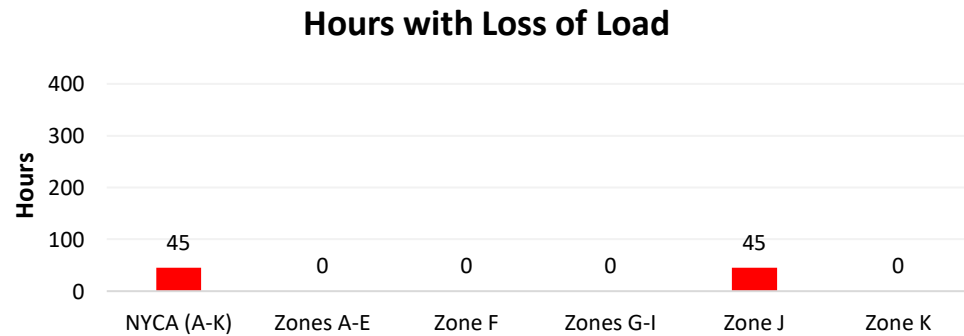
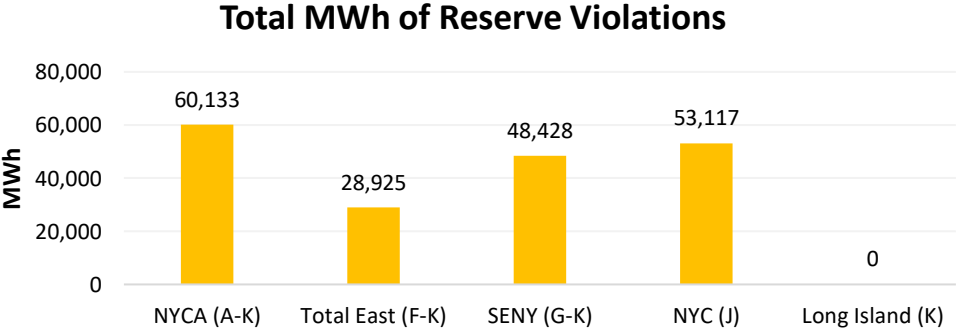
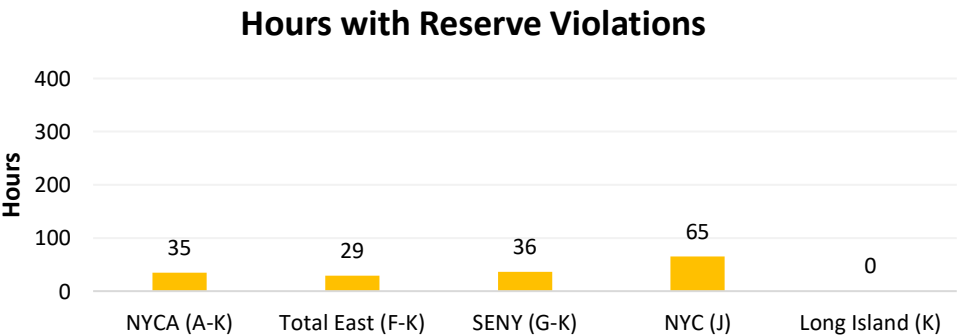
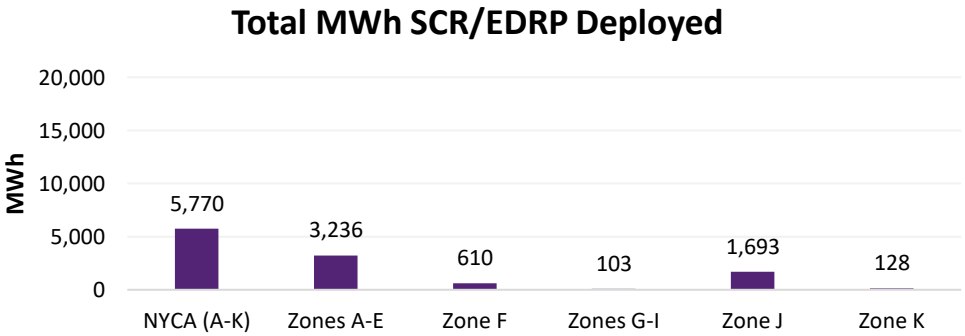
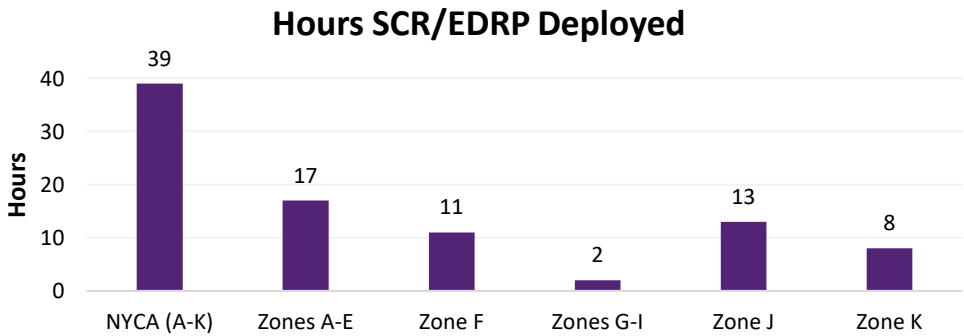
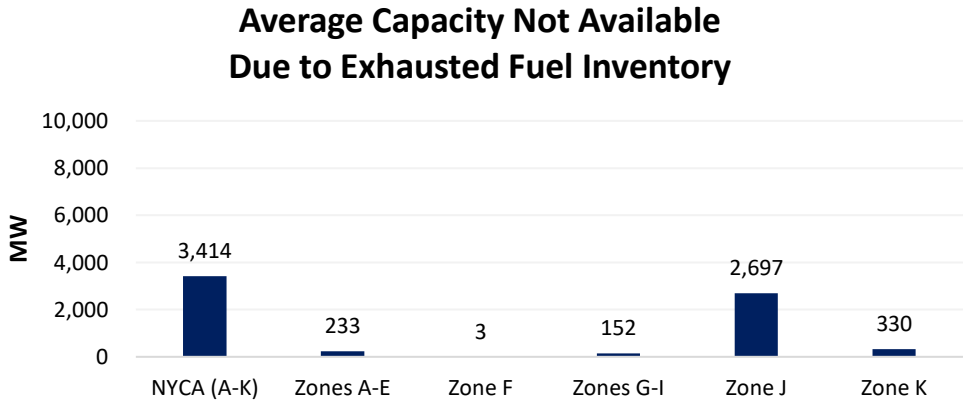
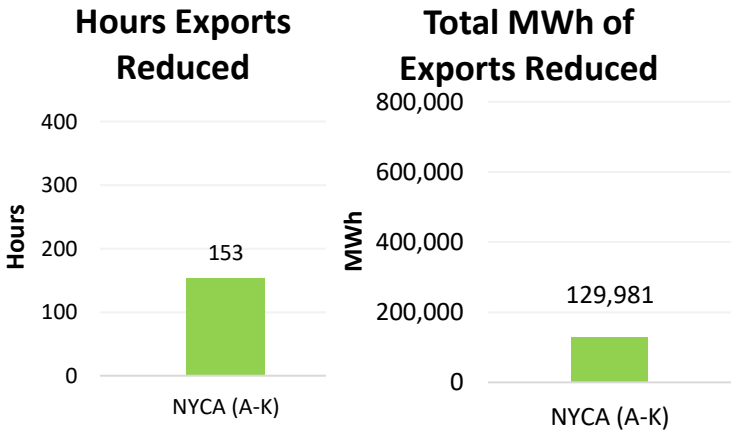
Reserve Violations	
Total Hrs.	35
Total MWh	60,133
Avg. MW	147.4
First Hour with Viol.	208

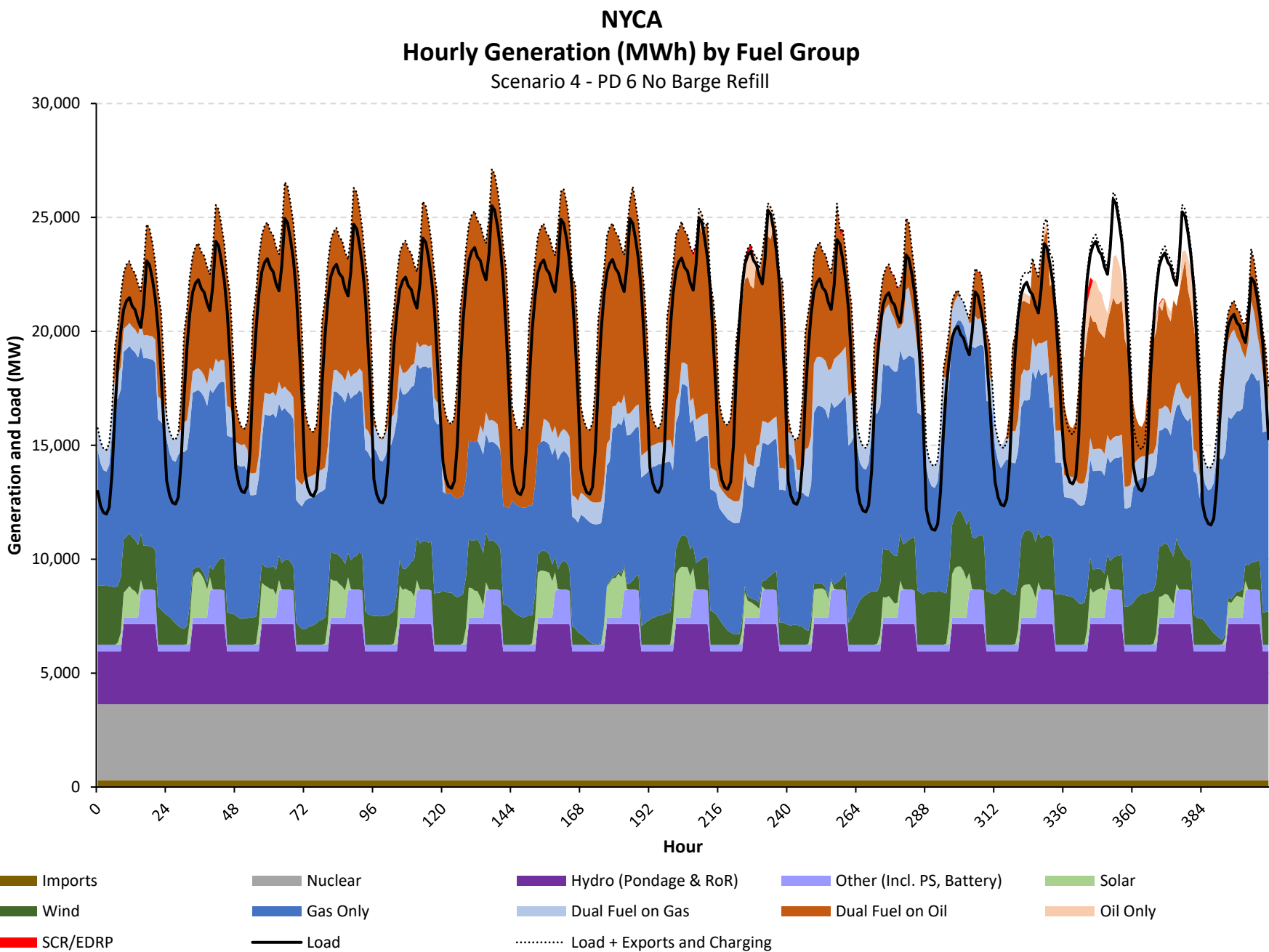
Loss of Load	
Total Hrs.	45
Total MWh	59,922
Avg. MW	146.9
First Hour with Losses	210

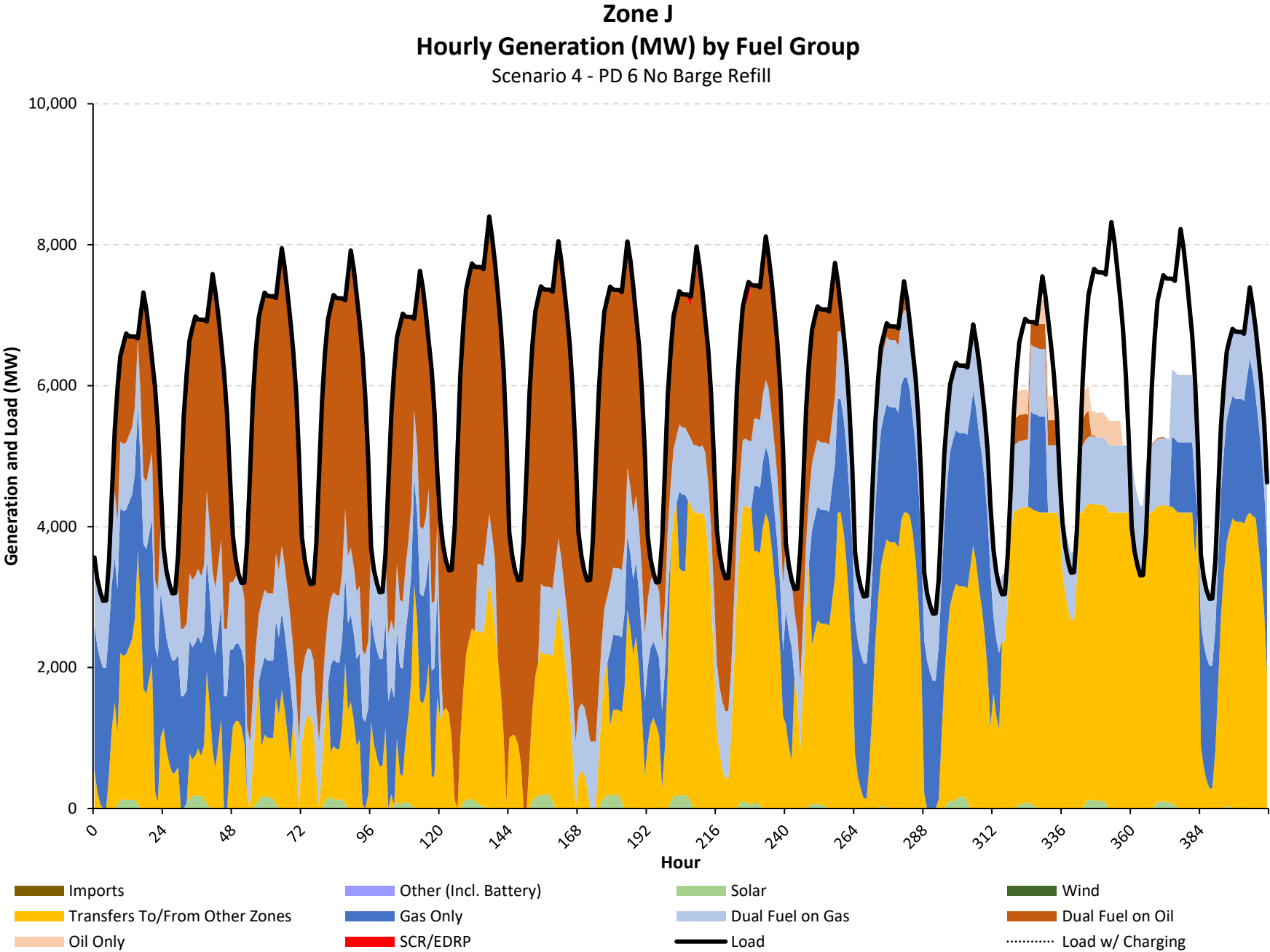
Full Period Results Summary

Case Name: Scenario 4 - PD 6 No Barge Refill

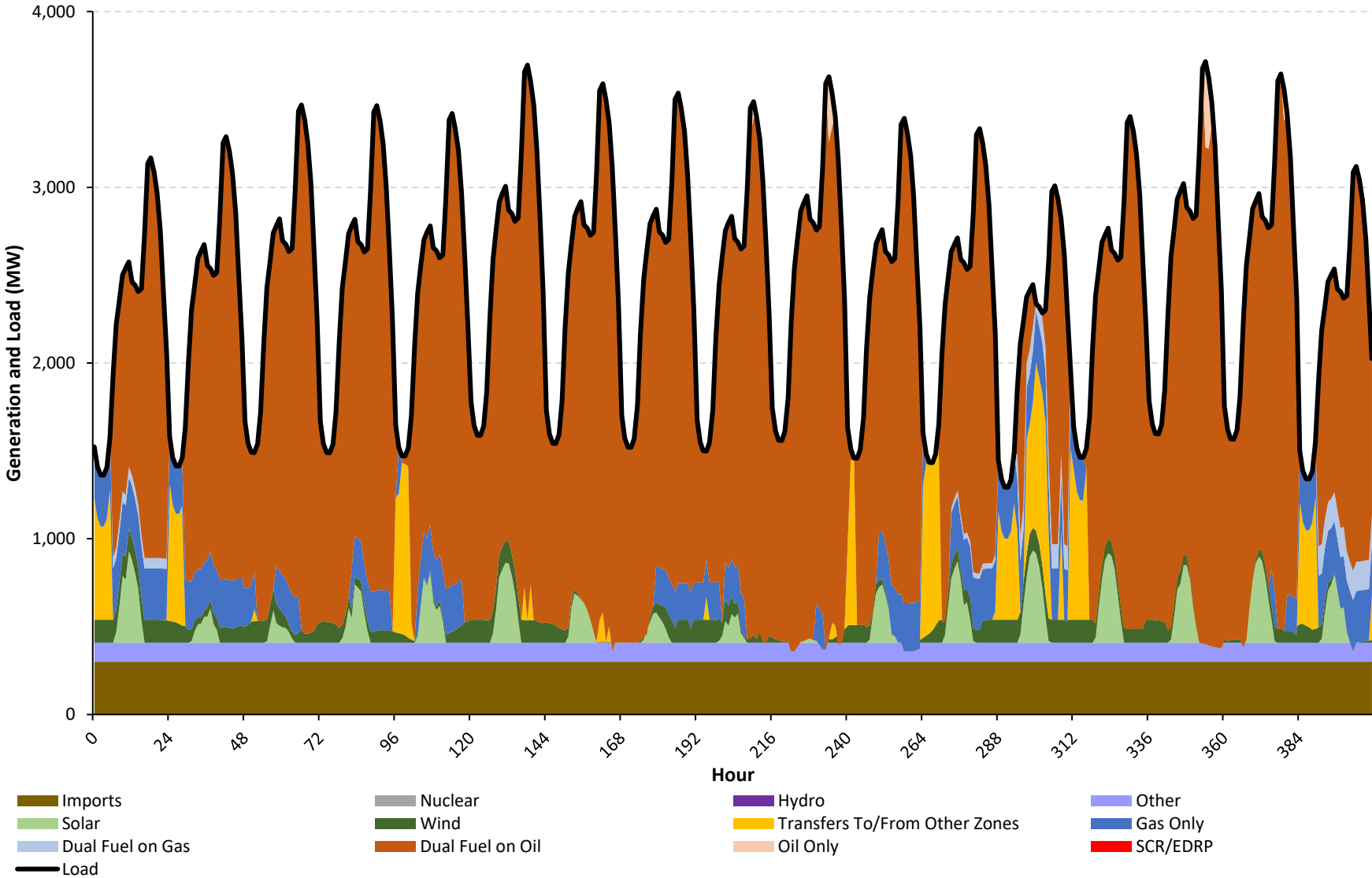
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	High
Refill Contingency:	No Barge
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero



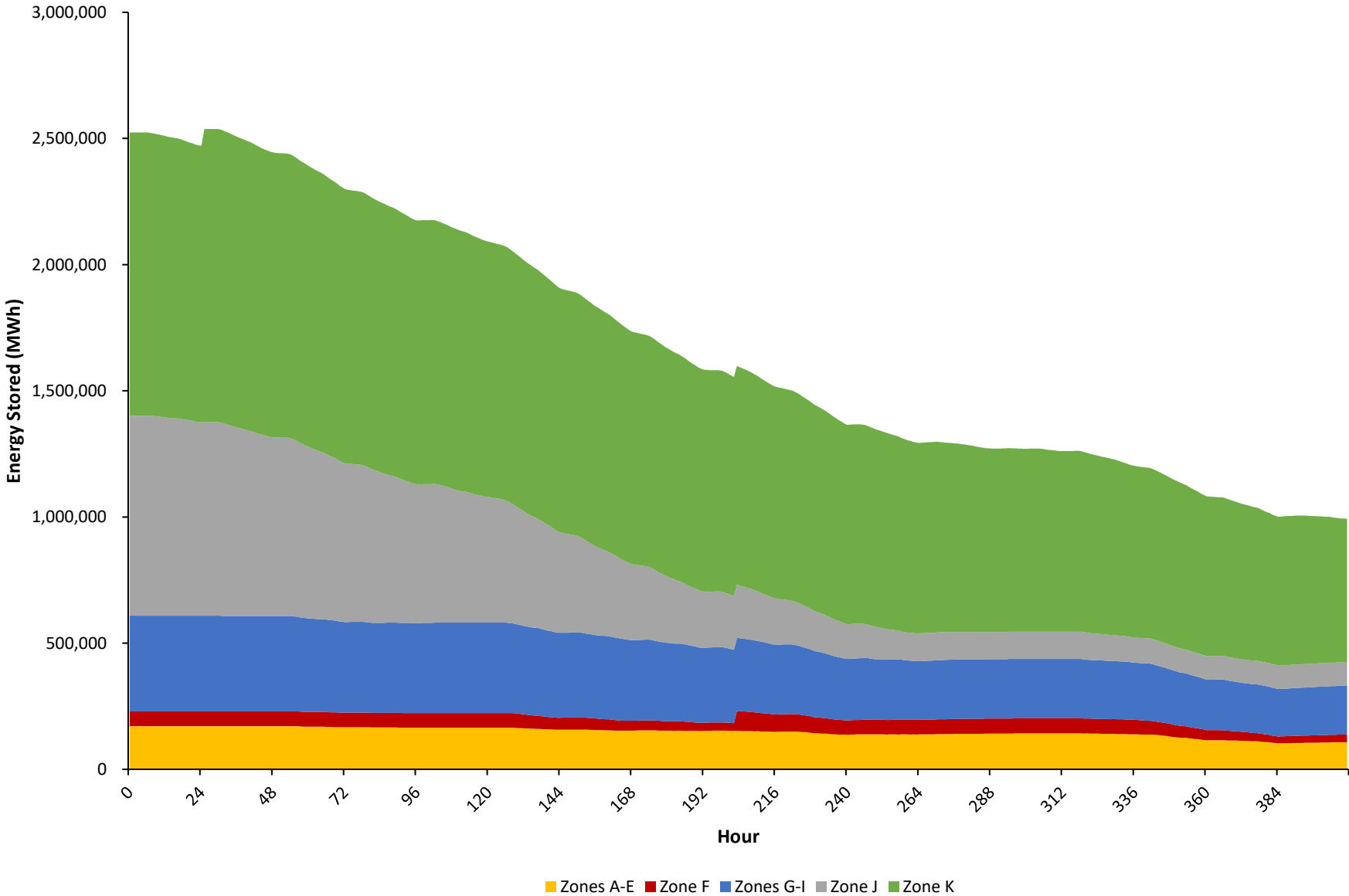


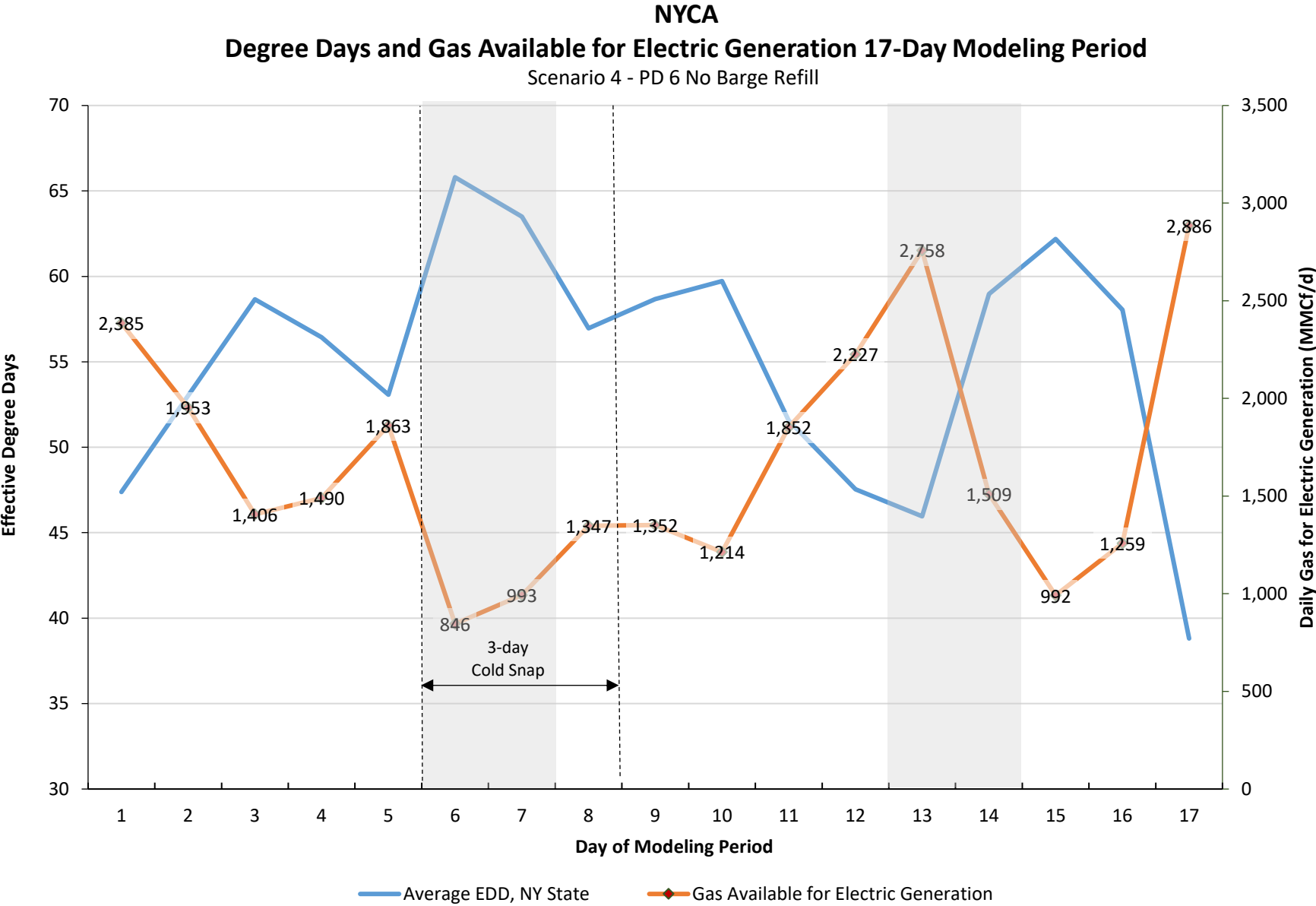


Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 6 No Barge Refill



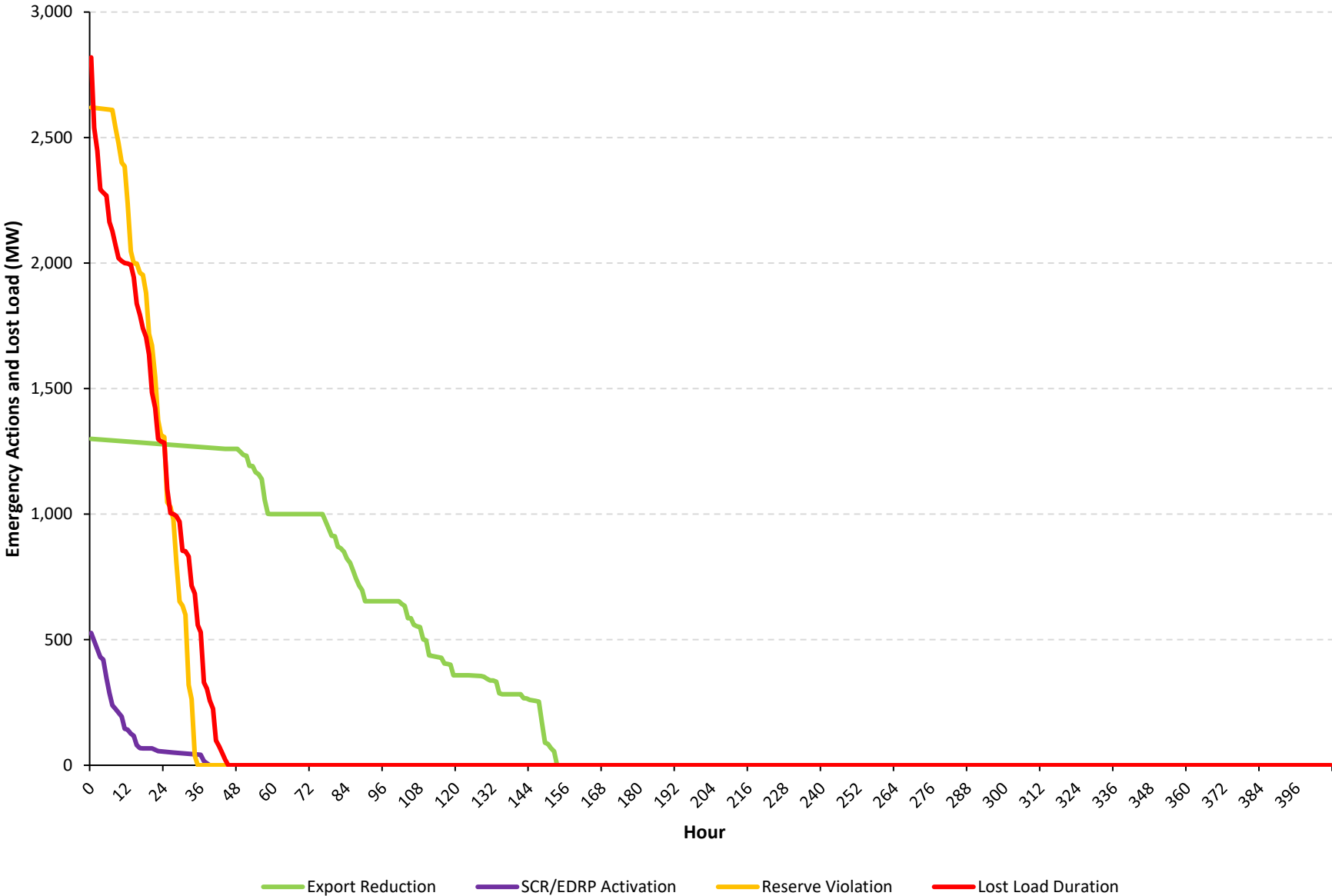
NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 4 - PD 6 No Barge Refill

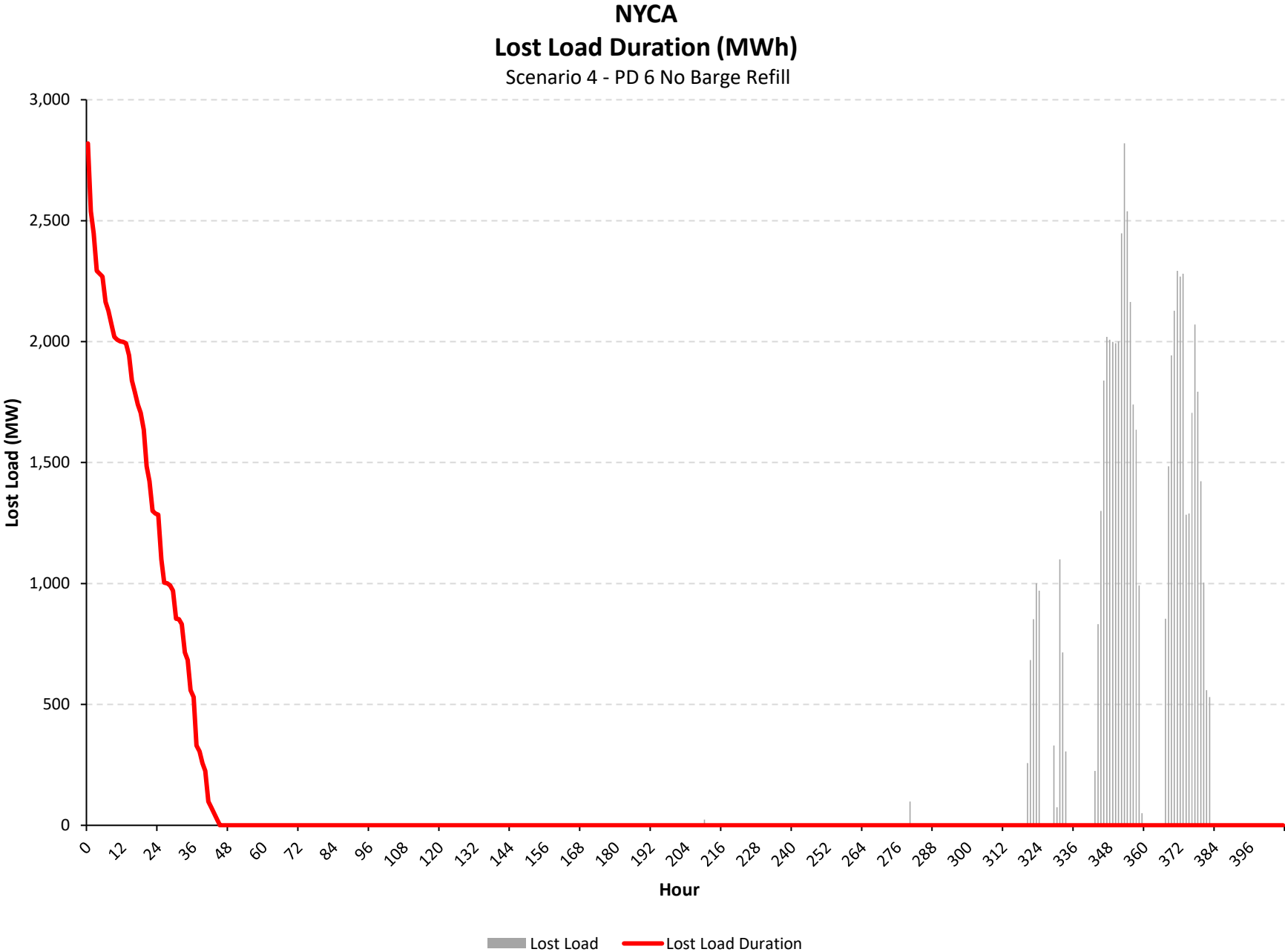




Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.

NYCA
Emergency Actions and Lost Load Duration (MWh)
Scenario 4 - PD 6 No Barge Refill



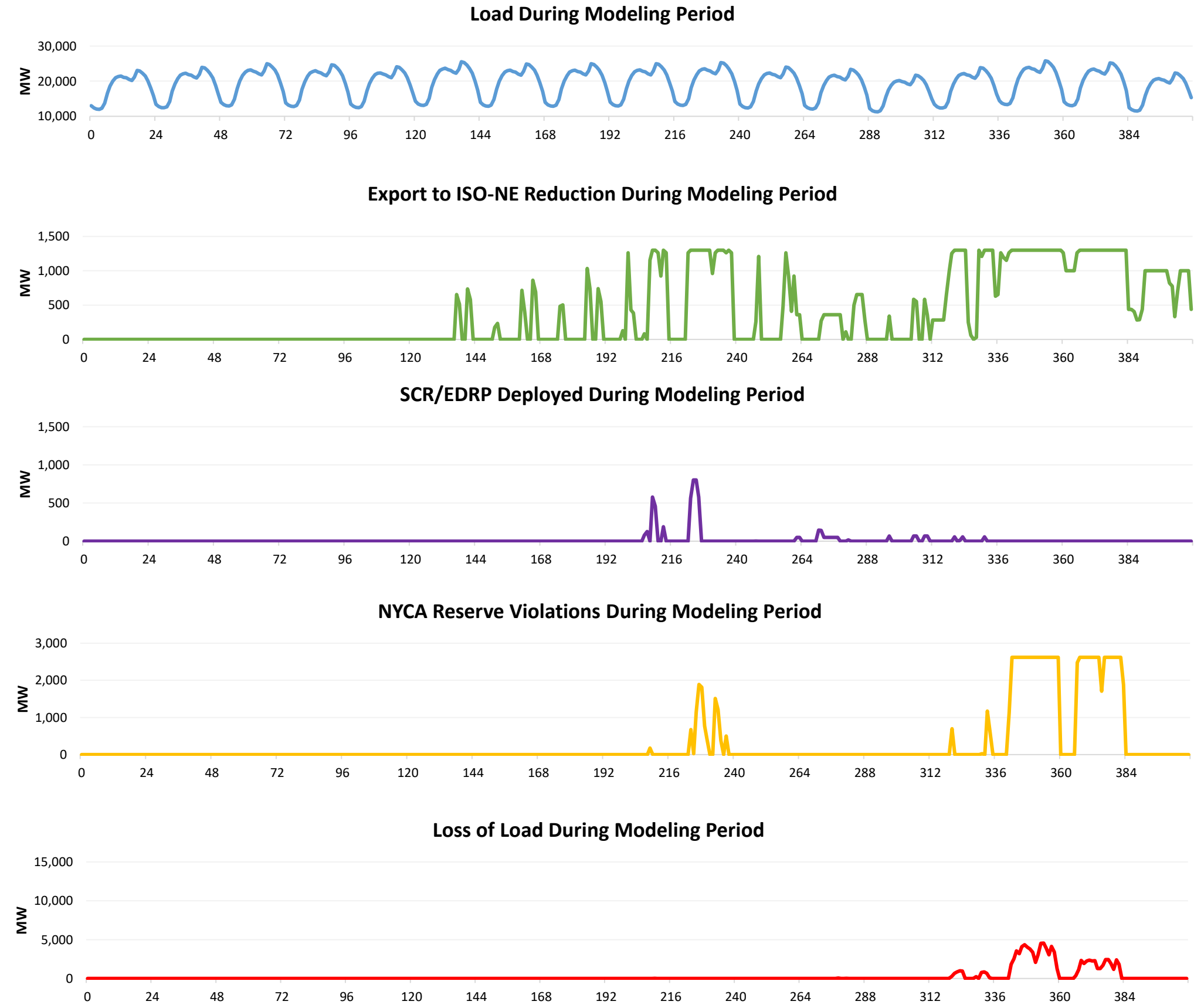


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 7 No Refill (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 4 - PD 7 No Refill



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

Export Reductions	
Total Hrs.	168
Total MWh	154,194
Avg. MW	377.9

SCR Deployment	
Total Hrs.	29
Total MWh	5,392
Avg. MW	13.2

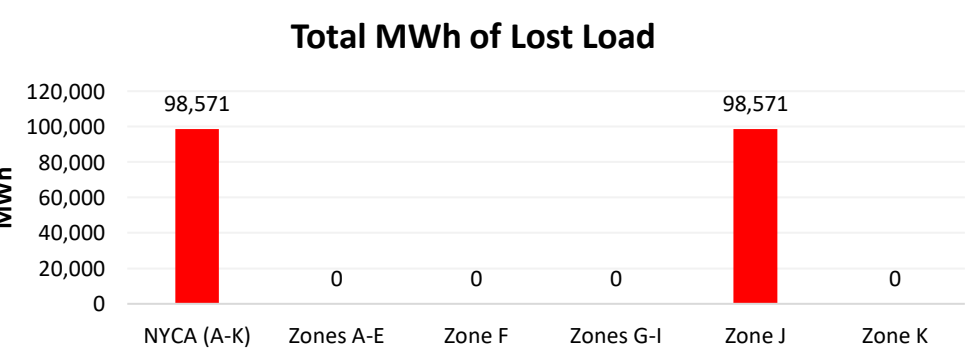
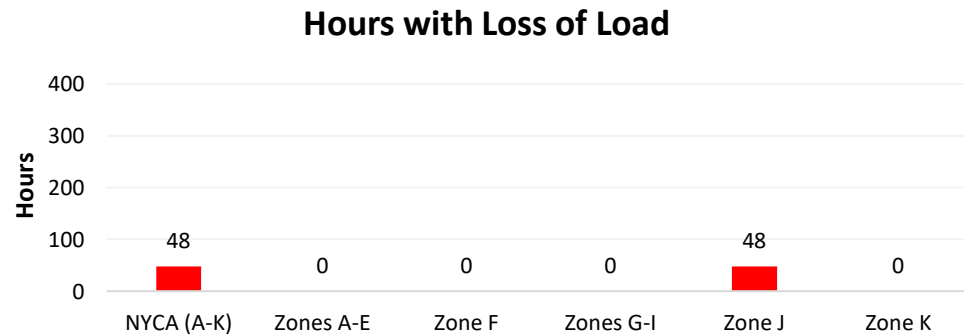
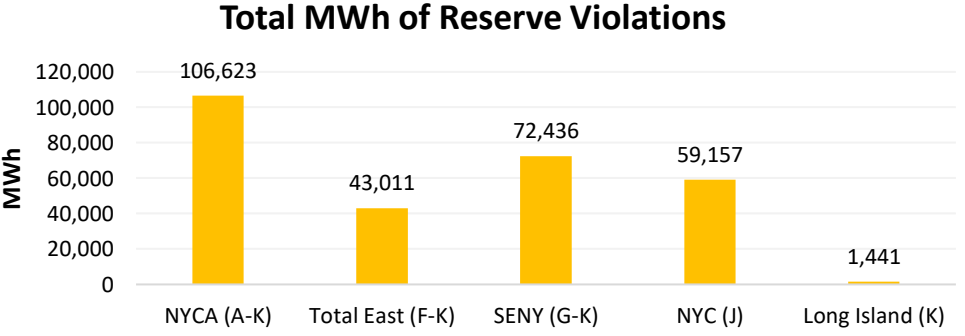
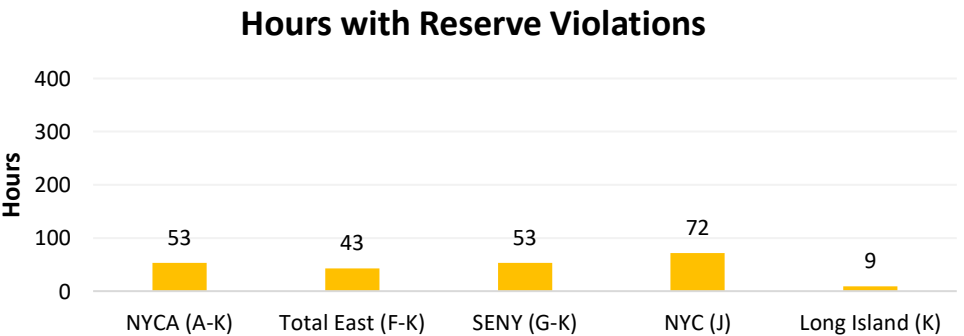
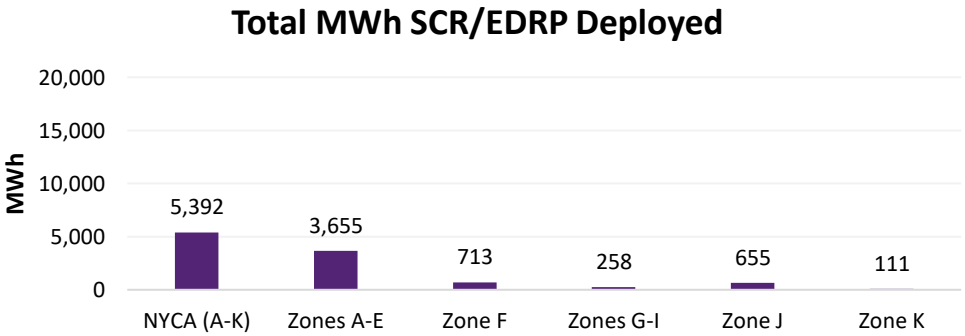
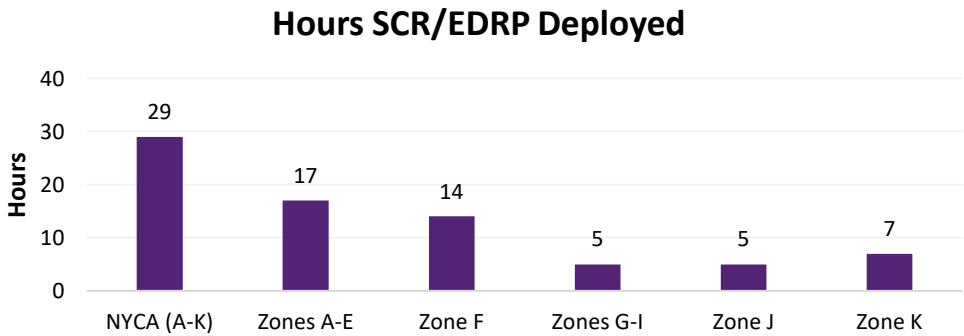
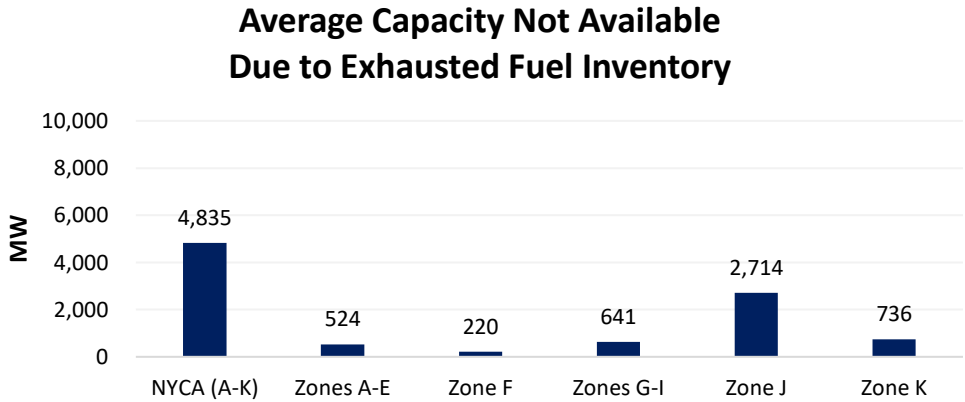
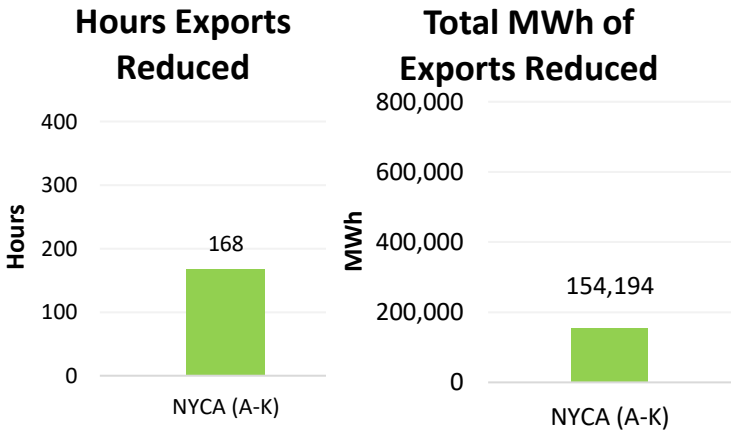
Reserve Violations	
Total Hrs.	53
Total MWh	106,623
Avg. MW	261.3
First Hour with Viol.	208

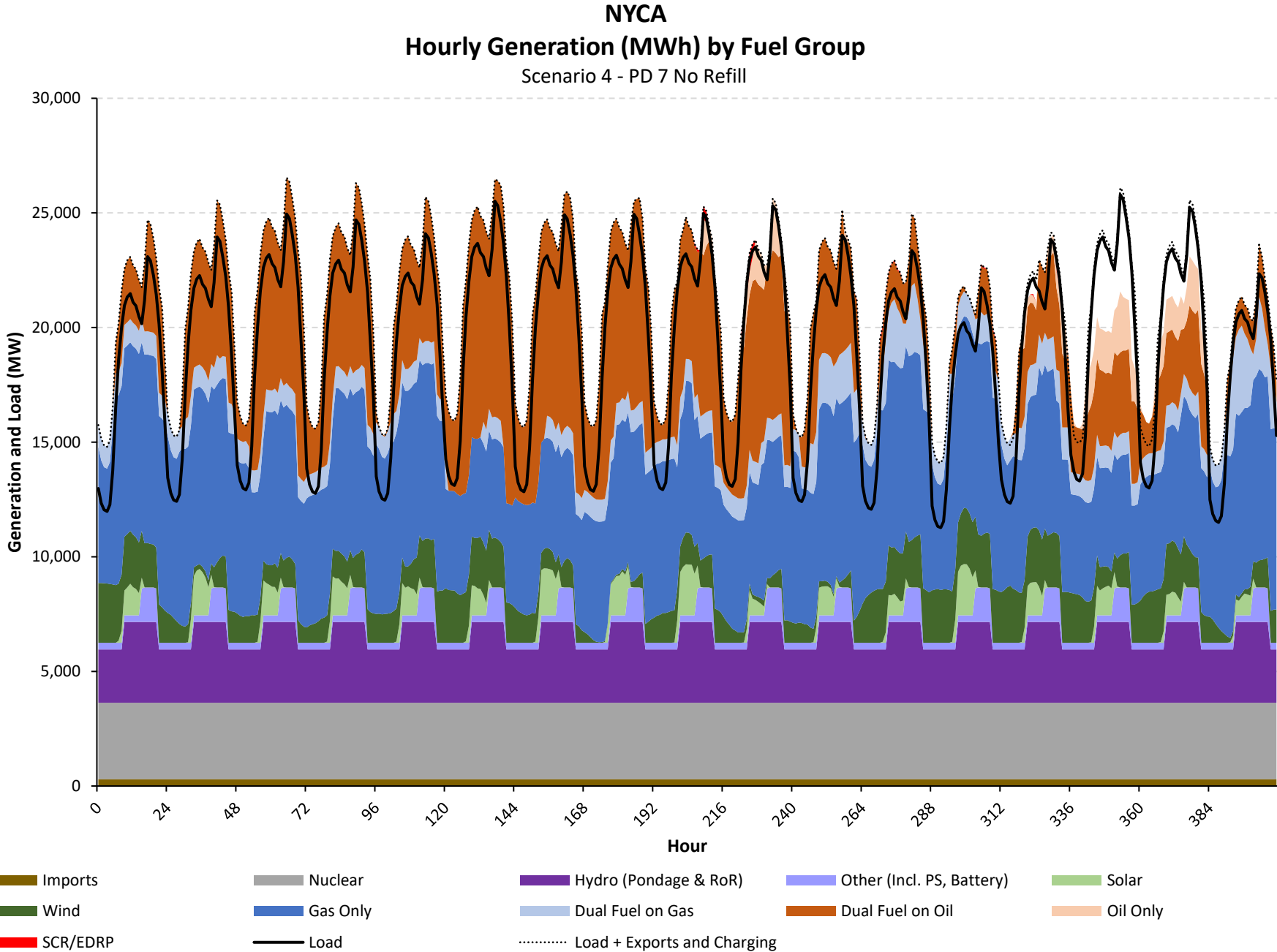
Loss of Load	
Total Hrs.	48
Total MWh	98,571
Avg. MW	241.6
First Hour with Losses	210

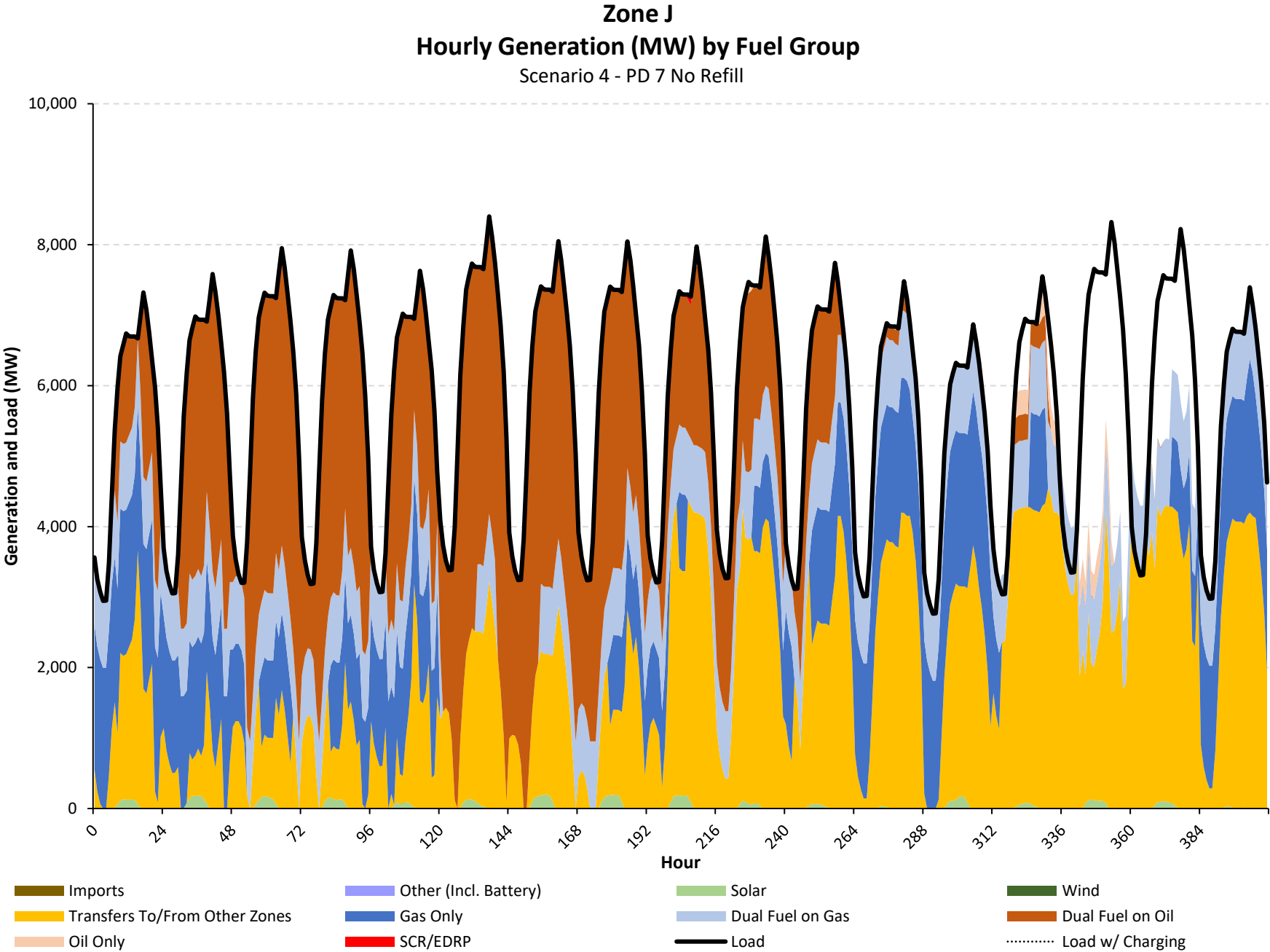
Full Period Results Summary

Case Name: Scenario 4 - PD 7 No Refill

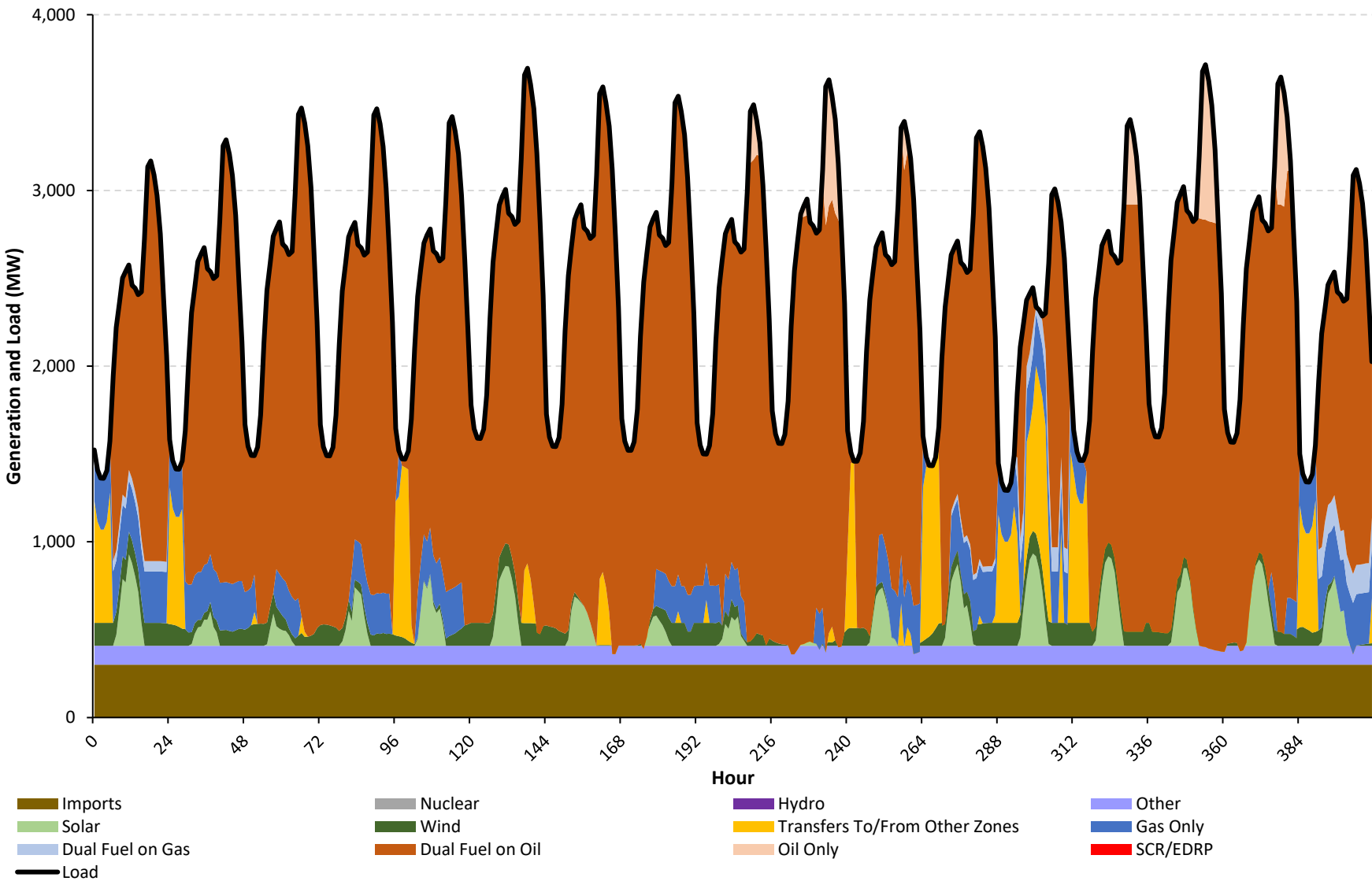
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	High
Refill Contingency:	No Refill
Loss of Gas Fired Gen.	Off
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero



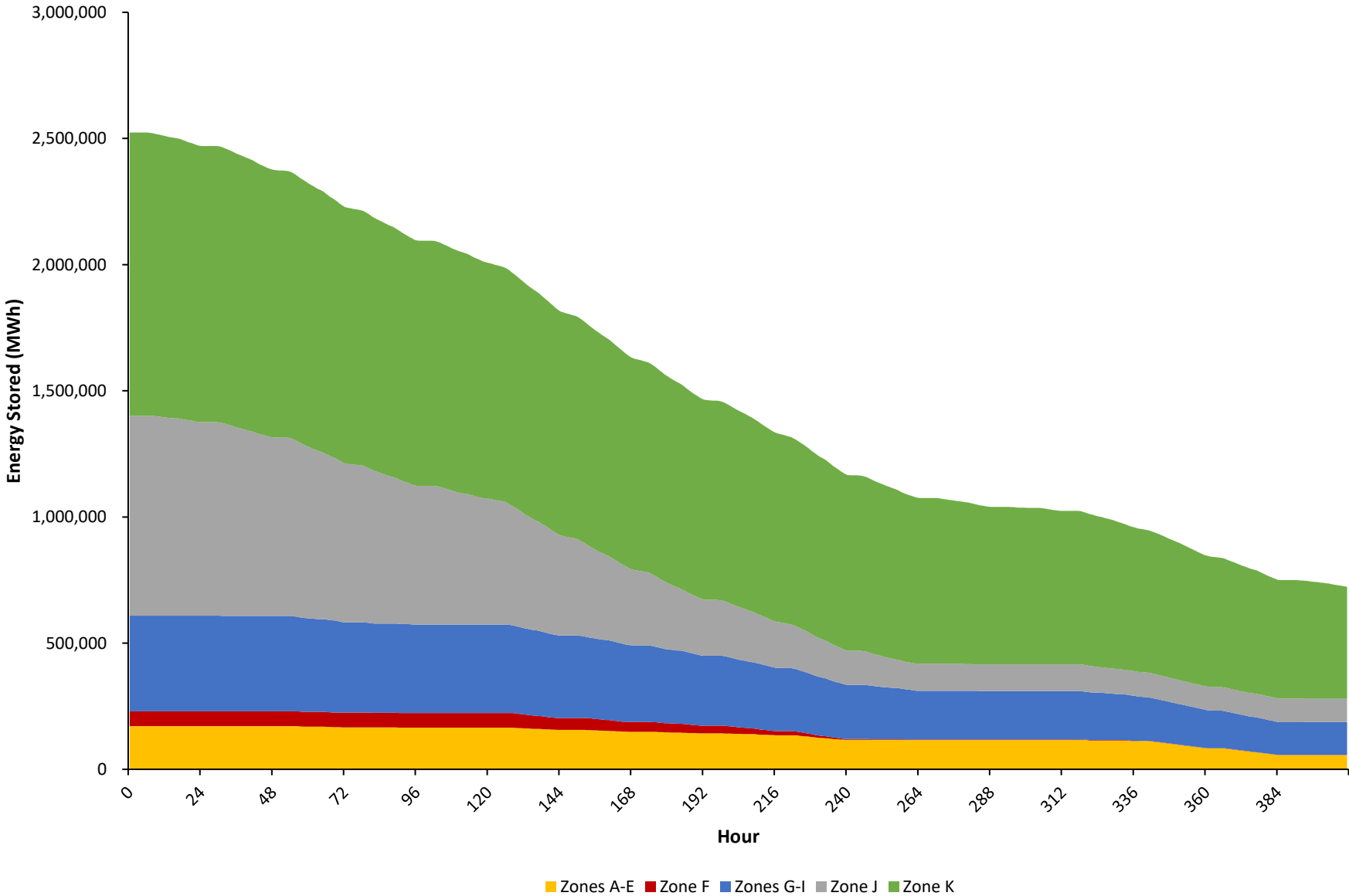




Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 7 No Refill

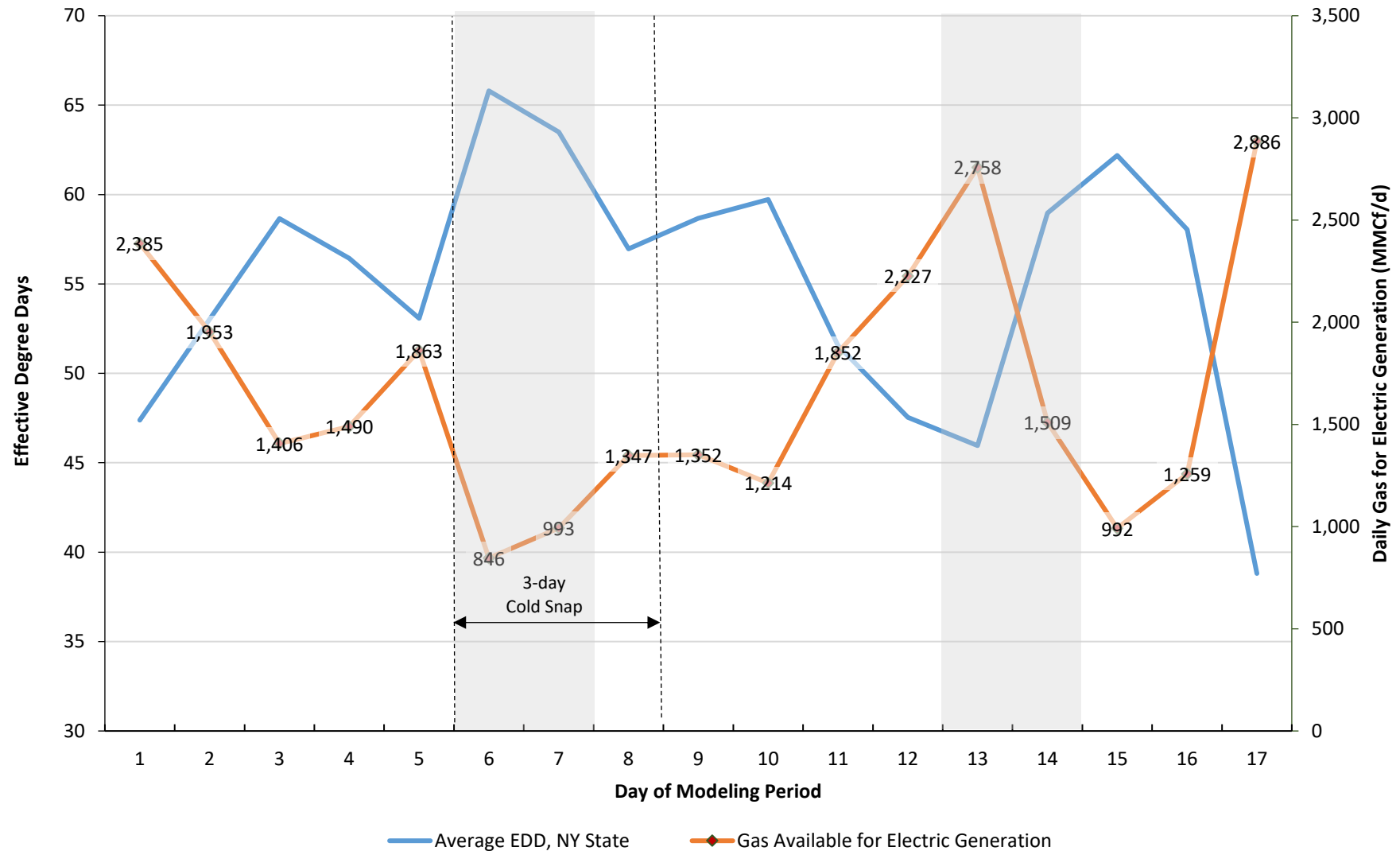


NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 4 - PD 7 No Refill



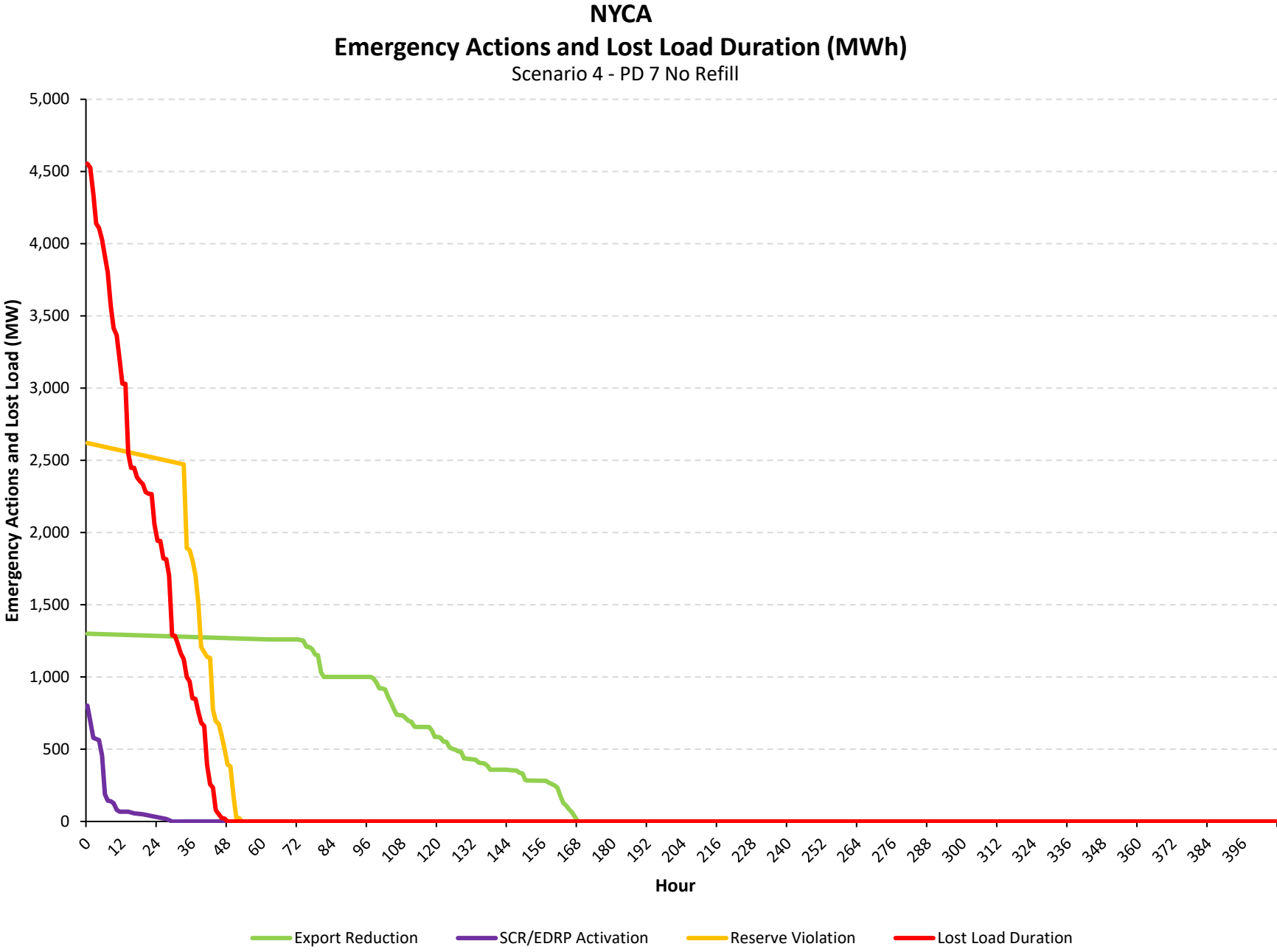
NYCA **Degree Days and Gas Available for Electric Generation 17-Day Modeling Period**

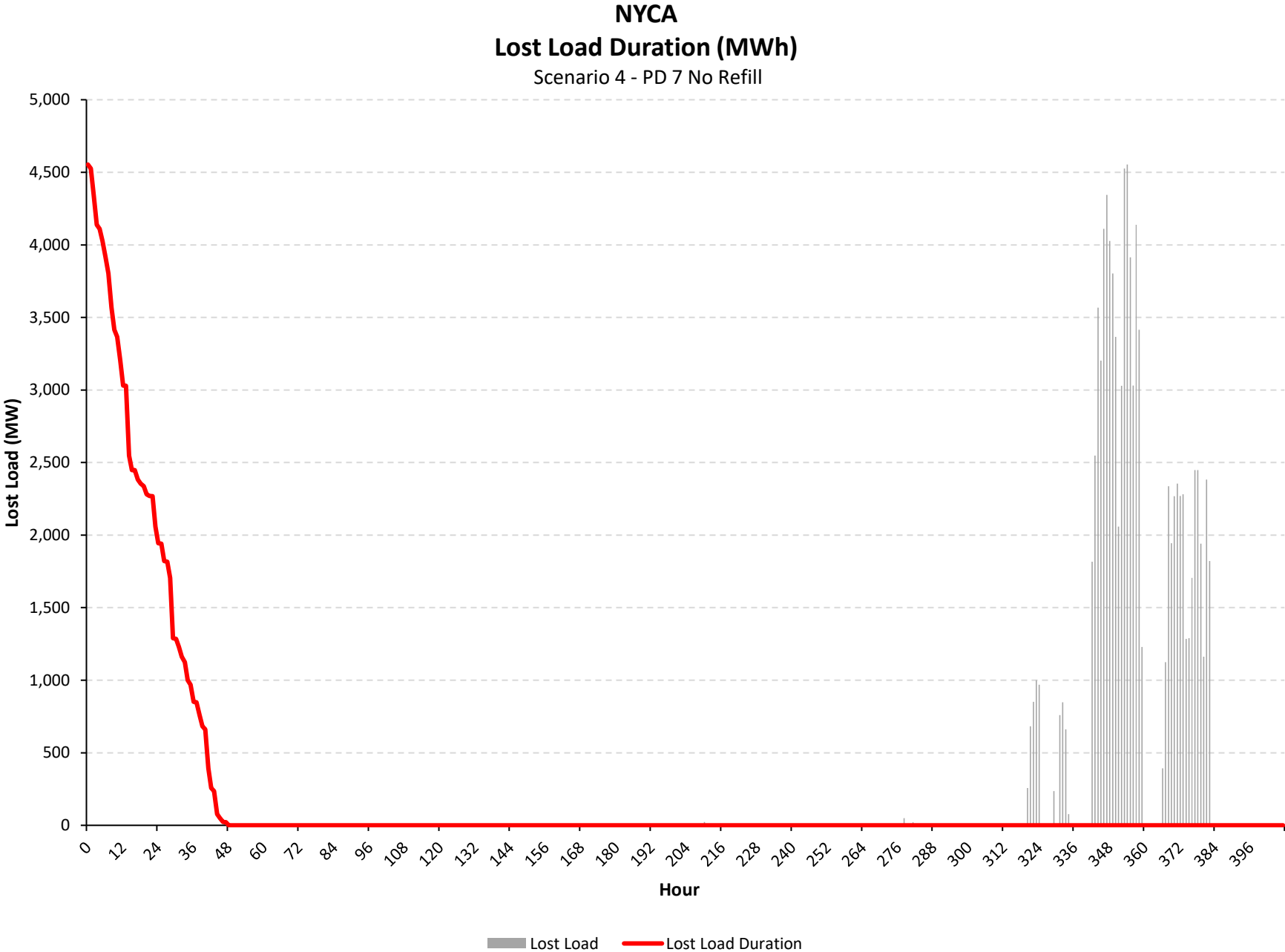
Scenario 4 - PD 7 No Refill



Notes:

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



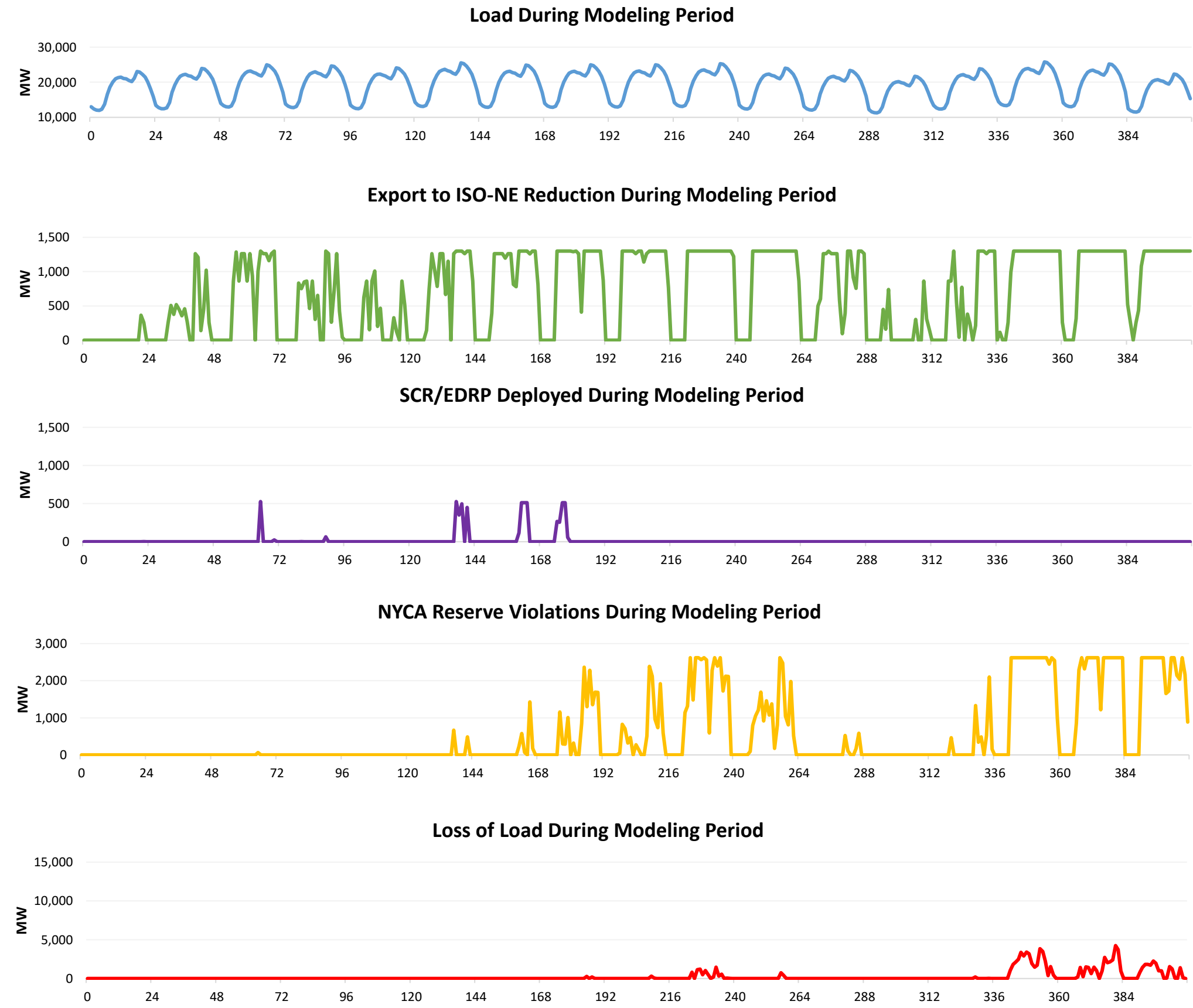


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 8 Non-Firm Gas Unavailable (F-K) (Winter 2023/2024)

Hourly Results Summary

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



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

Export Reductions	
Total Hrs.	269
Total MWh	281,722
Avg. MW	690.5

SCR Deployment	
Total Hrs.	16
Total MWh	5,676
Avg. MW	13.9

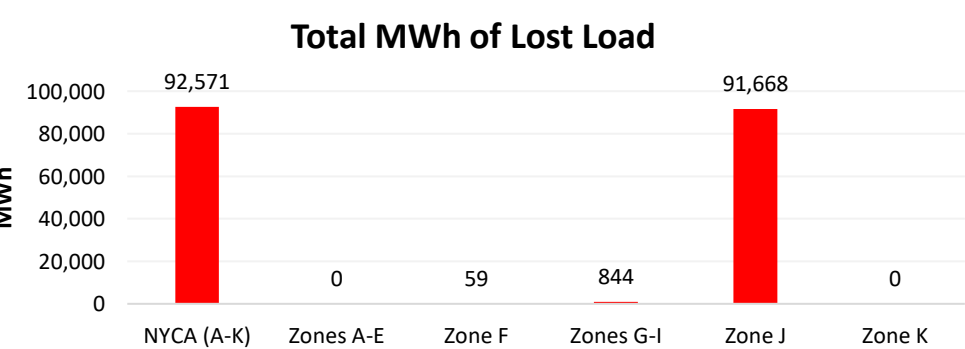
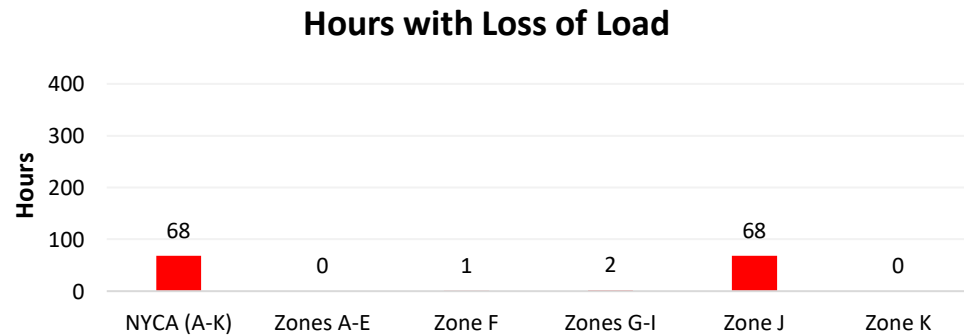
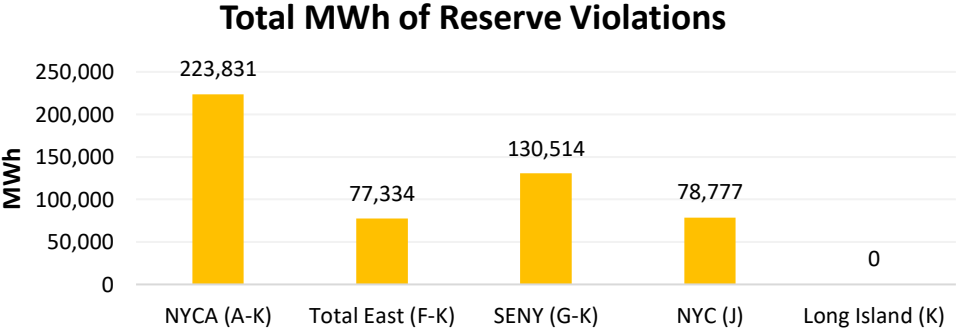
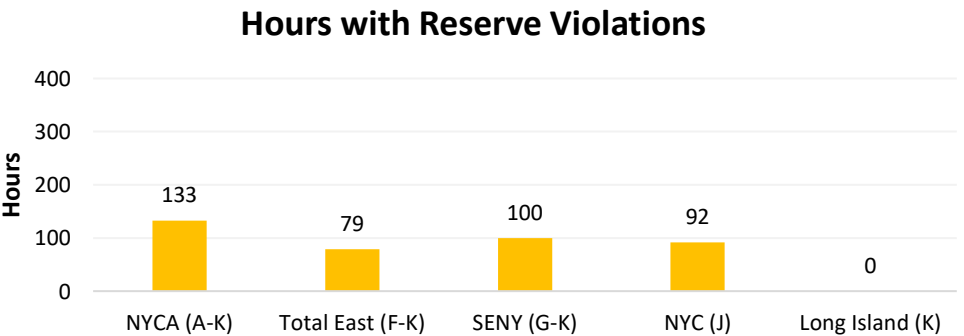
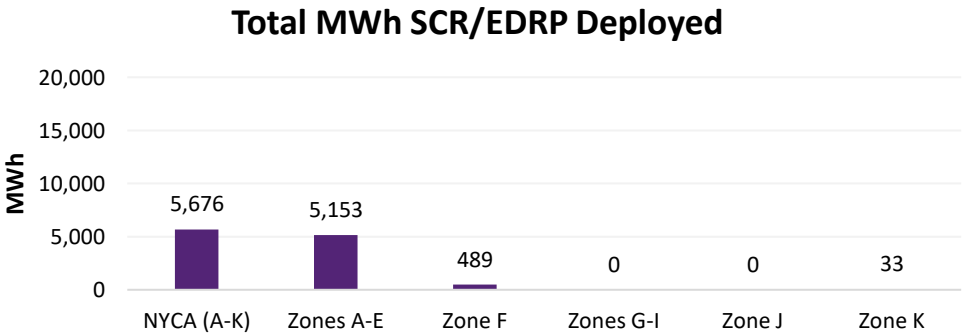
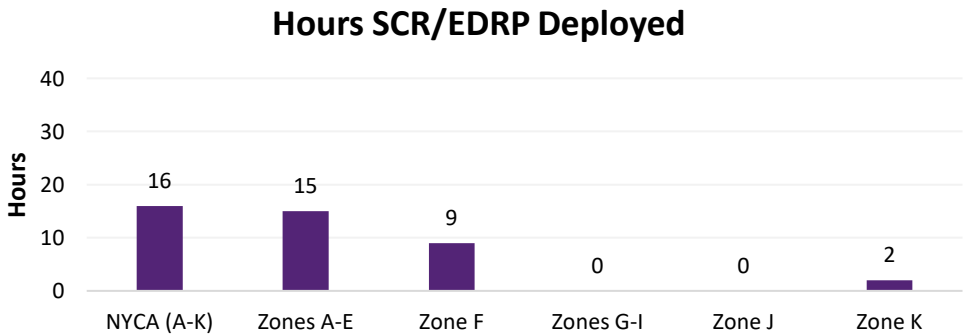
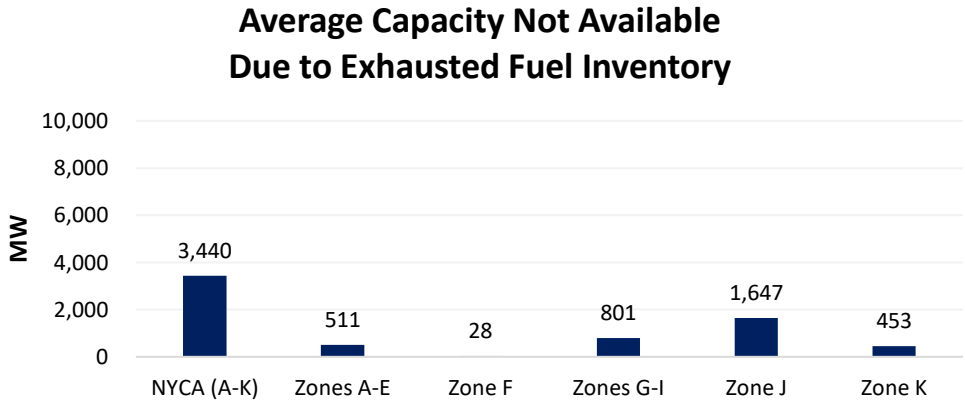
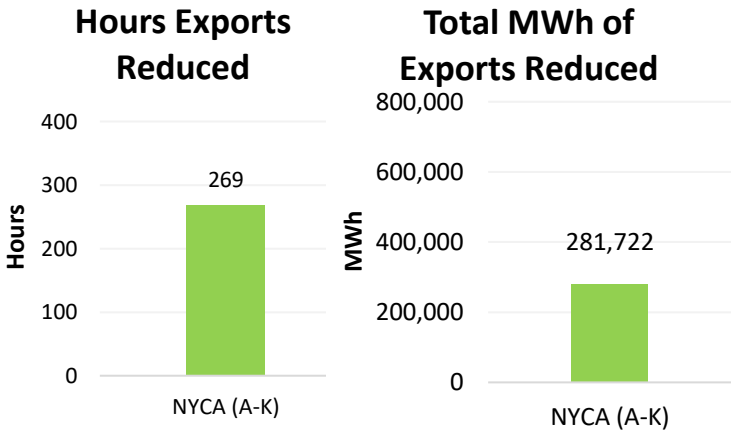
Reserve Violations	
Total Hrs.	133
Total MWh	223,831
Avg. MW	548.6
First Hour with Viol.	65

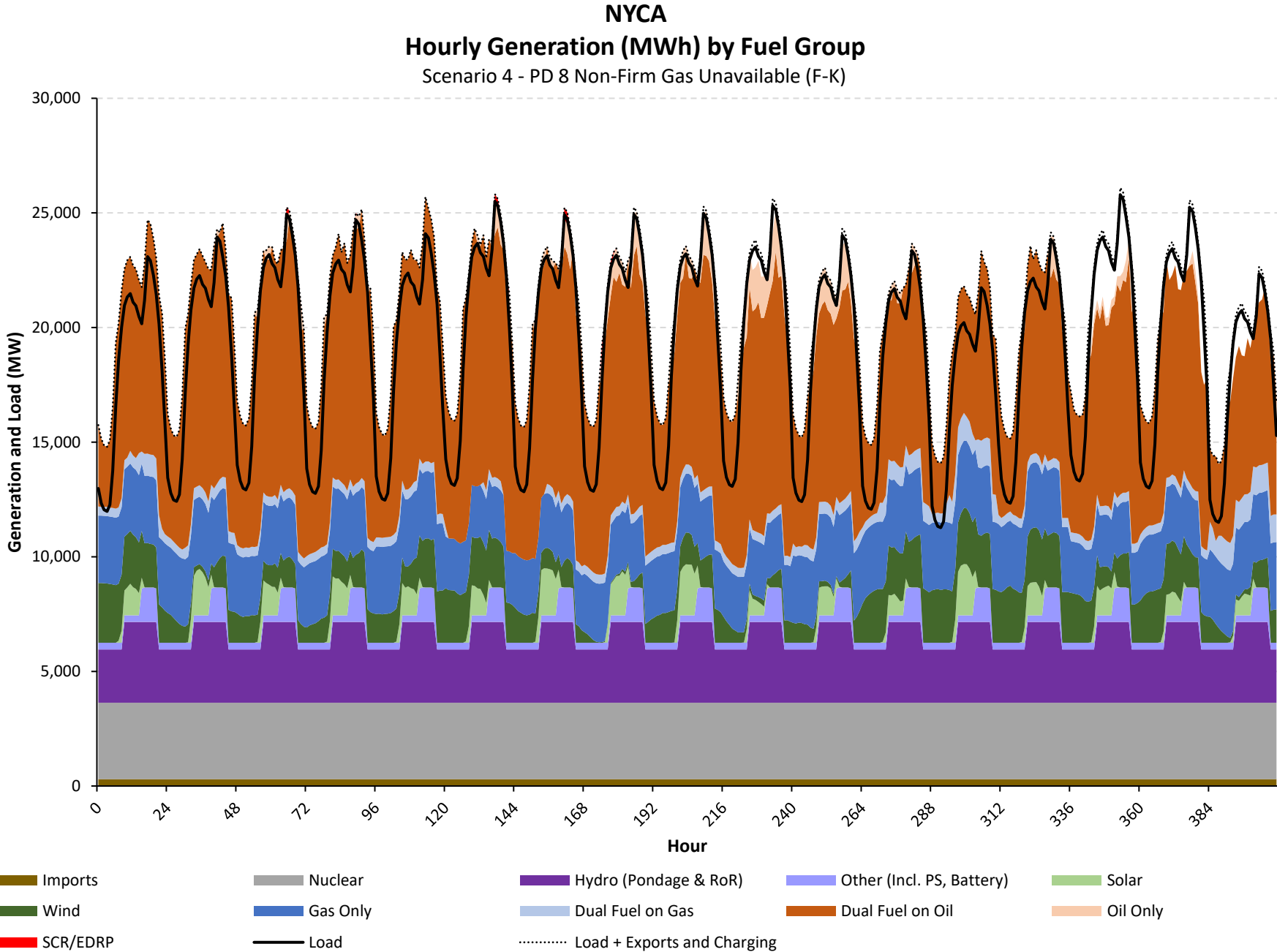
Loss of Load	
Total Hrs.	68
Total MWh	92,571
Avg. MW	226.9
First Hour with Losses	185

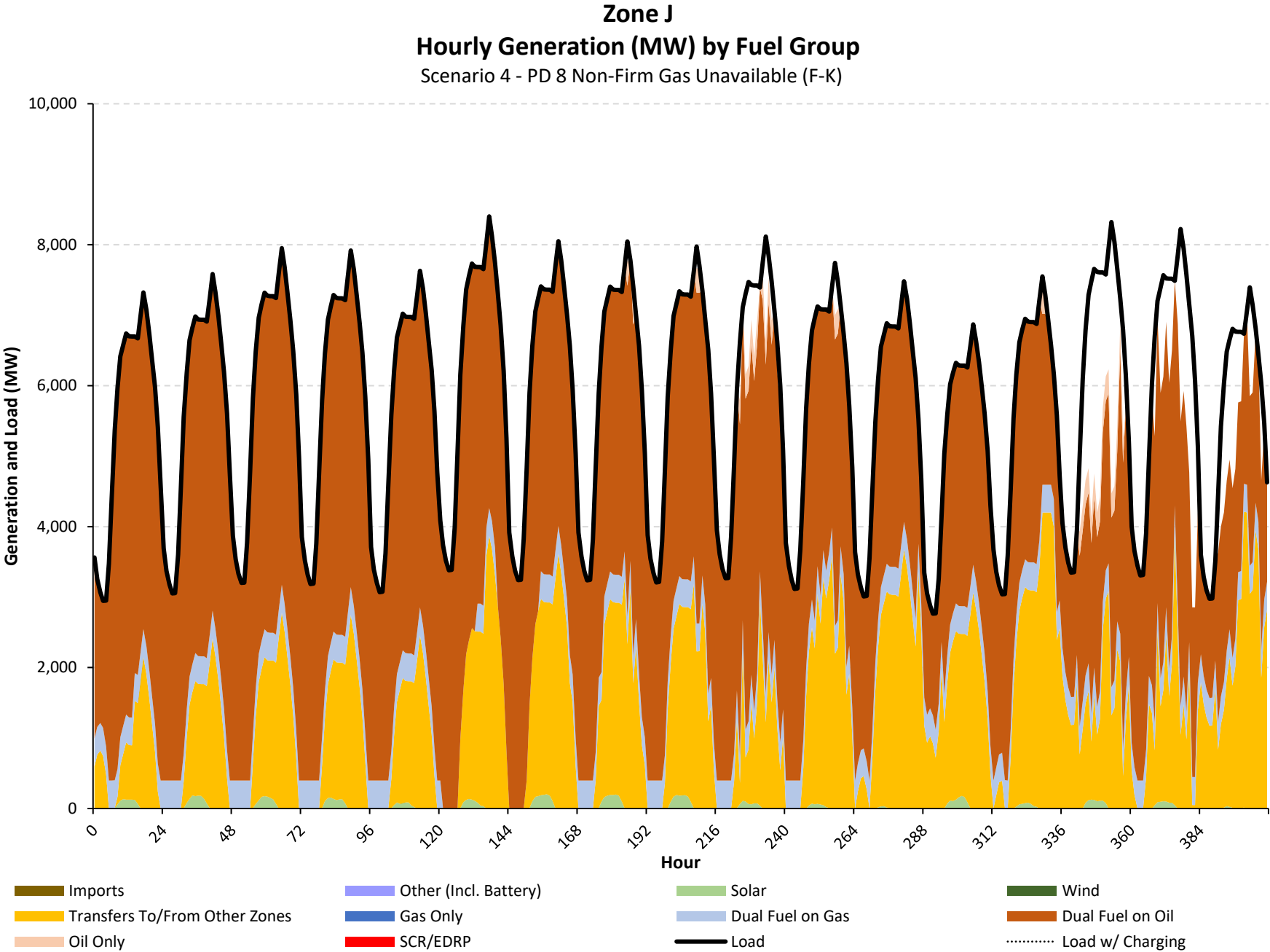
Full Period Results Summary

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

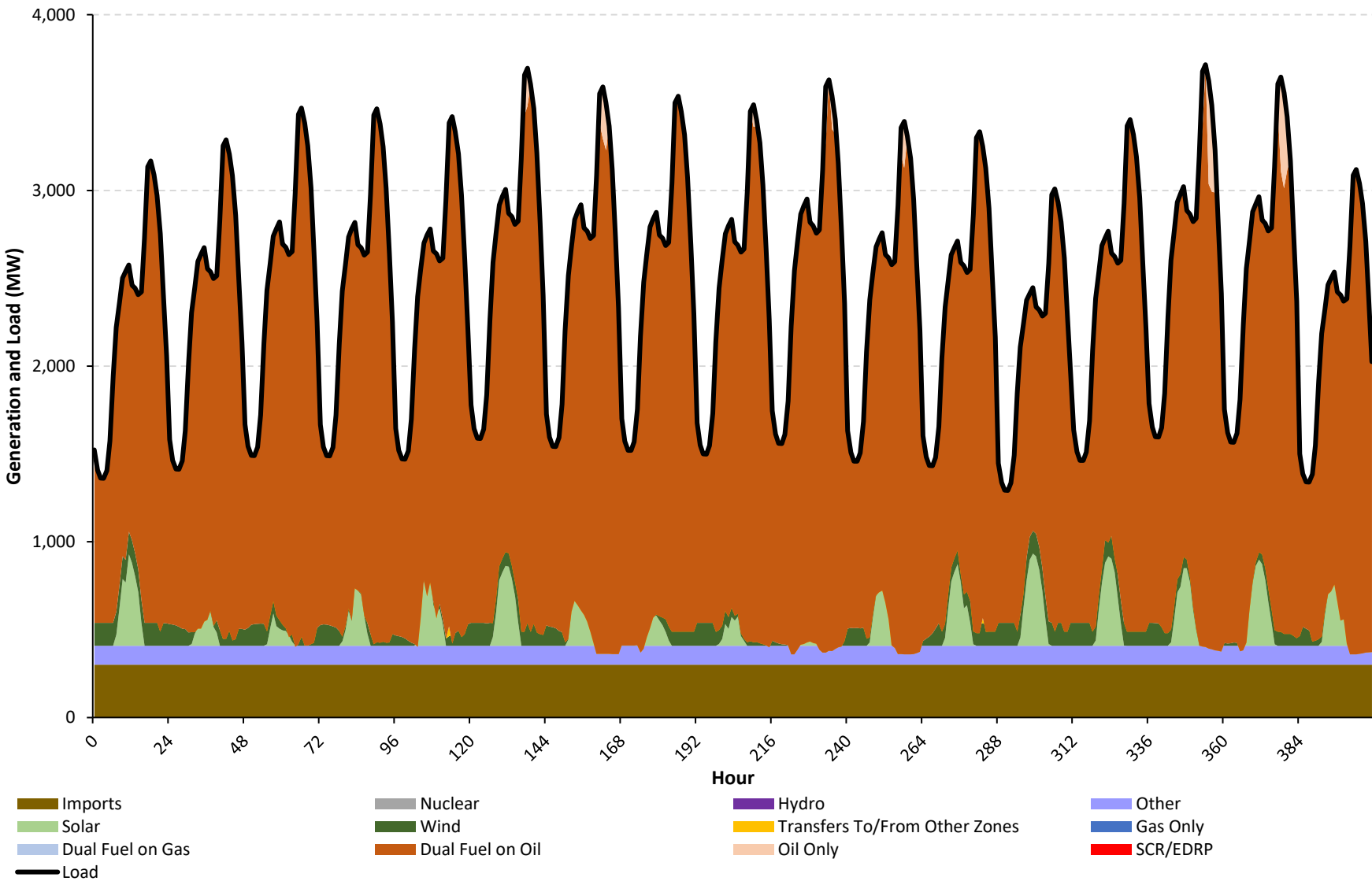
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	High
Refill Contingency:	Off
Loss of Gas Fired Gen.	F-K
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

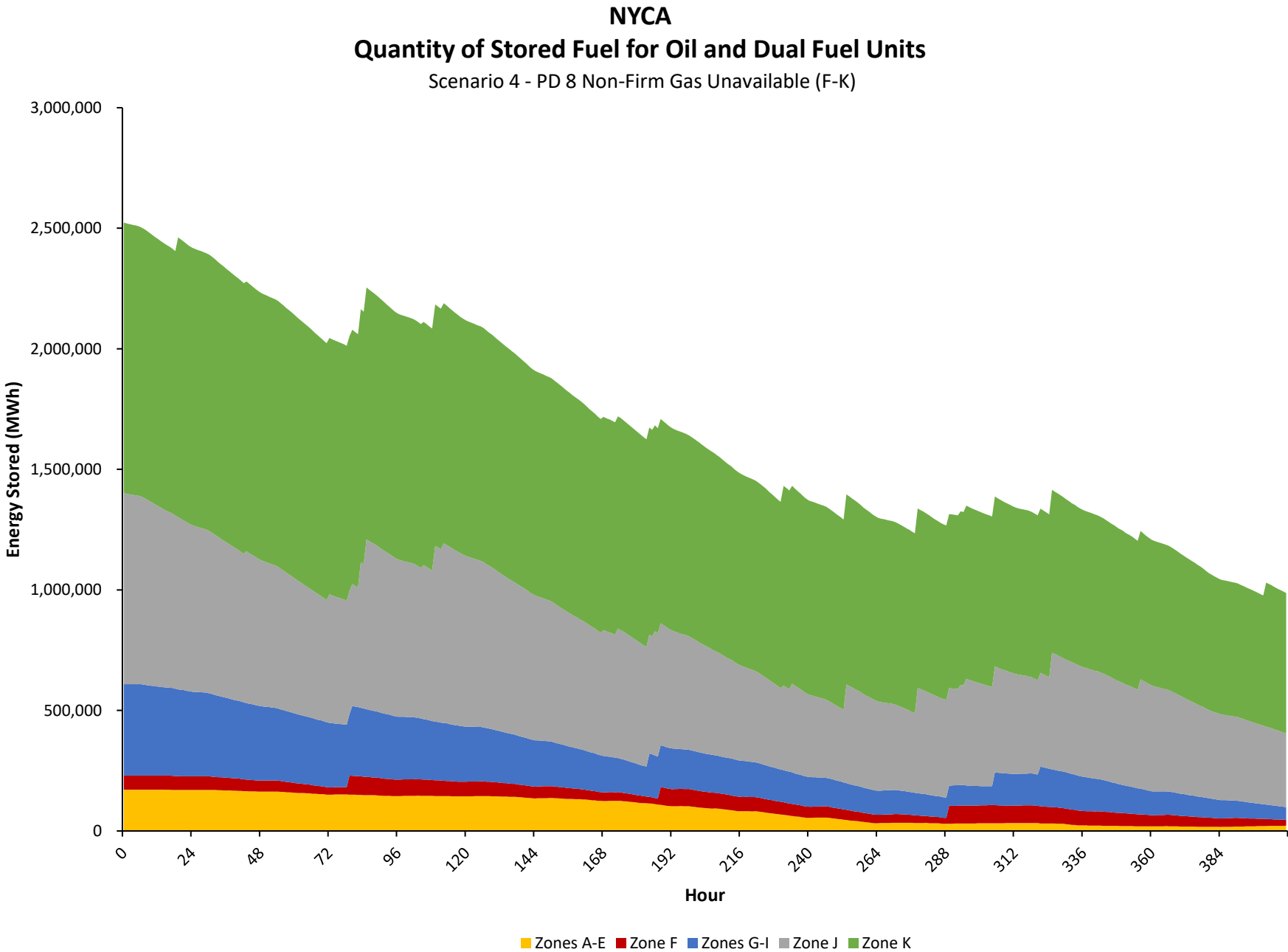


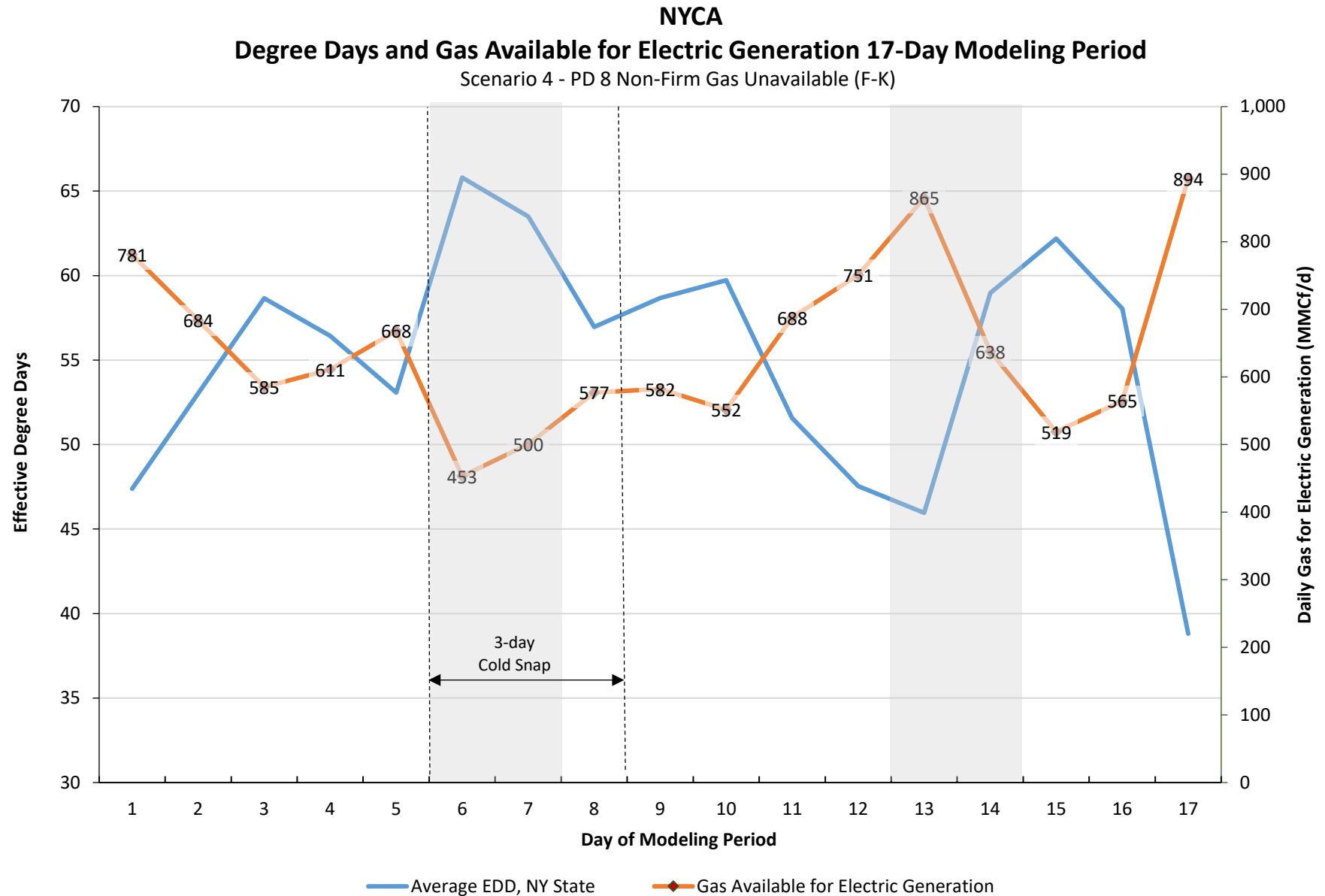




Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 8 Non-Firm Gas Unavailable (F-K)



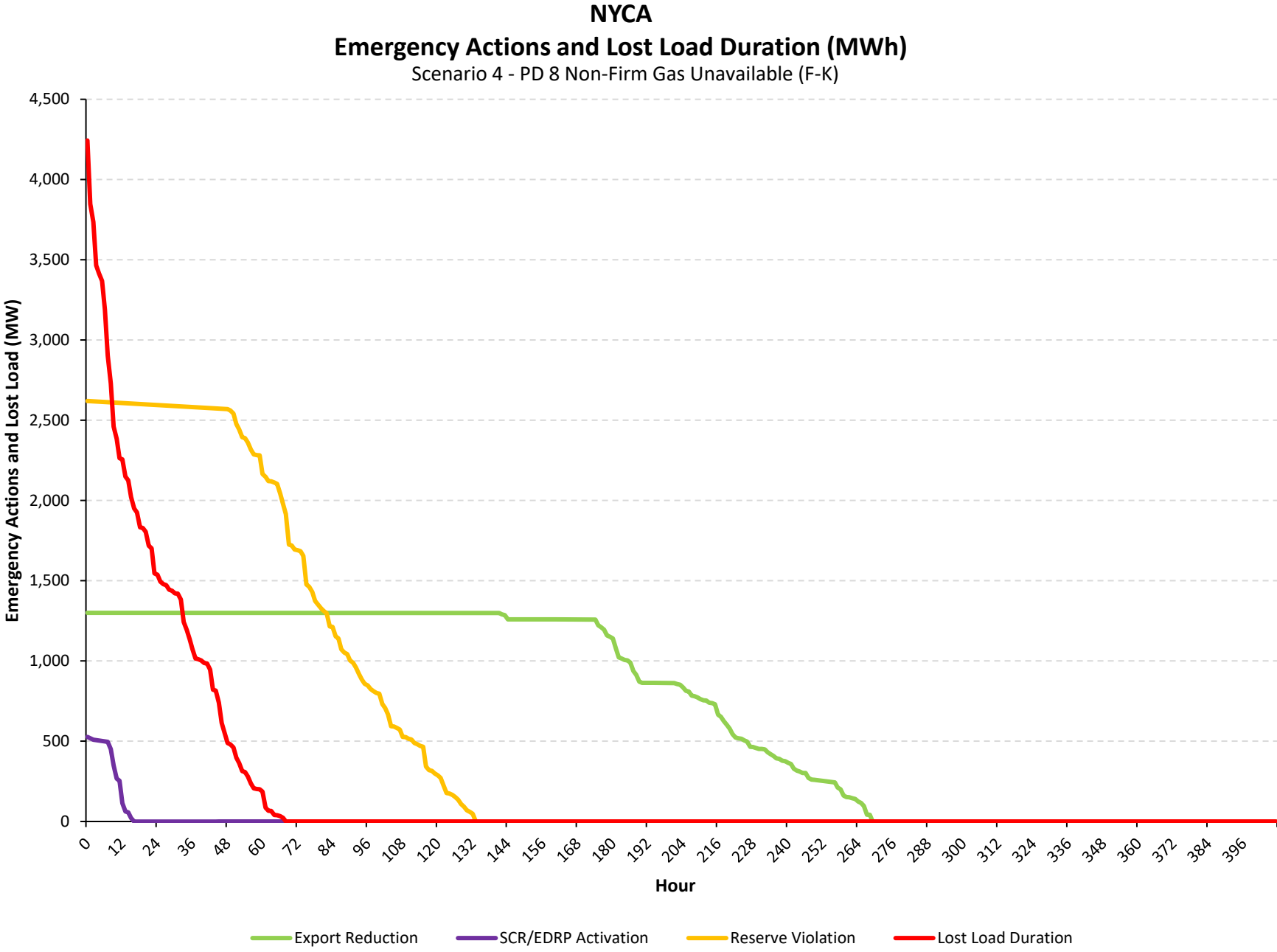


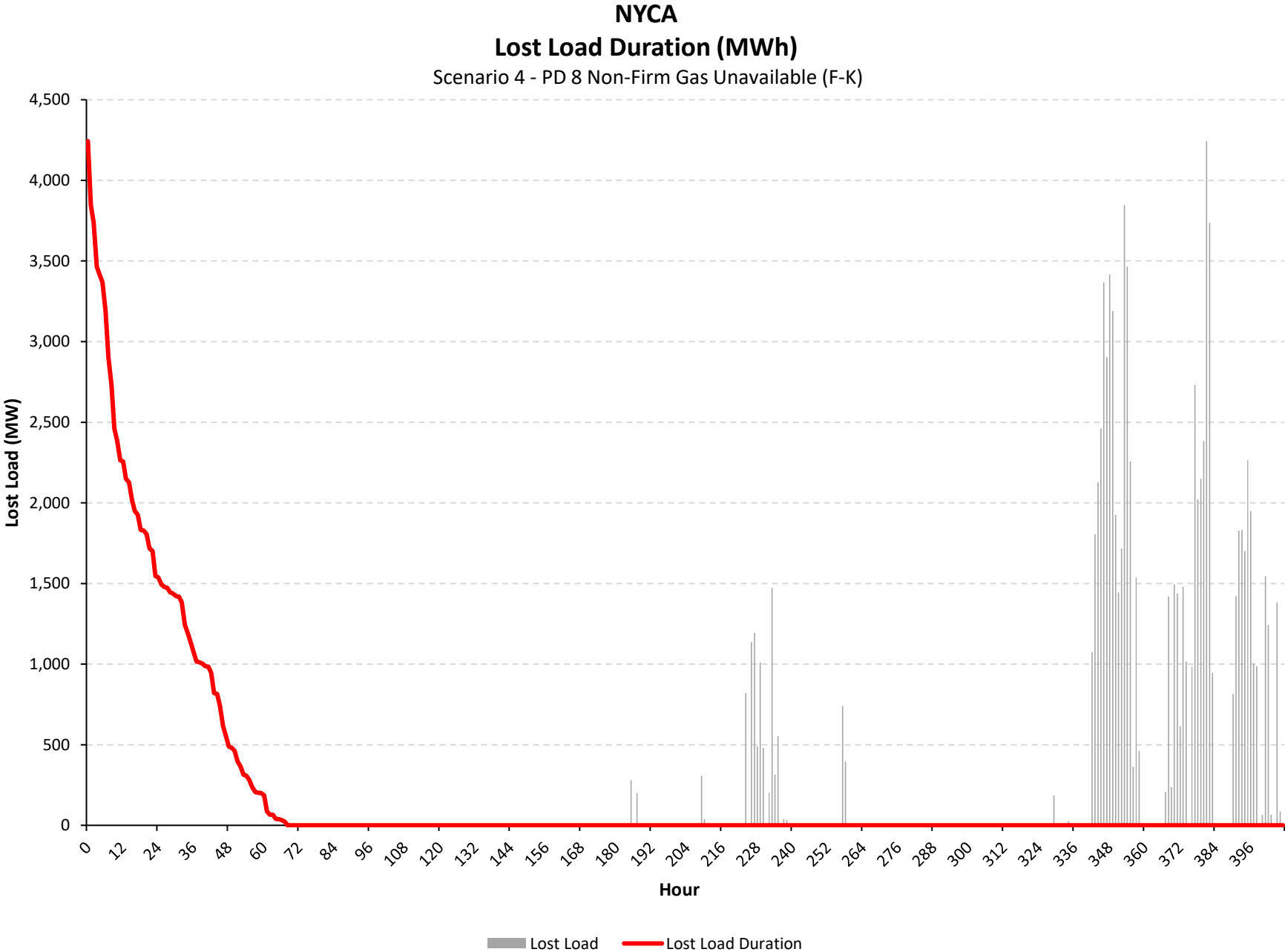


Notes:

[1] Weekends are shaded in gray.

[2] Effective degree day is defined as 65 degrees F - Temperature.



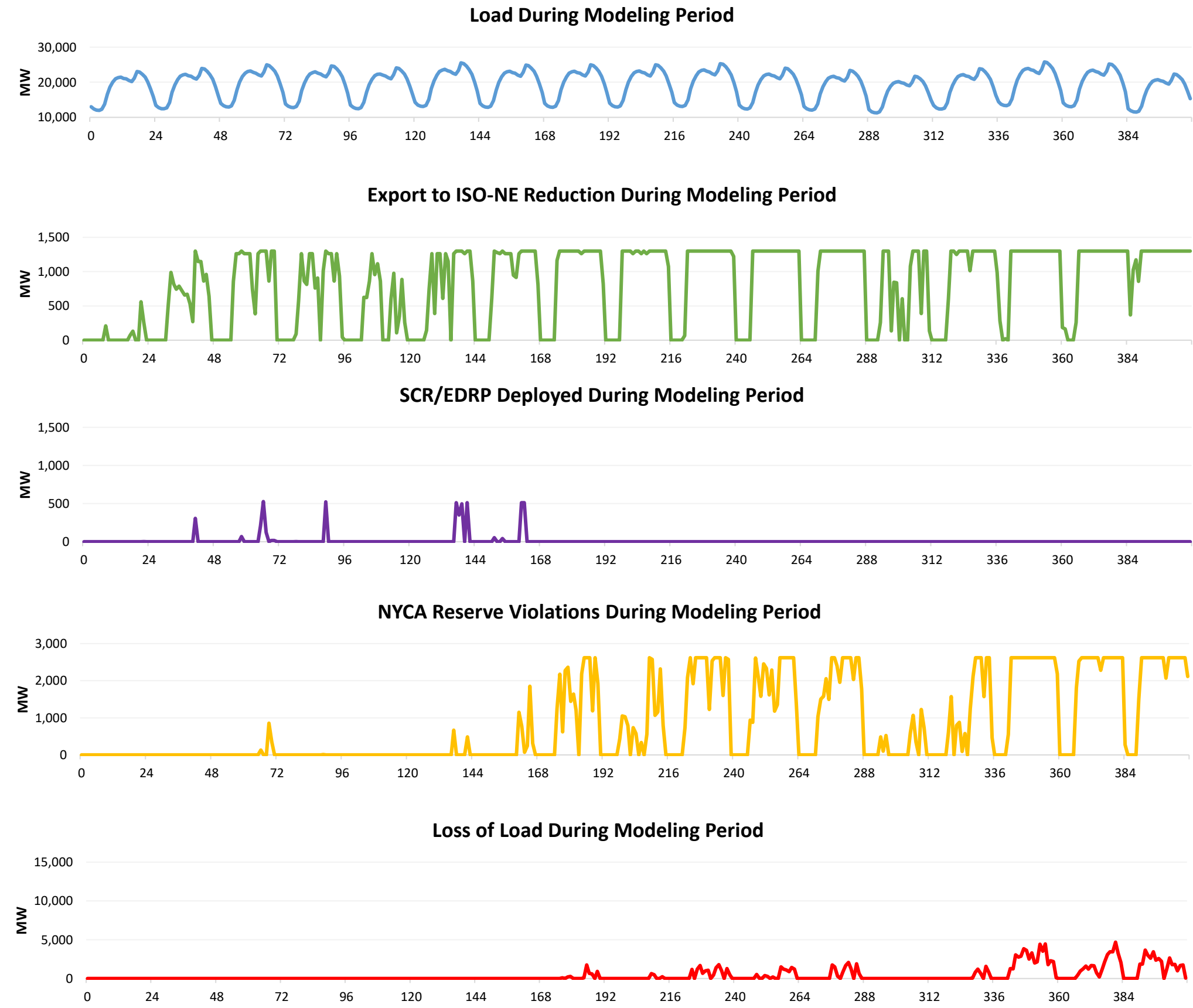


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 9 Non-Firm Gas Unavailable (NYCA) (Winter 2023/2024)

Hourly Results Summary

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



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

Export Reductions	
Total Hrs.	294
Total MWh	328,801
Avg. MW	805.9

SCR Deployment	
Total Hrs.	16
Total MWh	4,772
Avg. MW	11.7

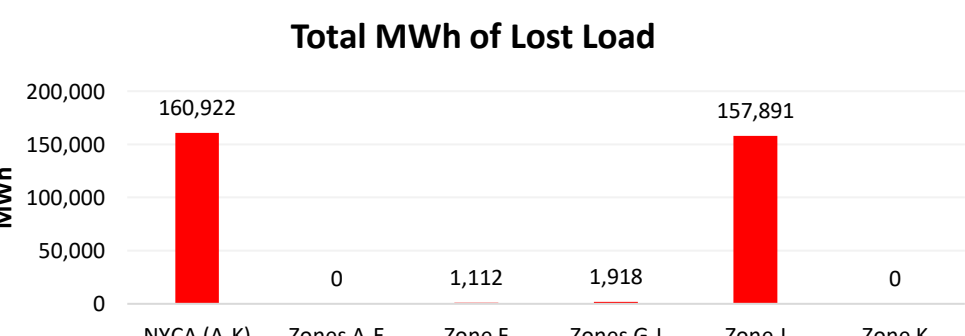
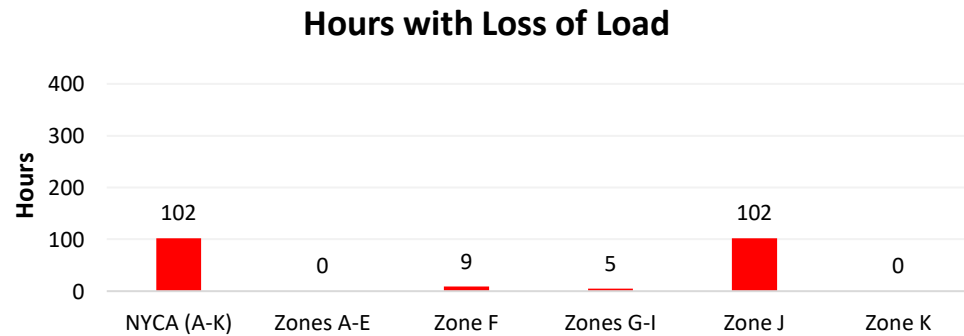
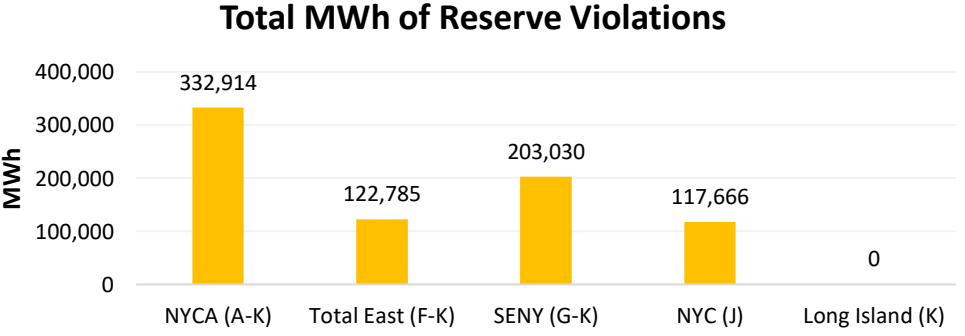
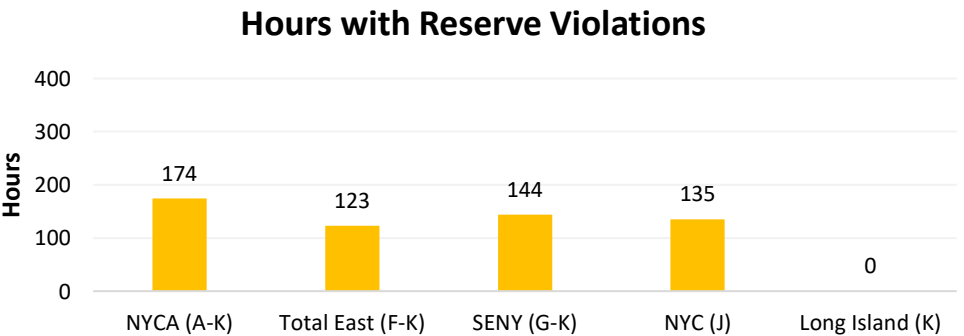
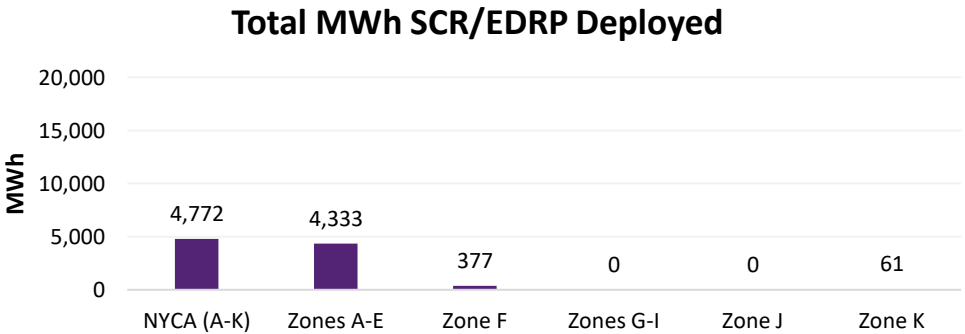
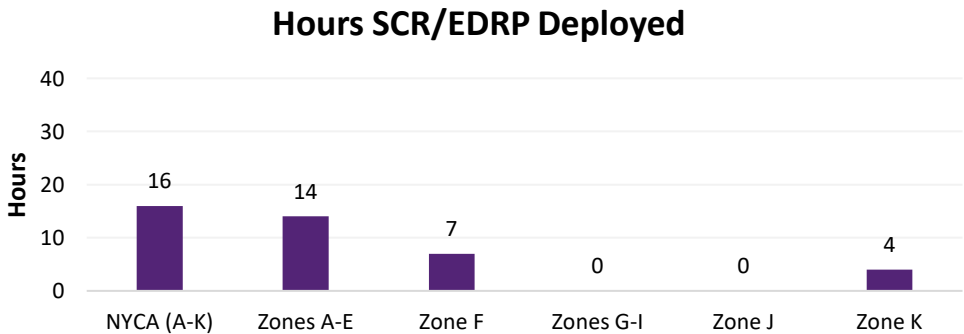
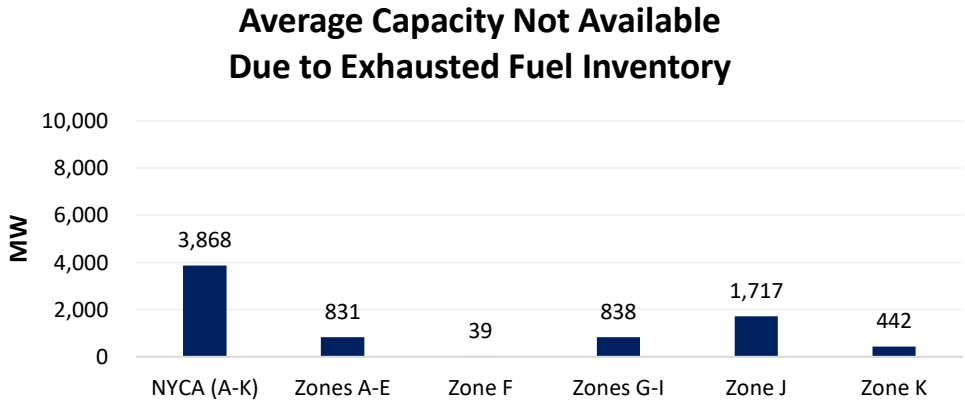
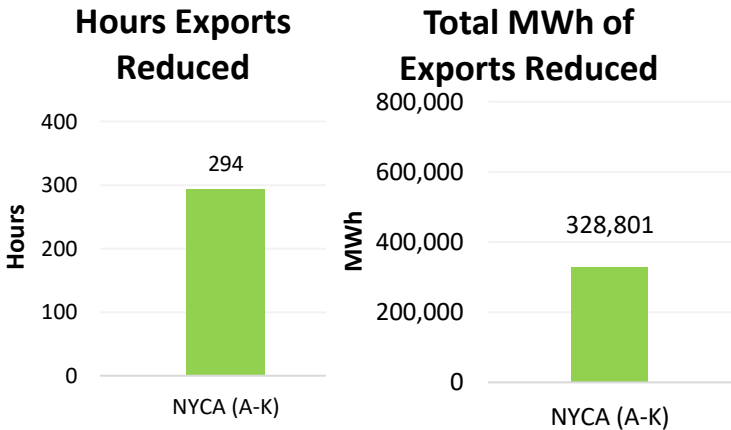
Reserve Violations	
Total Hrs.	174
Total MWh	332,914
Avg. MW	816.0
First Hour with Viol.	66

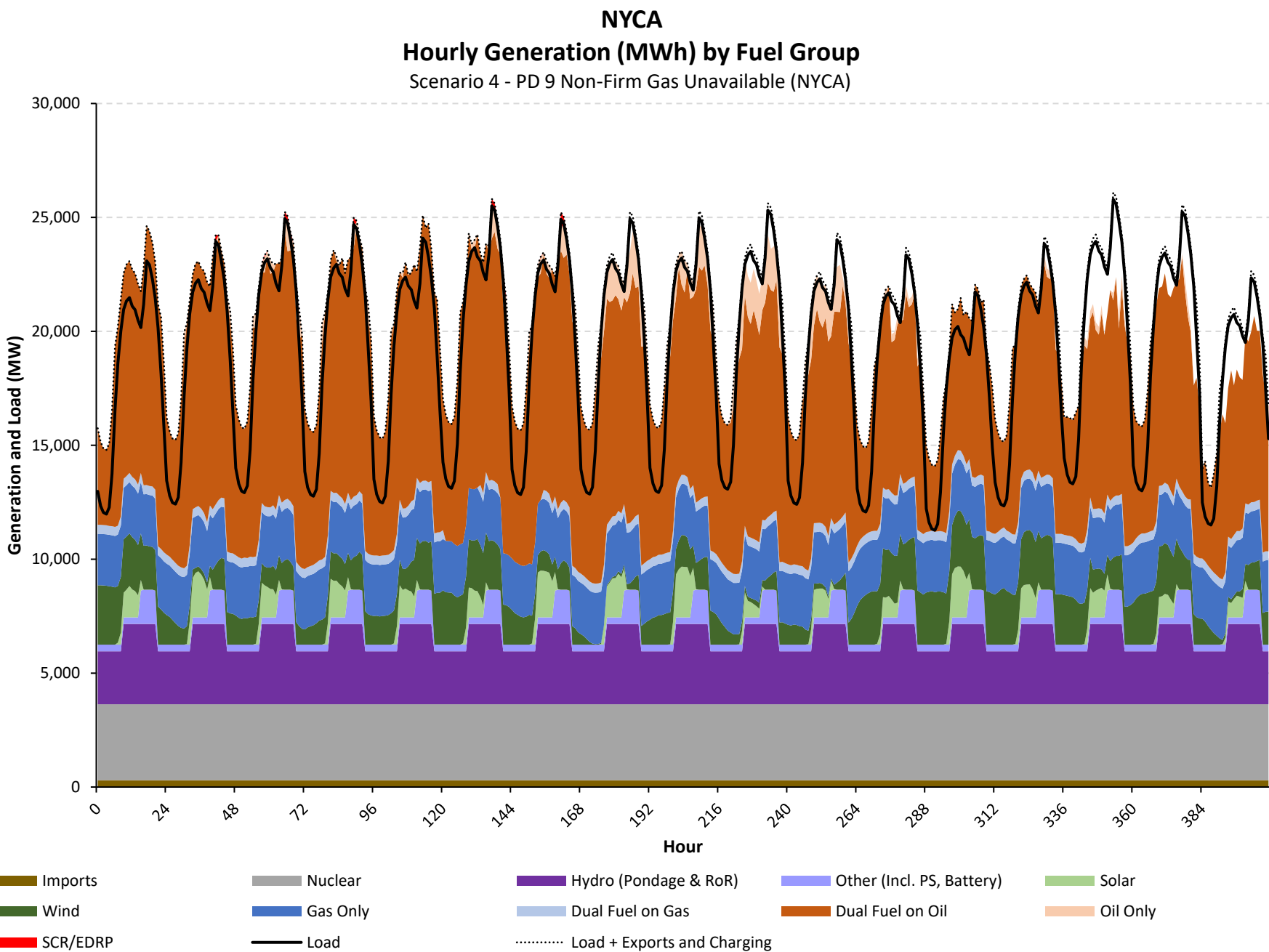
Loss of Load	
Total Hrs.	102
Total MWh	160,922
Avg. MW	394.4
First Hour with Losses	176

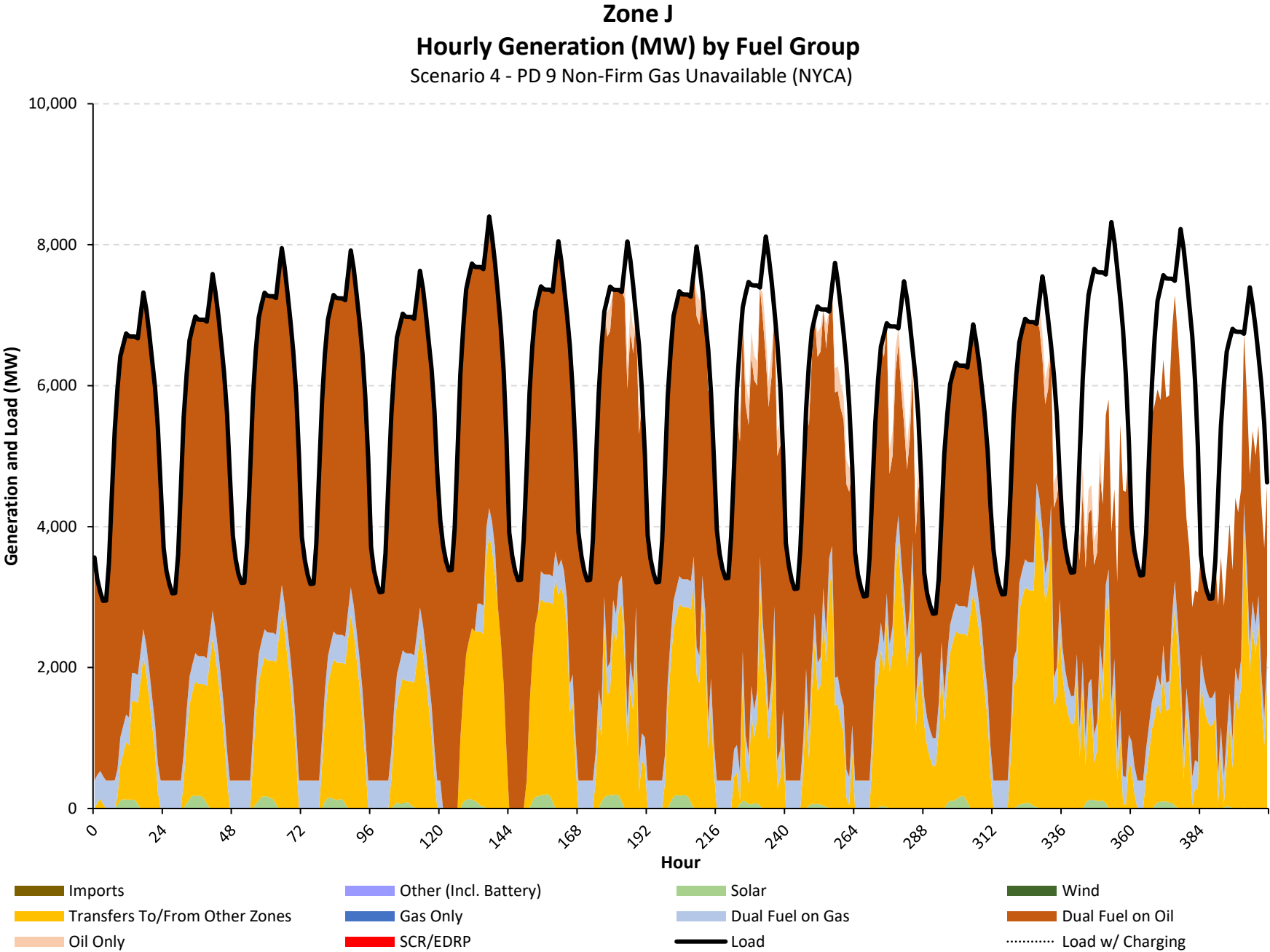
Full Period Results Summary

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

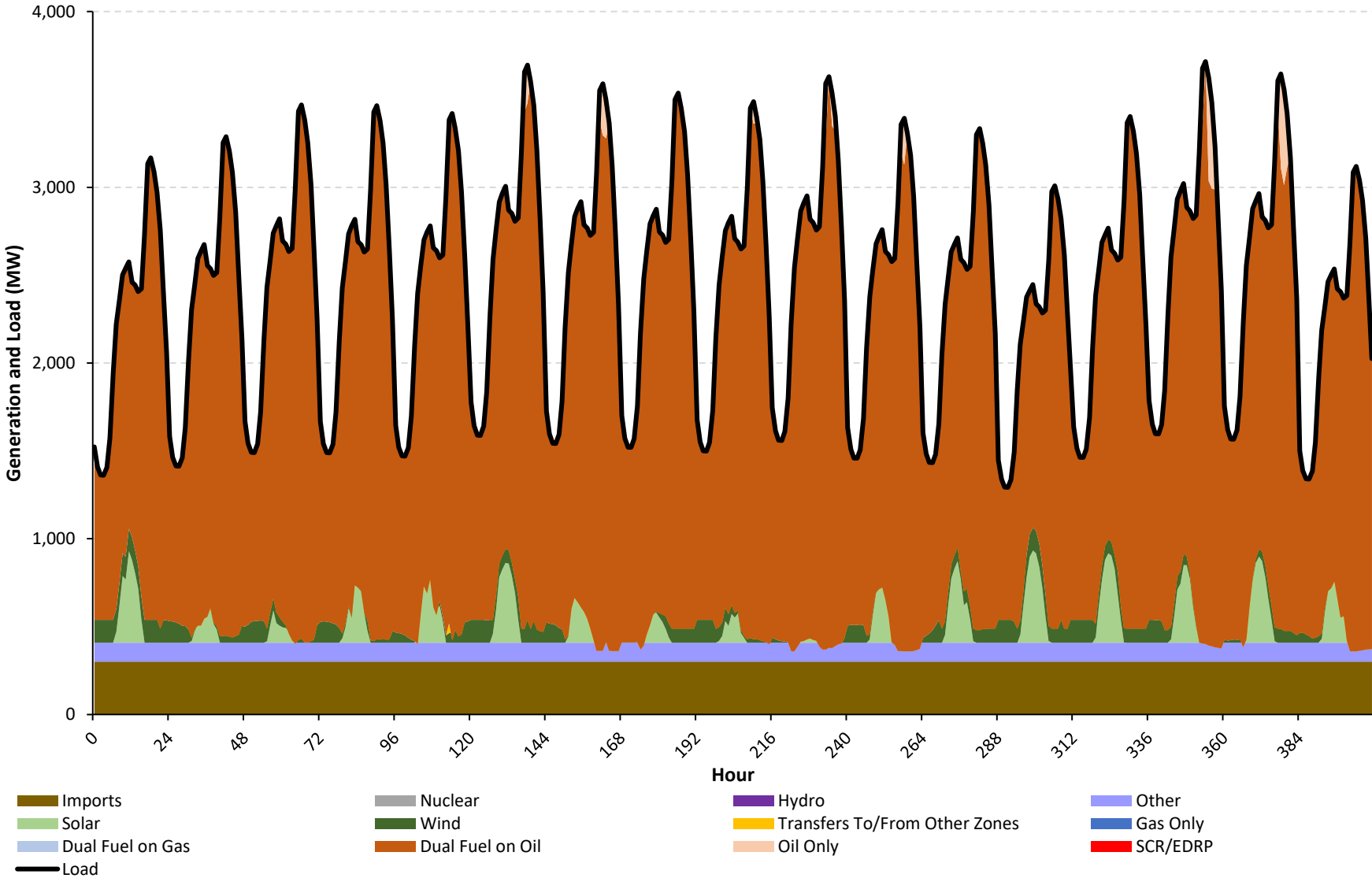
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	High
Refill Contingency:	Off
Loss of Gas Fired Gen.	NYISO
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

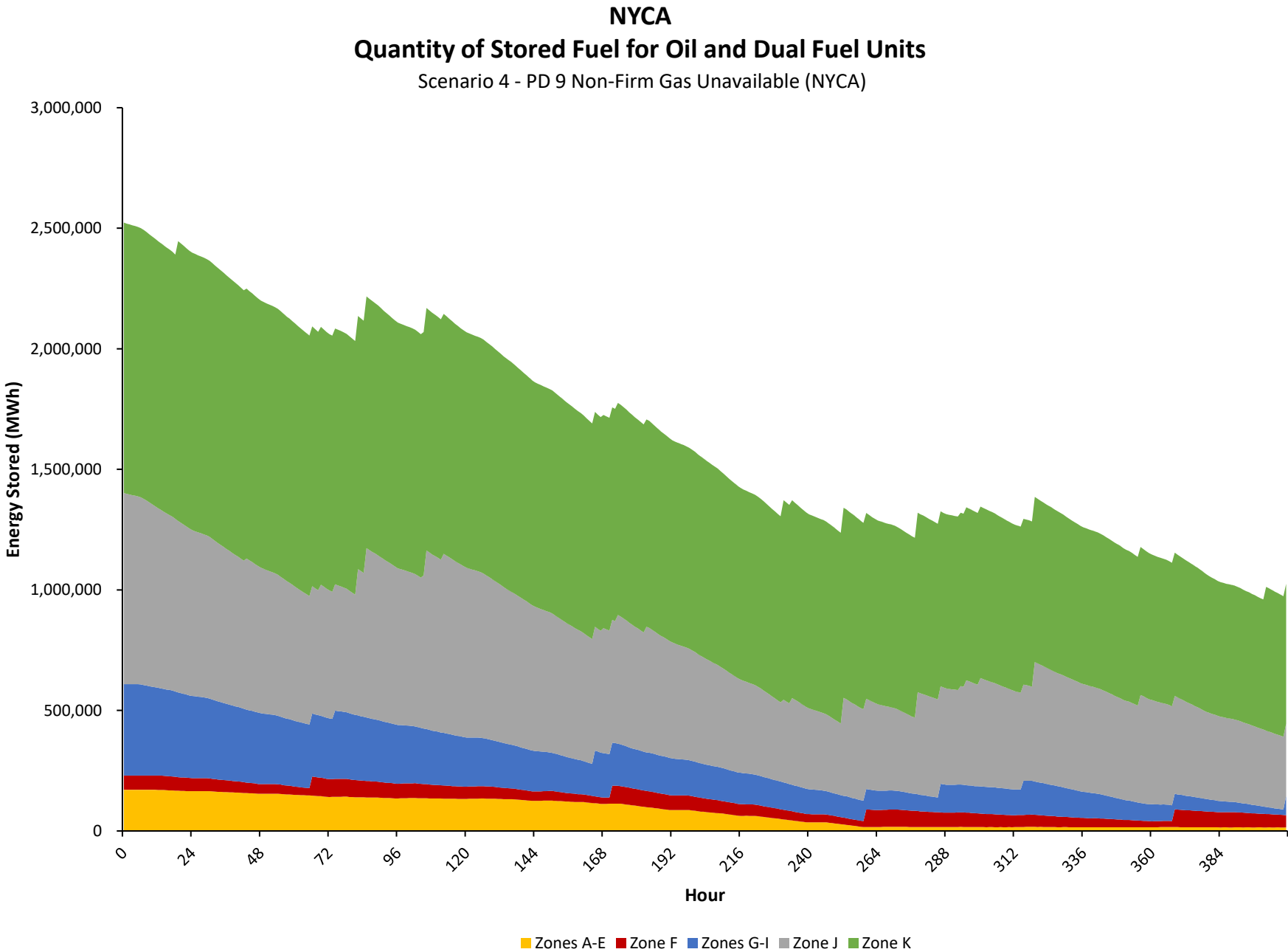


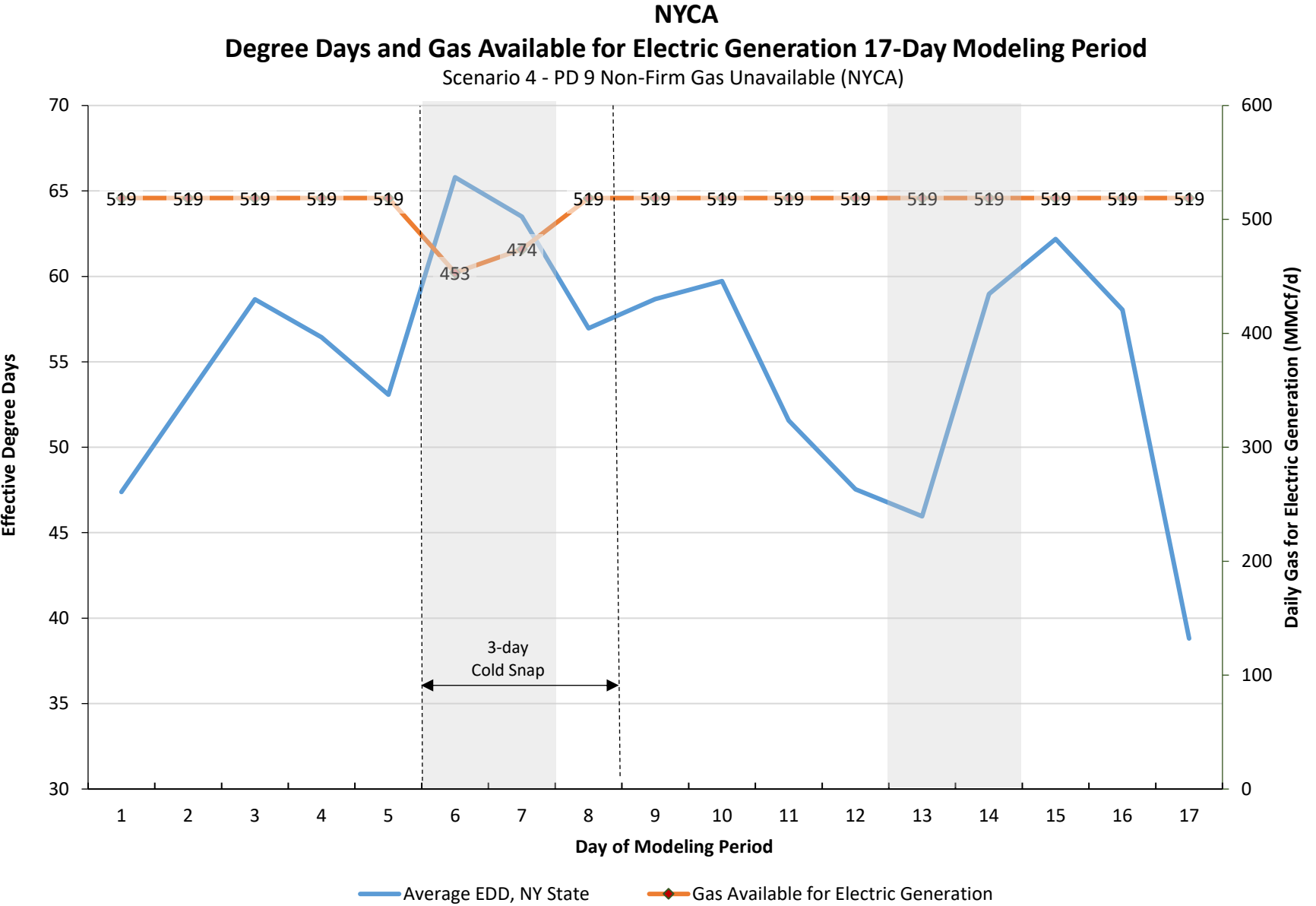




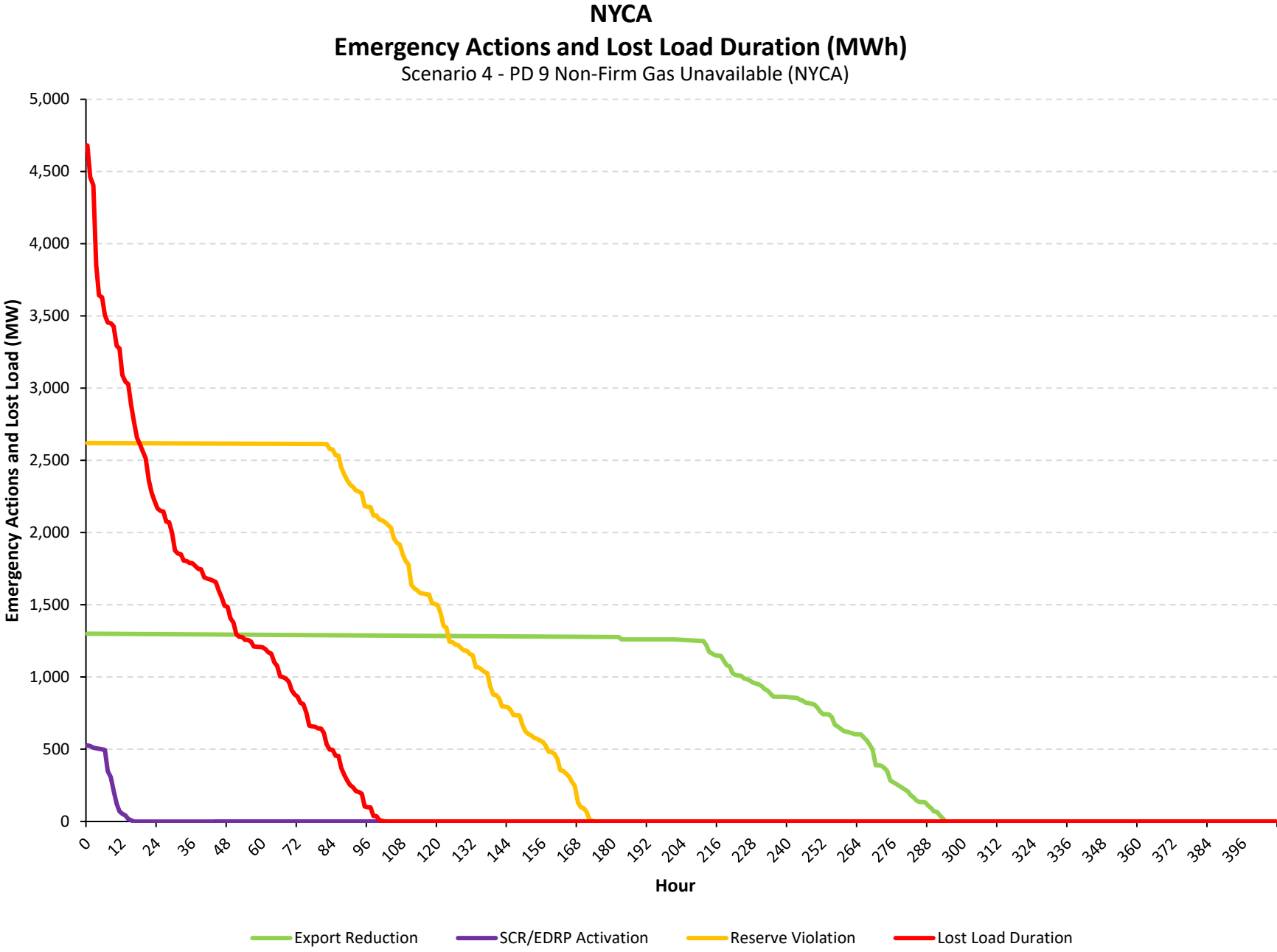
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 9 Non-Firm Gas Unavailable (NYCA)

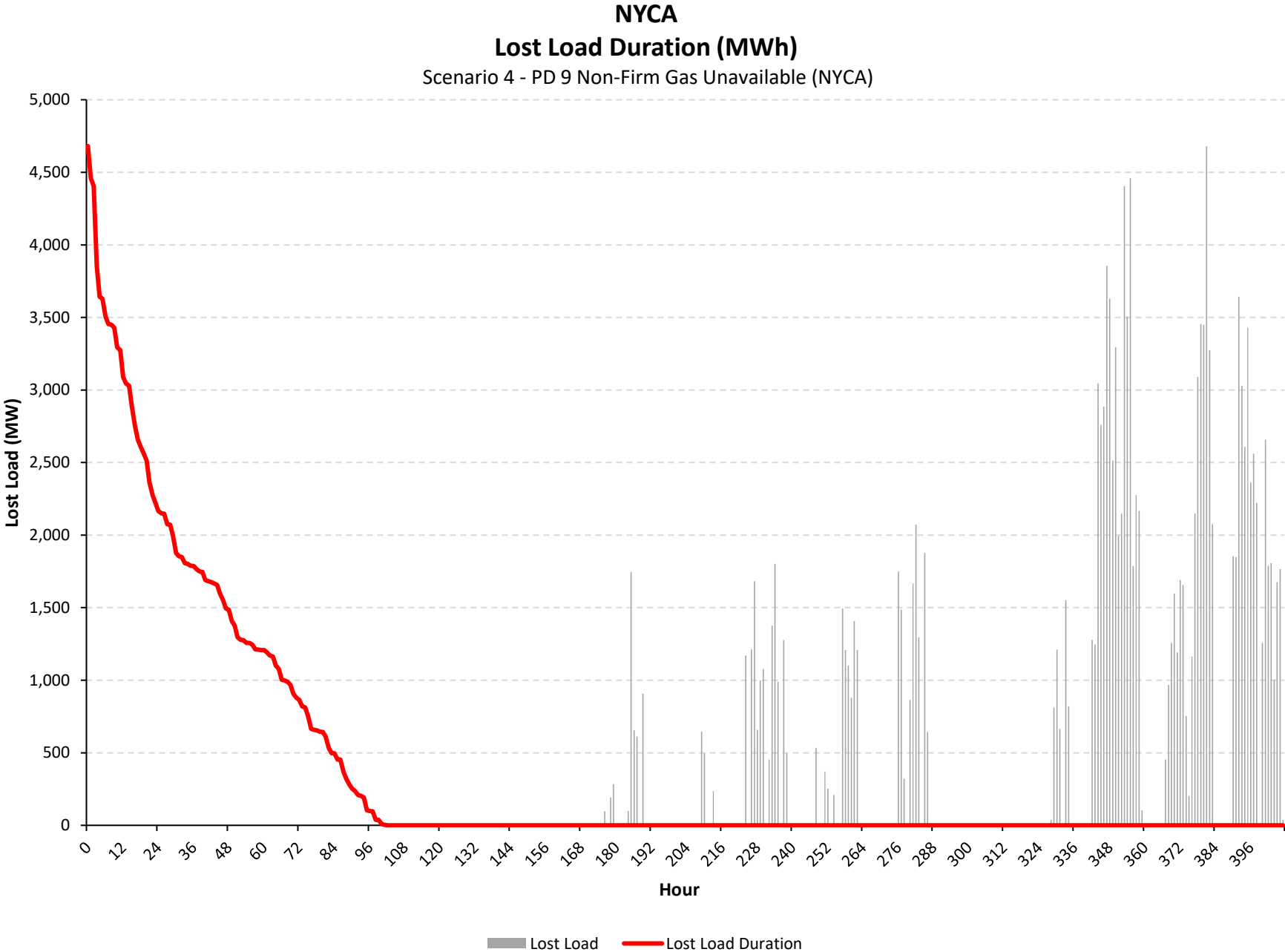






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



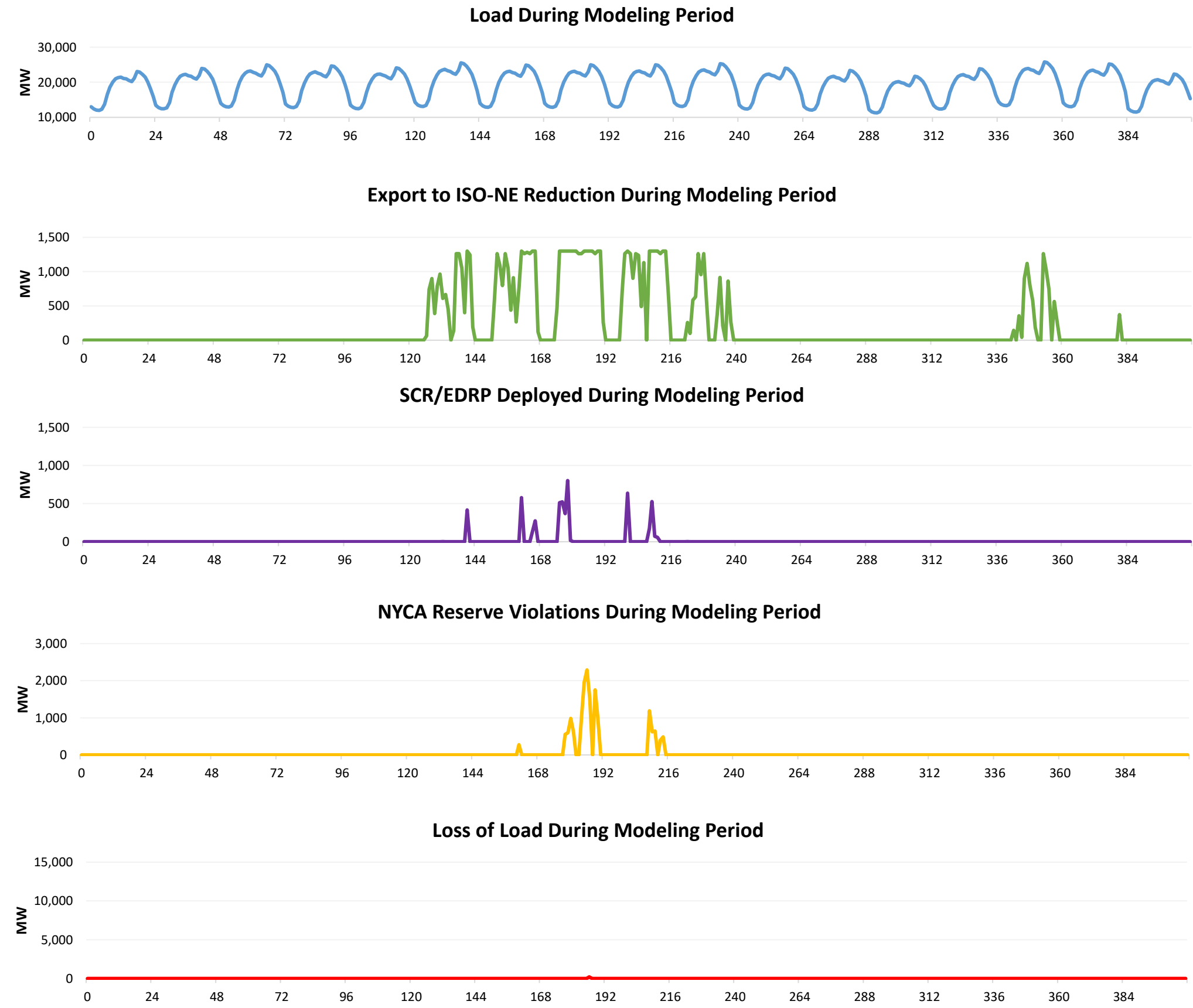


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 10 Non-Firm Gas Unavailable (4 days) (Winter 2023/2024)

Hourly Results Summary

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



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

Export Reductions	
Total Hrs.	96
Total MWh	85,958
Avg. MW	210.7

SCR Deployment	
Total Hrs.	14
Total MWh	5,085
Avg. MW	12.5

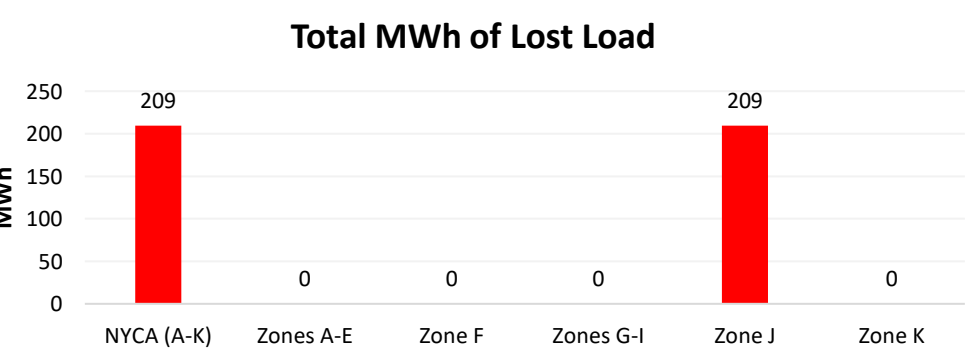
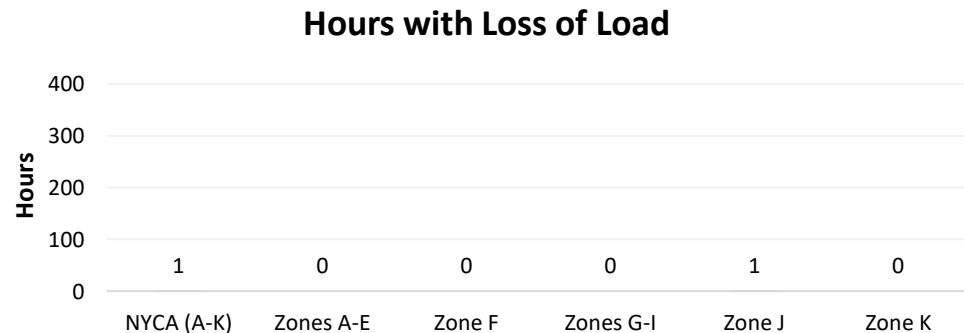
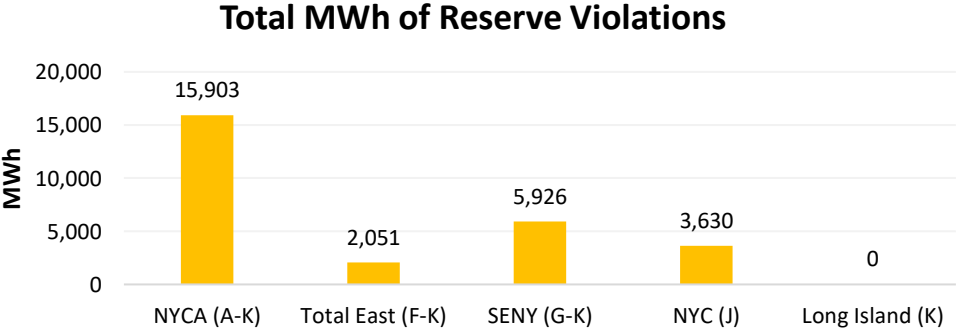
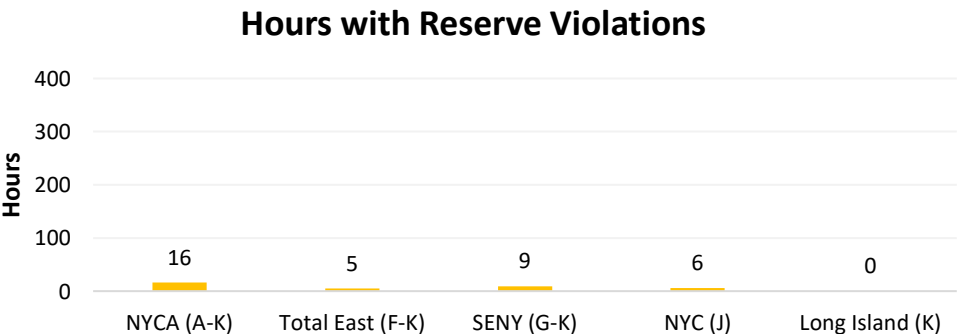
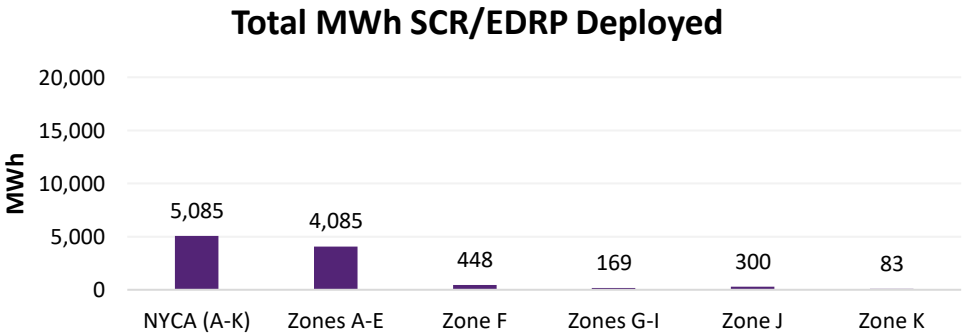
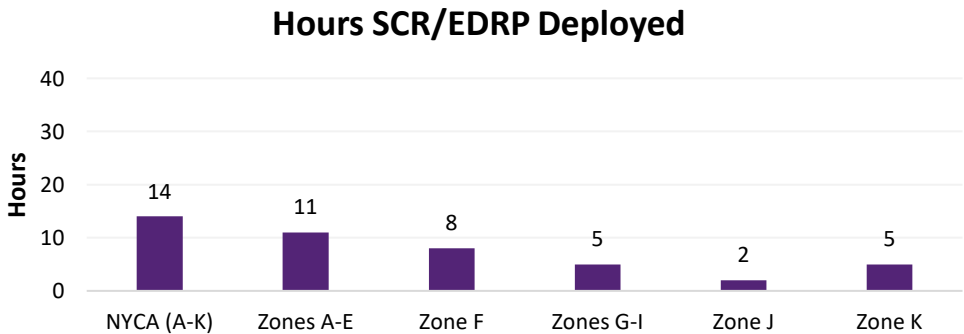
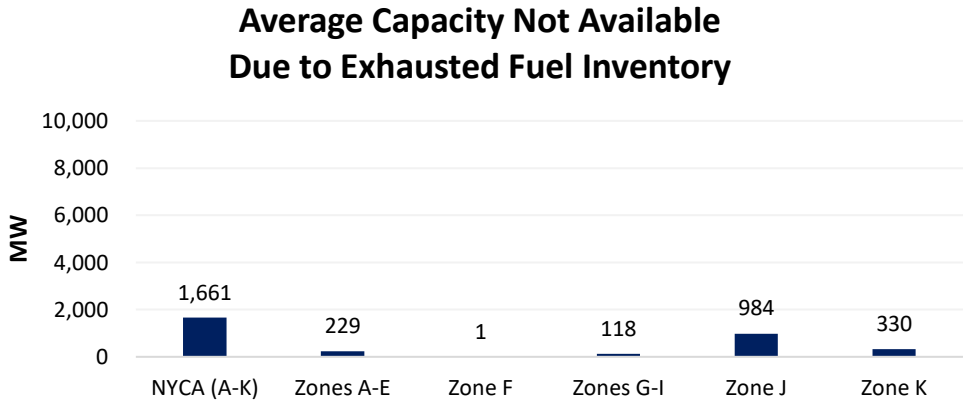
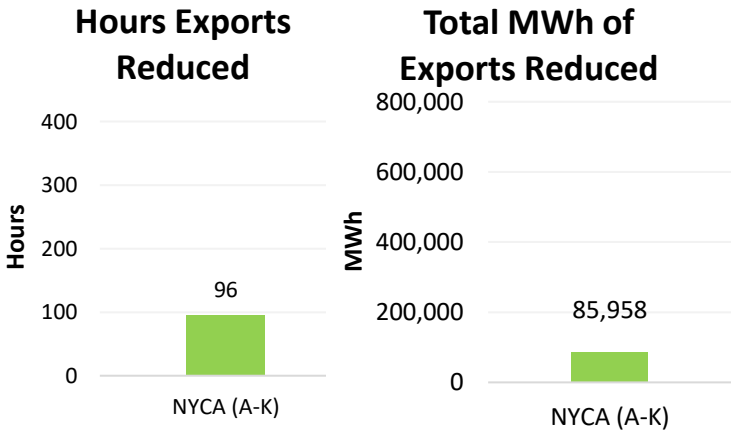
Reserve Violations	
Total Hrs.	16
Total MWh	15,903
Avg. MW	39.0
First Hour with Viol.	161

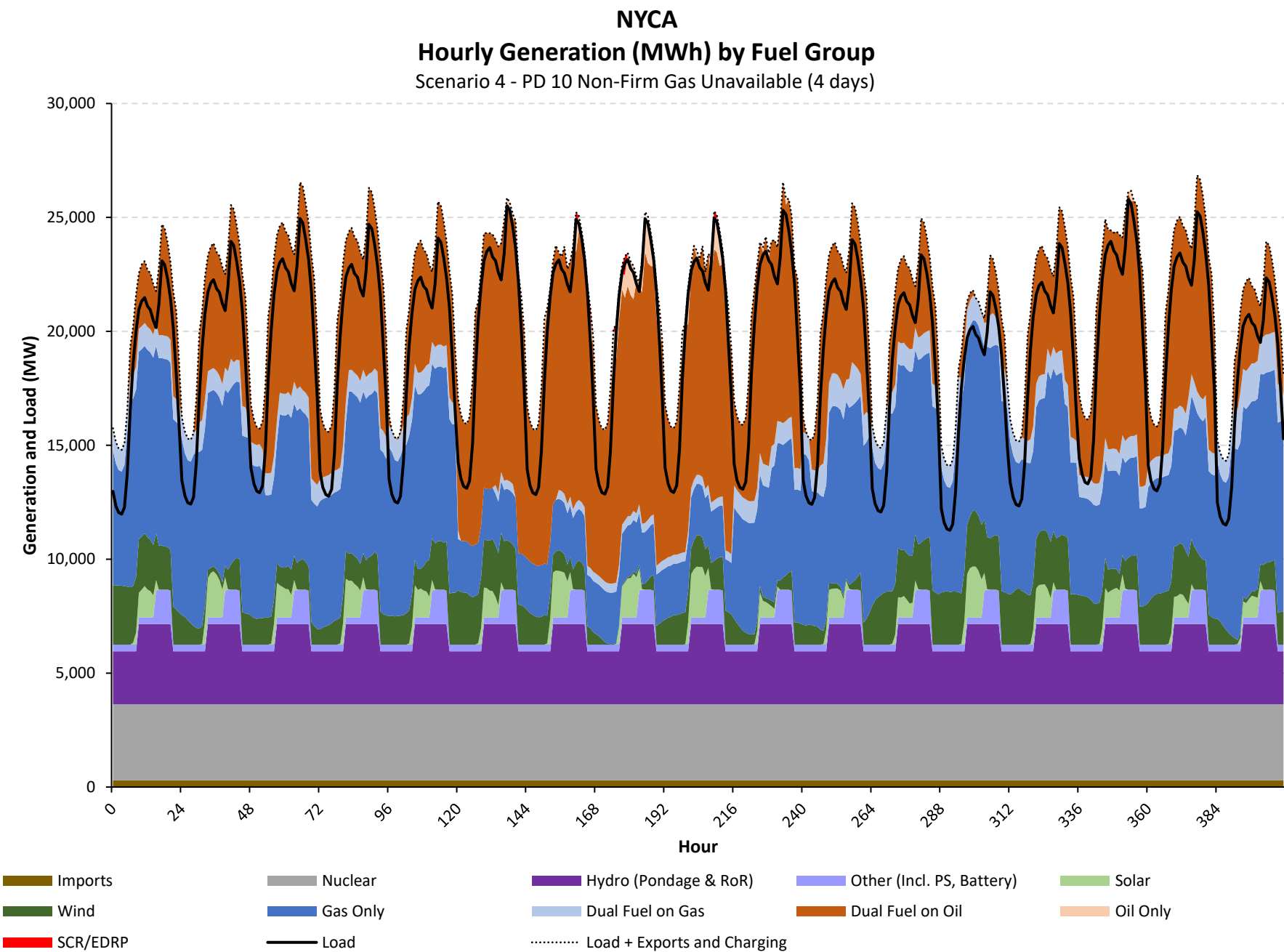
Loss of Load	
Total Hrs.	1
Total MWh	209
Avg. MW	0.5
First Hour with Losses	186

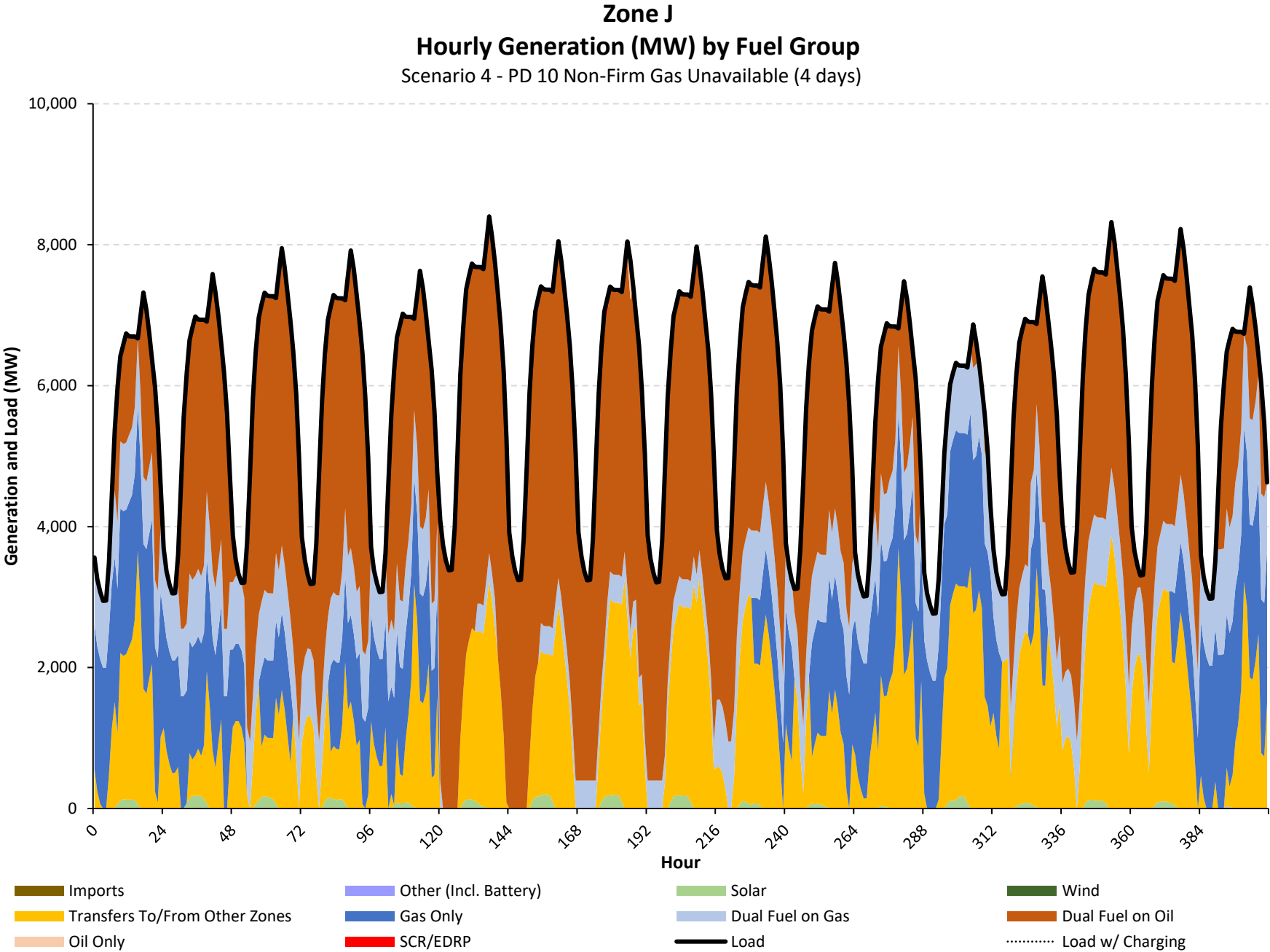
Full Period Results Summary

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

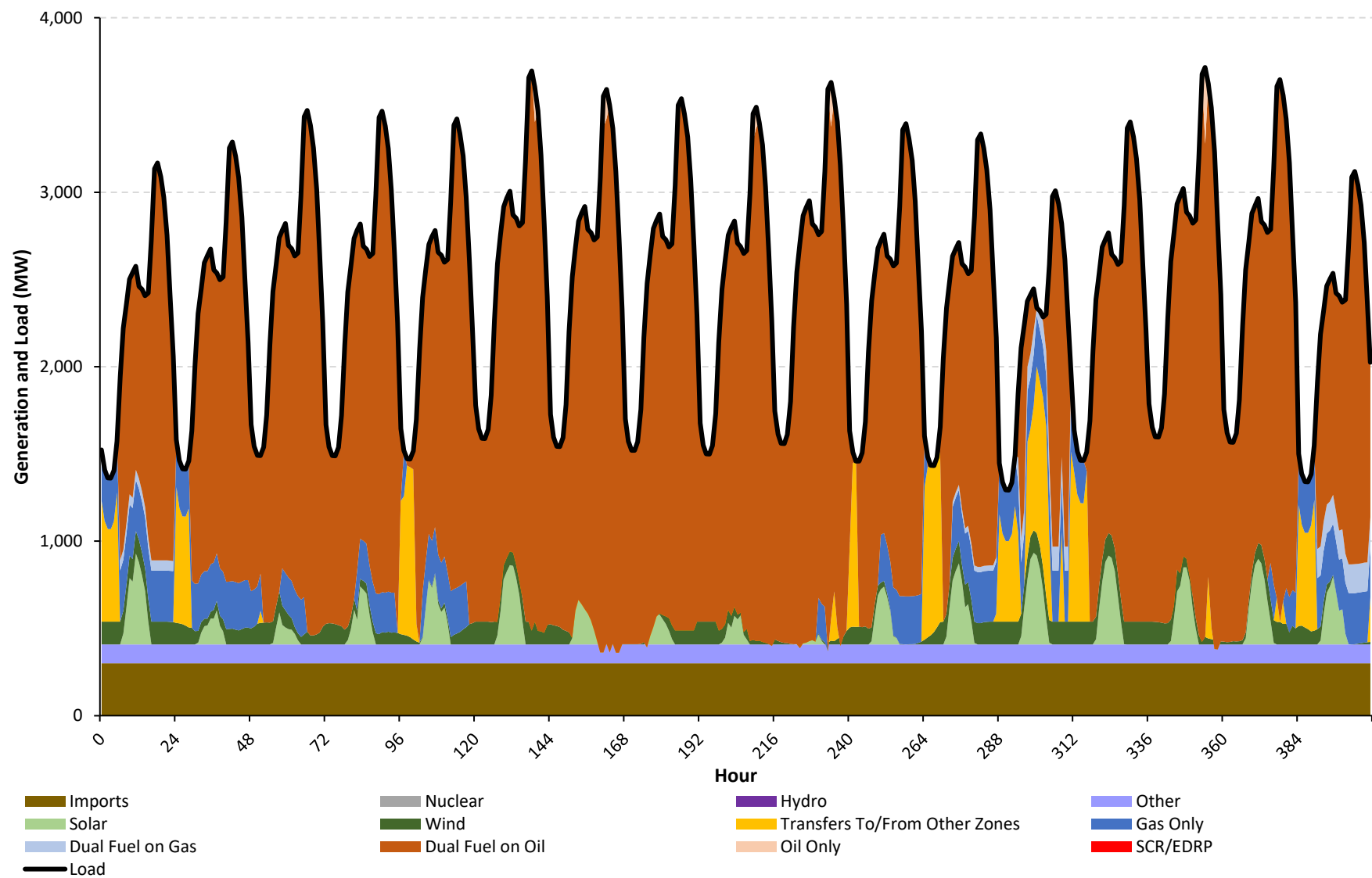
Case Summary	
Derate (EFORD) Increase:	Off
Starting Storage:	High
Refill Contingency:	Off
Loss of Gas Fired Gen.	3-4 days
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero

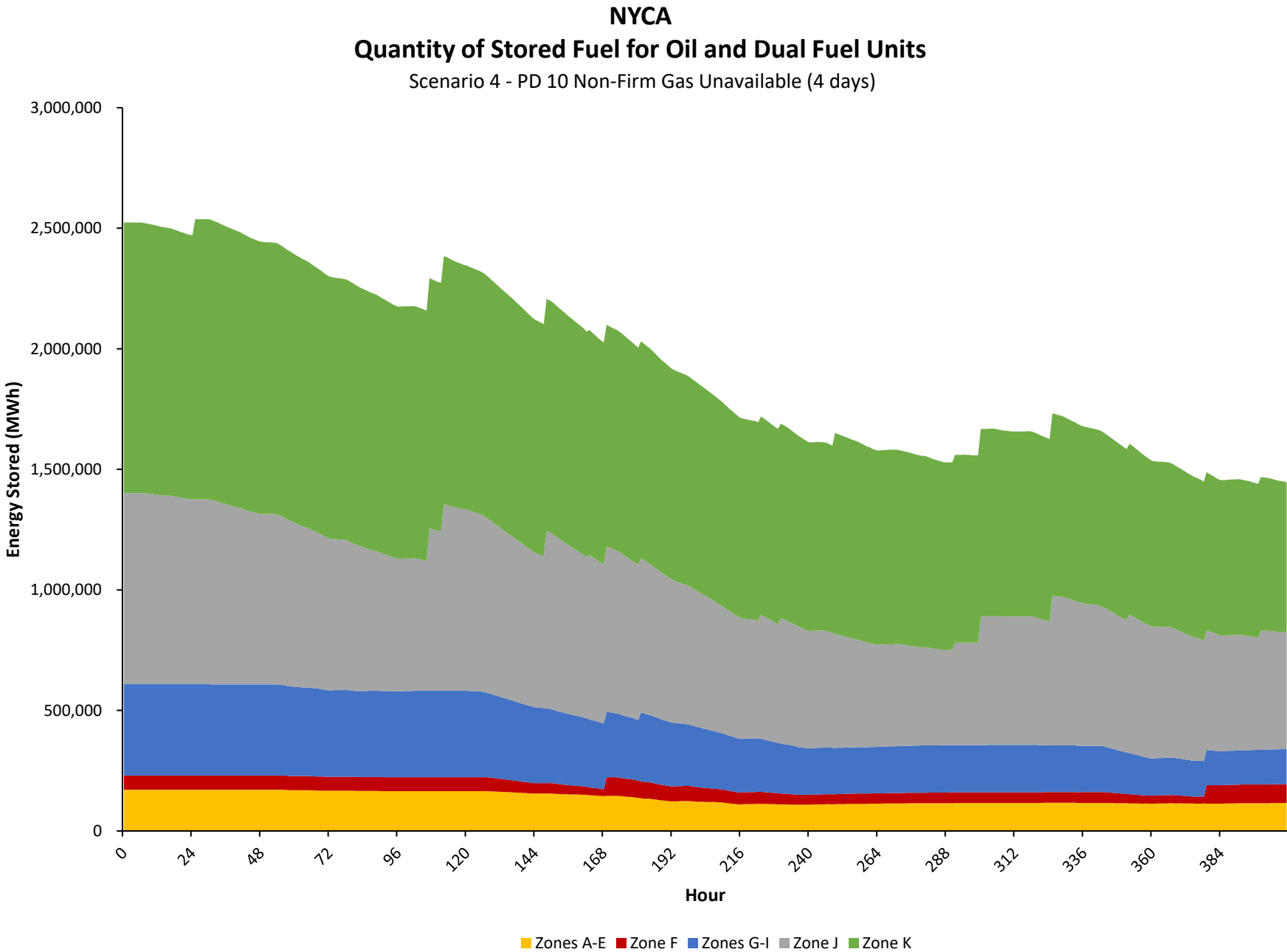


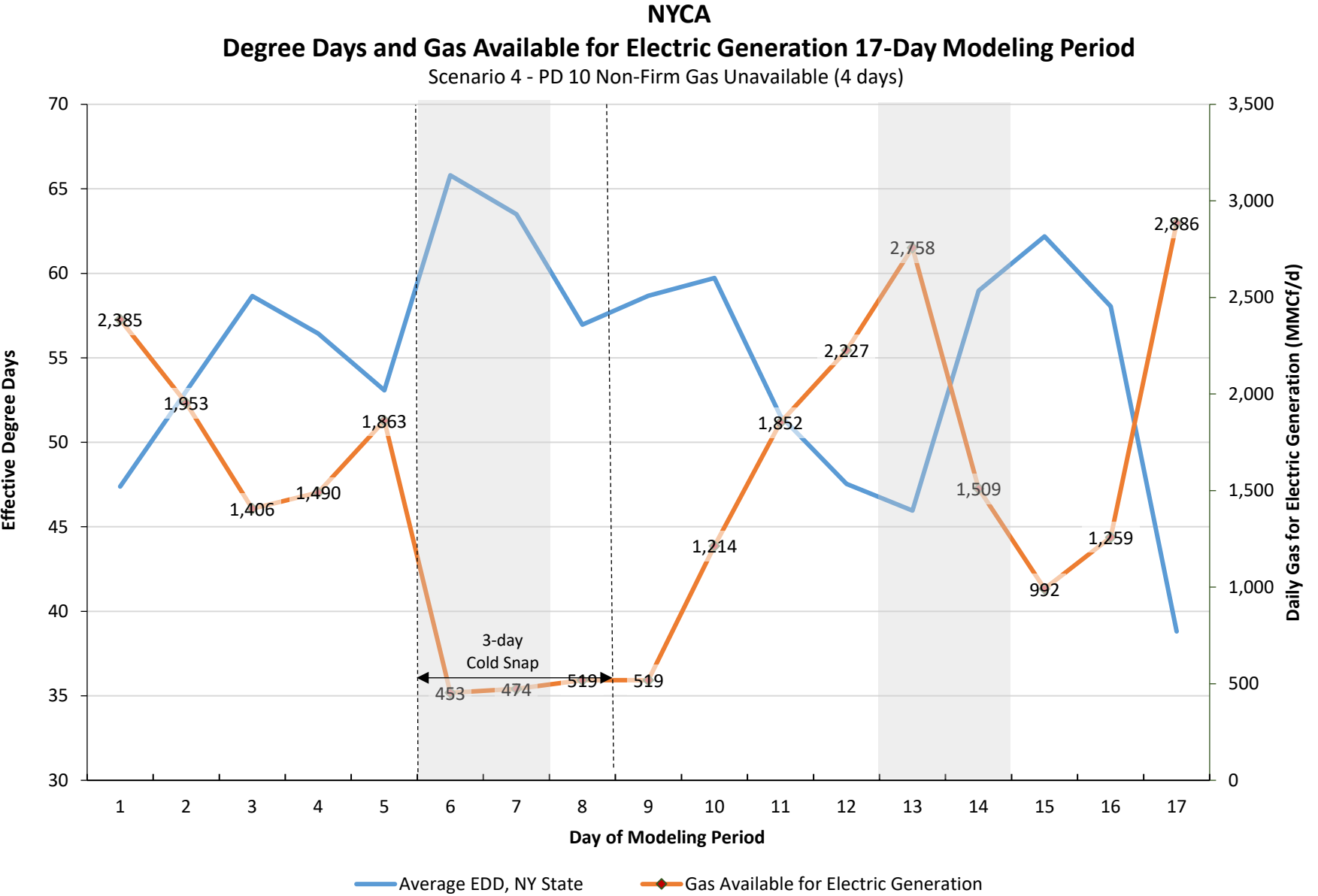




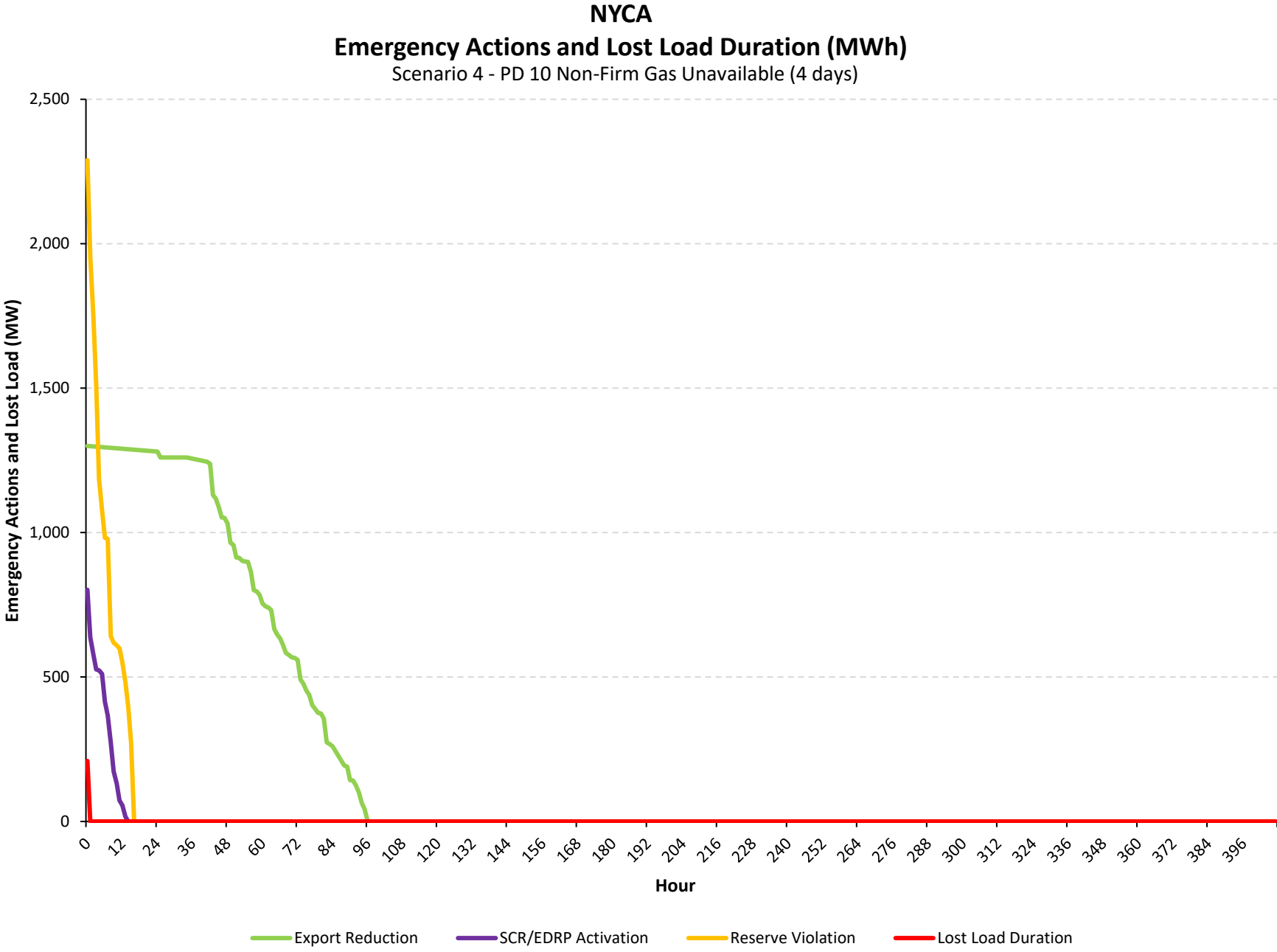
Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 10 Non-Firm Gas Unavailable (4 days)

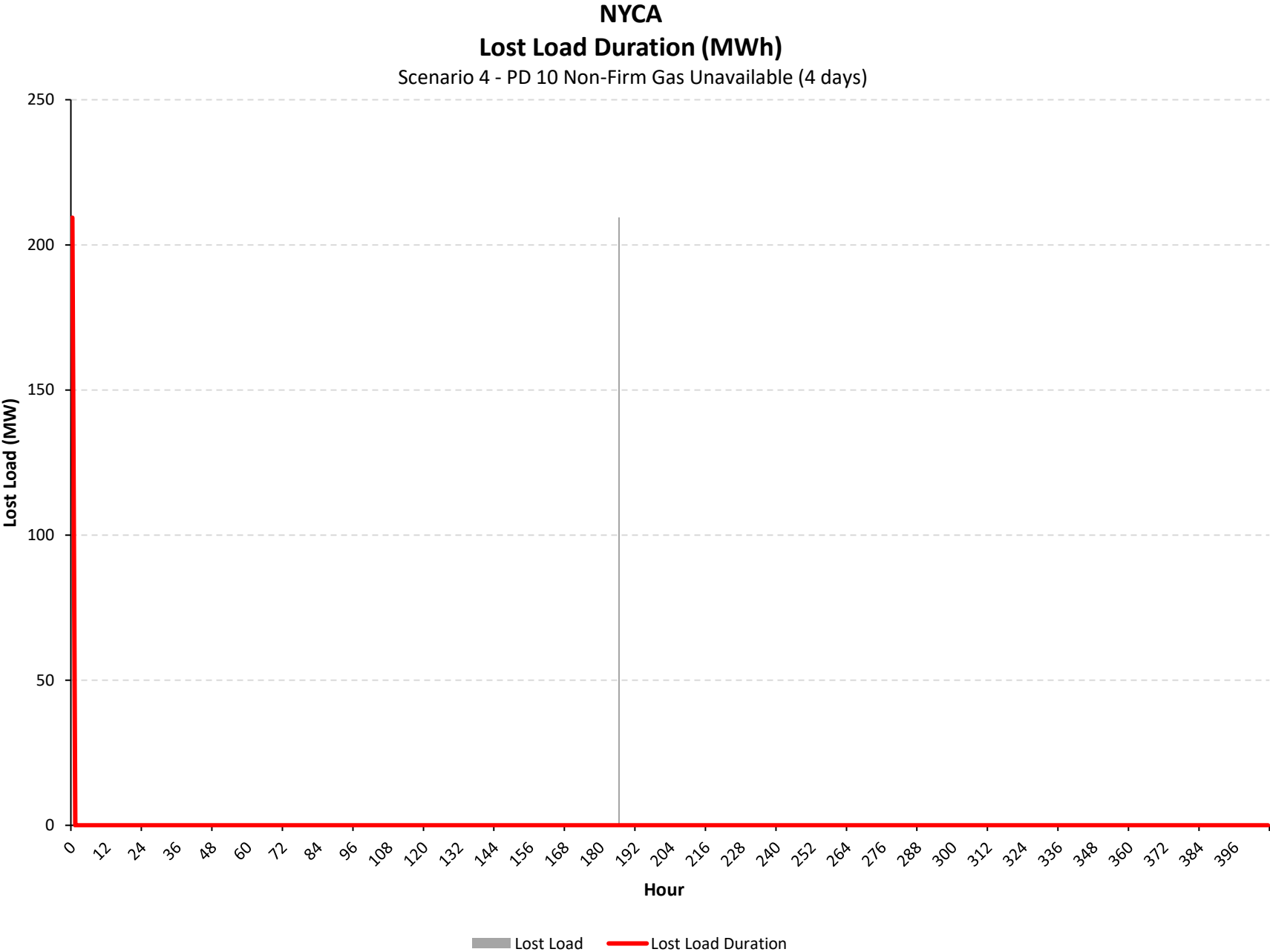






Notes:
[1] Weekends are shaded in gray.
[2] Effective degree day is defined as 65 degrees F - Temperature.



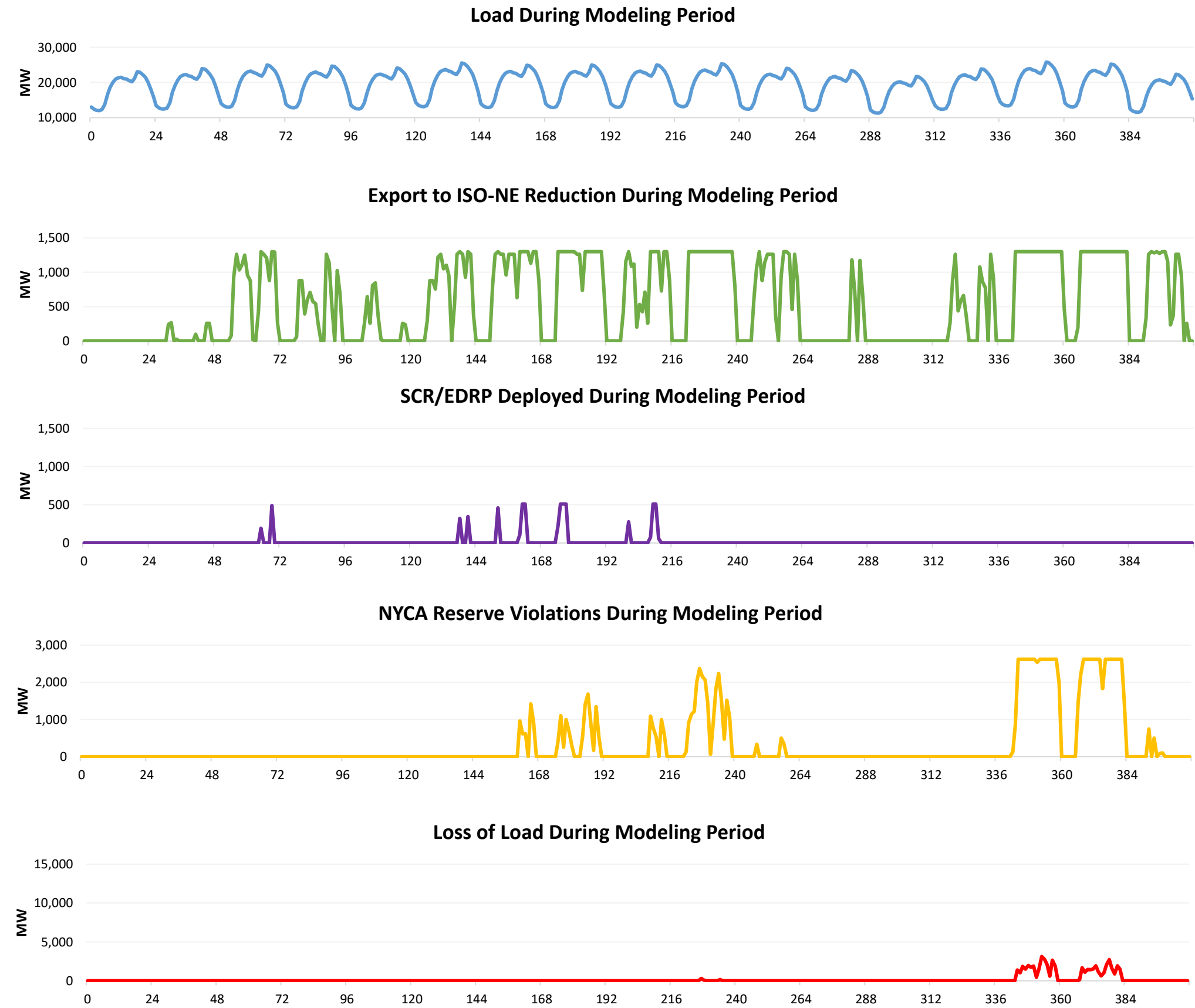


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 11 Combination Disruption (Winter 2023/2024)

Hourly Results Summary

Case Name: Scenario 4 - PD 11 Combination Disruption



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

Export Reductions	
Total Hrs.	220
Total MWh	221,034
Avg. MW	541.7

SCR Deployment	
Total Hrs.	17
Total MWh	6,118
Avg. MW	15.0

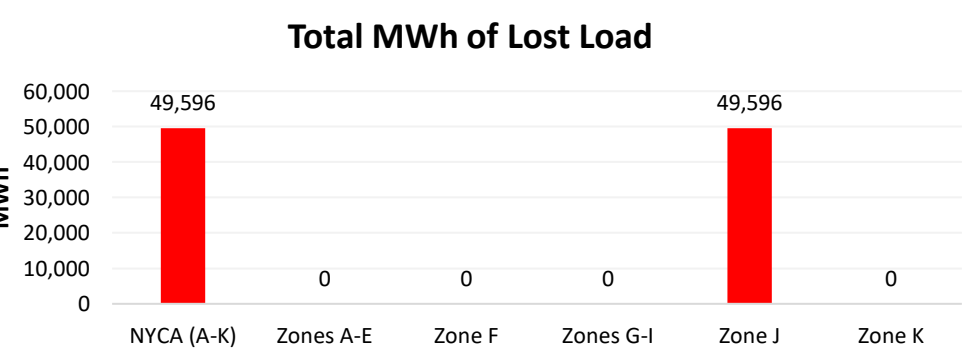
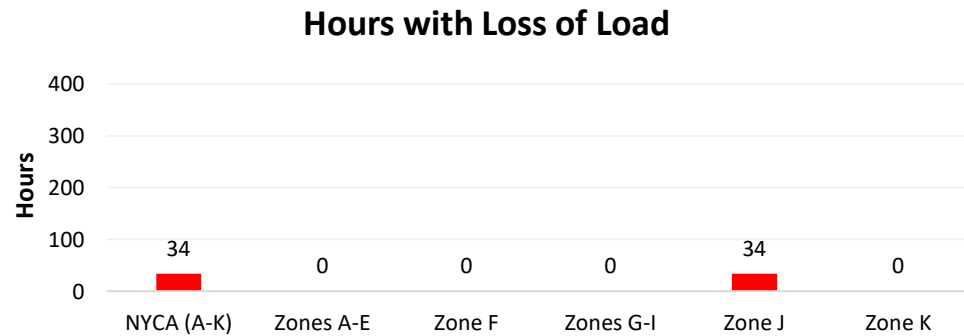
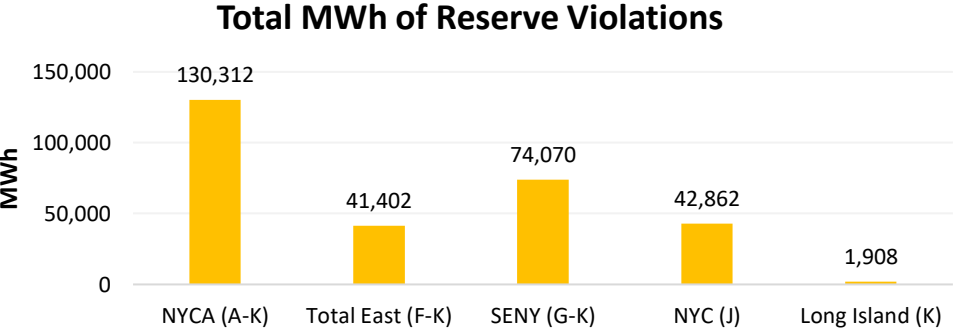
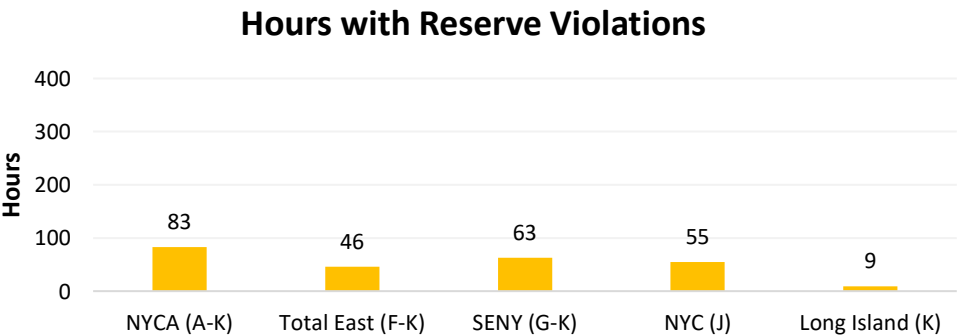
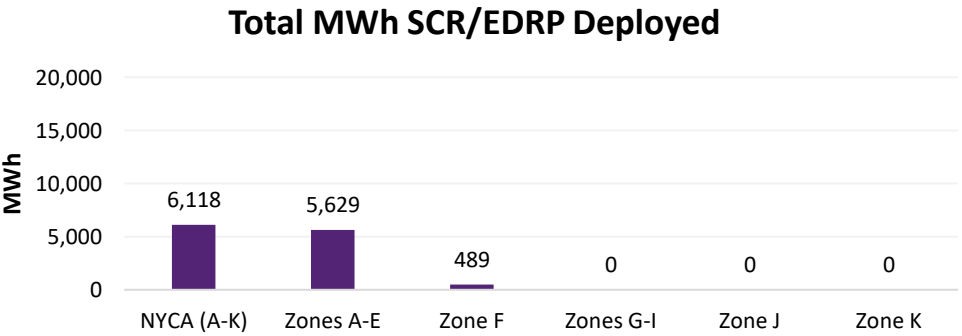
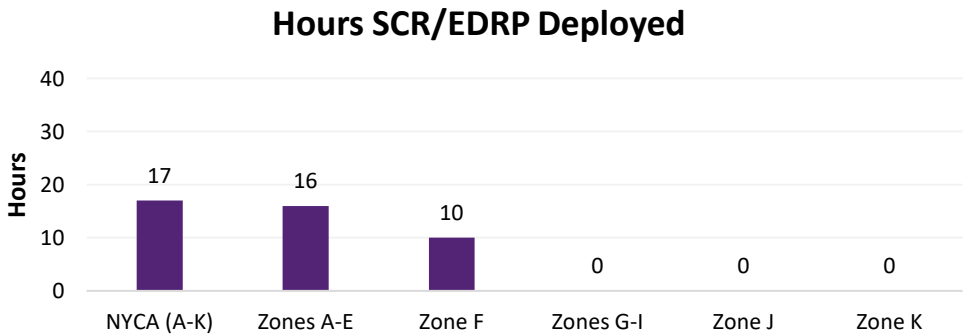
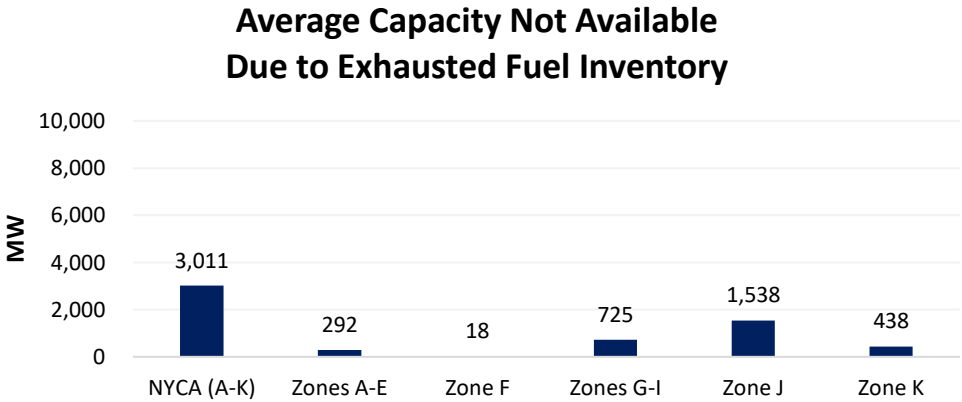
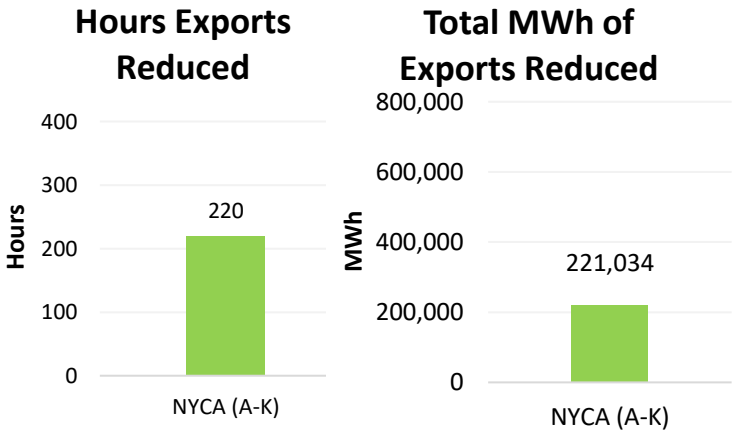
Reserve Violations	
Total Hrs.	83
Total MWh	130,312
Avg. MW	319.4
First Hour with Viol.	161

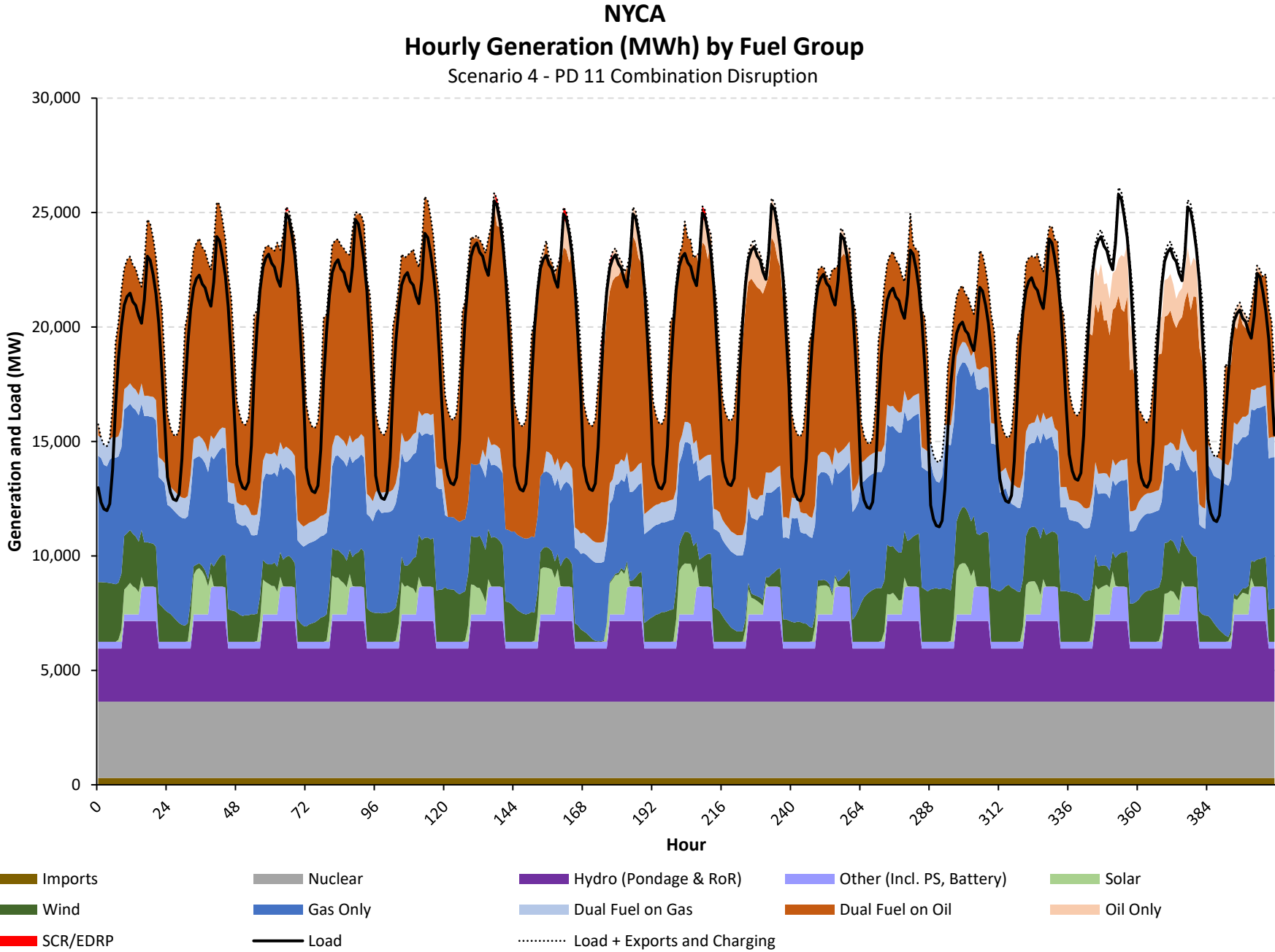
Loss of Load	
Total Hrs.	34
Total MWh	49,596
Avg. MW	121.6
First Hour with Losses	227

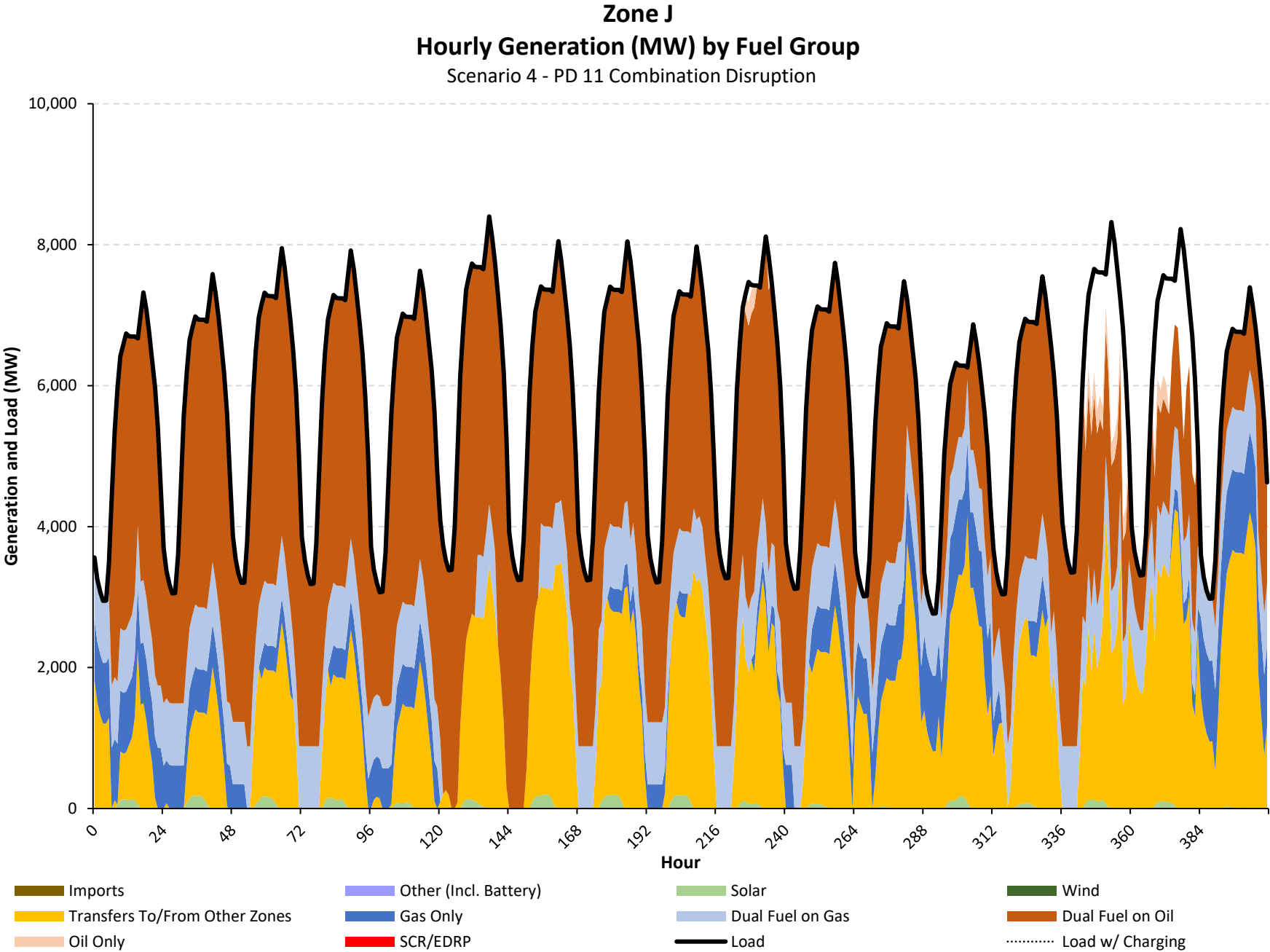
Full Period Results Summary

Case Name: Scenario 4 - PD 11 Combination Disruption

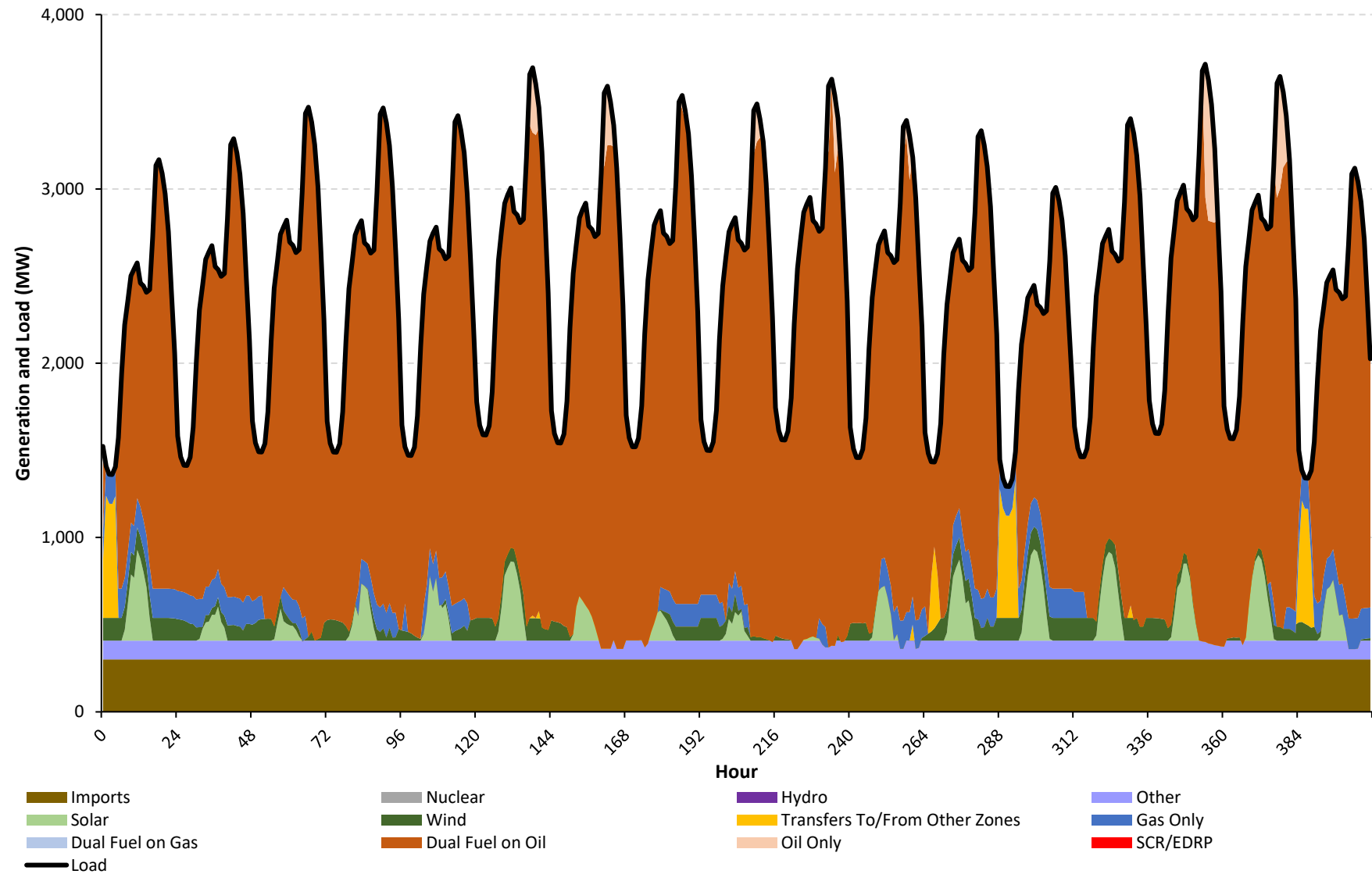
Case Summary	
Derate (EFORD) Increase:	High
Starting Storage:	High
Refill Contingency:	Reduced
Loss of Gas Fired Gen.	Reduced
Nuclear Contingency:	Off
Plant Outage:	None
Import Scenario:	Net Zero



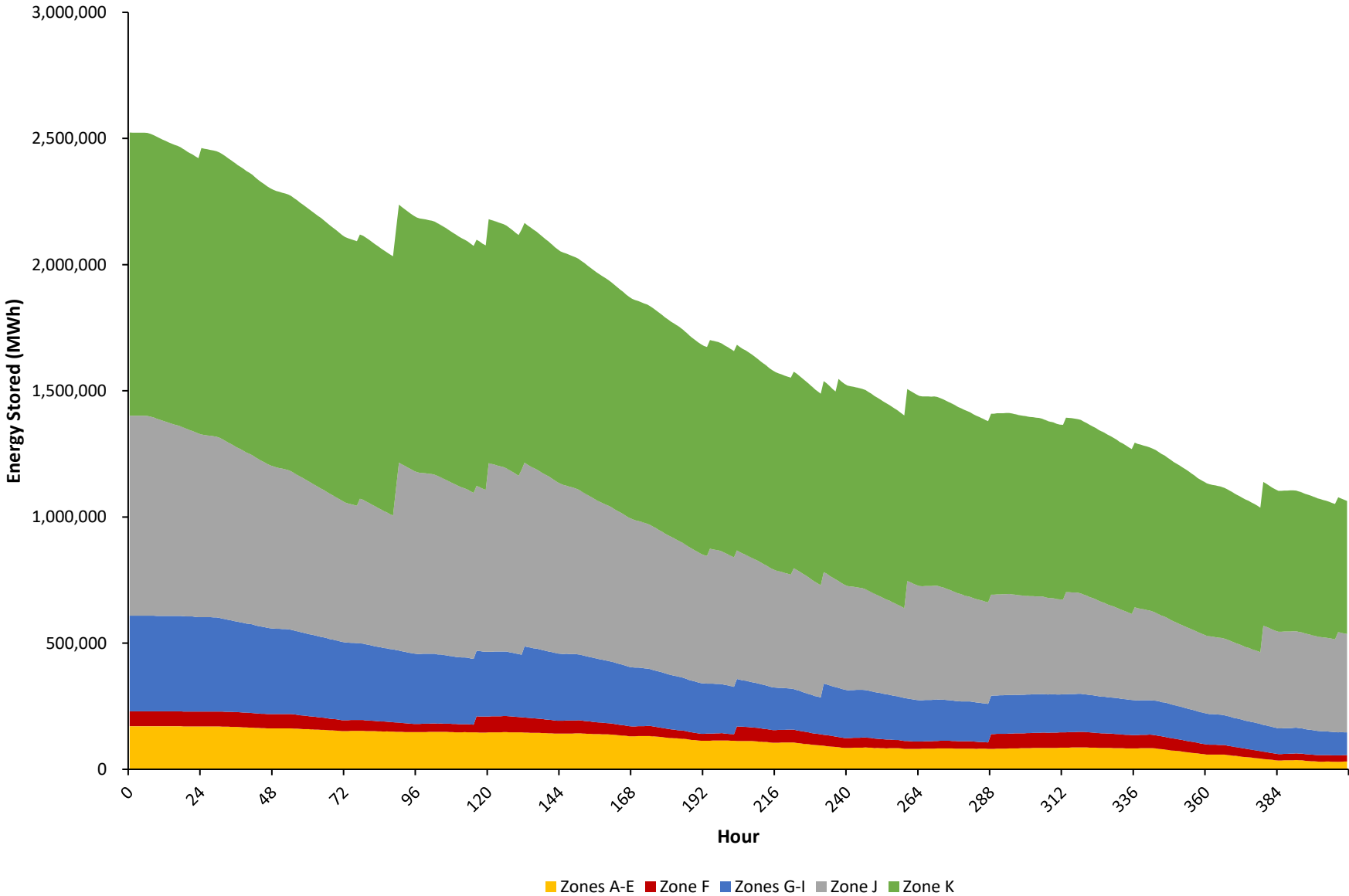


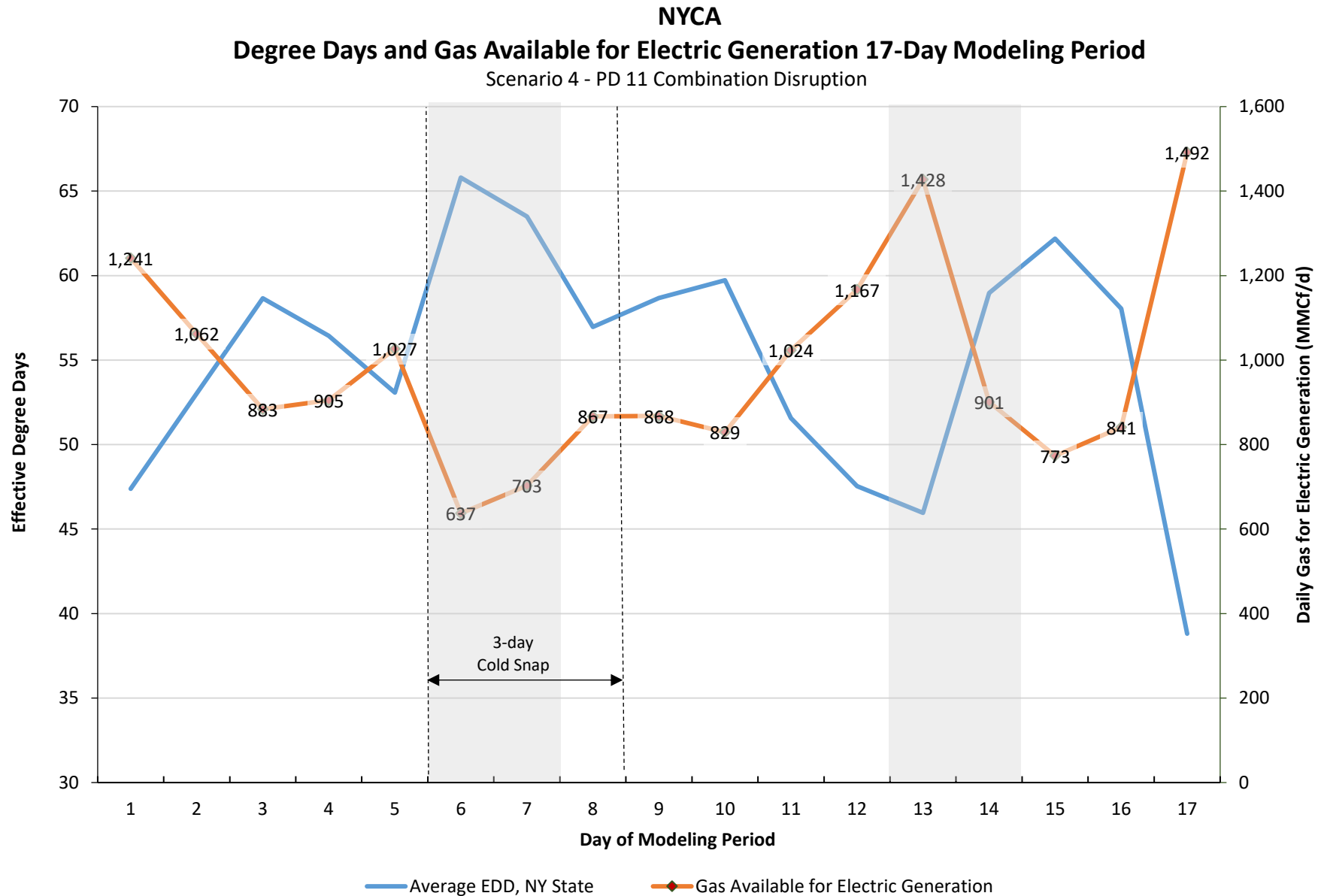


Zone K
Hourly Generation (MW) by Fuel Group
Scenario 4 - PD 11 Combination Disruption



NYCA
Quantity of Stored Fuel for Oil and Dual Fuel Units
Scenario 4 - PD 11 Combination Disruption





Notes:

[1] Weekends are shaded in gray.

[2] Effective degree day is defined as 65 degrees F - Temperature.

