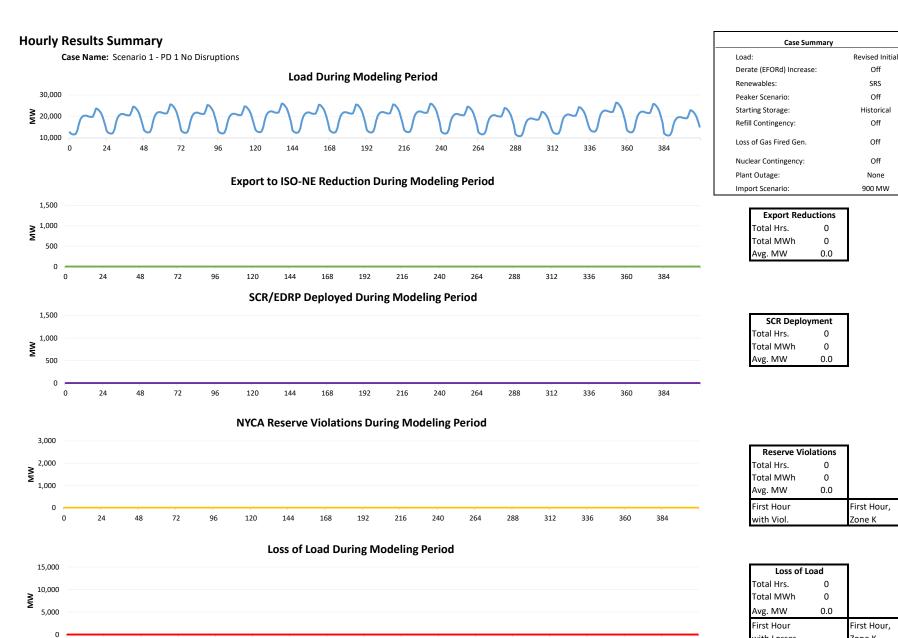
E. Diagnostic Charts for All Cases

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

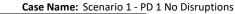
Case: Scenario 1 - PD 1 No Disruptions

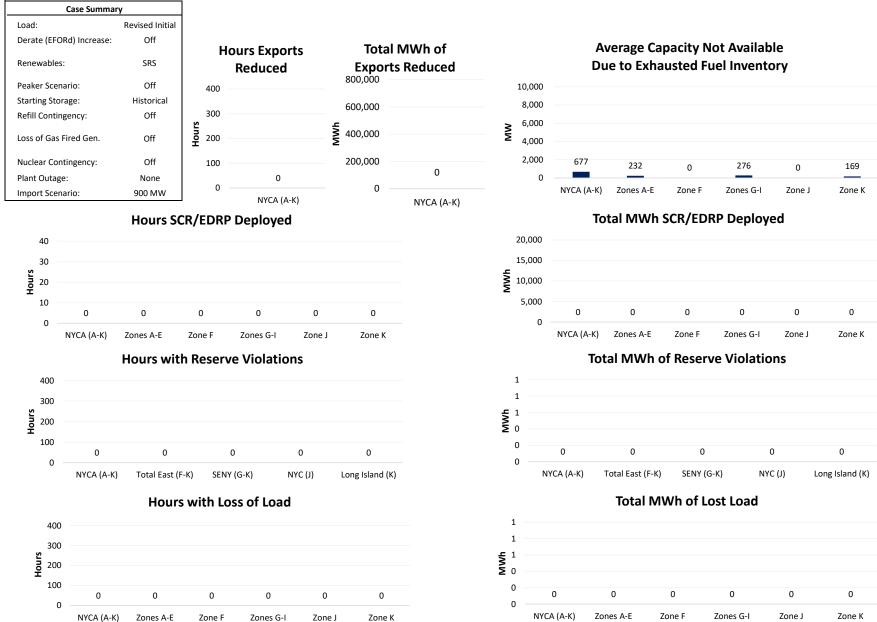


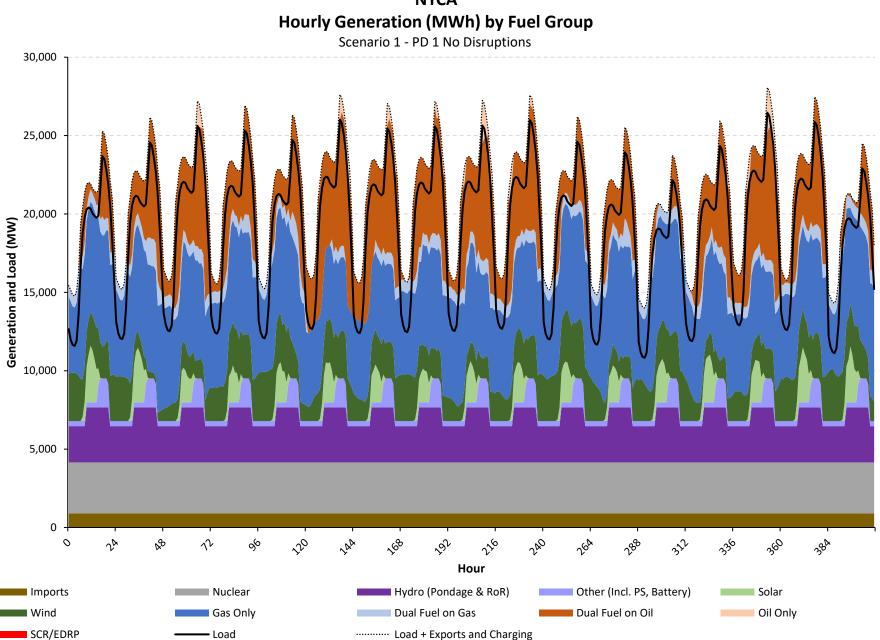
Zone K

with Losses

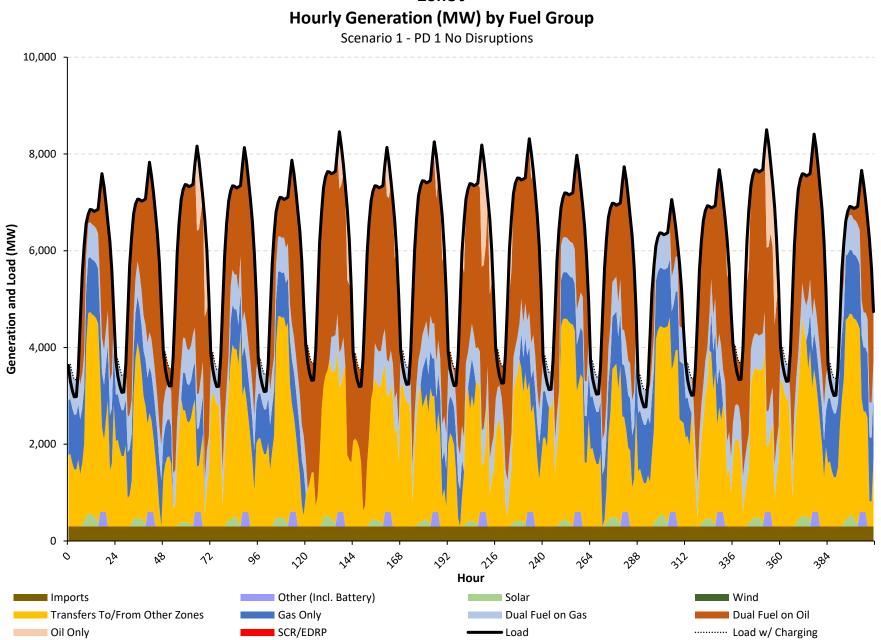
Full Period Results Summary







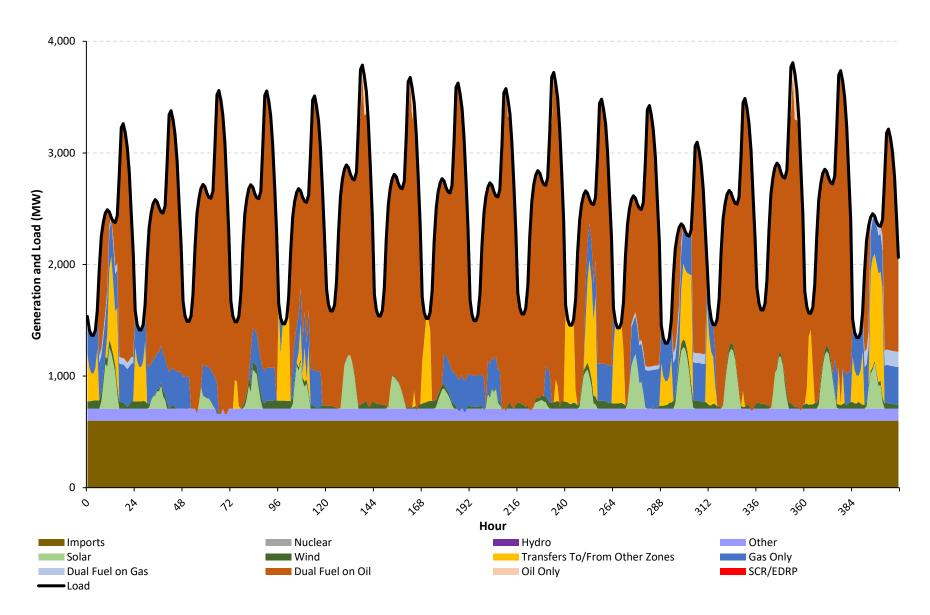
NYCA

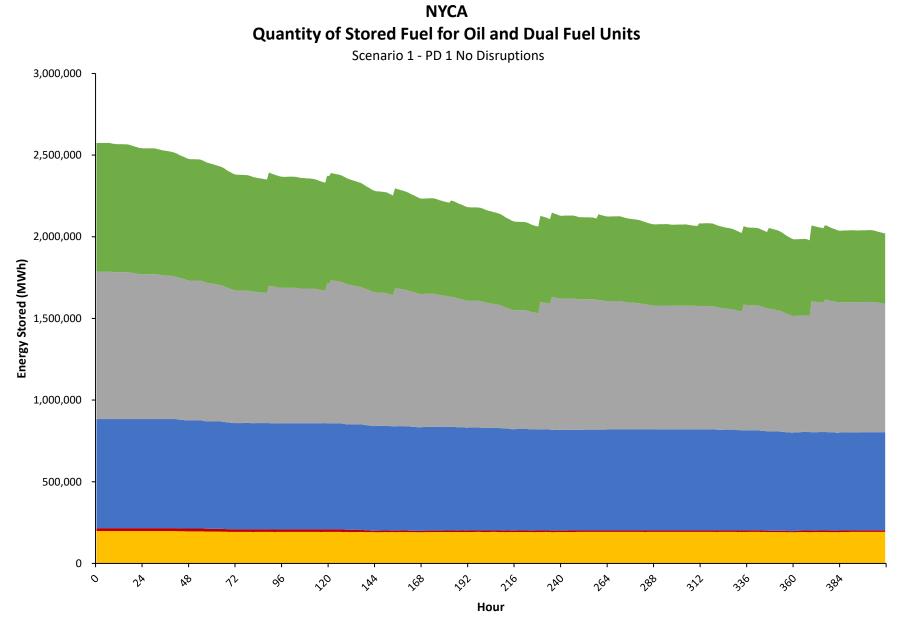


Zone J

Zone K Hourly Generation (MW) by Fuel Group

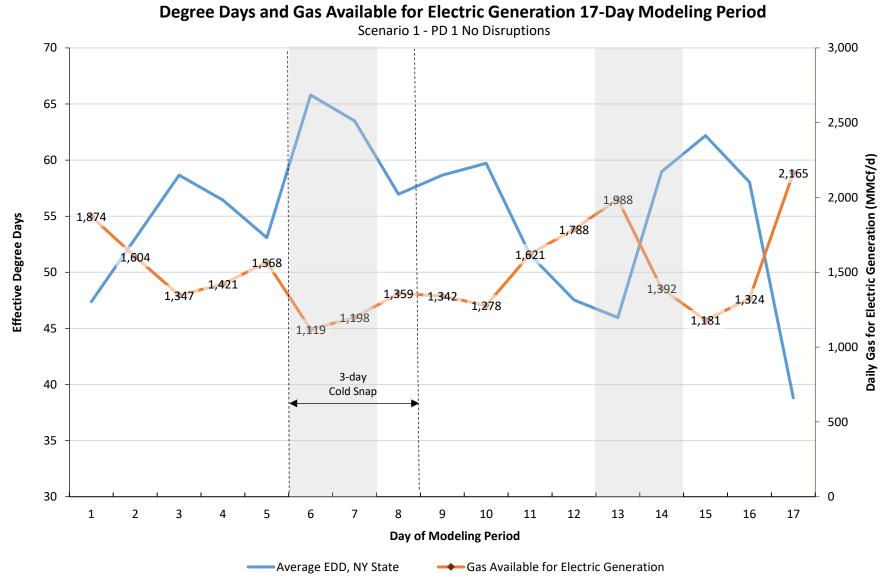
Scenario 1 - PD 1 No Disruptions





Zones A-E Zone F Zones G-I Zone J Zone K

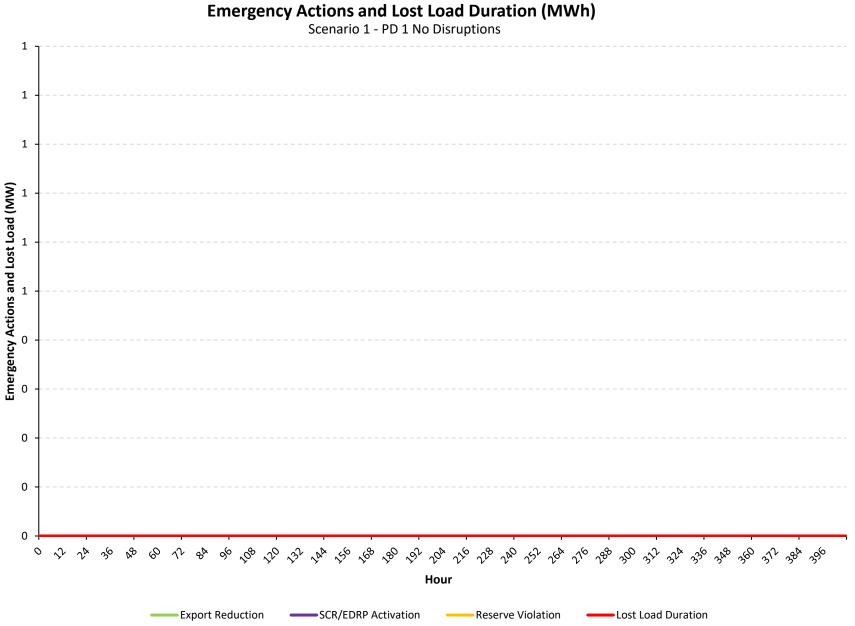
NYCA



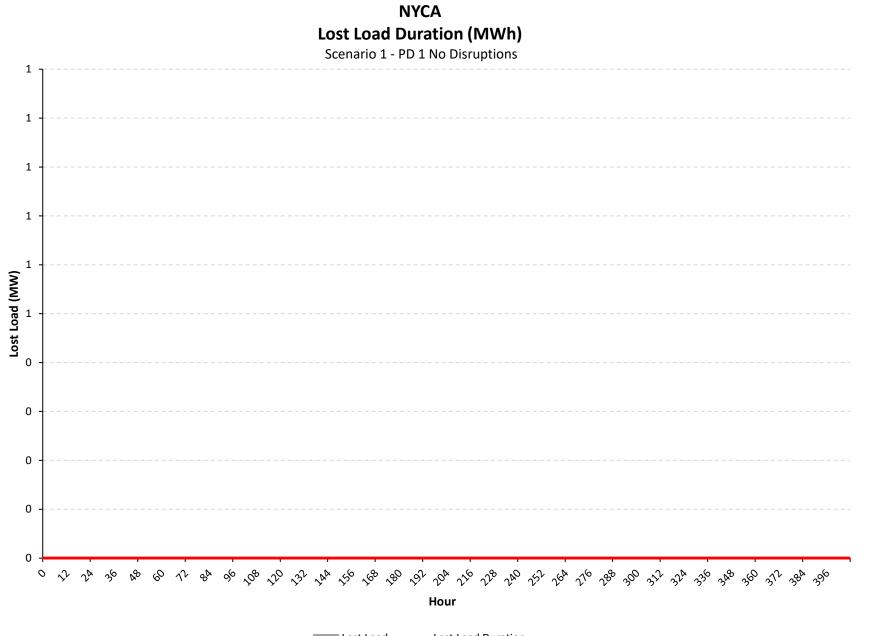
Notes:

[1] Weekends are shaded in gray.

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



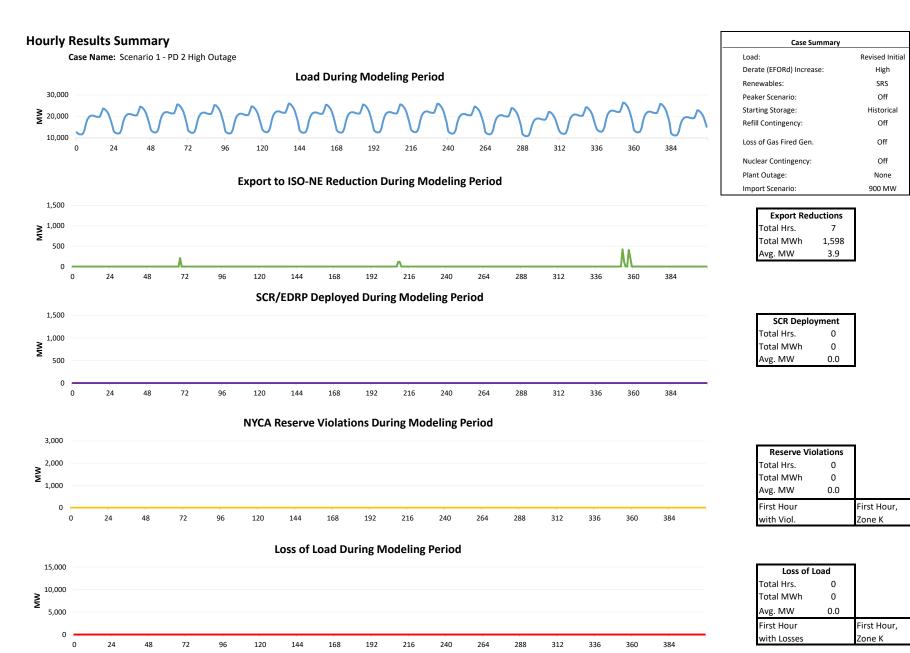
NYCA



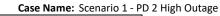
Lost Load Lost Load Duration

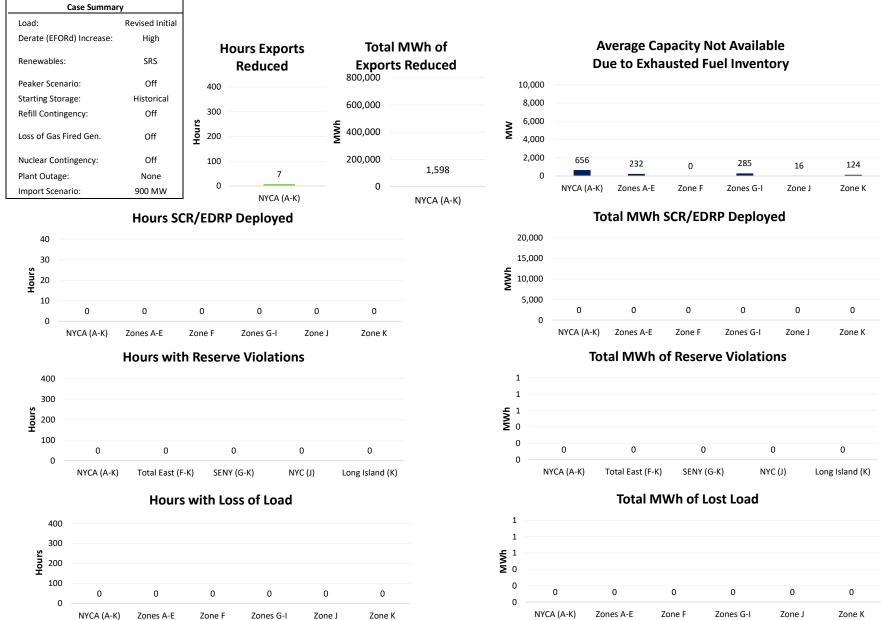
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

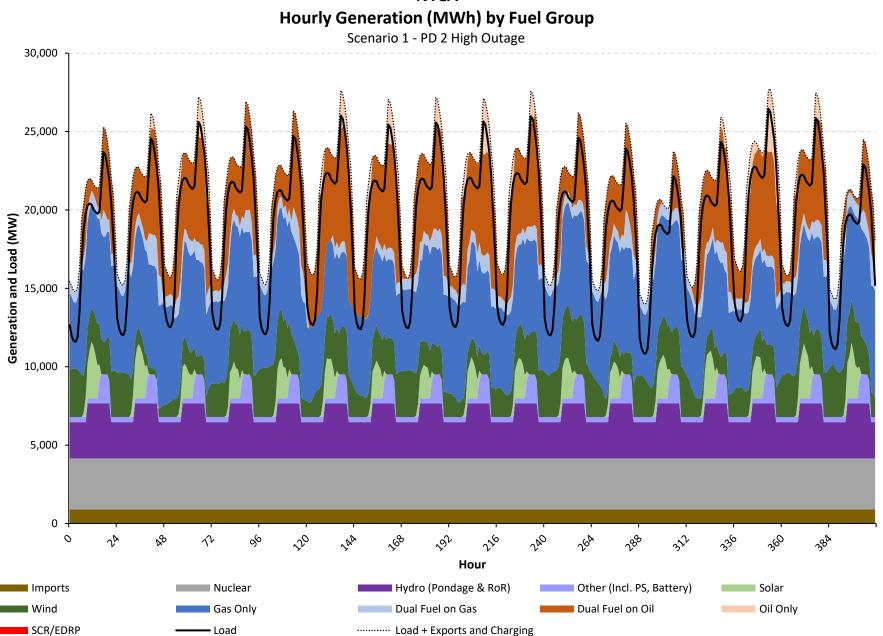
Case: Scenario 1 - PD 2 High Outage



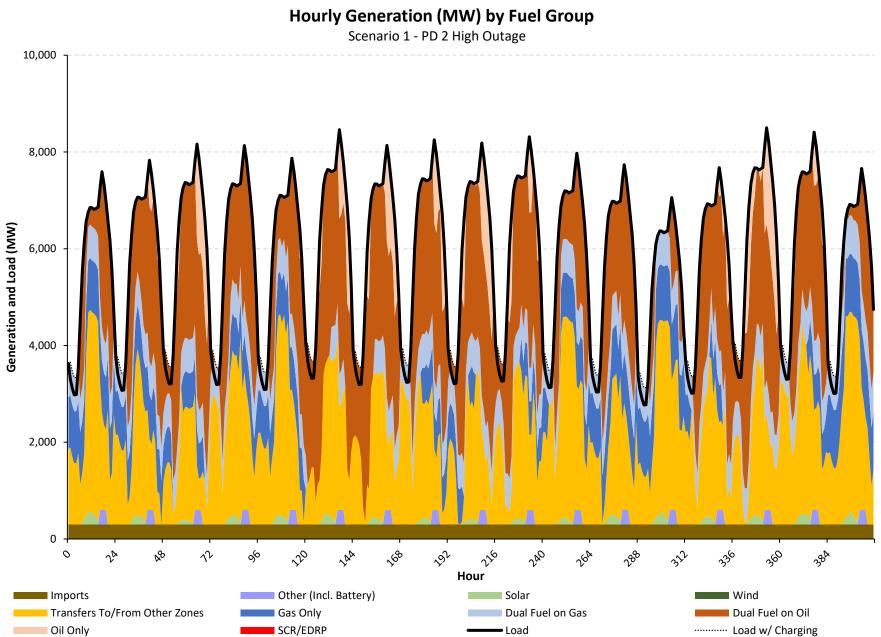
Full Period Results Summary







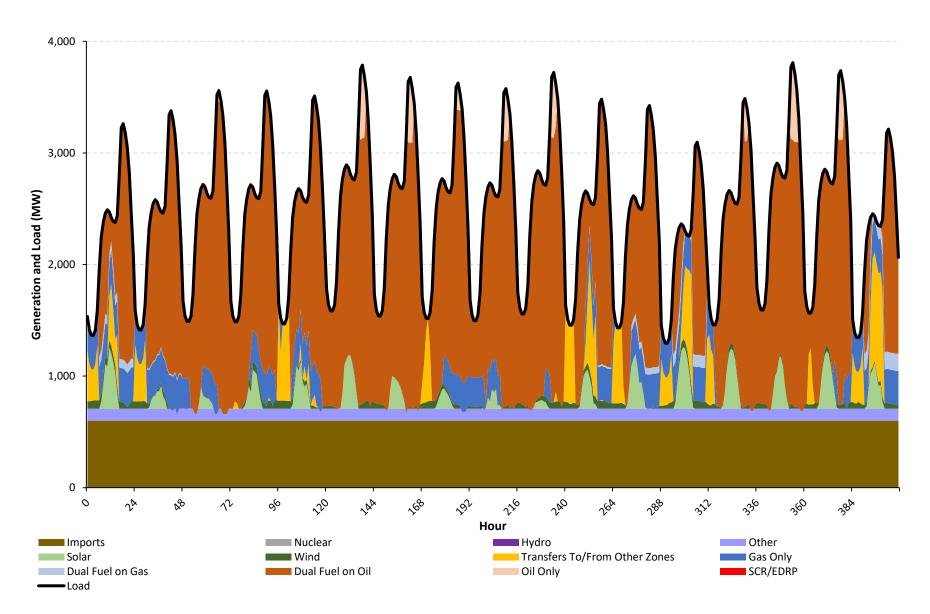
NYCA

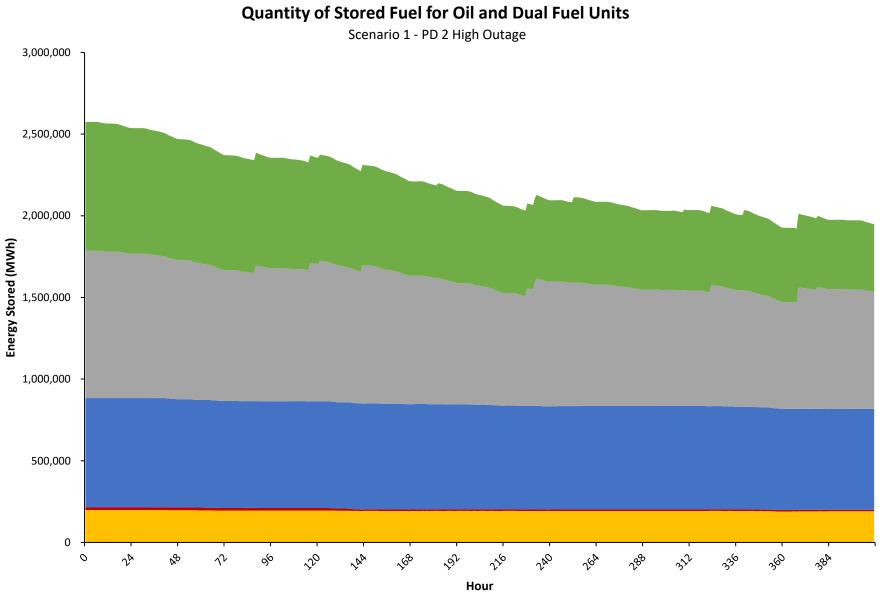


Zone J

Zone K Hourly Generation (MW) by Fuel Group

Scenario 1 - PD 2 High Outage

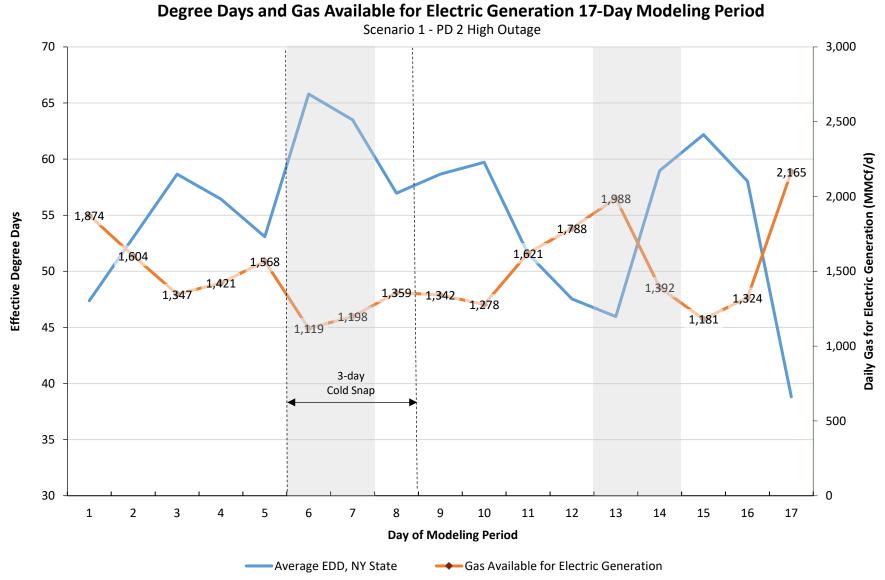




NYCA

Zones A-E Zone F Zones G-I Zone J Zone K

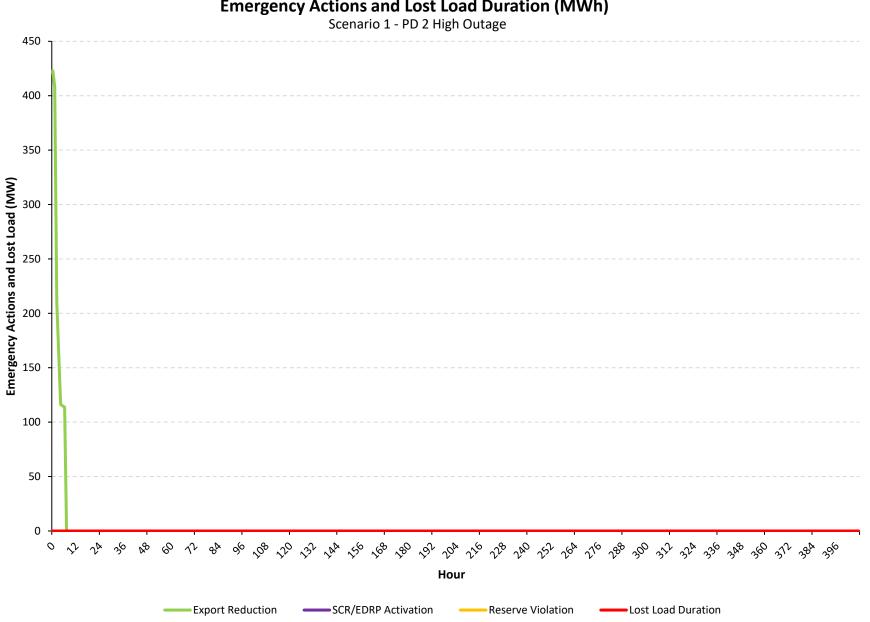
NYCA



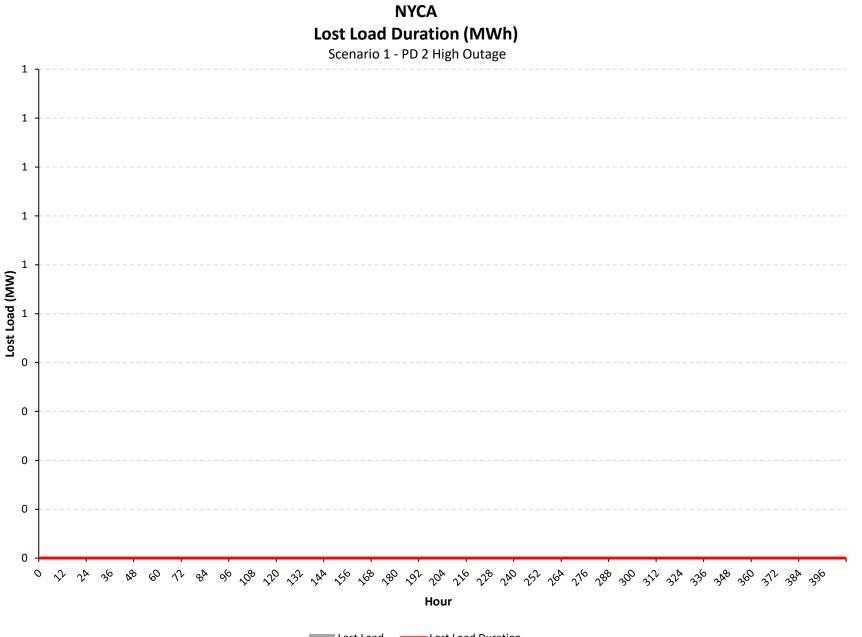
Notes:

[1] Weekends are shaded in gray.

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



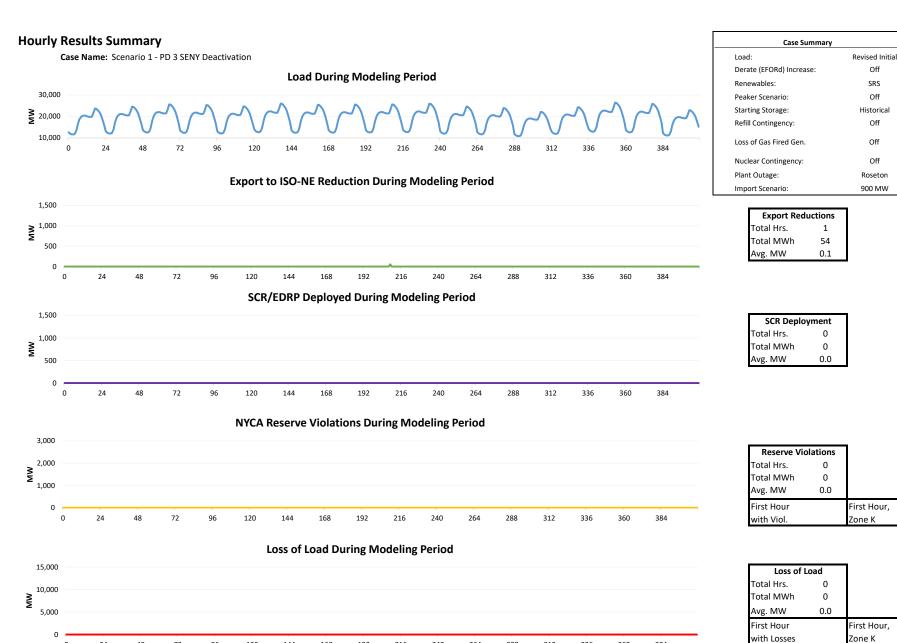
NYCA Emergency Actions and Lost Load Duration (MWh)



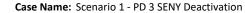
Lost Load Lost Load Duration

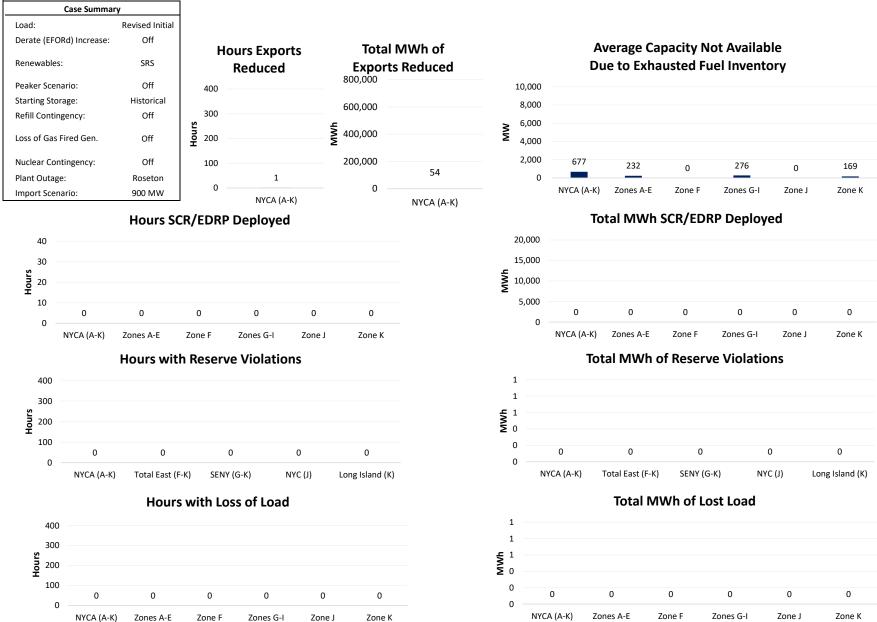
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

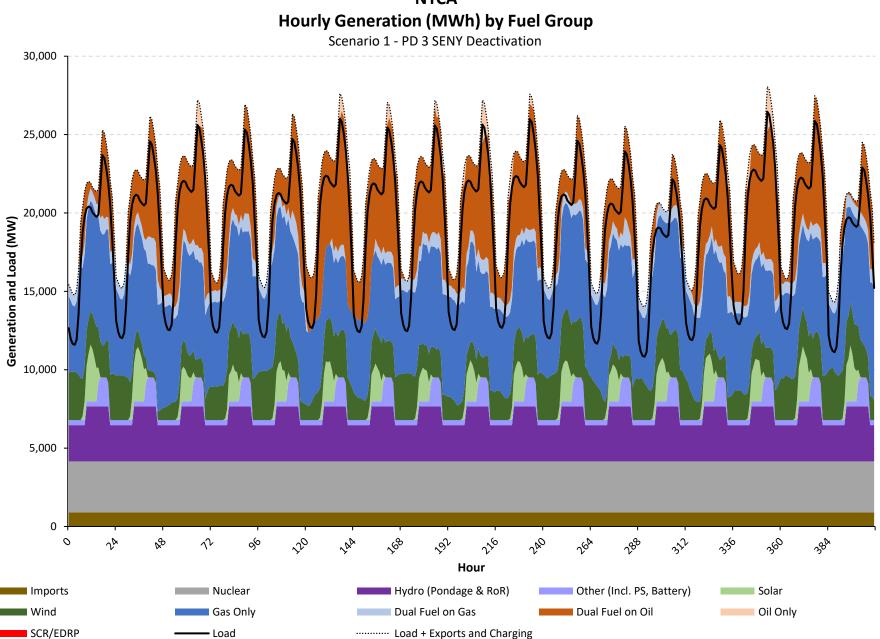
Case: Scenario 1 - PD 3 SENY Deactivation



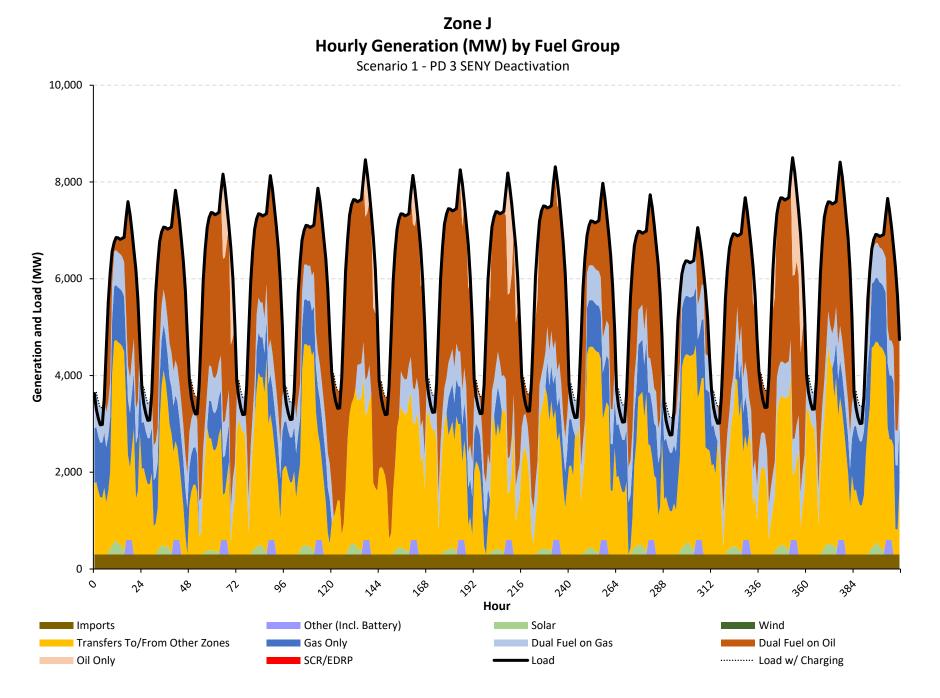
Full Period Results Summary





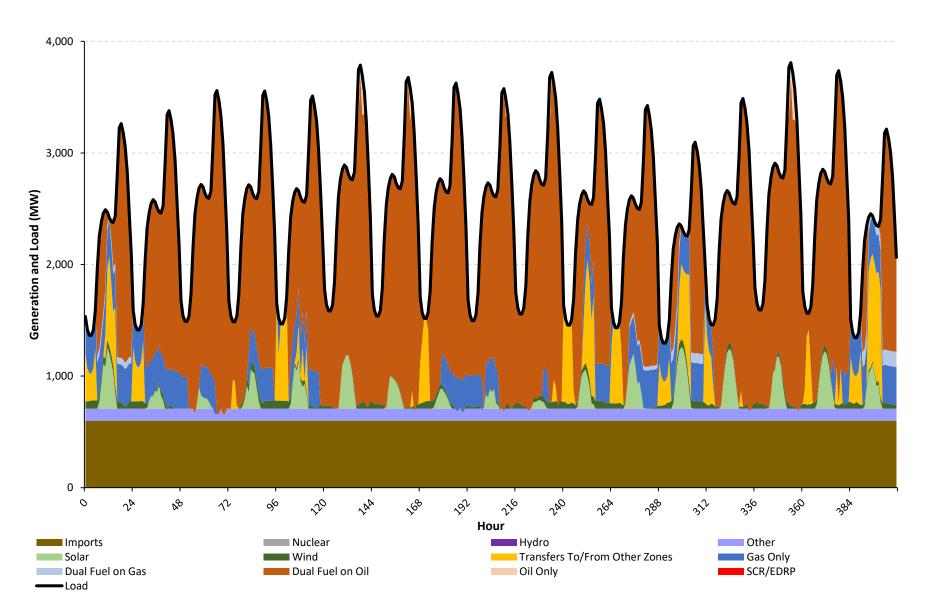


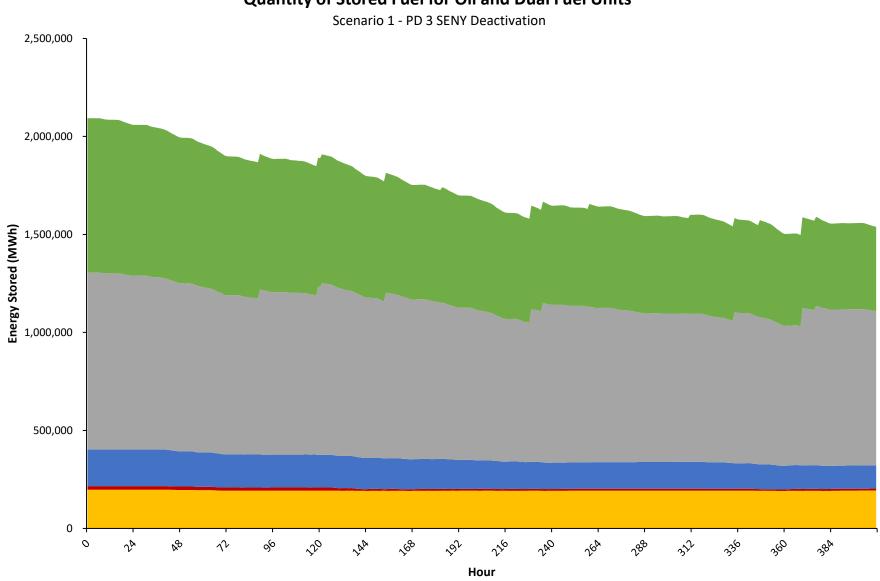
NYCA



Zone K Hourly Generation (MW) by Fuel Group

Scenario 1 - PD 3 SENY Deactivation

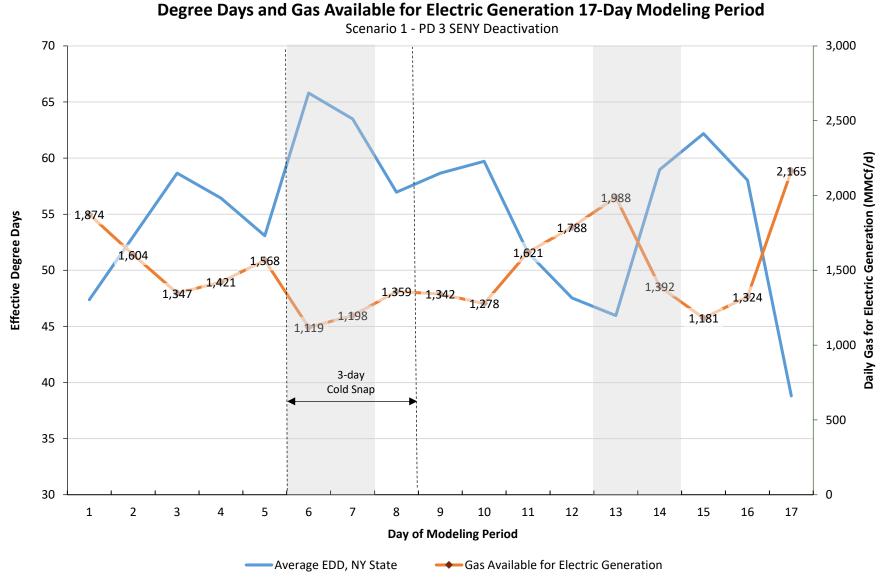




NYCA Quantity of Stored Fuel for Oil and Dual Fuel Units

Zones A-E Zone F Zones G-I Zone J Zone K

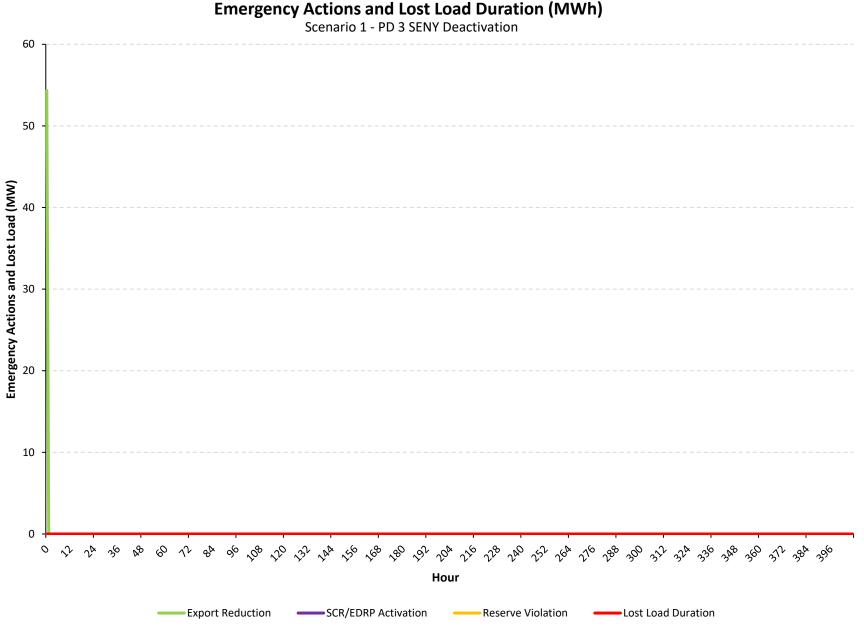
NYCA



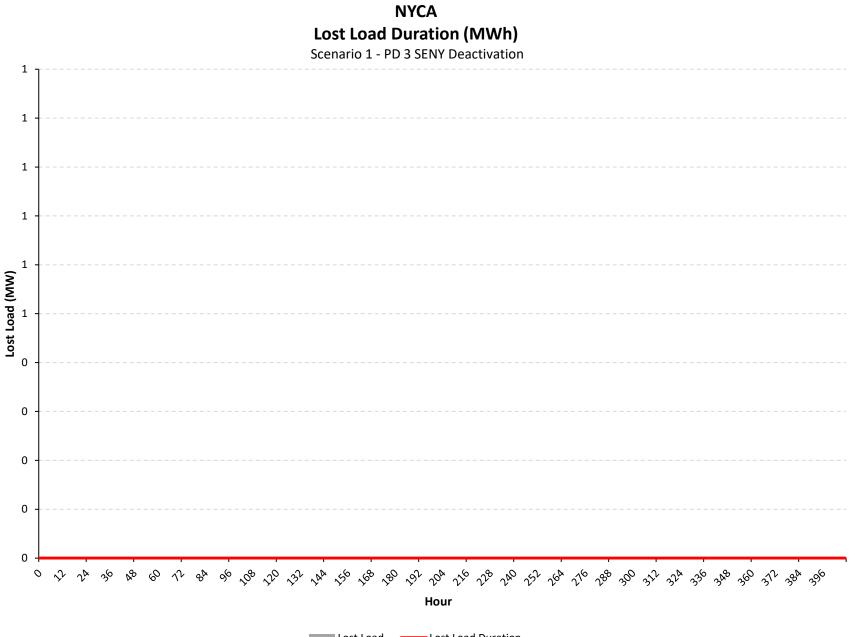
Notes:

[1] Weekends are shaded in gray.

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



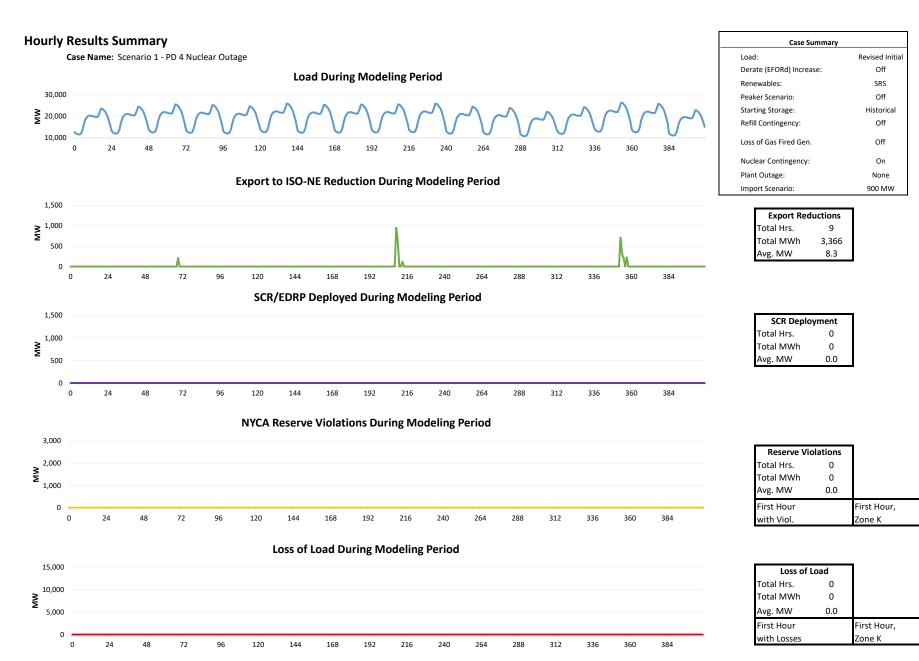
NYCA Emergency Actions and Lost Load Duration (MWh)



Lost Load — Lost Load Duration

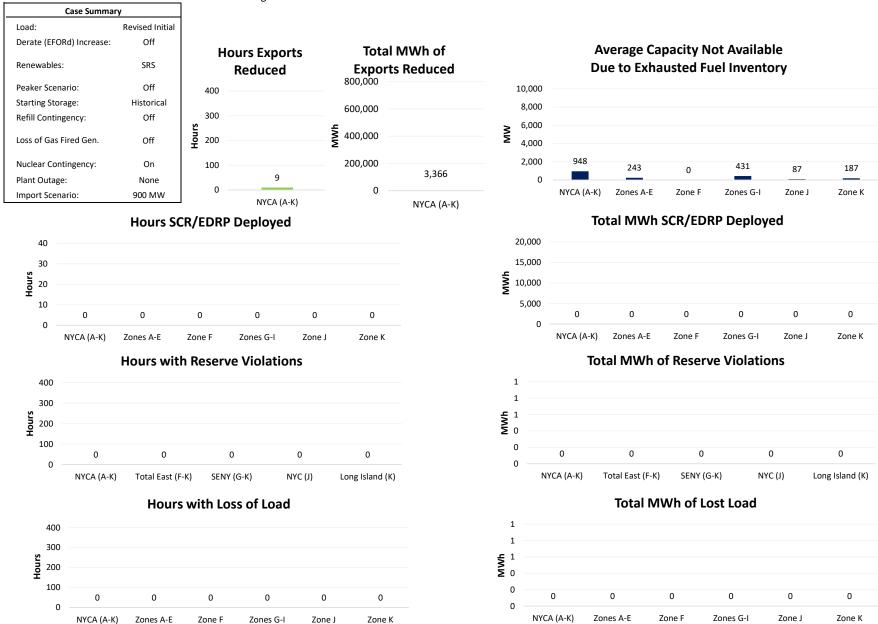
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

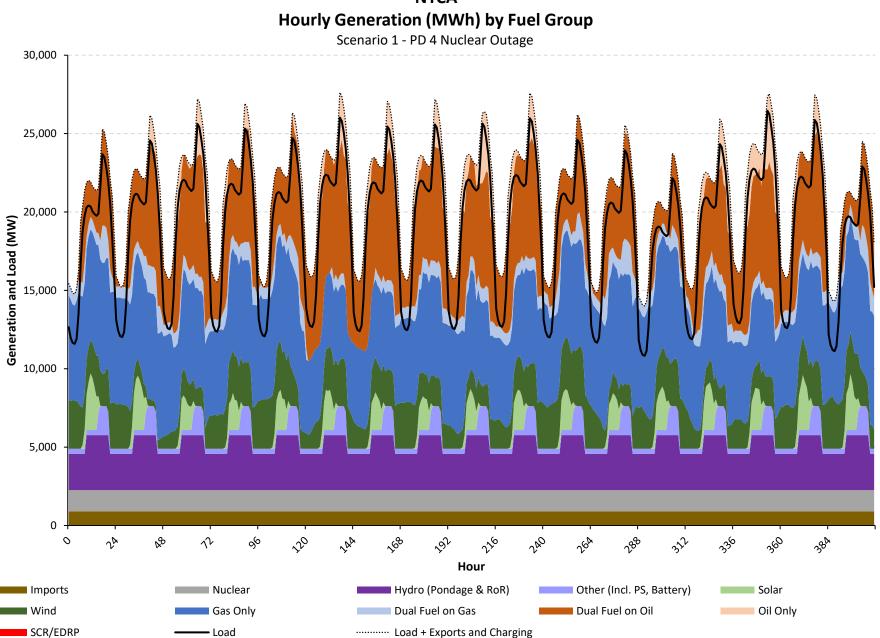
Case: Scenario 1 - PD 4 Nuclear Outage



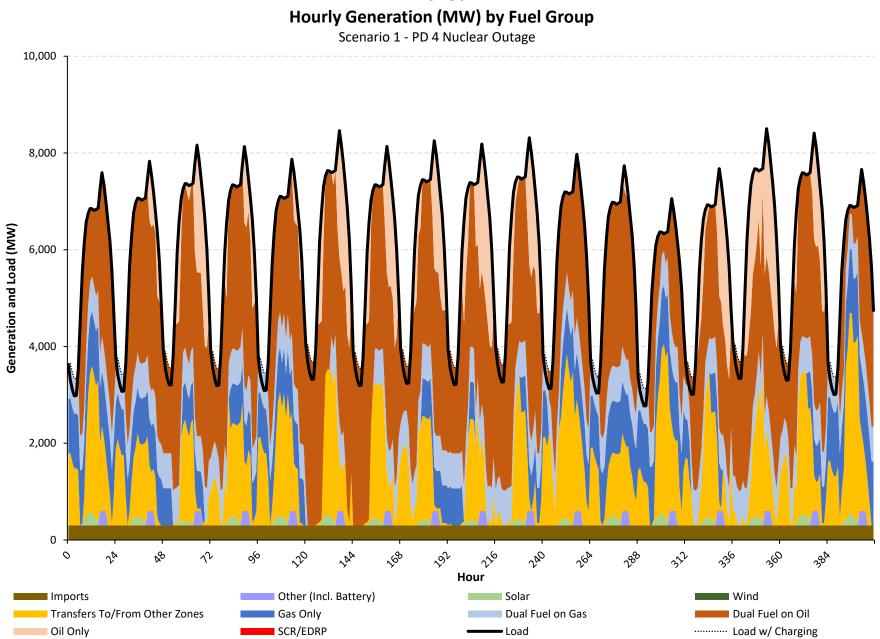
Full Period Results Summary





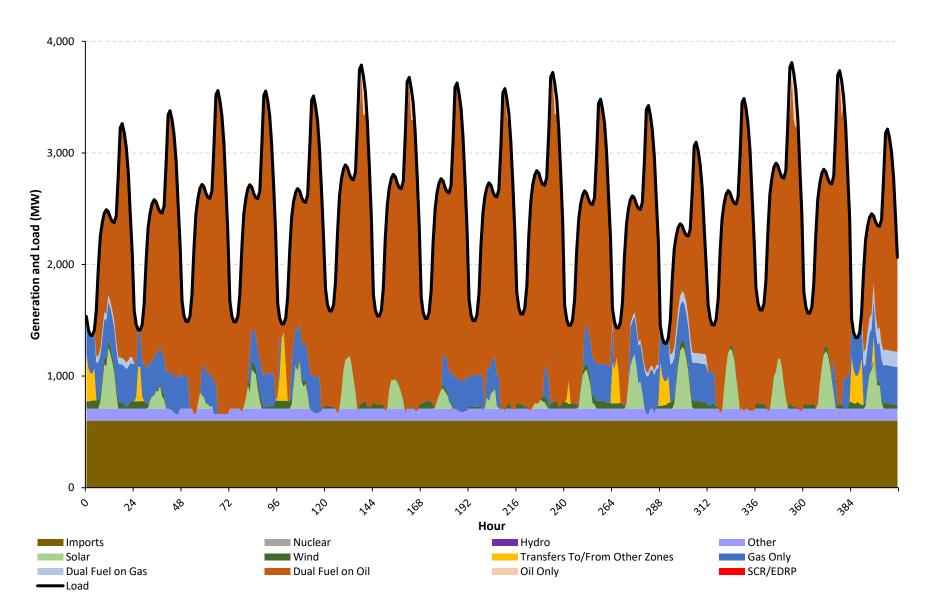


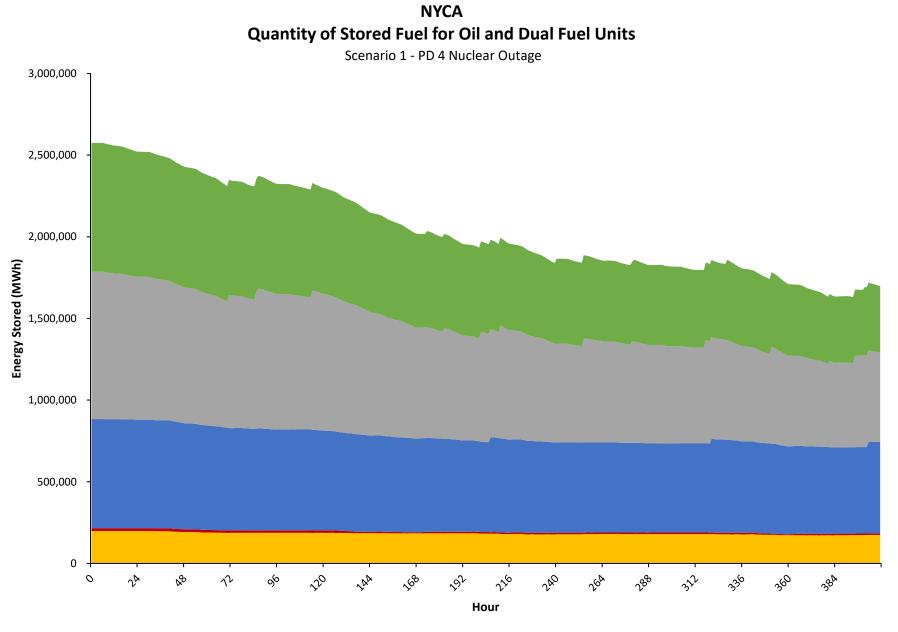
NYCA



Zone K Hourly Generation (MW) by Fuel Group

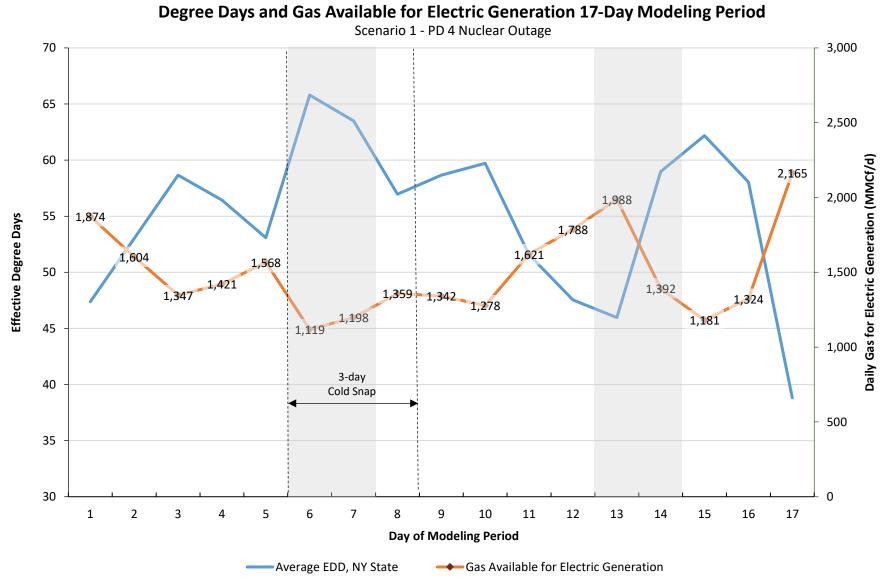
Scenario 1 - PD 4 Nuclear Outage





Zones A-E Zone F Zones G-I Zone J Zone K

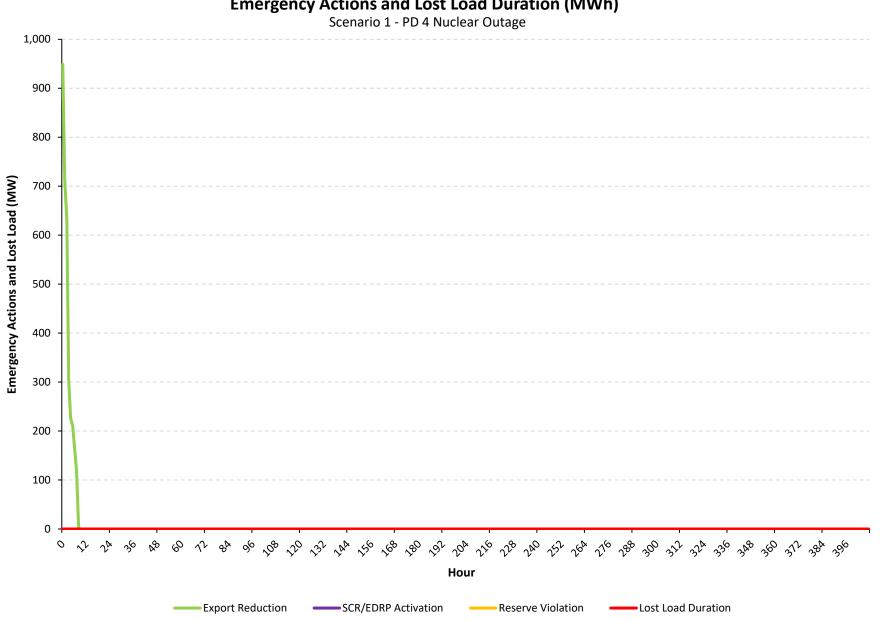
NYCA



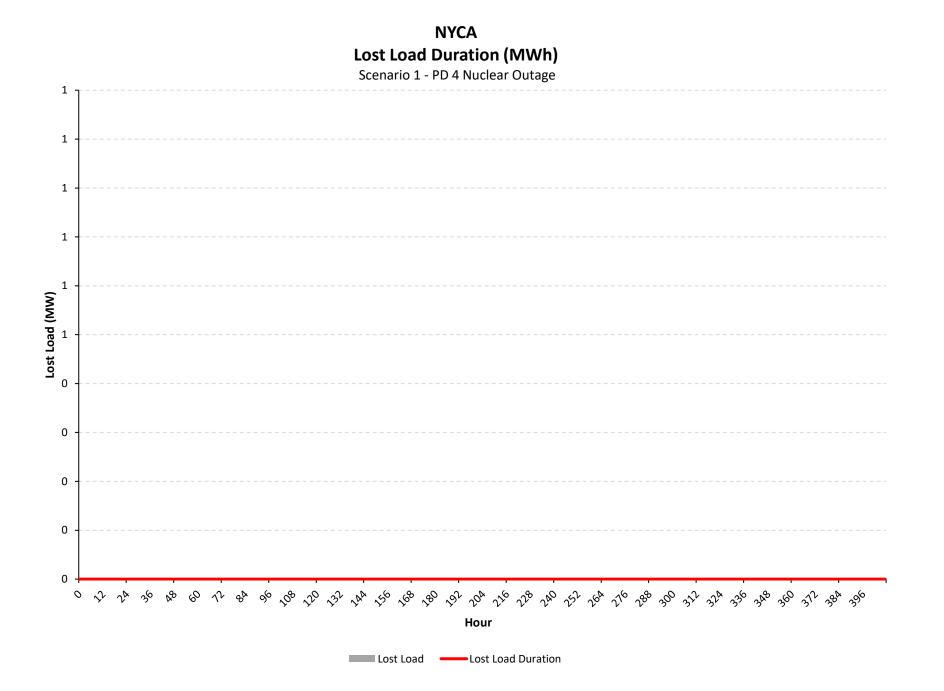
Notes:

[1] Weekends are shaded in gray.

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

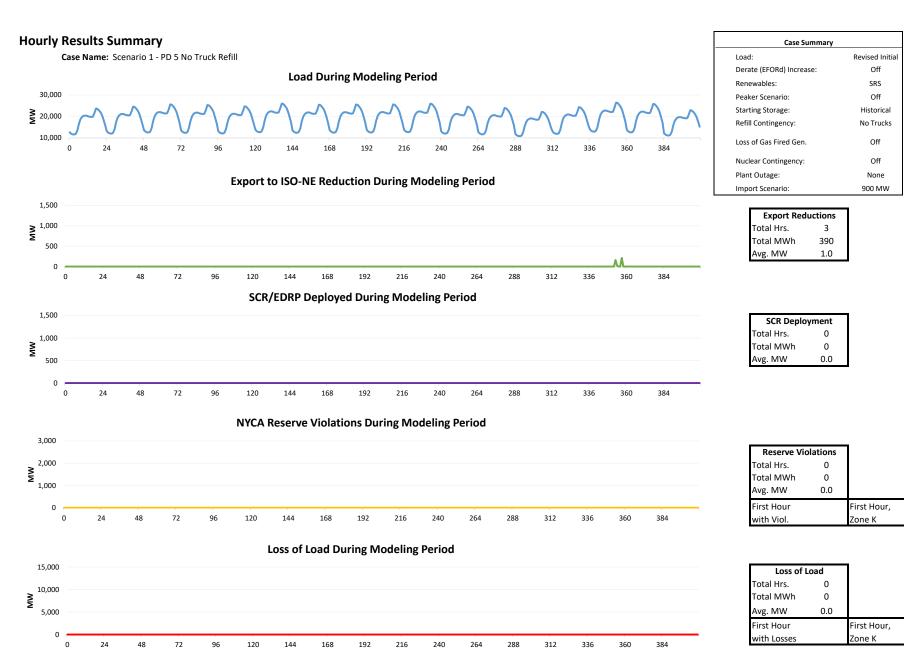


NYCA Emergency Actions and Lost Load Duration (MWh)



Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 5 No Truck Refill



772

Zone K

0

Zone K

0

Long Island (K)

4

Zone J

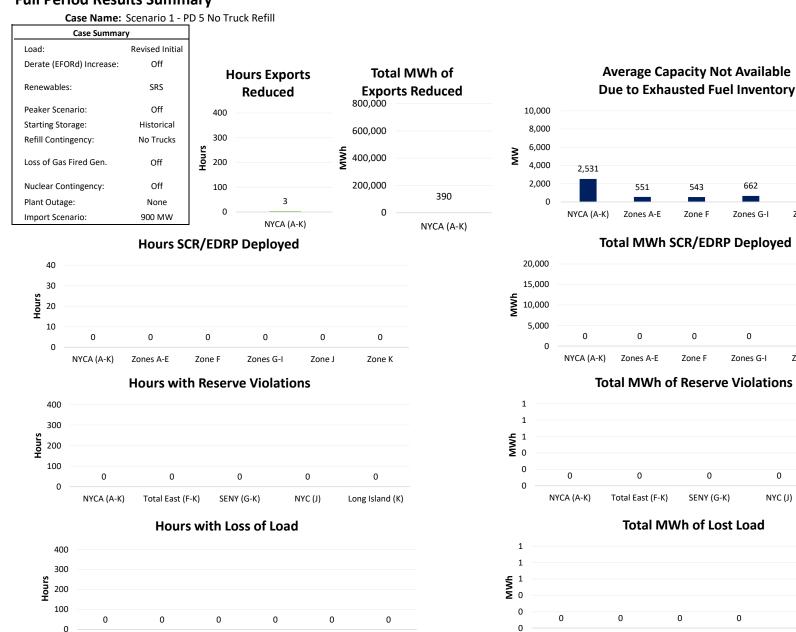
0

Zone J

0

Zone J

Full Period Results Summary



NYCA (A-K)

Zones A-E

Zone F

Zones G-I

NYCA (A-K)

Zones A-E

Zone F

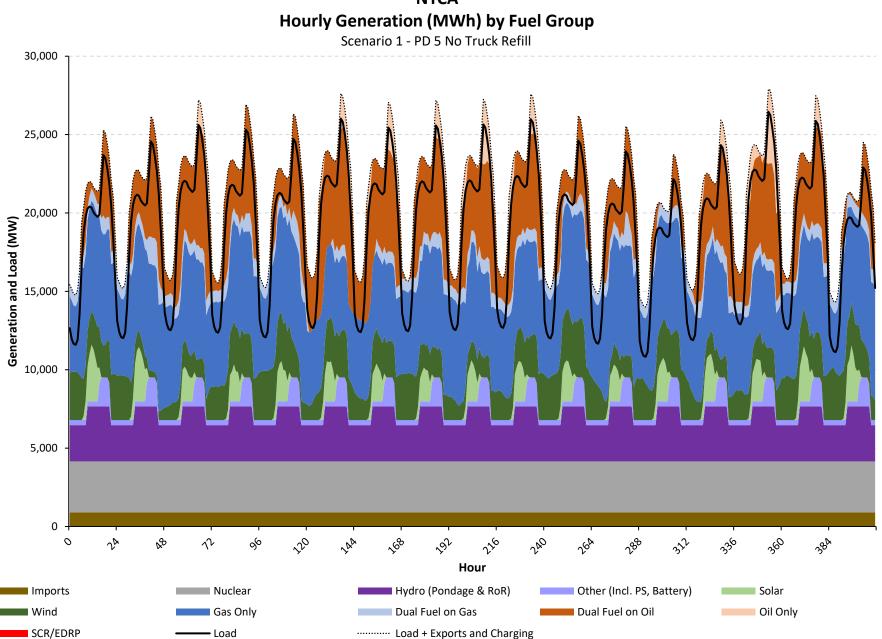
Zones G-I

Zone J

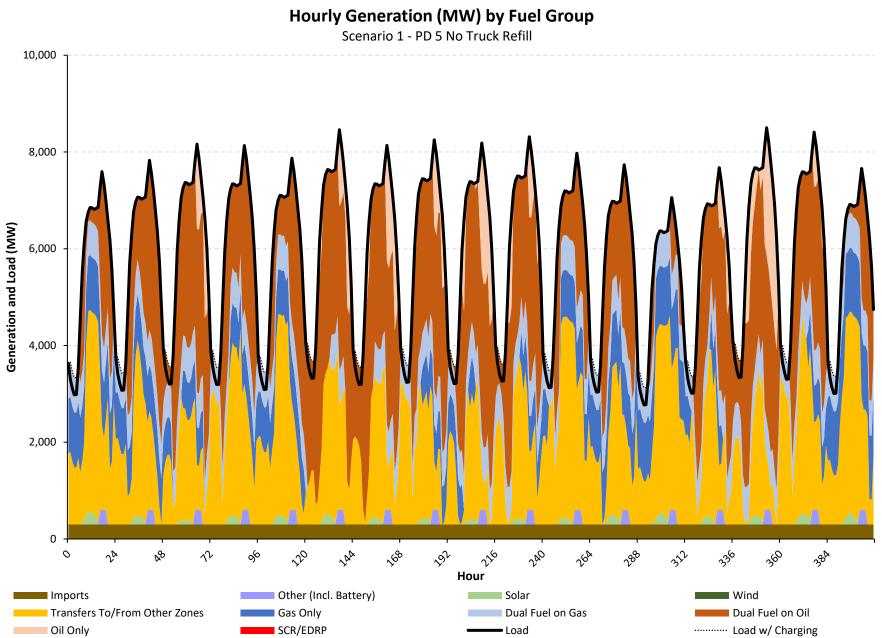
Zone K

0

Zone K



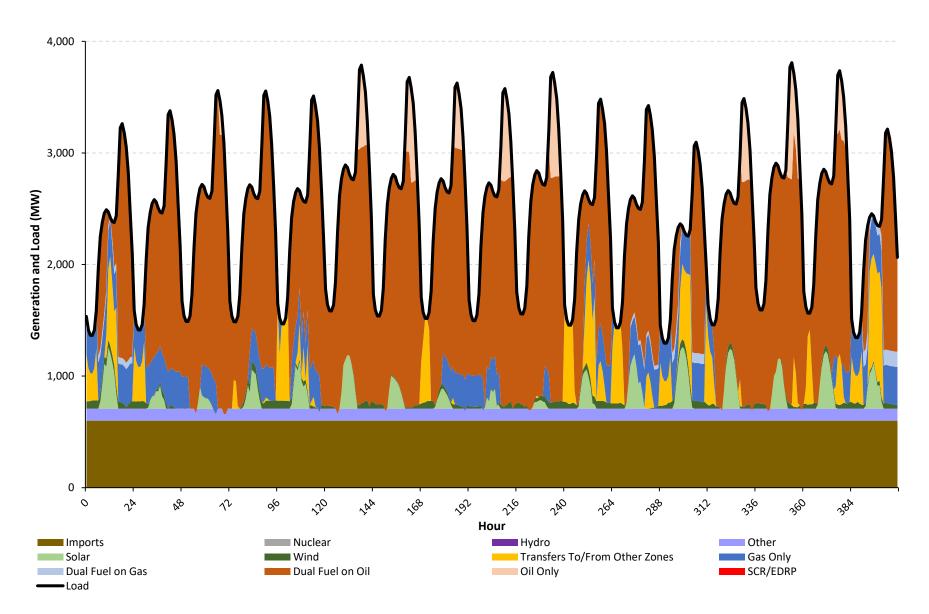
NYCA



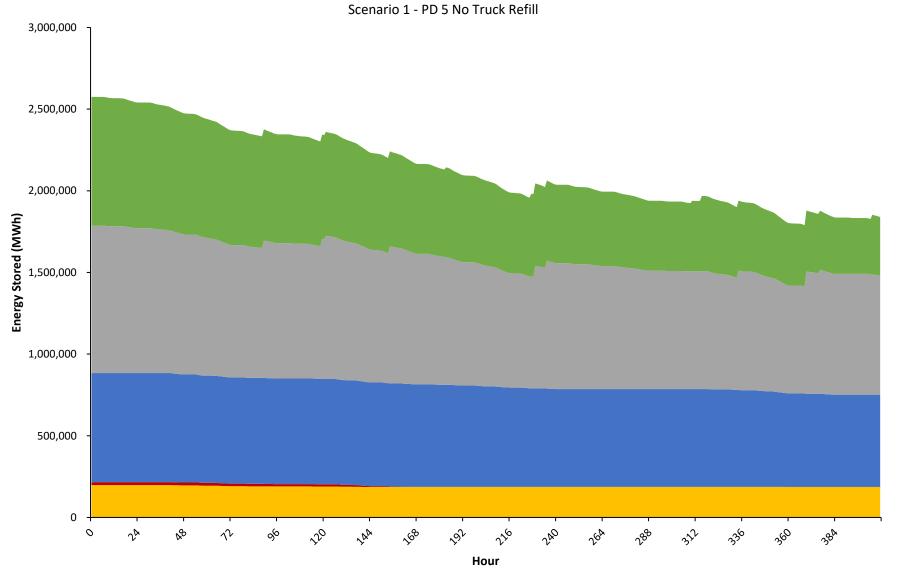
Zone J

Zone K Hourly Generation (MW) by Fuel Group

Scenario 1 - PD 5 No Truck Refill

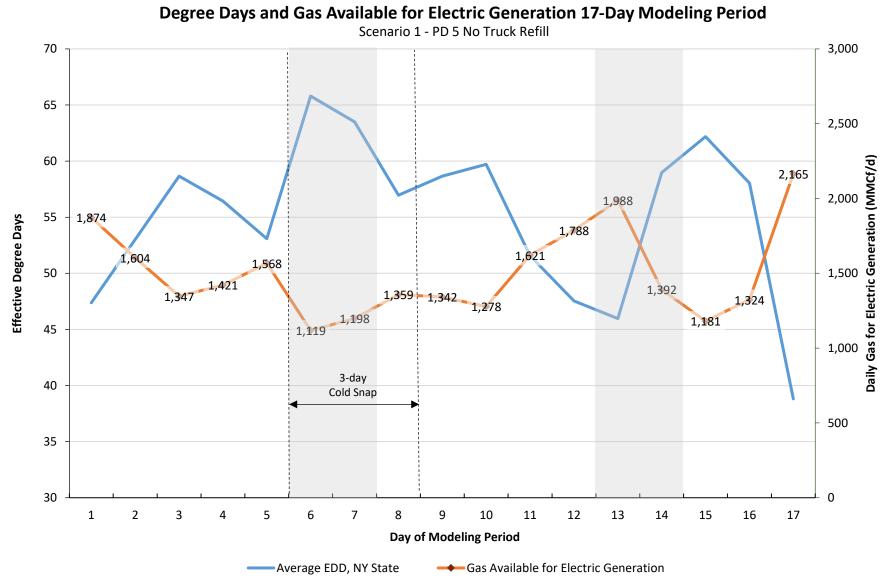






Zones A-E Zone F Zones G-I Zone J Zone K

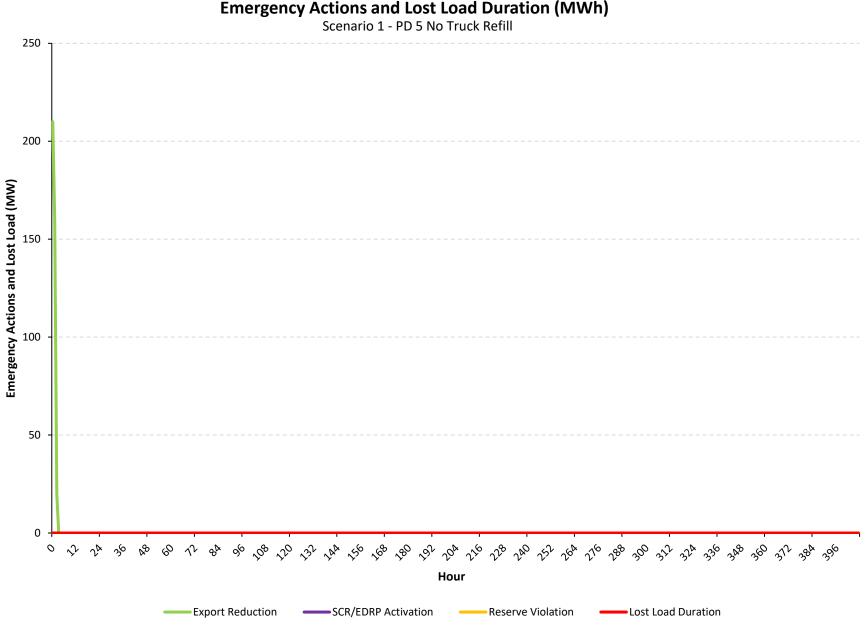
NYCA



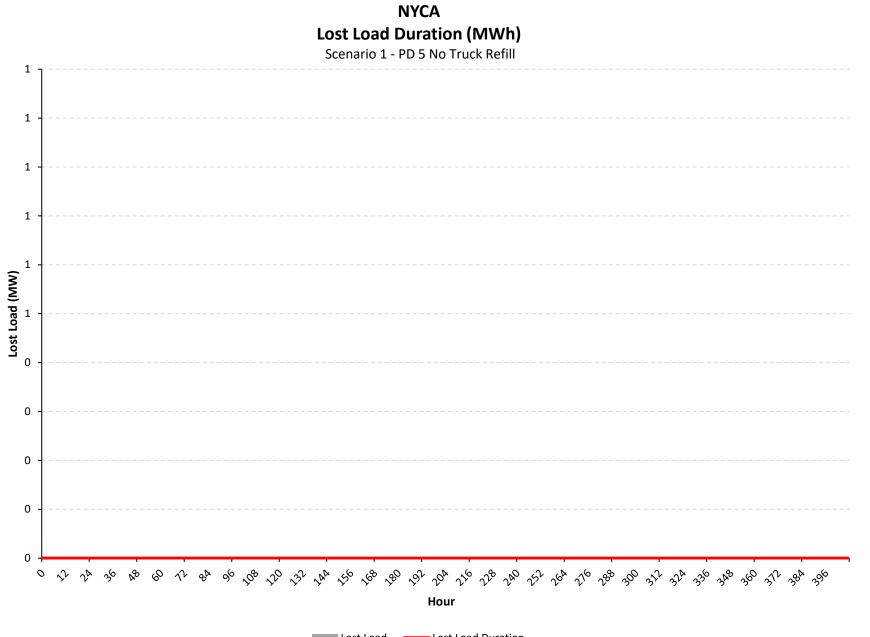
Notes:

[1] Weekends are shaded in gray.

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



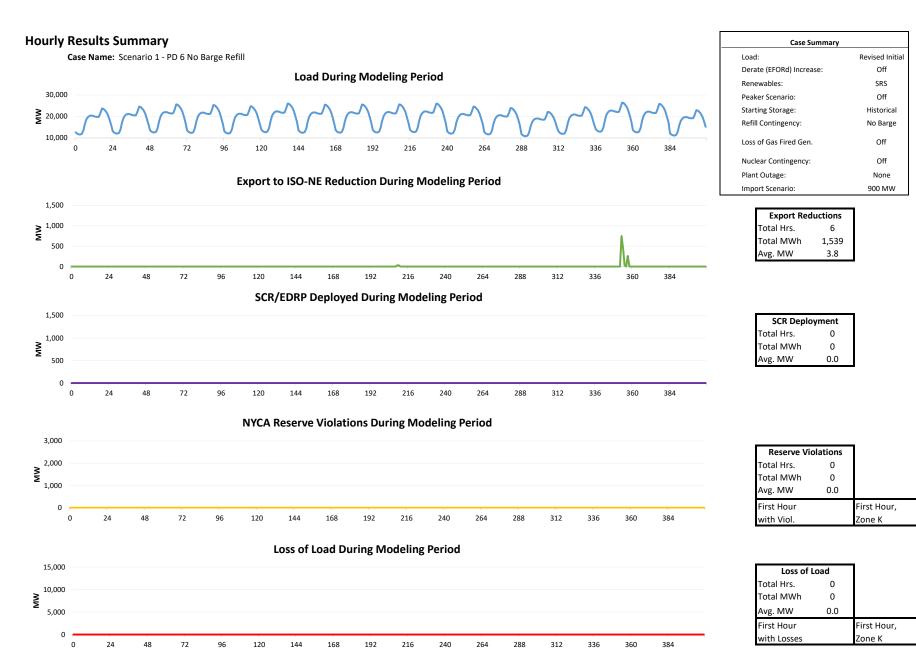
NYCA Emergency Actions and Lost Load Duration (MWh)



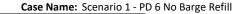
Lost Load —Lost Load Duration

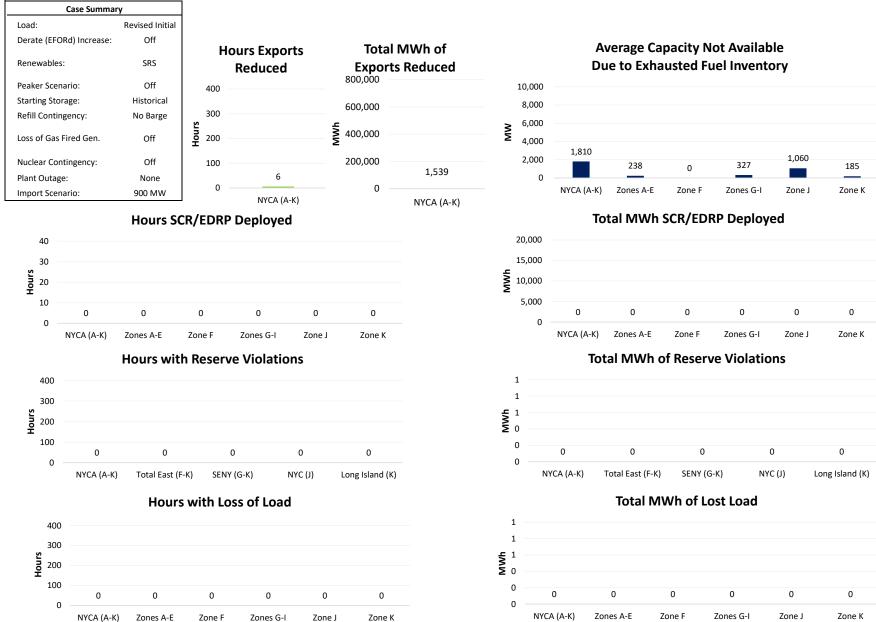
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

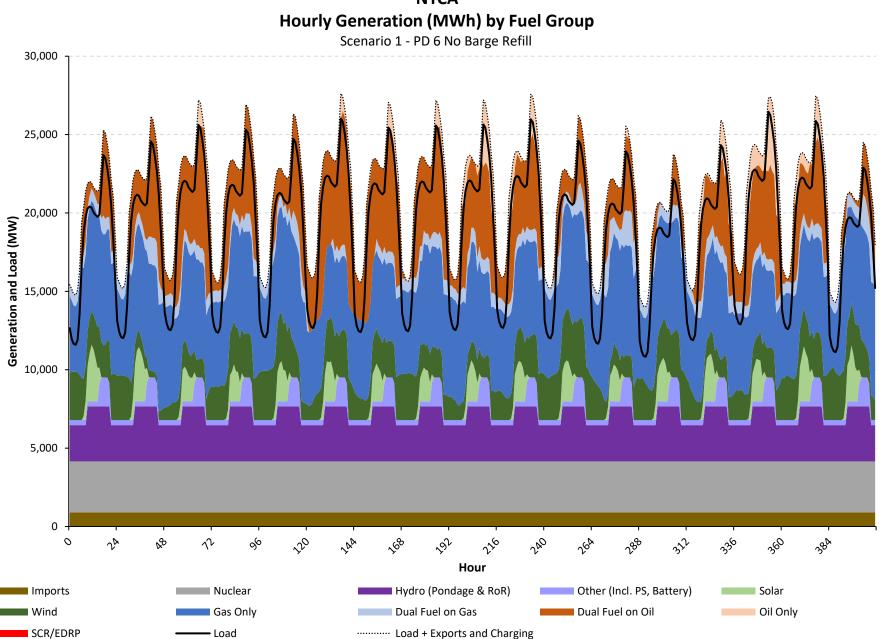
Case: Scenario 1 - PD 6 No Barge Refill



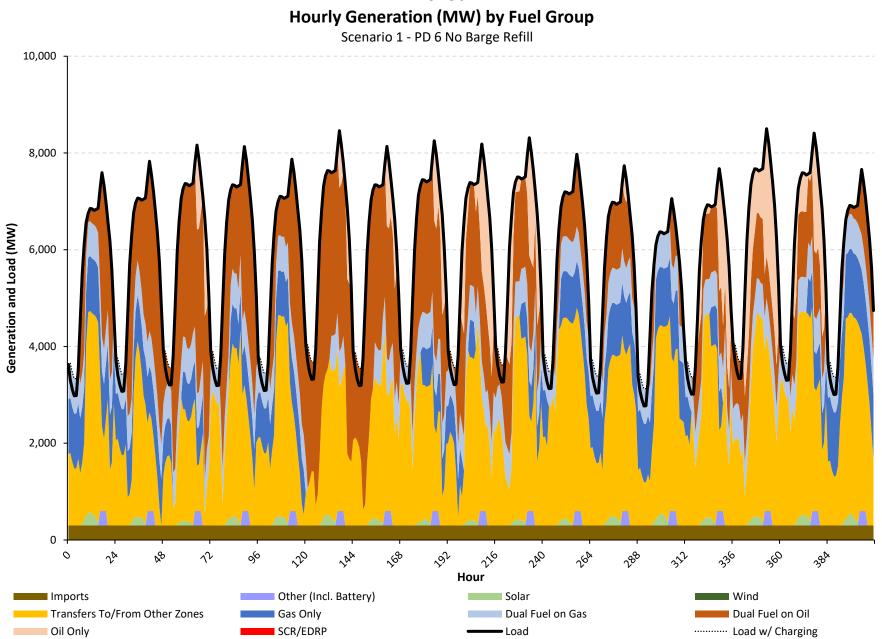
Full Period Results Summary







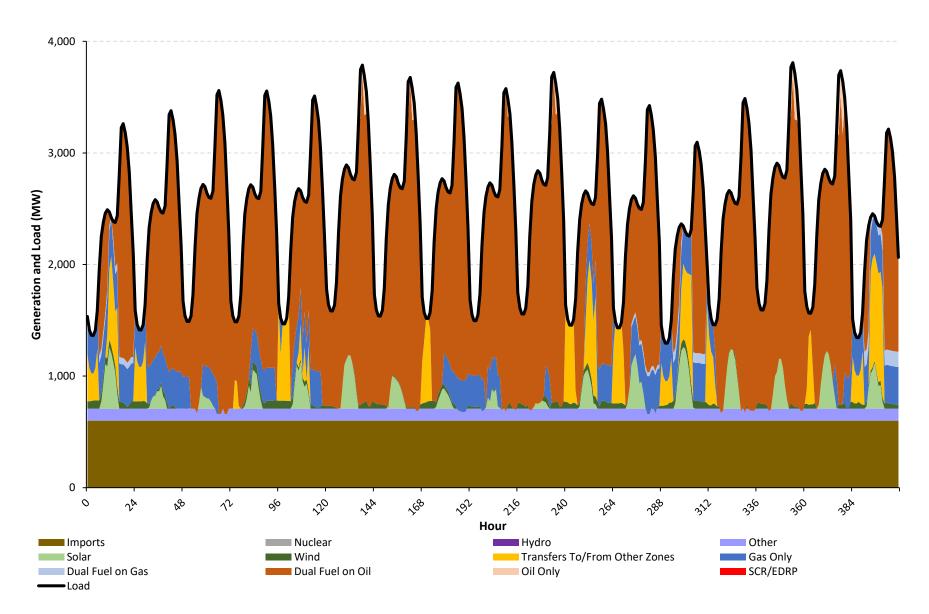
NYCA



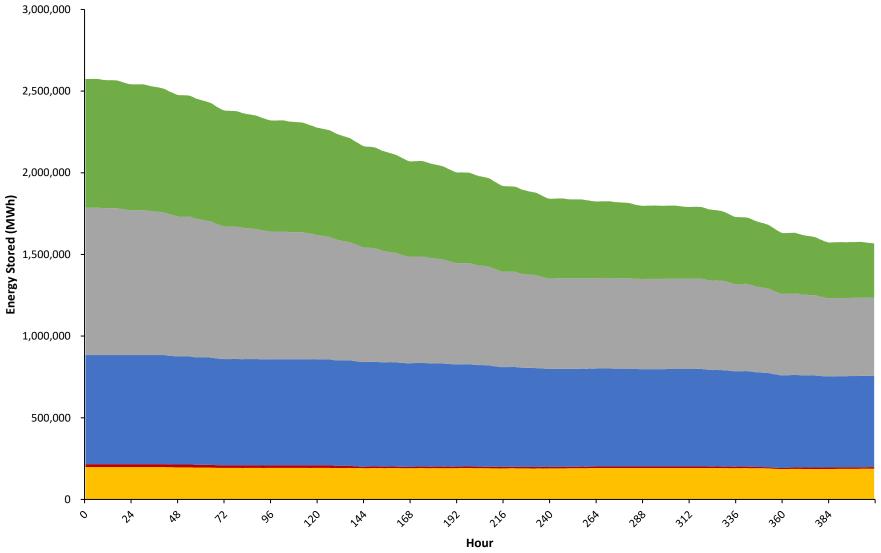
Zone J

Zone K Hourly Generation (MW) by Fuel Group

Scenario 1 - PD 6 No Barge Refill

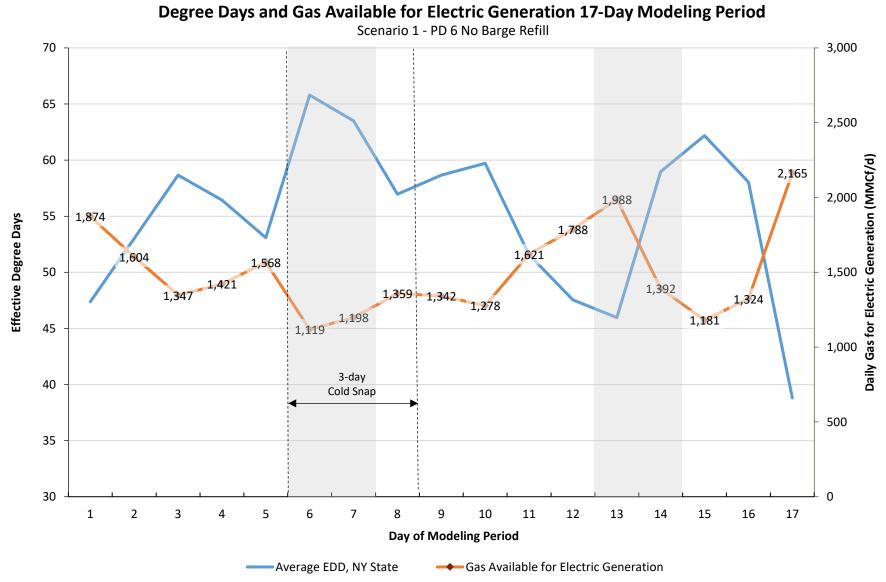






Zones A-E Zone F Zones G-I Zone J Zone K

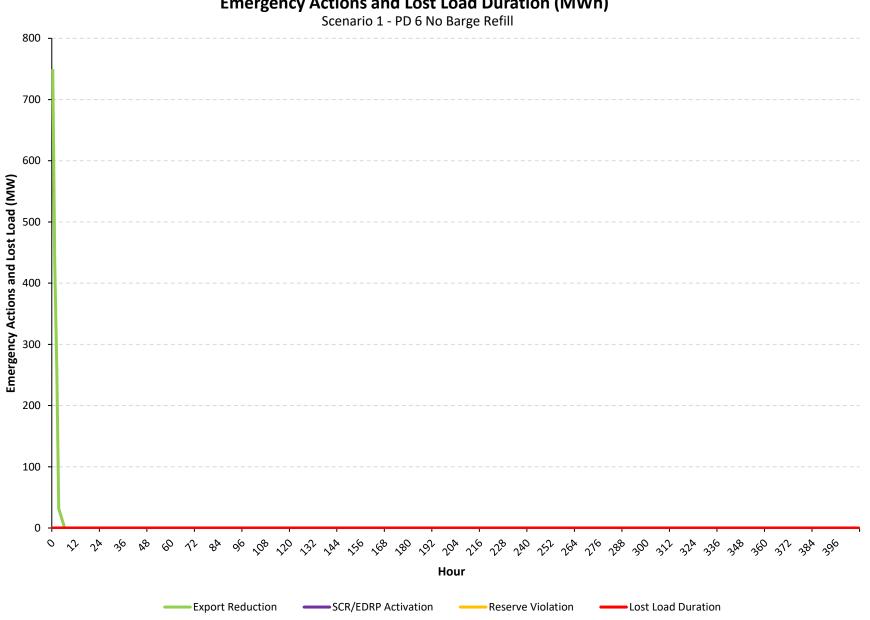
NYCA



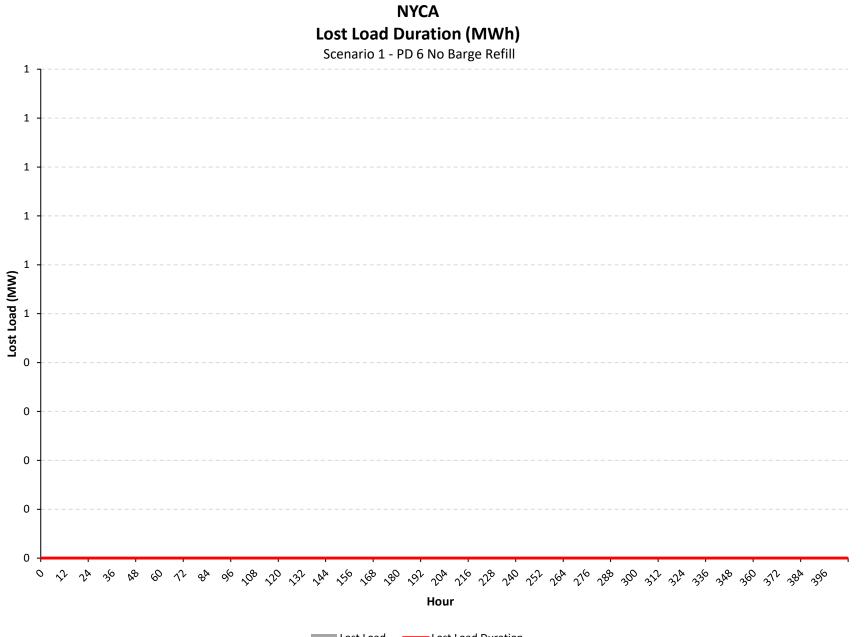
Notes:

[1] Weekends are shaded in gray.

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



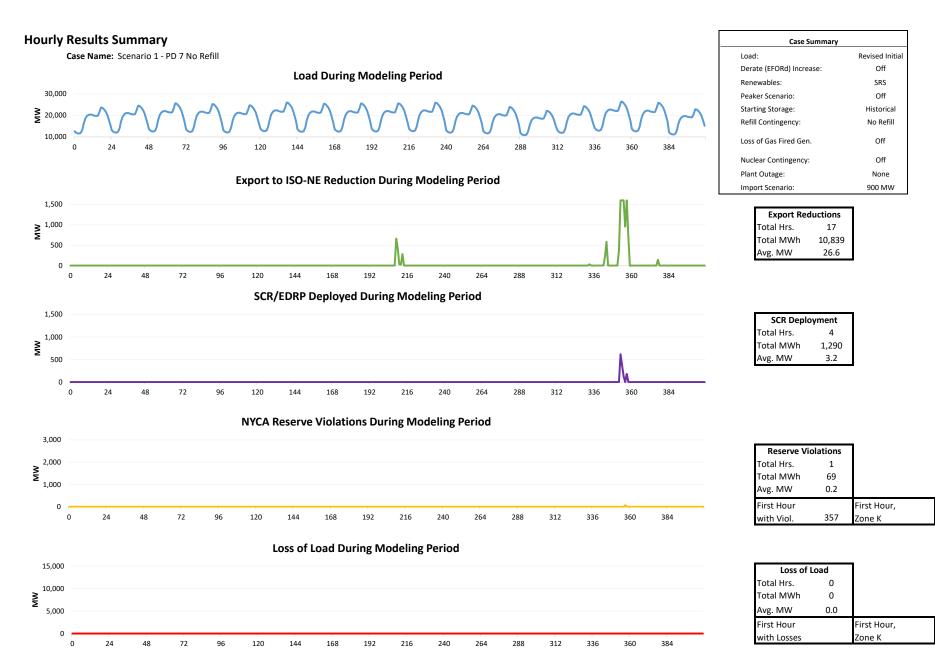
NYCA Emergency Actions and Lost Load Duration (MWh)



Lost Load Lost Load Duration

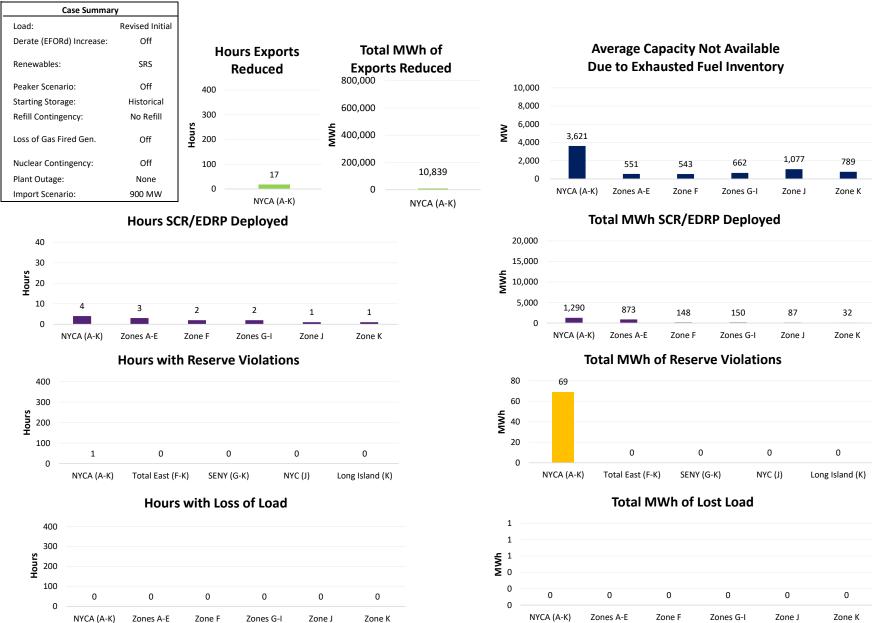
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

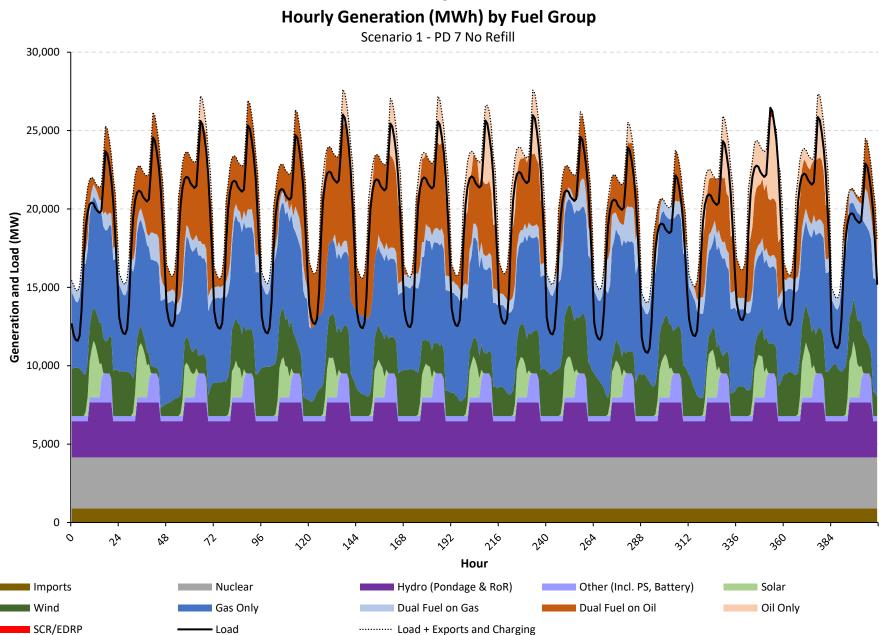
Case: Scenario 1 - PD 7 No Refill



Full Period Results Summary

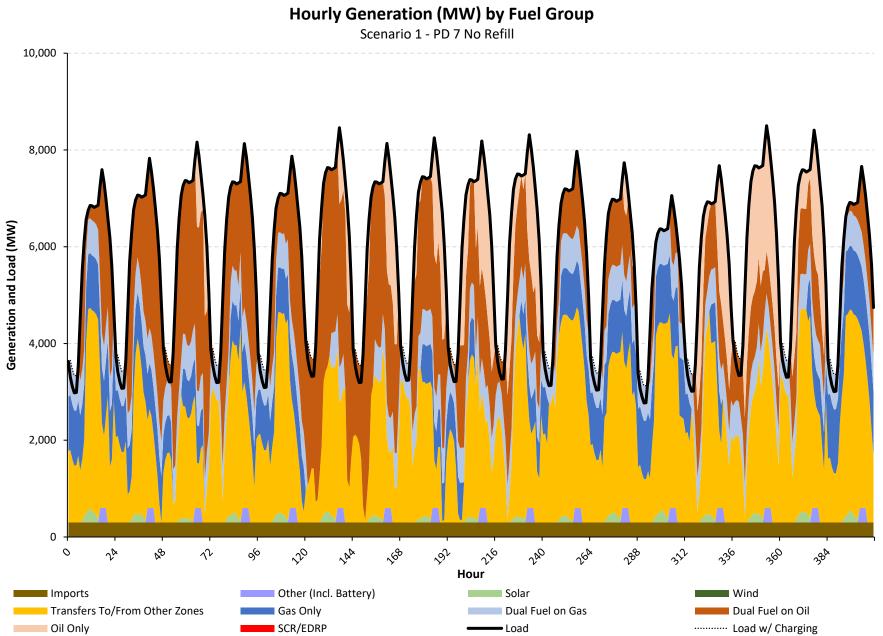






NYCA

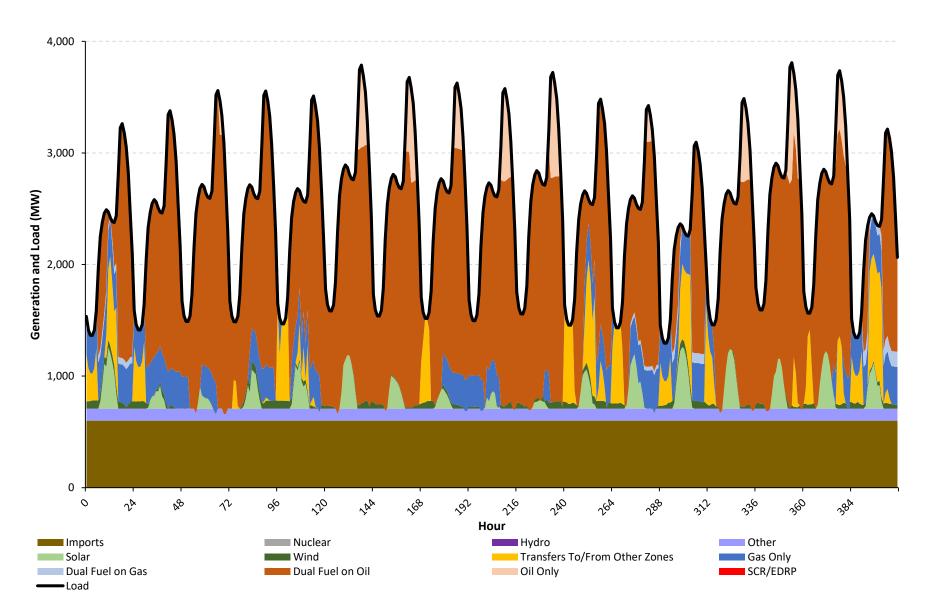
Analysis Group, Inc.



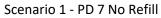
Zone J

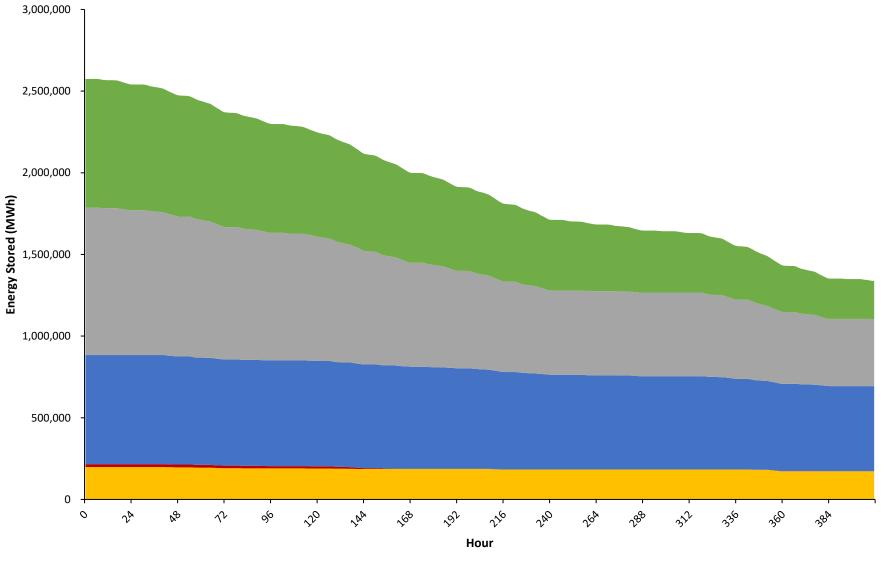
Zone K Hourly Generation (MW) by Fuel Group

Scenario 1 - PD 7 No Refill

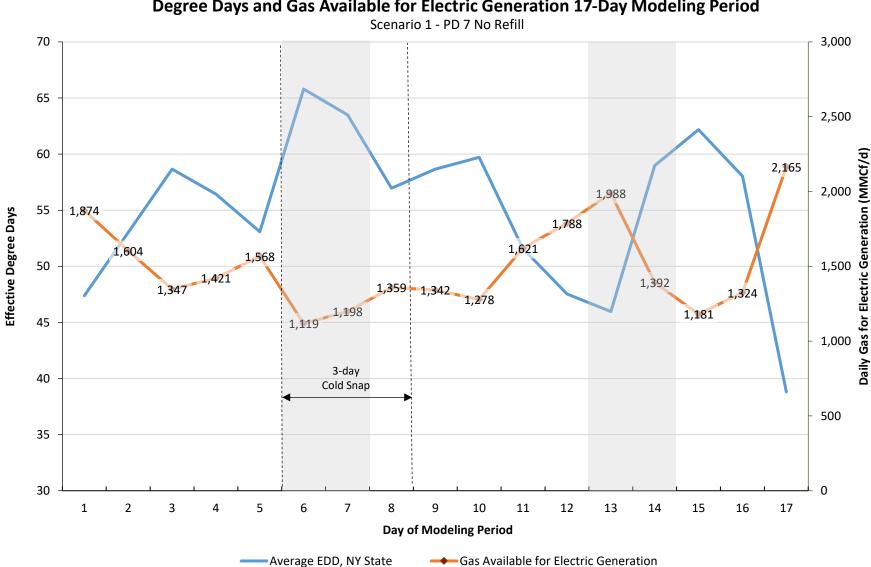








Zones A-E Zone F Zones G-I Zone J Zone K



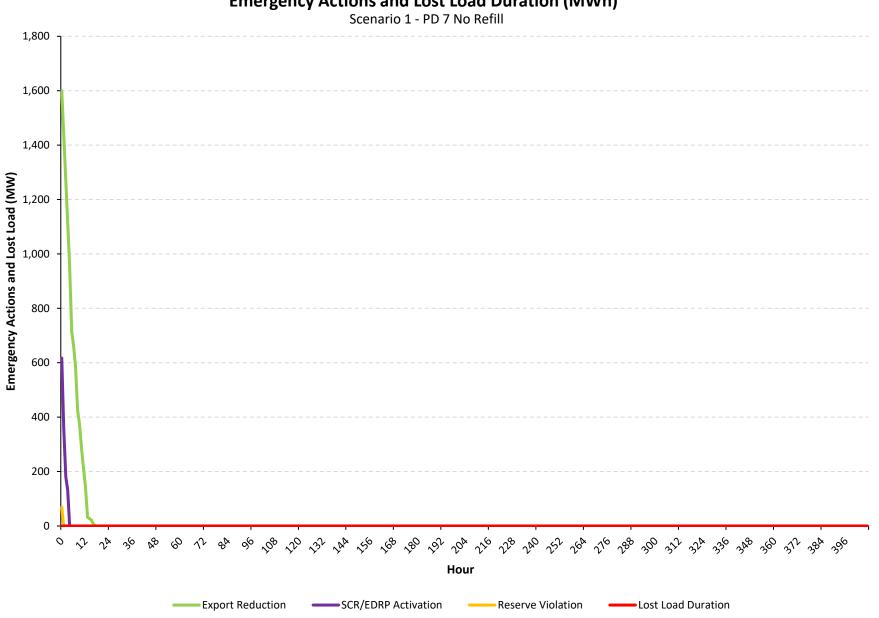
Degree Days and Gas Available for Electric Generation 17-Day Modeling Period

NYCA

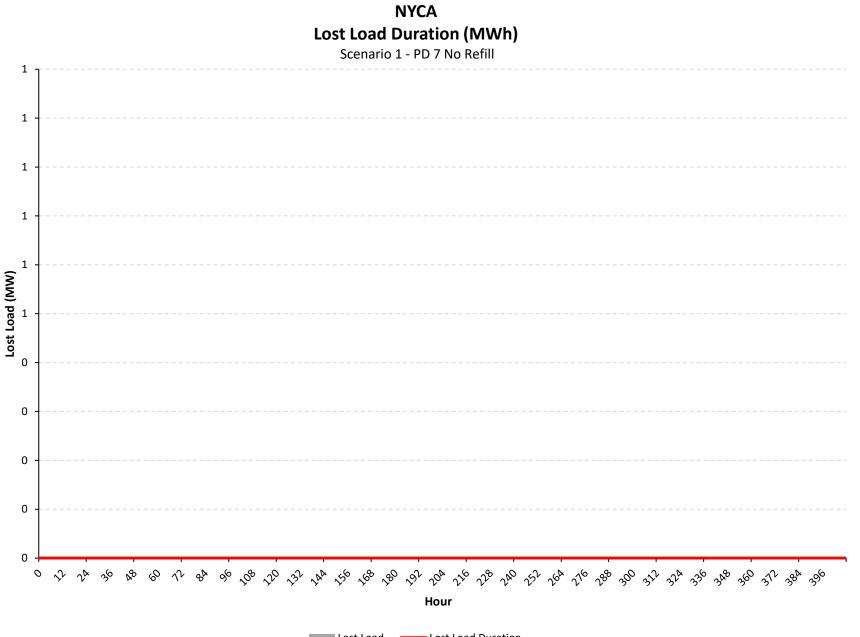
Notes:

[1] Weekends are shaded in gray.

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

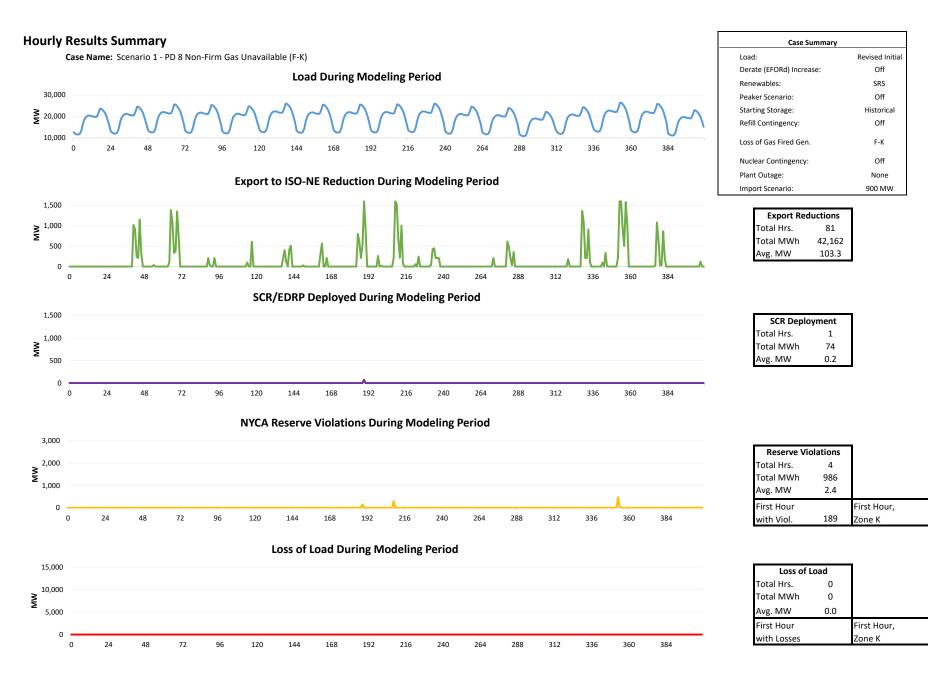


NYCA Emergency Actions and Lost Load Duration (MWh)

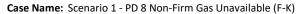


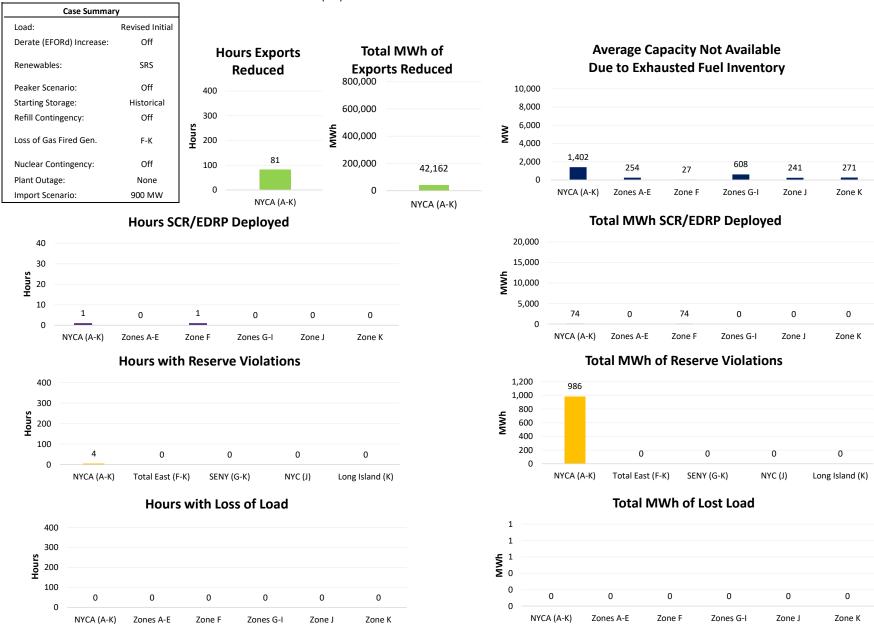
Lost Load Lost Load Duration

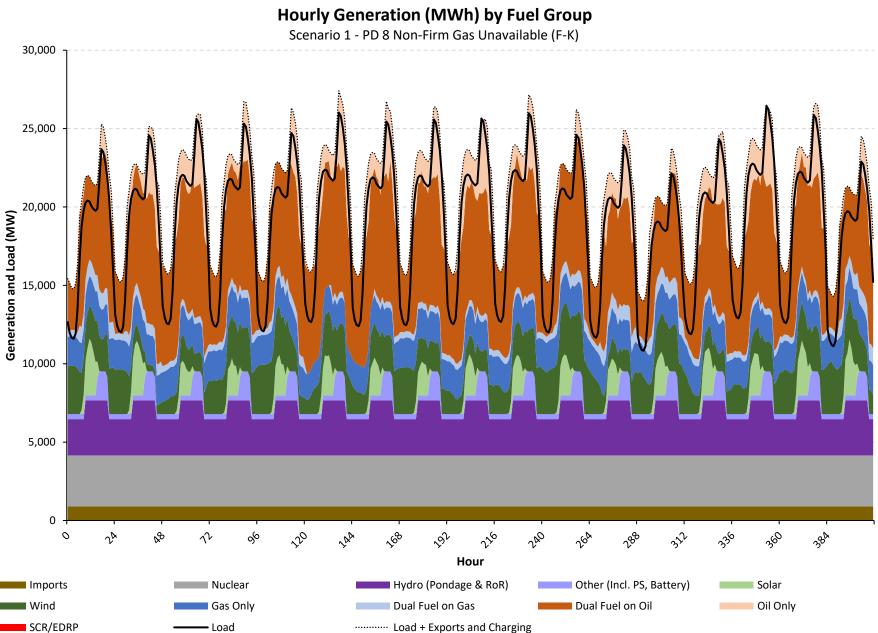
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 1 - PD 8 Non-Firm Gas Unavailable (F-K)

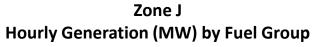


Full Period Results Summary

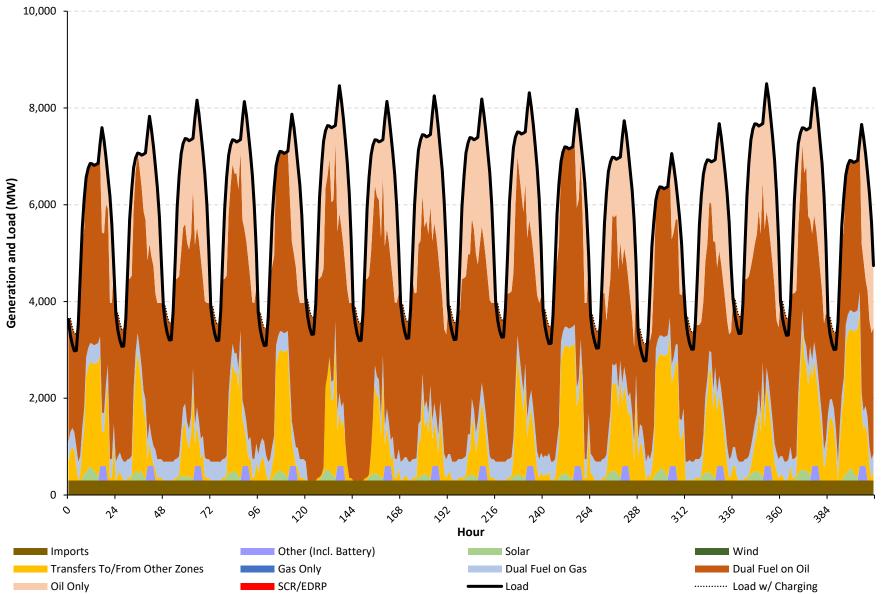






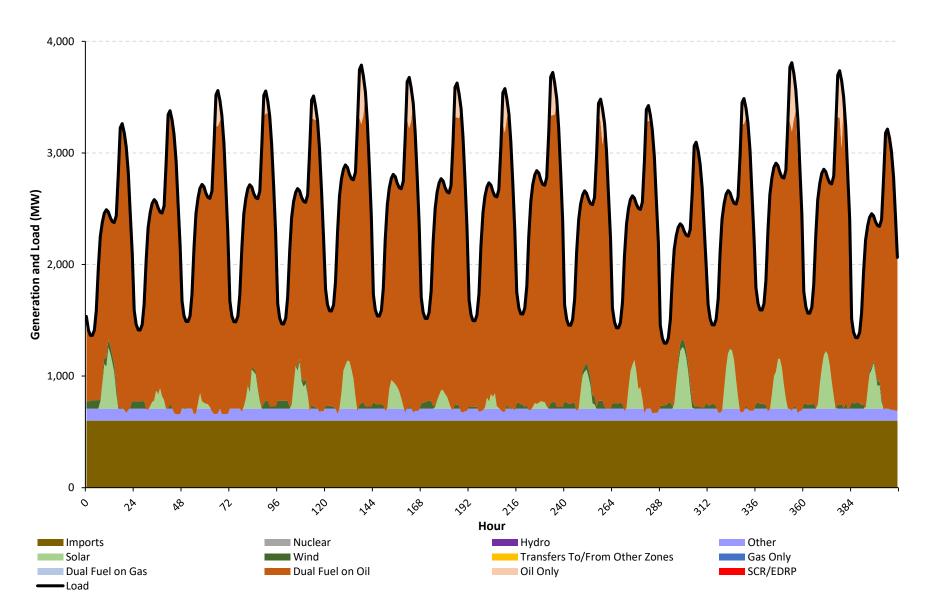


Scenario 1 - PD 8 Non-Firm Gas Unavailable (F-K)



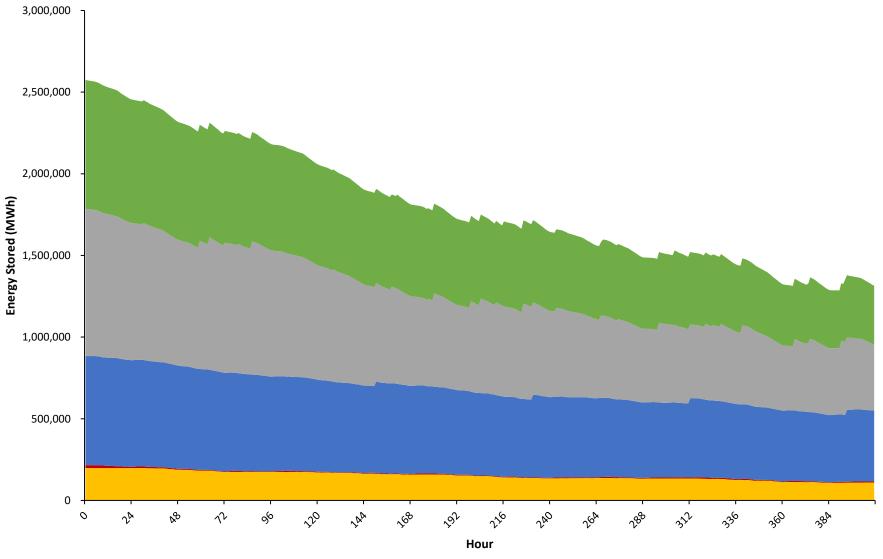
Zone K Hourly Generation (MW) by Fuel Group

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

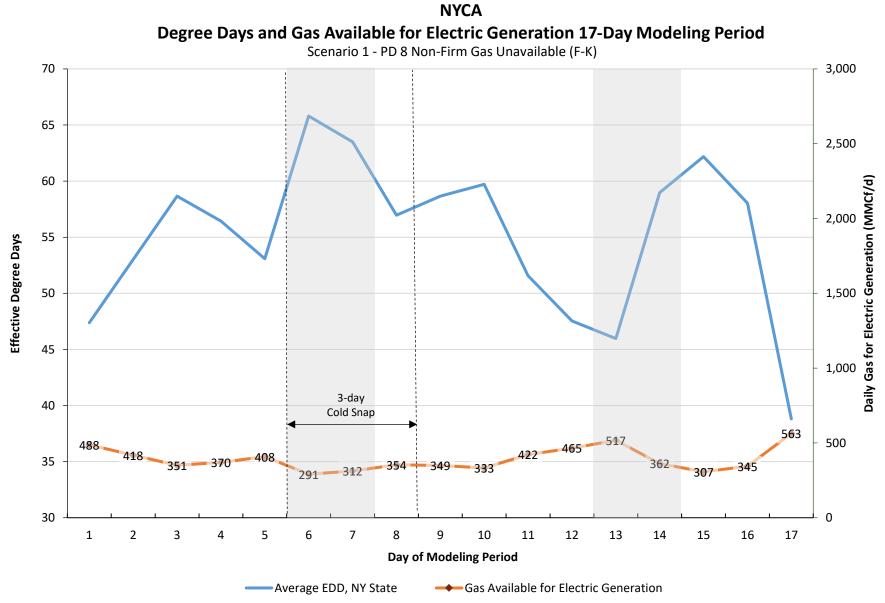




Scenario 1 - PD 8 Non-Firm Gas Unavailable (F-K)



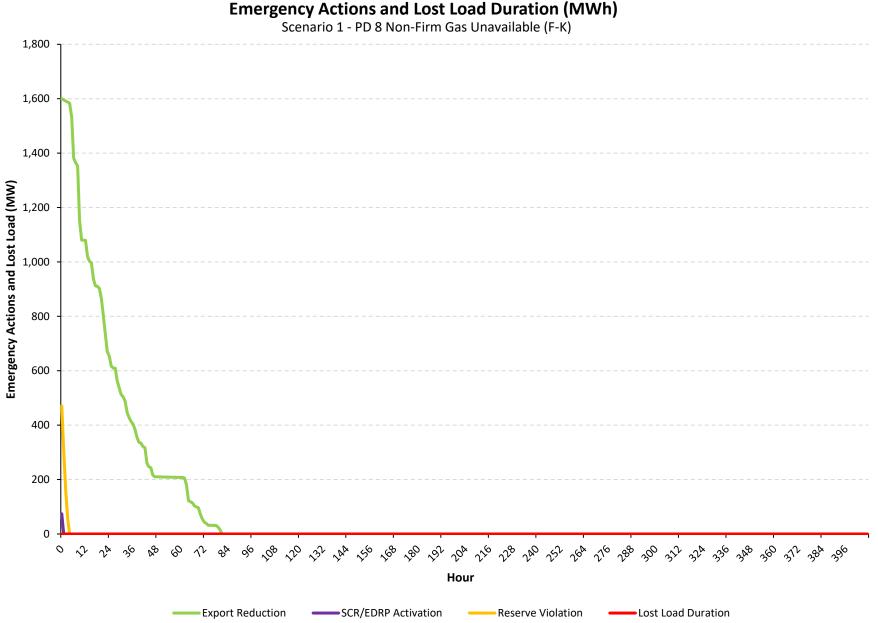
Zones A-E Zone F Zones G-I Zone J Zone K

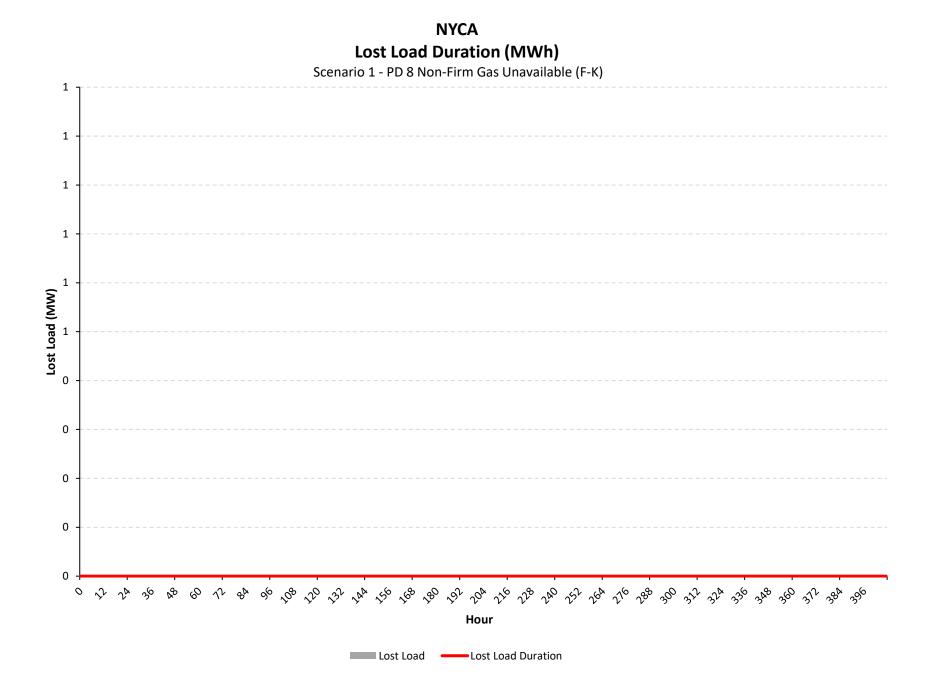


Notes:

[1] Weekends are shaded in gray.

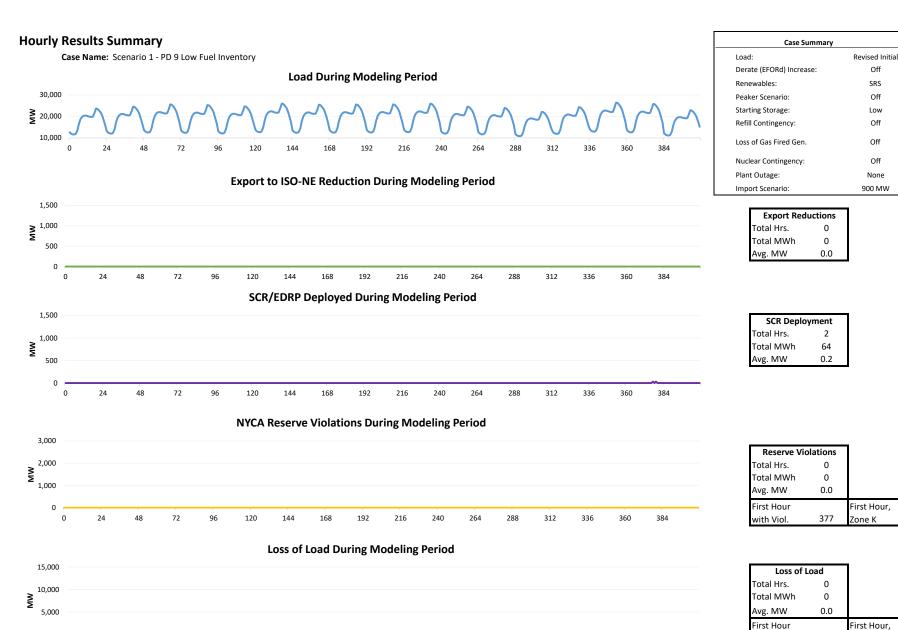
[2] Effective degree day is defined as 65 degrees F - Temperature.





Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 1 - PD 9 Low Fuel Inventory

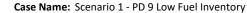


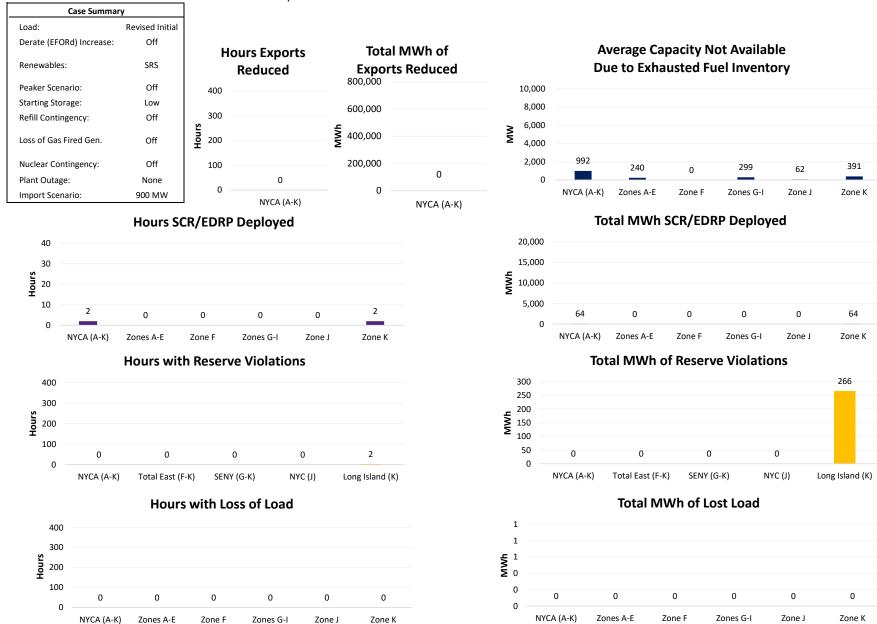
First Hour,

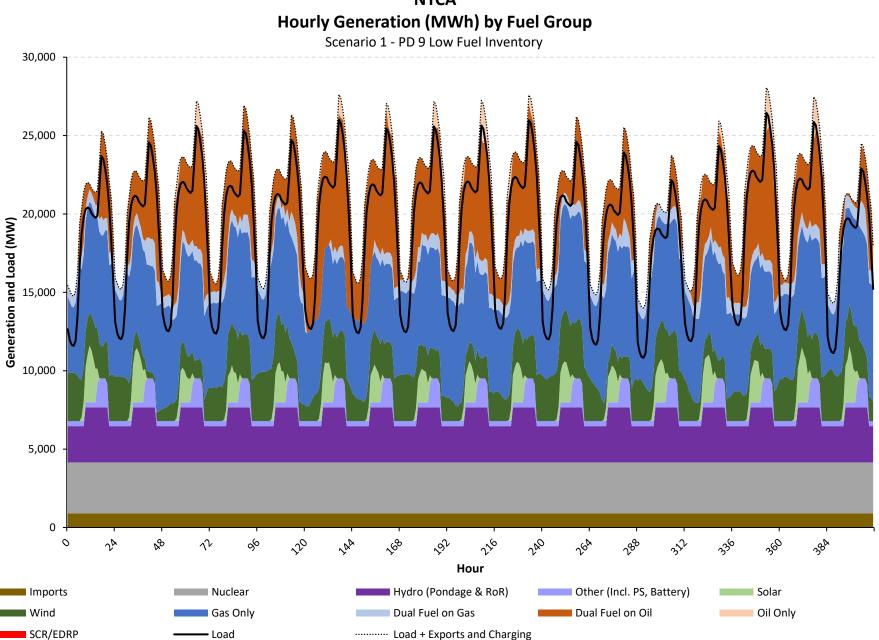
Zone K

with Losses

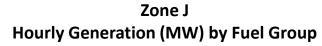
Full Period Results Summary



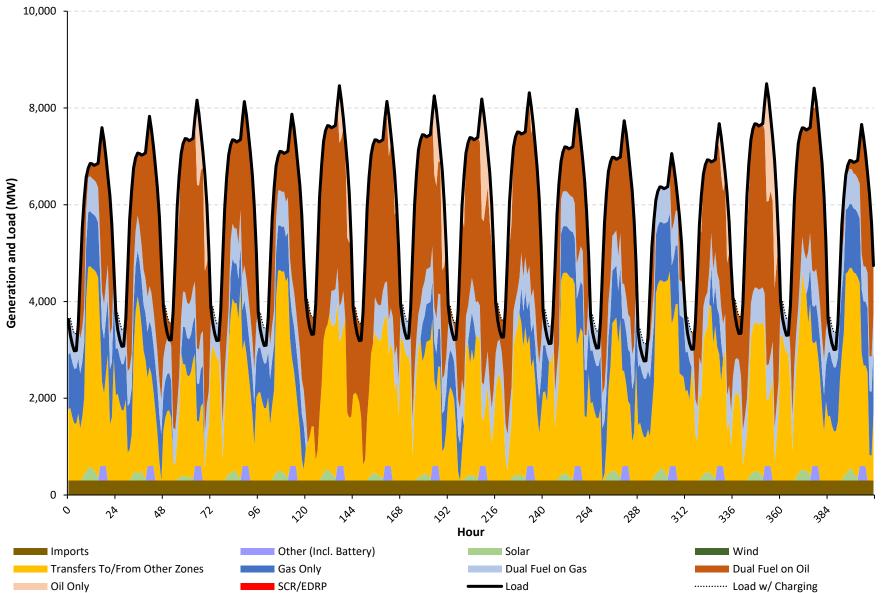




NYCA

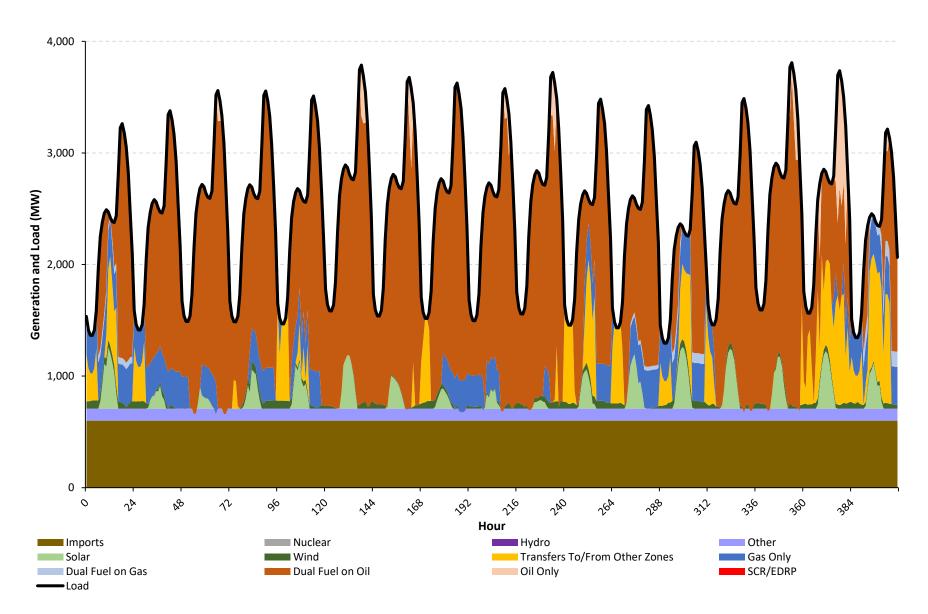


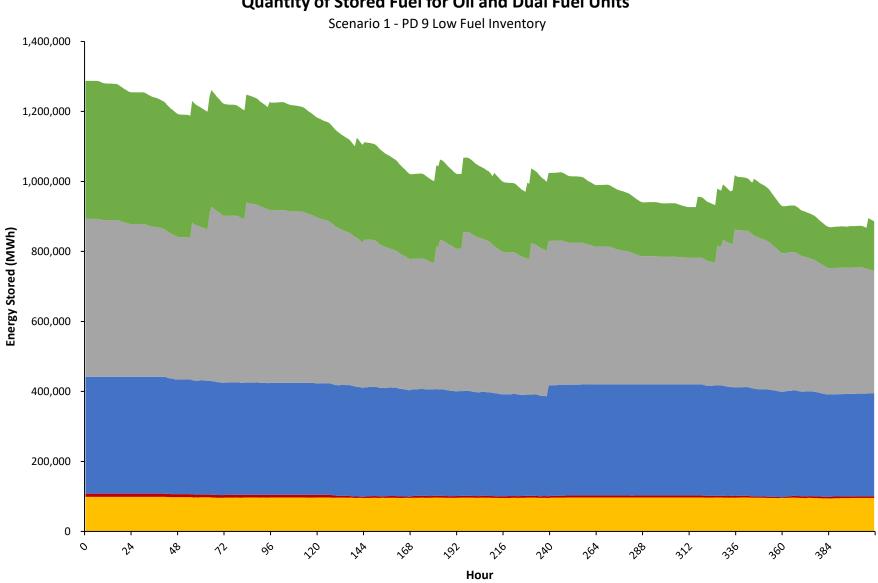
Scenario 1 - PD 9 Low Fuel Inventory



Zone K Hourly Generation (MW) by Fuel Group

Scenario 1 - PD 9 Low Fuel Inventory

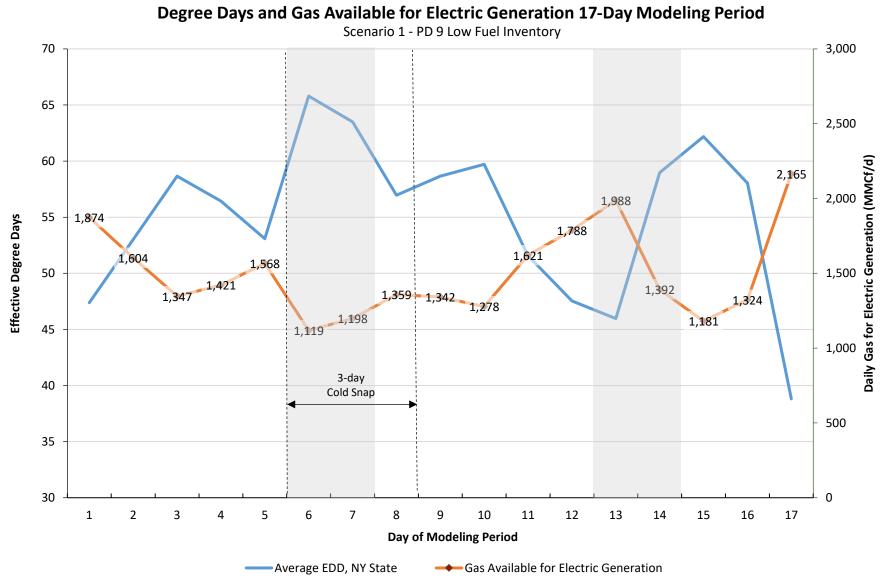




NYCA Quantity of Stored Fuel for Oil and Dual Fuel Units

Zones A-E Zone F Zones G-I Zone J Zone K

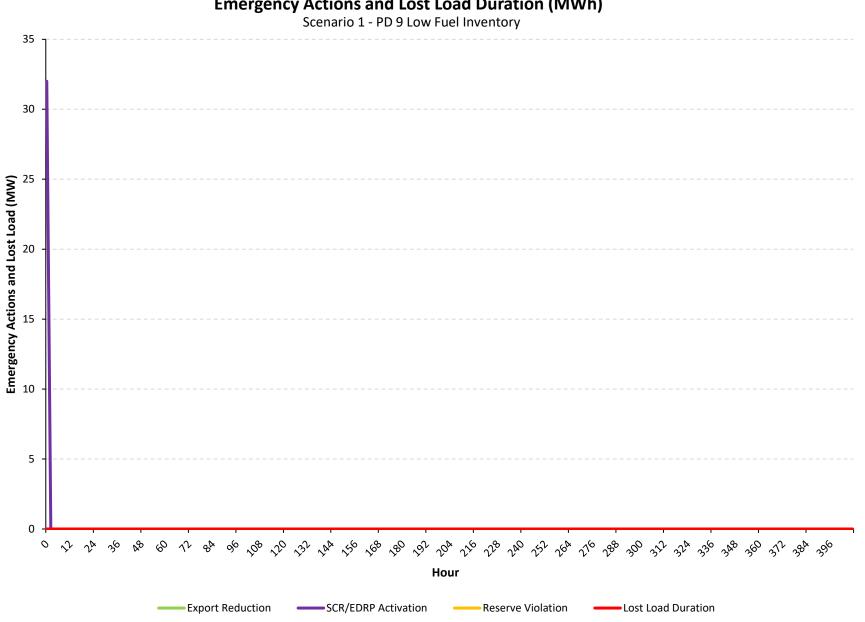
NYCA



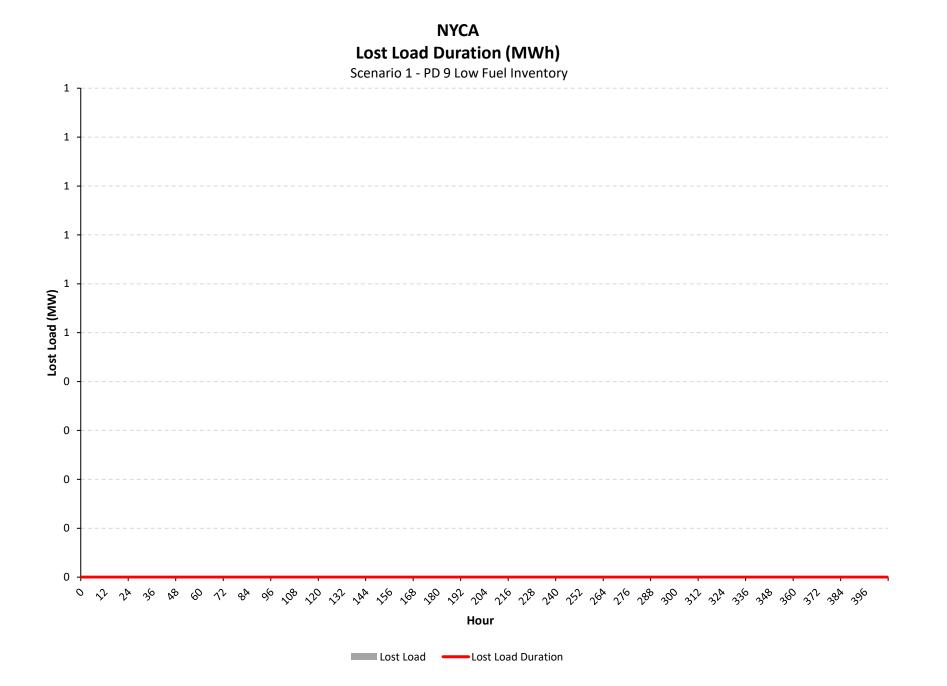
Notes:

[1] Weekends are shaded in gray.

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

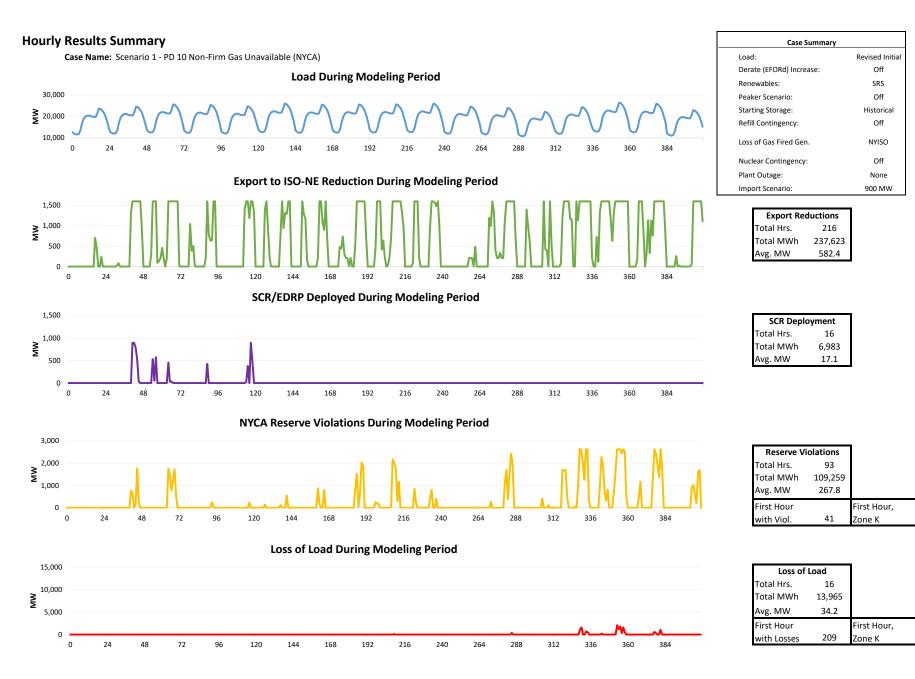


NYCA Emergency Actions and Lost Load Duration (MWh)



Analysis Group, Inc.

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 1 - PD 10 Non-Firm Gas Unavailable (NYCA)



Full Period Results Summary

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



Zone F

118

652

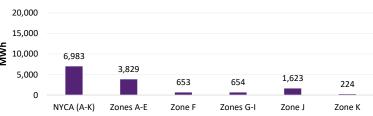
Zones G-I

250

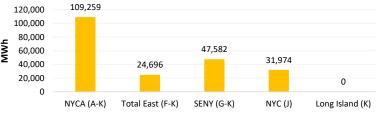
Zone J

271

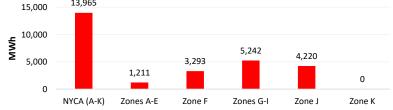
Zone K

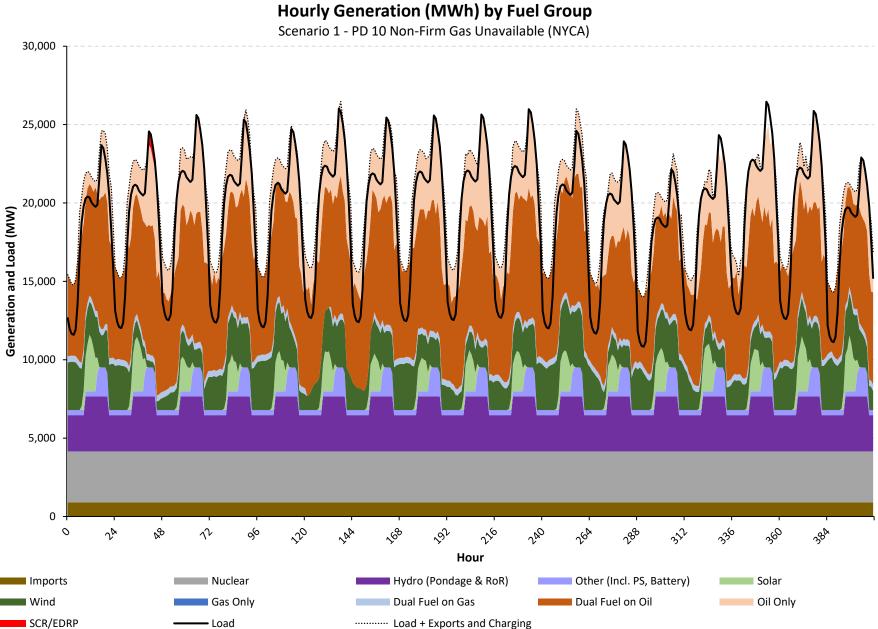


Total MWh of Reserve Violations



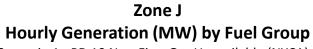
Total MWh of Lost Load



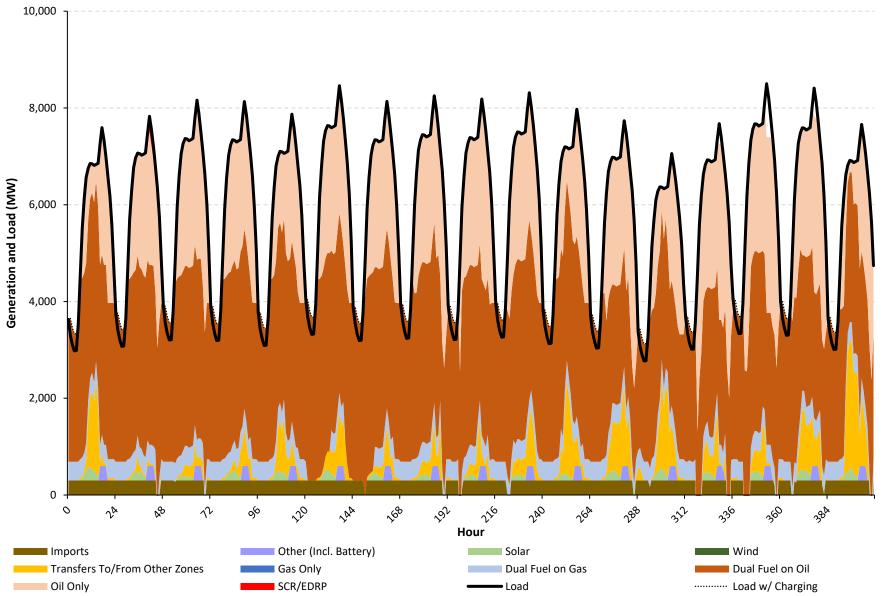


NYCA

Analysis Group, Inc.

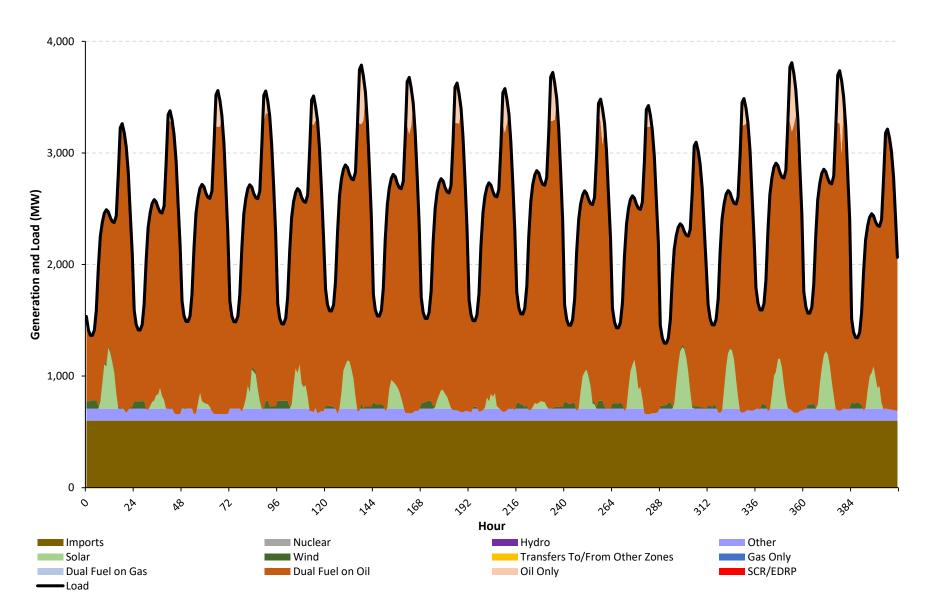






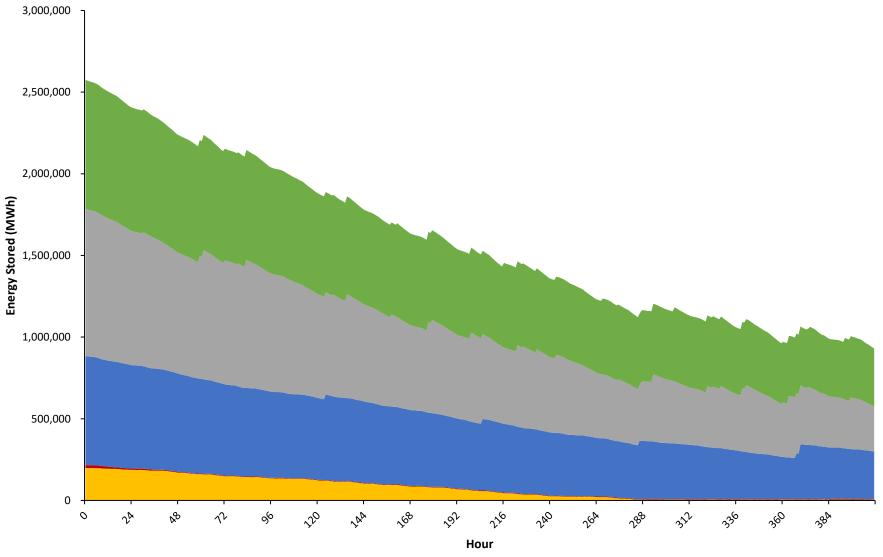
Zone K Hourly Generation (MW) by Fuel Group

Scenario 1 - PD 10 Non-Firm Gas Unavailable (NYCA)

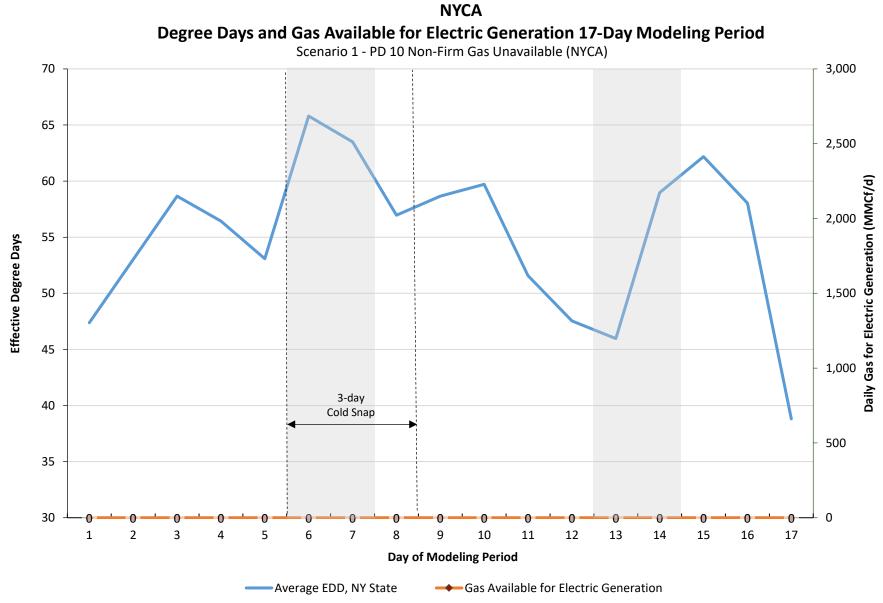




Scenario 1 - PD 10 Non-Firm Gas Unavailable (NYCA)



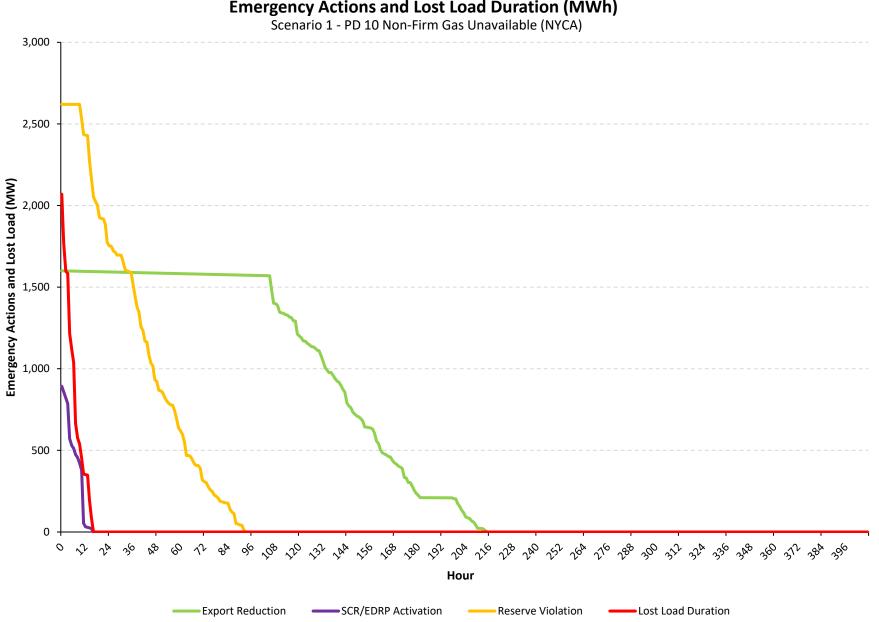
Zones A-E Zone F Zones G-I Zone J Zone K



Notes:

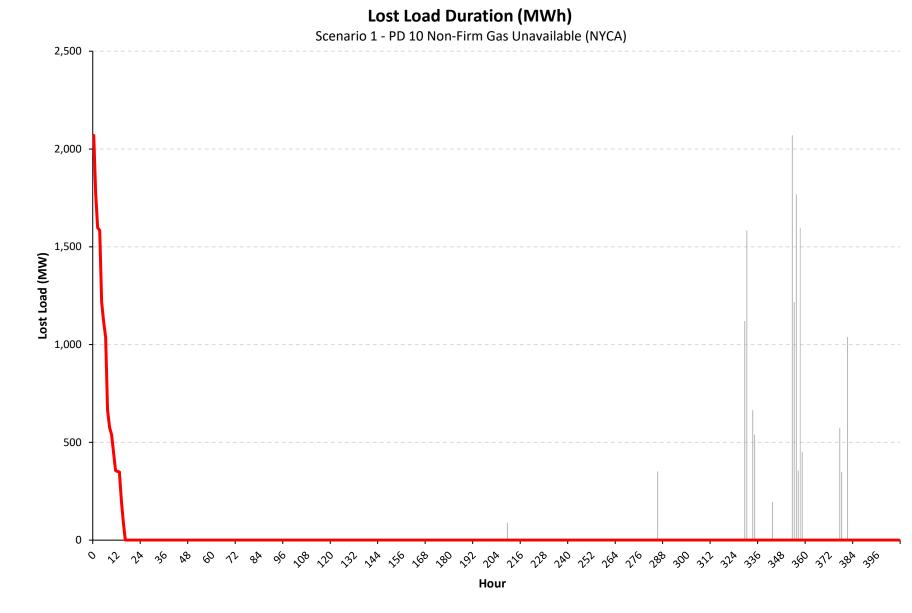
[1] Weekends are shaded in gray.

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



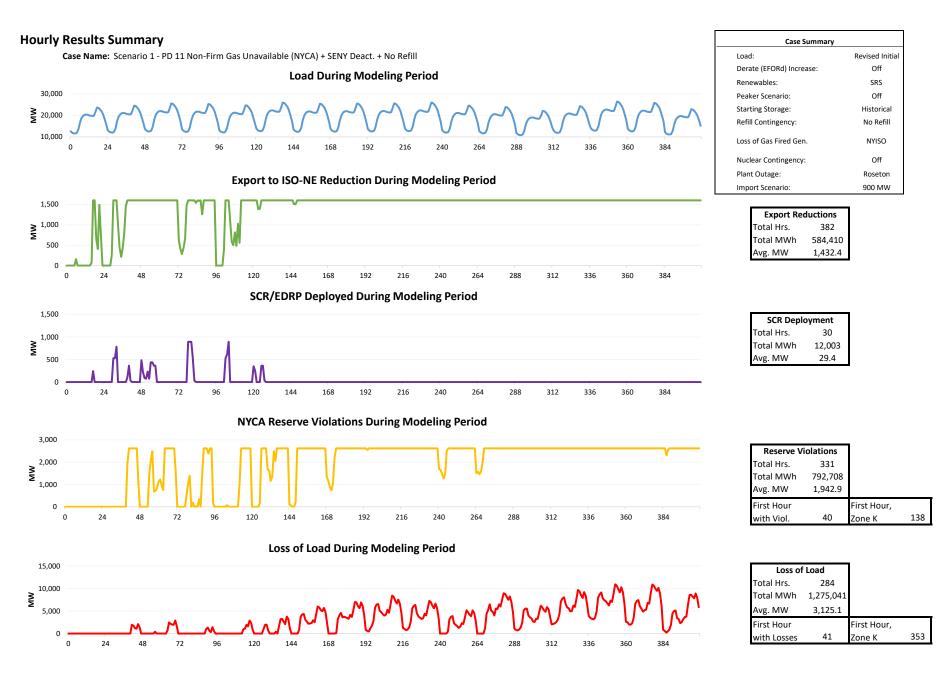
NYCA Emergency Actions and Lost Load Duration (MWh)

NYCA



Lost Load — Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 1 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill

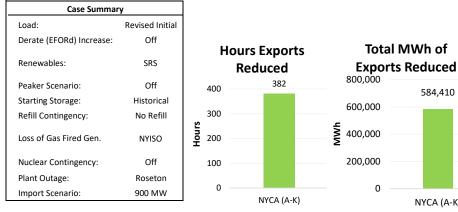


584,410

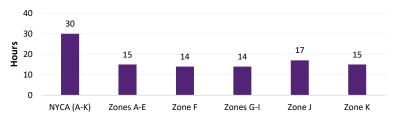
NYCA (A-K)

Full Period Results Summary

Case Name: Scenario 1 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill



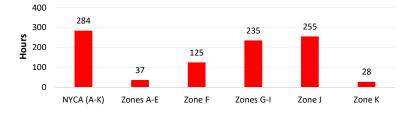




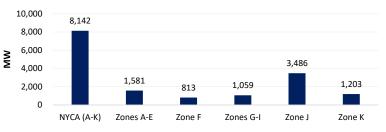
Hours with Reserve Violations



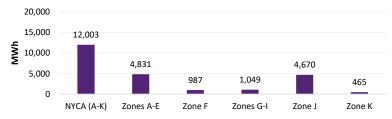
Hours with Loss of Load



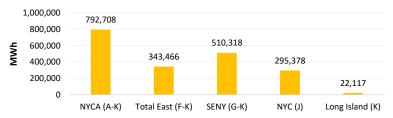
Average Capacity Not Available Due to Exhausted Fuel Inventory



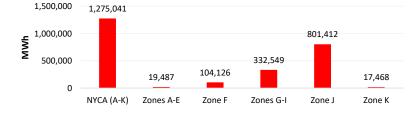
Total MWh SCR/EDRP Deployed



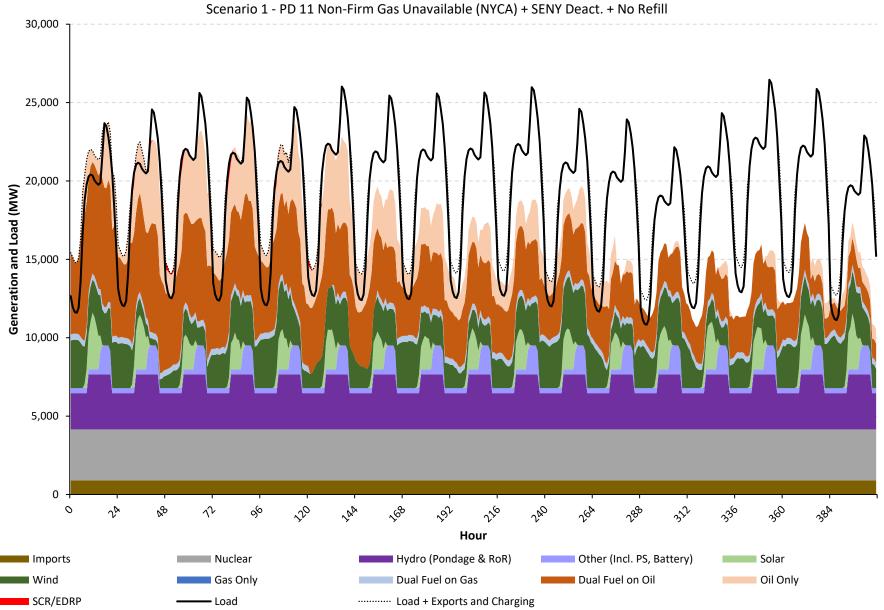
Total MWh of Reserve Violations

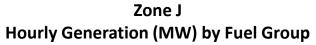


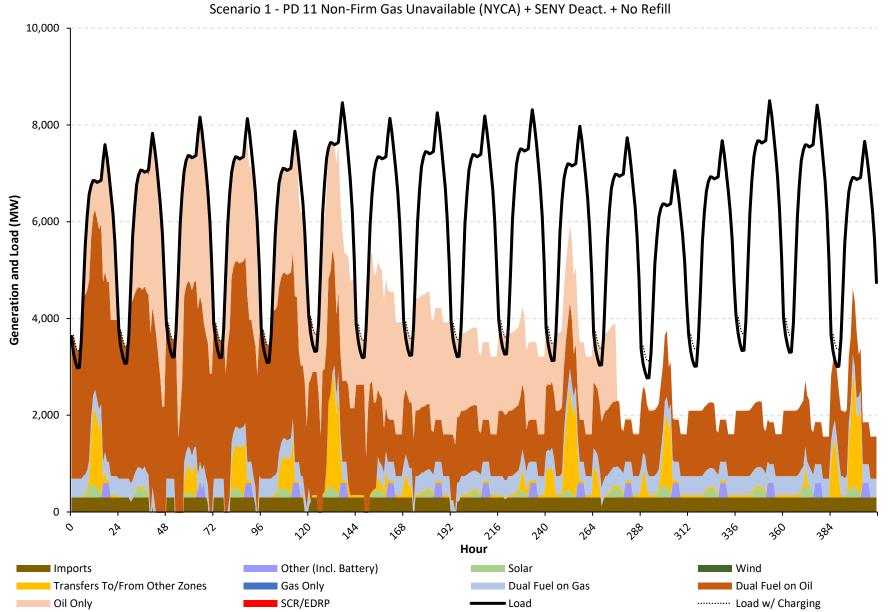
Total MWh of Lost Load



NYCA Hourly Generation (MWh) by Fuel Group

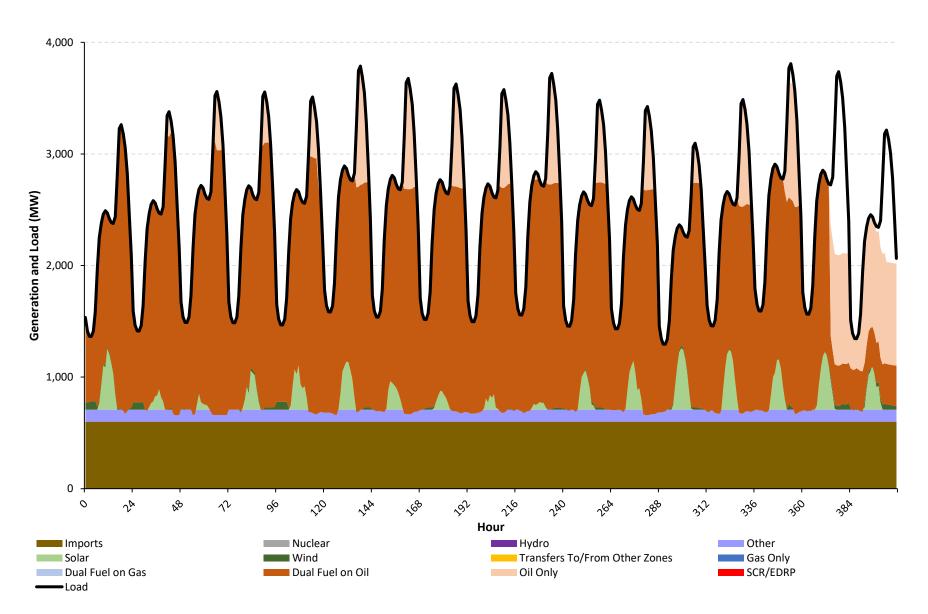




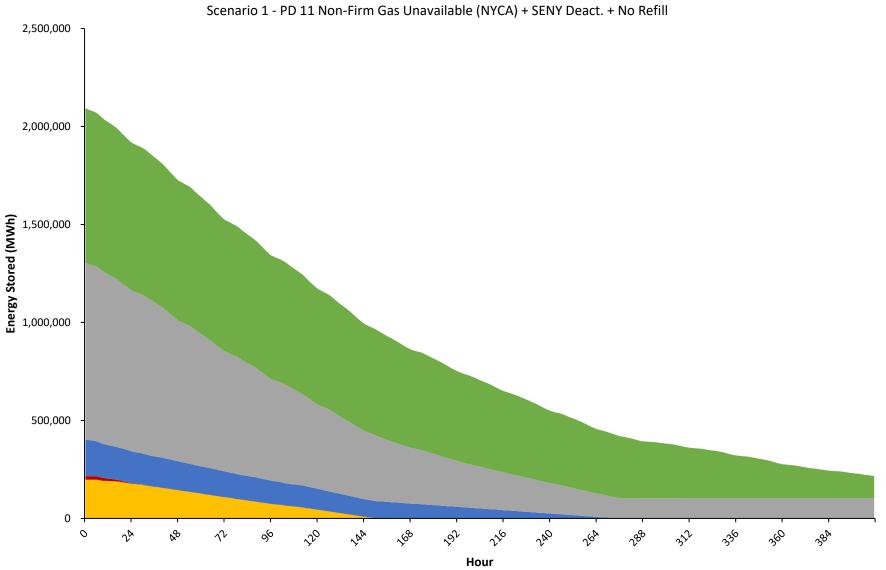


Zone K Hourly Generation (MW) by Fuel Group

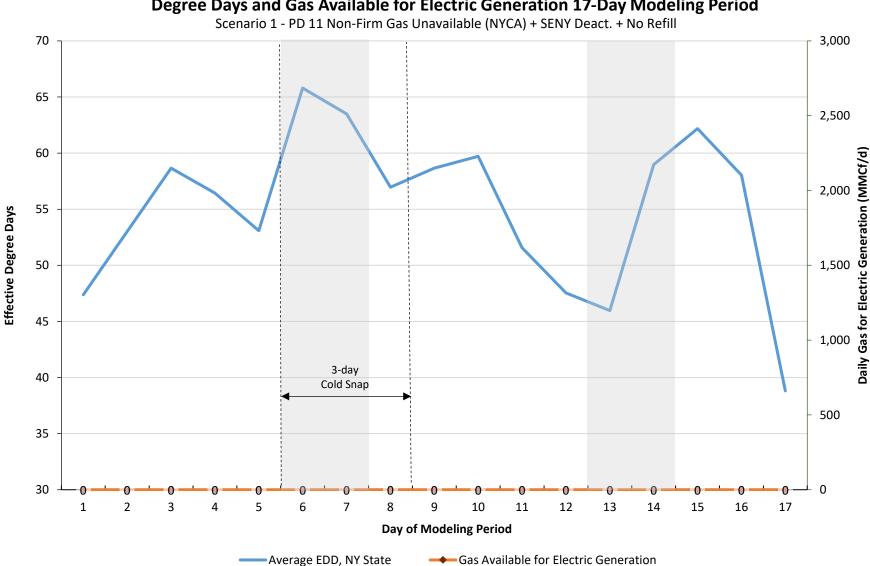
Scenario 1 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill







Zones A-E Zone F Zones G-I Zone J Zone K

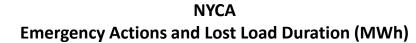


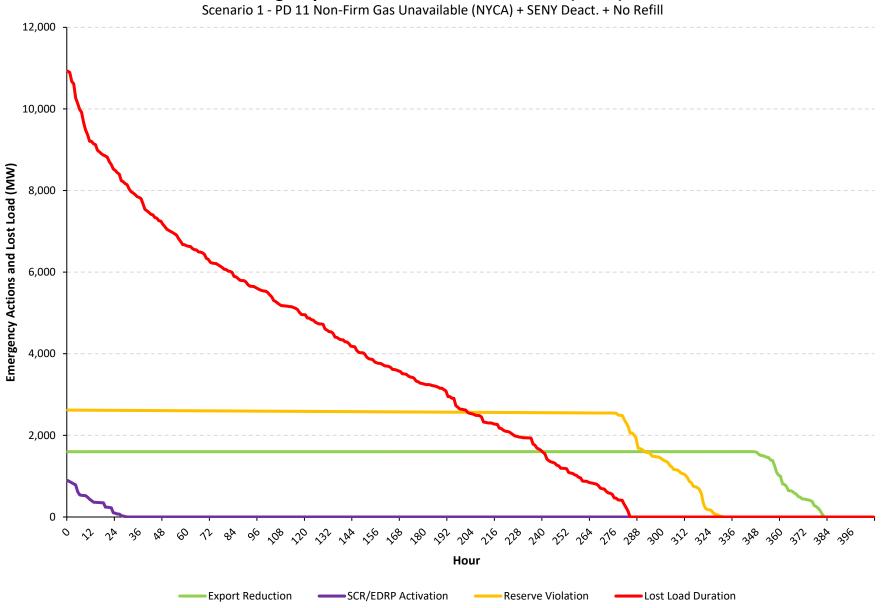
NYCA Degree Days and Gas Available for Electric Generation 17-Day Modeling Period

Notes:

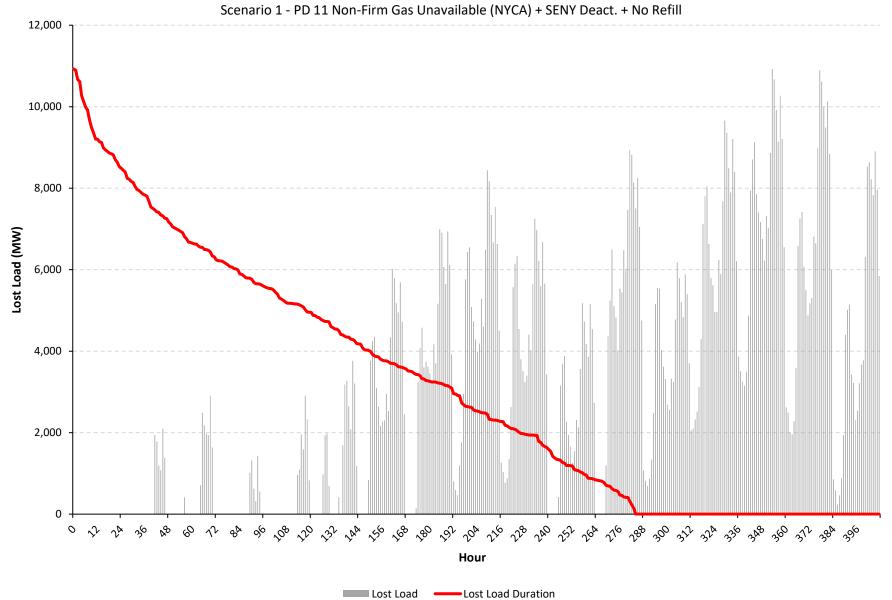
[1] Weekends are shaded in gray.

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



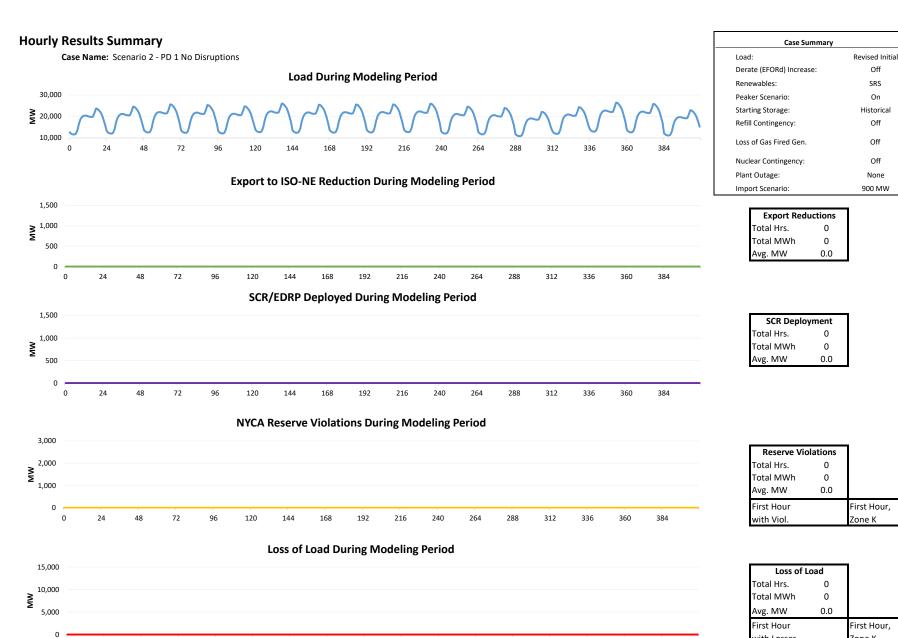


NYCA Lost Load Duration (MWh)



Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

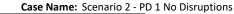
Case: Scenario 2 - PD 1 No Disruptions

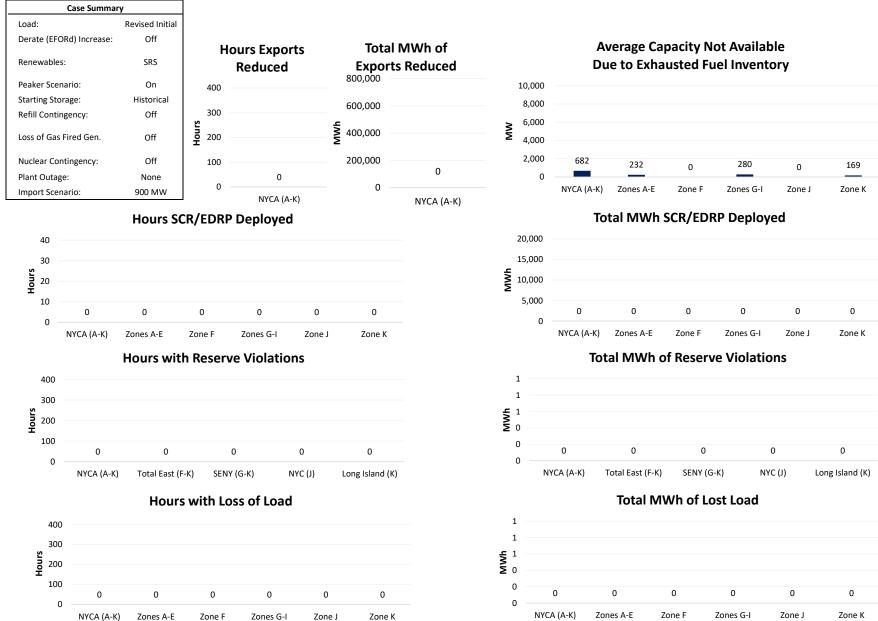


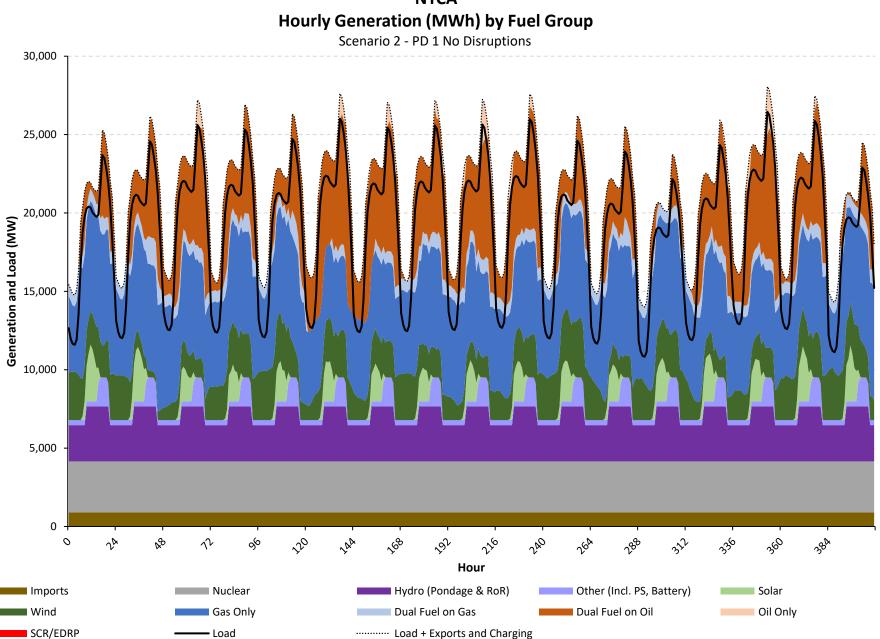
Zone K

with Losses

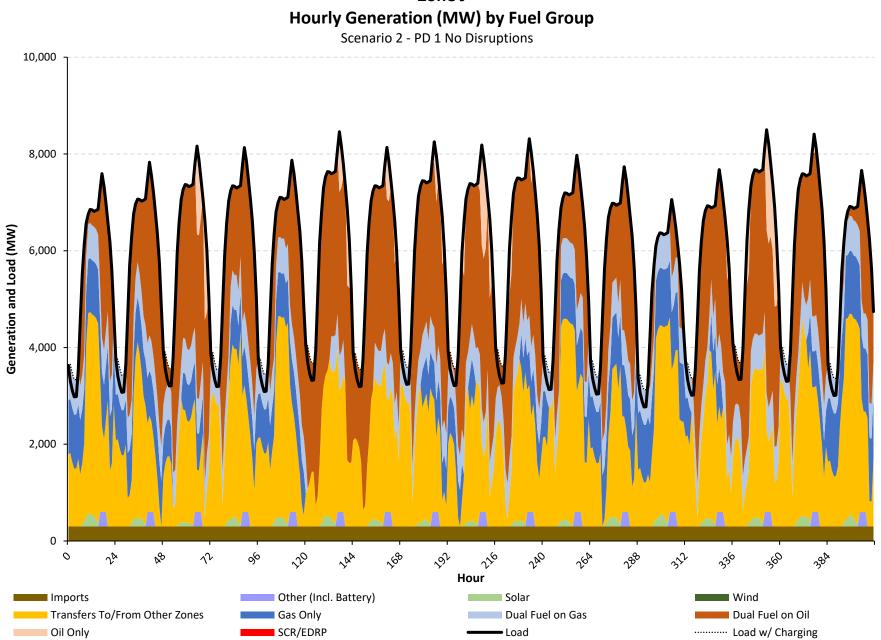
Full Period Results Summary







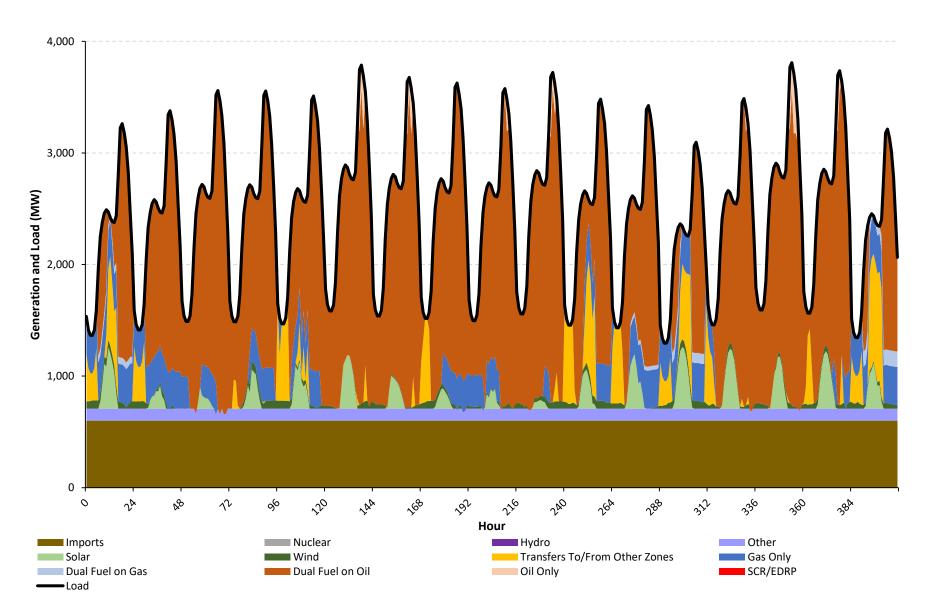
NYCA

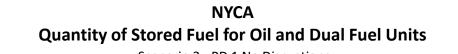


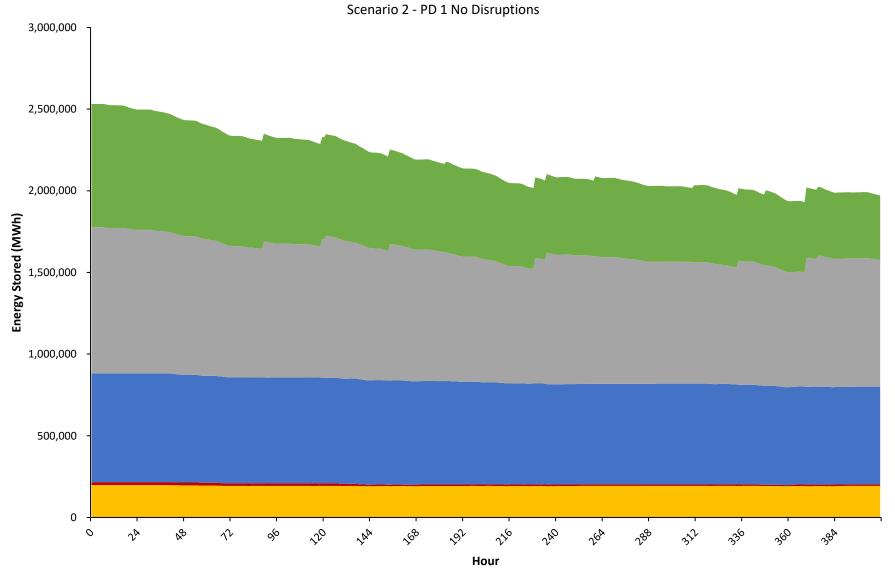
Zone J

Zone K Hourly Generation (MW) by Fuel Group

Scenario 2 - PD 1 No Disruptions

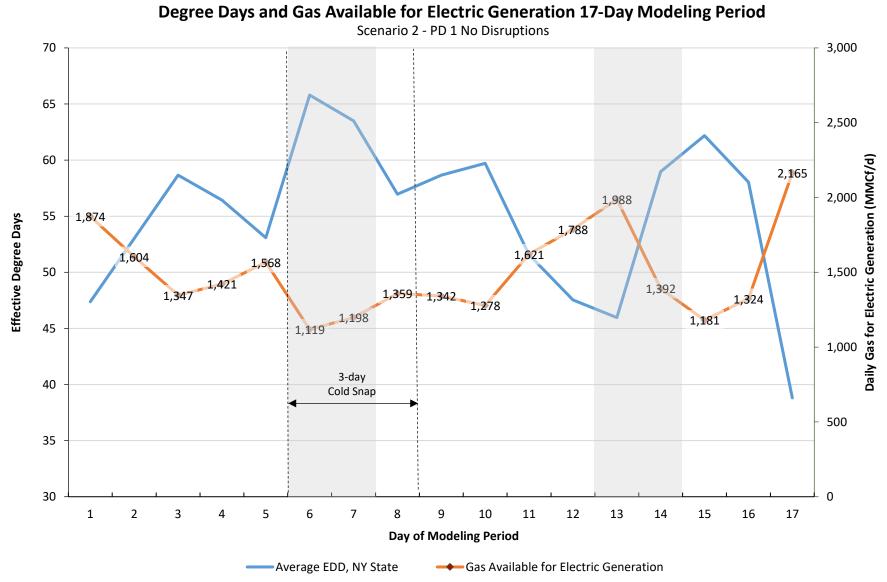






Zones A-E Zone F Zones G-I Zone J Zone K

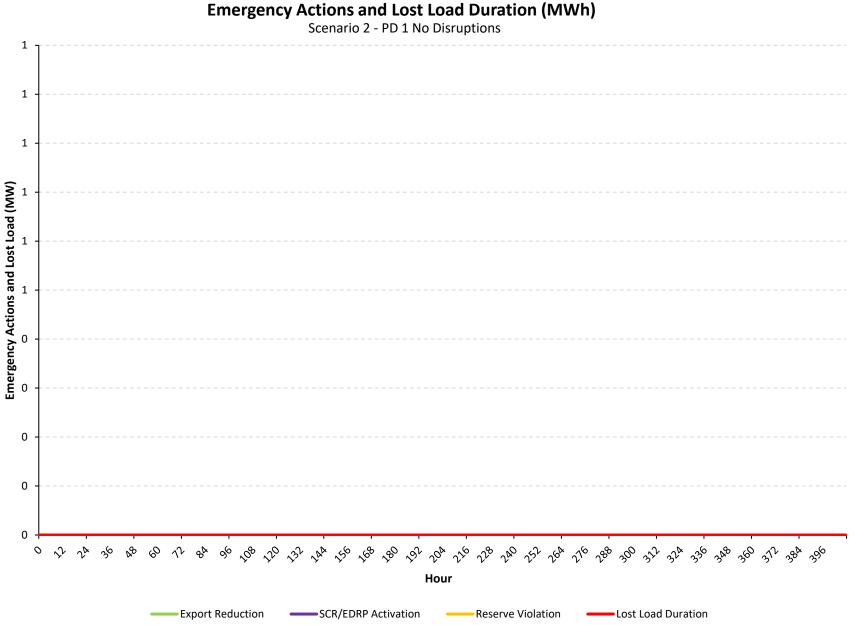
NYCA



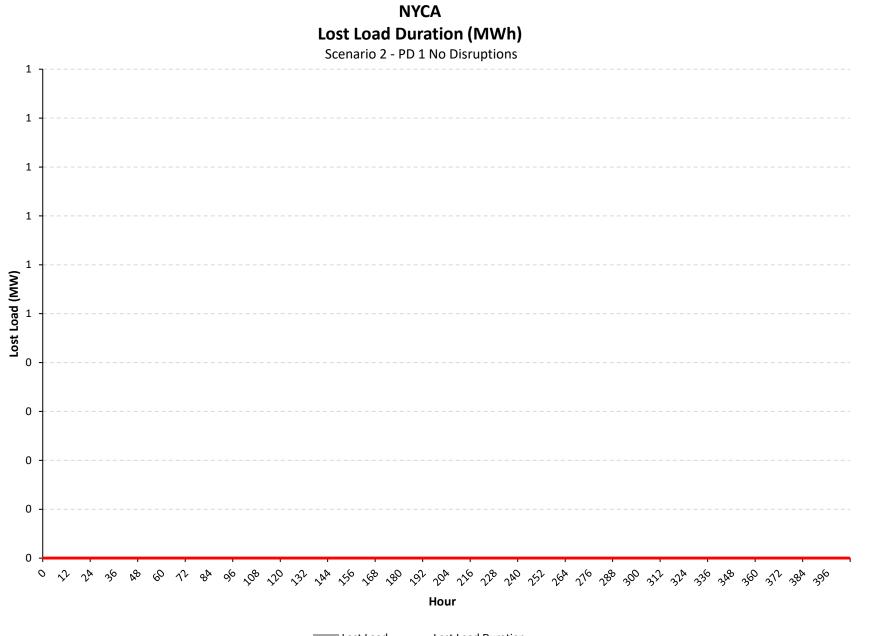
Notes:

[1] Weekends are shaded in gray.

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



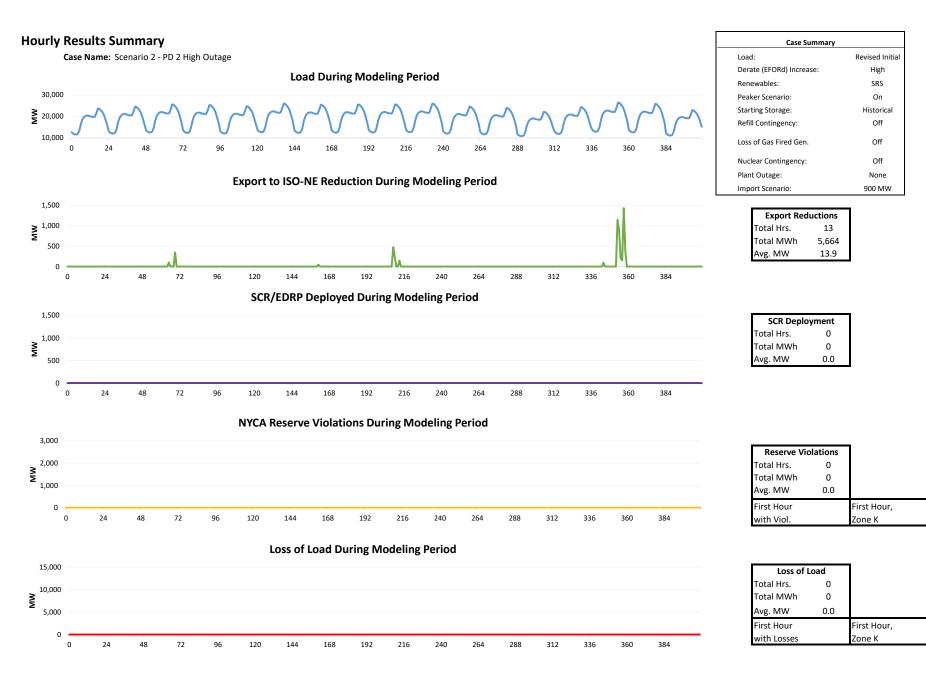
NYCA **Emergency Actions and Lost Load Duration (MWh)**



Lost Load —Lost Load Duration

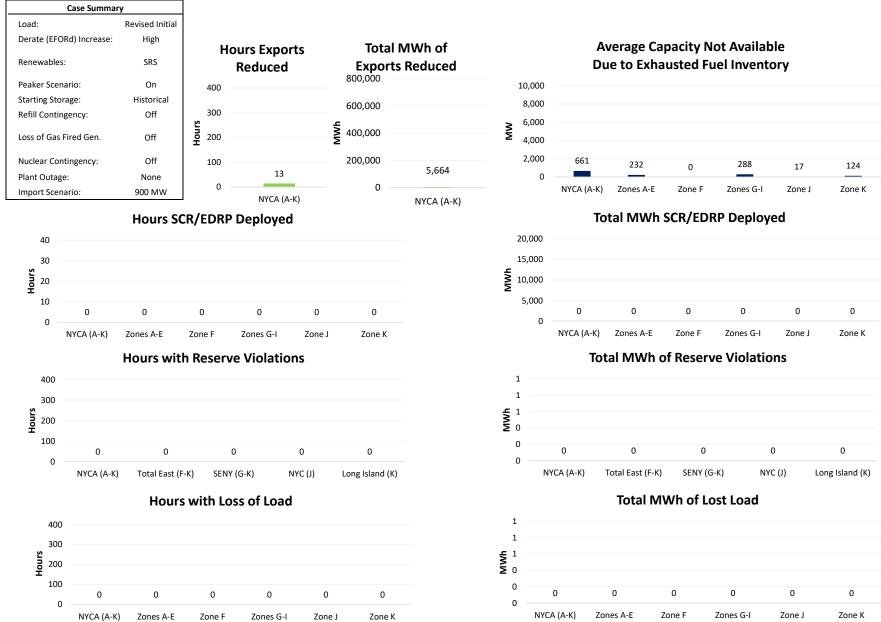
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

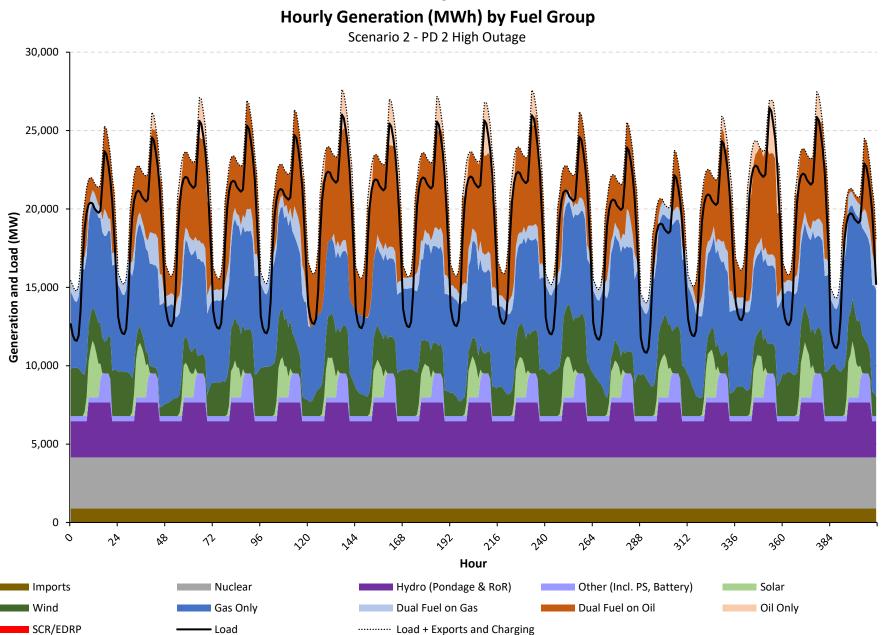
Case: Scenario 2 - PD 2 High Outage



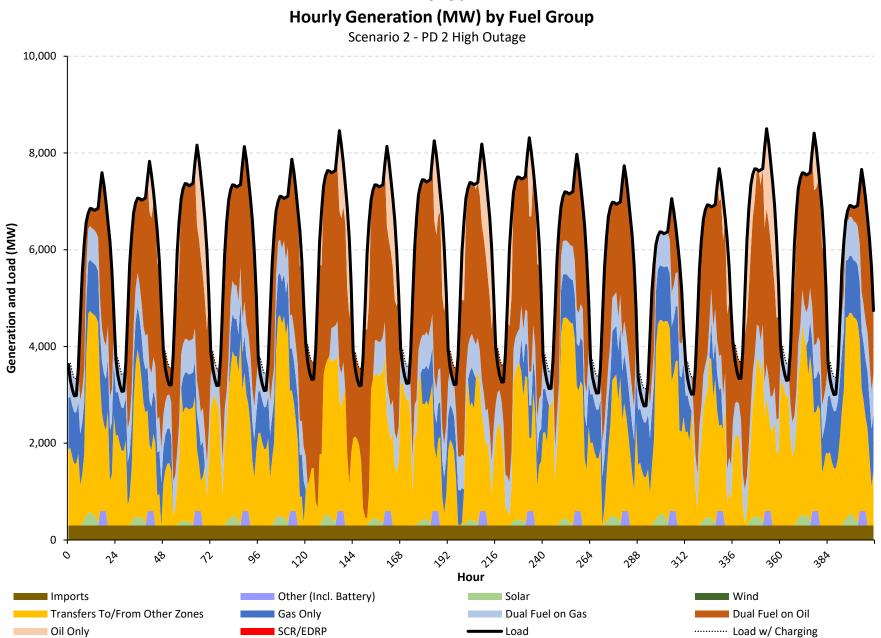
Full Period Results Summary







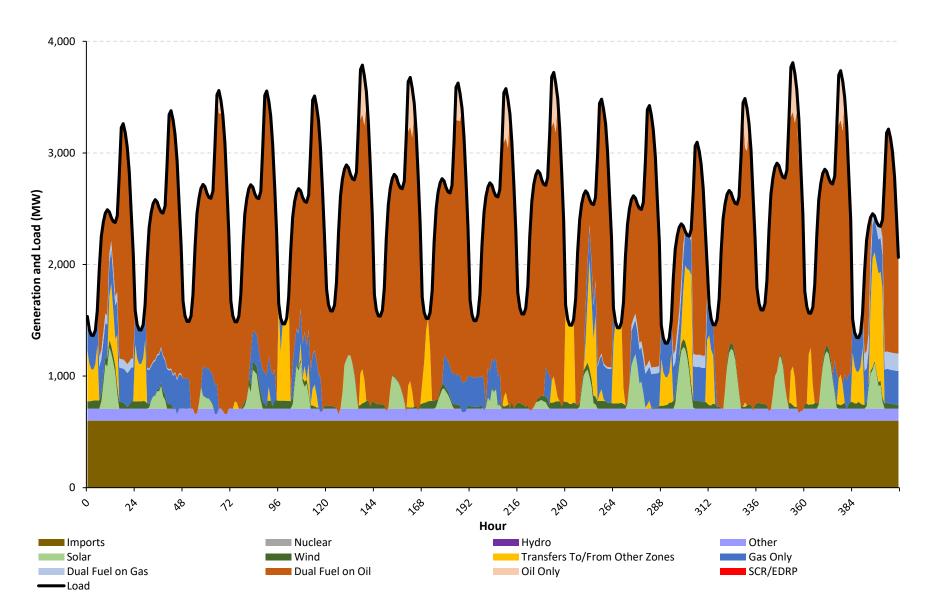
NYCA



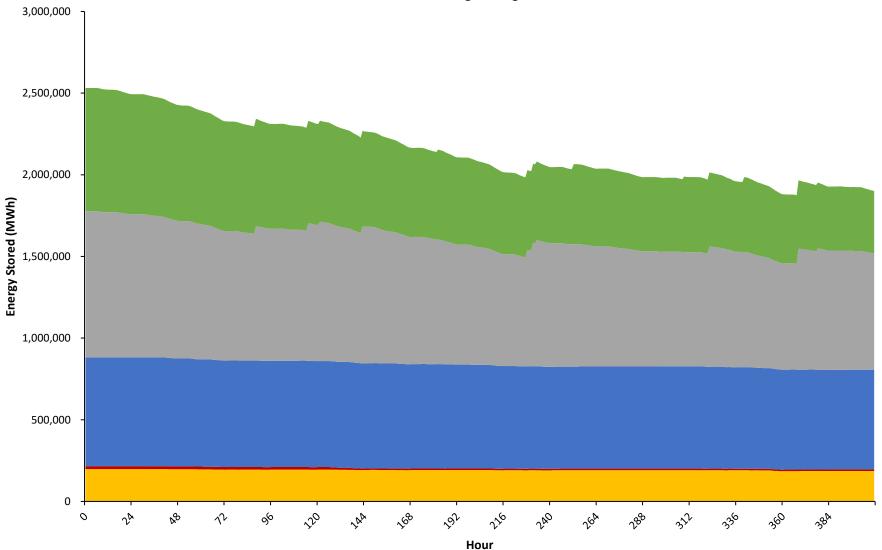
Zone J

Zone K Hourly Generation (MW) by Fuel Group

Scenario 2 - PD 2 High Outage



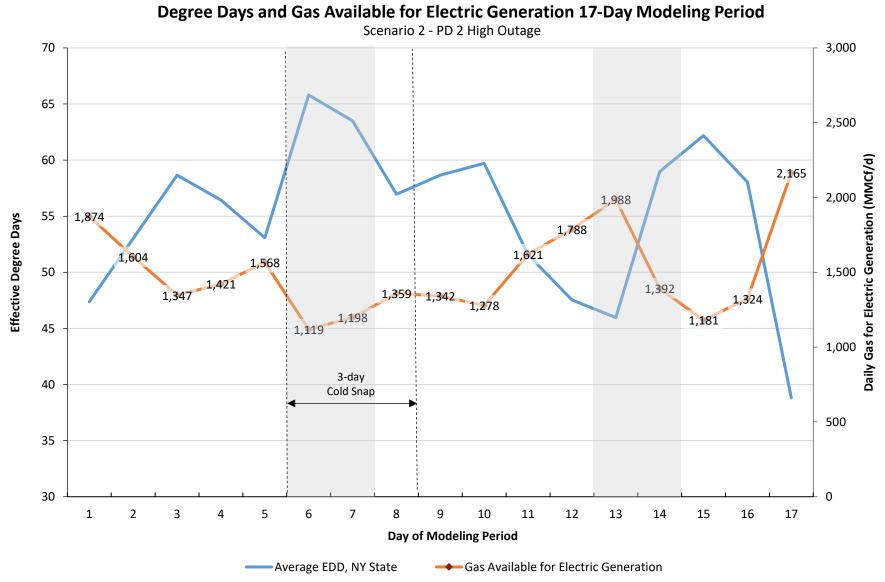




Scenario 2 - PD 2 High Outage

Zones A-E Zone F Zones G-I Zone J Zone K

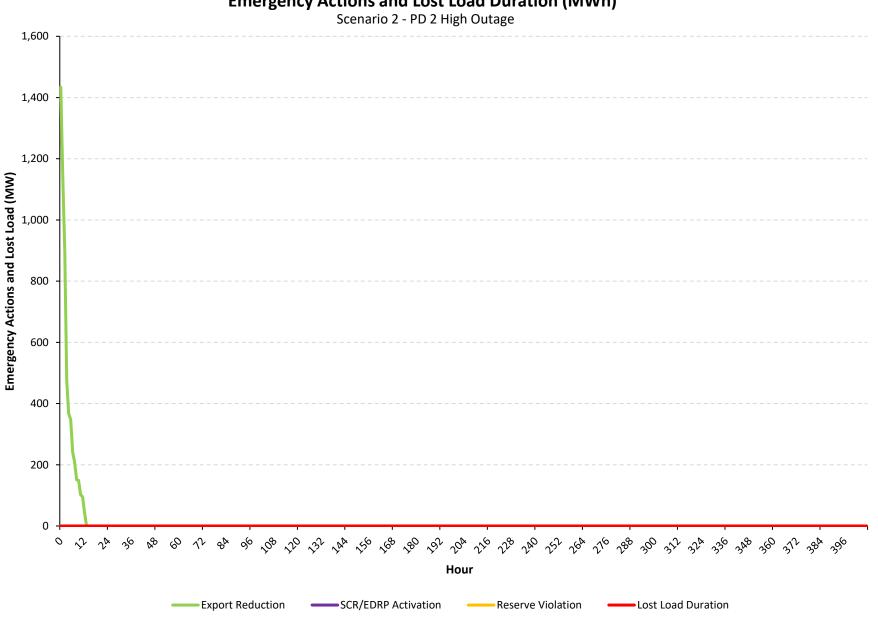
NYCA



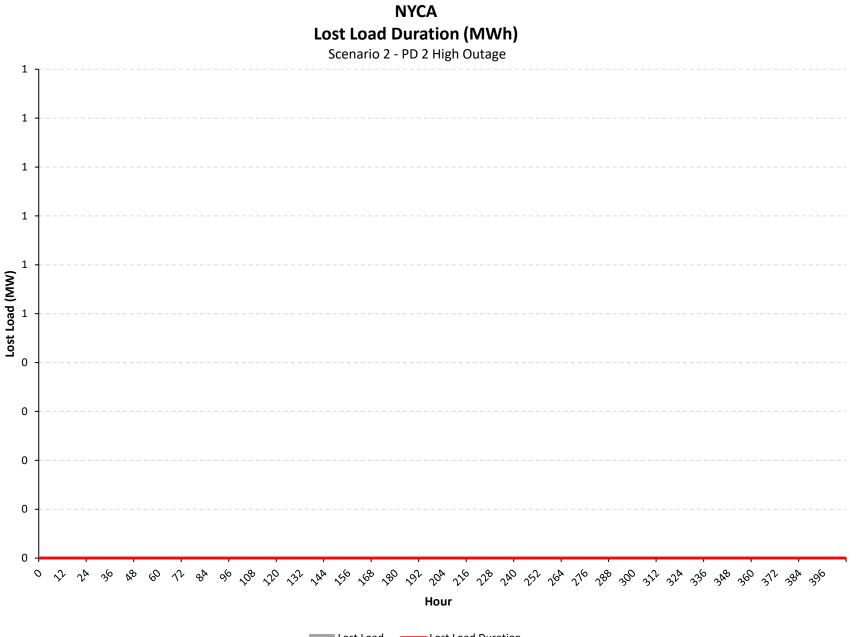
Notes:

[1] Weekends are shaded in gray.

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



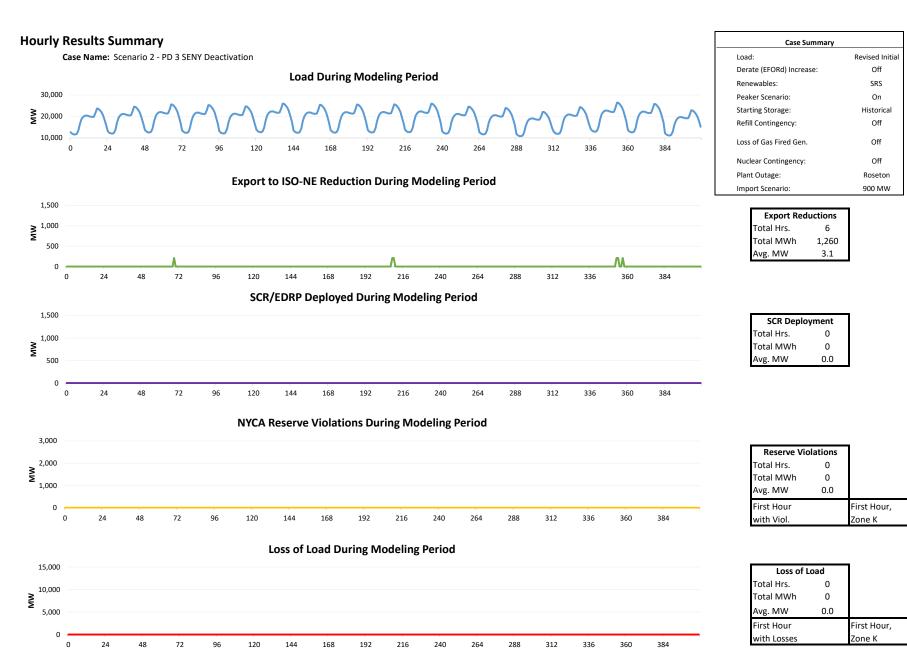
NYCA Emergency Actions and Lost Load Duration (MWh)



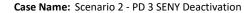
Lost Load Lost Load Duration

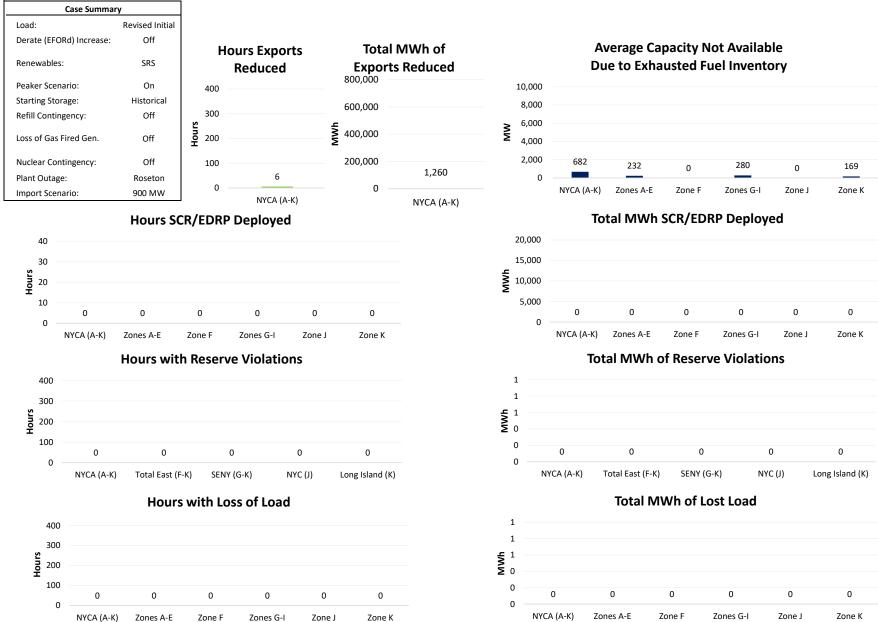
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

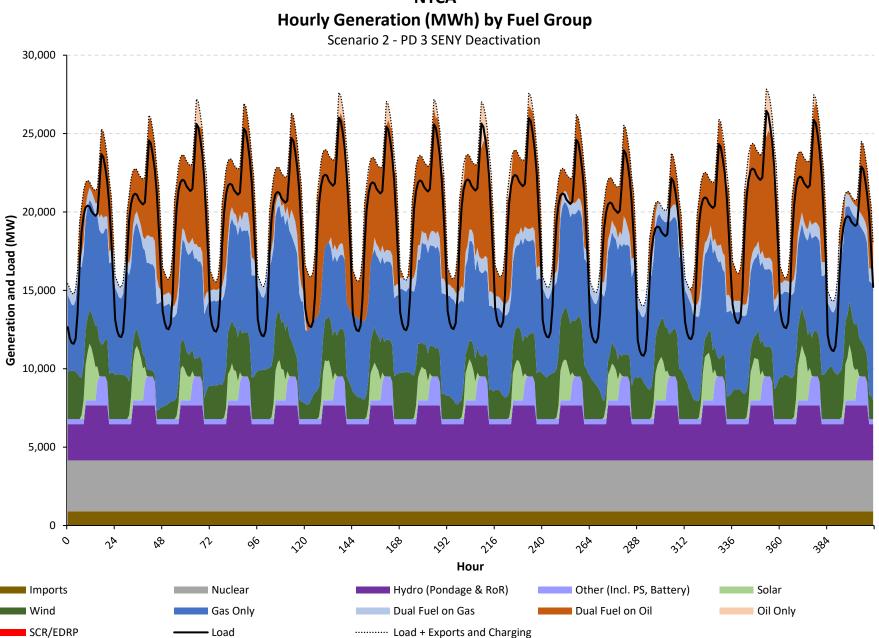
Case: Scenario 2 - PD 3 SENY Deactivation



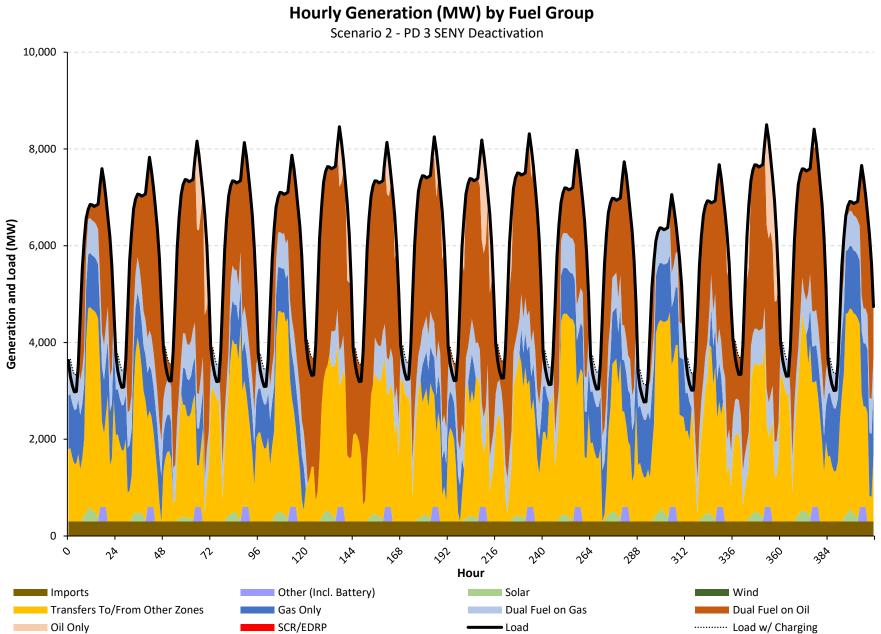
Full Period Results Summary







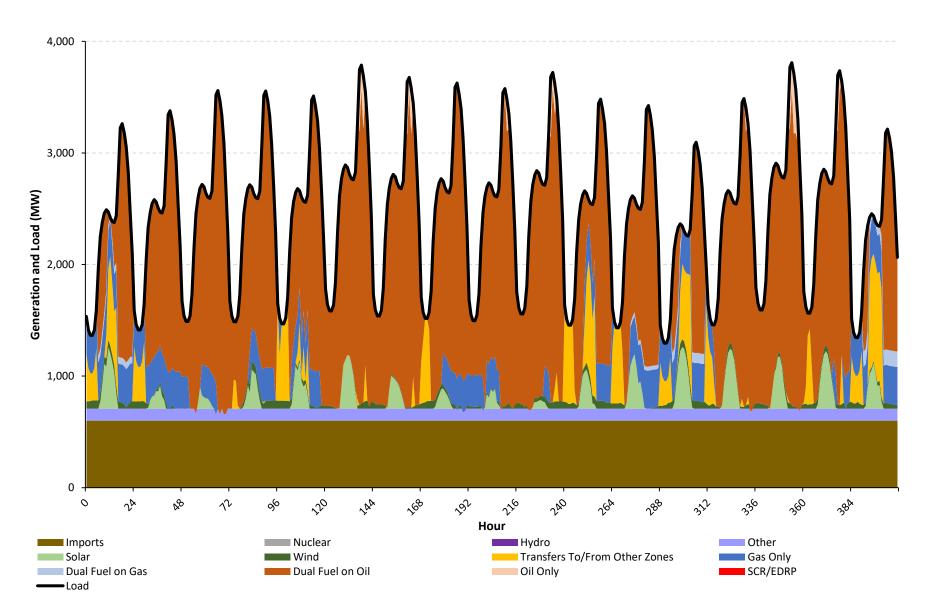
NYCA

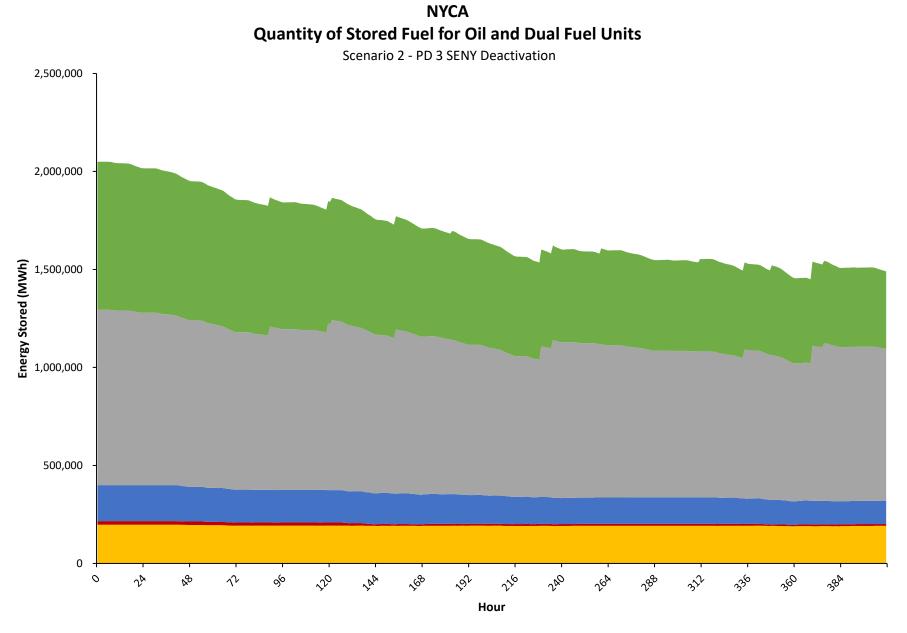


Zone J

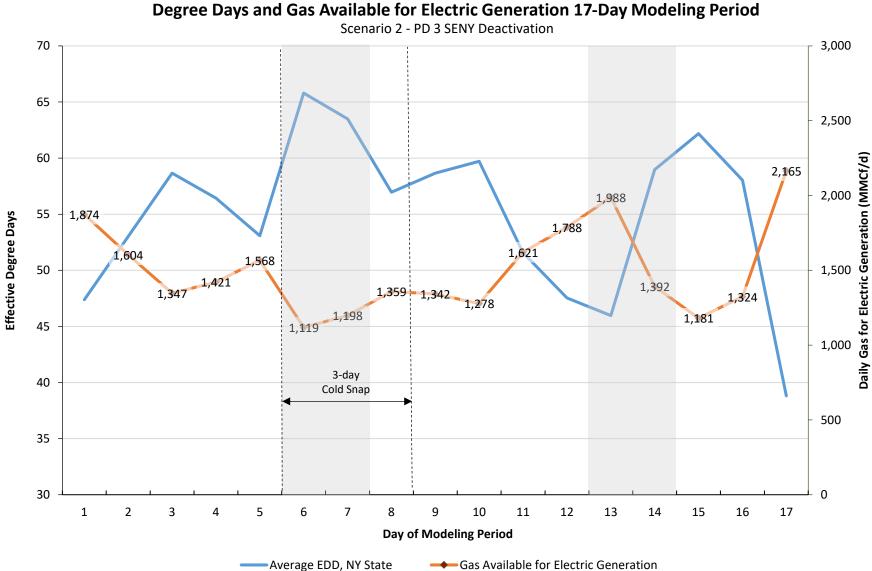
Zone K Hourly Generation (MW) by Fuel Group

Scenario 2 - PD 3 SENY Deactivation





Zones A-E Zone F Zones G-I Zone J Zone K

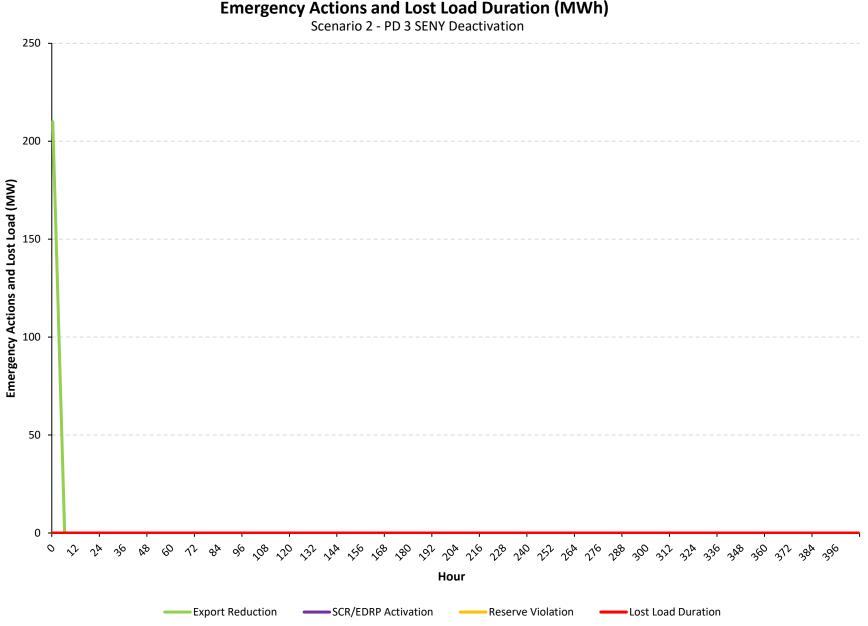


NYCA

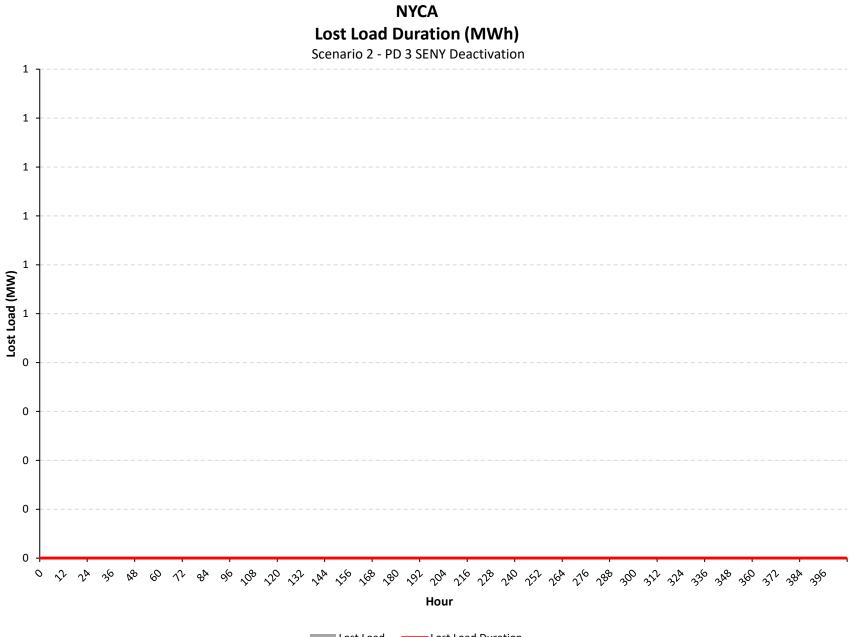
Notes:

[1] Weekends are shaded in gray.

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



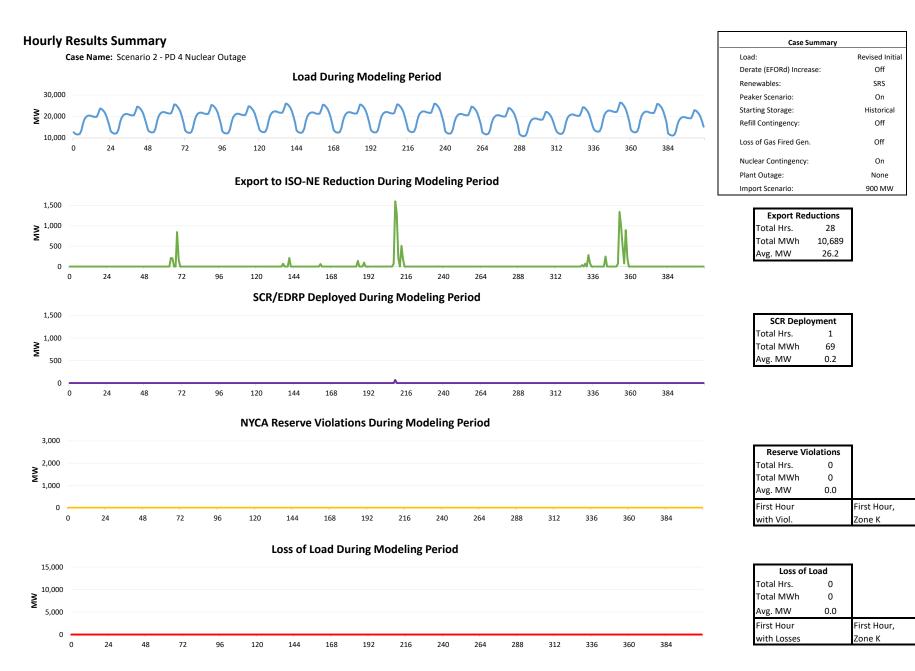
NYCA Emergency Actions and Lost Load Duration (MWh)



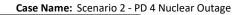
Lost Load — Lost Load Duration

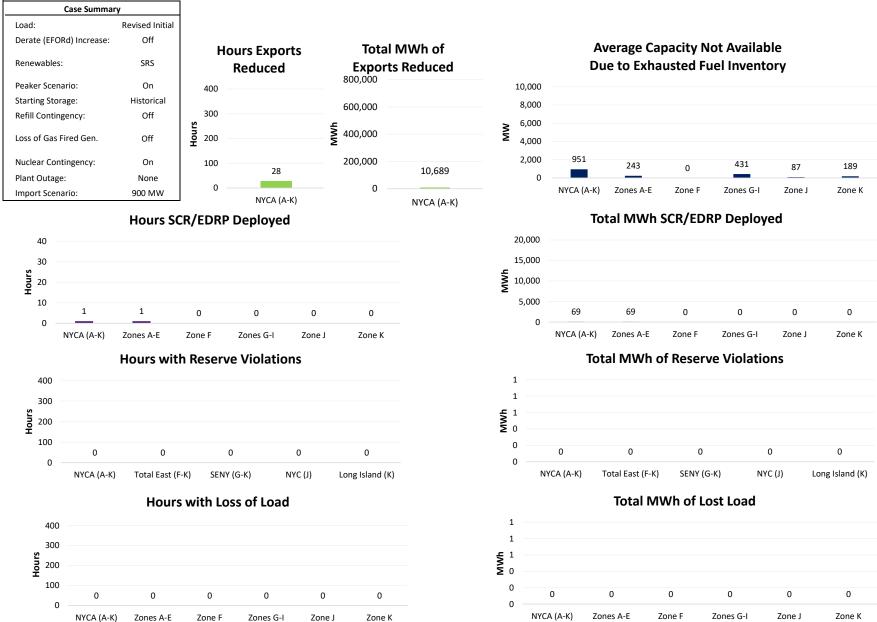
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

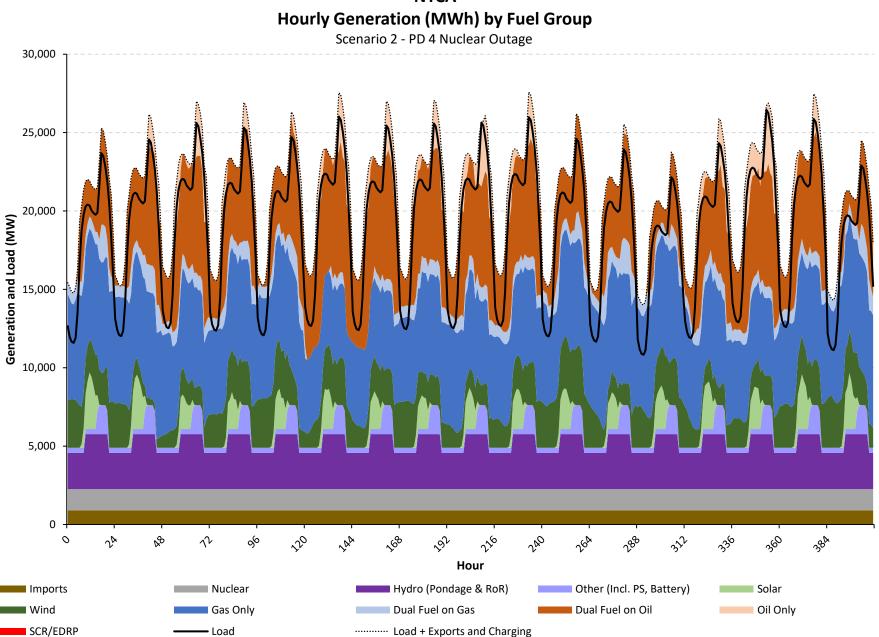
Case: Scenario 2 - PD 4 Nuclear Outage



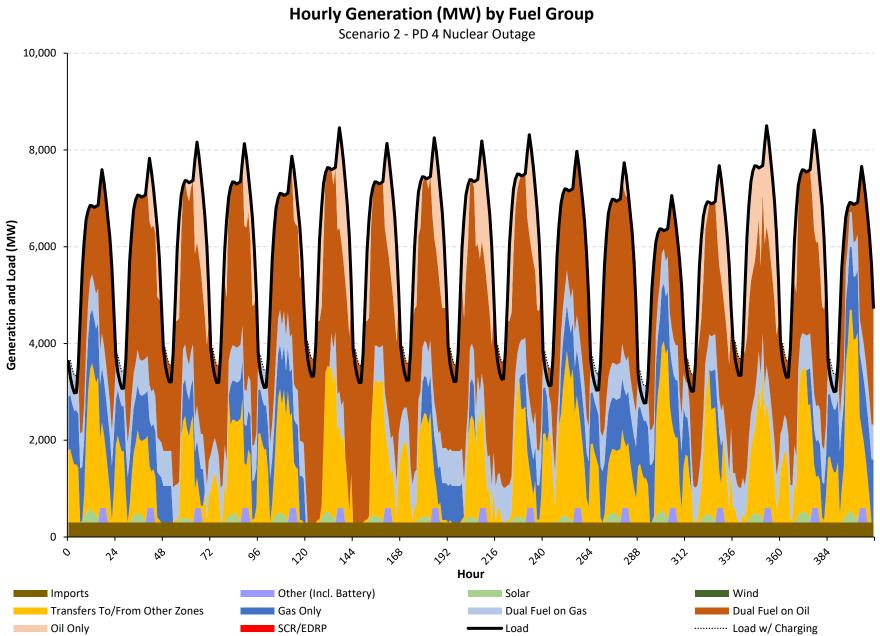
Full Period Results Summary







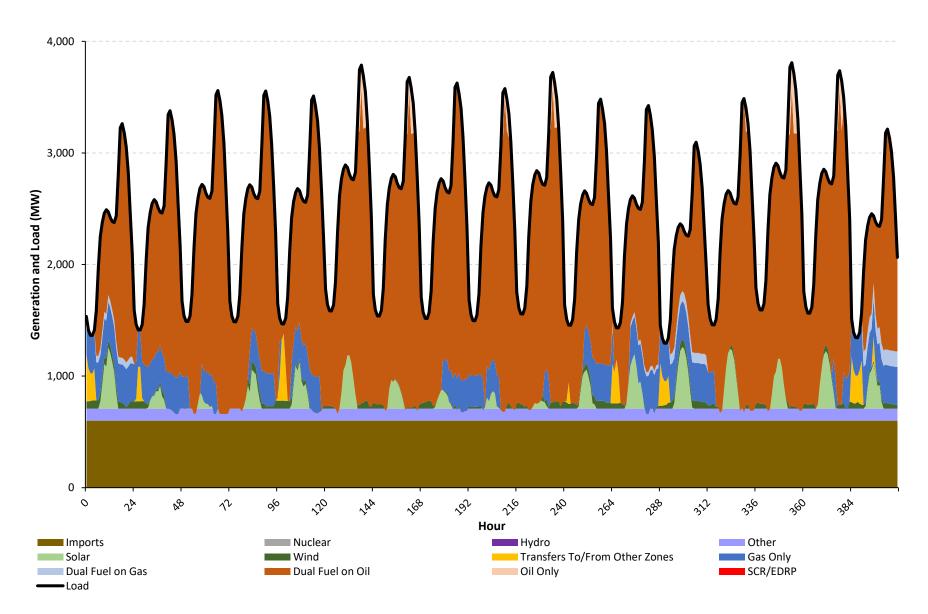
NYCA

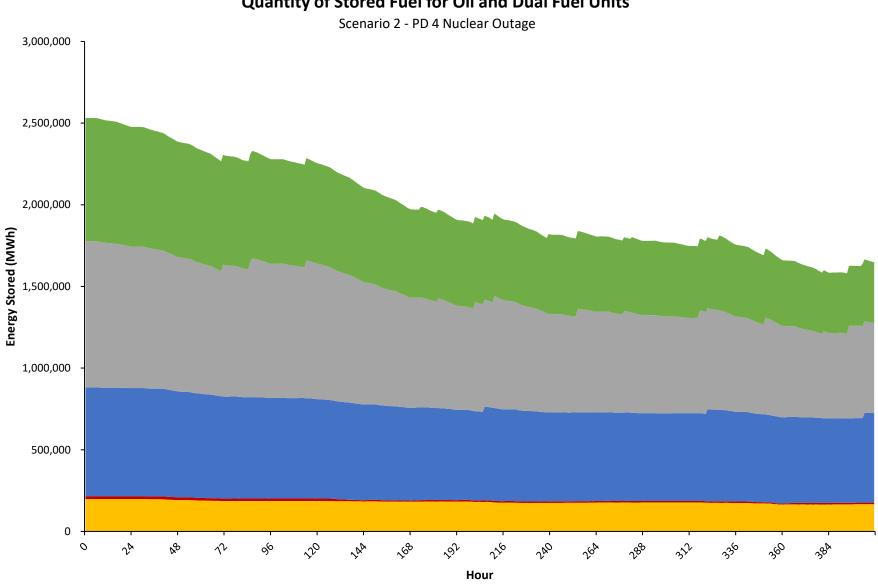


Zone J

Zone K Hourly Generation (MW) by Fuel Group

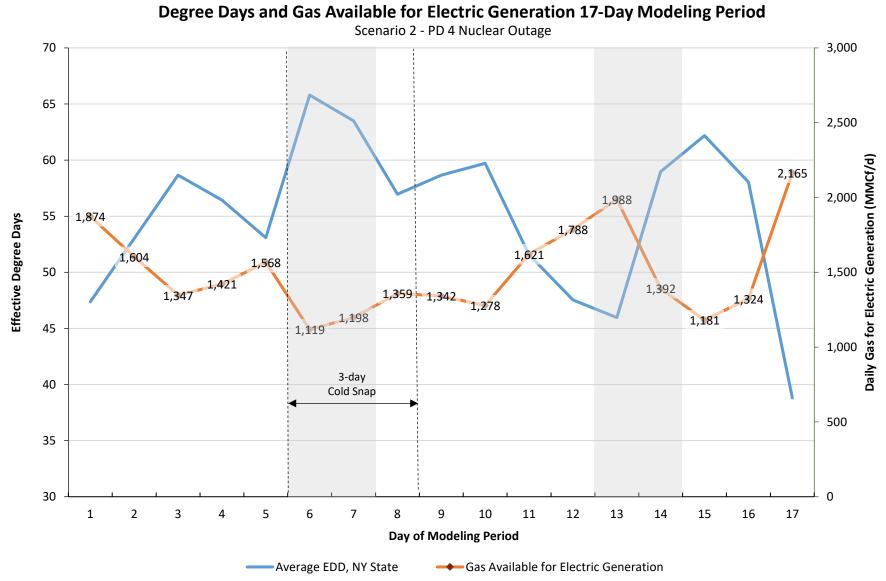
Scenario 2 - PD 4 Nuclear Outage





Quantity of Stored Fuel for Oil and Dual Fuel Units

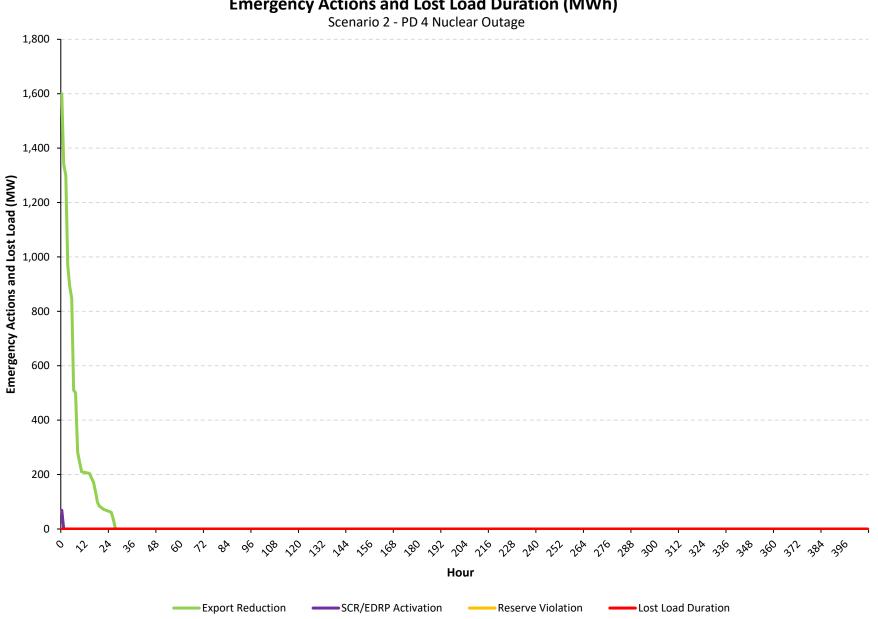
Zones A-E Zone F Zones G-I Zone J Zone K



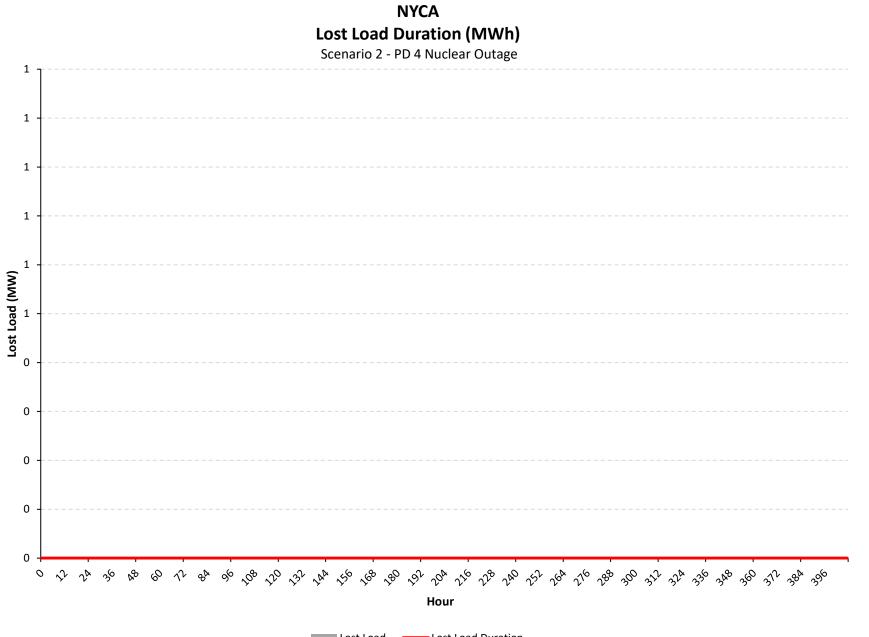
Notes:

[1] Weekends are shaded in gray.

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



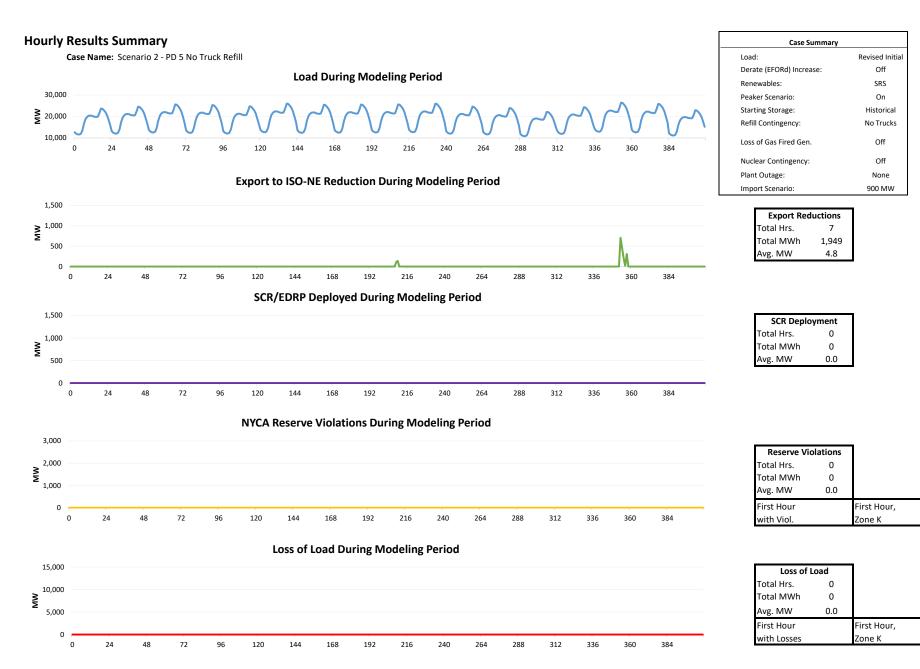
NYCA Emergency Actions and Lost Load Duration (MWh)



Lost Load —Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 2 - PD 5 No Truck Refill



606

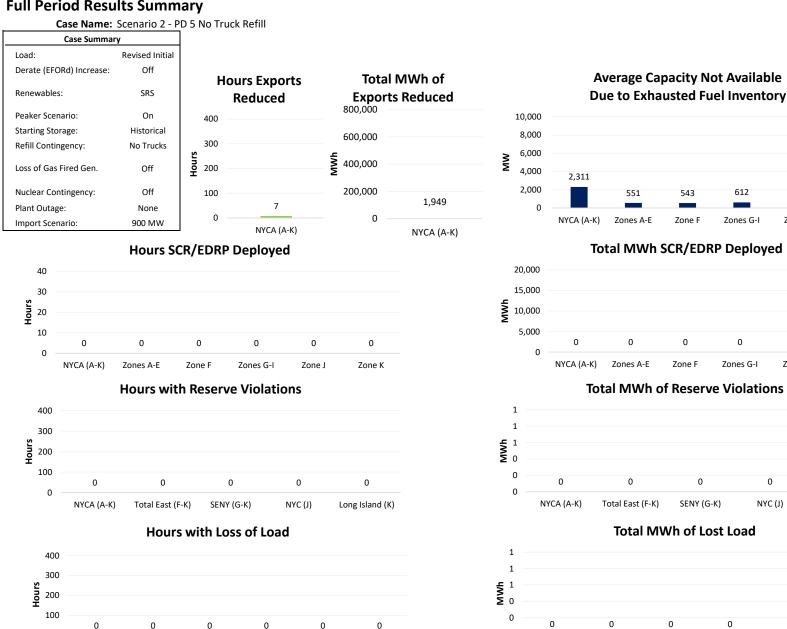
_

Zone K

0

Zone J

Full Period Results Summary



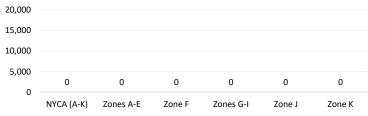
Zone F Total MWh SCR/EDRP Deployed

543

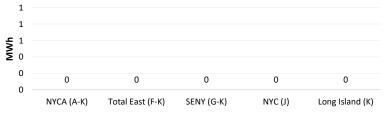
612

Zones G-I

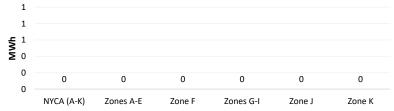
551



Total MWh of Reserve Violations



Total MWh of Lost Load



0

NYCA (A-K)

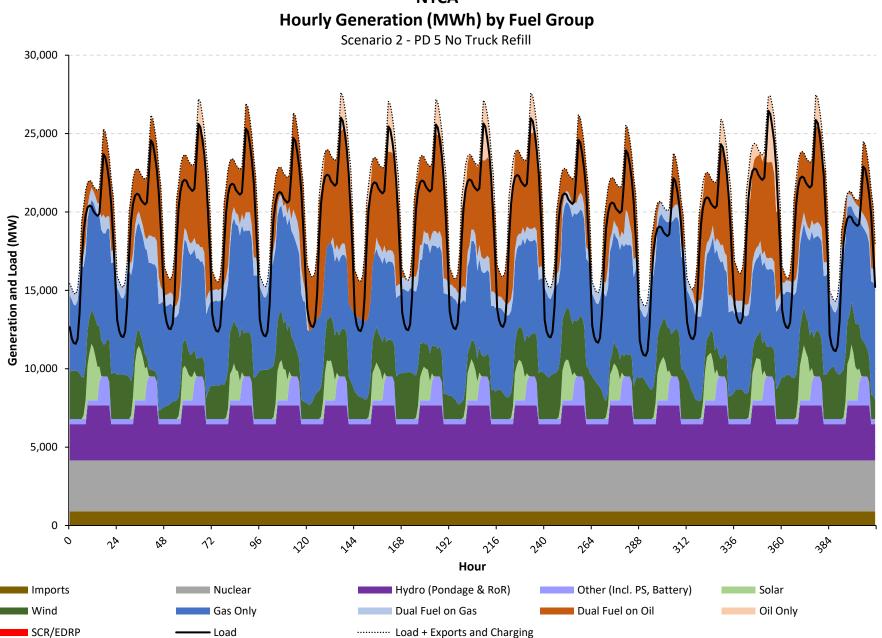
Zones A-E

Zone F

Zones G-I

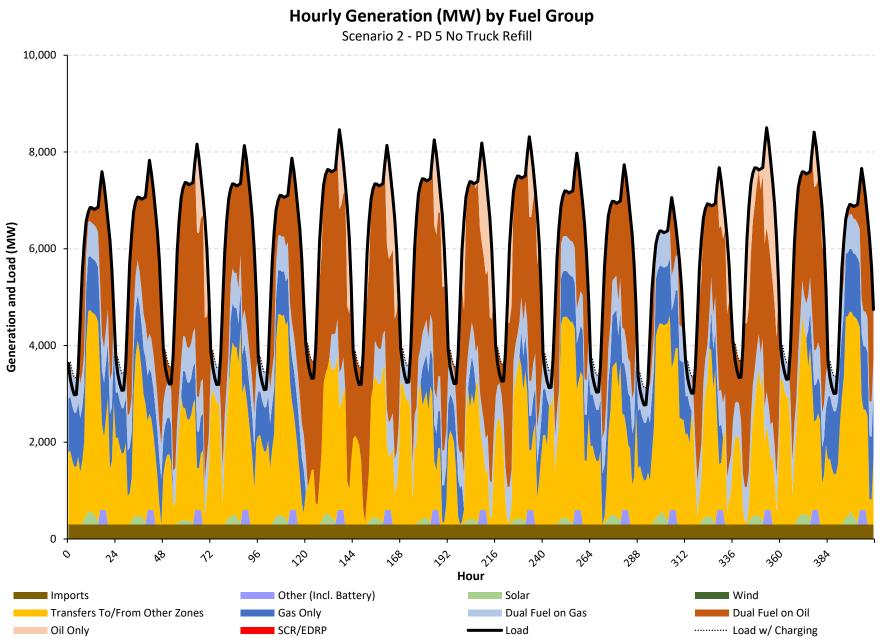
Zone J

Zone K



NYCA

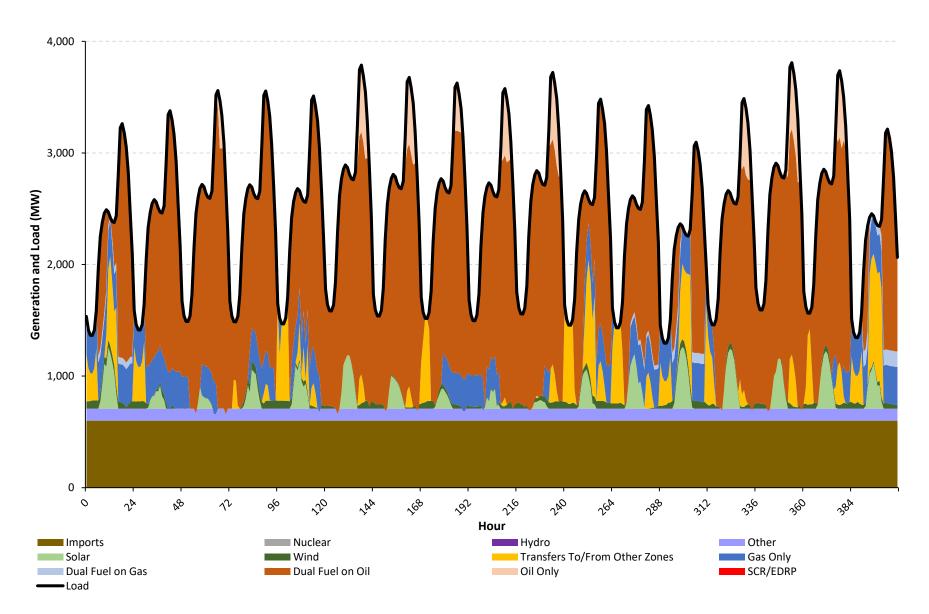
Analysis Group, Inc.



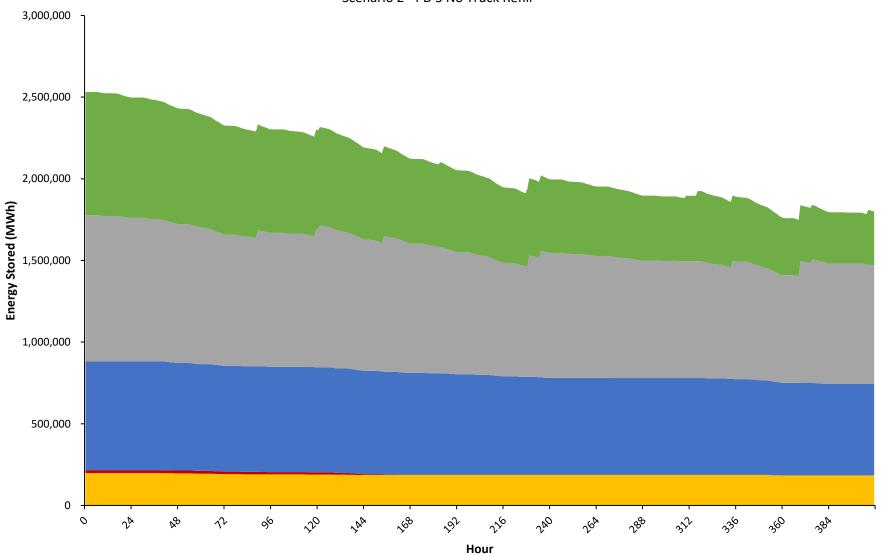
Zone J

Zone K Hourly Generation (MW) by Fuel Group

Scenario 2 - PD 5 No Truck Refill

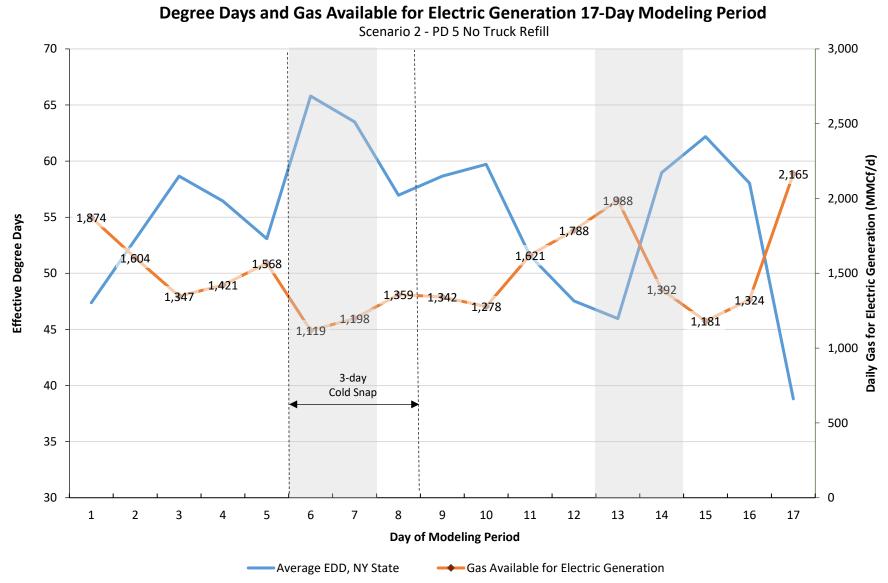






Scenario 2 - PD 5 No Truck Refill

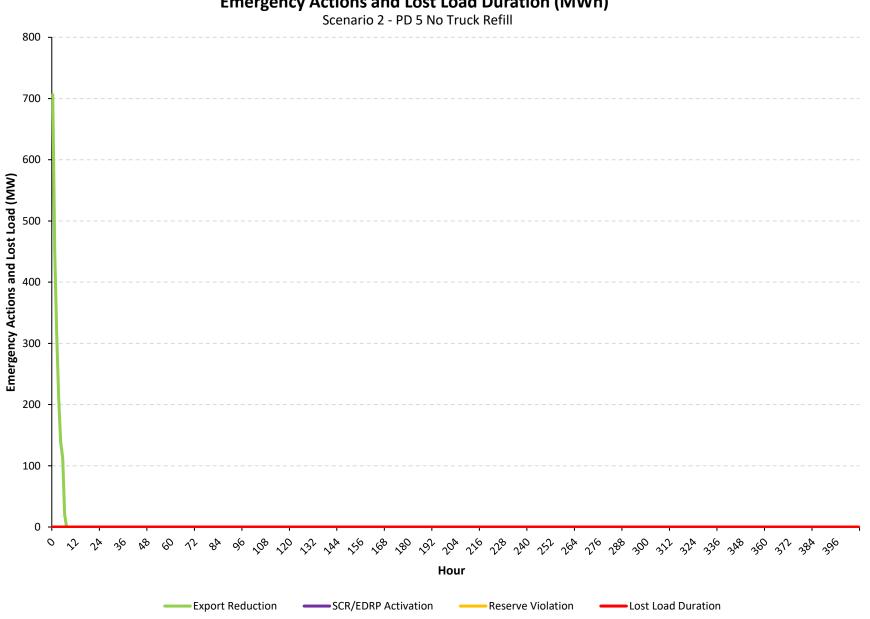
Zones A-E Zone F Zones G-I Zone J Zone K



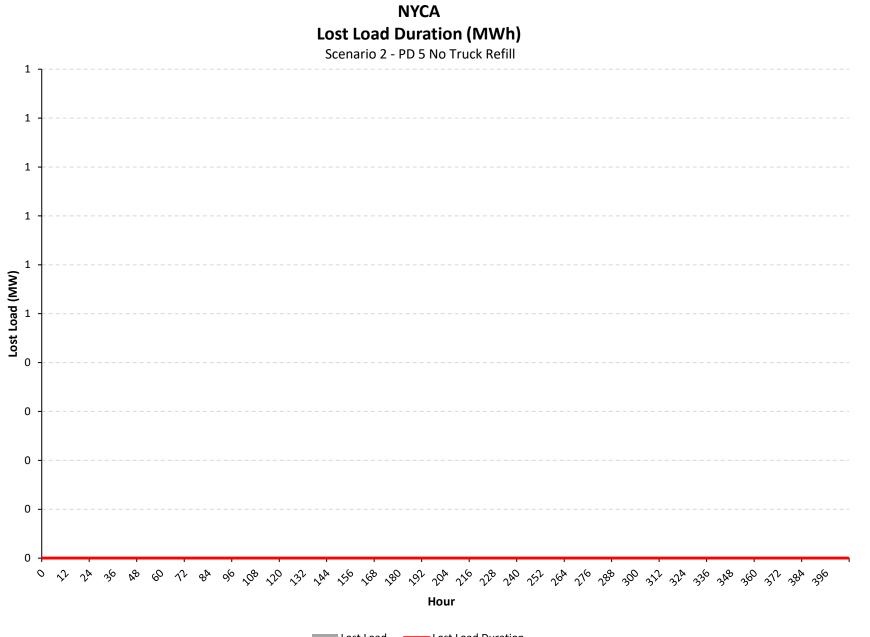
Notes:

[1] Weekends are shaded in gray.

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



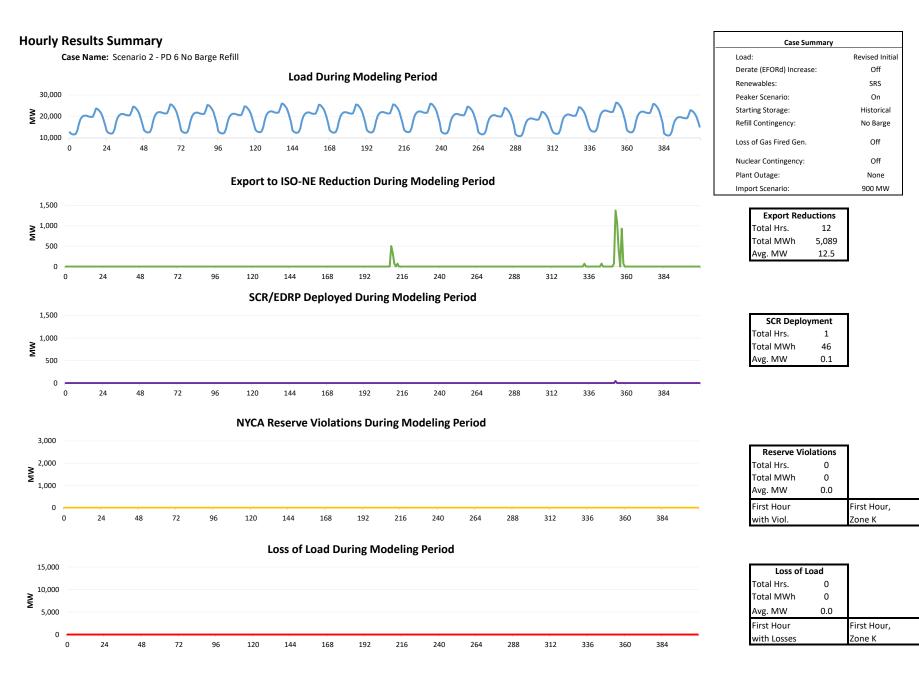
NYCA Emergency Actions and Lost Load Duration (MWh)



Lost Load —Lost Load Duration

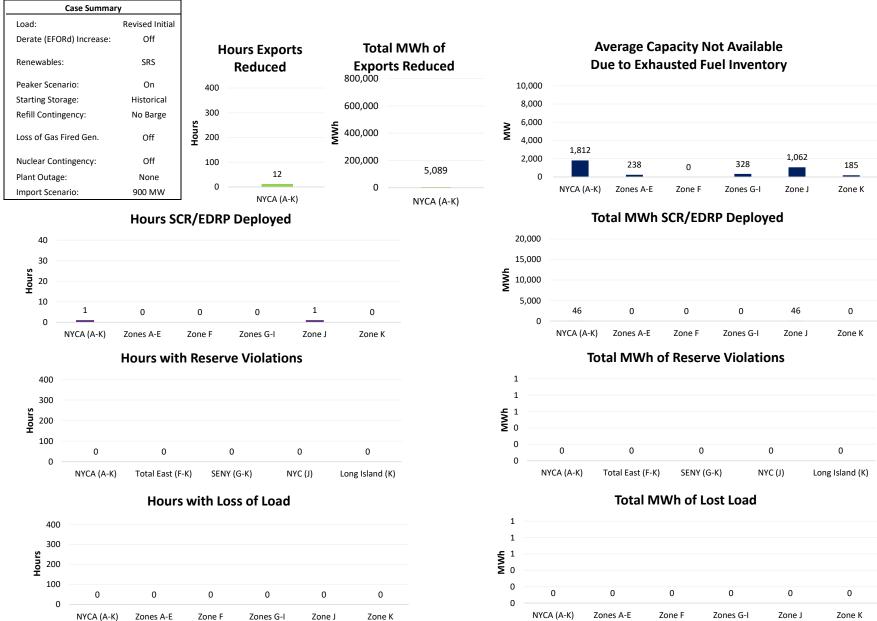
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

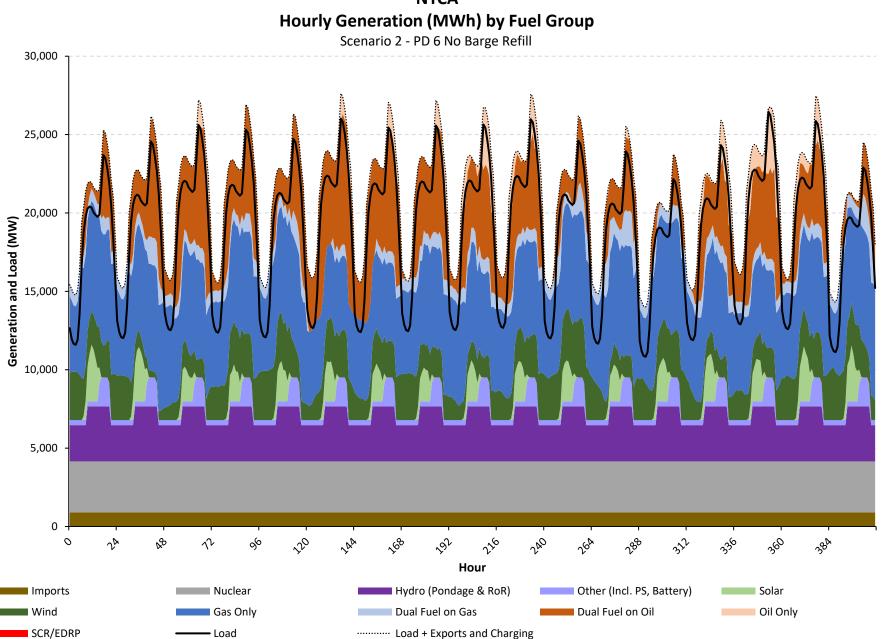
Case: Scenario 2 - PD 6 No Barge Refill



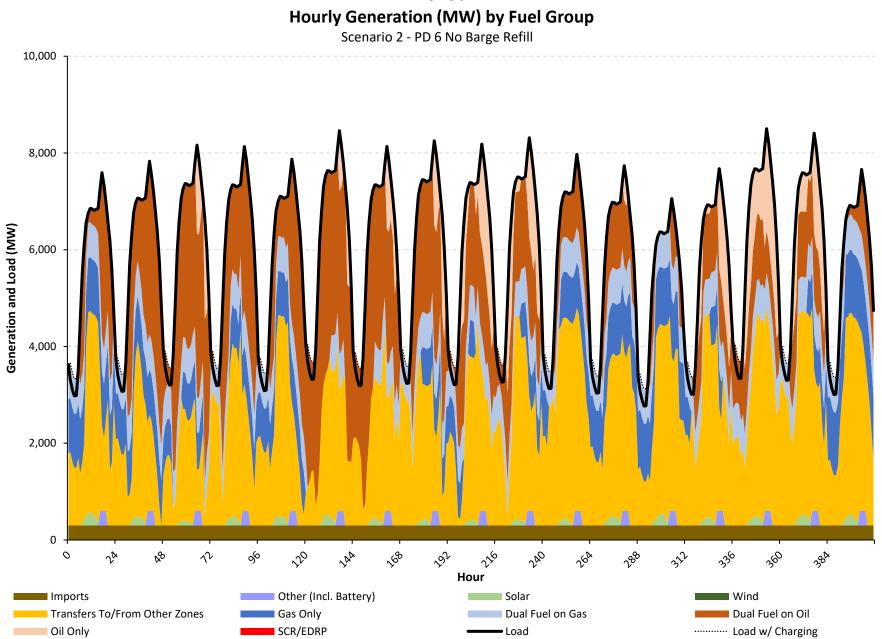
Full Period Results Summary







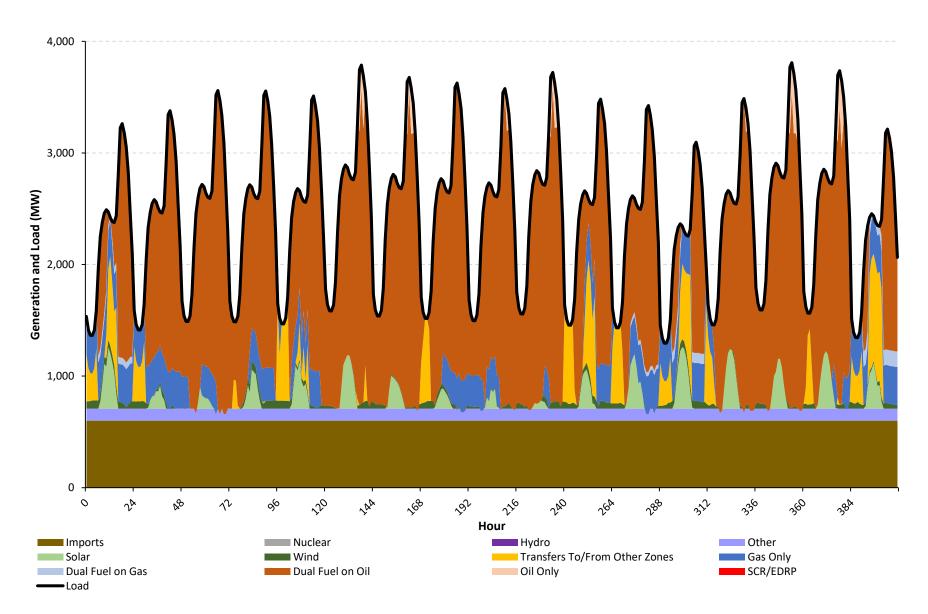
NYCA



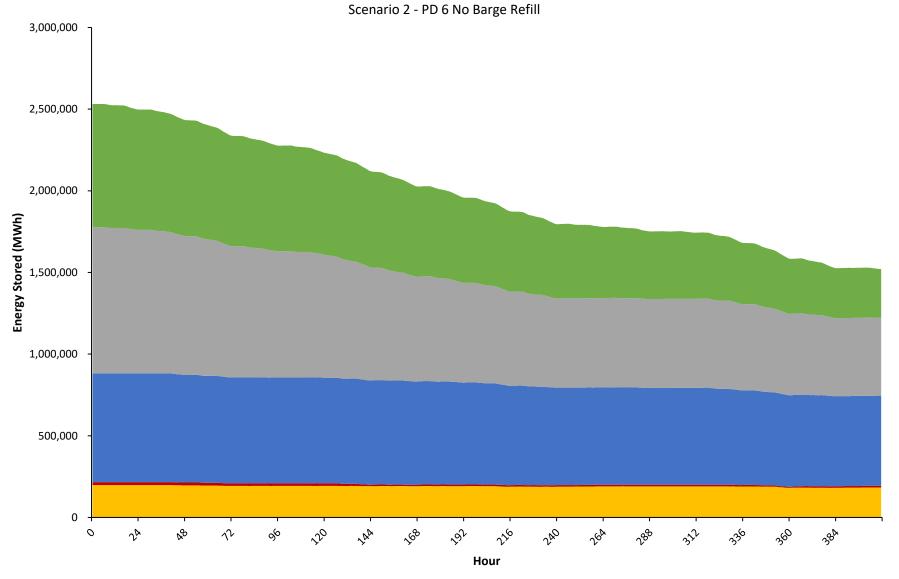
Zone J

Zone K Hourly Generation (MW) by Fuel Group

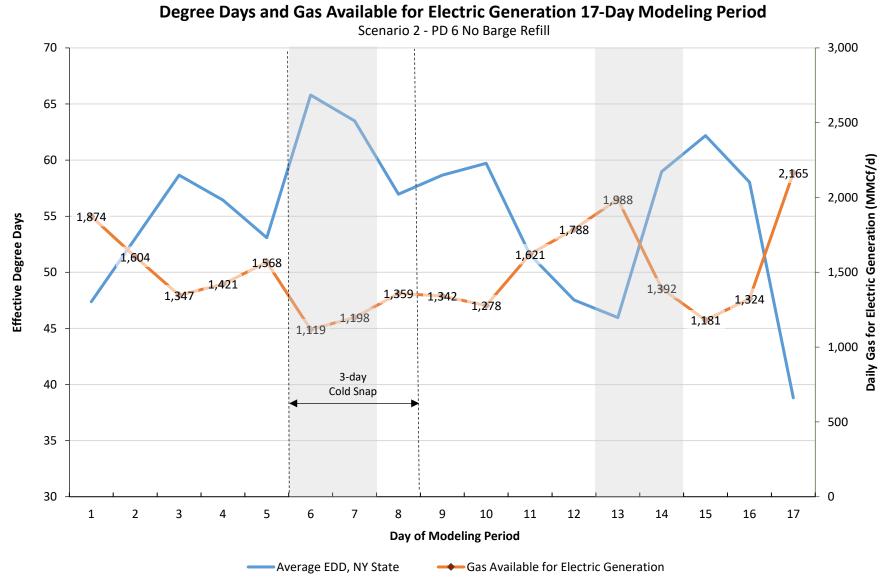
Scenario 2 - PD 6 No Barge Refill







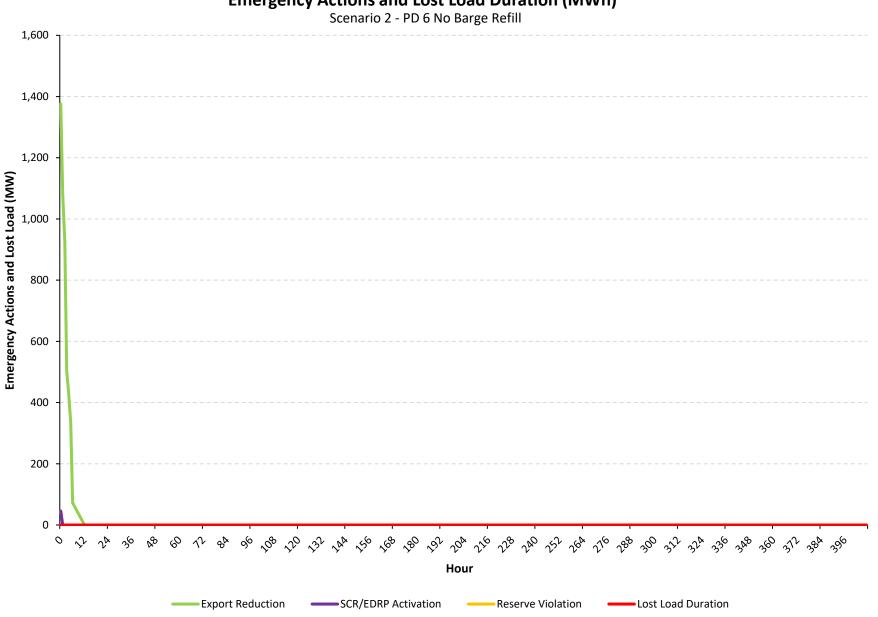
Zones A-E Zone F Zones G-I Zone J Zone K



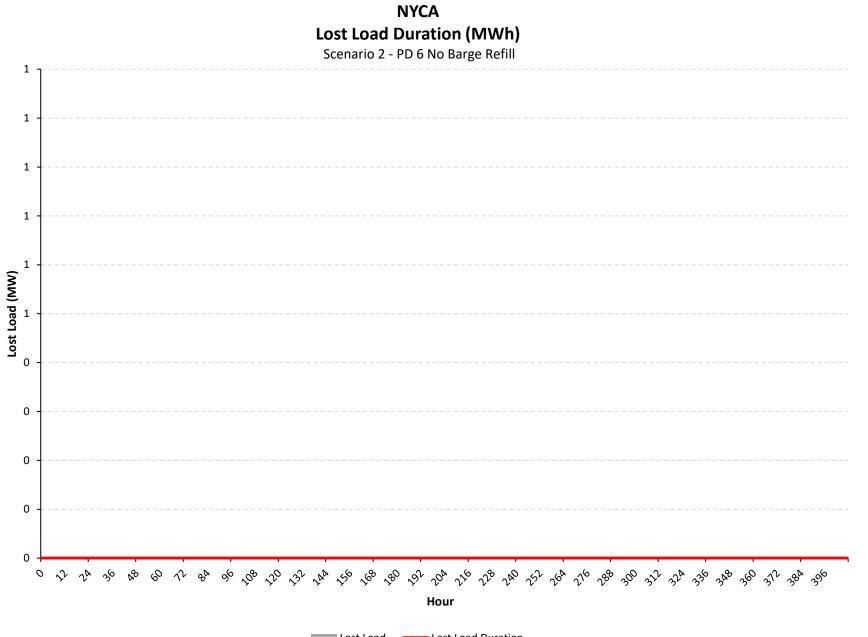
Notes:

[1] Weekends are shaded in gray.

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



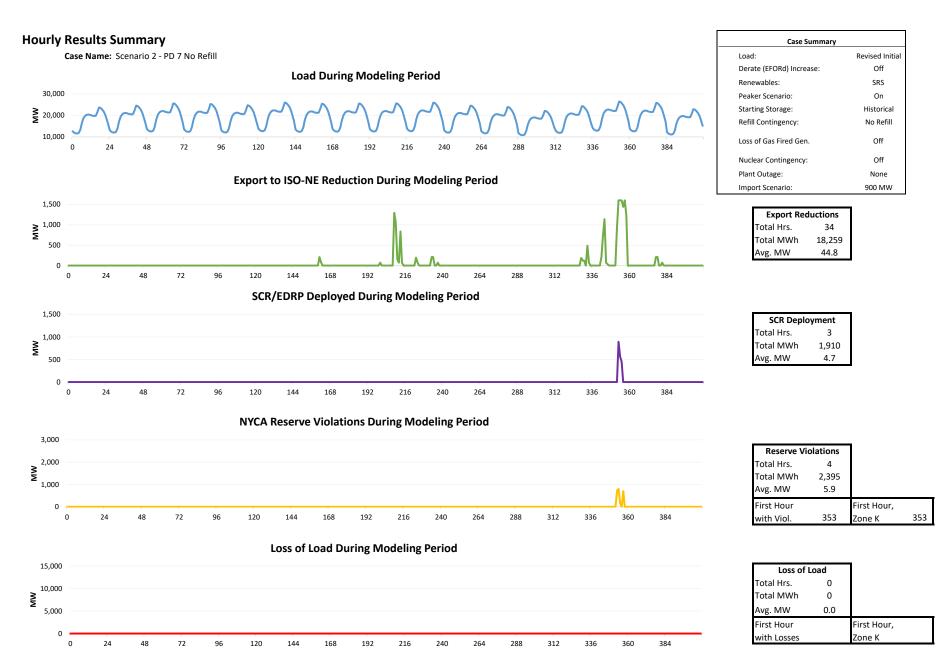
NYCA Emergency Actions and Lost Load Duration (MWh)



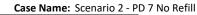
Lost Load Lost Load Duration

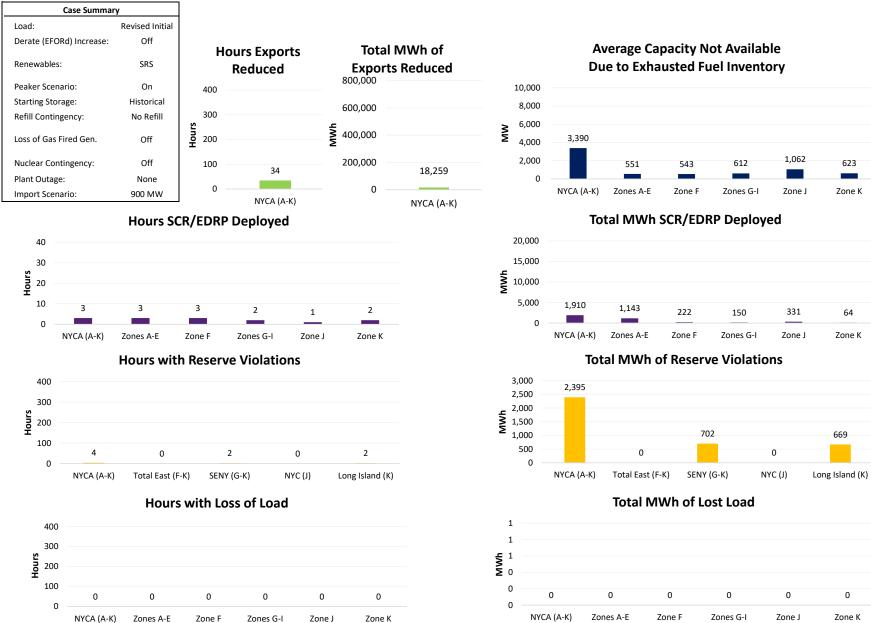
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

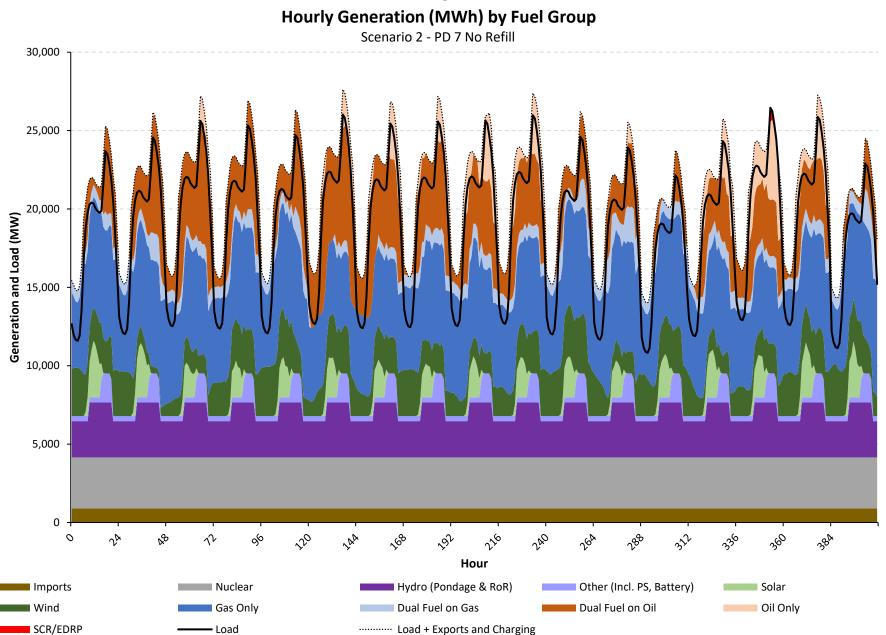
Case: Scenario 2 - PD 7 No Refill



Full Period Results Summary

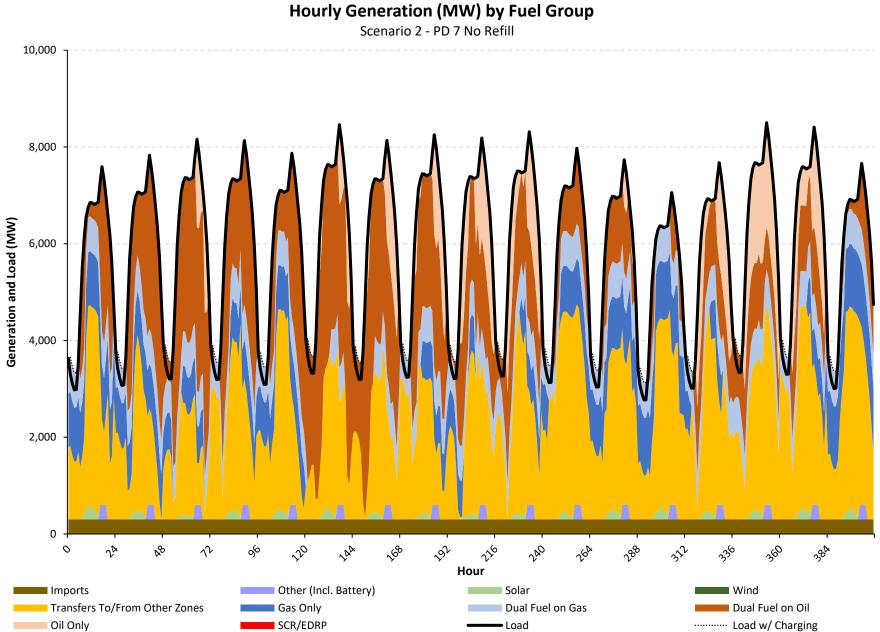






NYCA

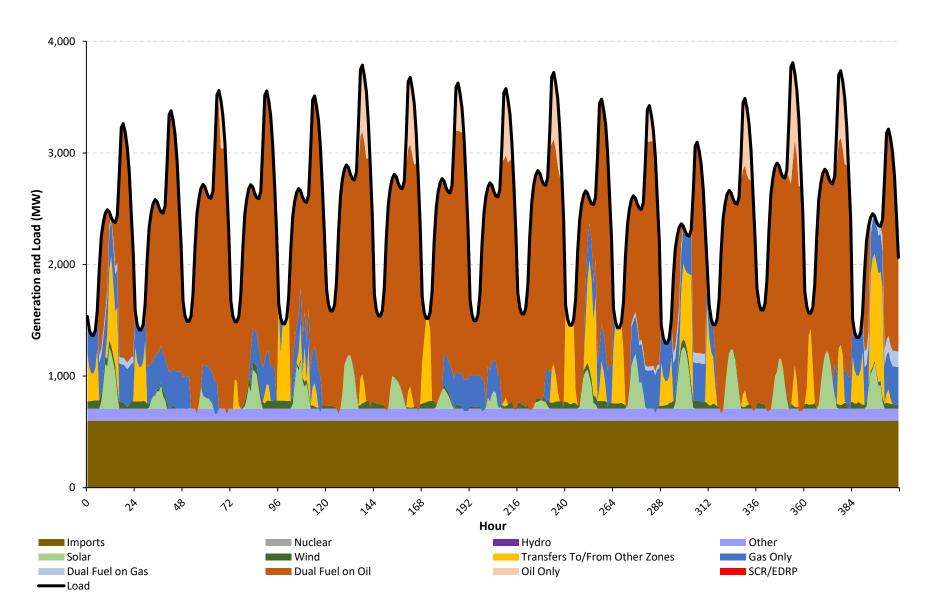
Analysis Group, Inc.



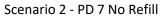
Zone J

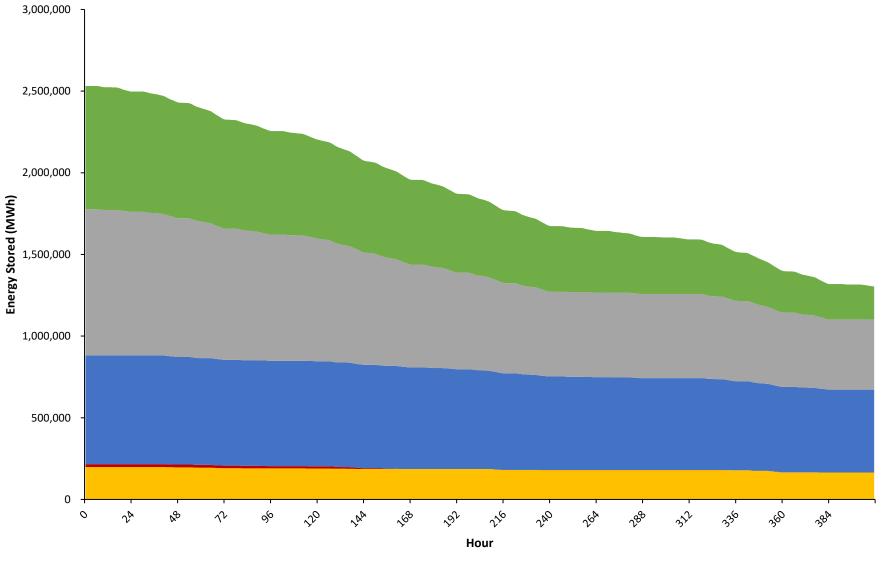
Zone K Hourly Generation (MW) by Fuel Group

Scenario 2 - PD 7 No Refill

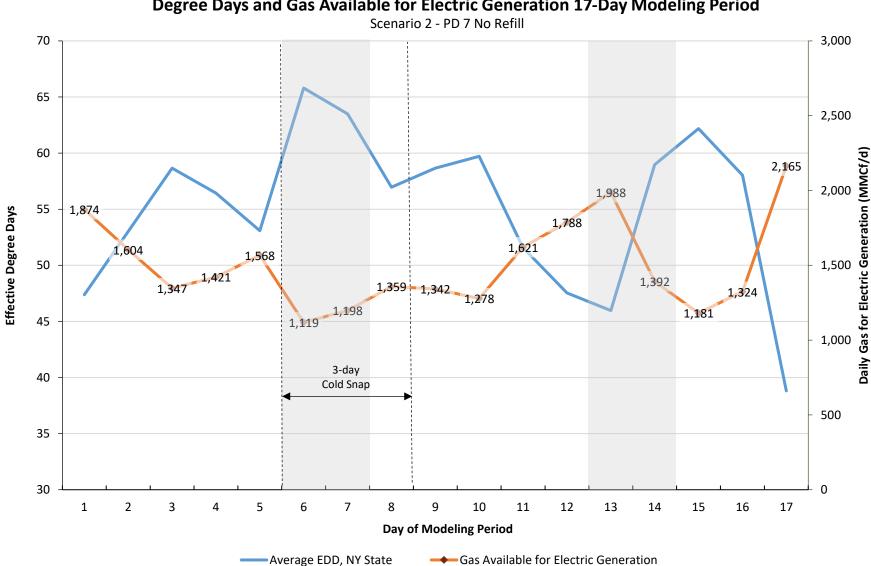








Zones A-E Zone F Zones G-I Zone J Zone K

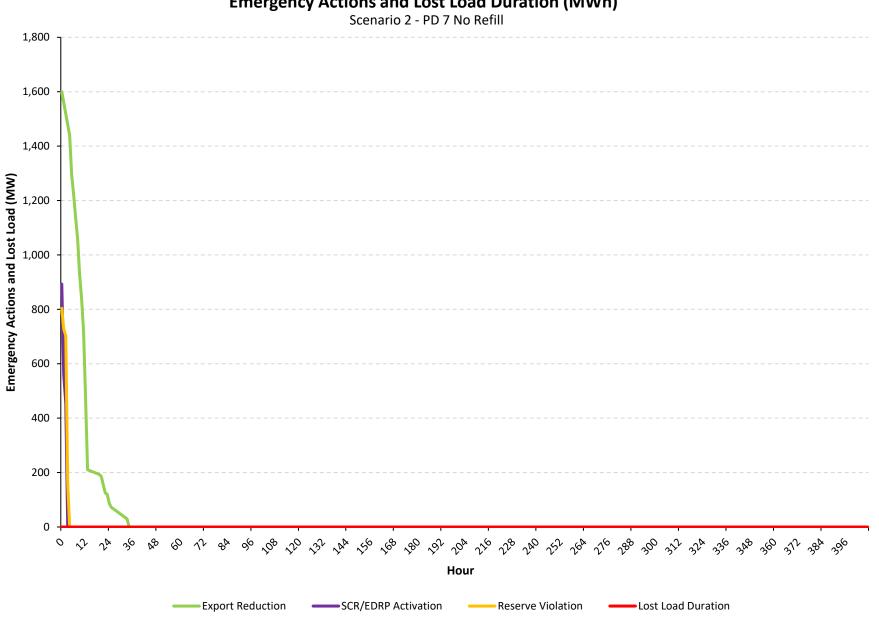


Degree Days and Gas Available for Electric Generation 17-Day Modeling Period

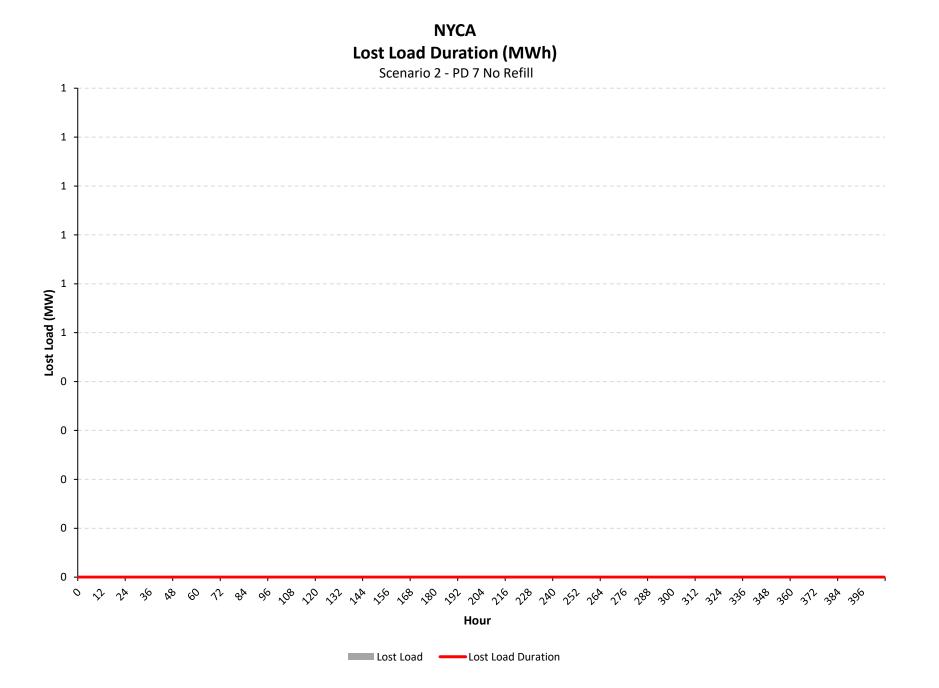
Notes:

[1] Weekends are shaded in gray.

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



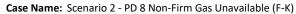
NYCA Emergency Actions and Lost Load Duration (MWh)

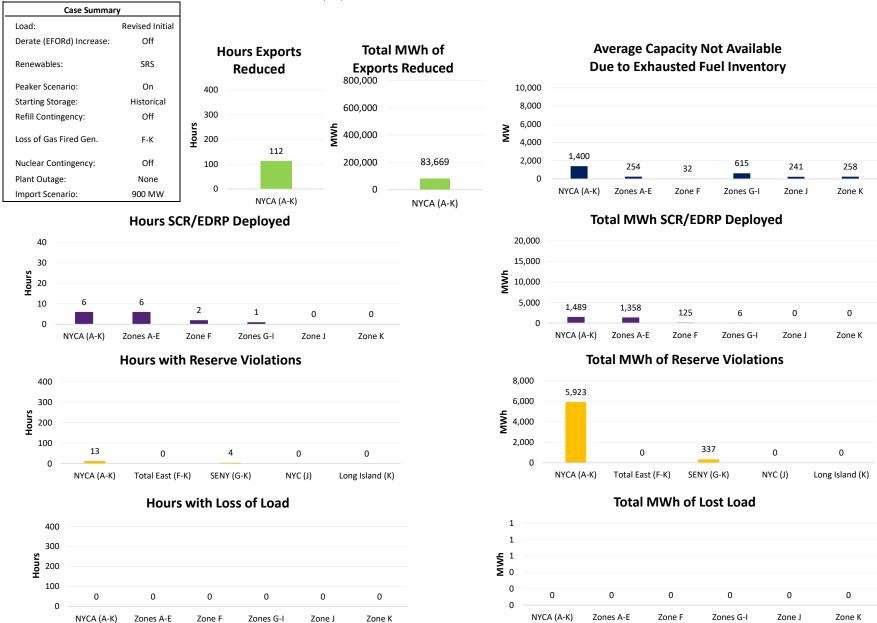


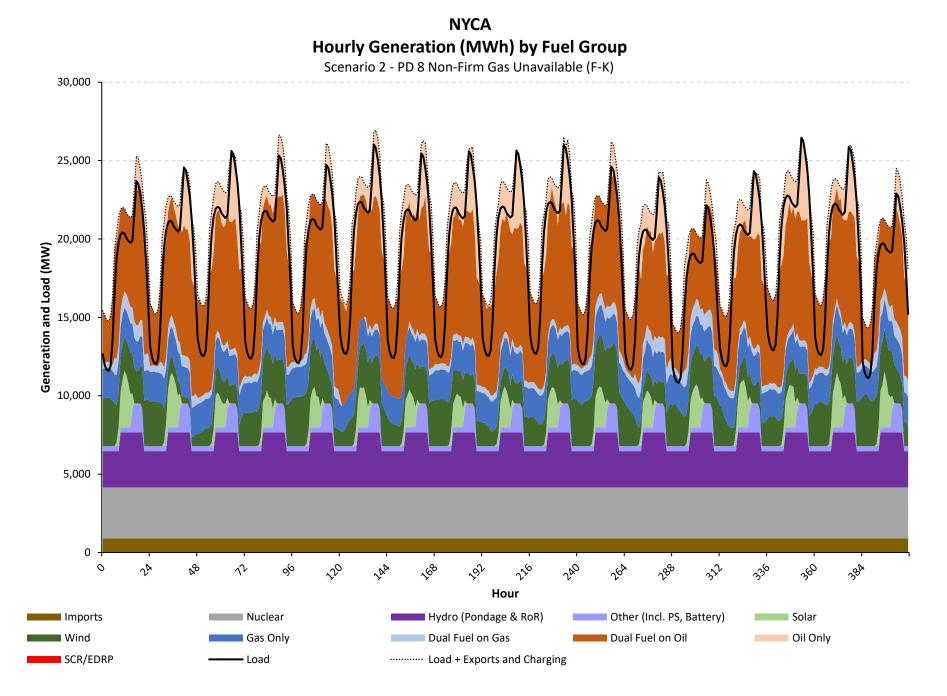
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 2 - PD 8 Non-Firm Gas Unavailable (F-K)



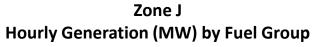
Full Period Results Summary



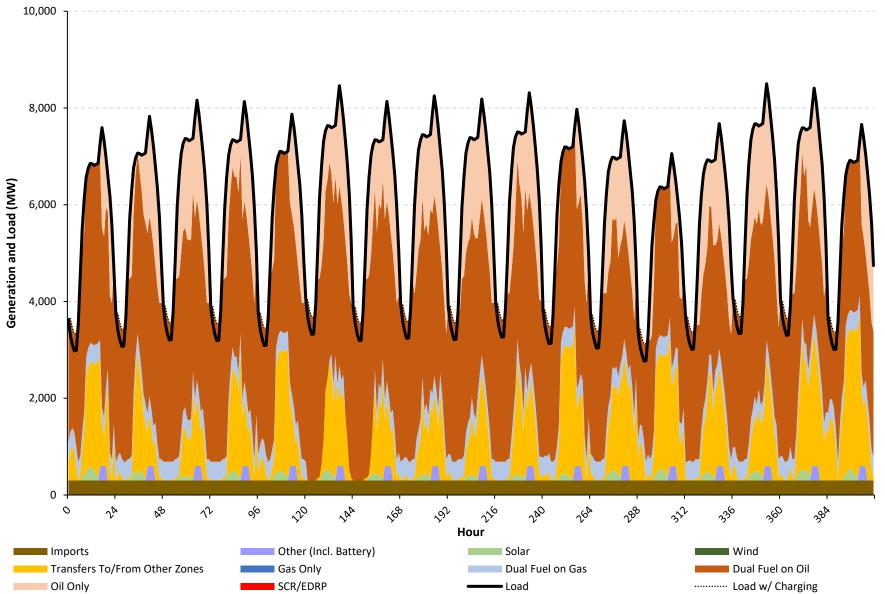




Analysis Group, Inc.

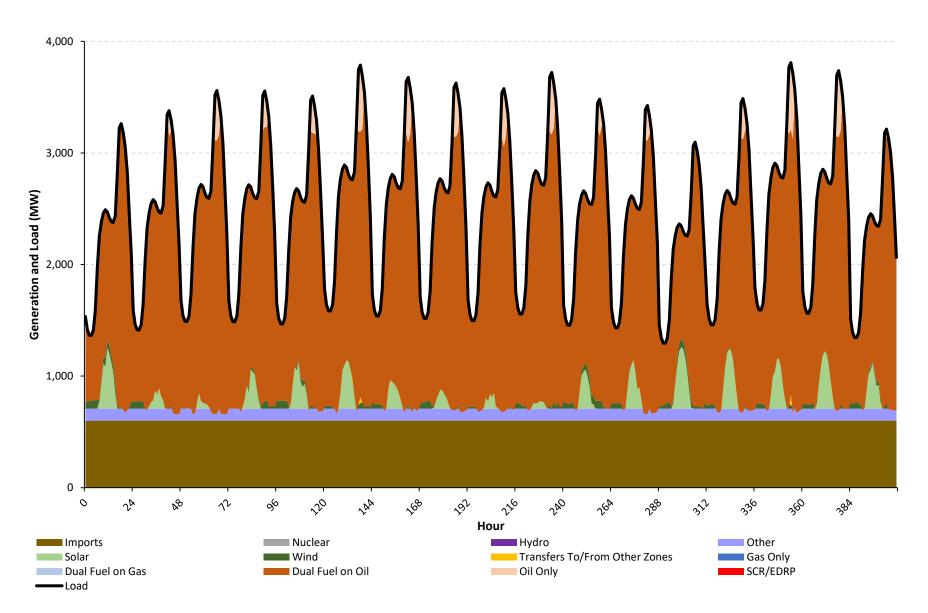


Scenario 2 - PD 8 Non-Firm Gas Unavailable (F-K)



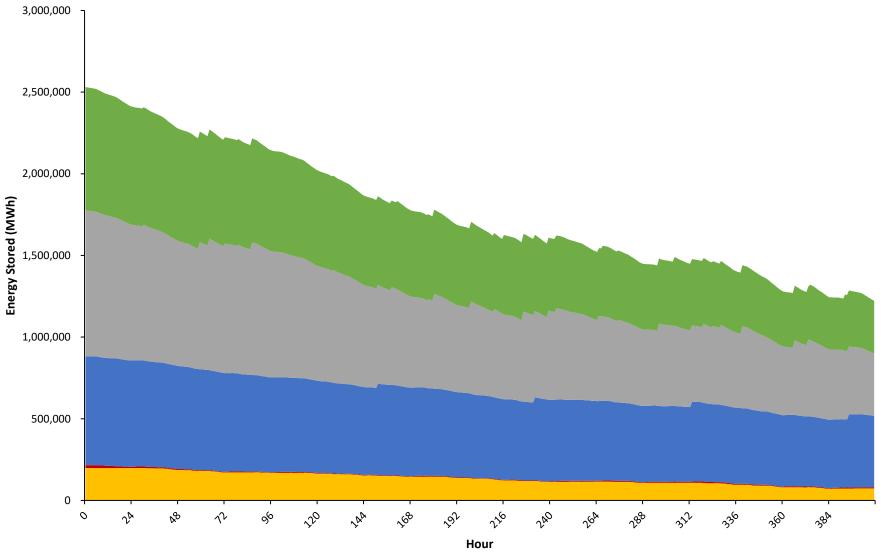
Zone K Hourly Generation (MW) by Fuel Group

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

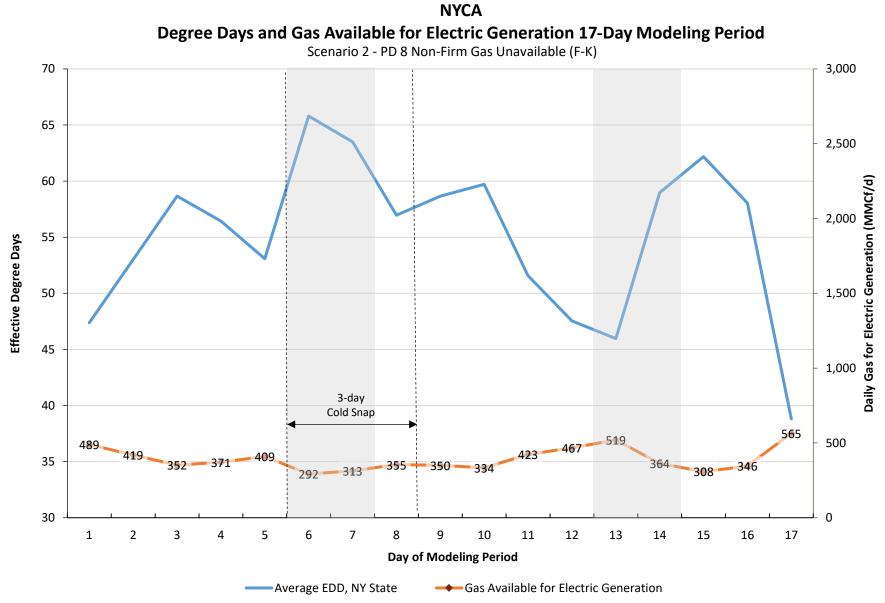








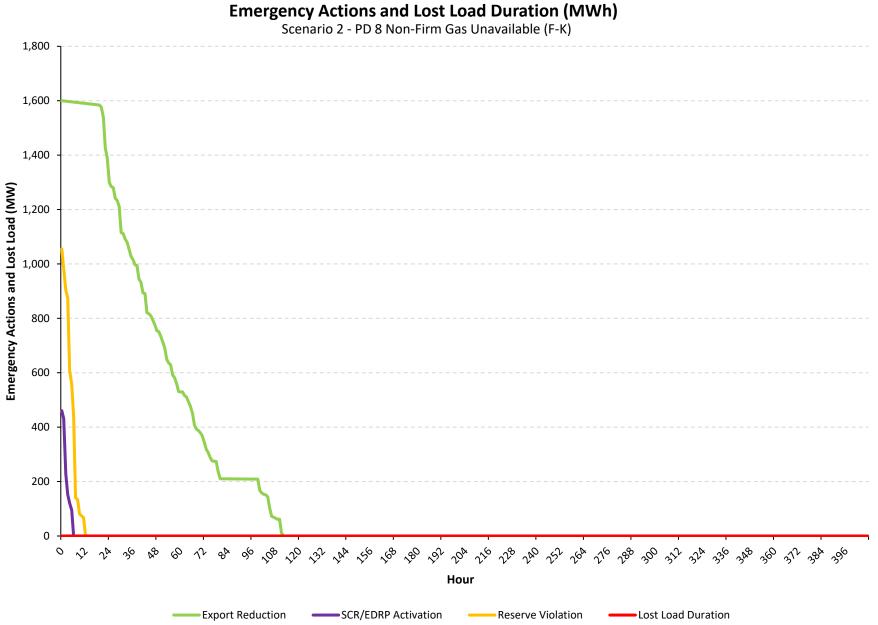
Zones A-E Zone F Zones G-I Zone J Zone K



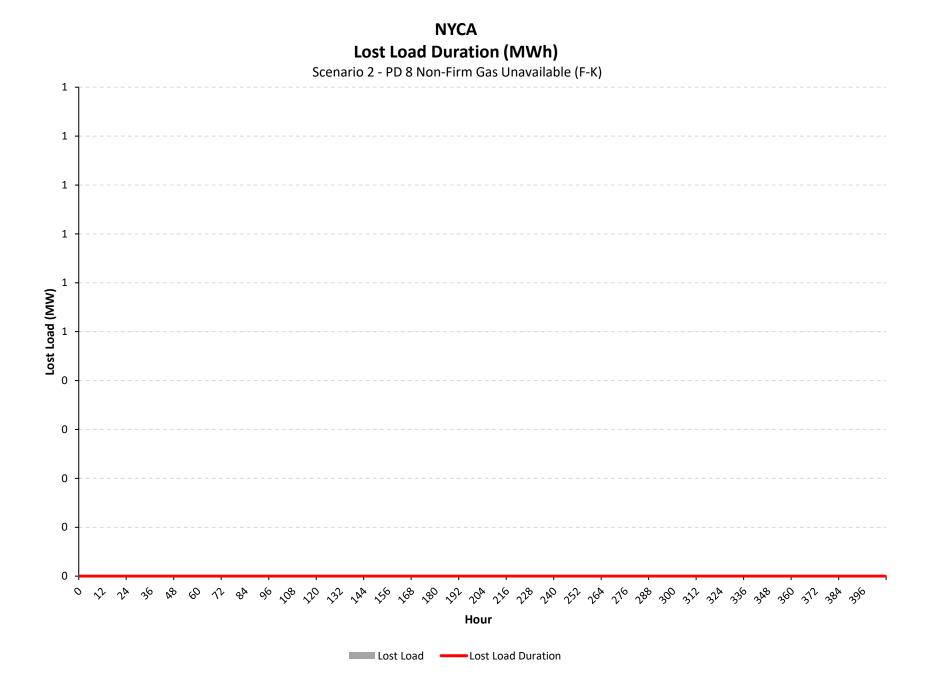
Notes:

[1] Weekends are shaded in gray.

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

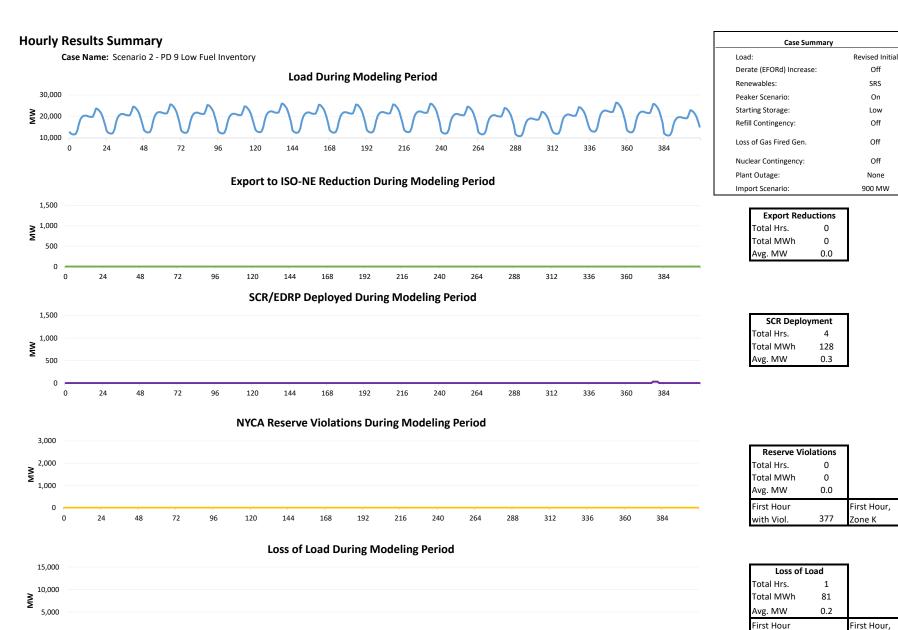


NYCA **Emergency Actions and Lost Load Duration (MWh)**



Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

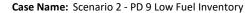
Case: Scenario 2 - PD 9 Low Fuel Inventory

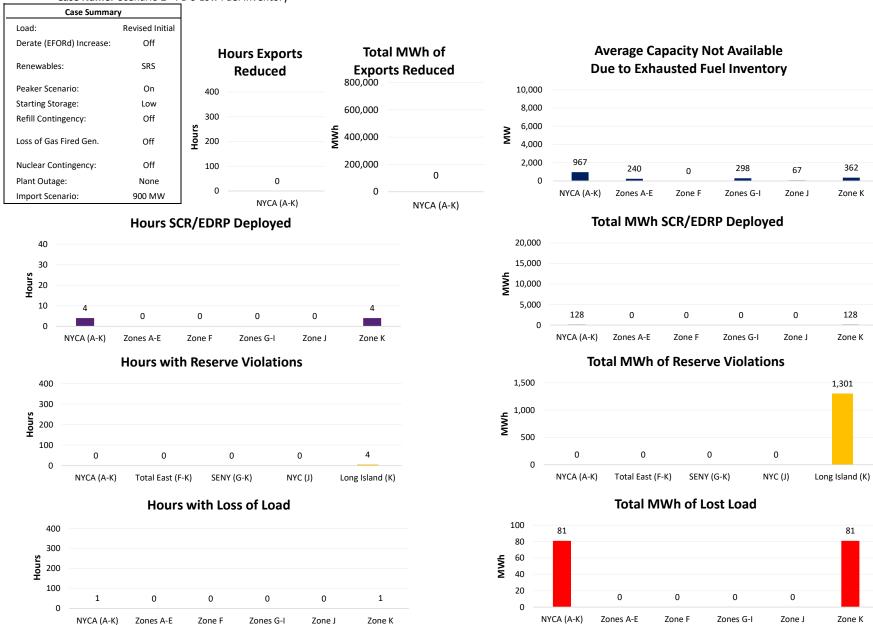


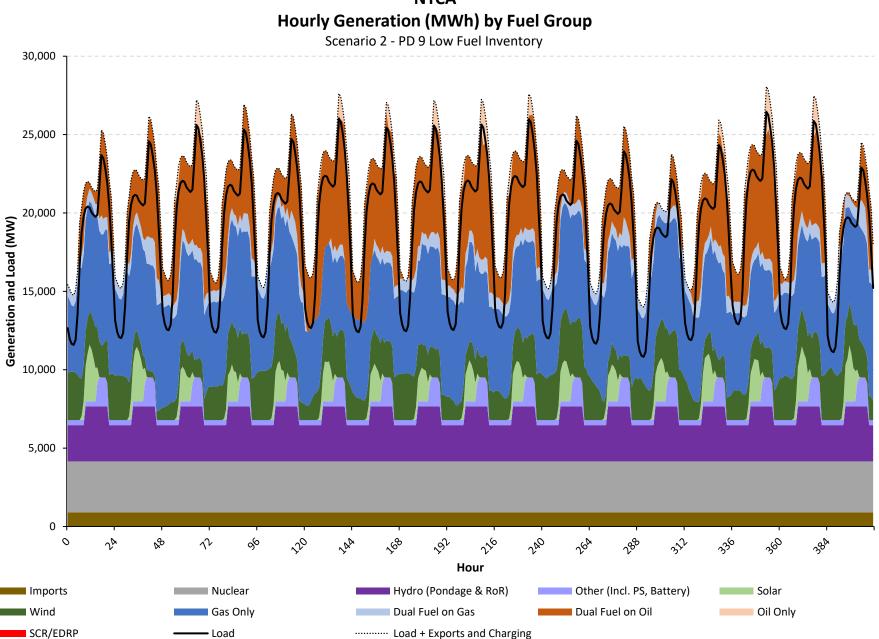
Zone K

with Losses

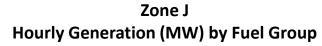
Full Period Results Summary



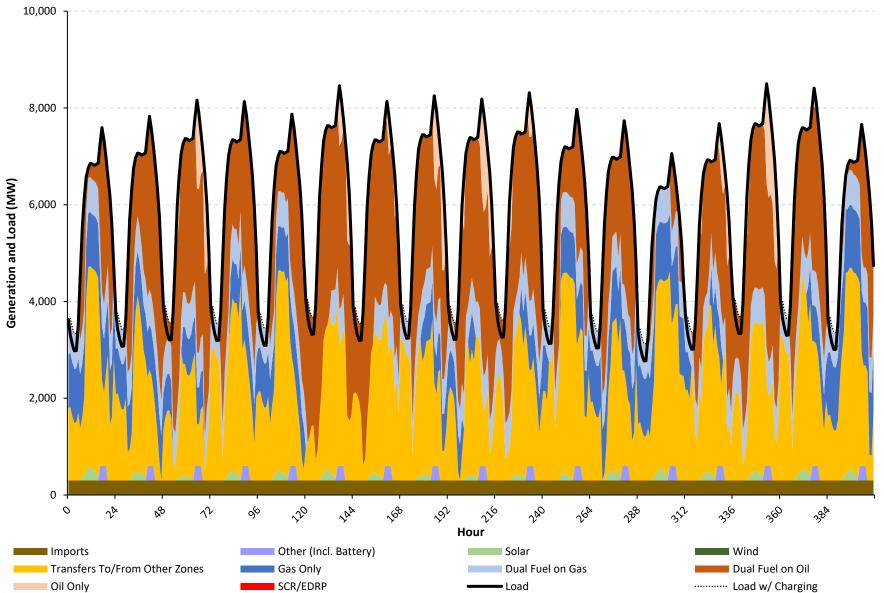




NYCA

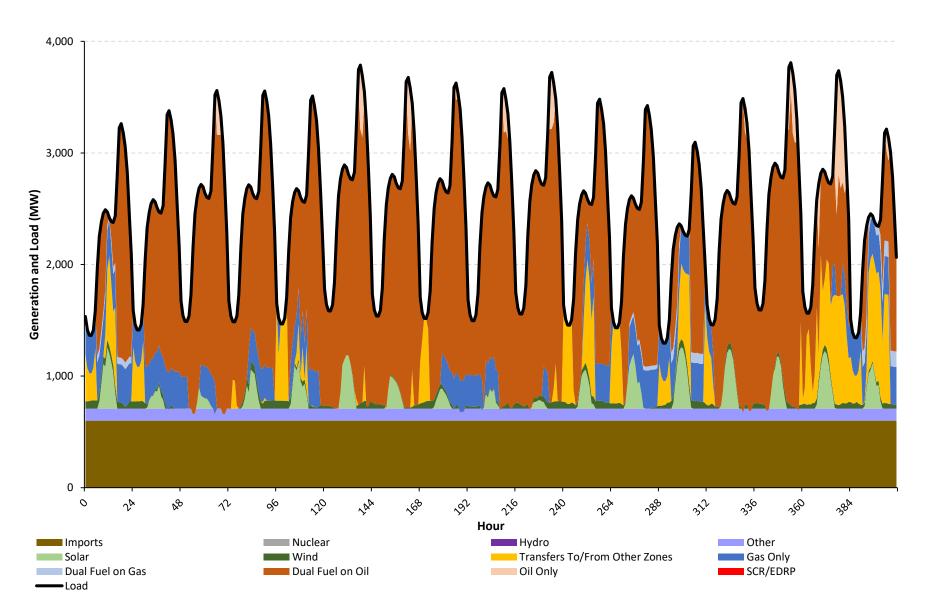


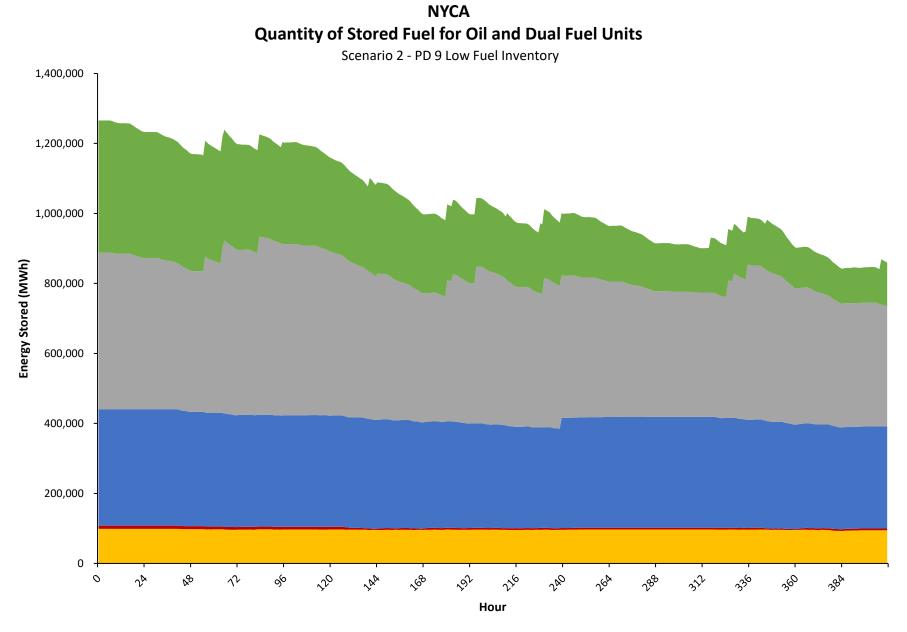
Scenario 2 - PD 9 Low Fuel Inventory



Zone K Hourly Generation (MW) by Fuel Group

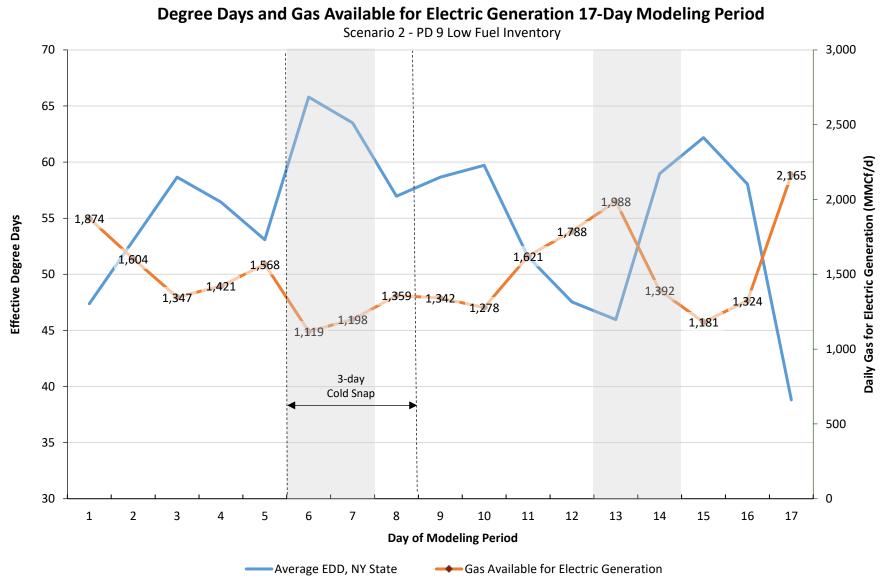
Scenario 2 - PD 9 Low Fuel Inventory





Zones A-E Zone F Zones G-I Zone J Zone K

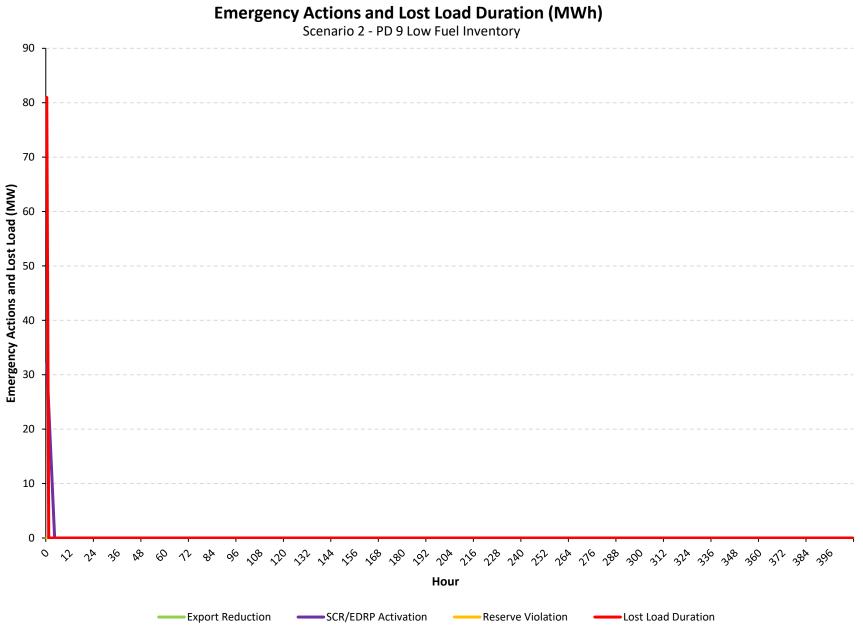
NYCA



Notes:

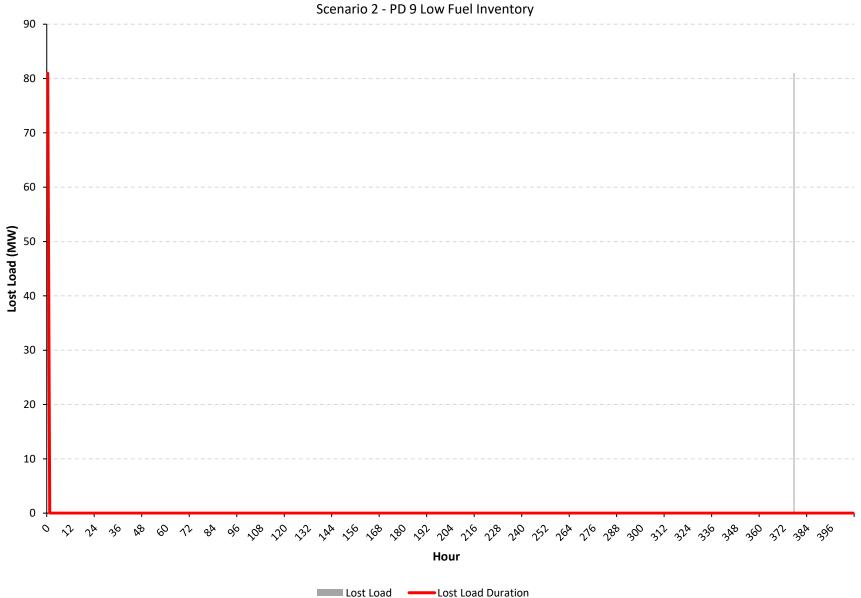
[1] Weekends are shaded in gray.

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

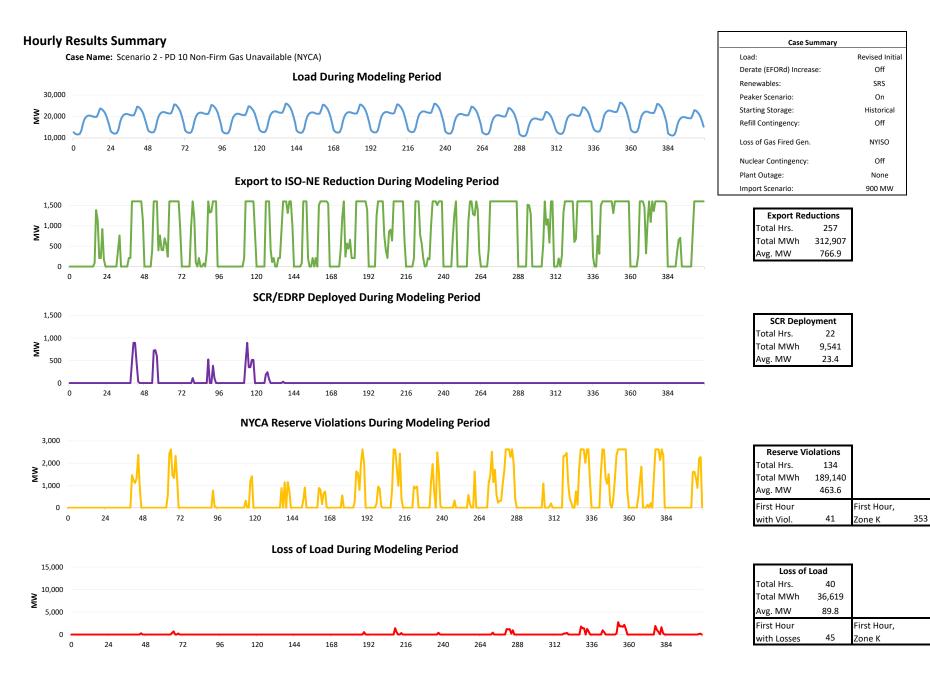


NYCA

NYCA Lost Load Duration (MWh)



Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 2 - PD 10 Non-Firm Gas Unavailable (NYCA)



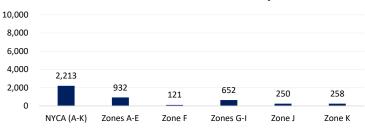
Full Period Results Summary

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

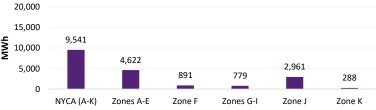




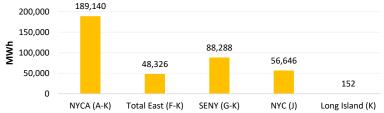
Average Capacity Not Available Due to Exhausted Fuel Inventory



Total MWh SCR/EDRP Deployed

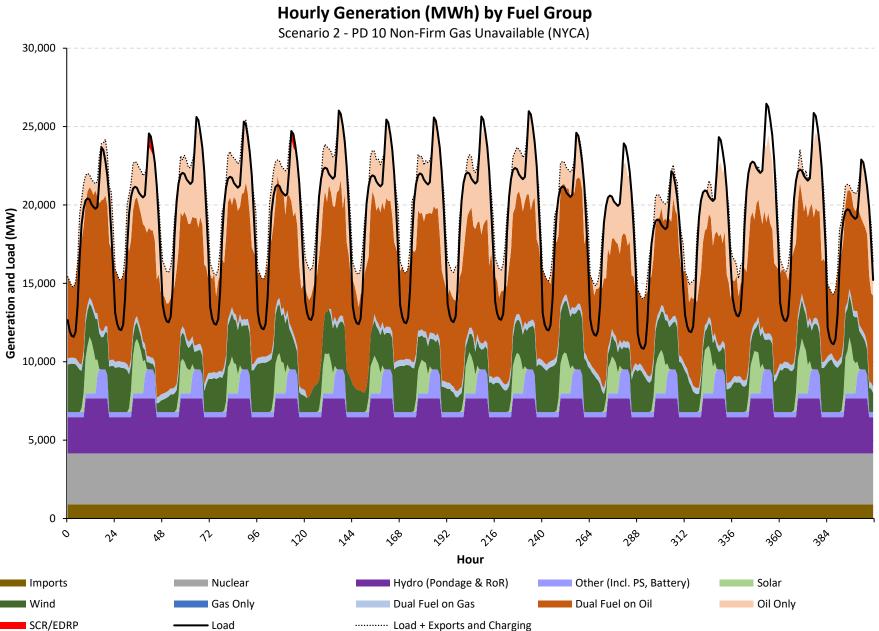


Total MWh of Reserve Violations



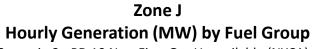
Total MWh of Lost Load



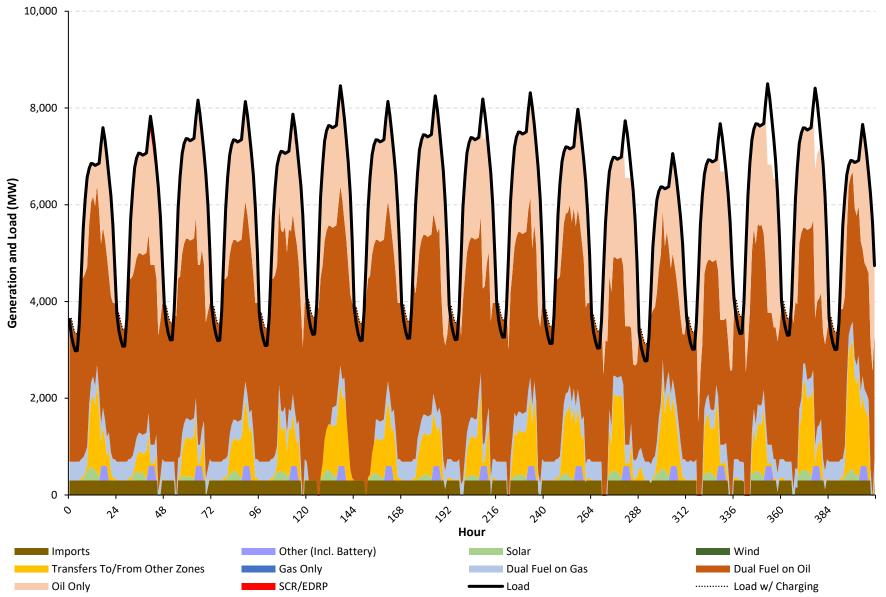


NYCA

Analysis Group, Inc.

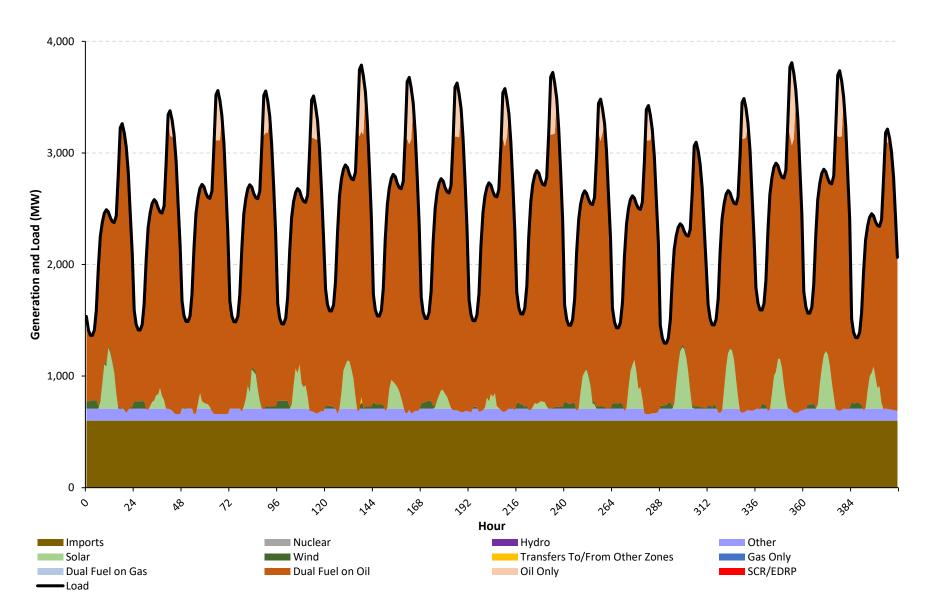




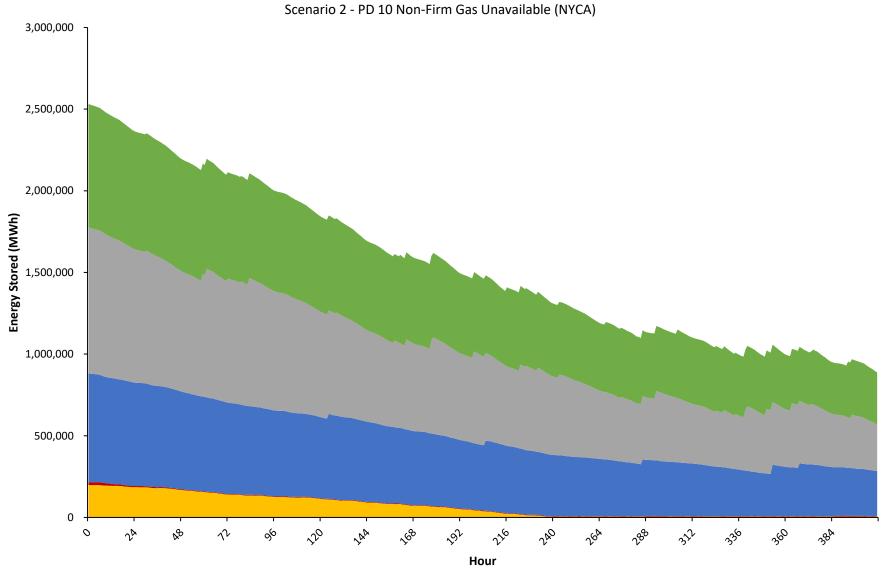


Zone K Hourly Generation (MW) by Fuel Group

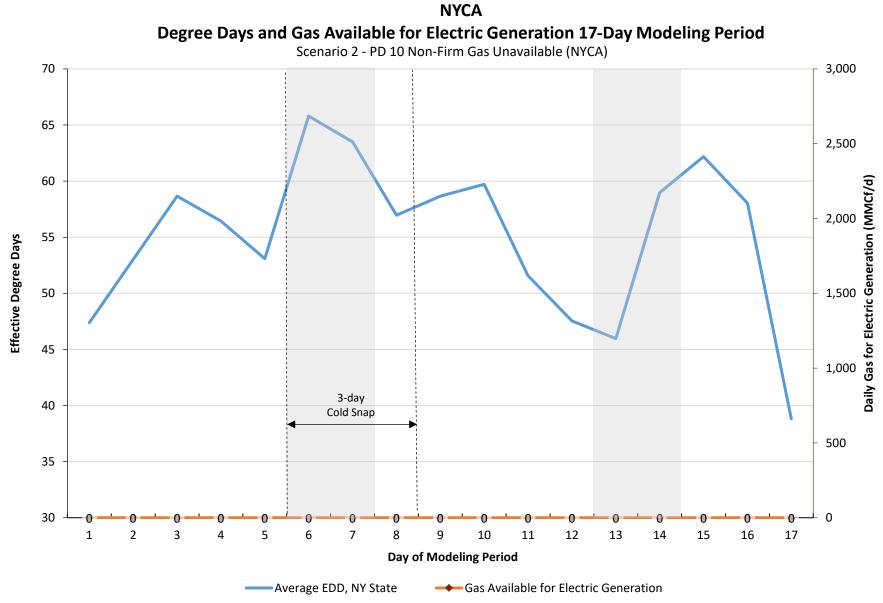
Scenario 2 - PD 10 Non-Firm Gas Unavailable (NYCA)







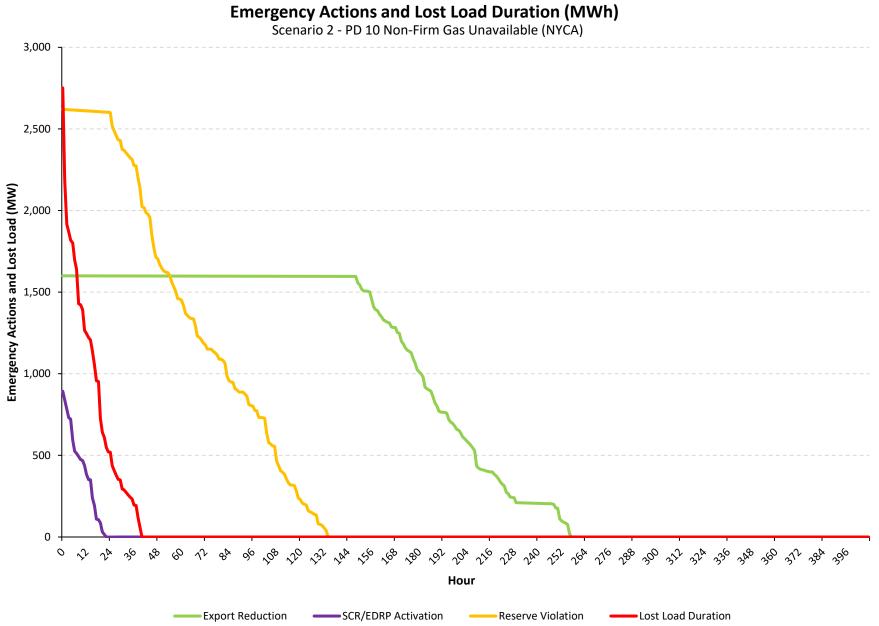
Zones A-E Zone F Zones G-I Zone J Zone K



Notes:

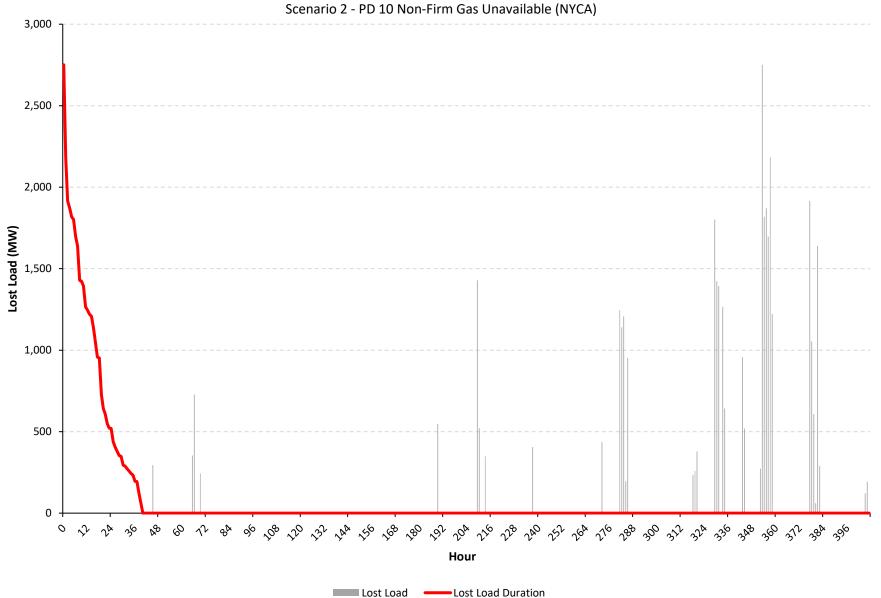
[1] Weekends are shaded in gray.

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

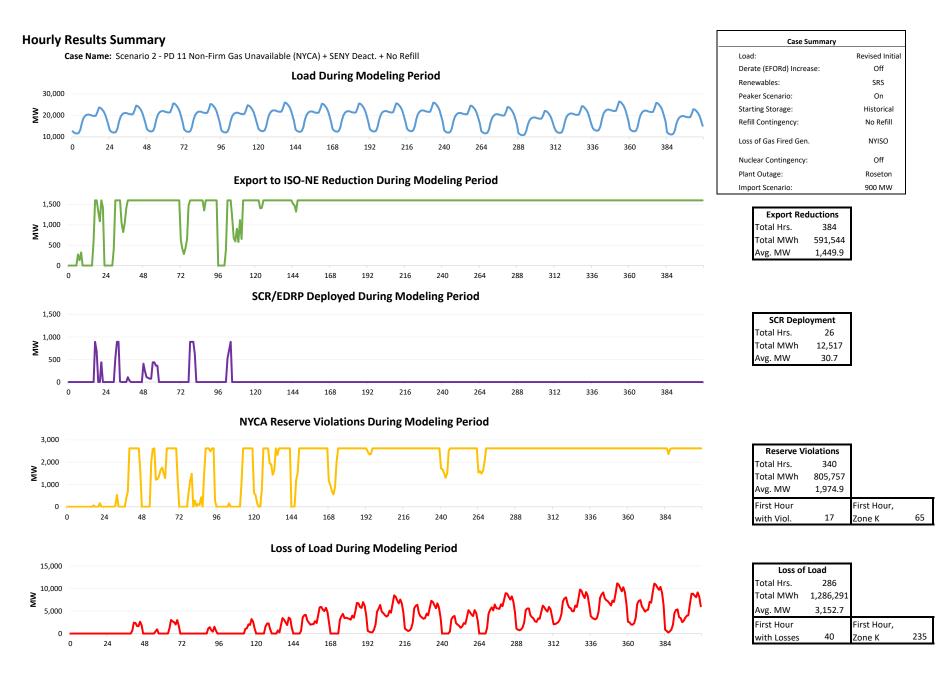


NYCA

NYCA Lost Load Duration (MWh)



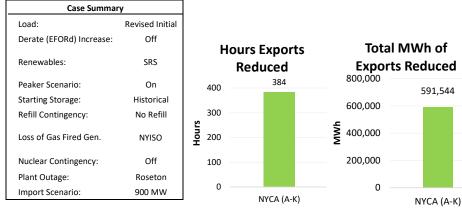
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 2 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill



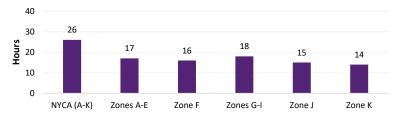
591,544

Full Period Results Summary

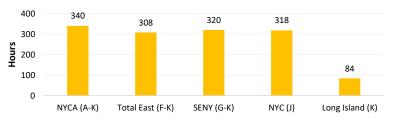
Case Name: Scenario 2 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill



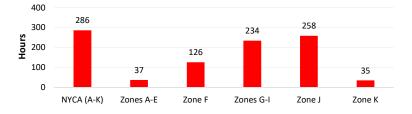
Hours SCR/EDRP Deployed



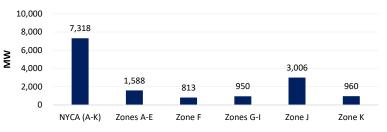
Hours with Reserve Violations



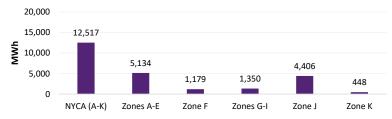
Hours with Loss of Load



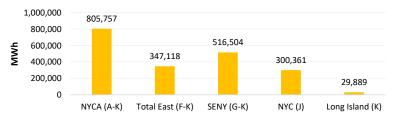
Average Capacity Not Available Due to Exhausted Fuel Inventory



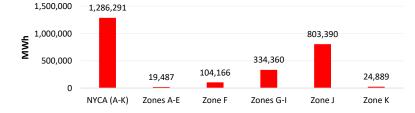
Total MWh SCR/EDRP Deployed



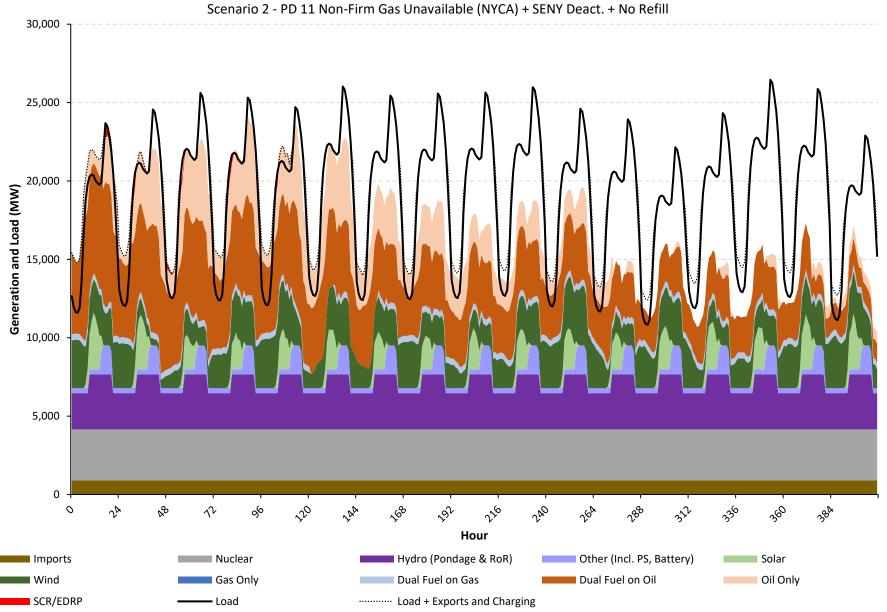
Total MWh of Reserve Violations

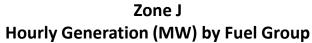


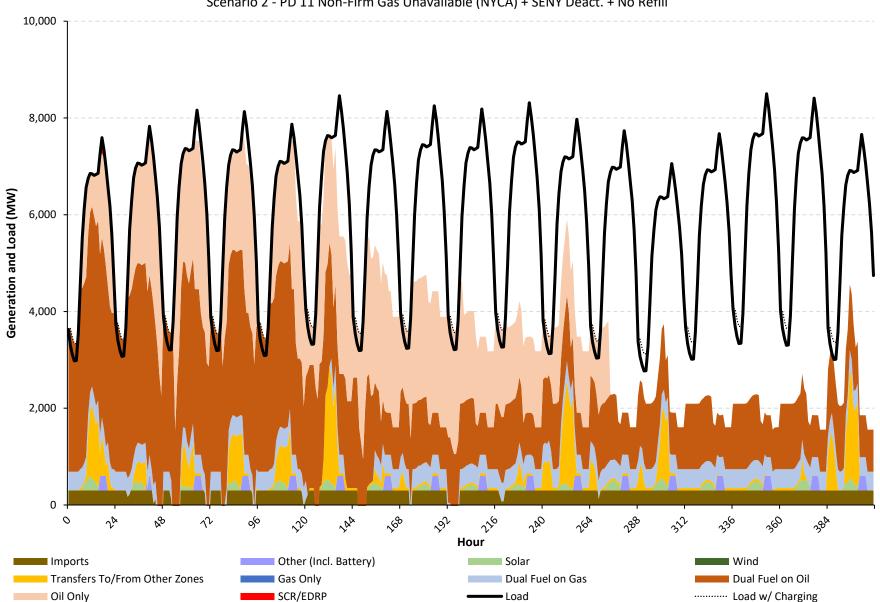
Total MWh of Lost Load

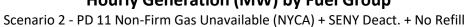


NYCA Hourly Generation (MWh) by Fuel Group



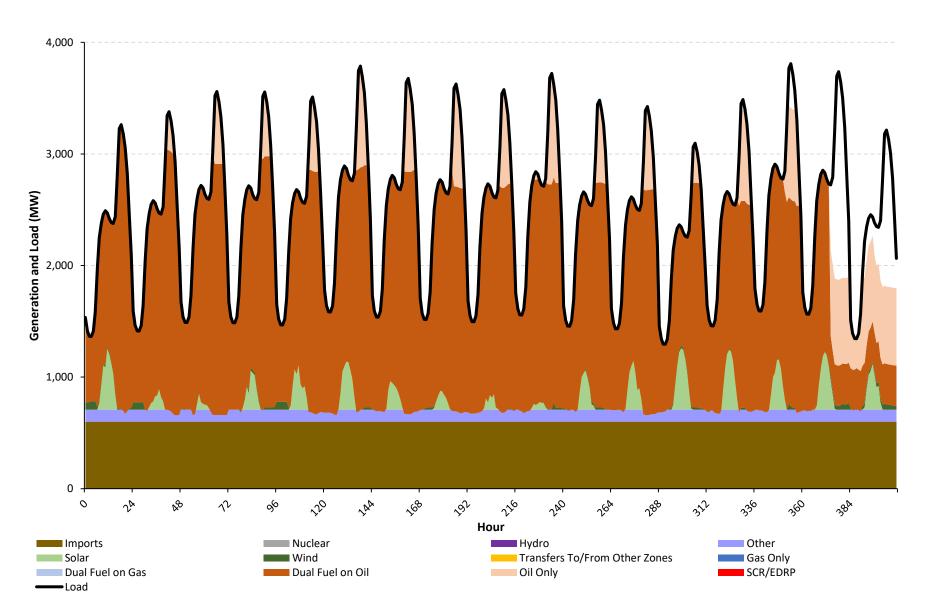




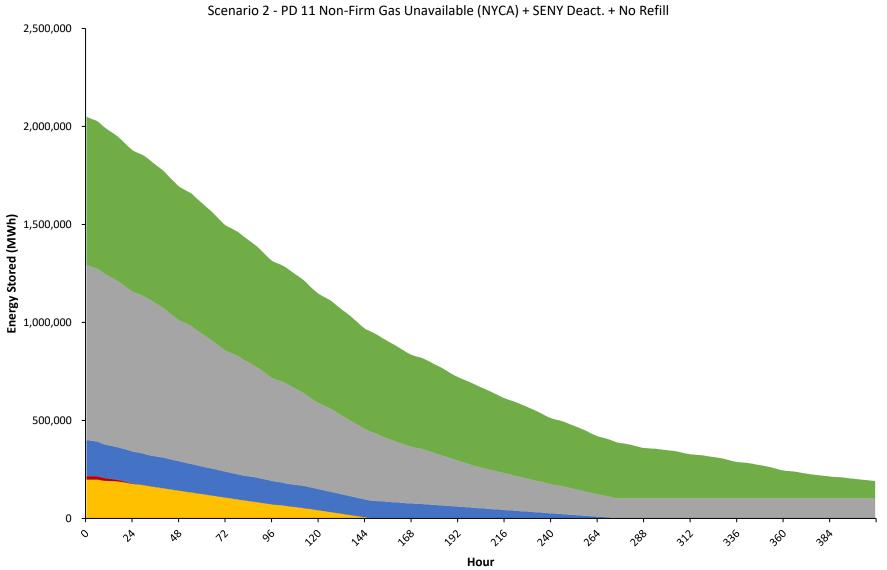


Zone K Hourly Generation (MW) by Fuel Group

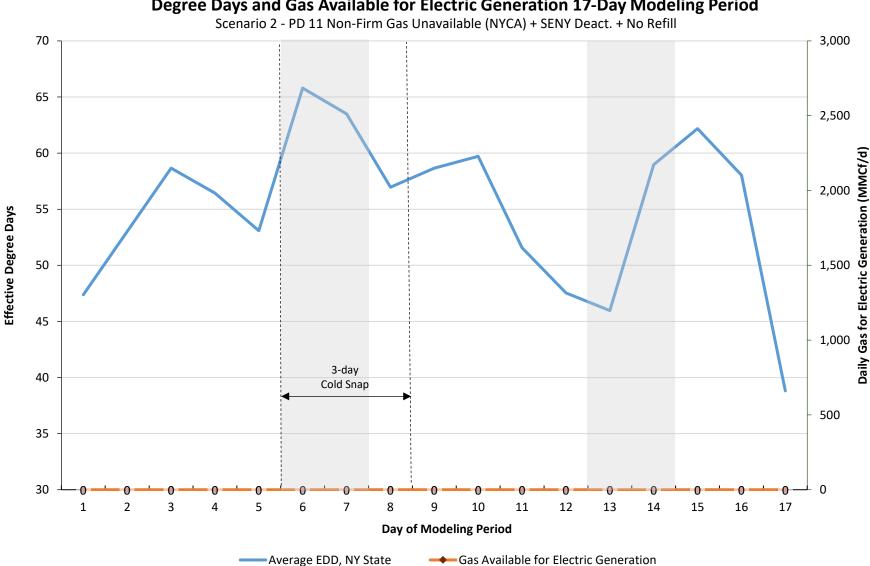
Scenario 2 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill







Zones A-E Zone F Zones G-I Zone J Zone K



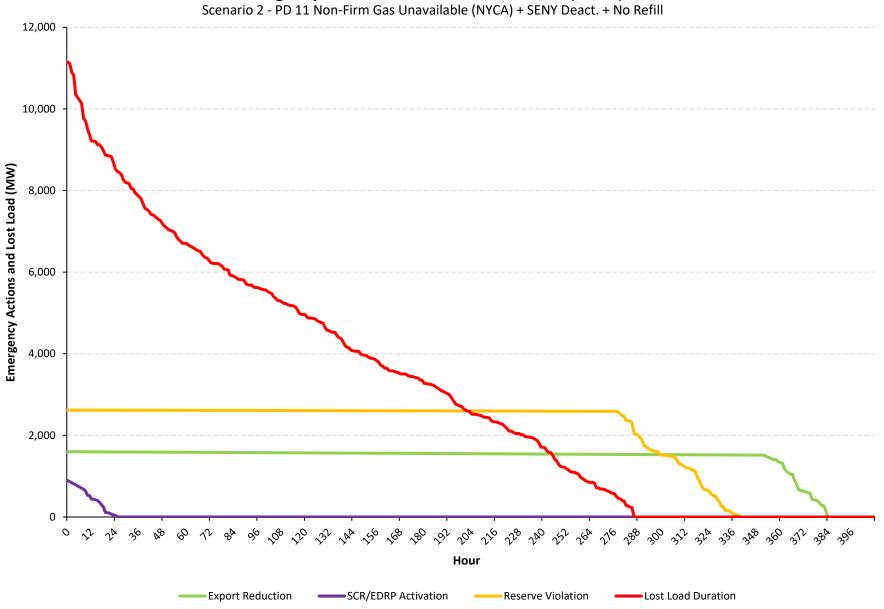
NYCA Degree Days and Gas Available for Electric Generation 17-Day Modeling Period

Notes:

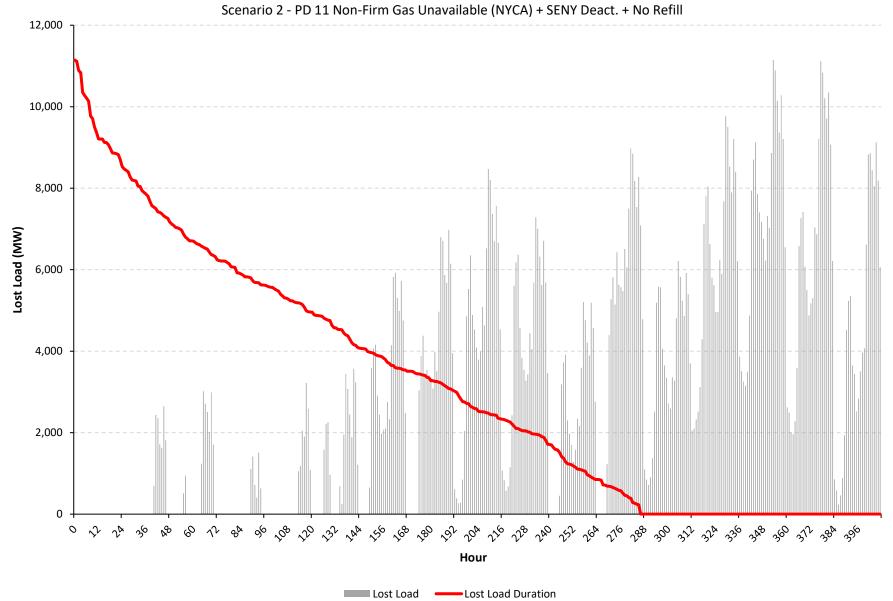
[1] Weekends are shaded in gray.

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



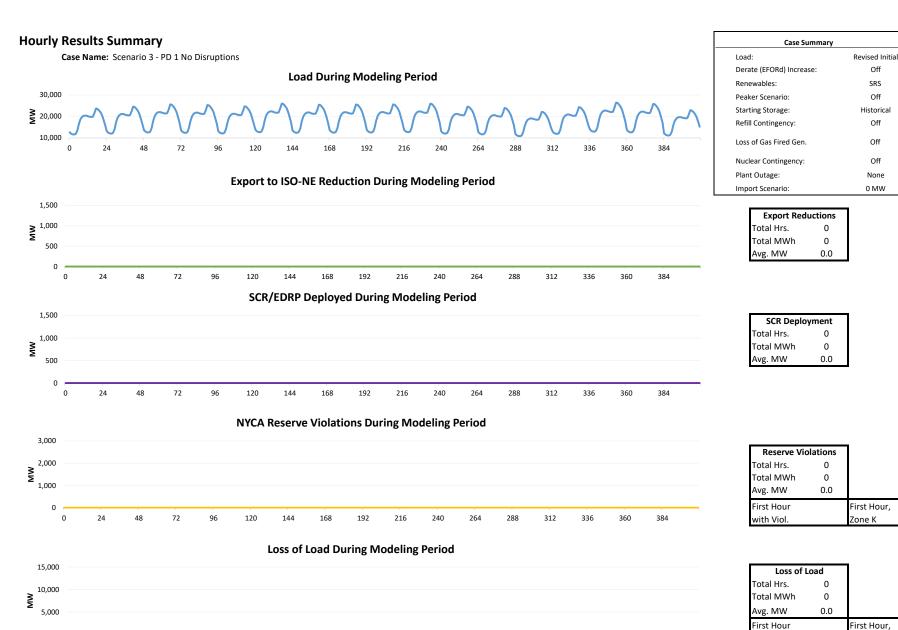


NYCA Lost Load Duration (MWh)



Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

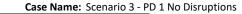
Case: Scenario 3 - PD 1 No Disruptions

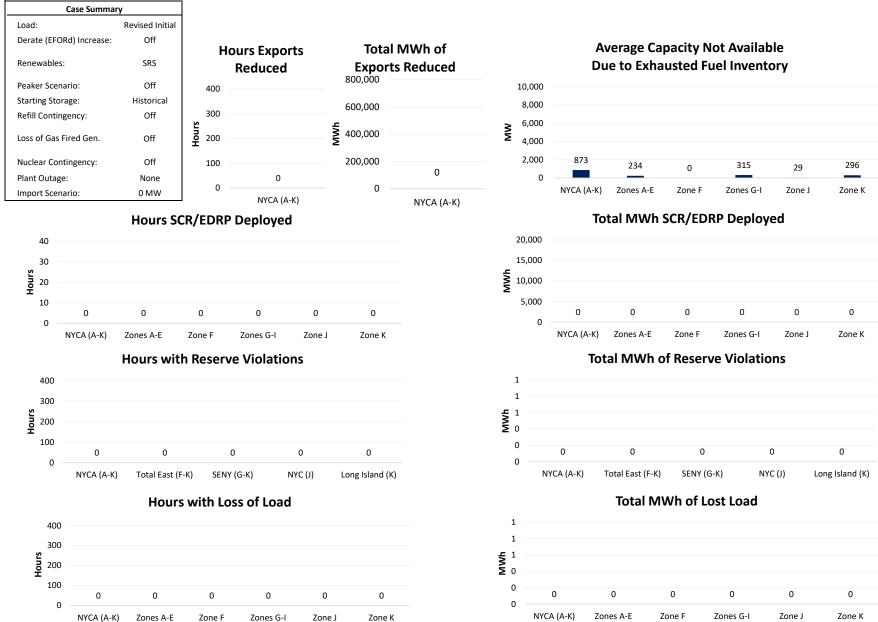


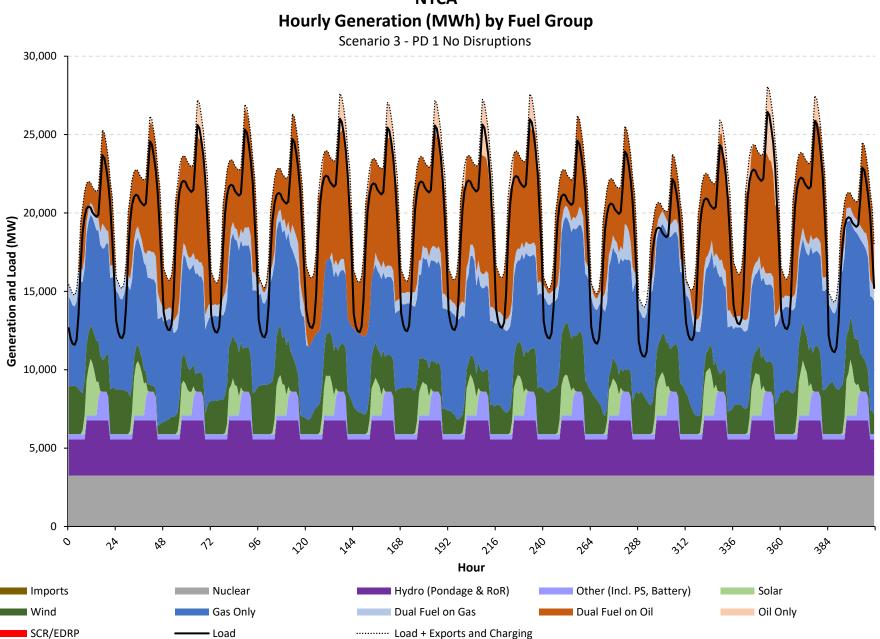
Zone K

with Losses

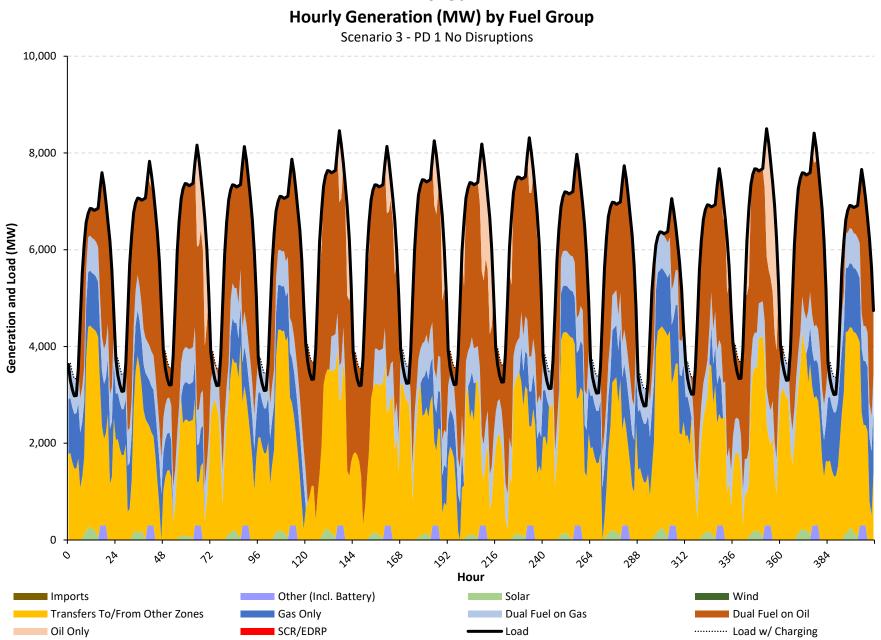
Full Period Results Summary







NYCA

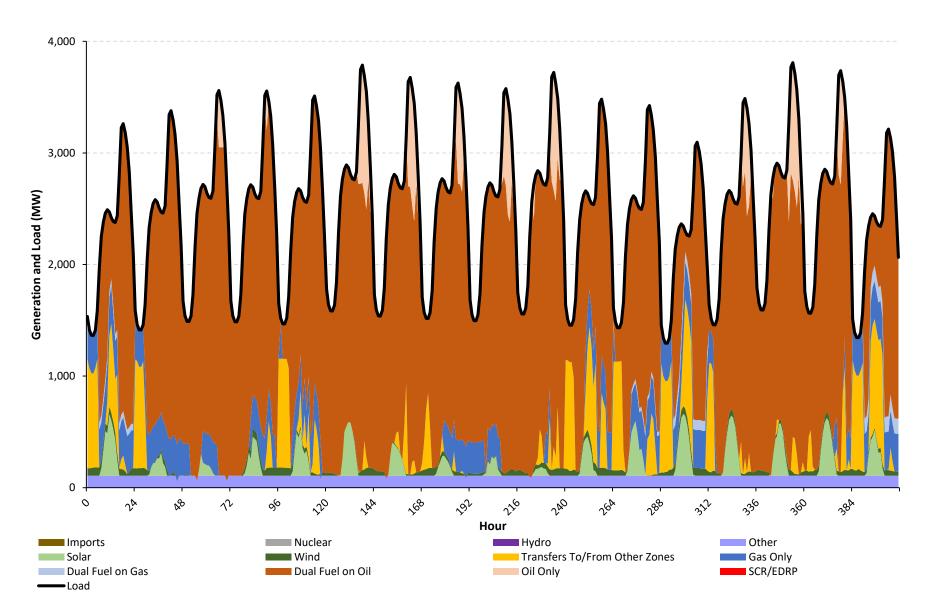


Zone J

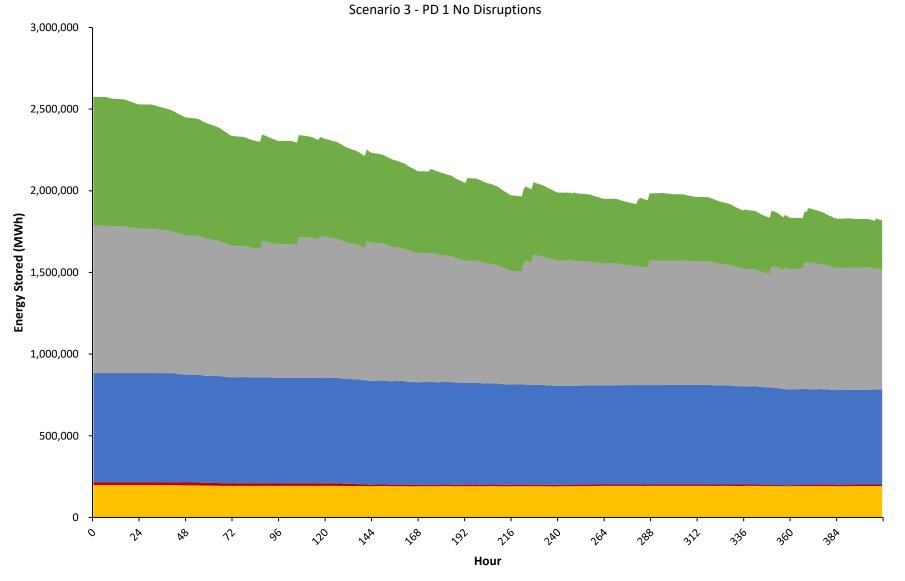
Analysis Group, Inc.

Zone K Hourly Generation (MW) by Fuel Group

Scenario 3 - PD 1 No Disruptions

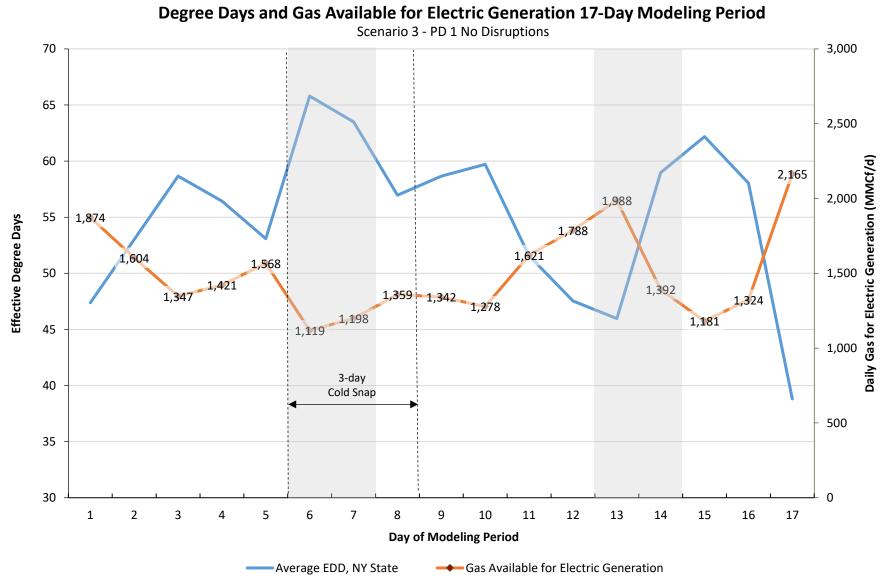






Zones A-E Zone F Zones G-I Zone J Zone K

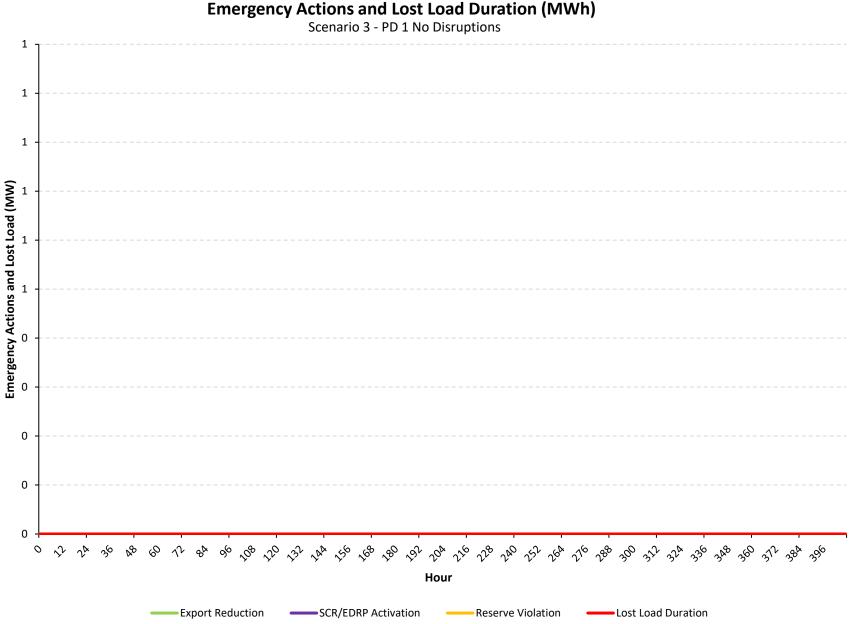
NYCA



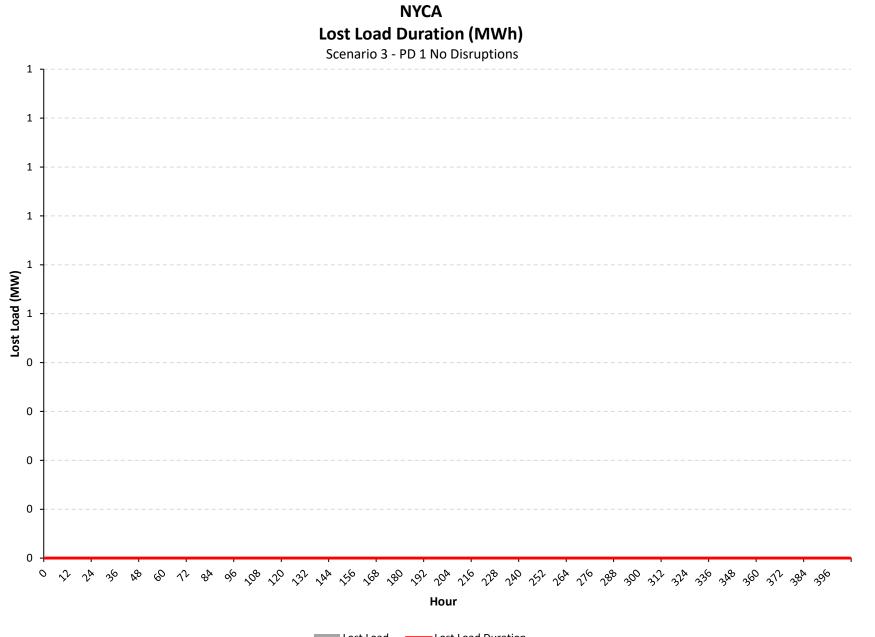
Notes:

[1] Weekends are shaded in gray.

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



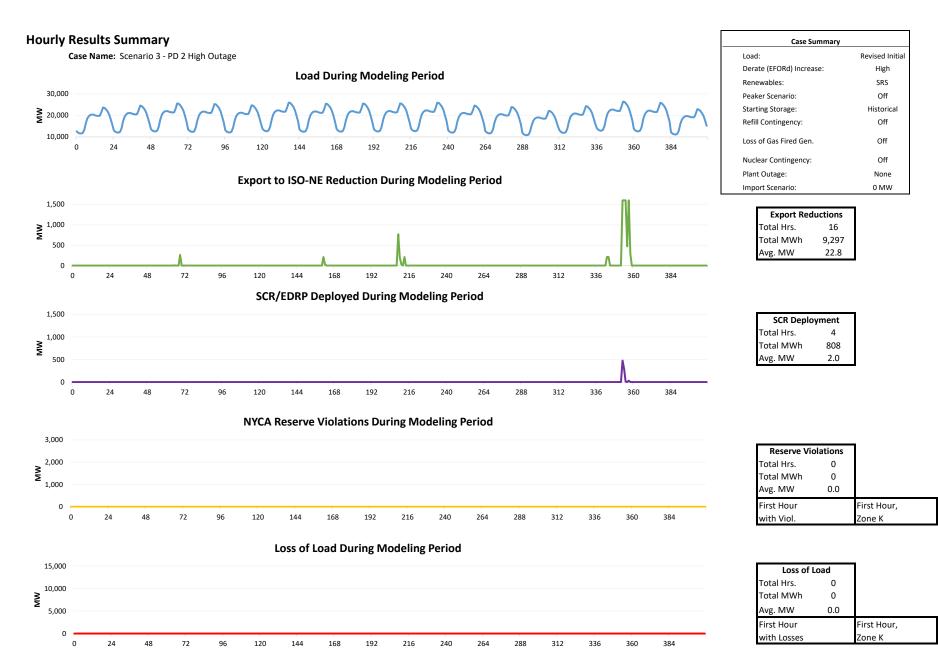
NYCA **Emergency Actions and Lost Load Duration (MWh)**



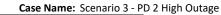
Lost Load Lost Load Duration

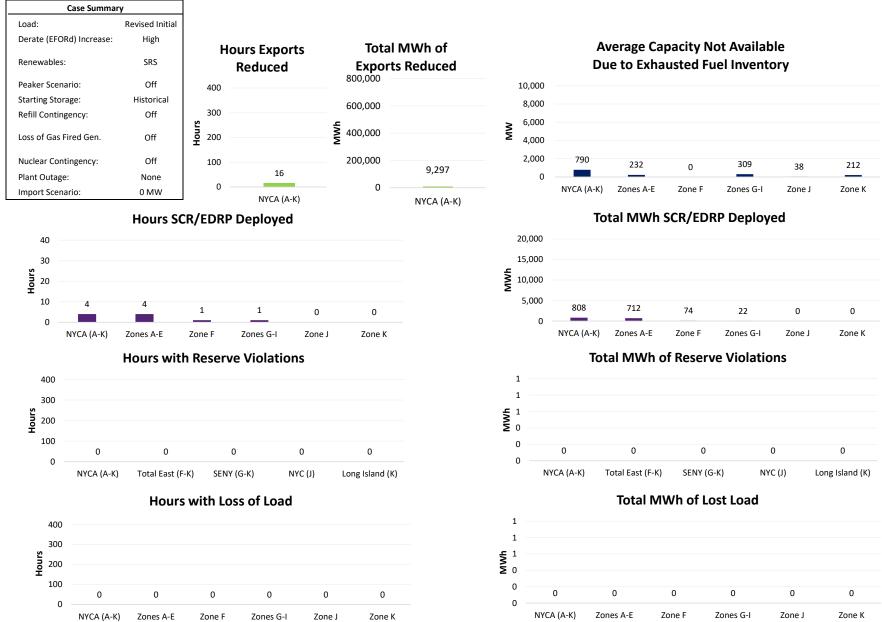
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

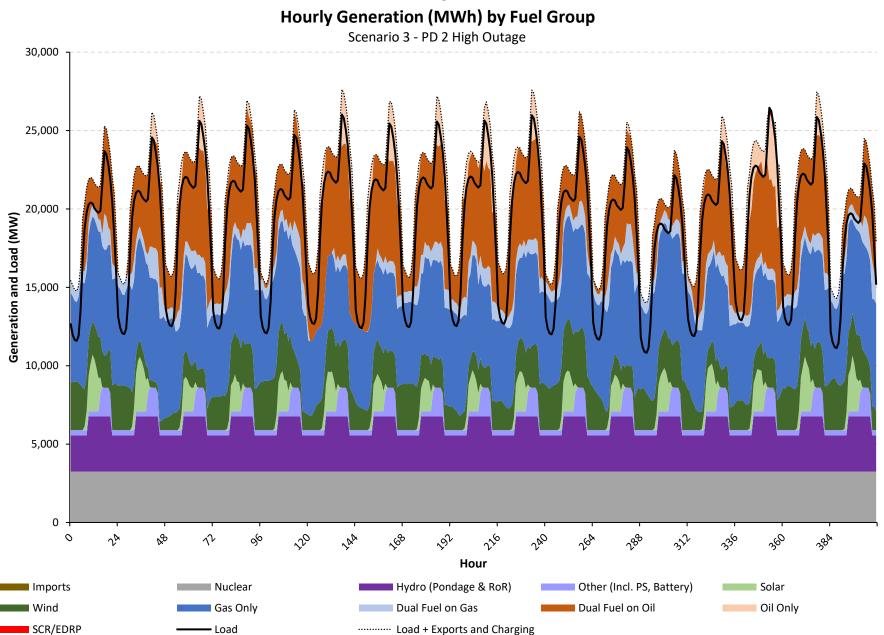
Case: Scenario 3 - PD 2 High Outage



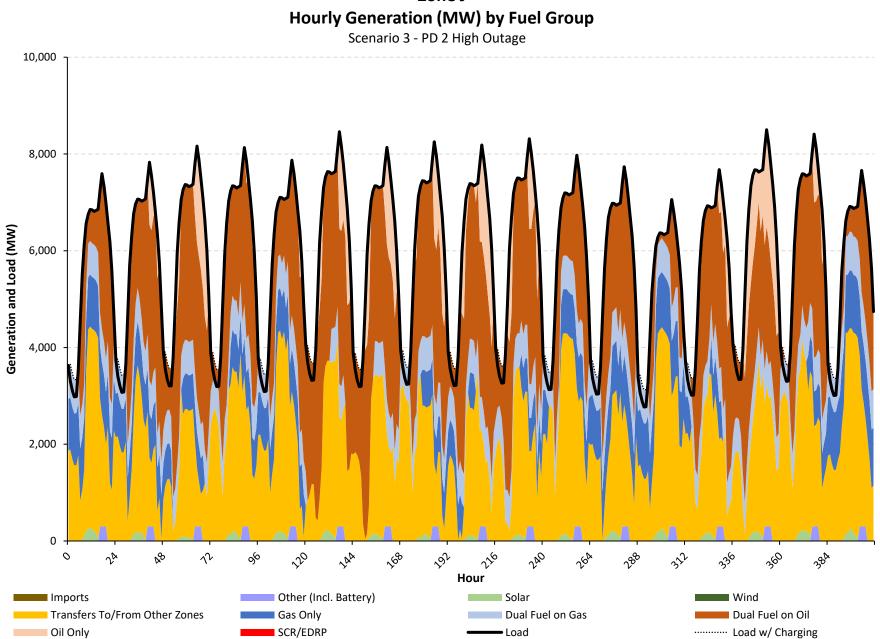
Full Period Results Summary





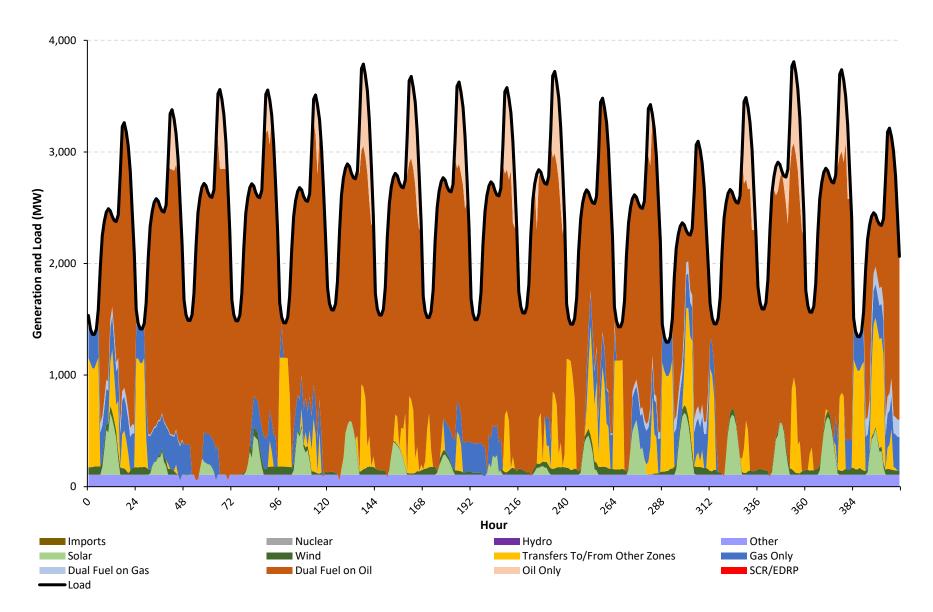


NYCA

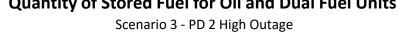


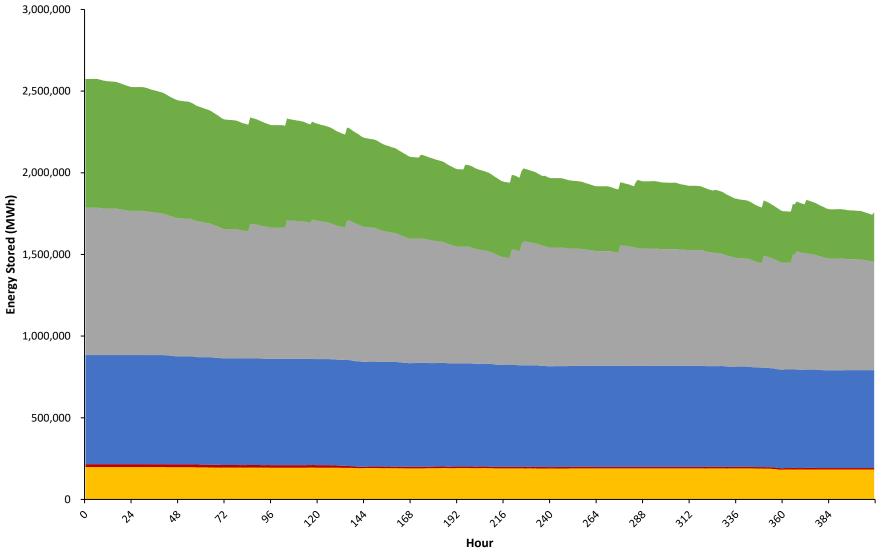
Zone K Hourly Generation (MW) by Fuel Group

Scenario 3 - PD 2 High Outage



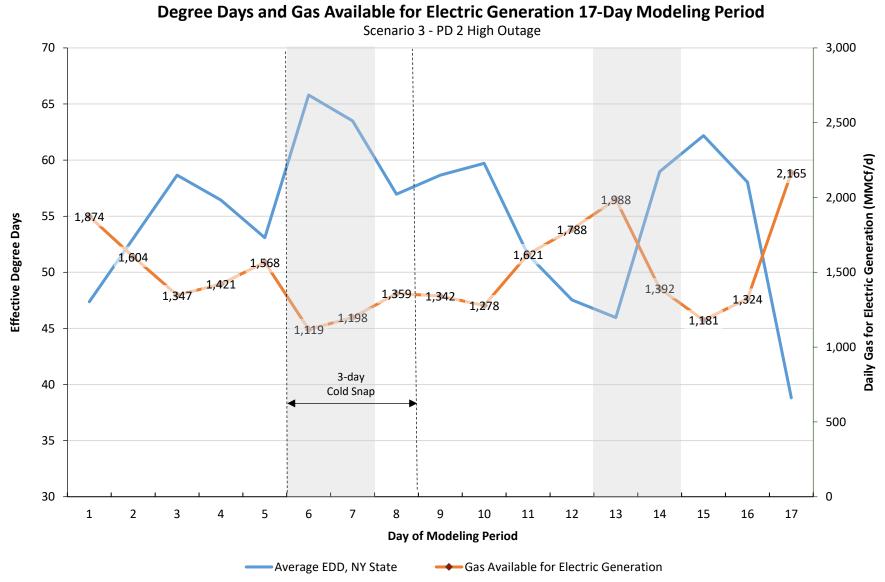






Zones A-E Zone F Zones G-I Zone J Zone K

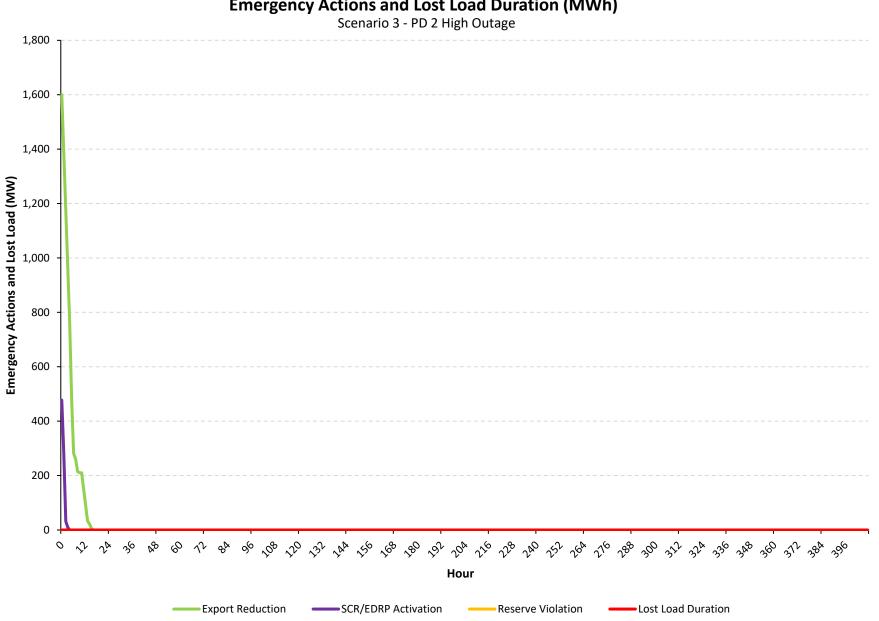
NYCA



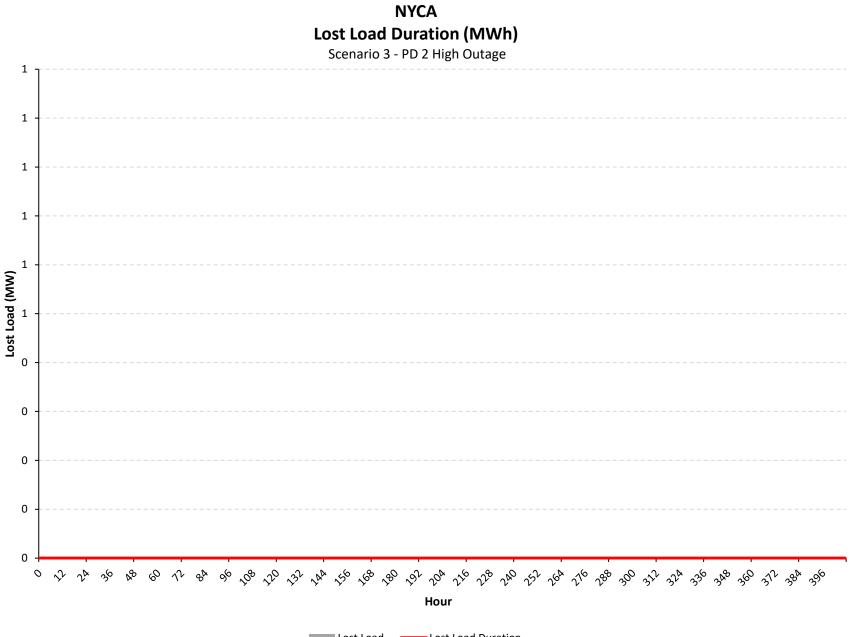
Notes:

[1] Weekends are shaded in gray.

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



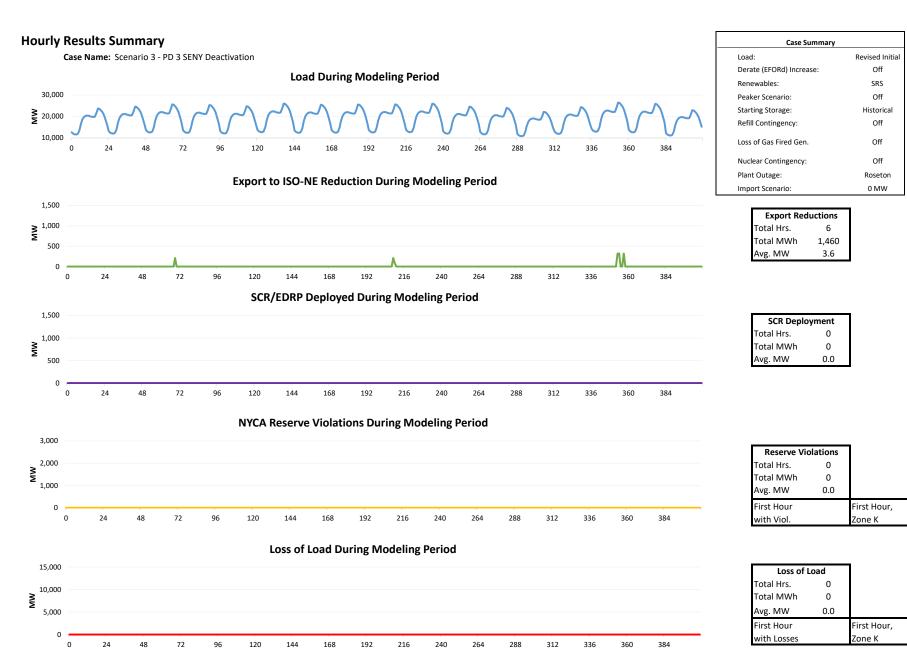
NYCA Emergency Actions and Lost Load Duration (MWh)



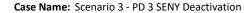
Lost Load — Lost Load Duration

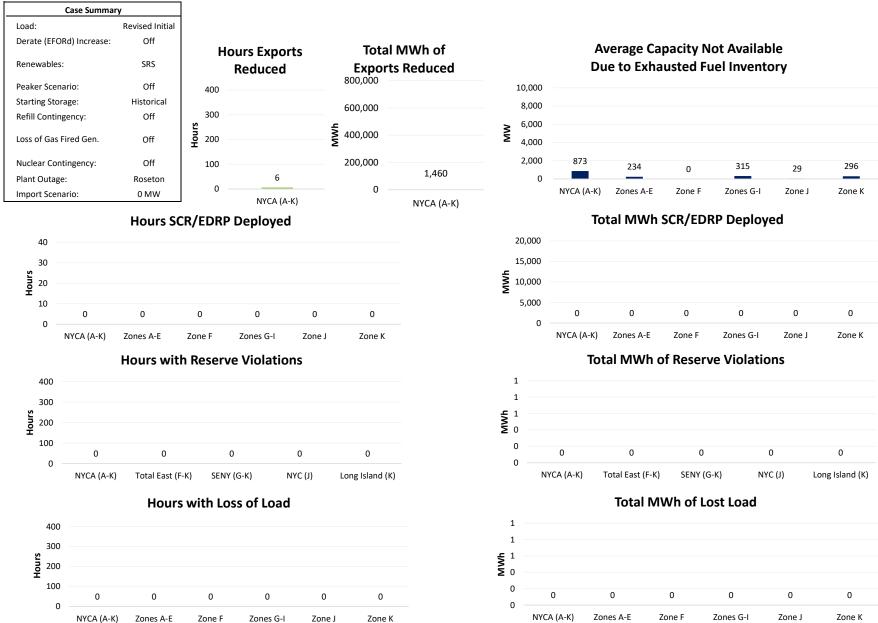
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

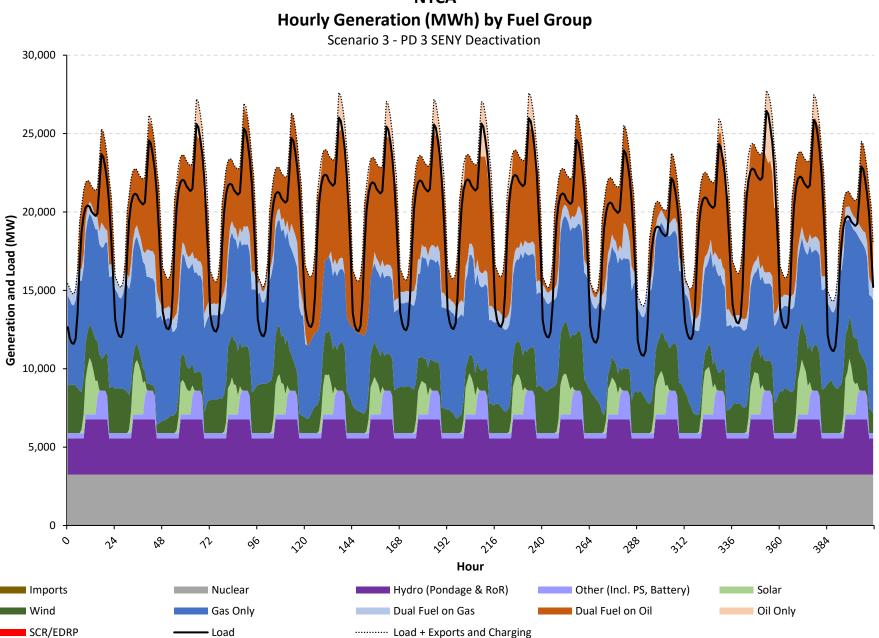
Case: Scenario 3 - PD 3 SENY Deactivation



Full Period Results Summary

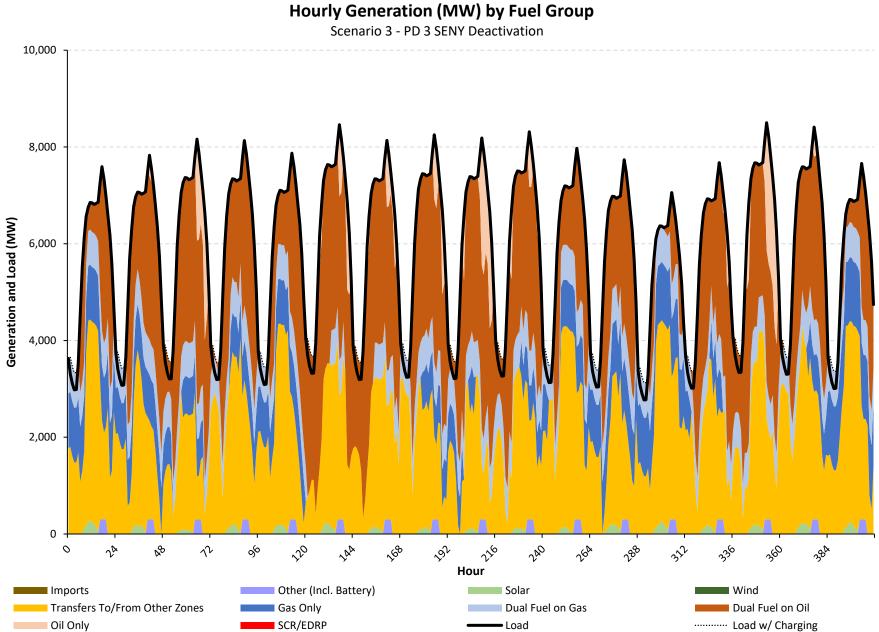


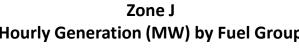




NYCA

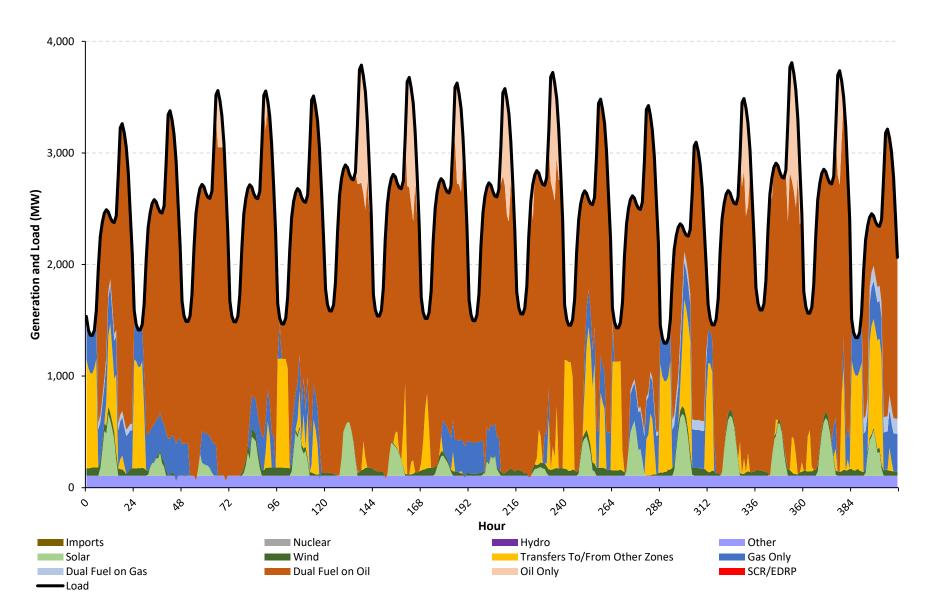
Analysis Group, Inc.



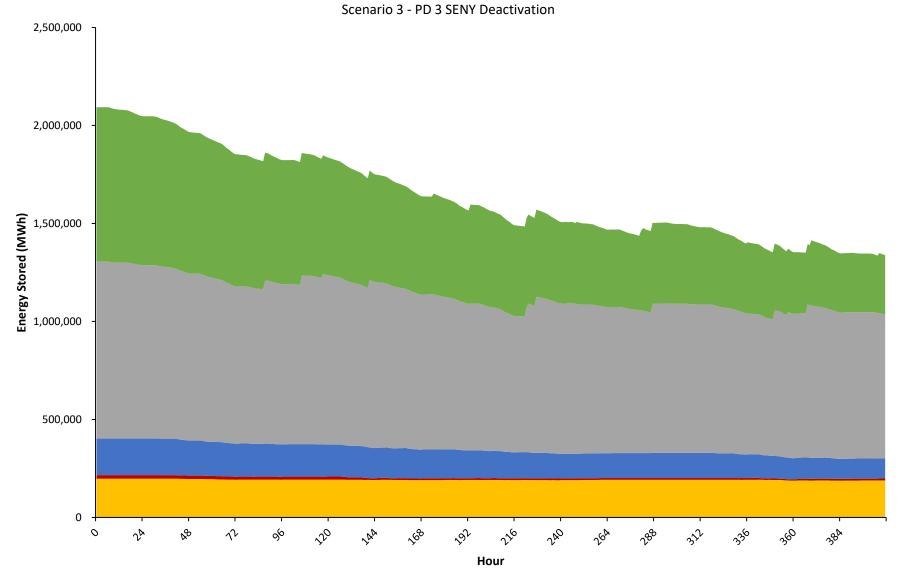


Zone K Hourly Generation (MW) by Fuel Group

Scenario 3 - PD 3 SENY Deactivation

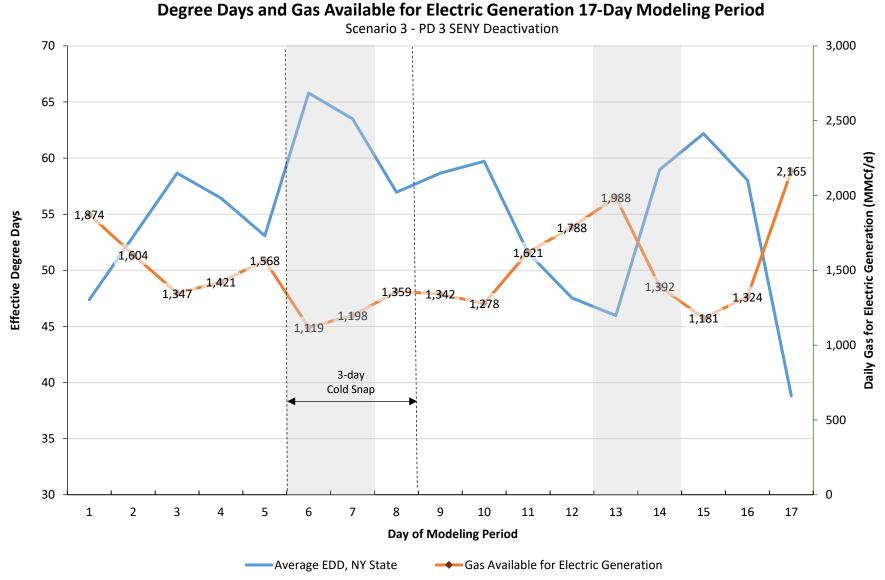






Zones A-E Zone F Zones G-I Zone J Zone K

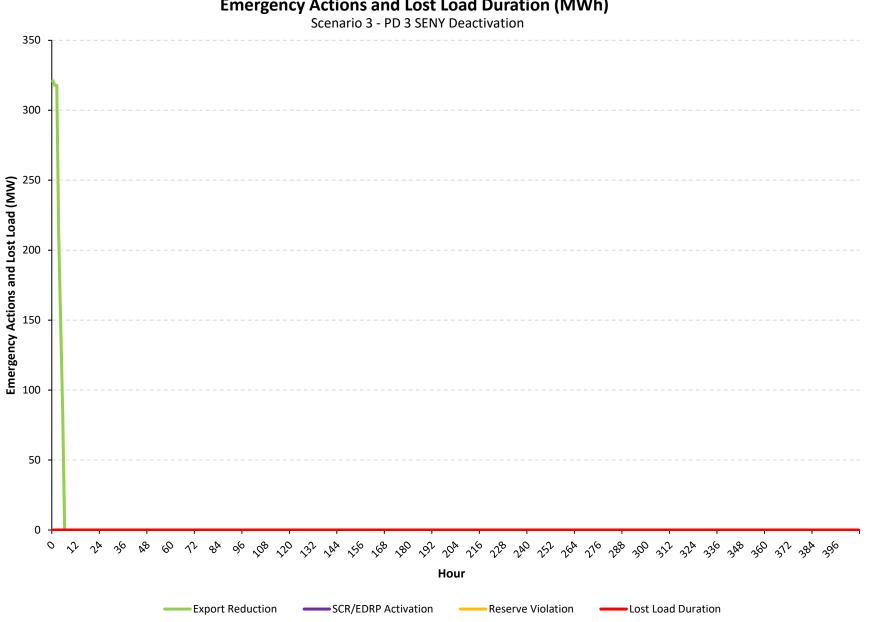
NYCA



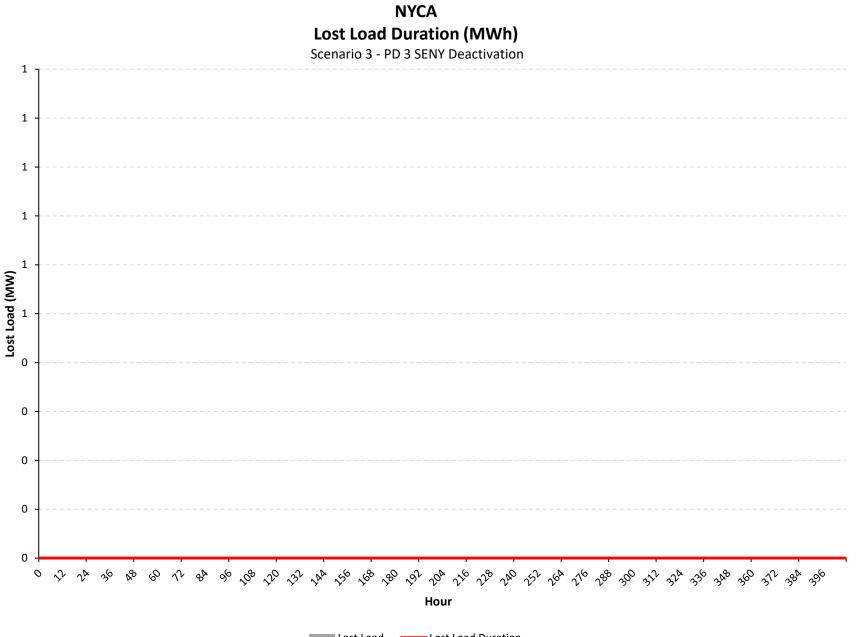
Notes:

[1] Weekends are shaded in gray.

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



NYCA Emergency Actions and Lost Load Duration (MWh)

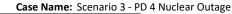


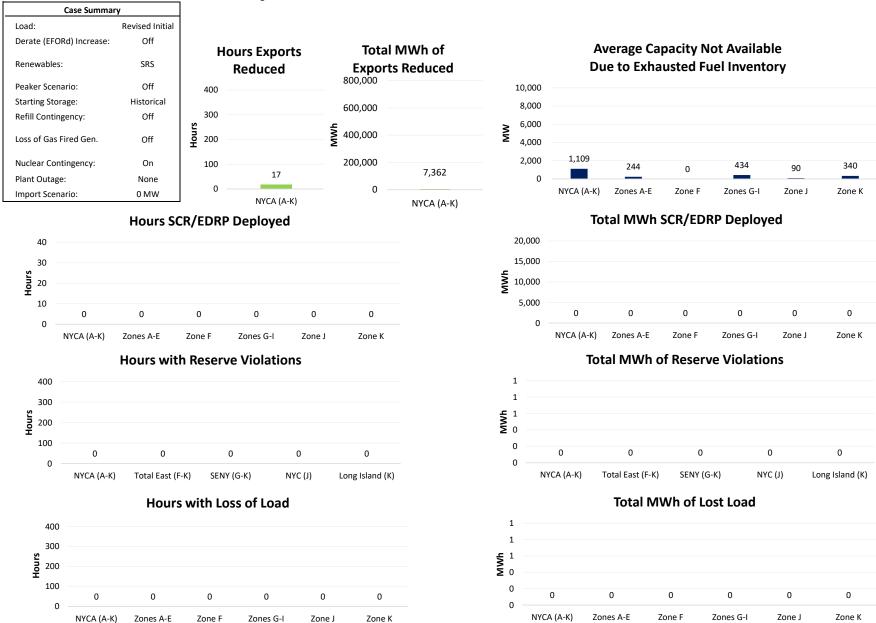
Lost Load — Lost Load Duration

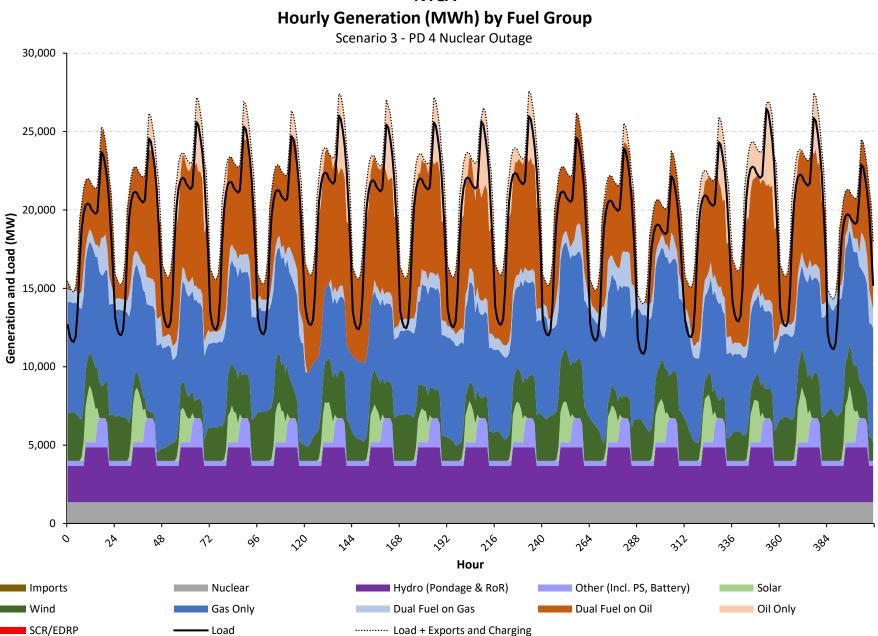
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 4 Nuclear Outage

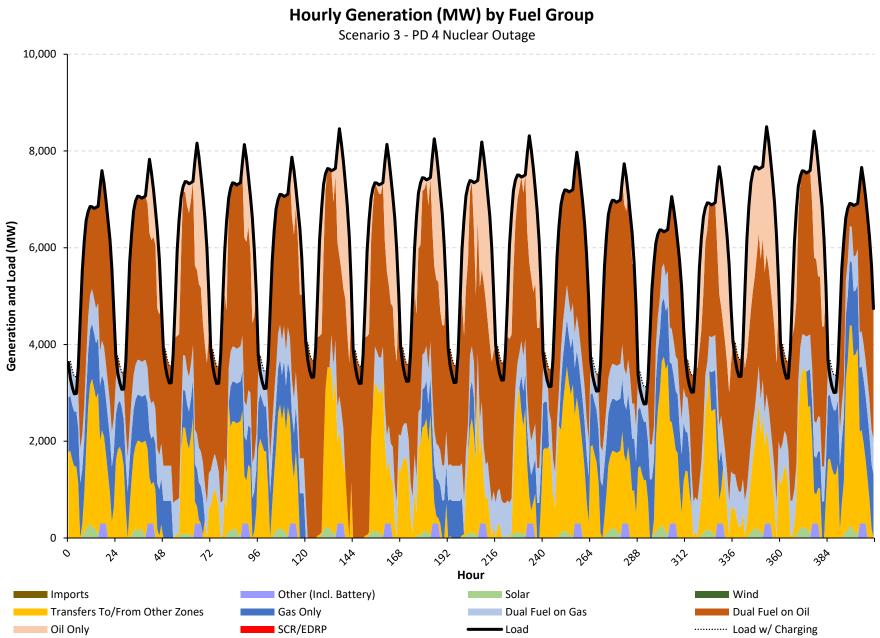






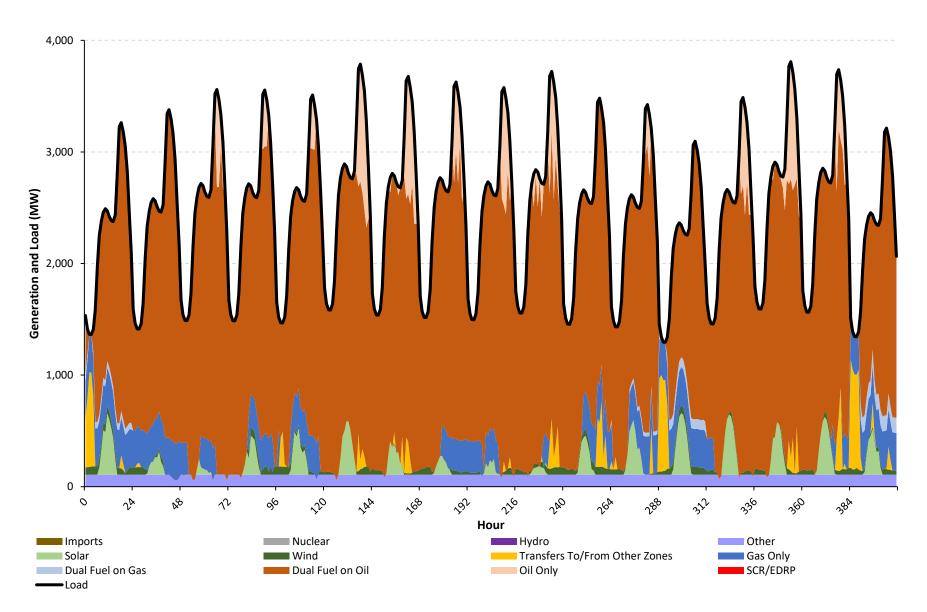


NYCA

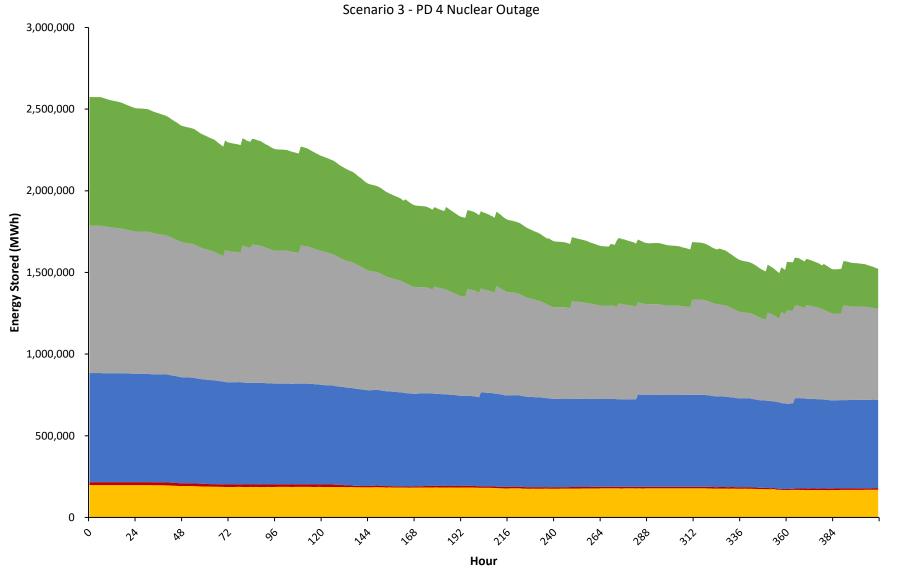


Zone K Hourly Generation (MW) by Fuel Group

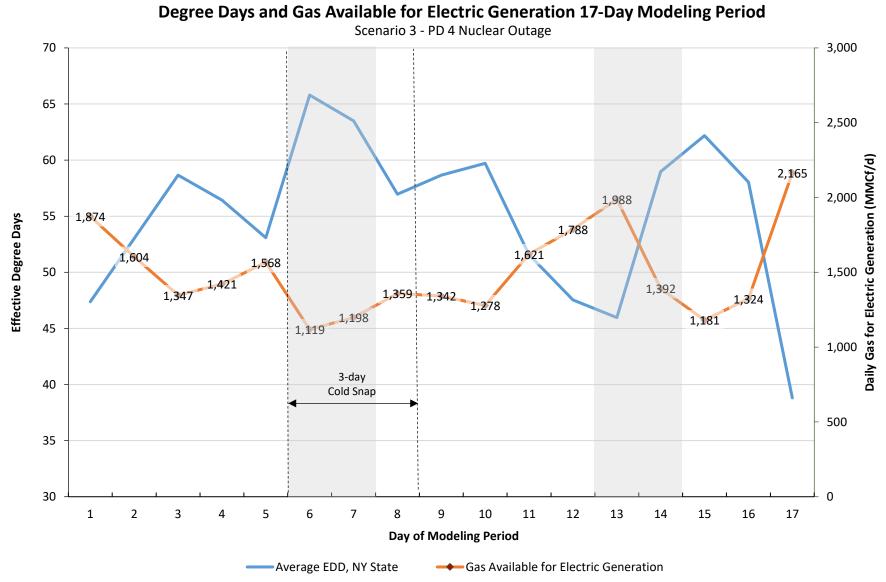
Scenario 3 - PD 4 Nuclear Outage







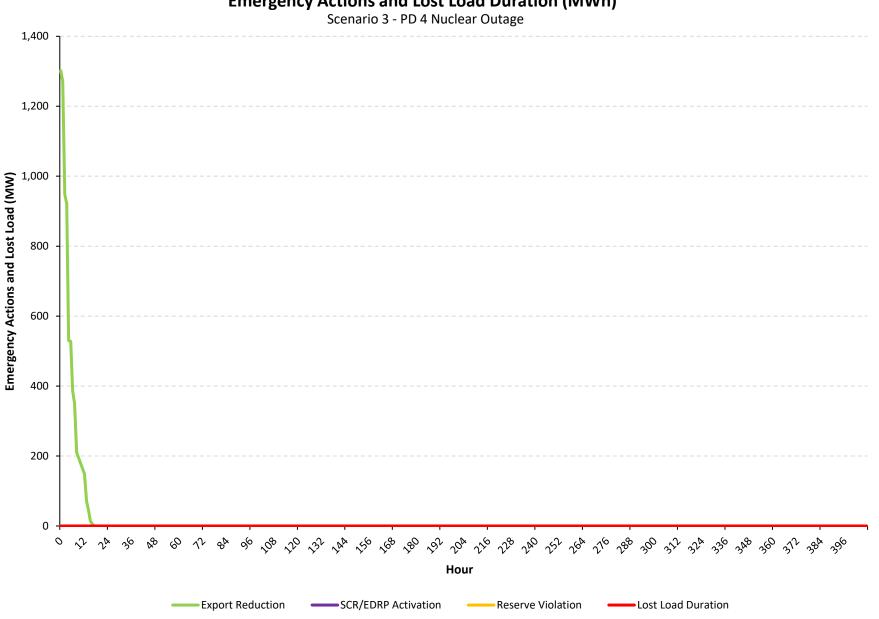
NYCA



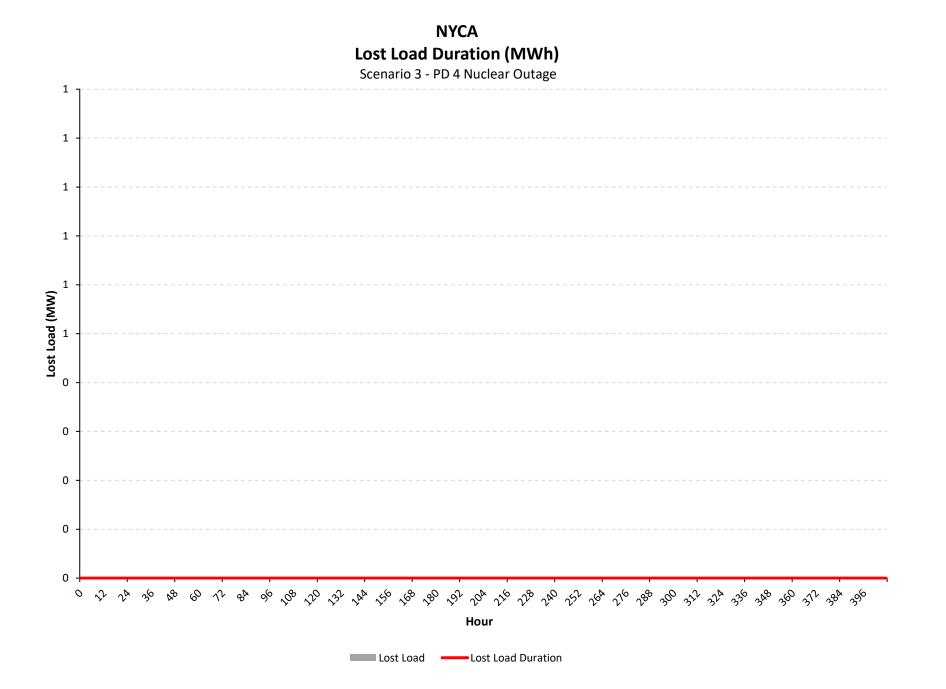
Notes:

[1] Weekends are shaded in gray.

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

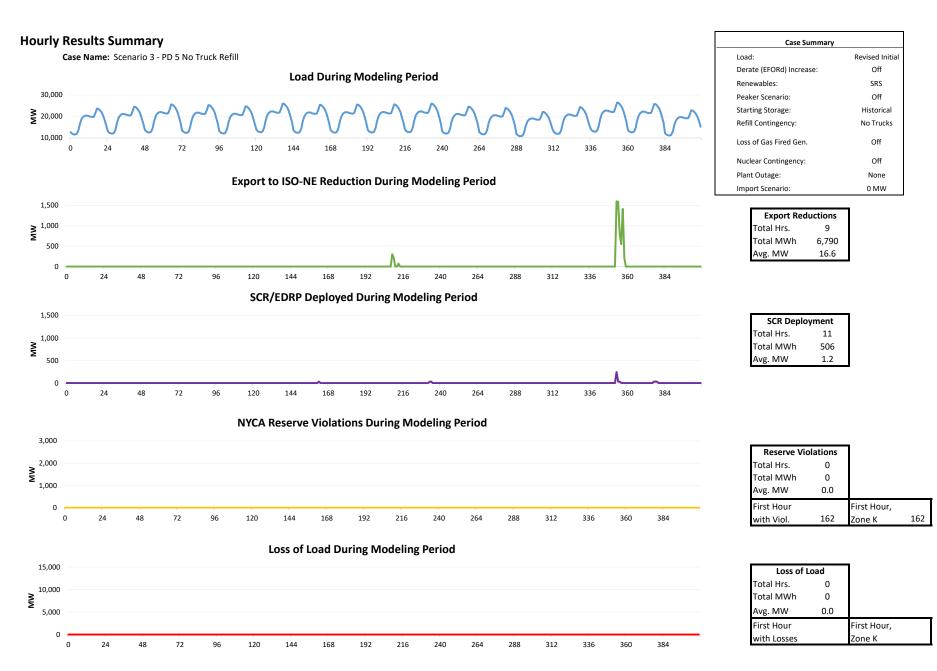


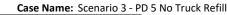
NYCA Emergency Actions and Lost Load Duration (MWh)

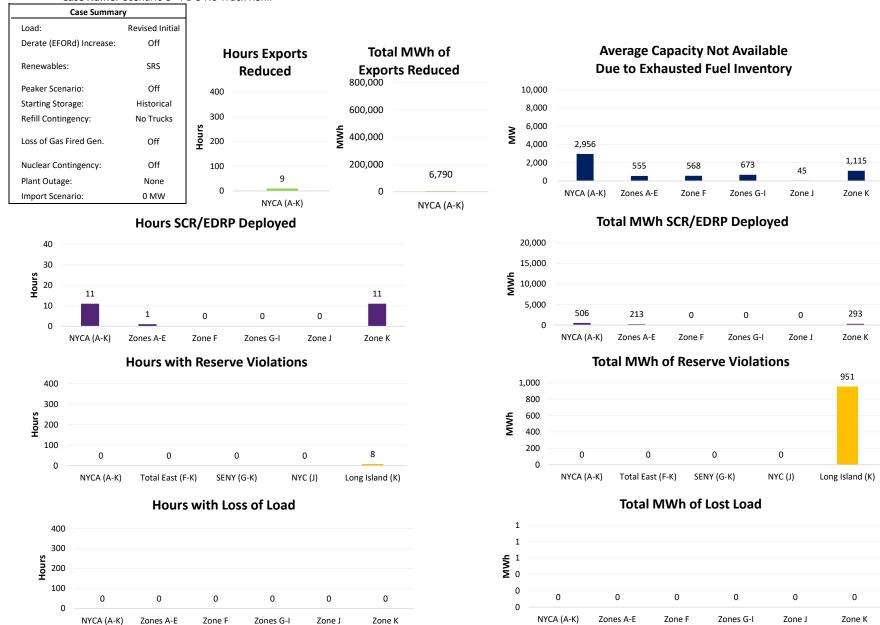


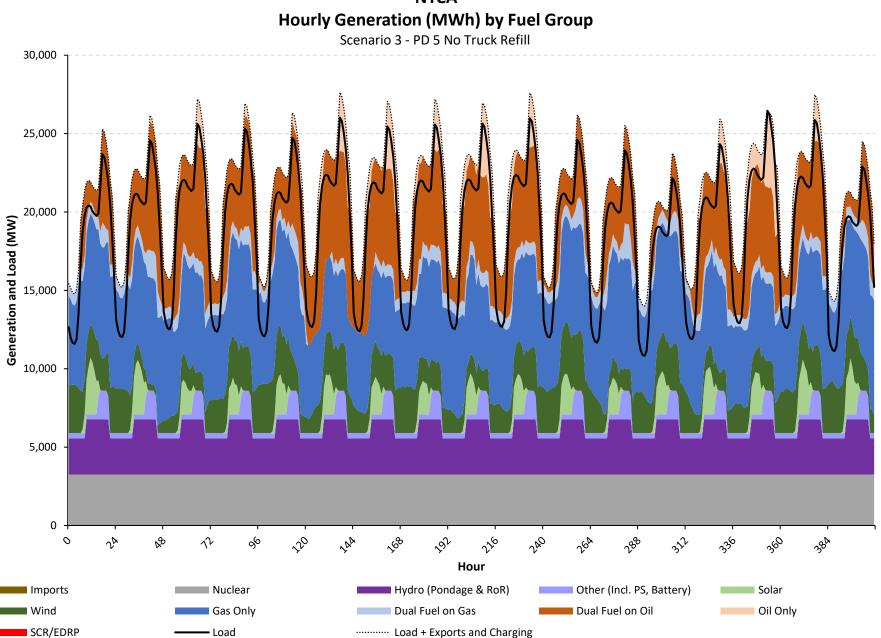
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 5 No Truck Refill

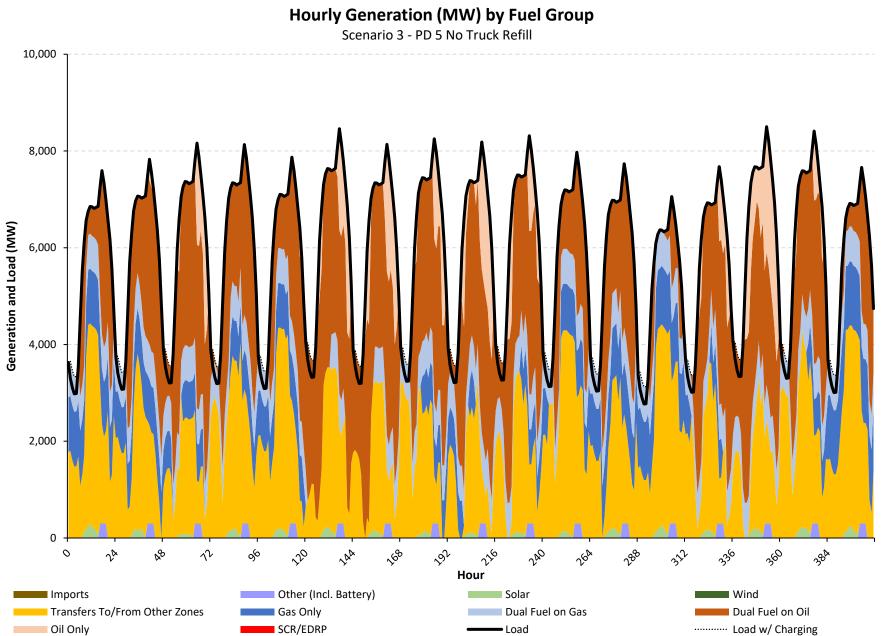








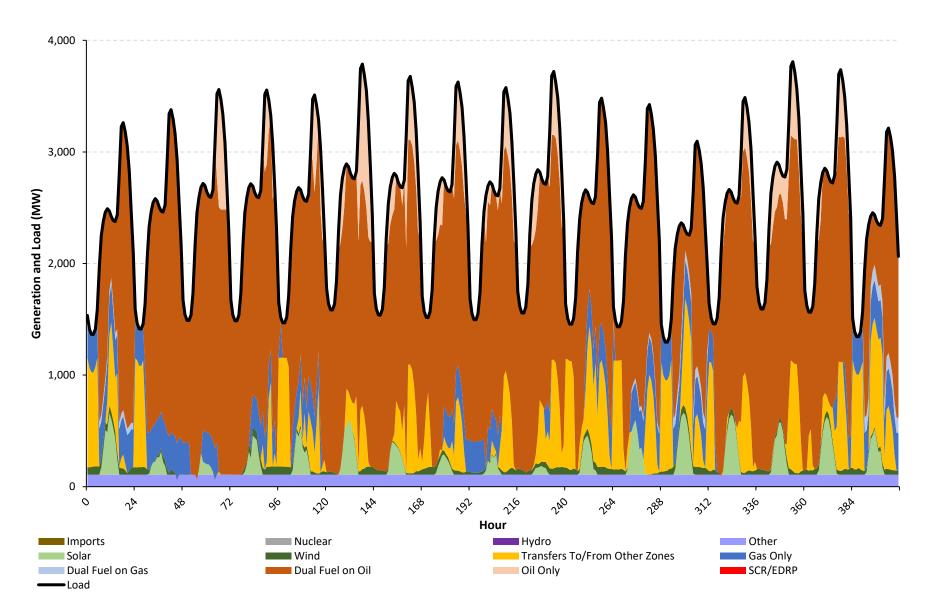
NYCA



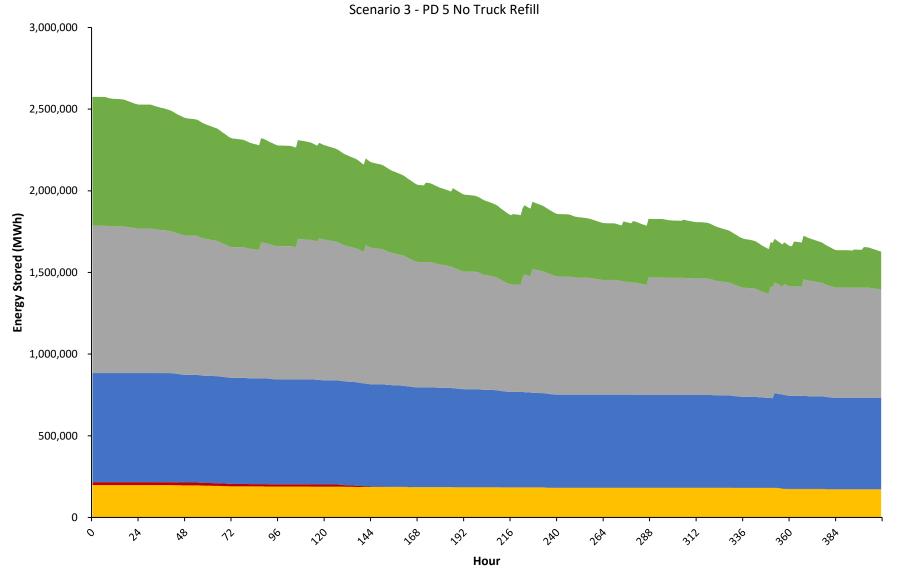
Zone J

Zone K Hourly Generation (MW) by Fuel Group

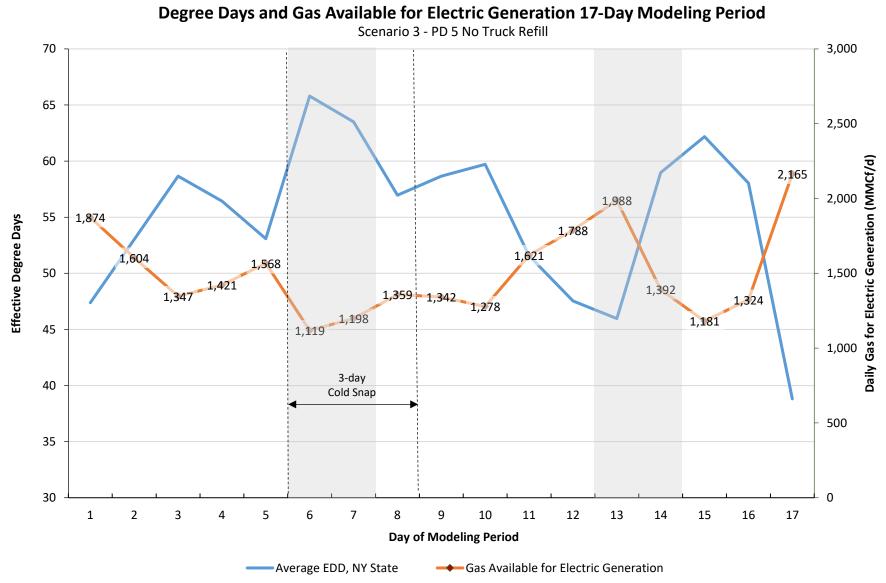
Scenario 3 - PD 5 No Truck Refill







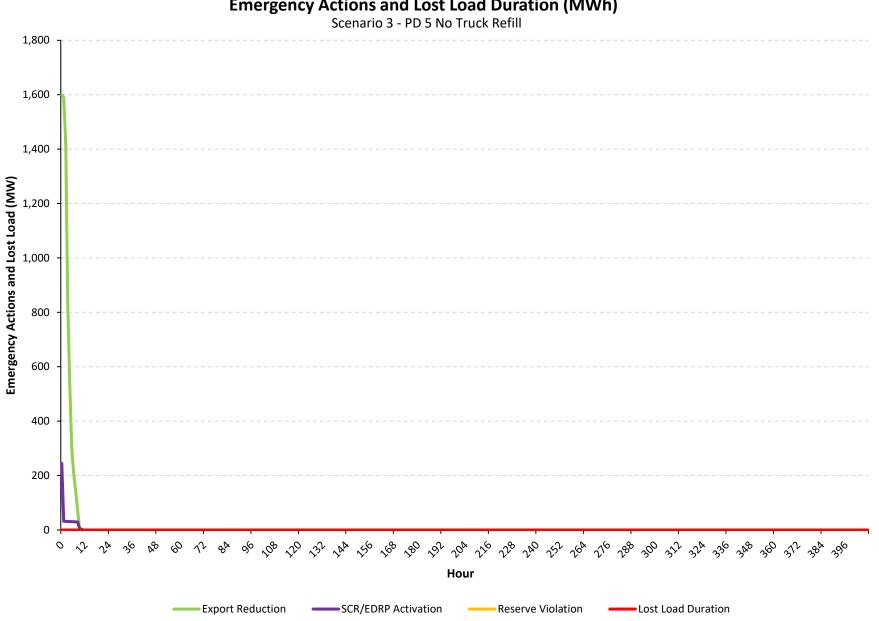
NYCA



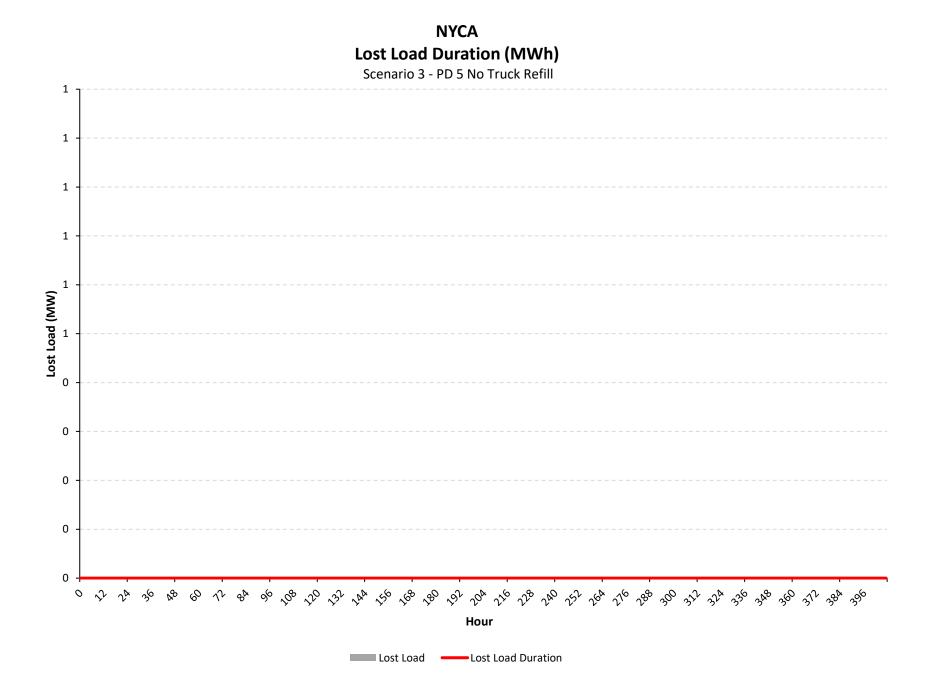
Notes:

[1] Weekends are shaded in gray.

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

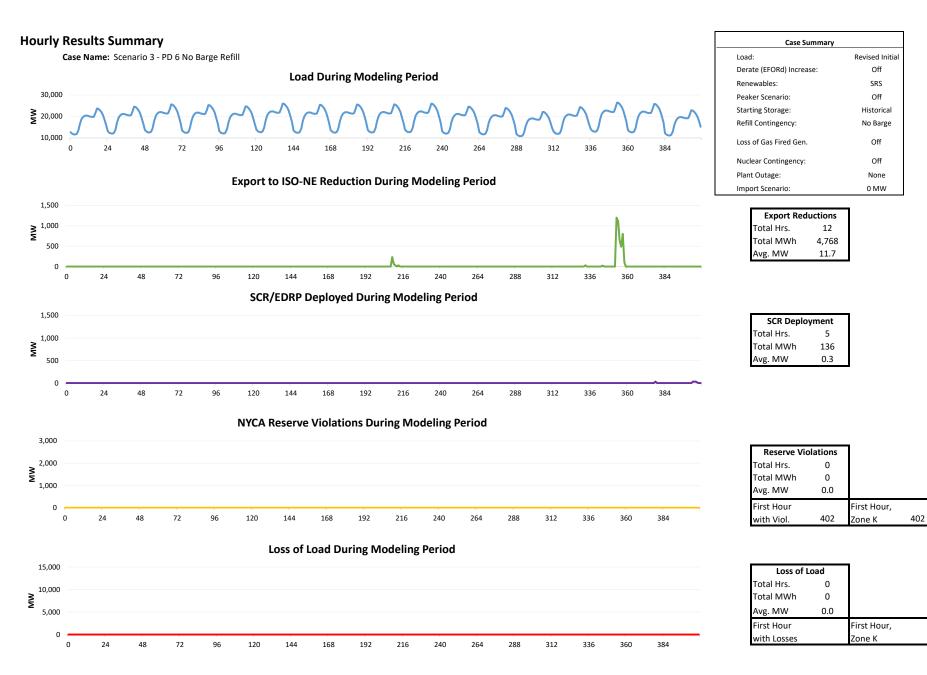


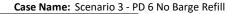
NYCA Emergency Actions and Lost Load Duration (MWh)

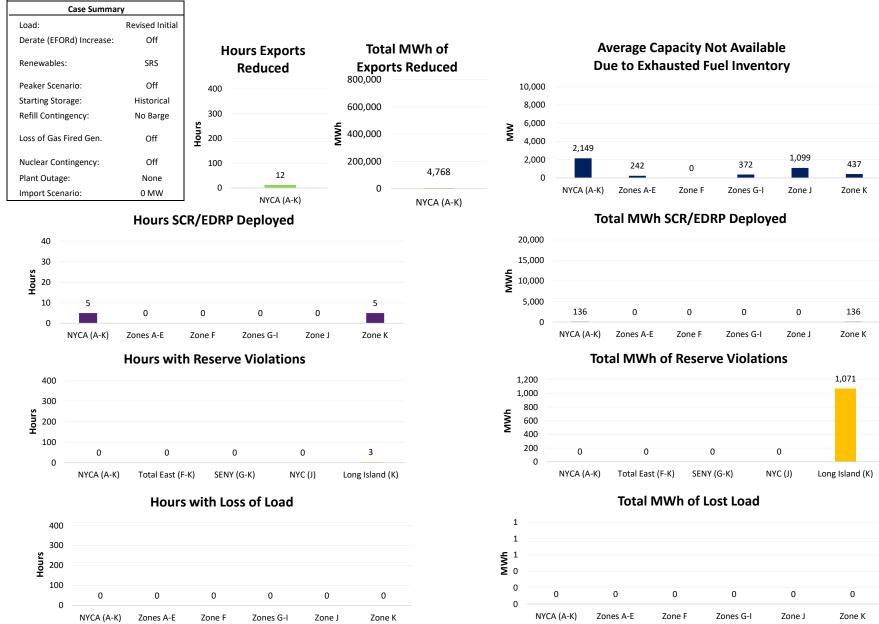


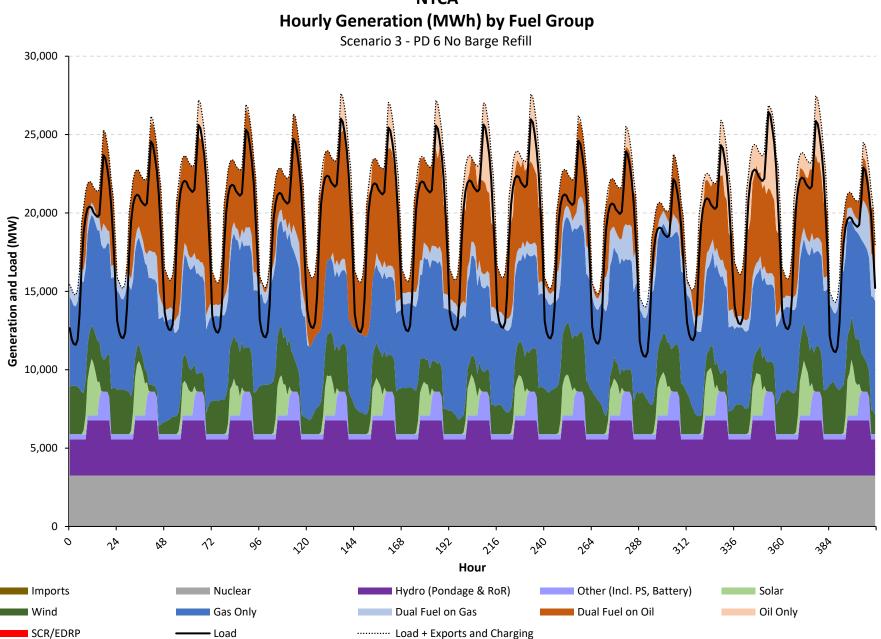
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 6 No Barge Refill

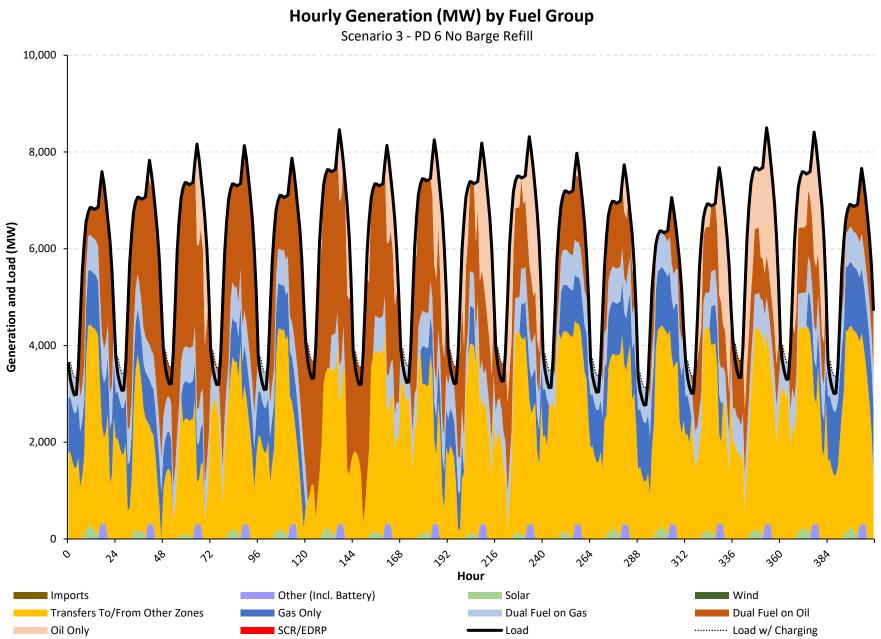






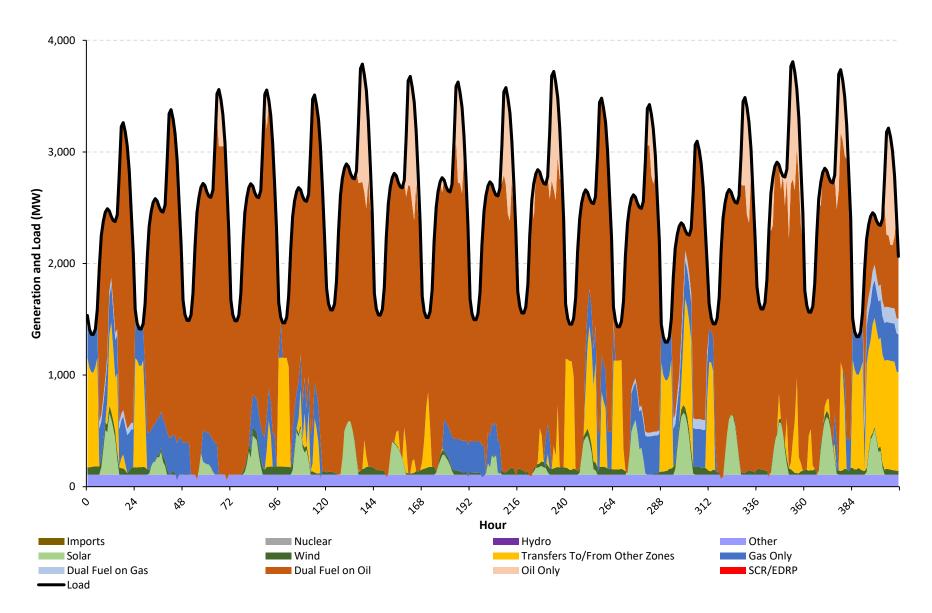


NYCA

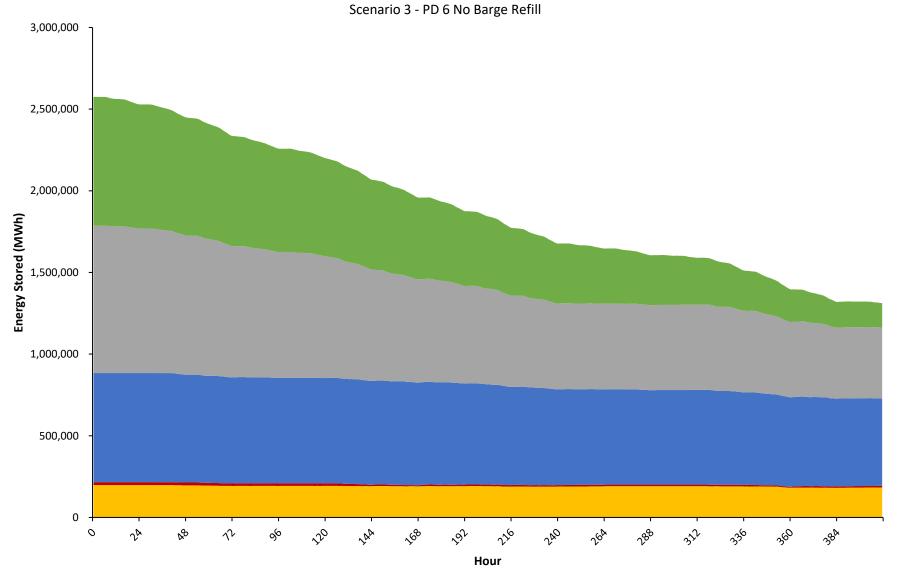


Zone K Hourly Generation (MW) by Fuel Group

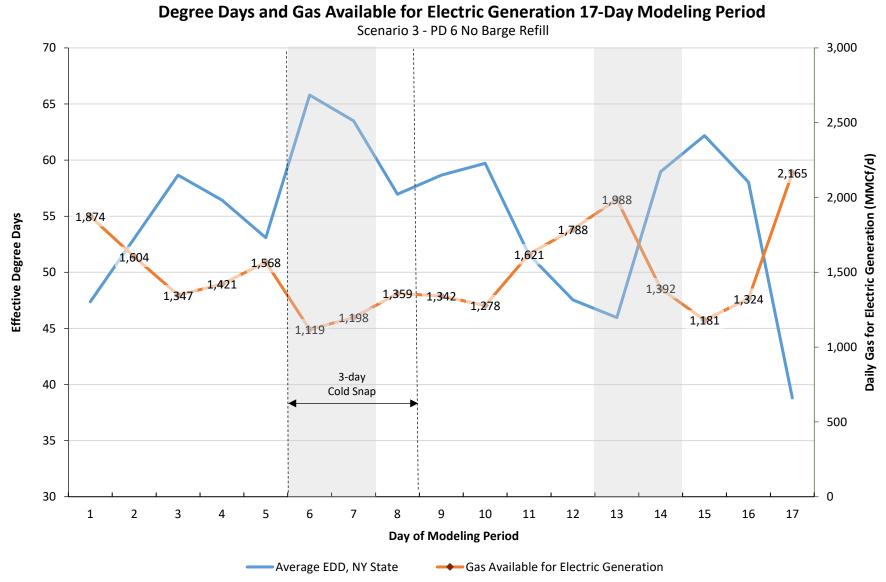
Scenario 3 - PD 6 No Barge Refill







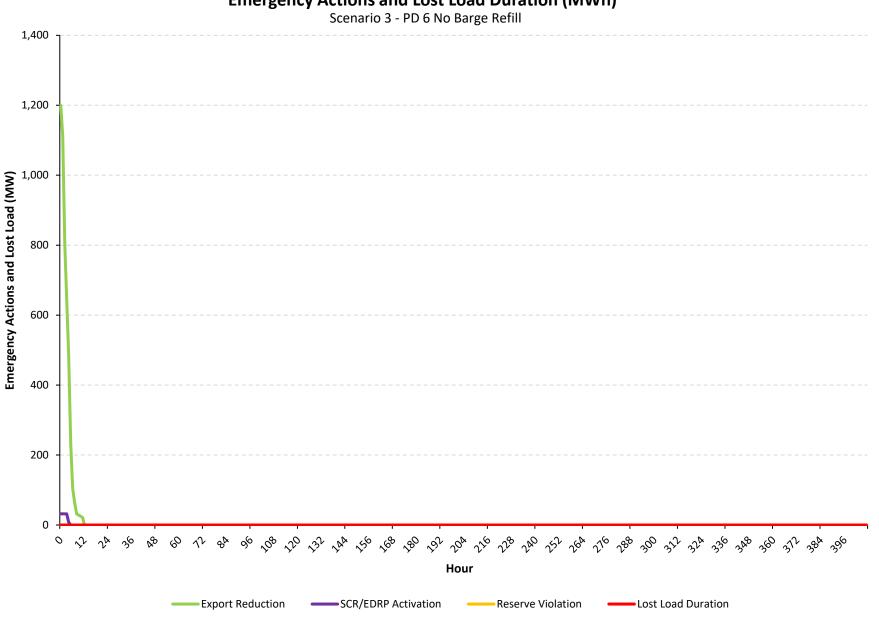
NYCA



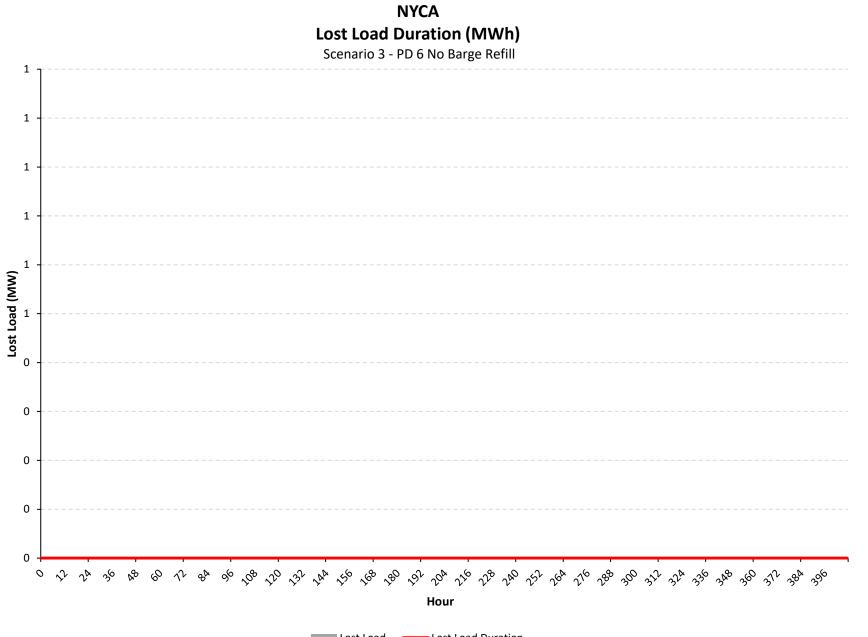
Notes:

[1] Weekends are shaded in gray.

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



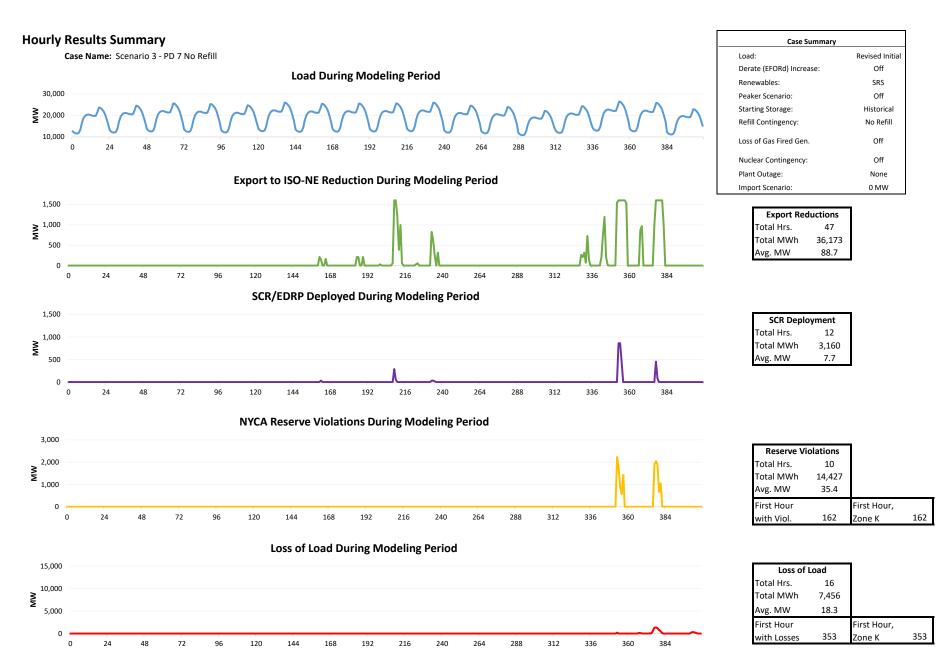
NYCA Emergency Actions and Lost Load Duration (MWh)



Lost Load Lost Load Duration

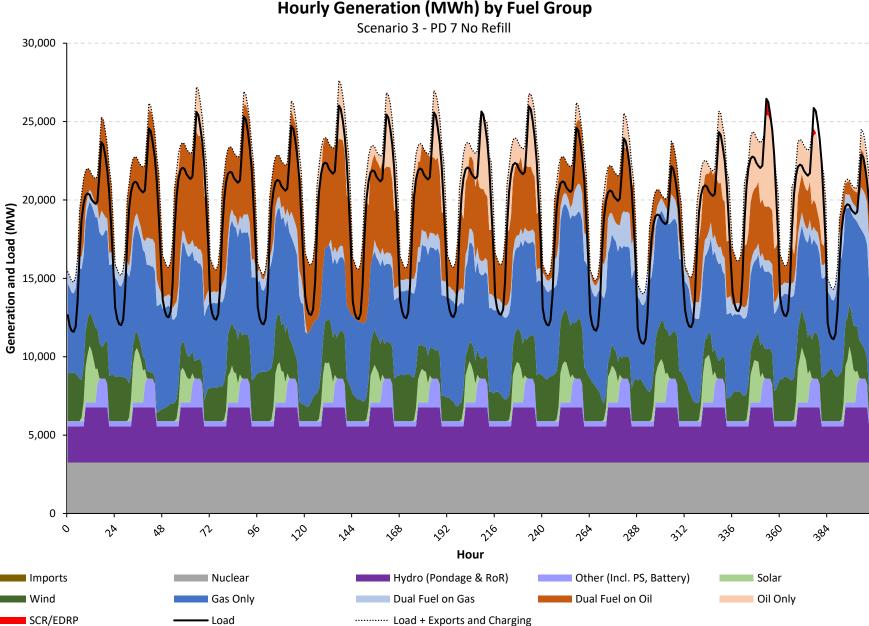
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 3 - PD 7 No Refill

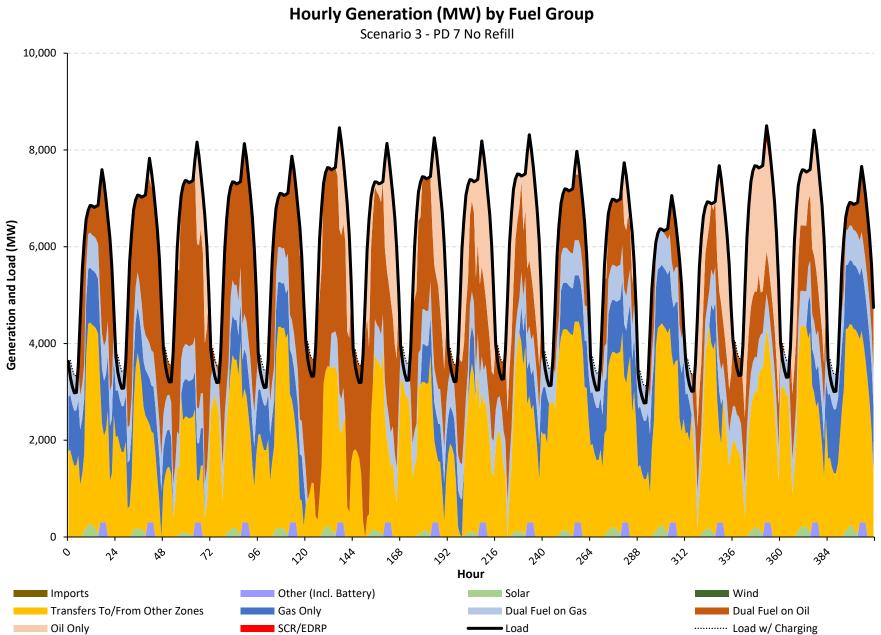








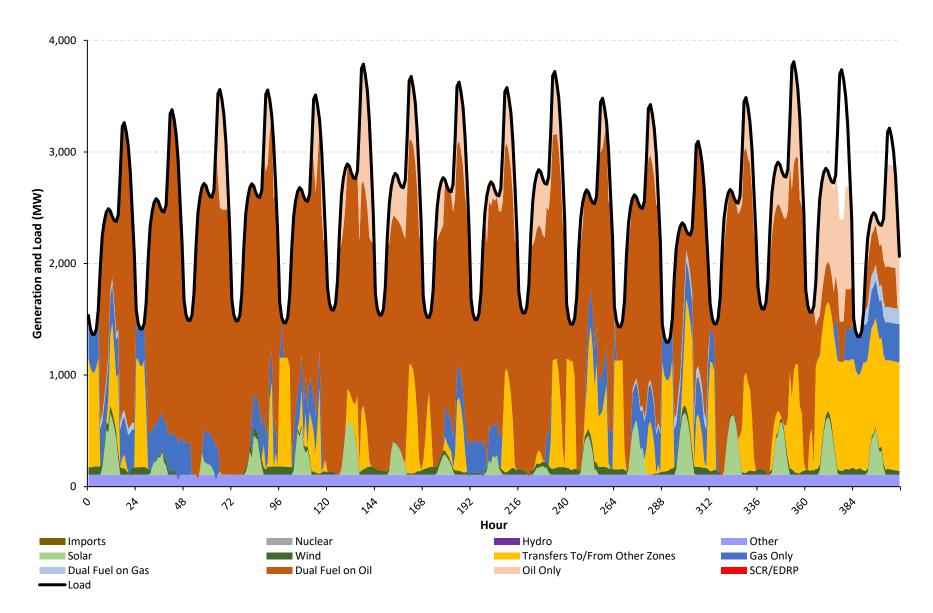
NYCA Hourly Generation (MWh) by Fuel Group



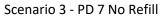
Zone J

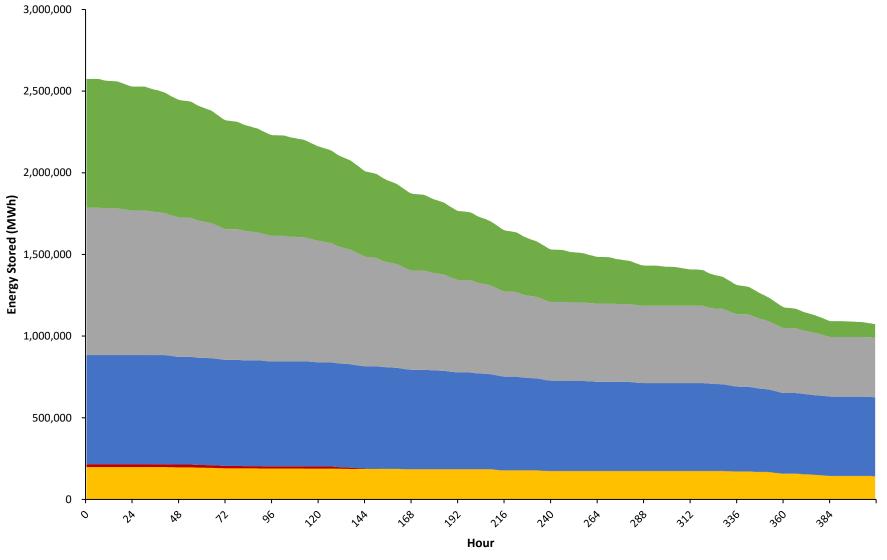
Zone K Hourly Generation (MW) by Fuel Group

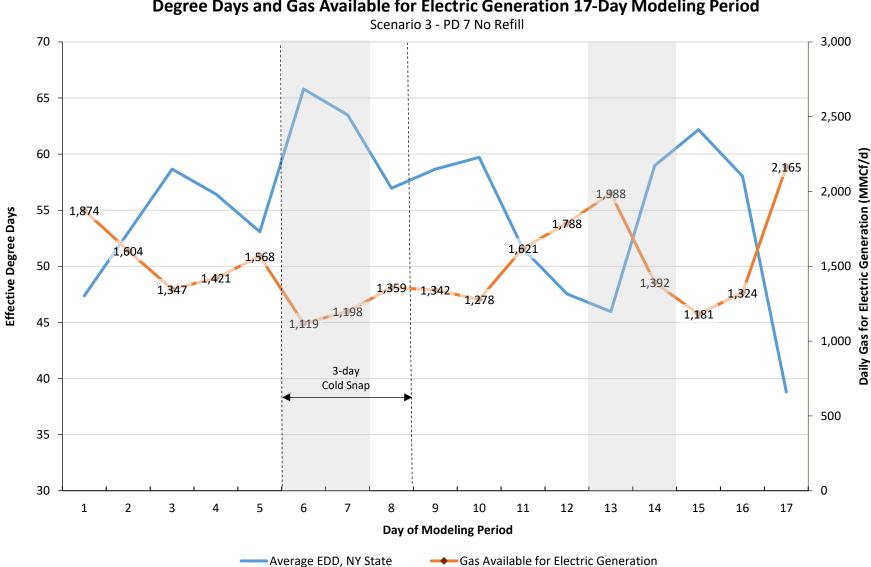
Scenario 3 - PD 7 No Refill









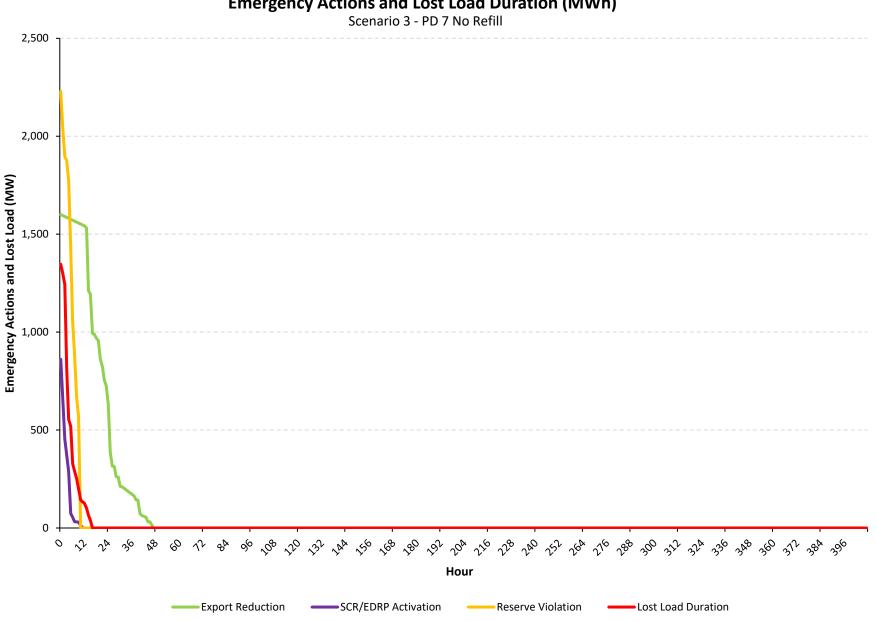


NYCA Degree Days and Gas Available for Electric Generation 17-Day Modeling Period

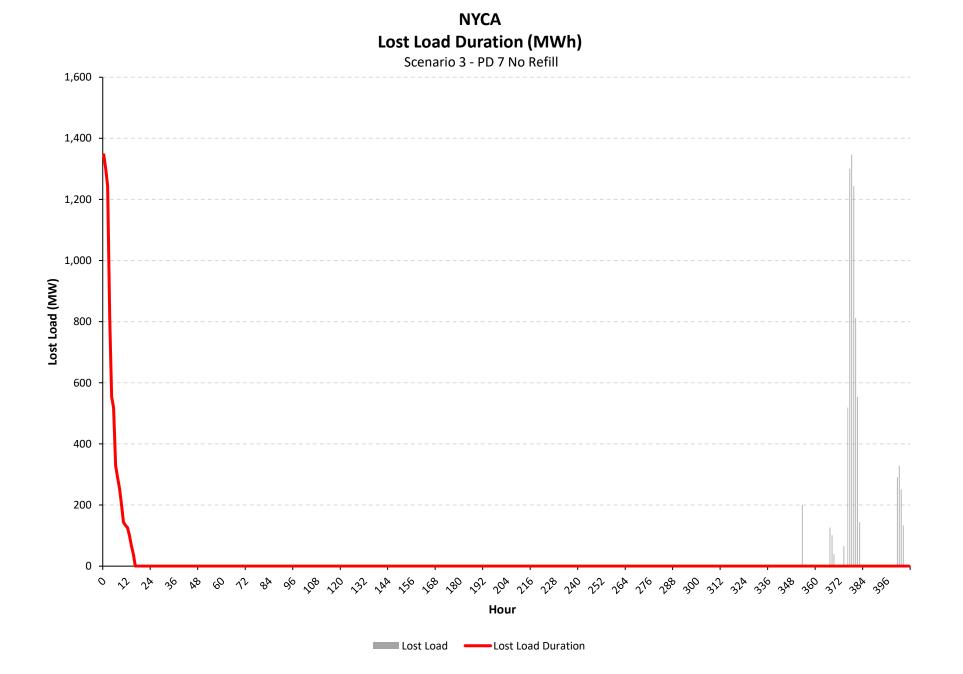
Notes:

[1] Weekends are shaded in gray.

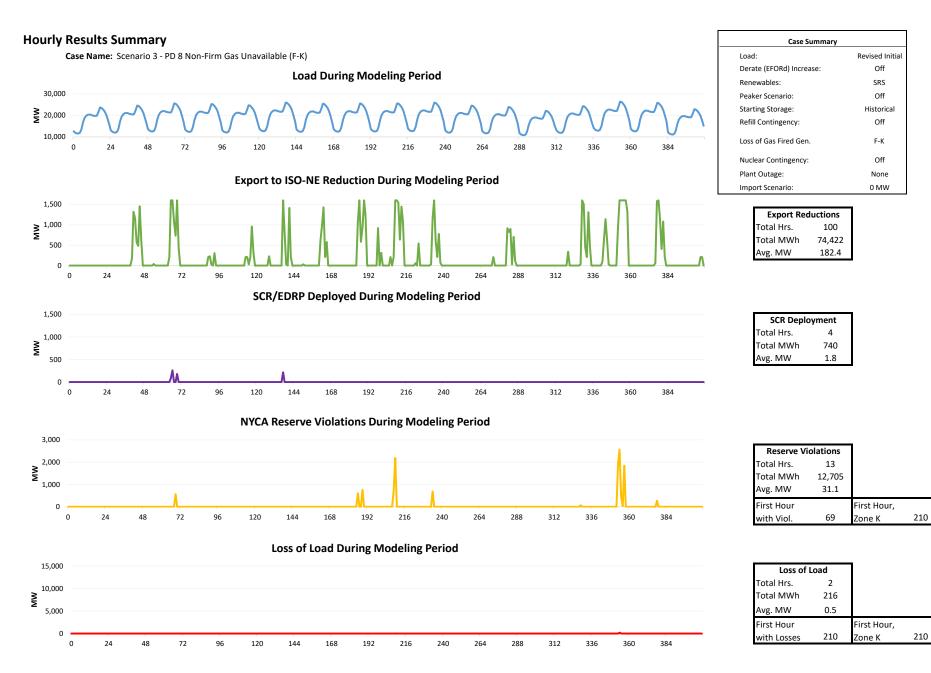
[2] Effective degree day is defined as 65 degrees F - Temperature.



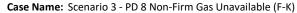
NYCA Emergency Actions and Lost Load Duration (MWh)

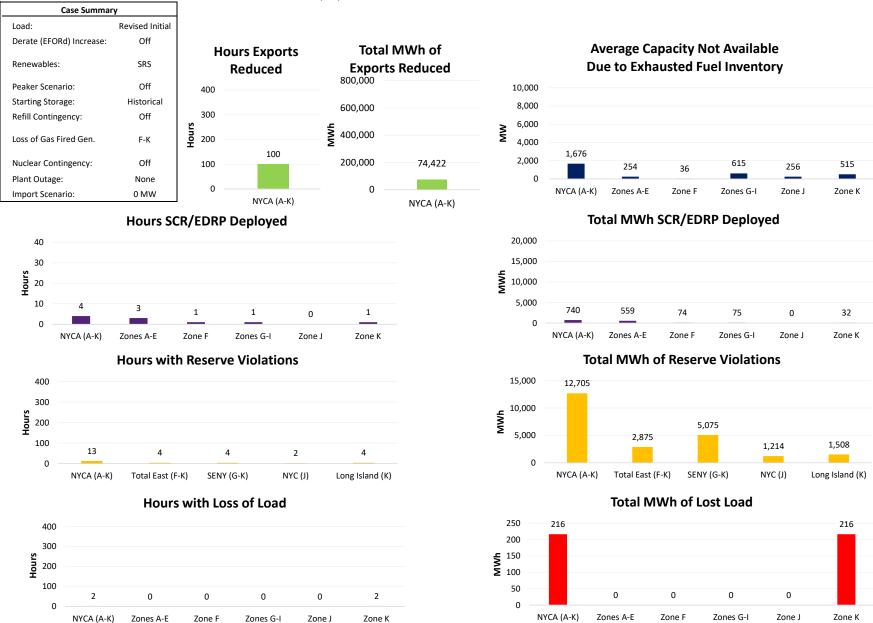


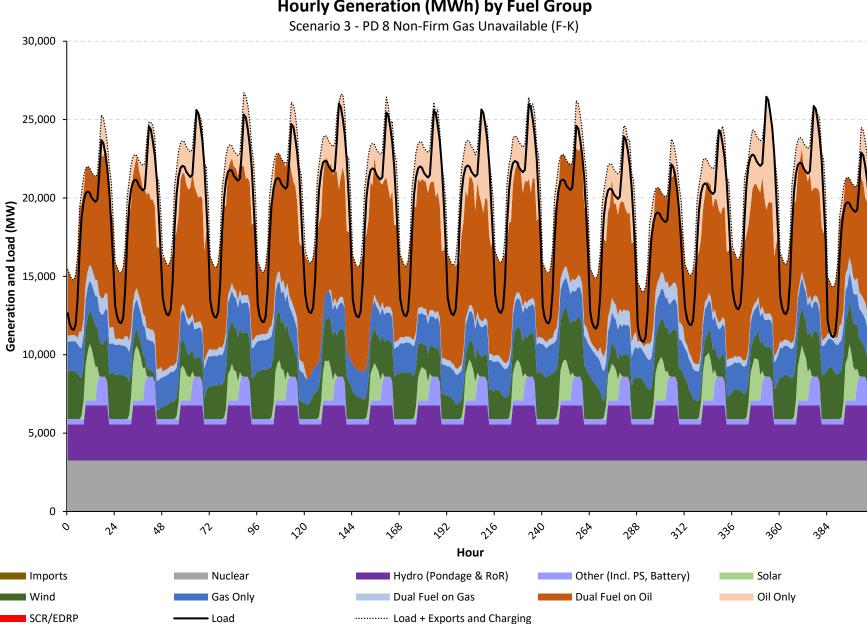
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 3 - PD 8 Non-Firm Gas Unavailable (F-K)



Full Period Results Summary

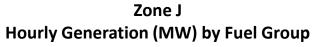




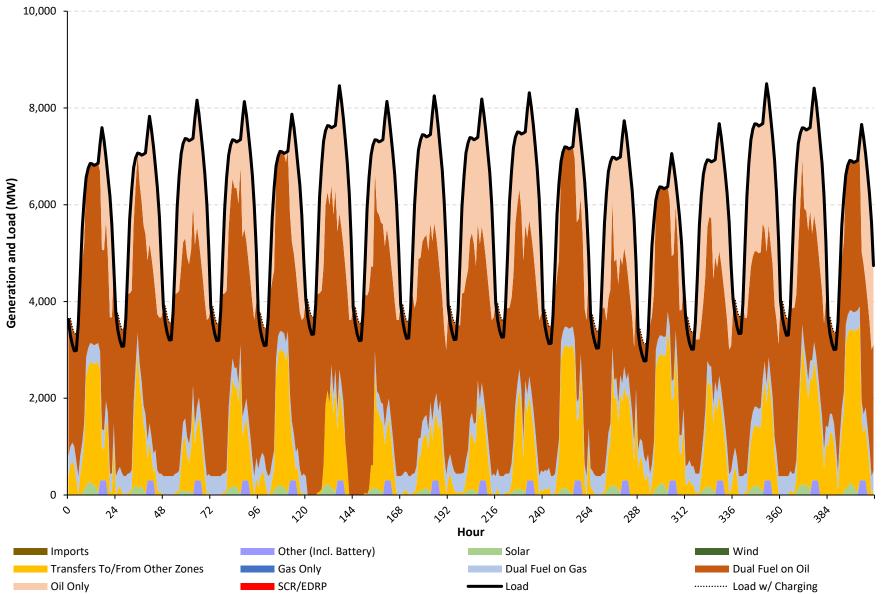


NYCA Hourly Generation (MWh) by Fuel Group

Analysis Group, Inc.

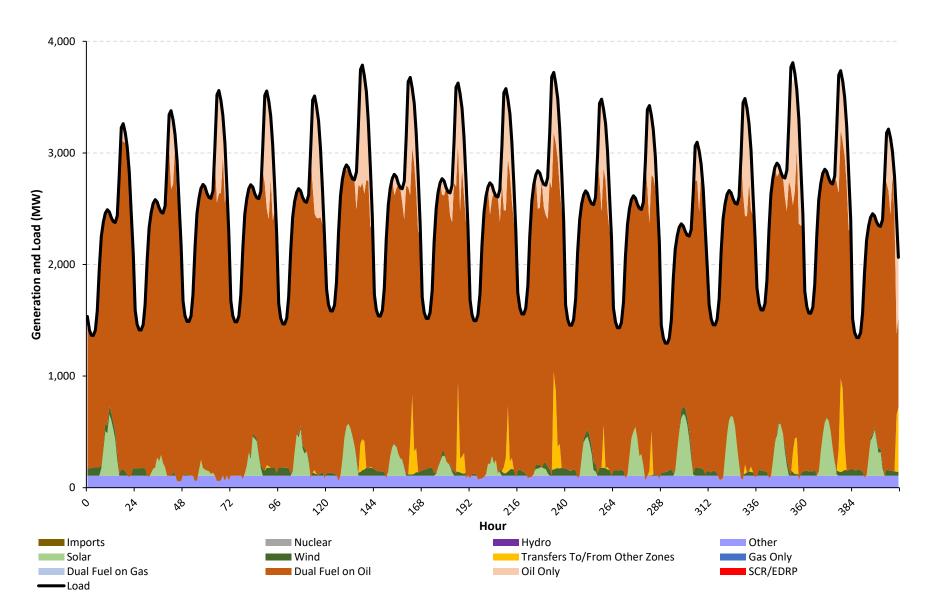


Scenario 3 - PD 8 Non-Firm Gas Unavailable (F-K)



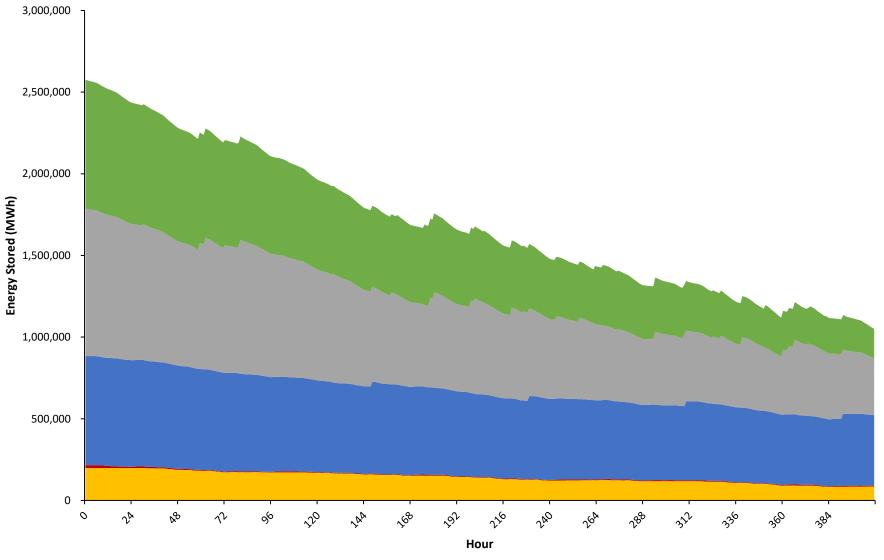
Zone K Hourly Generation (MW) by Fuel Group

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

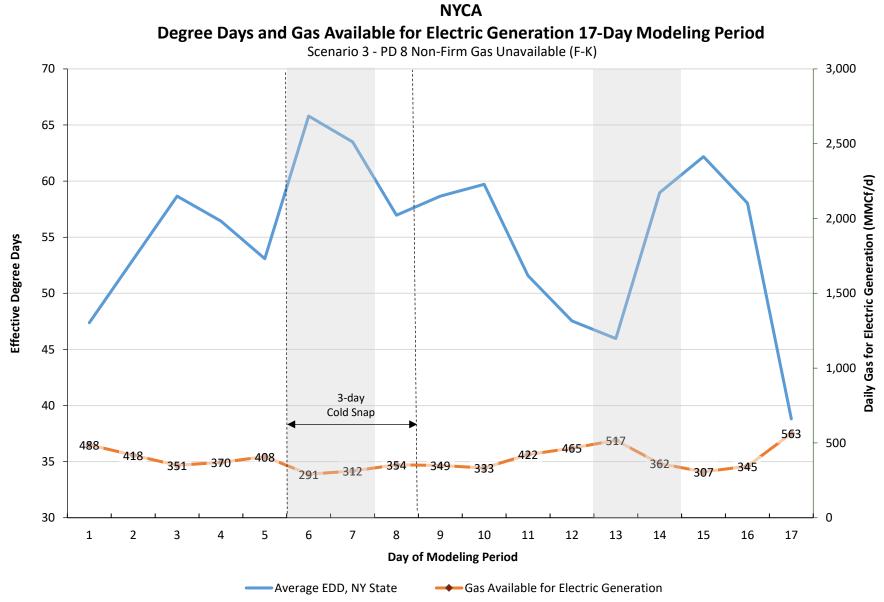




Scenario 3 - PD 8 Non-Firm Gas Unavailable (F-K)



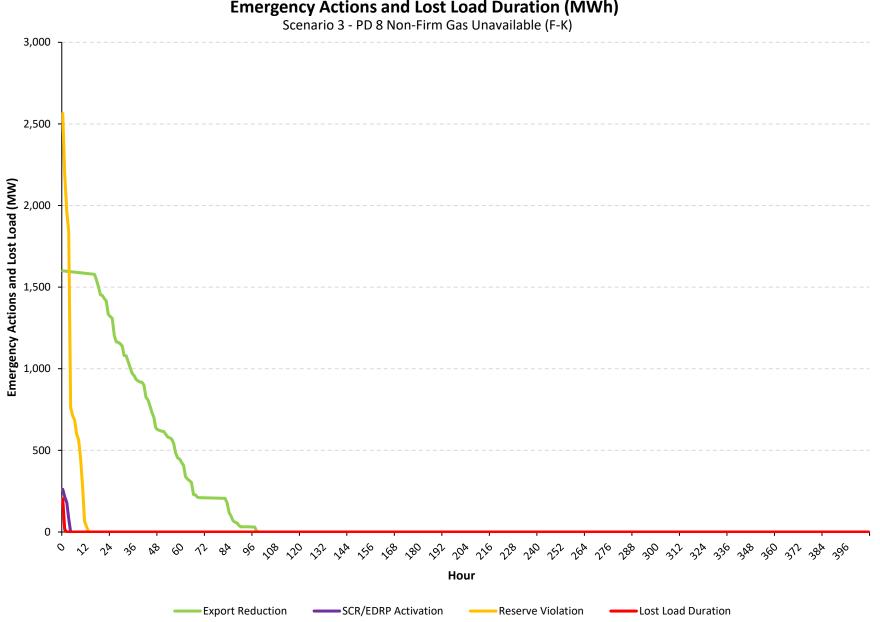
Zones A-E Zone F Zones G-I Zone J Zone K



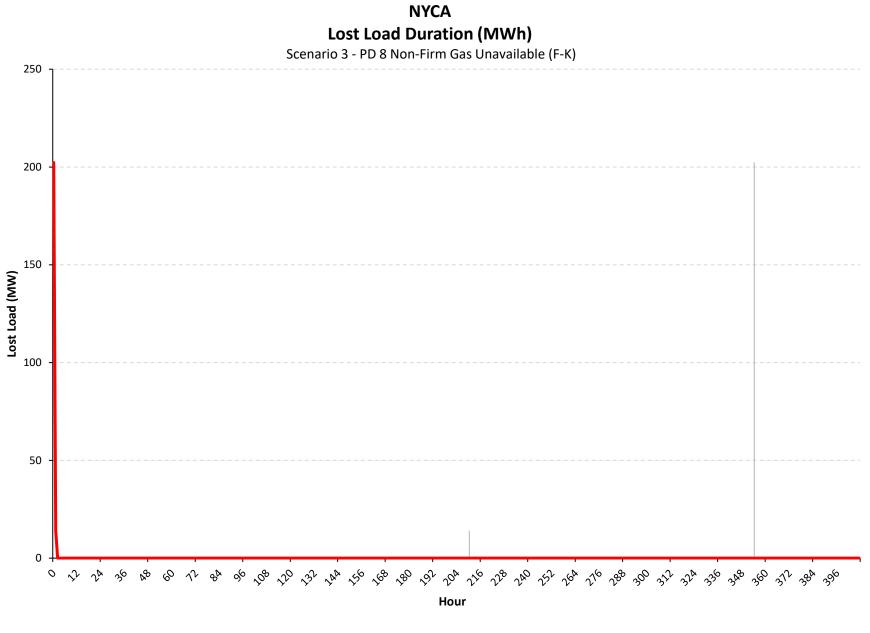
Notes:

[1] Weekends are shaded in gray.

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



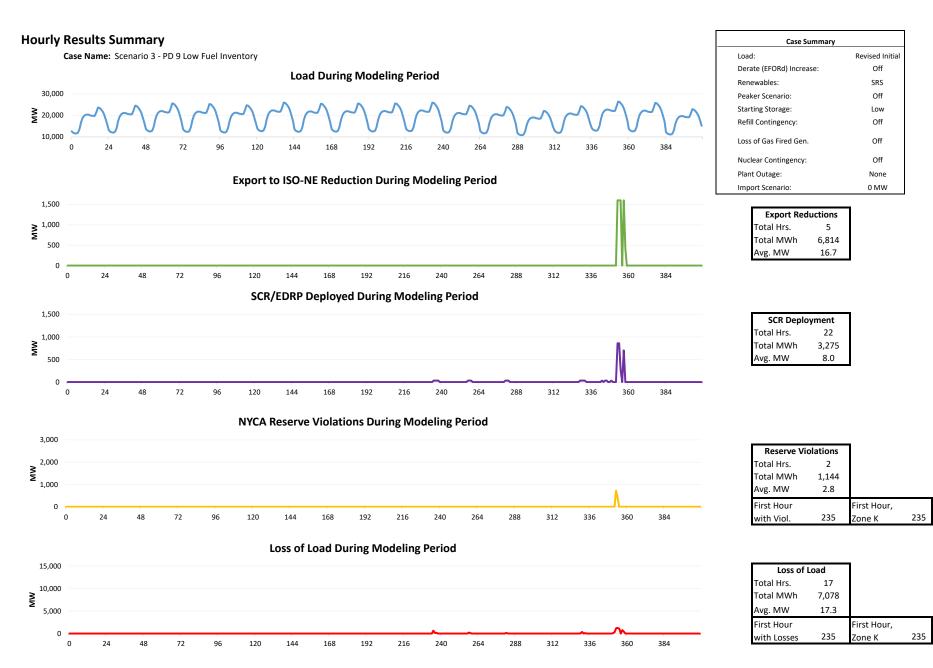
NYCA Emergency Actions and Lost Load Duration (MWh)



Lost Load Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

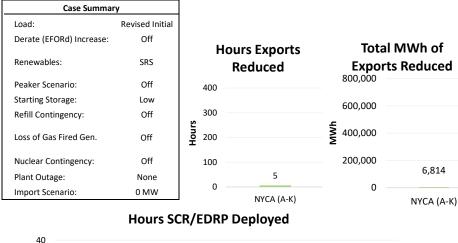
Case: Scenario 3 - PD 9 Low Fuel Inventory

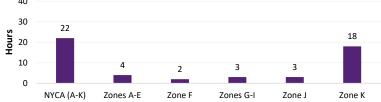


₹

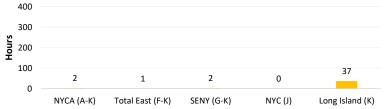
Full Period Results Summary



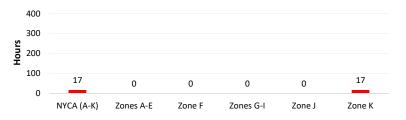




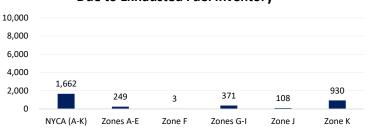




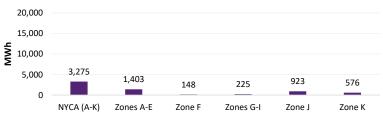
Hours with Loss of Load



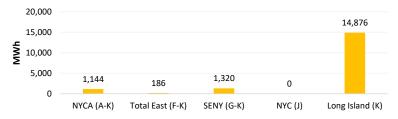
Average Capacity Not Available Due to Exhausted Fuel Inventory



Total MWh SCR/EDRP Deployed

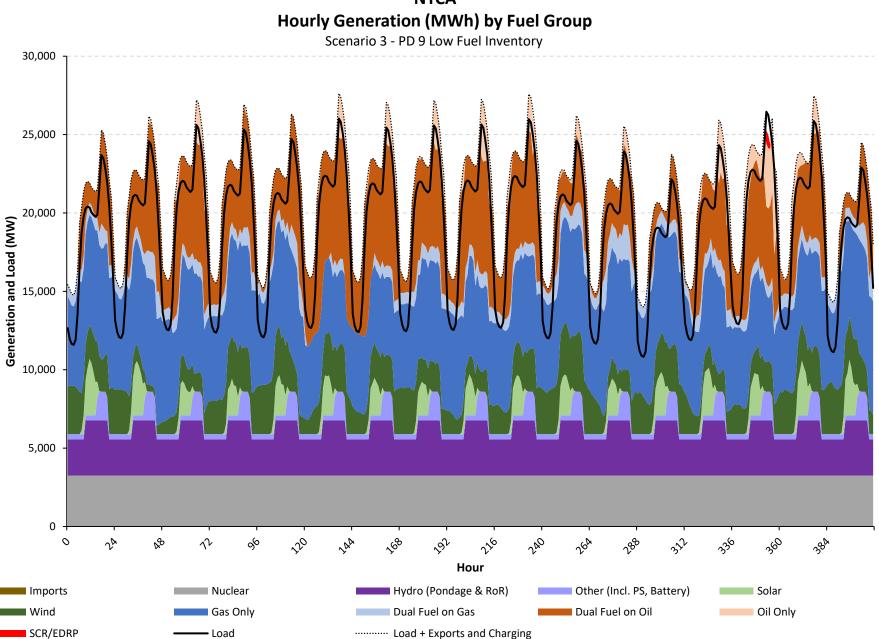


Total MWh of Reserve Violations



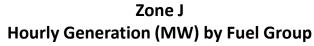
Total MWh of Lost Load



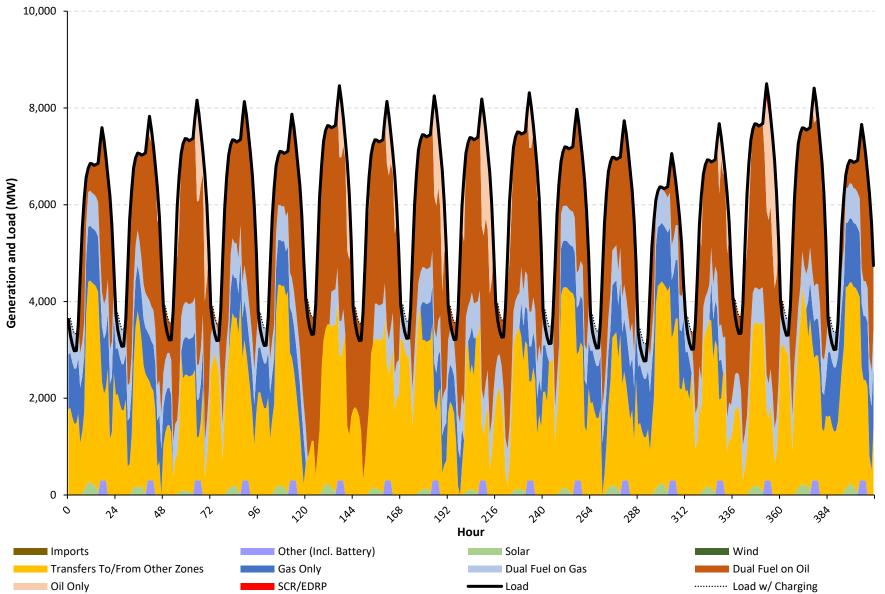


NYCA

Analysis Group, Inc.

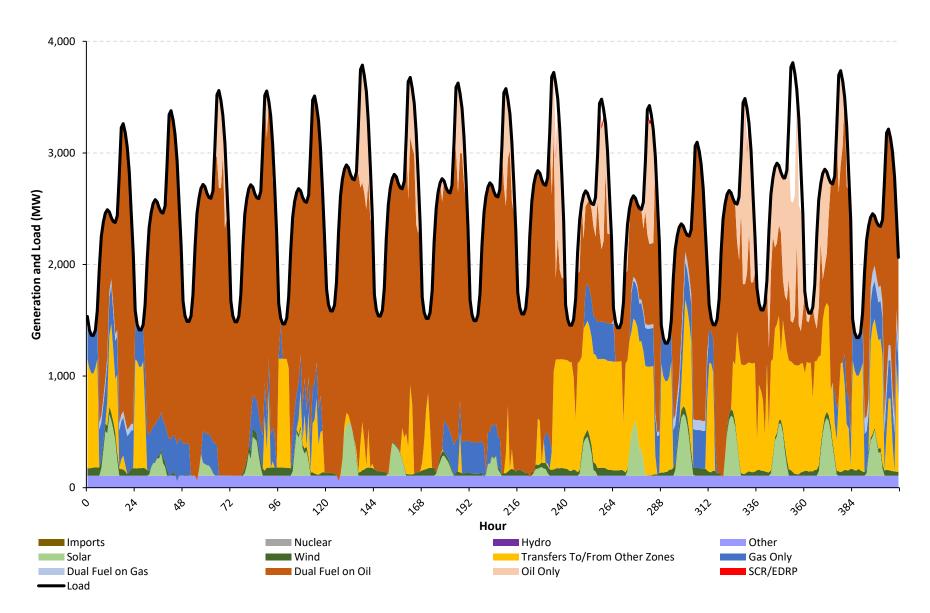


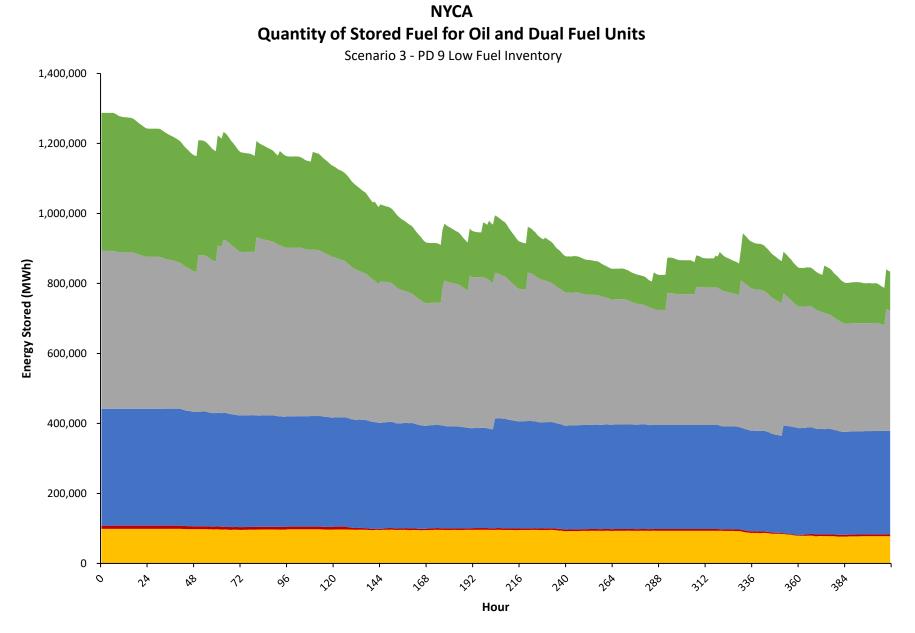
Scenario 3 - PD 9 Low Fuel Inventory



Zone K Hourly Generation (MW) by Fuel Group

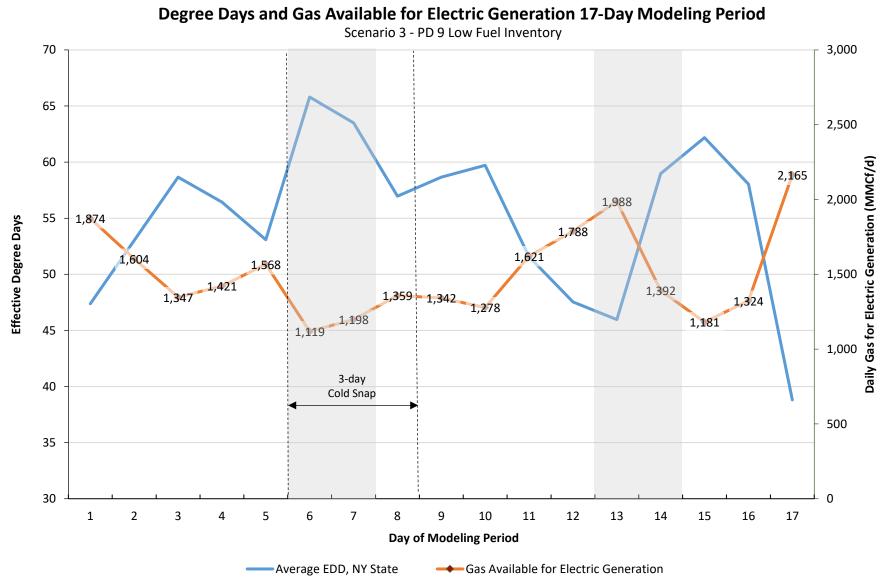
Scenario 3 - PD 9 Low Fuel Inventory





Zones A-E Zone F Zones G-I Zone J Zone K

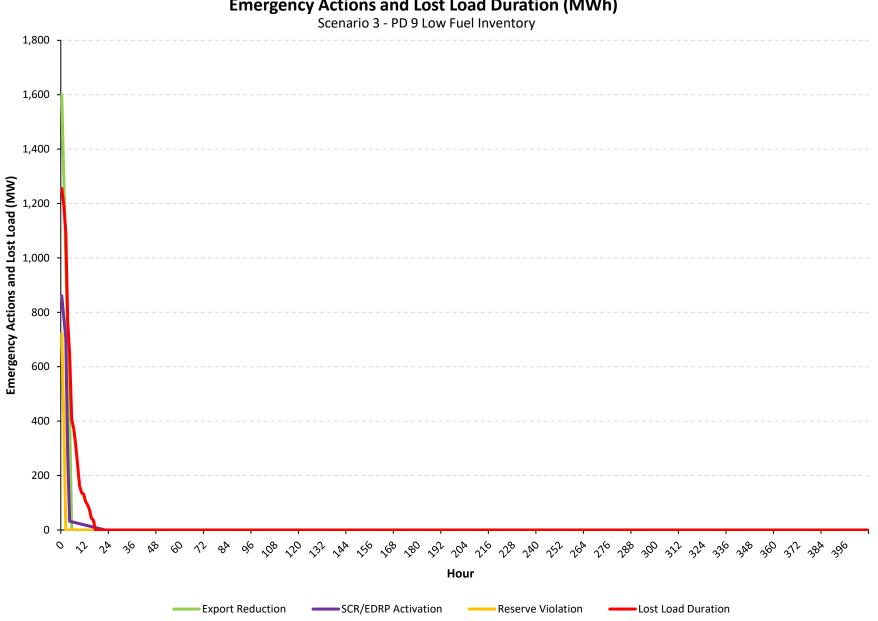
NYCA



Notes:

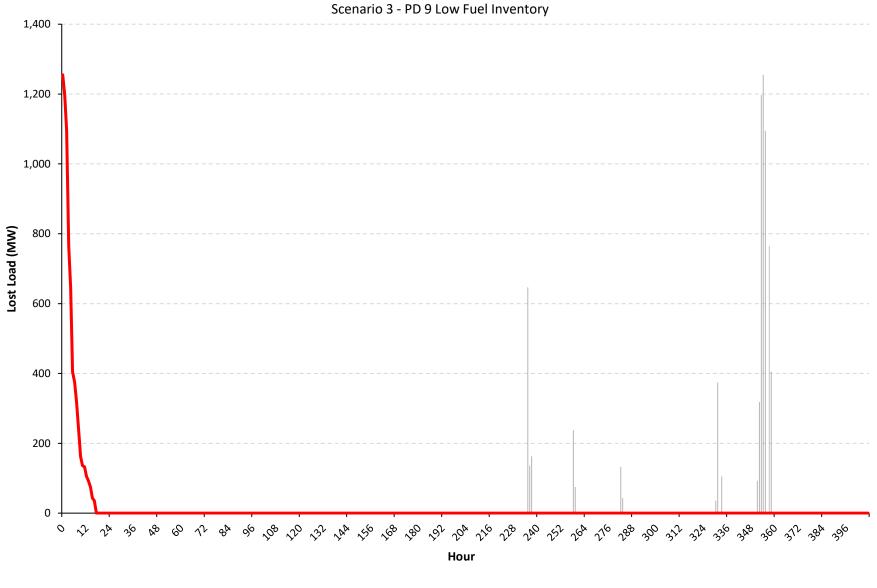
[1] Weekends are shaded in gray.

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



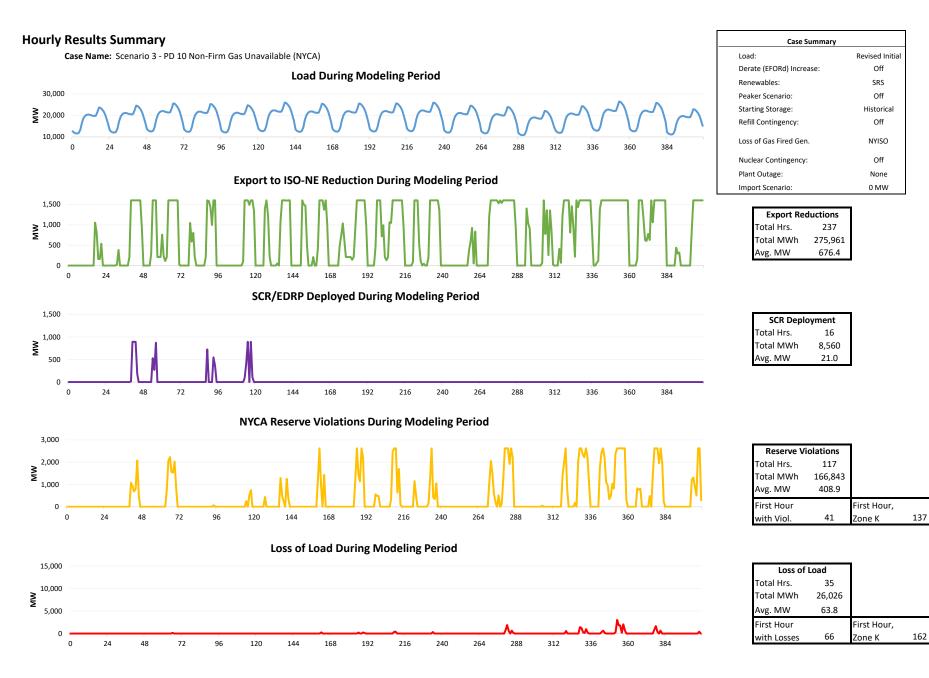
NYCA Emergency Actions and Lost Load Duration (MWh)





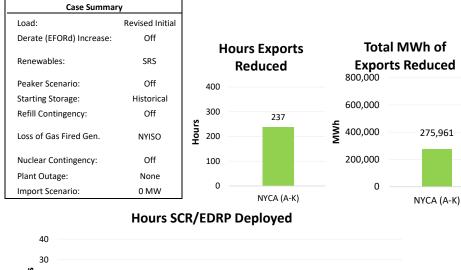
Lost Load — Lost Load Duration

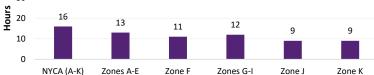
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 3 - PD 10 Non-Firm Gas Unavailable (NYCA)

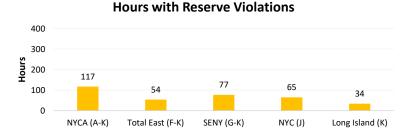


Full Period Results Summary

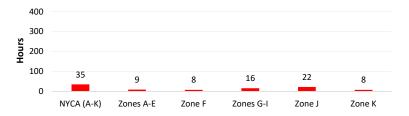
Case Name: Scenario 3 - PD 10 Non-Firm Gas Unavailable (NYCA)



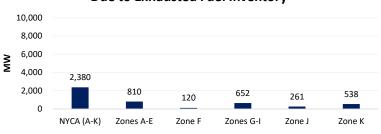




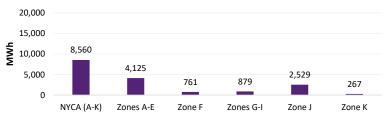
Hours with Loss of Load



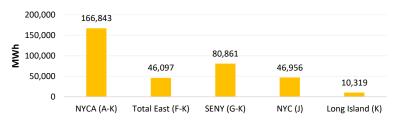
Average Capacity Not Available Due to Exhausted Fuel Inventory



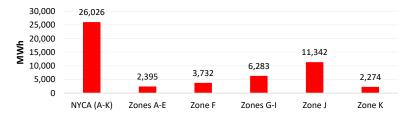
Total MWh SCR/EDRP Deployed

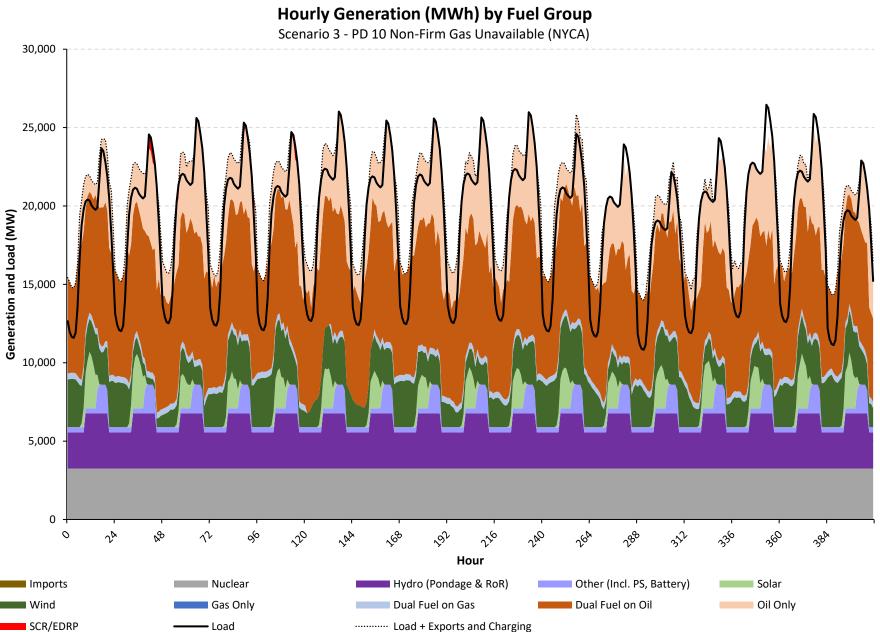


Total MWh of Reserve Violations



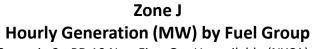
Total MWh of Lost Load



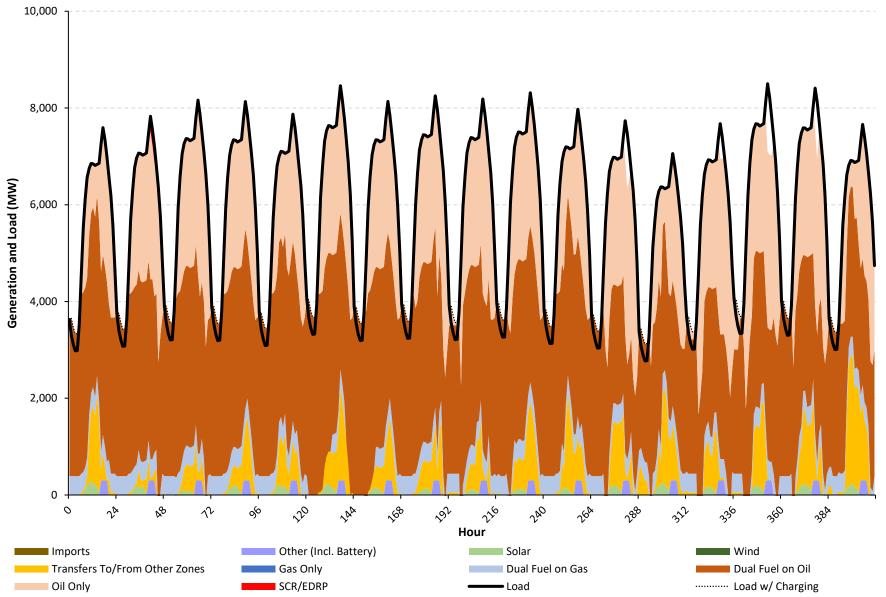


NYCA

Analysis Group, Inc.

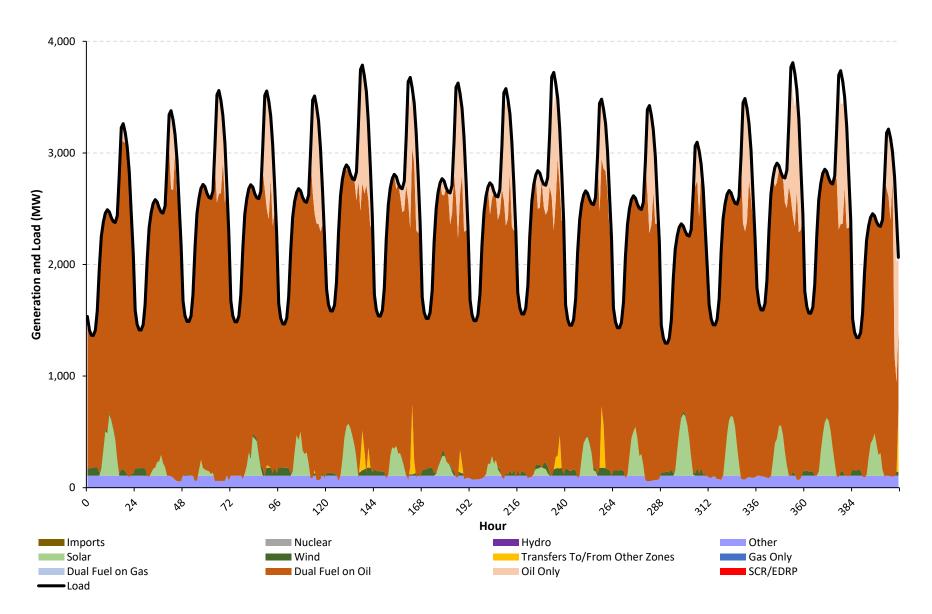






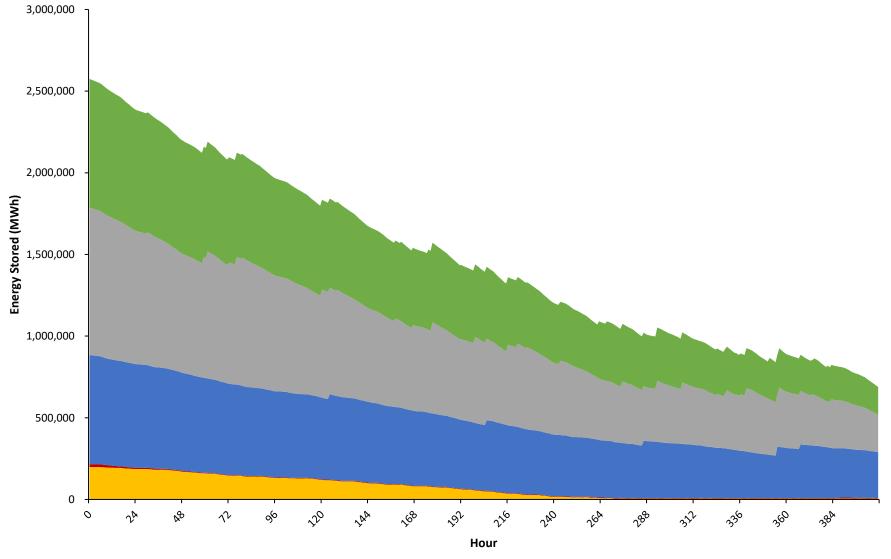
Zone K Hourly Generation (MW) by Fuel Group

Scenario 3 - PD 10 Non-Firm Gas Unavailable (NYCA)

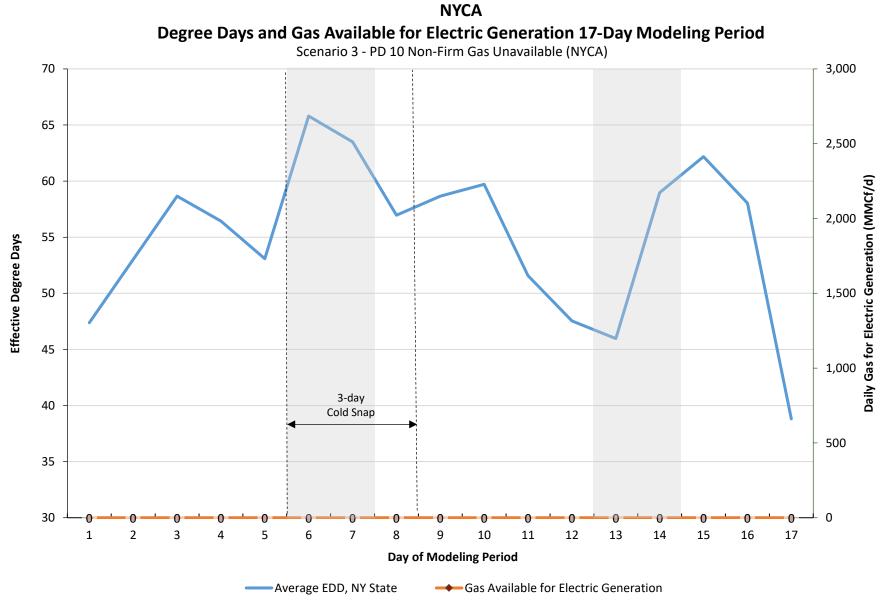








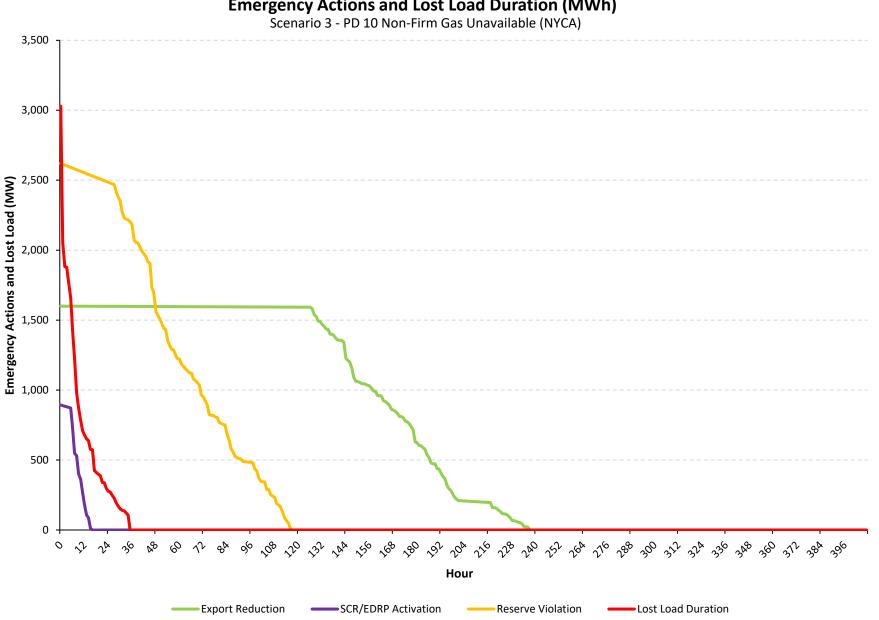
Zones A-E Zone F Zones G-I Zone J Zone K



Notes:

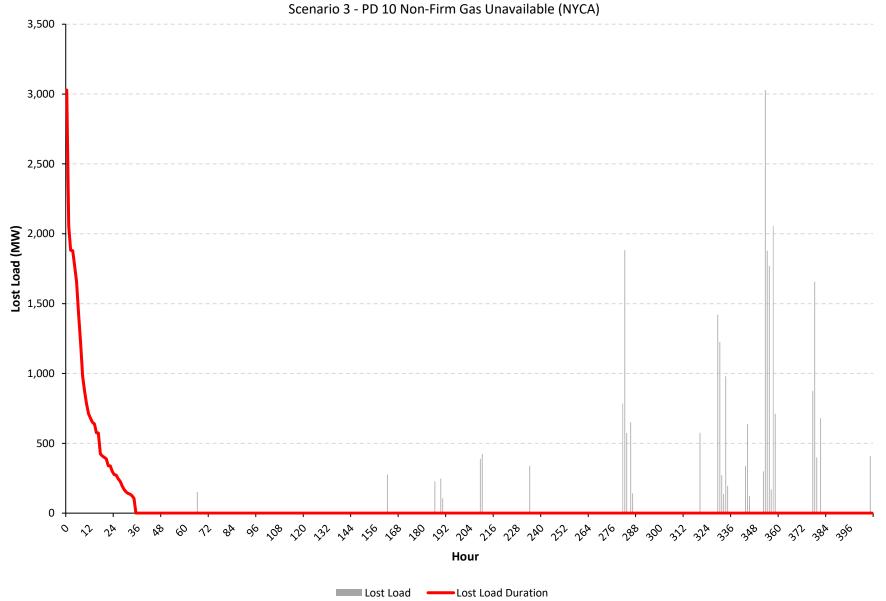
[1] Weekends are shaded in gray.

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

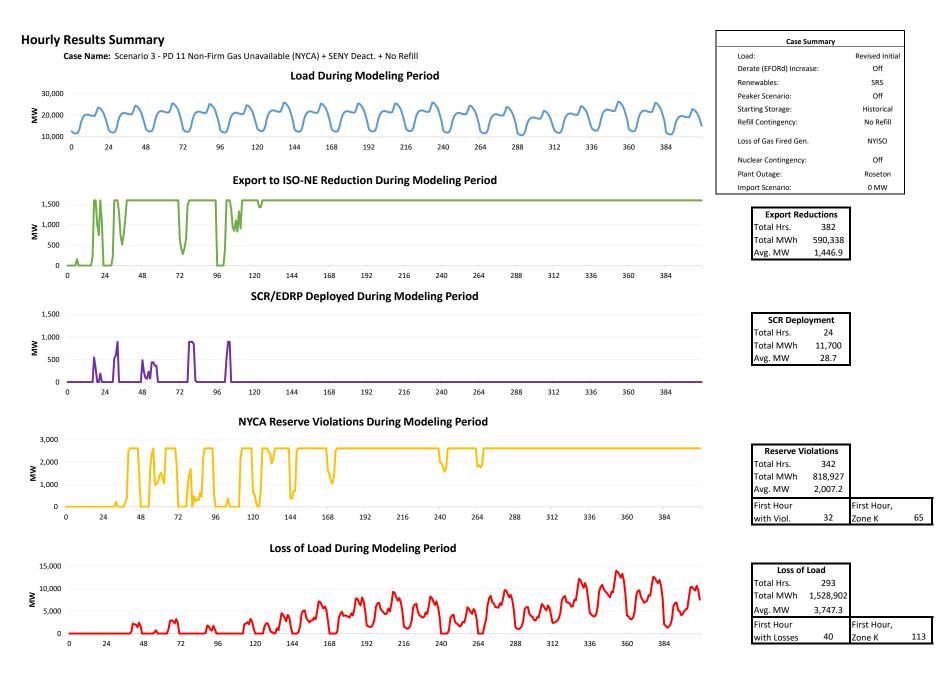


NYCA Emergency Actions and Lost Load Duration (MWh)

NYCA Lost Load Duration (MWh)



Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 3 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill

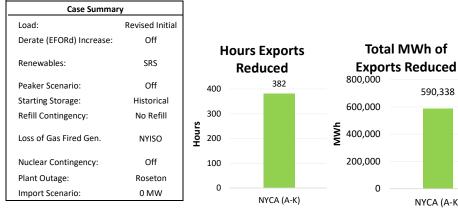


590,338

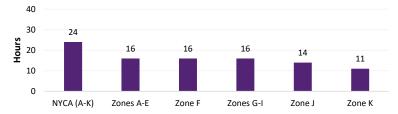
NYCA (A-K)

Full Period Results Summary

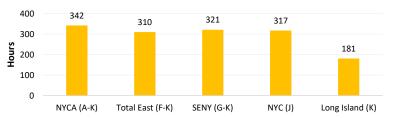
Case Name: Scenario 3 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill







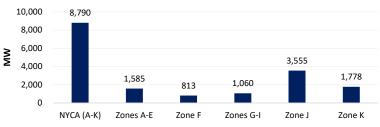




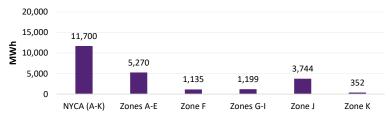




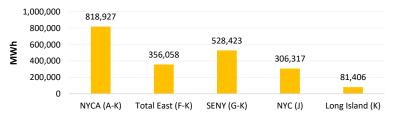
Average Capacity Not Available Due to Exhausted Fuel Inventory



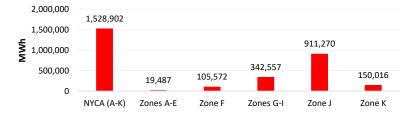
Total MWh SCR/EDRP Deployed



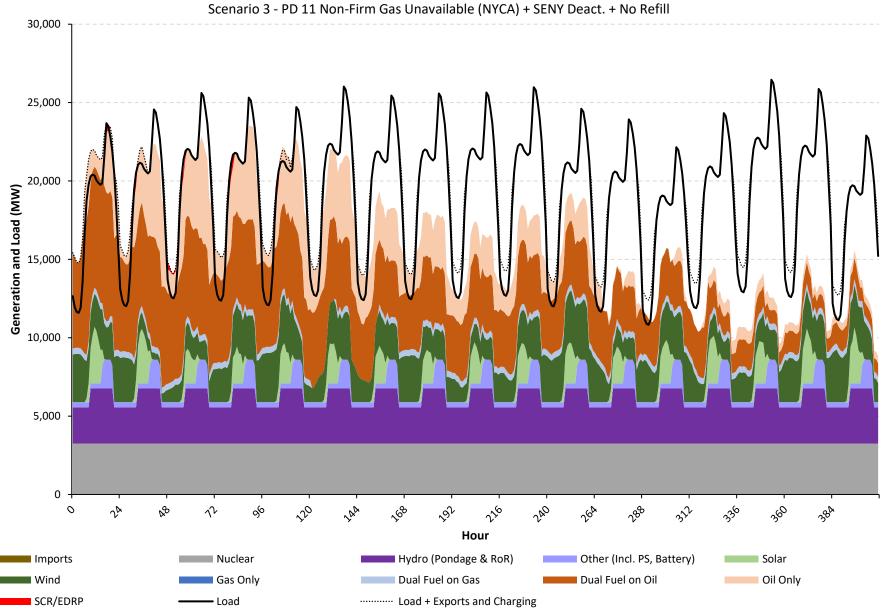
Total MWh of Reserve Violations

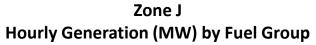


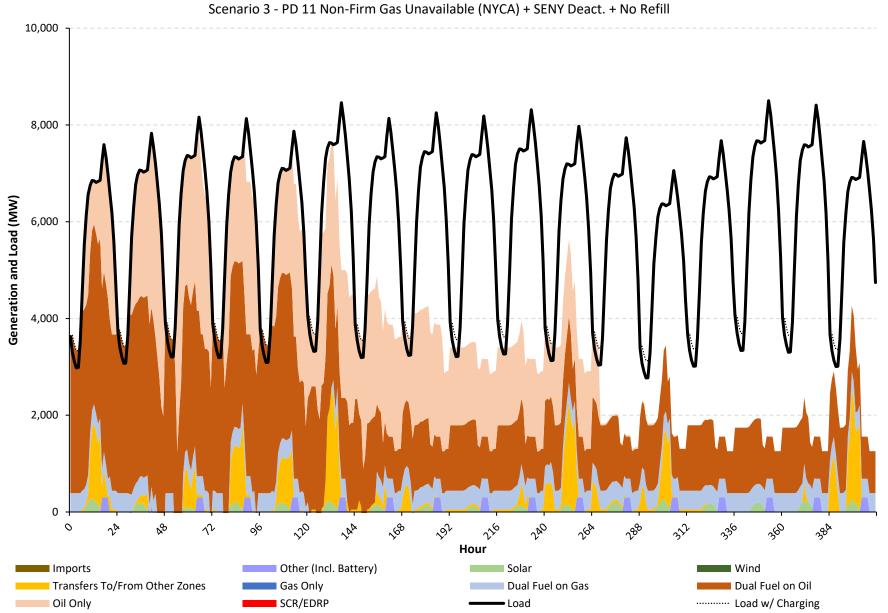
Total MWh of Lost Load



NYCA Hourly Generation (MWh) by Fuel Group

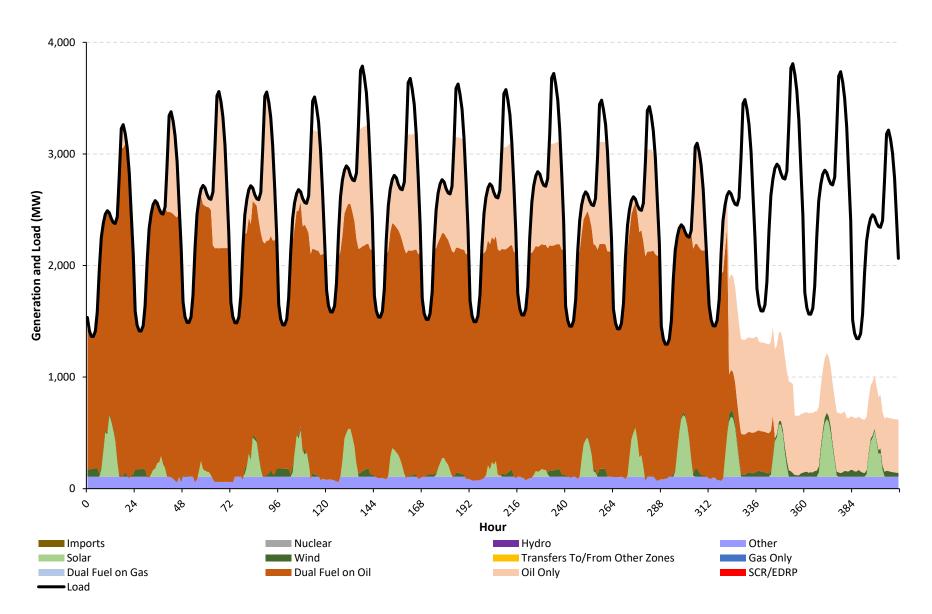




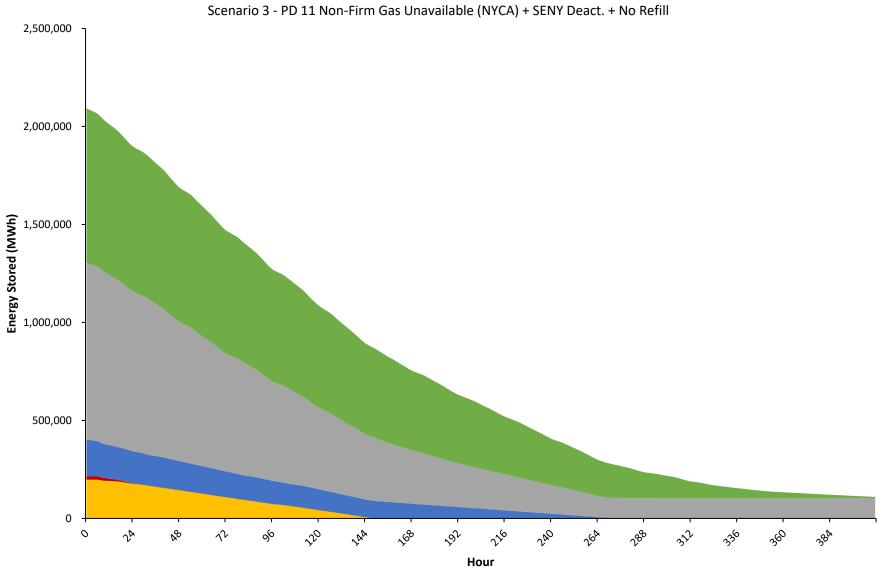


Zone K Hourly Generation (MW) by Fuel Group

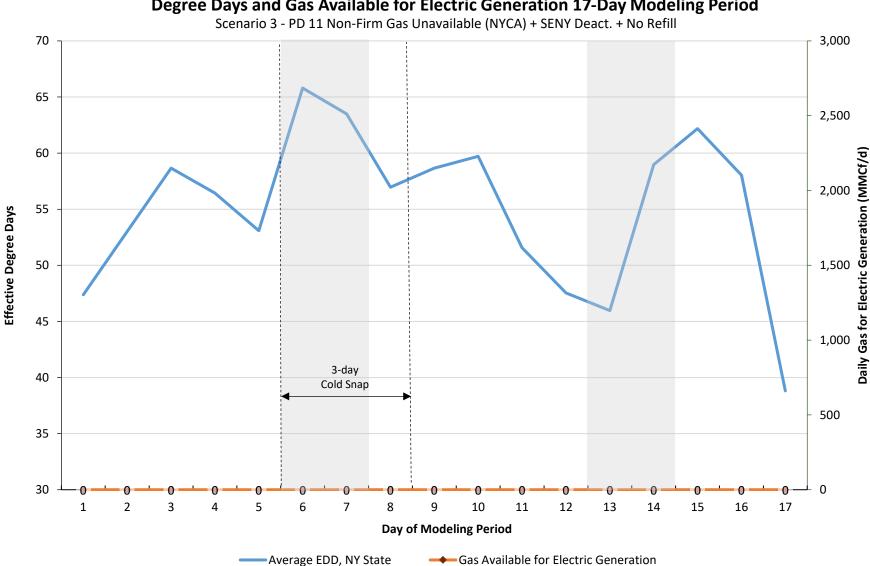
Scenario 3 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill







Zones A-E Zone F Zones G-I Zone J Zone K

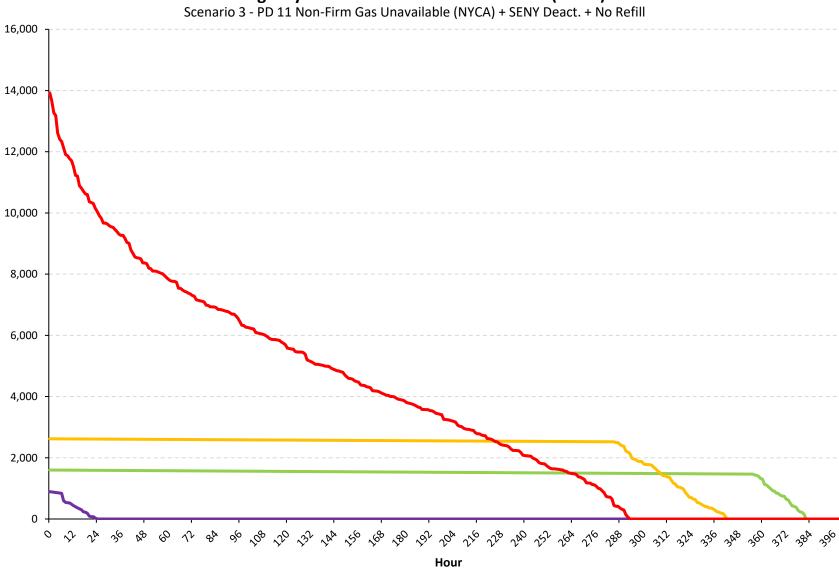


NYCA Degree Days and Gas Available for Electric Generation 17-Day Modeling Period

Notes:

[1] Weekends are shaded in gray.

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



SCR/EDRP Activation

Reserve Violation

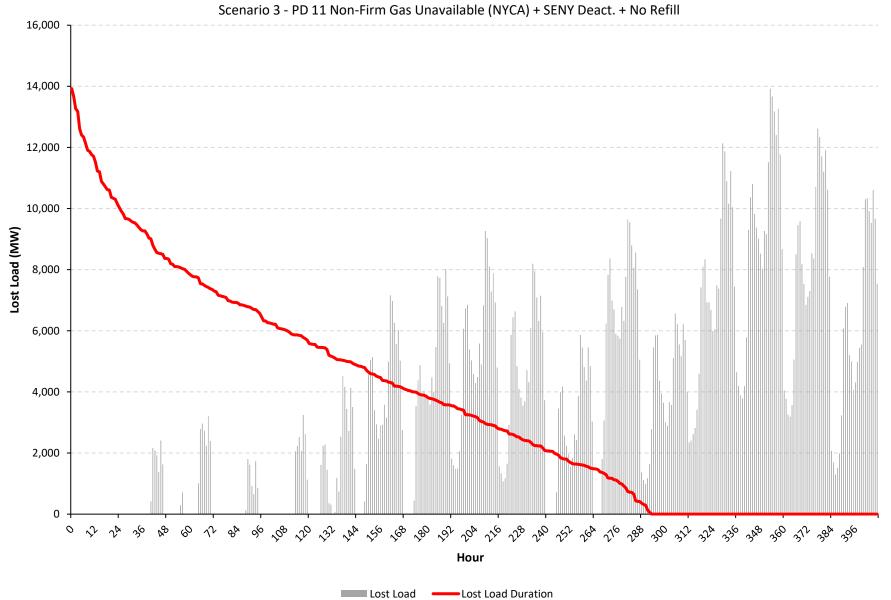
Lost Load Duration

NYCA Emergency Actions and Lost Load Duration (MWh)

Export Reduction

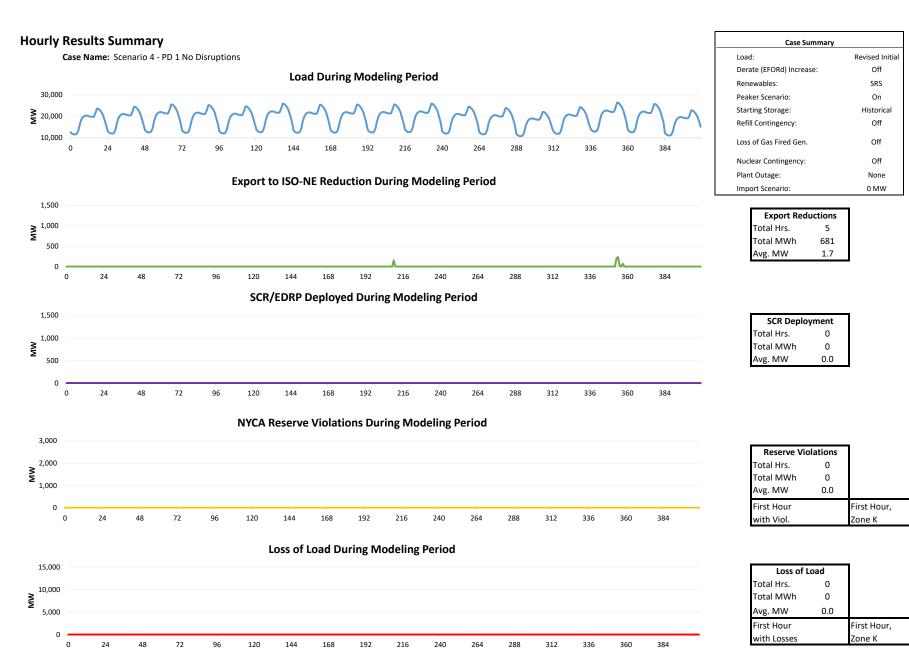
Emergency Actions and Lost Load (MW)

NYCA Lost Load Duration (MWh)

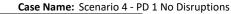


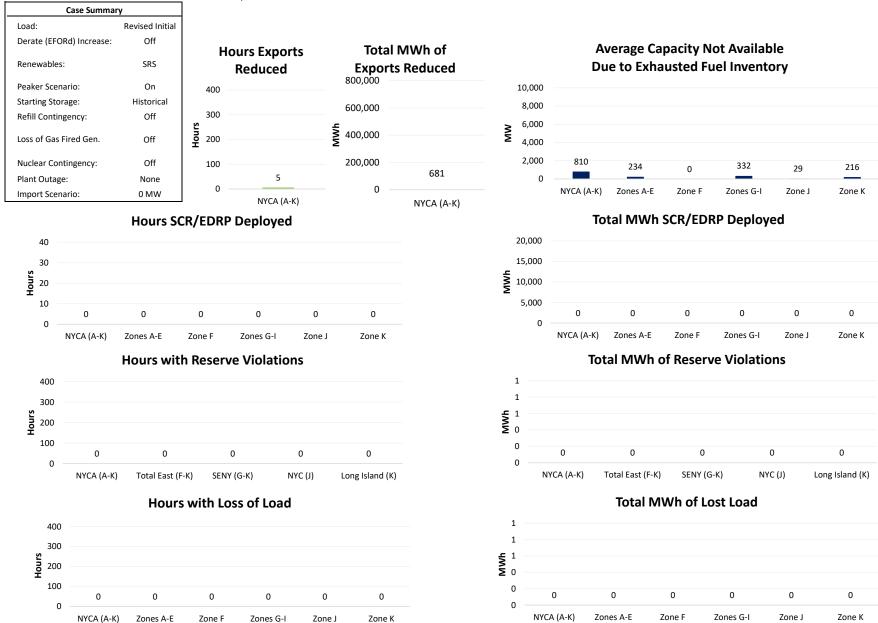
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

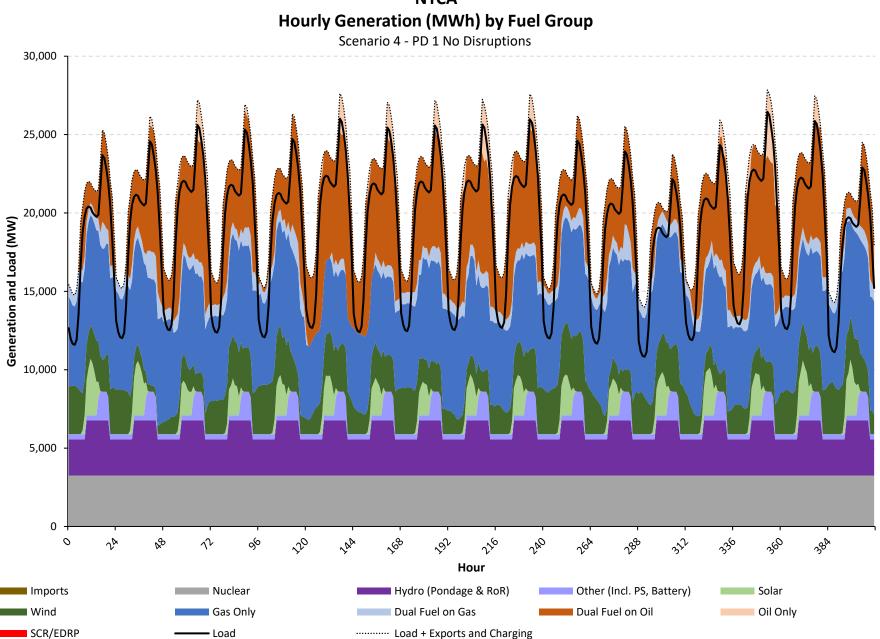
Case: Scenario 4 - PD 1 No Disruptions



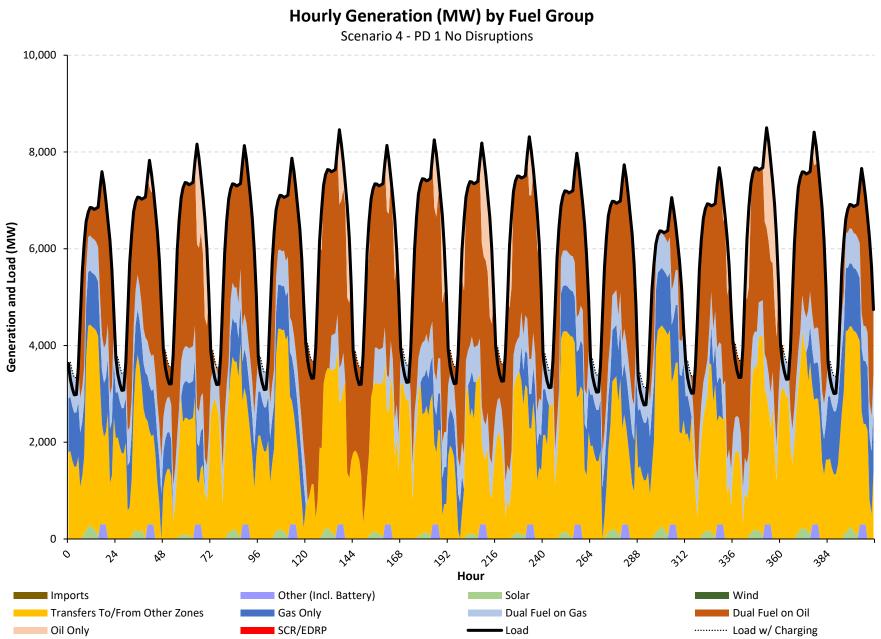
Full Period Results Summary





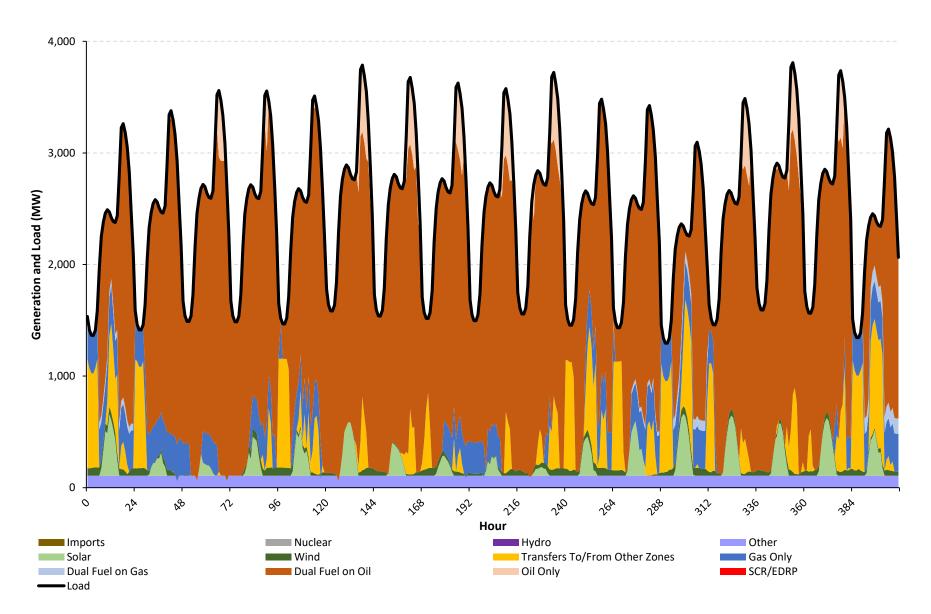


NYCA

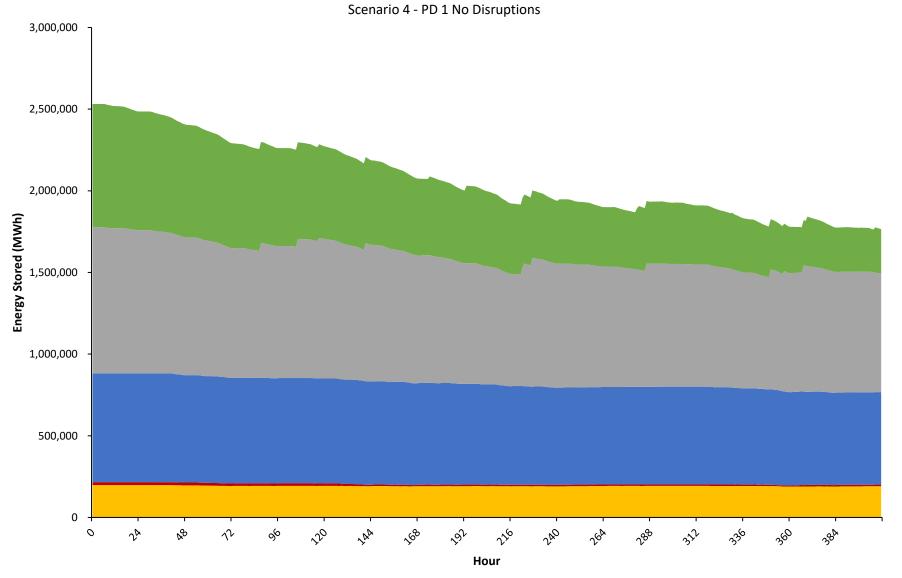


Zone K Hourly Generation (MW) by Fuel Group

Scenario 4 - PD 1 No Disruptions

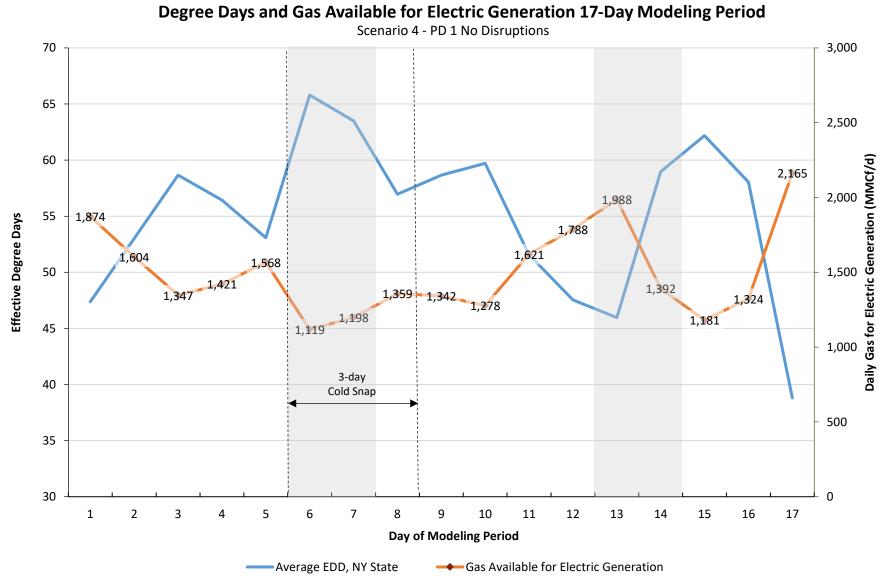






Zones A-E Zone F Zones G-I Zone J Zone K

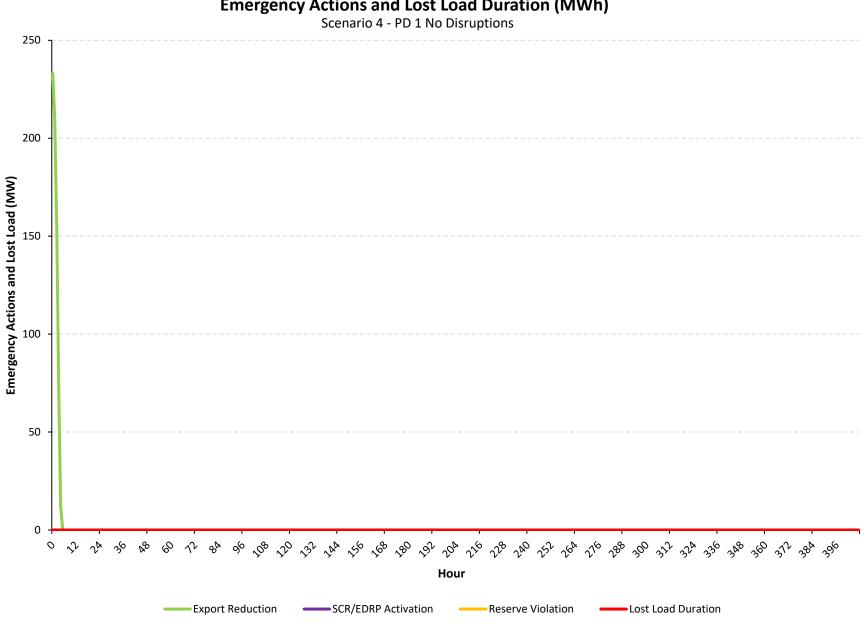
NYCA



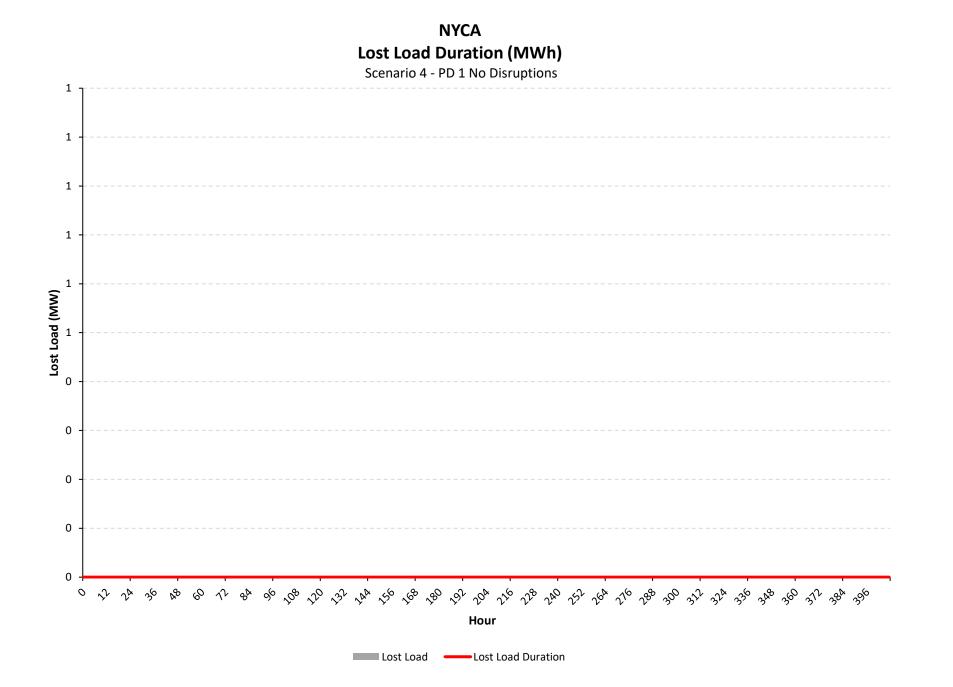
Notes:

[1] Weekends are shaded in gray.

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

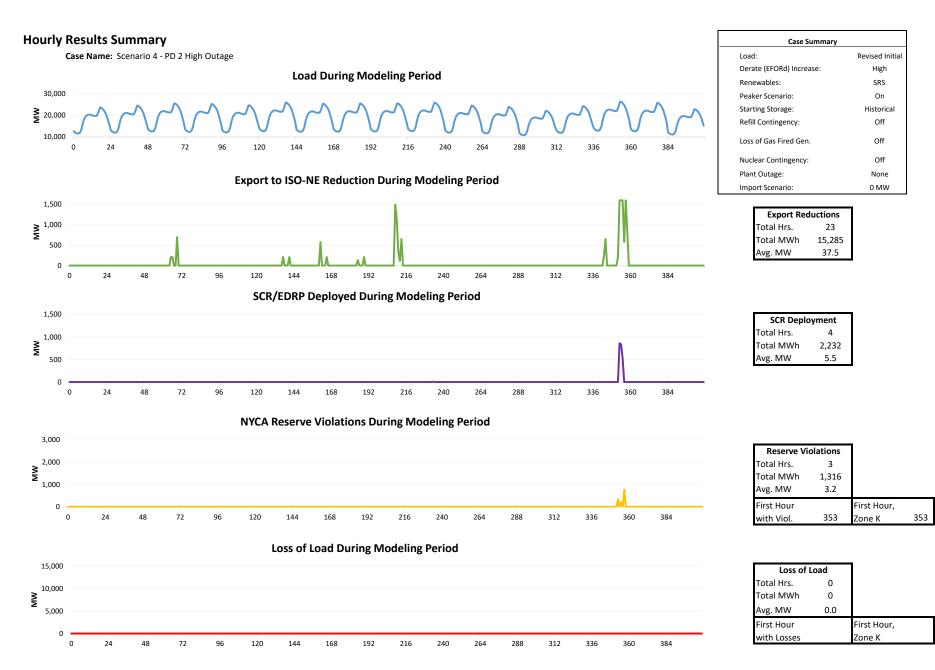


NYCA Emergency Actions and Lost Load Duration (MWh)



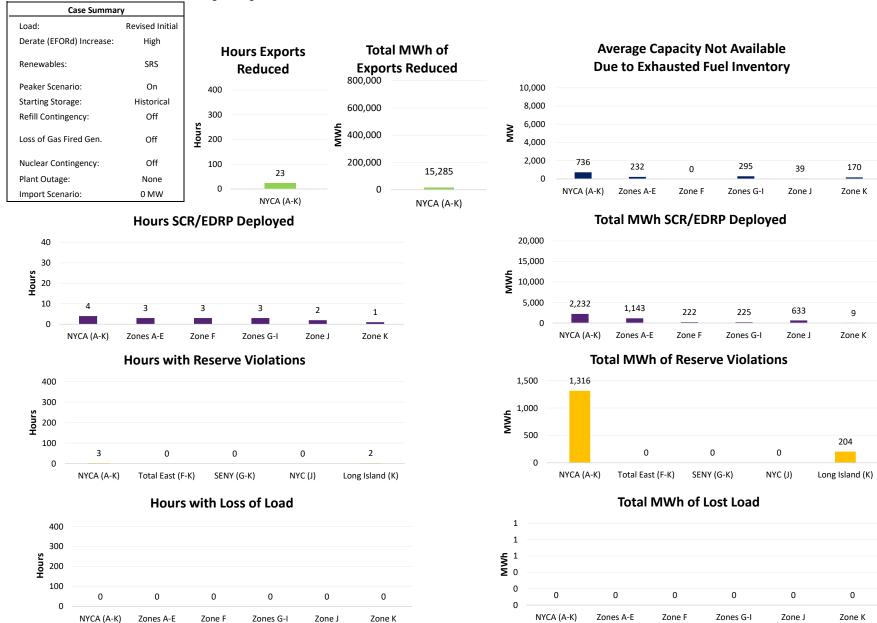
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

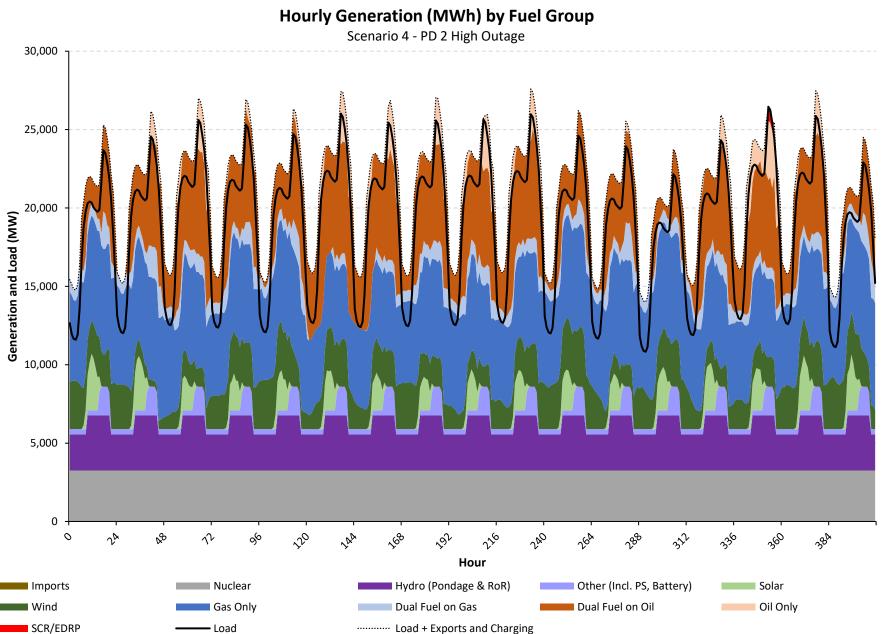
Case: Scenario 4 - PD 2 High Outage



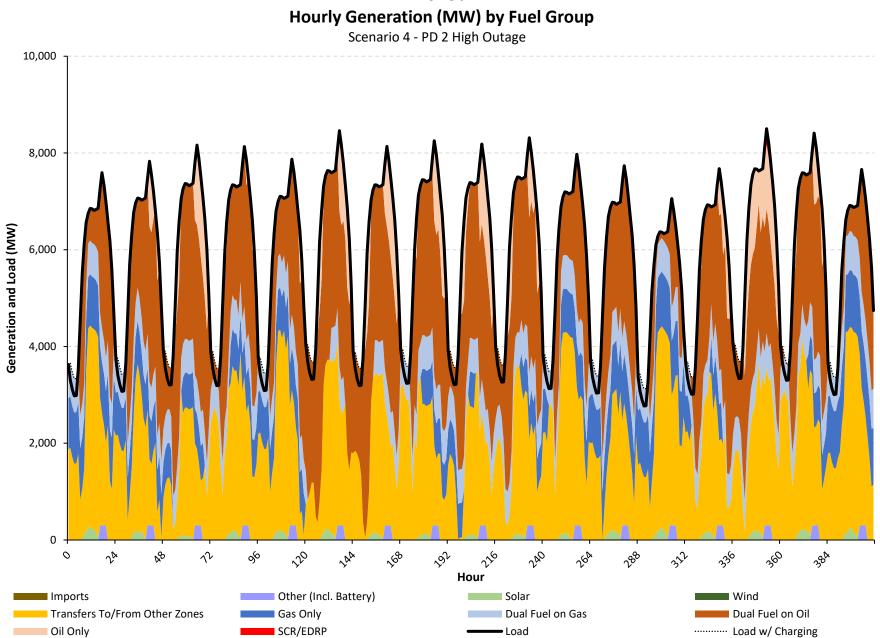
Full Period Results Summary







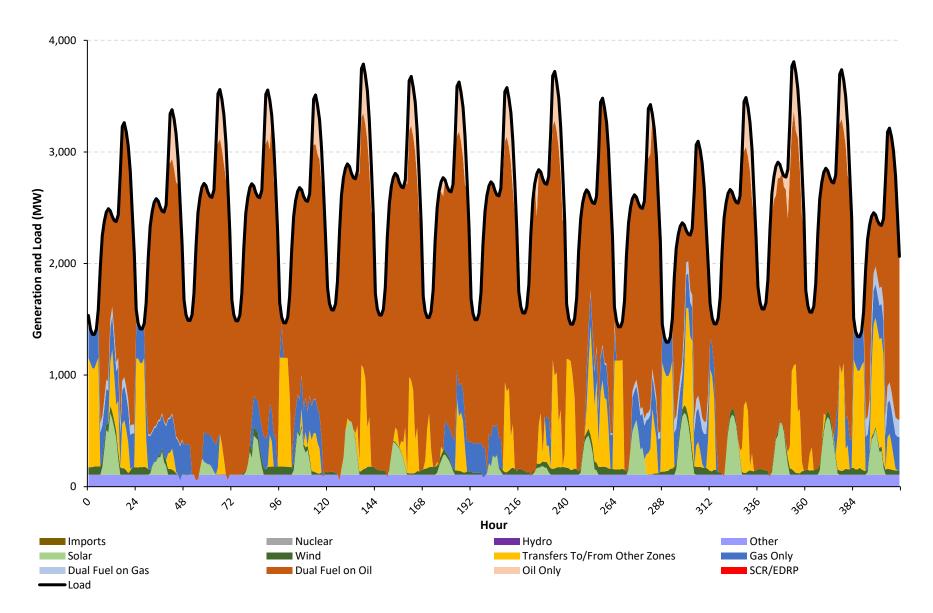
NYCA



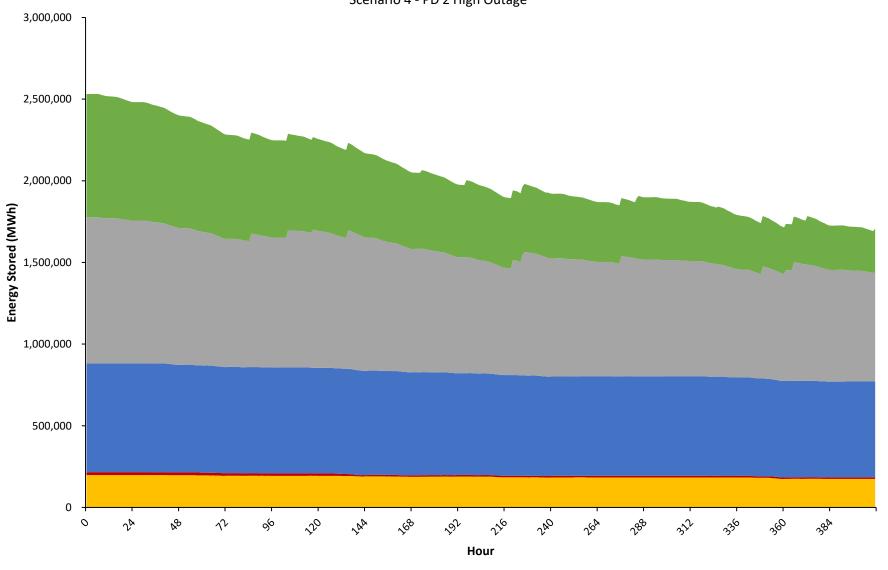
Zone J

Zone K Hourly Generation (MW) by Fuel Group

Scenario 4 - PD 2 High Outage

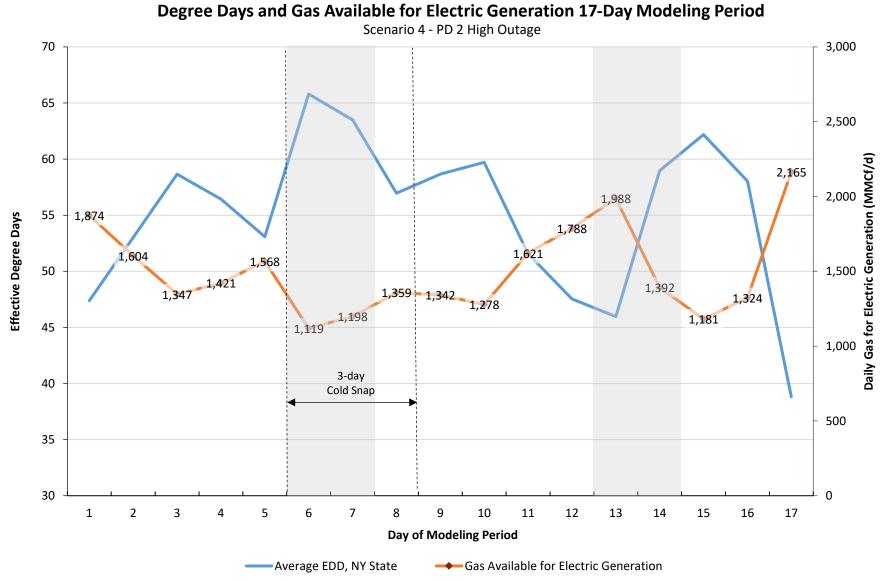






Zones A-E Zone F Zones G-I Zone J Zone K

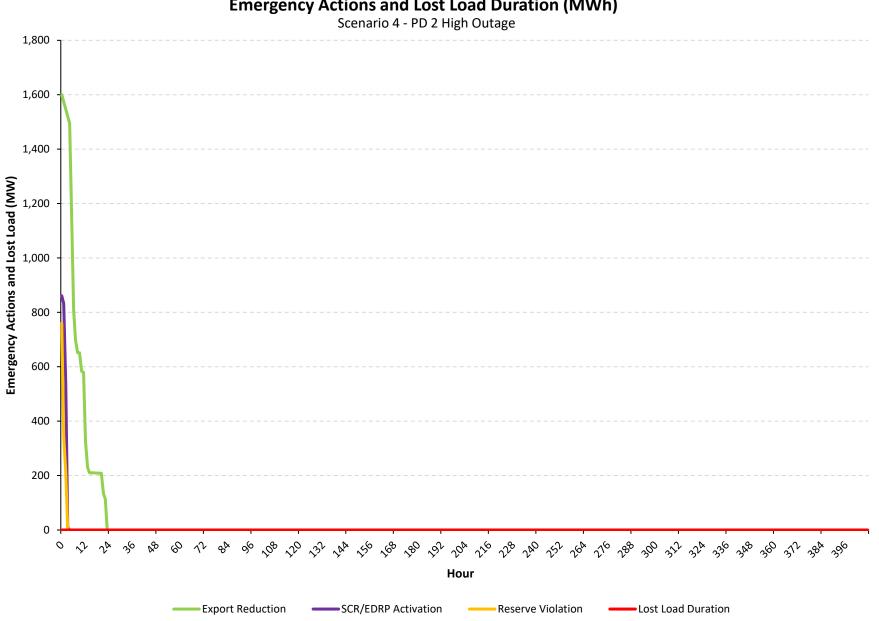
NYCA



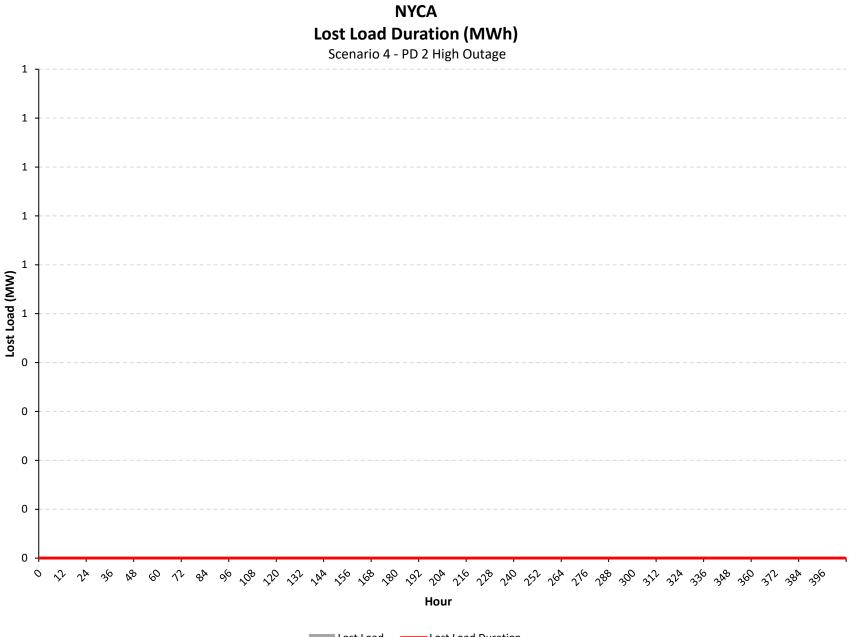
Notes:

[1] Weekends are shaded in gray.

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



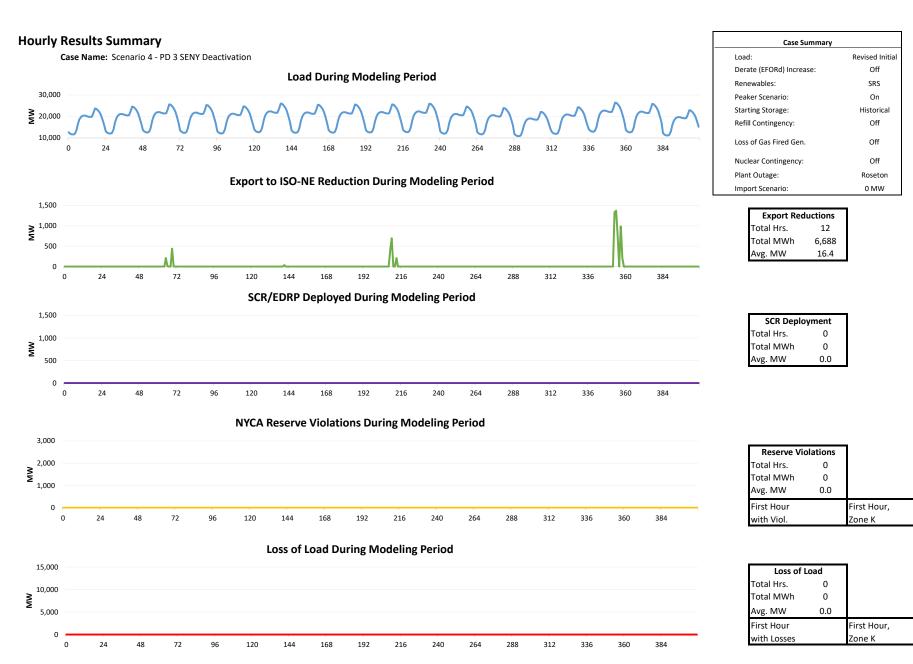
NYCA Emergency Actions and Lost Load Duration (MWh)



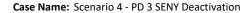
Lost Load Lost Load Duration

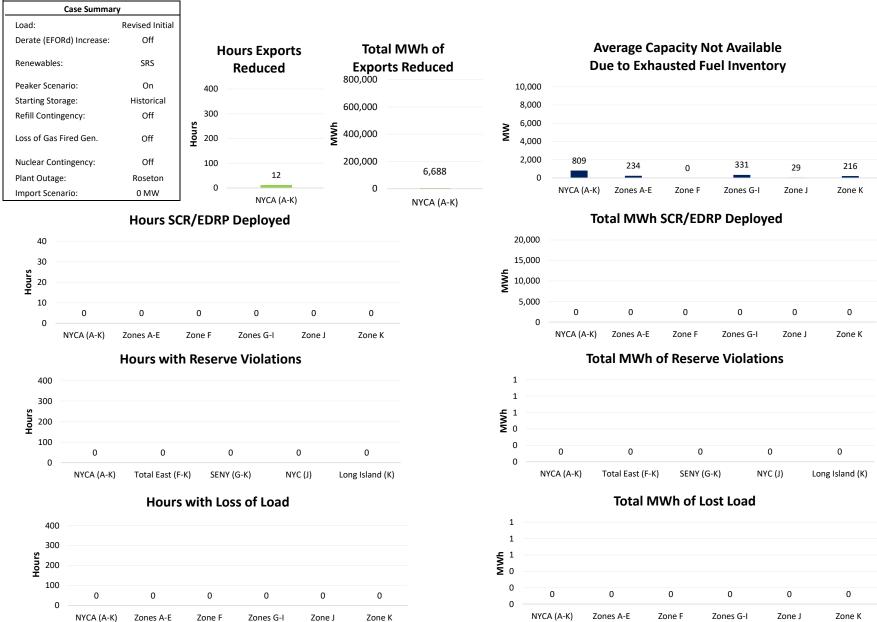
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

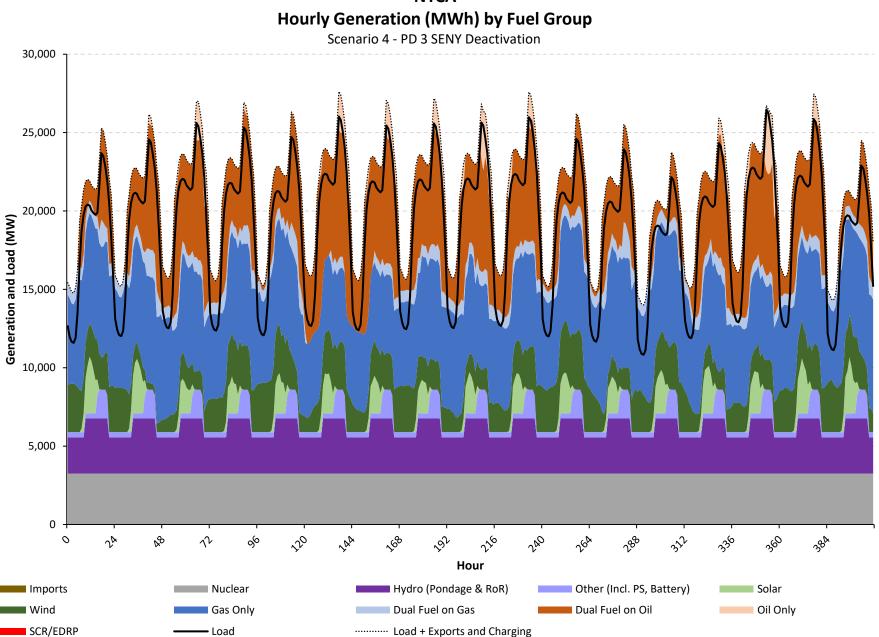
Case: Scenario 4 - PD 3 SENY Deactivation



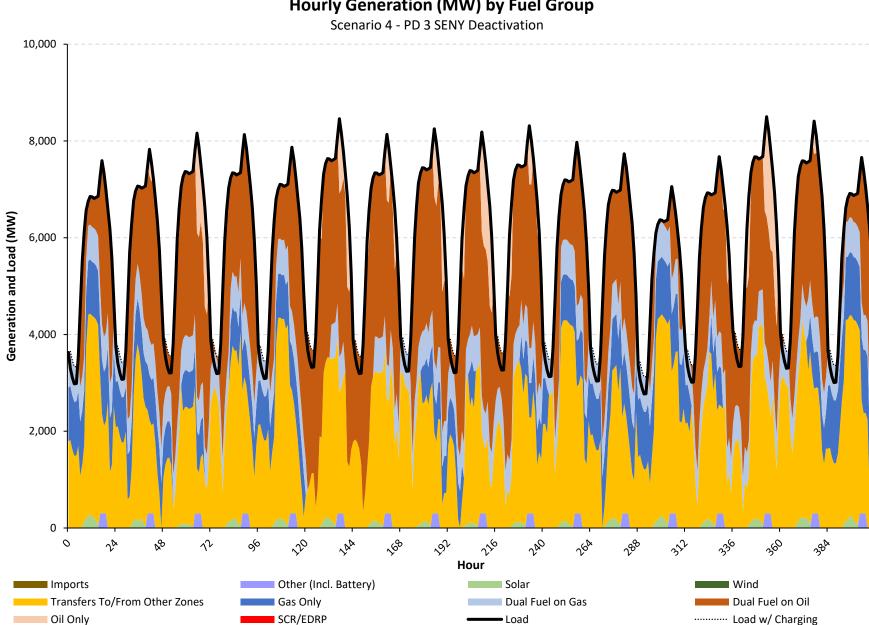
Full Period Results Summary







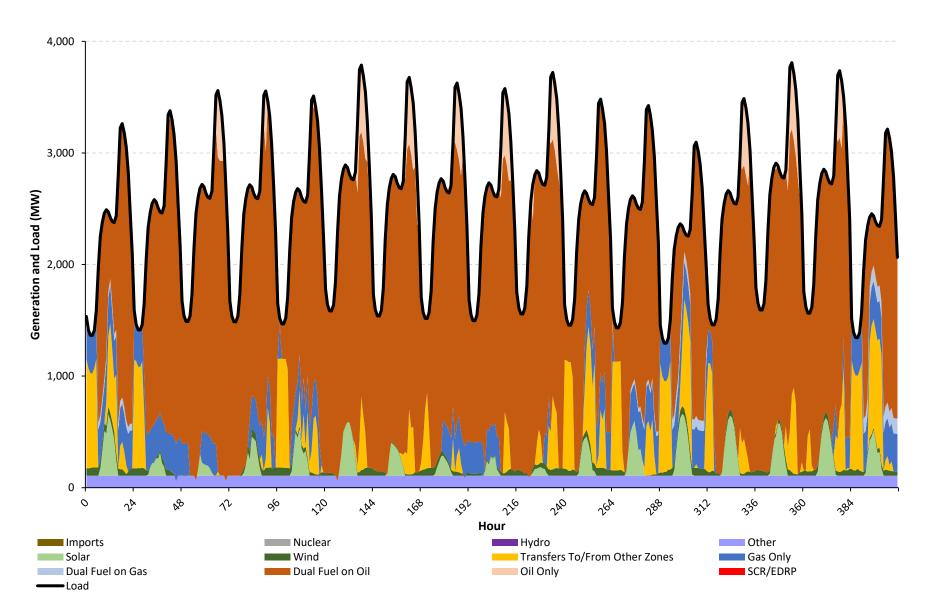
NYCA



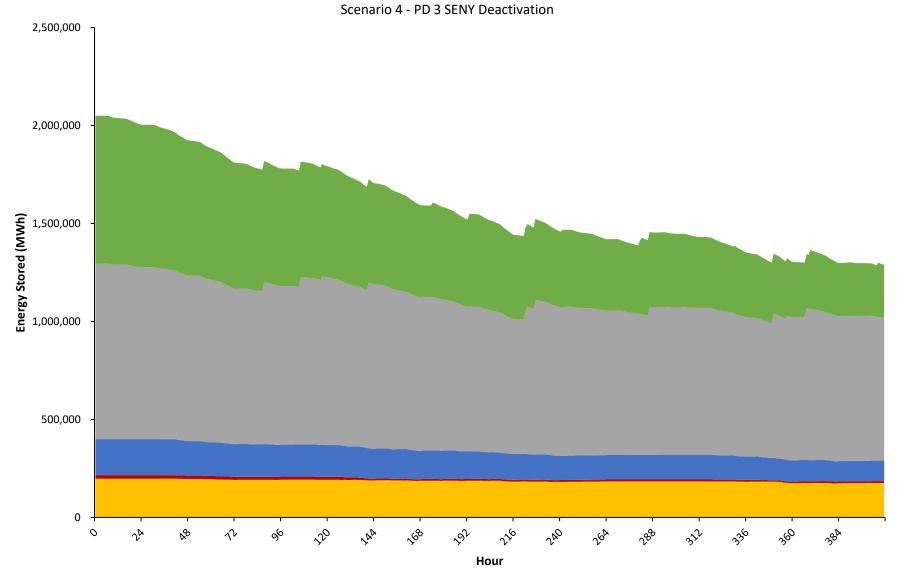
Zone J Hourly Generation (MW) by Fuel Group

Zone K Hourly Generation (MW) by Fuel Group

Scenario 4 - PD 3 SENY Deactivation

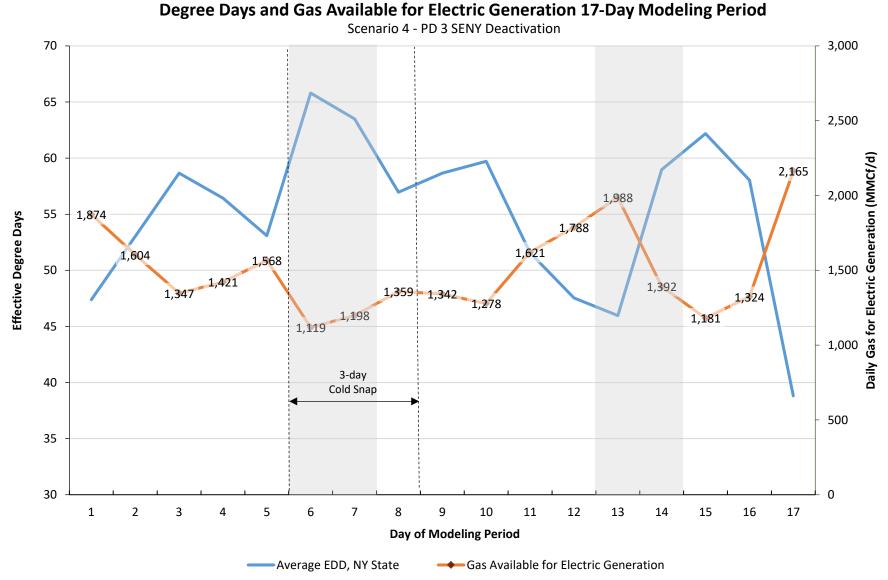






Zones A-E Zone F Zones G-I Zone J Zone K

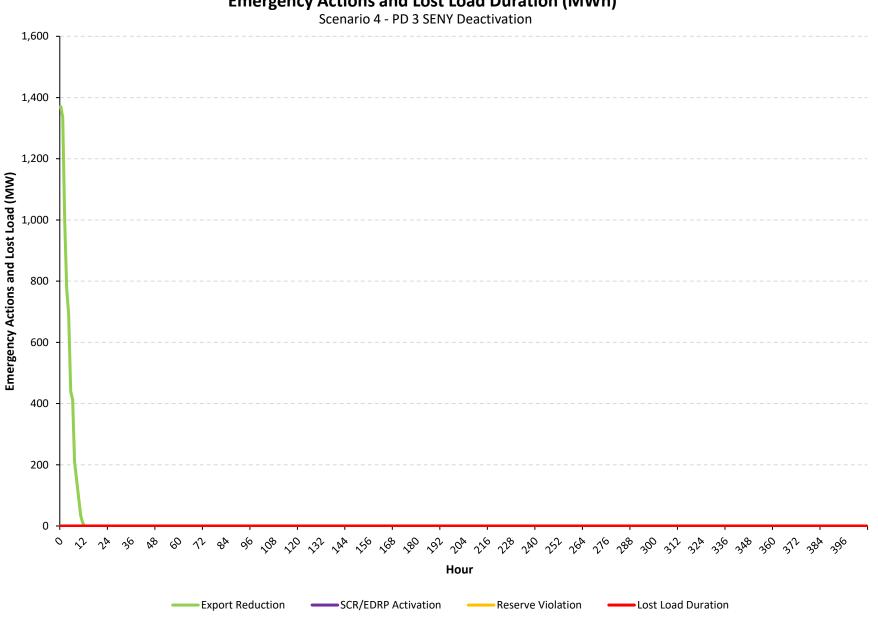
NYCA



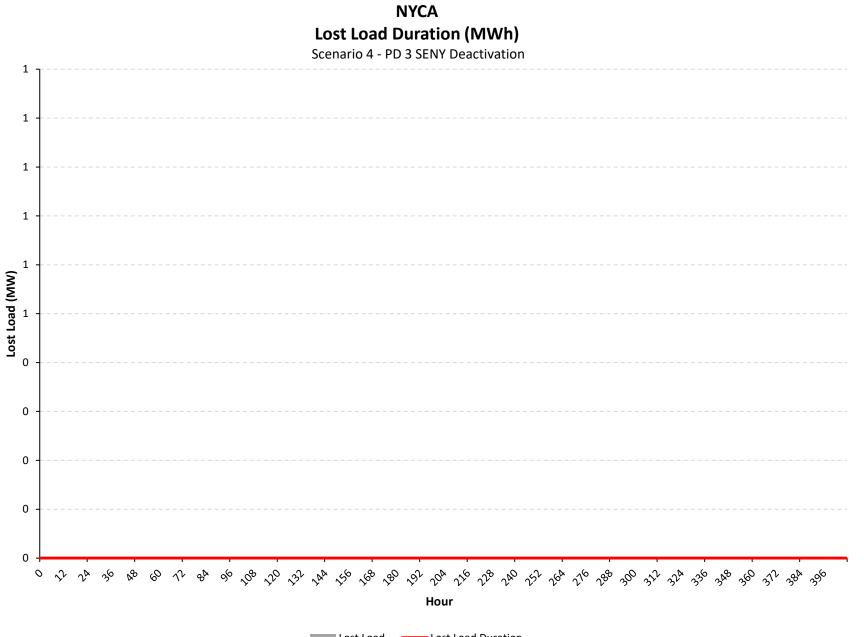
Notes:

[1] Weekends are shaded in gray.

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



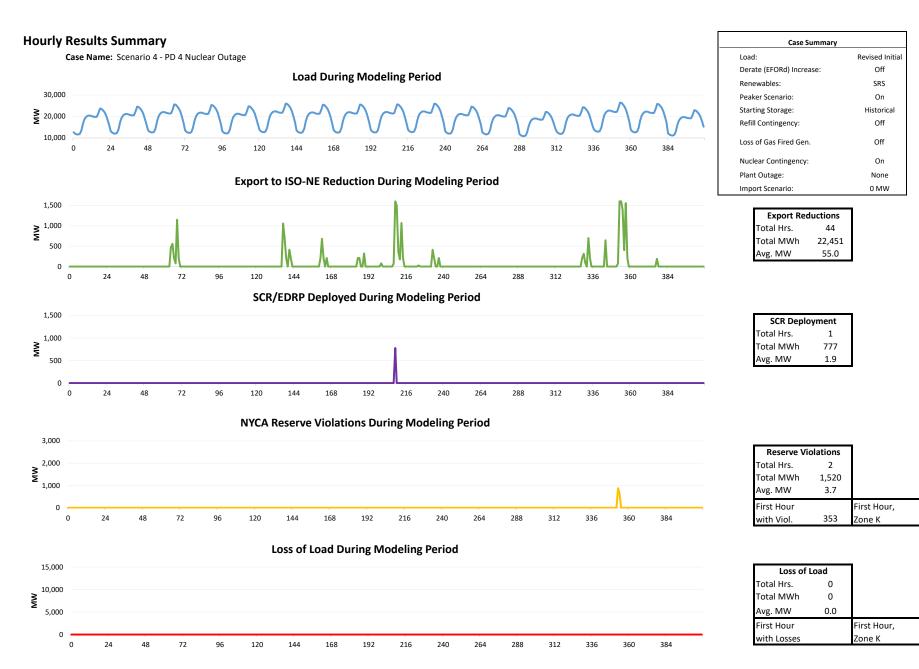
NYCA Emergency Actions and Lost Load Duration (MWh)



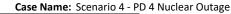
Lost Load Lost Load Duration

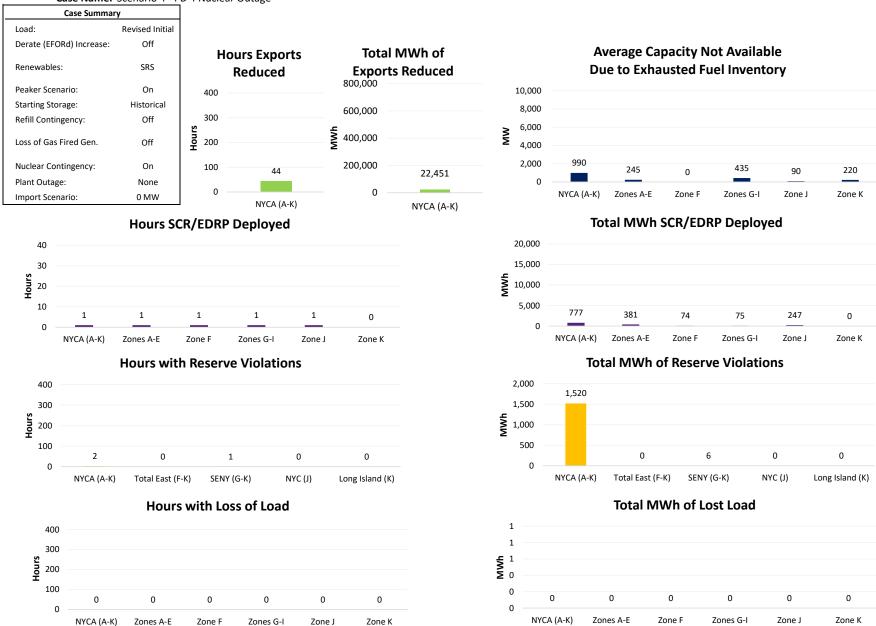
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

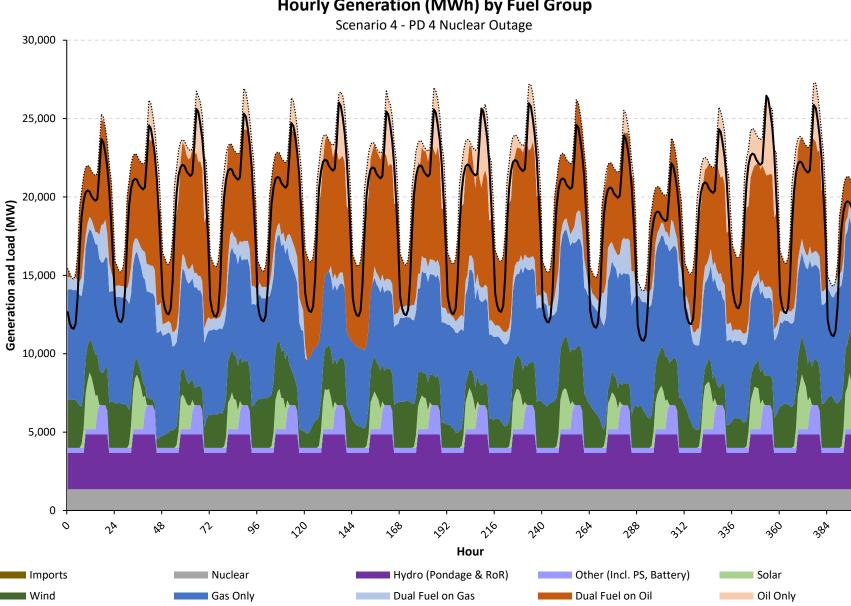
Case: Scenario 4 - PD 4 Nuclear Outage



Full Period Results Summary





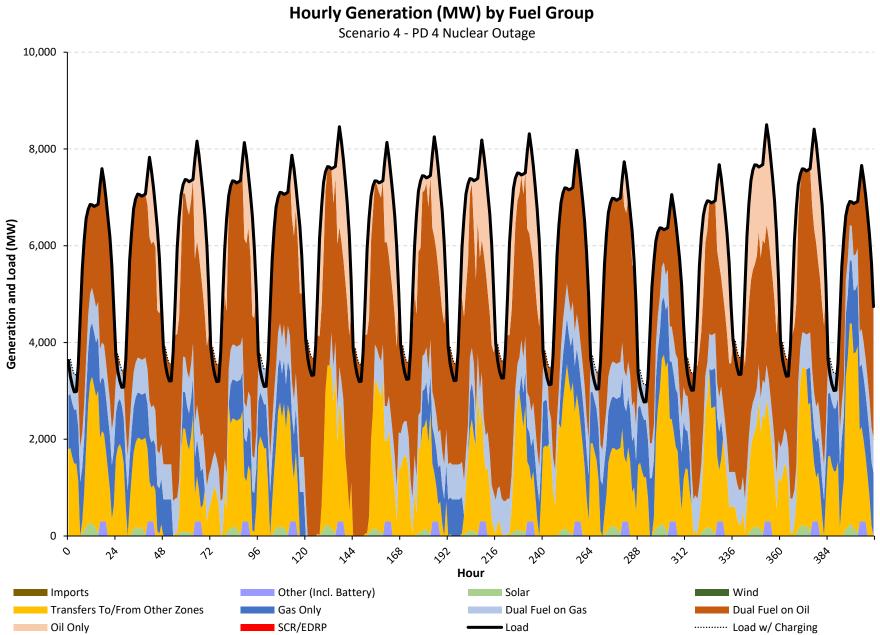


..... Load + Exports and Charging

NYCA Hourly Generation (MWh) by Fuel Group

SCR/EDRP

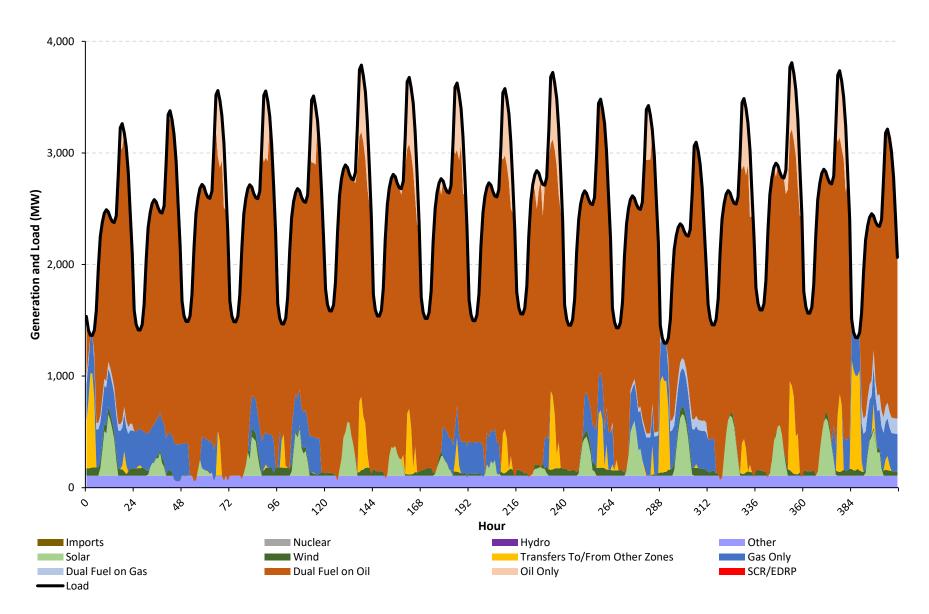
- Load



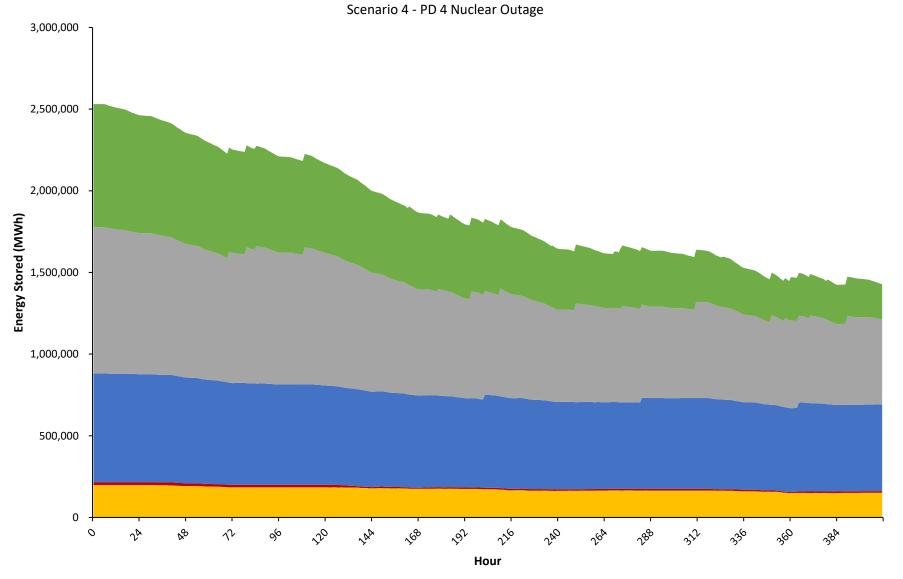
Zone J

Zone K Hourly Generation (MW) by Fuel Group

Scenario 4 - PD 4 Nuclear Outage

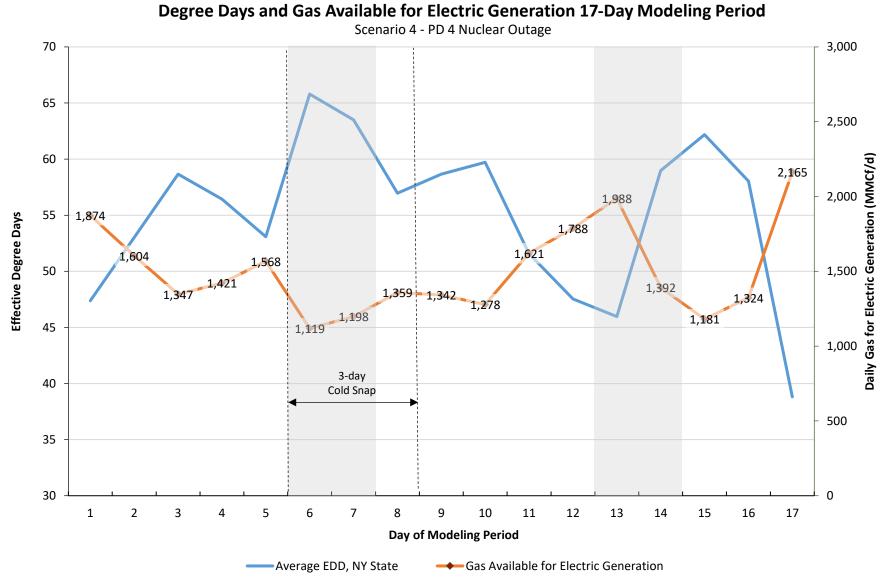






Zones A-E Zone F Zones G-I Zone J Zone K

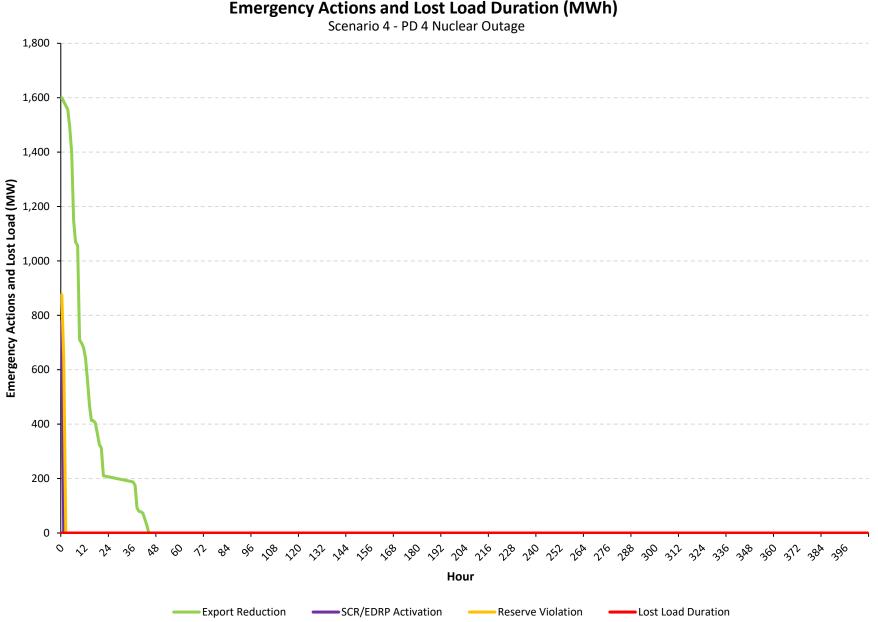
NYCA



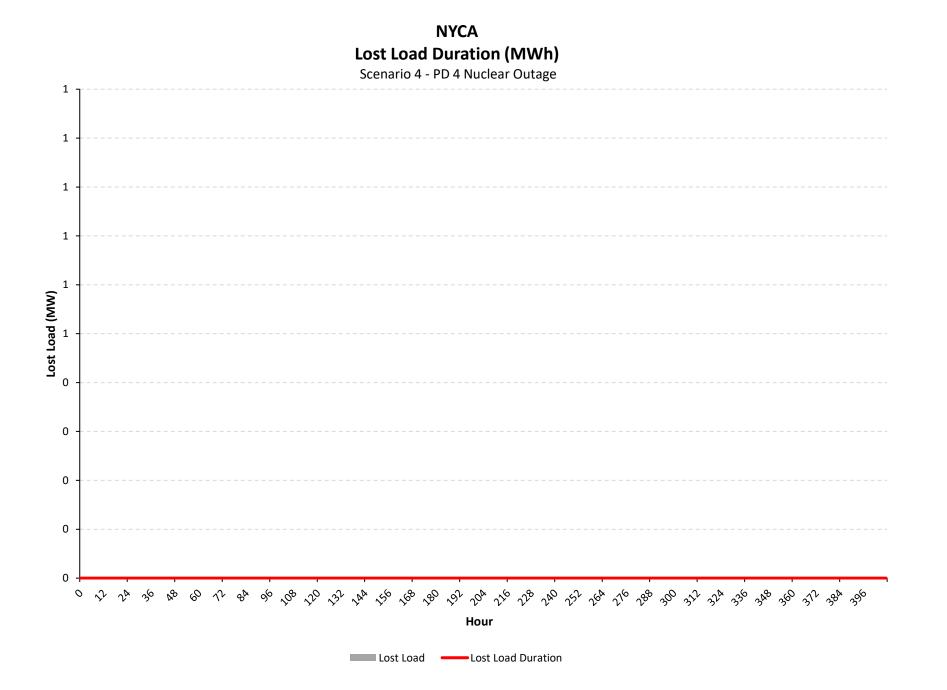
Notes:

[1] Weekends are shaded in gray.

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

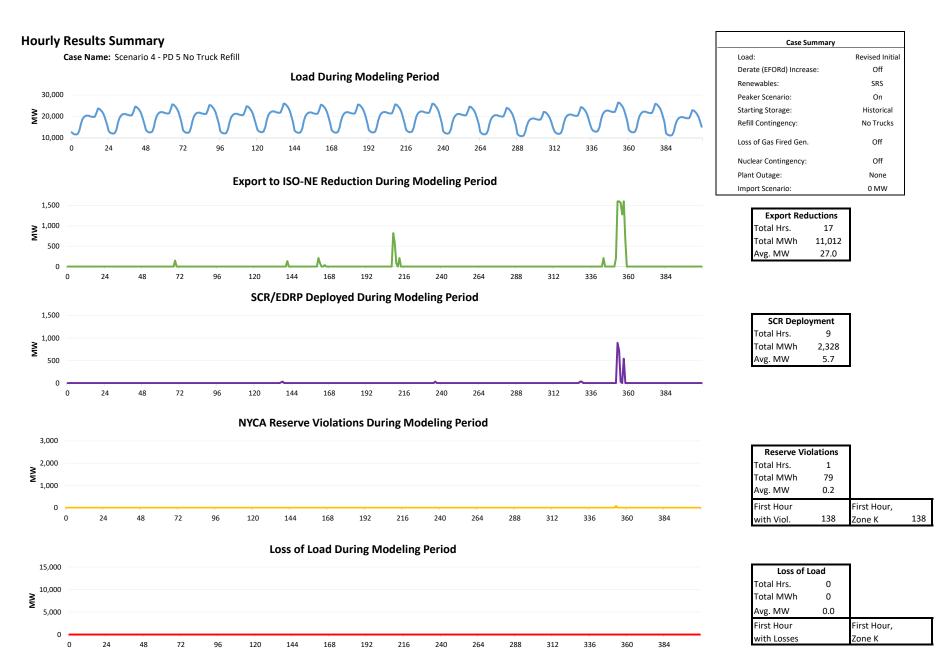


NYCA Emergency Actions and Lost Load Duration (MWh)

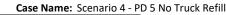


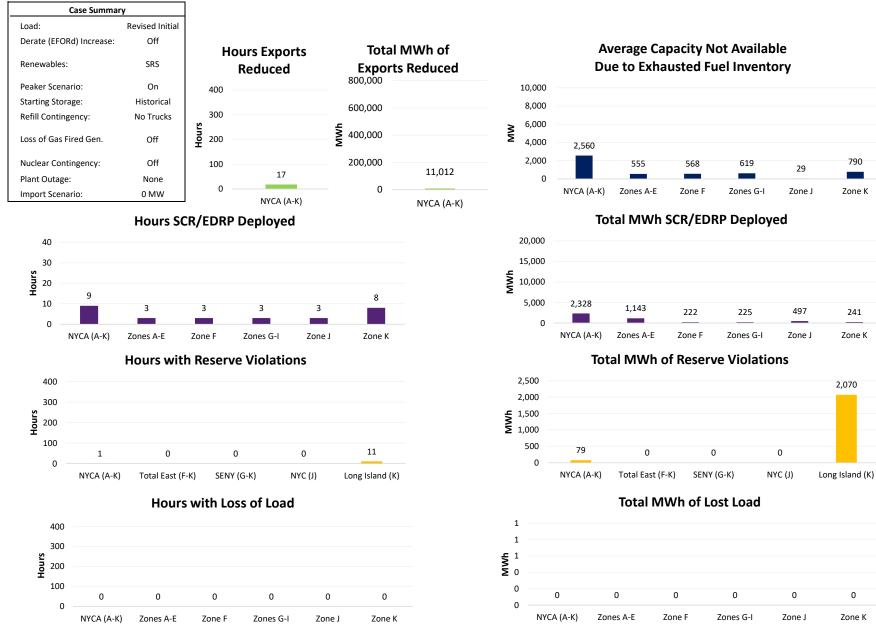
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

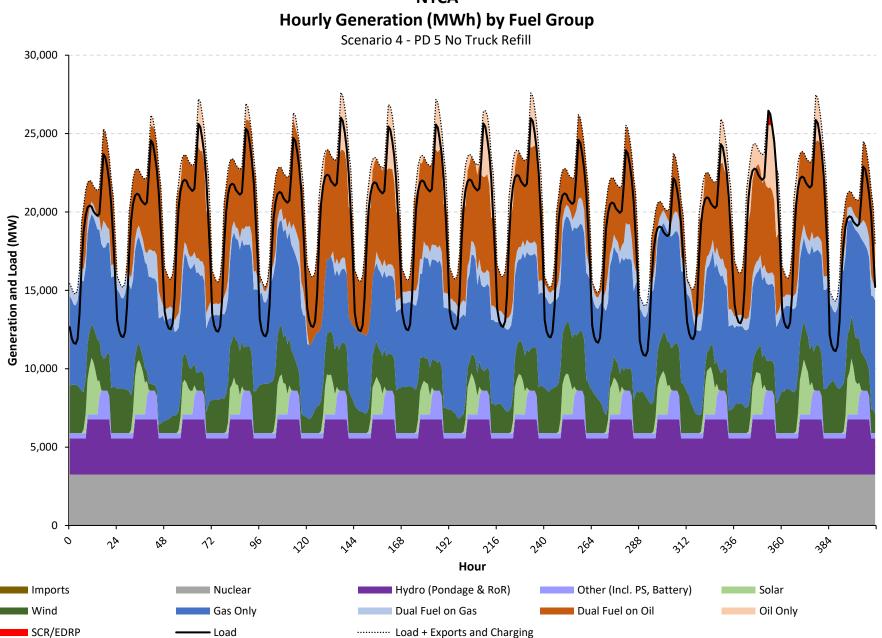
Case: Scenario 4 - PD 5 No Truck Refill



Full Period Results Summary

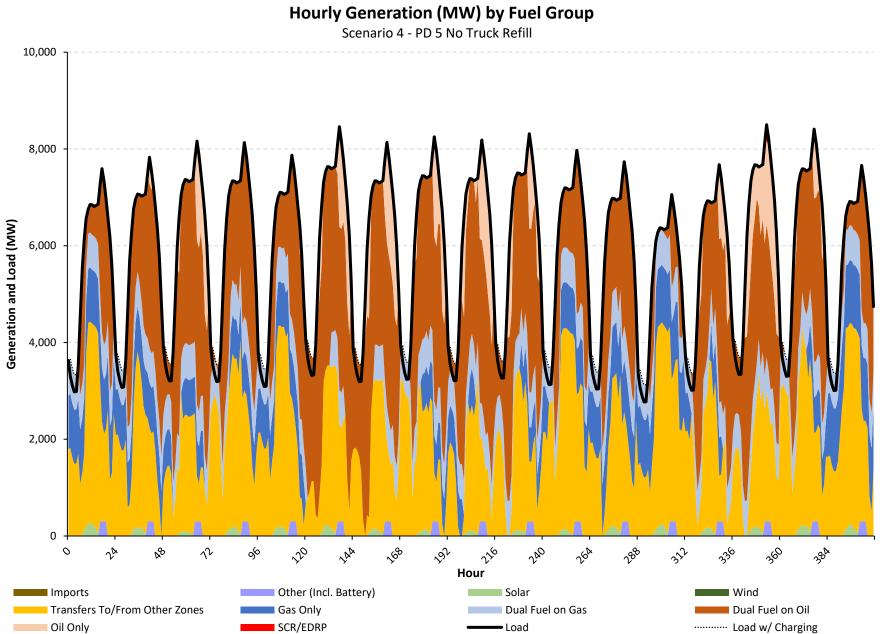






NYCA

Analysis Group, Inc.

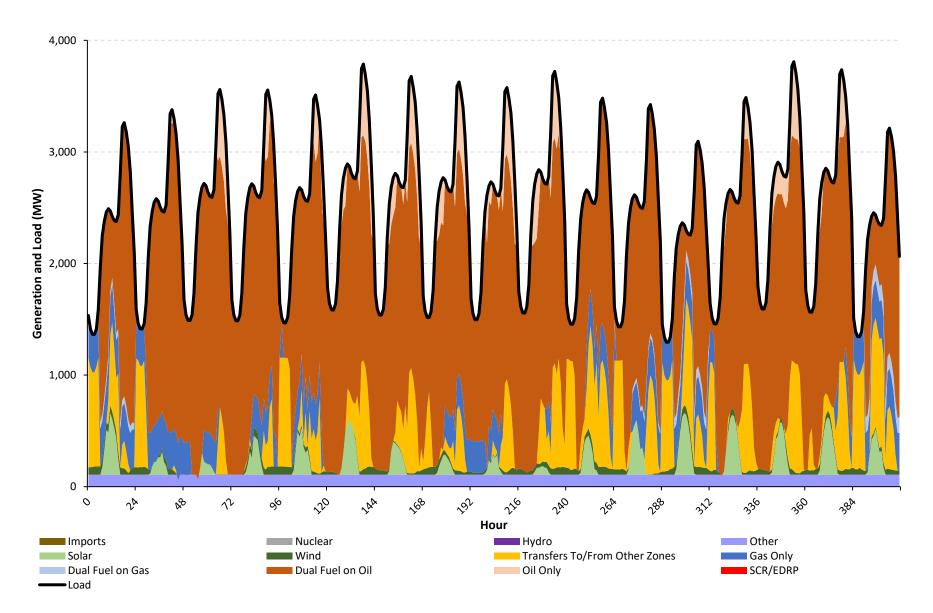


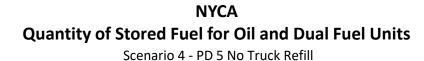
Zone J

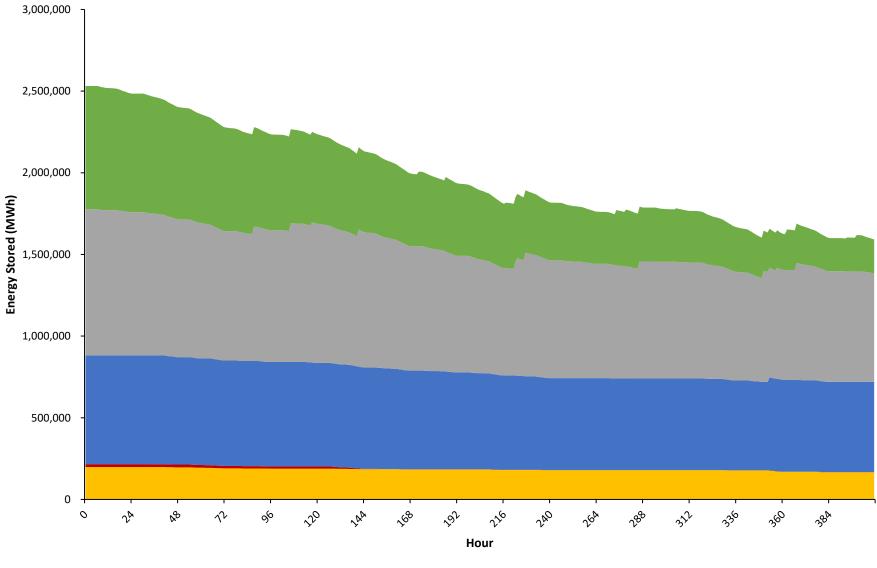
Analysis Group, Inc.

Zone K Hourly Generation (MW) by Fuel Group

Scenario 4 - PD 5 No Truck Refill

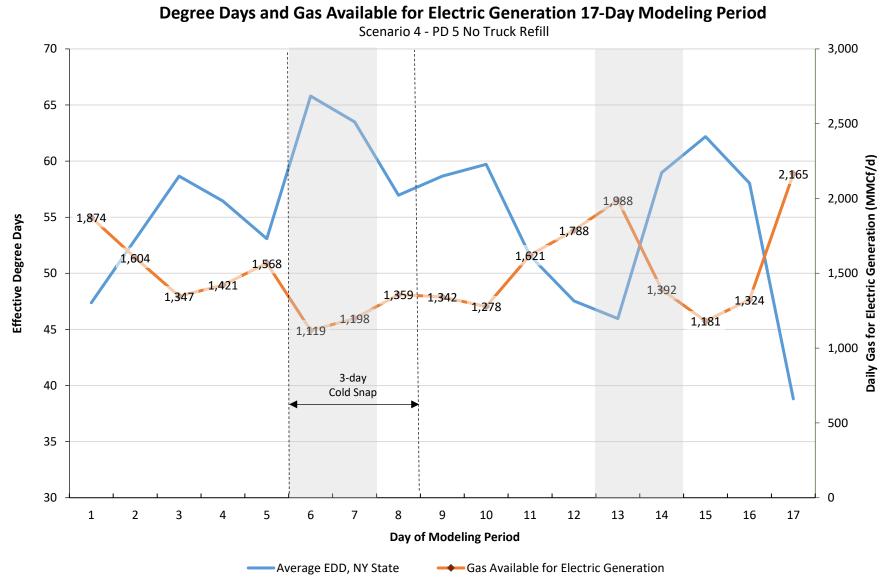






Zones A-E Zone F Zones G-I Zone J Zone K

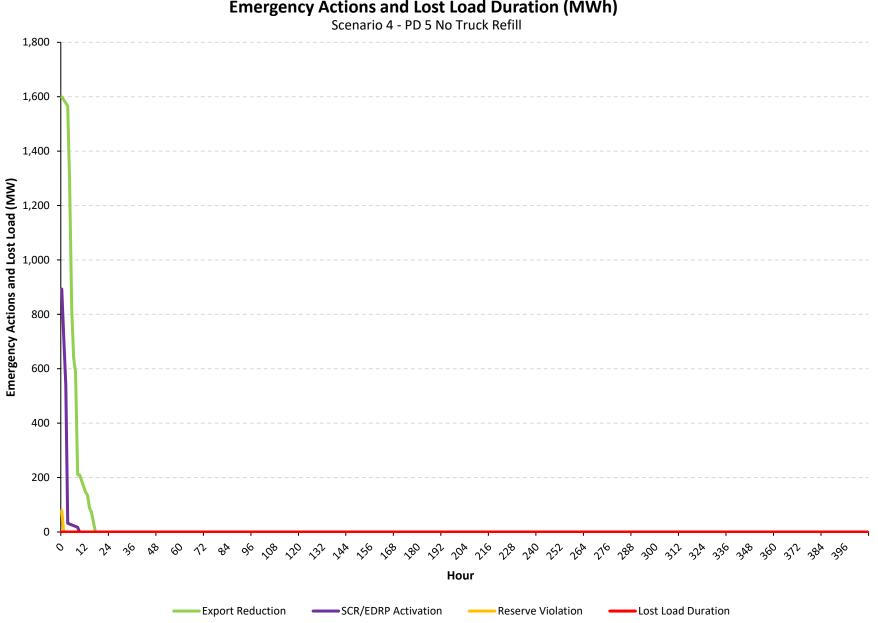
NYCA



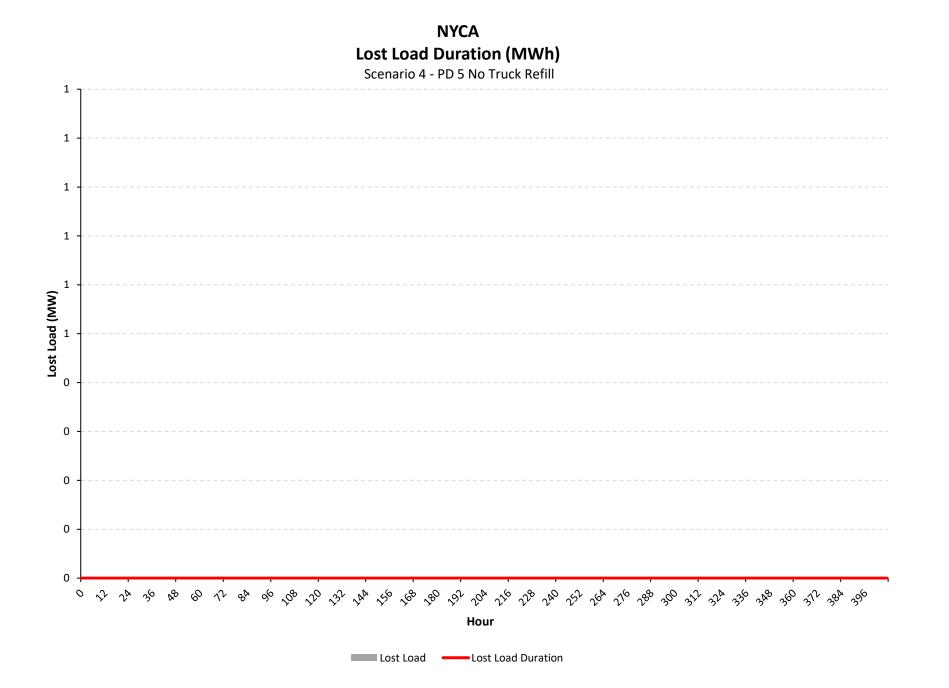
Notes:

[1] Weekends are shaded in gray.

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

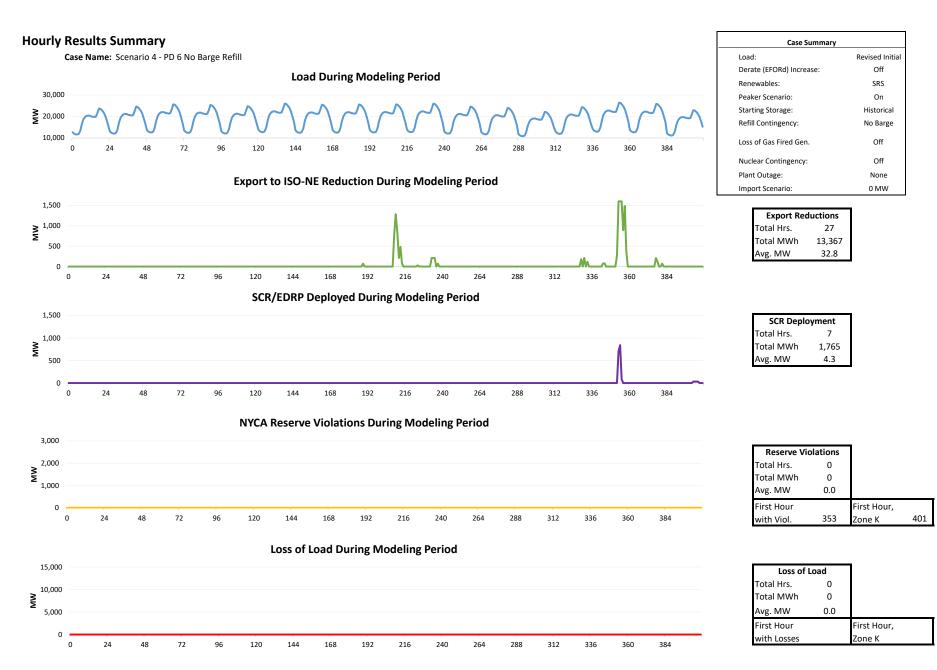


NYCA Emergency Actions and Lost Load Duration (MWh)

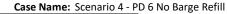


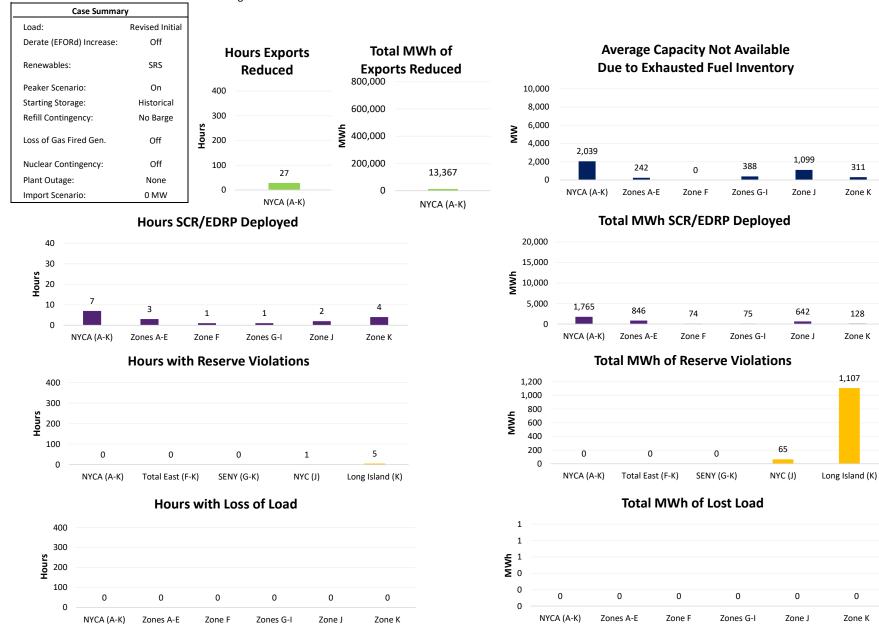
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

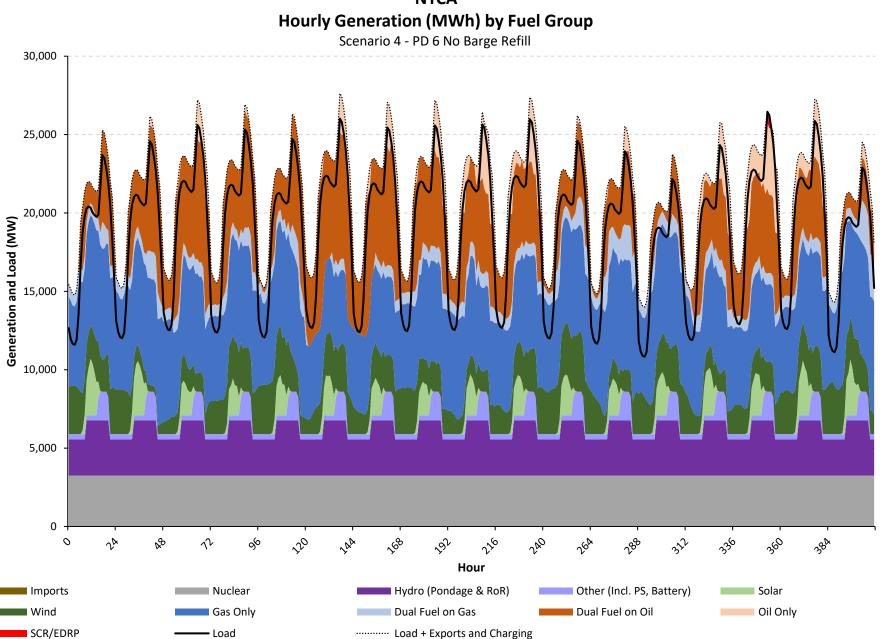
Case: Scenario 4 - PD 6 No Barge Refill



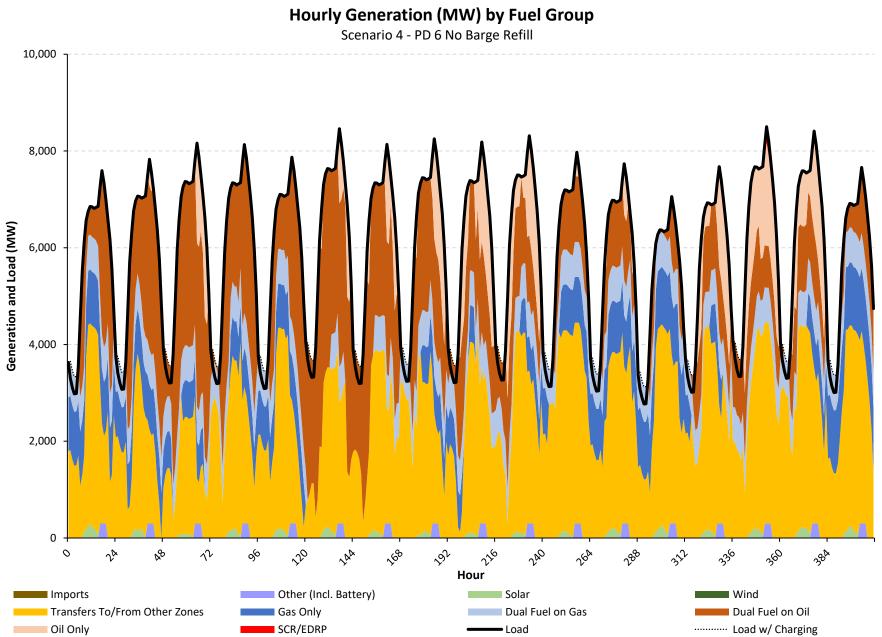
Full Period Results Summary







NYCA

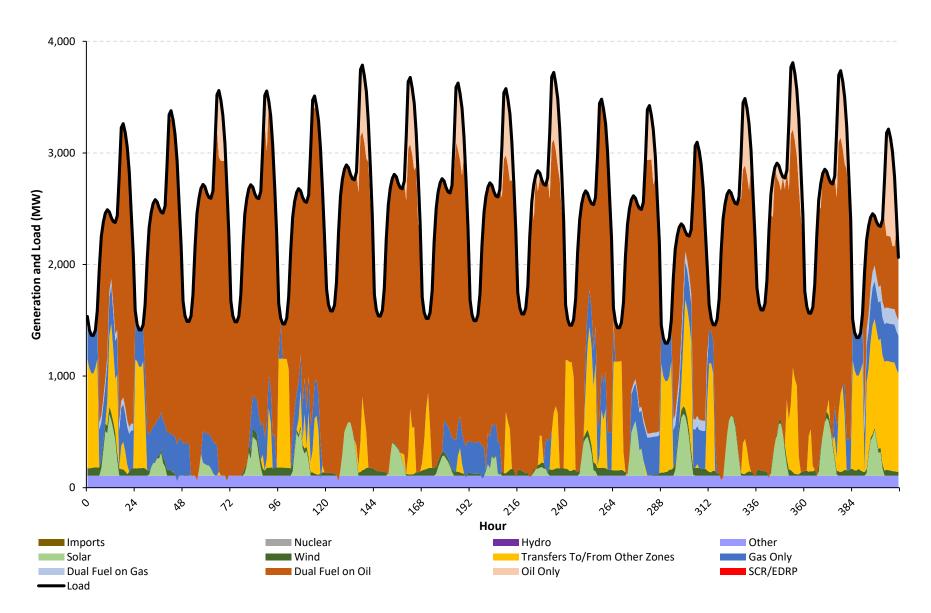


Zone J

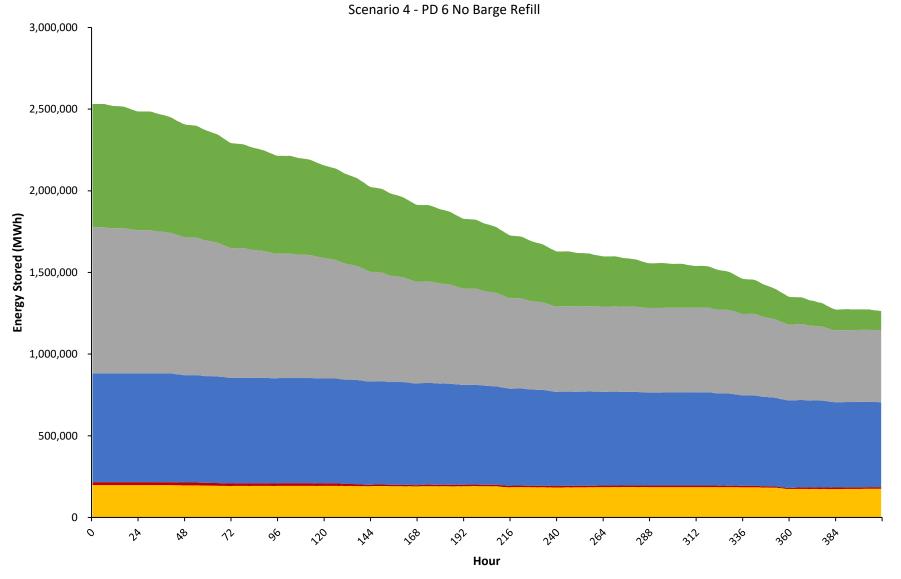
Analysis Group, Inc.

Zone K Hourly Generation (MW) by Fuel Group

Scenario 4 - PD 6 No Barge Refill

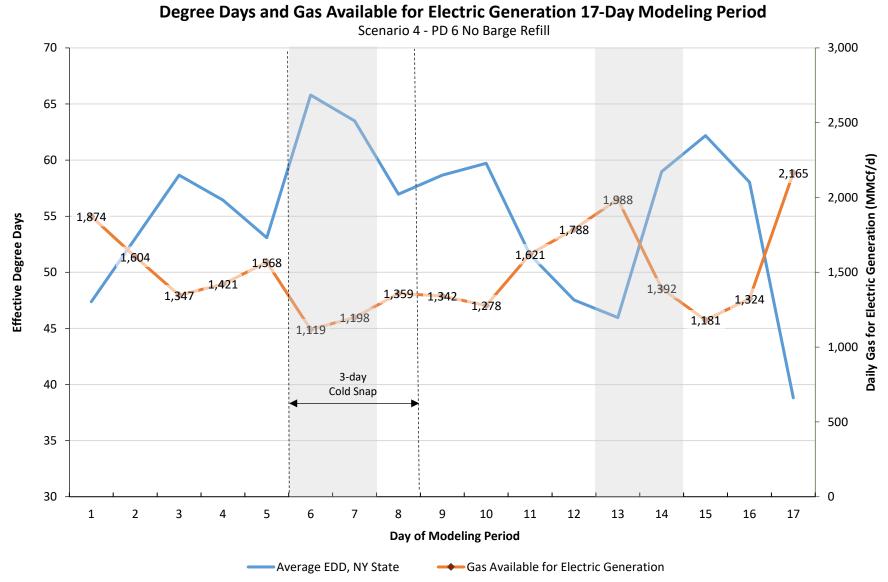






Zones A-E Zone F Zones G-I Zone J Zone K

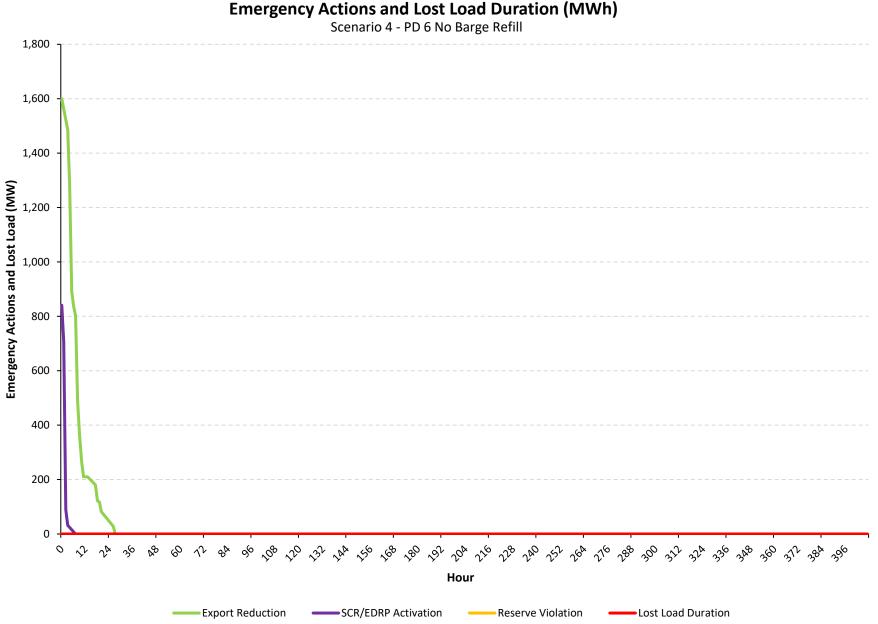
NYCA



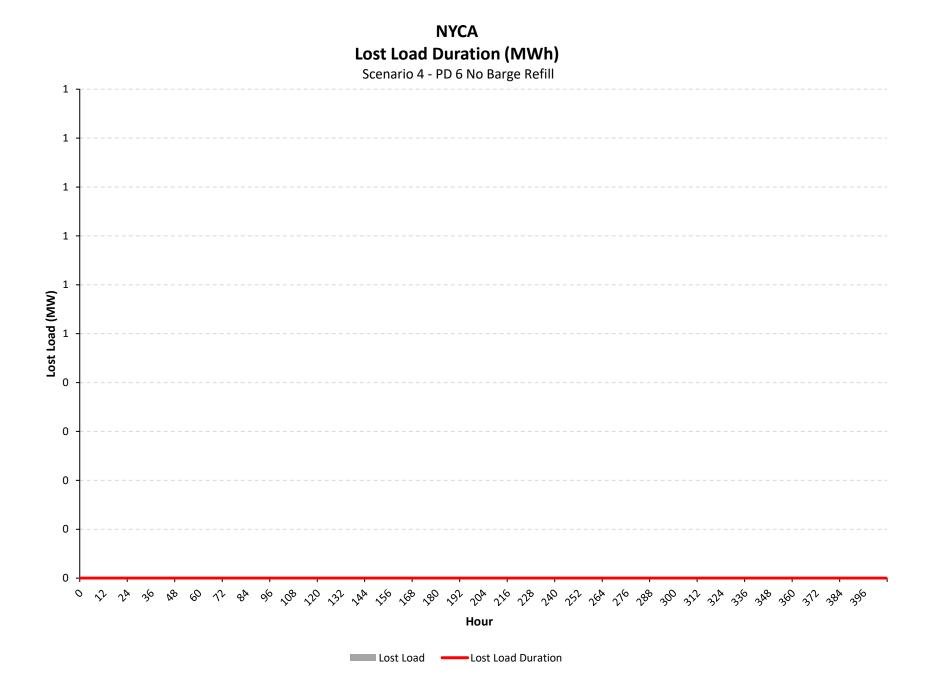
Notes:

[1] Weekends are shaded in gray.

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

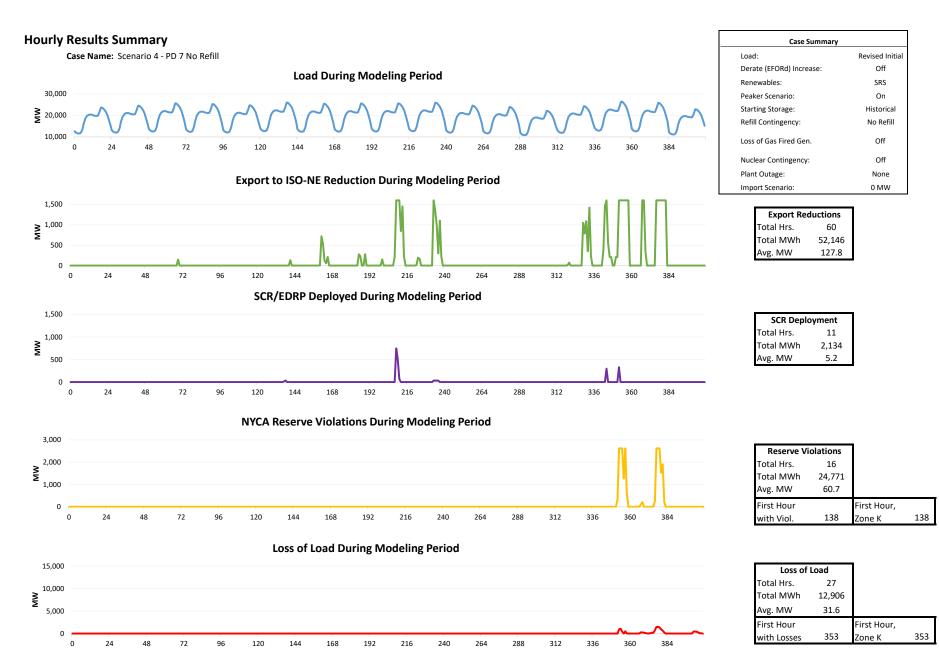


NYCA **Emergency Actions and Lost Load Duration (MWh)**



Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 4 - PD 7 No Refill

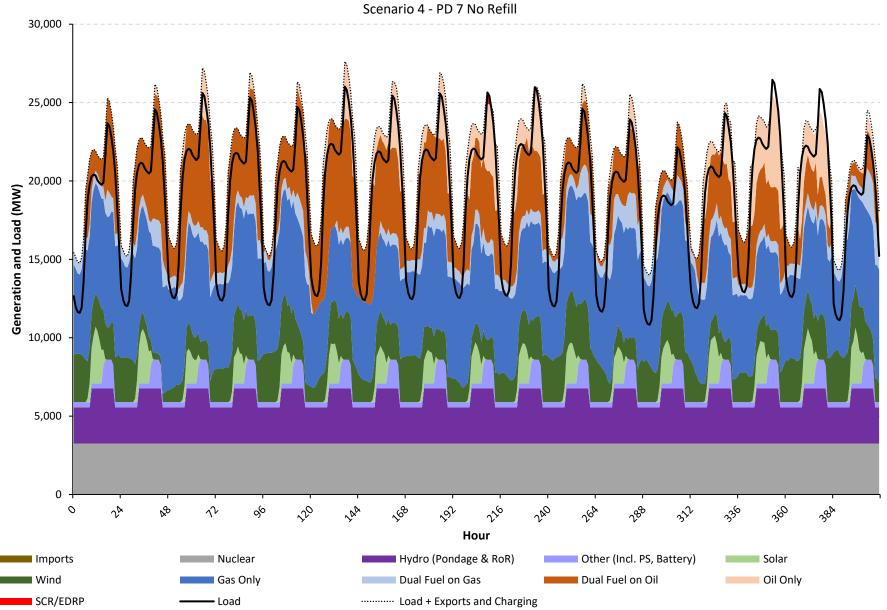


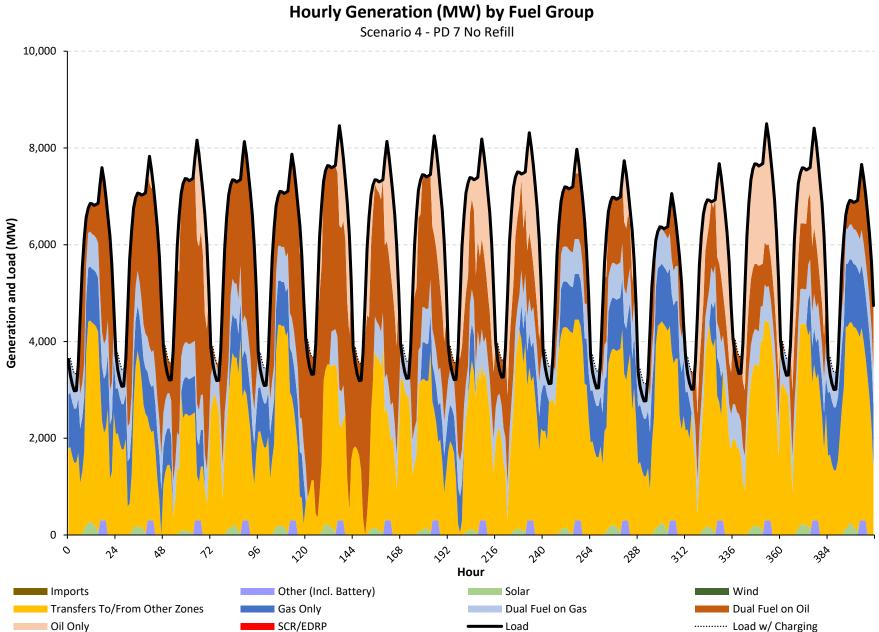
Full Period Results Summary





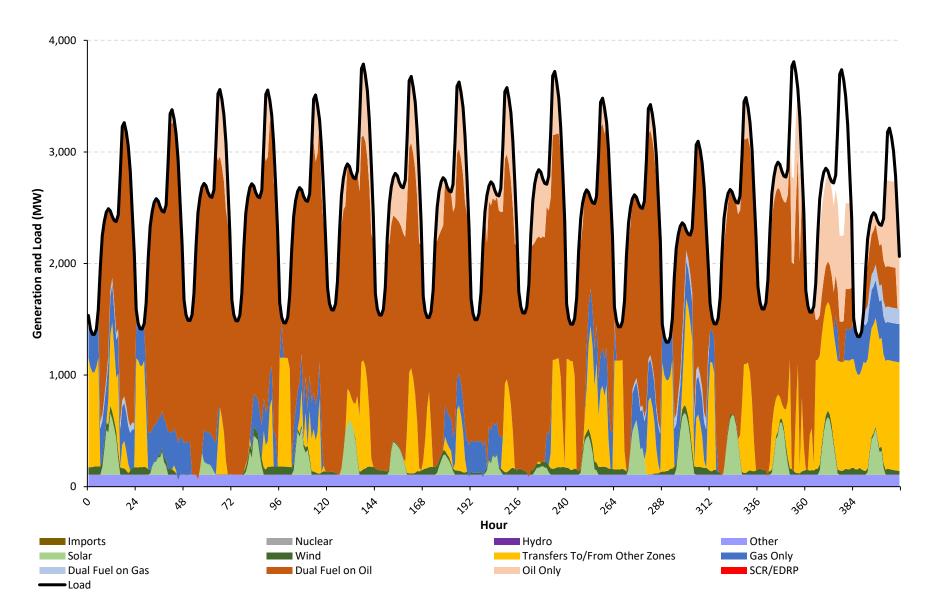
NYCA Hourly Generation (MWh) by Fuel Group



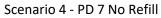


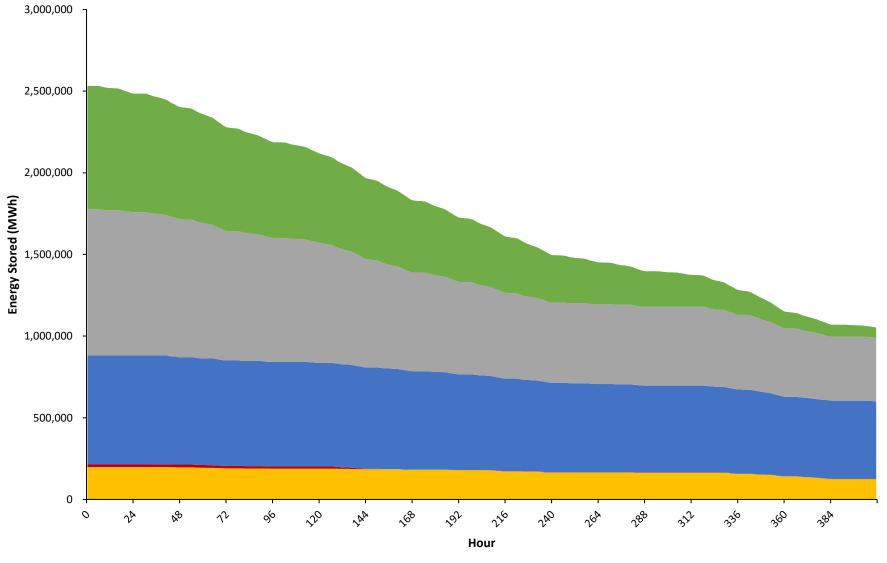
Zone K Hourly Generation (MW) by Fuel Group

Scenario 4 - PD 7 No Refill

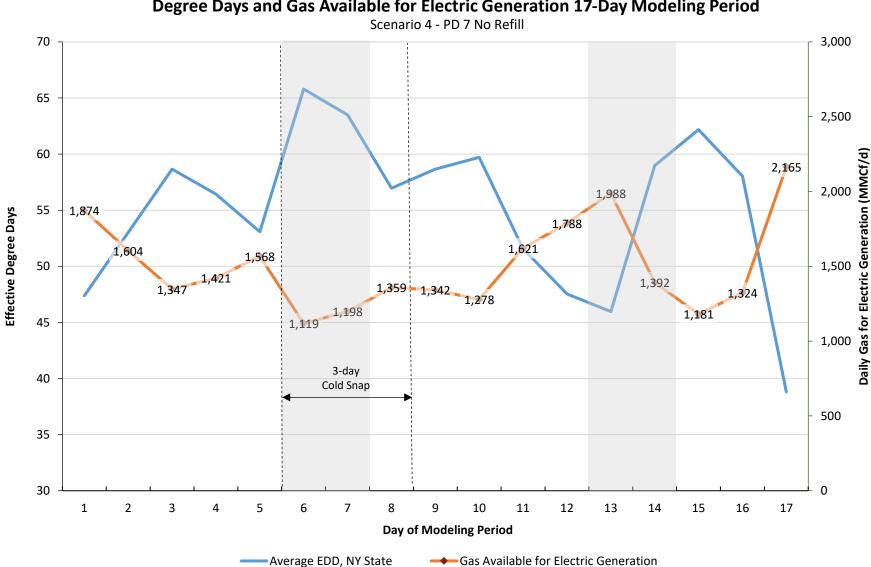








Zones A-E Zone F Zones G-I Zone J Zone K

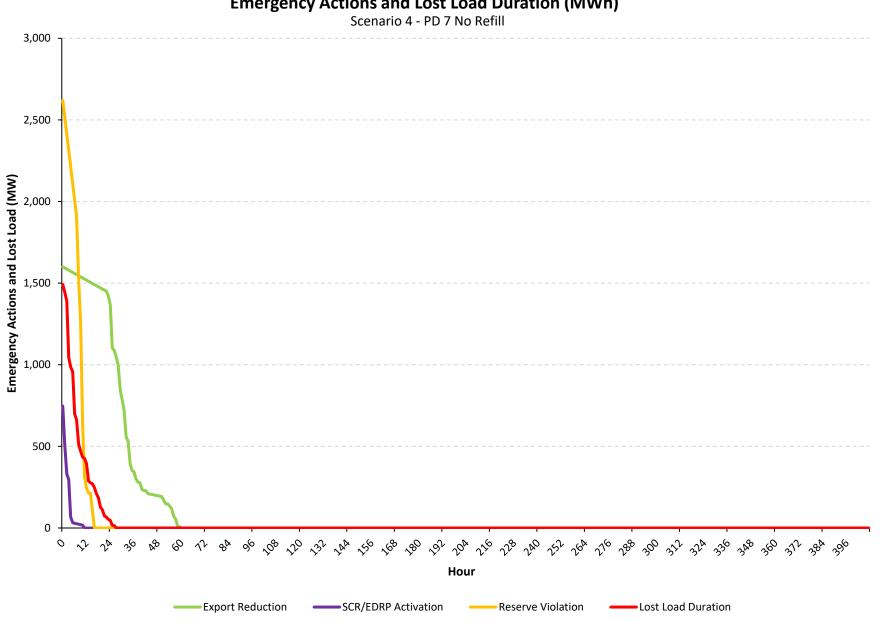


NYCA Degree Days and Gas Available for Electric Generation 17-Day Modeling Period

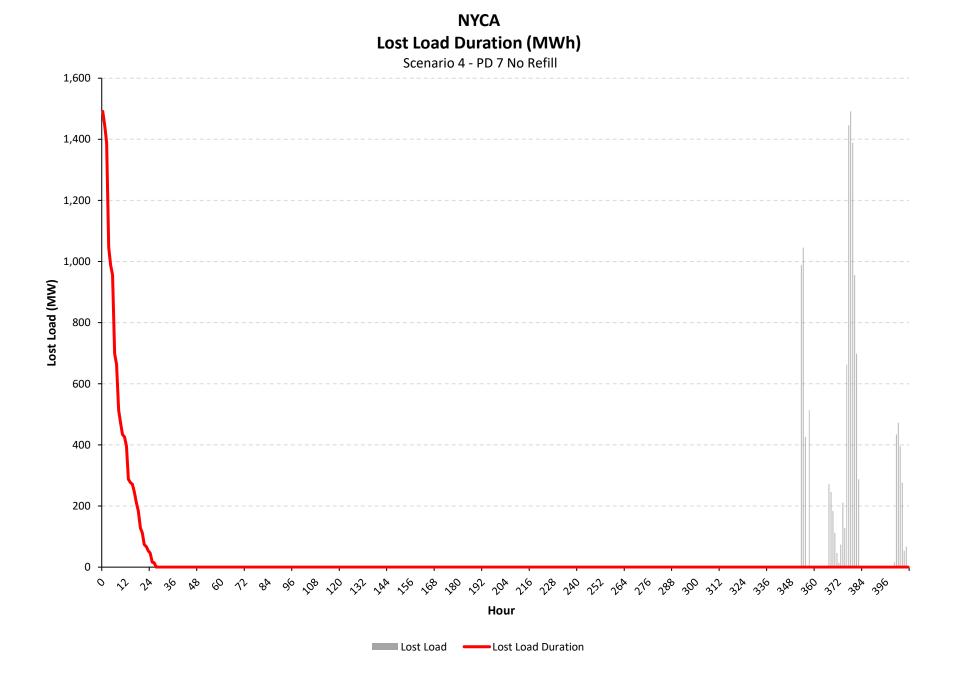
Notes:

[1] Weekends are shaded in gray.

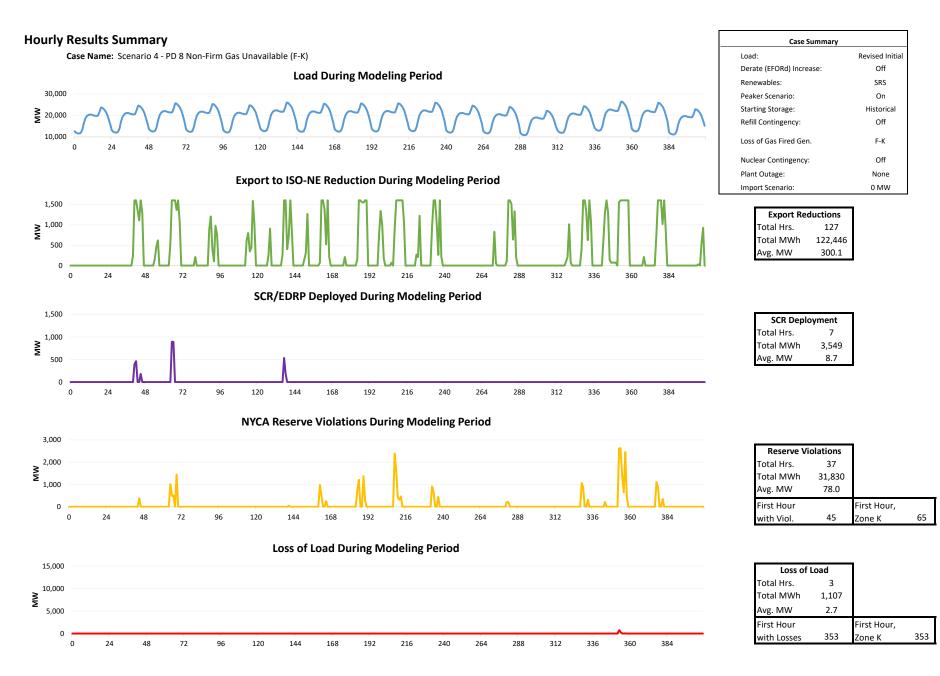
[2] Effective degree day is defined as 65 degrees F - Temperature.



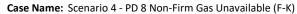
NYCA Emergency Actions and Lost Load Duration (MWh)

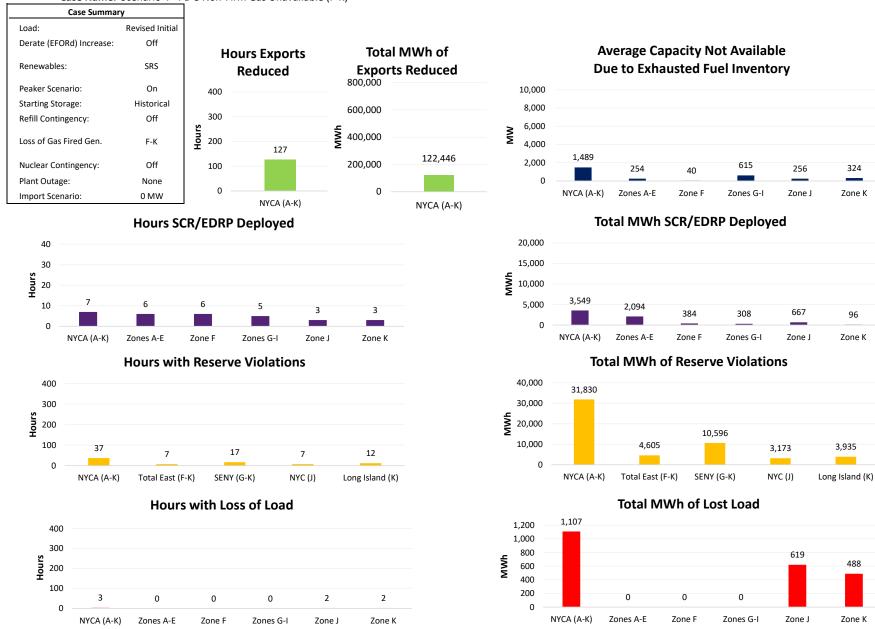


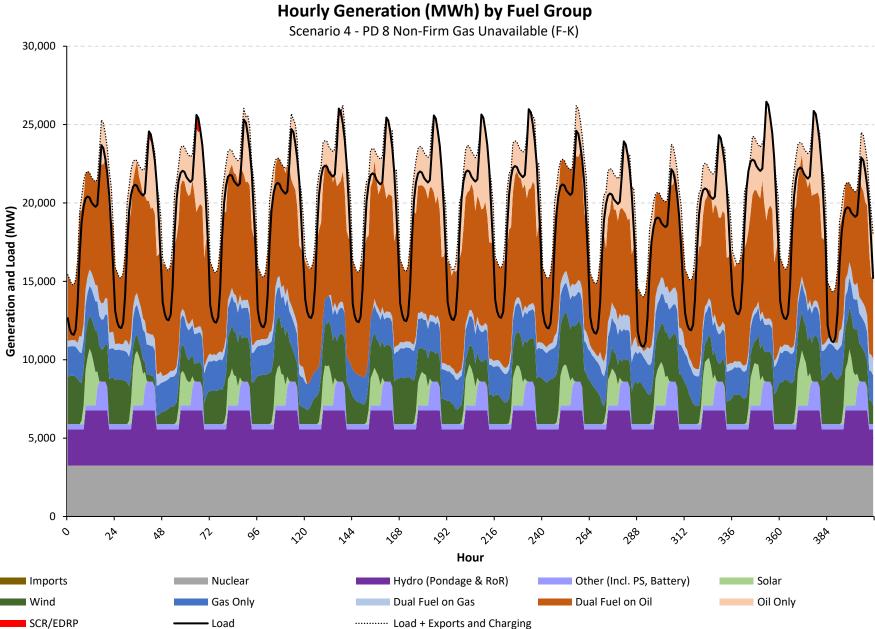
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 4 - PD 8 Non-Firm Gas Unavailable (F-K)



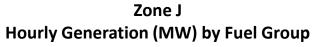
Full Period Results Summary



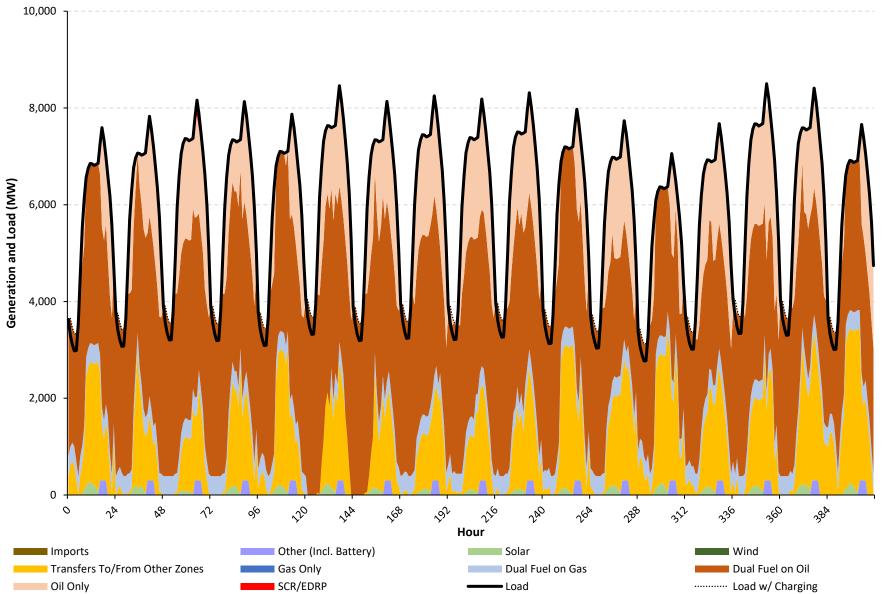




NYCA

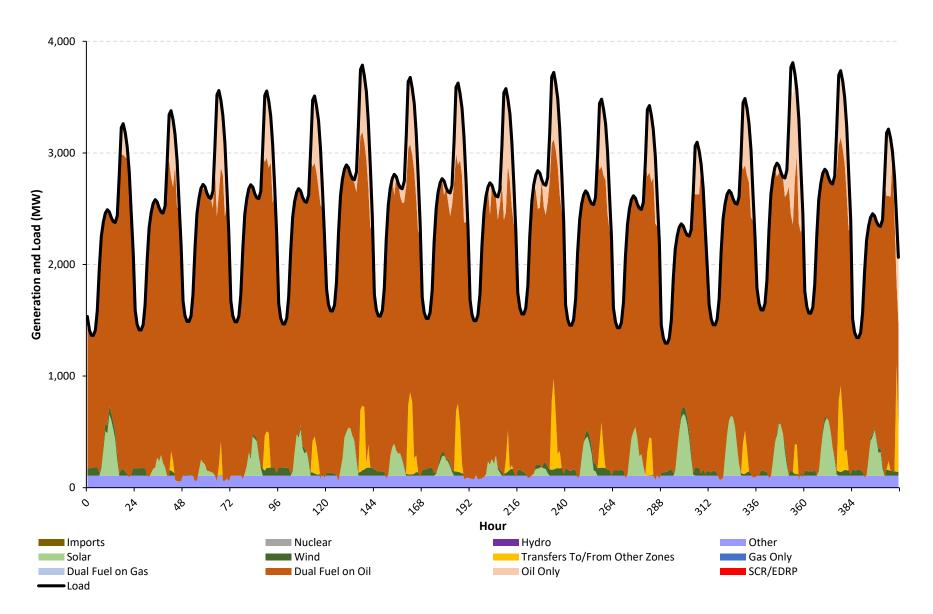


Scenario 4 - PD 8 Non-Firm Gas Unavailable (F-K)



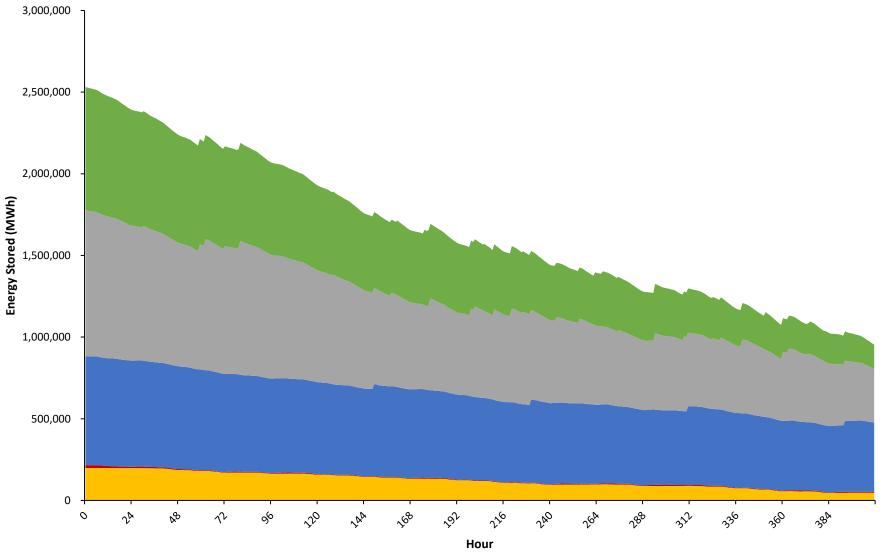
Zone K Hourly Generation (MW) by Fuel Group

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

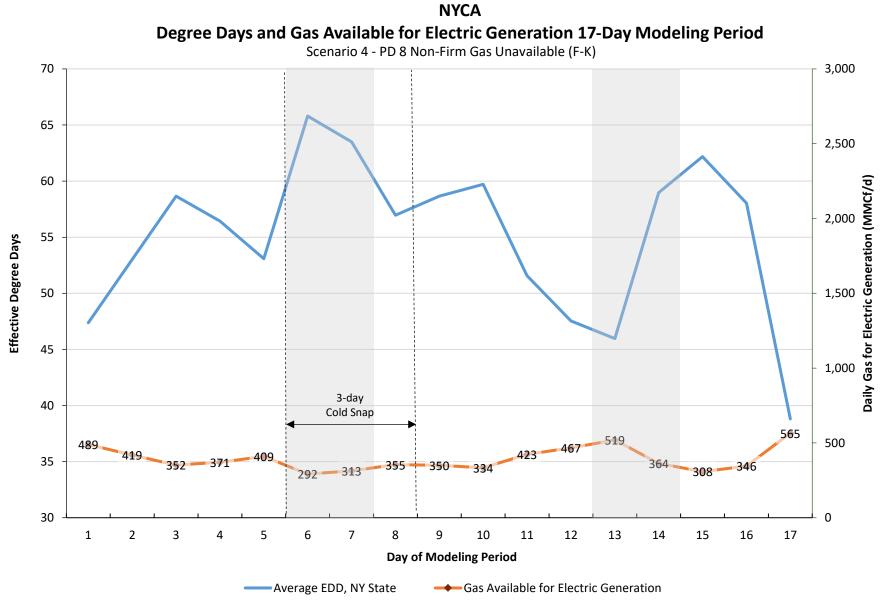




Scenario 4 - PD 8 Non-Firm Gas Unavailable (F-K)



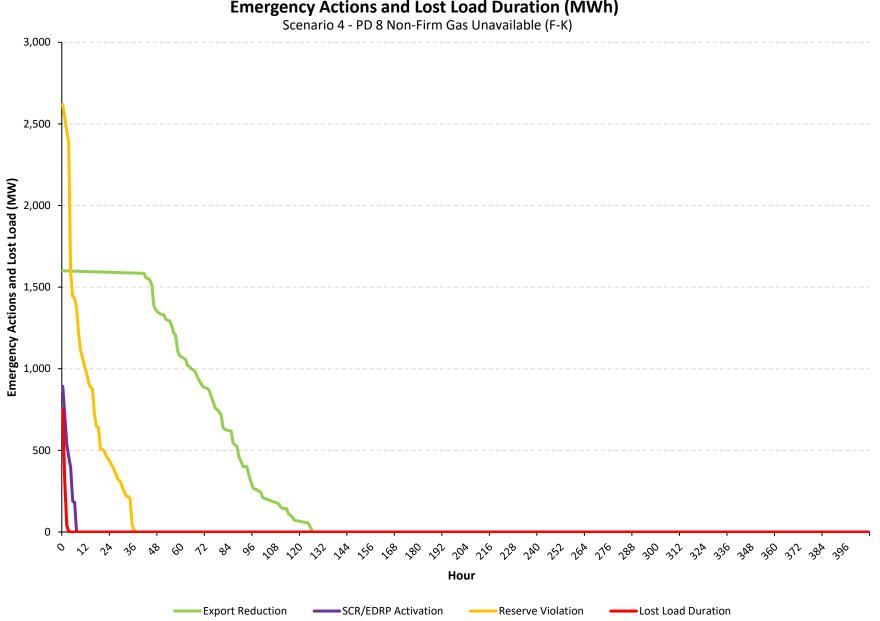
Zones A-E Zone F Zones G-I Zone J Zone K



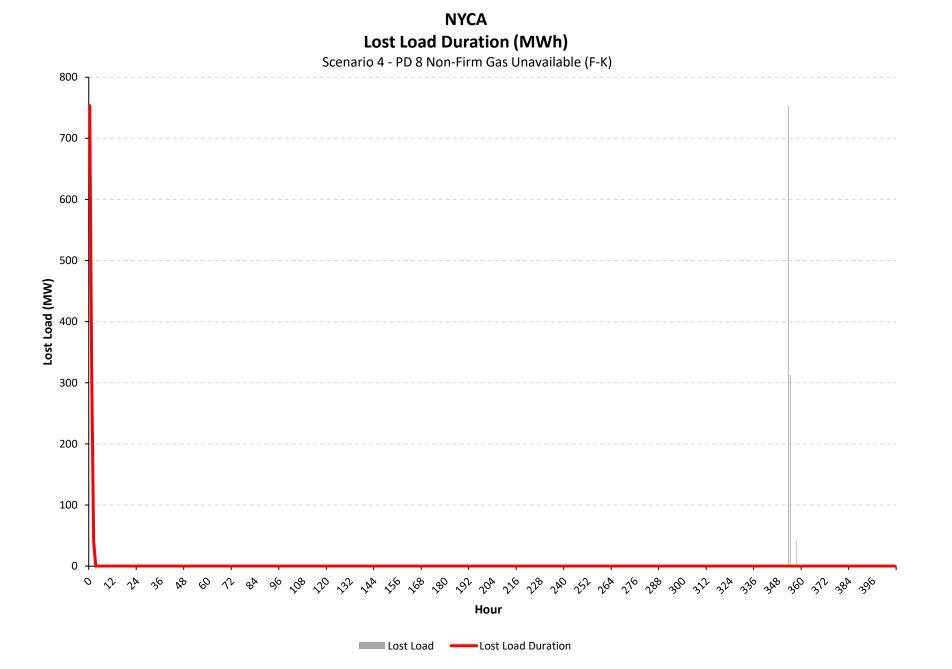
Notes:

[1] Weekends are shaded in gray.

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

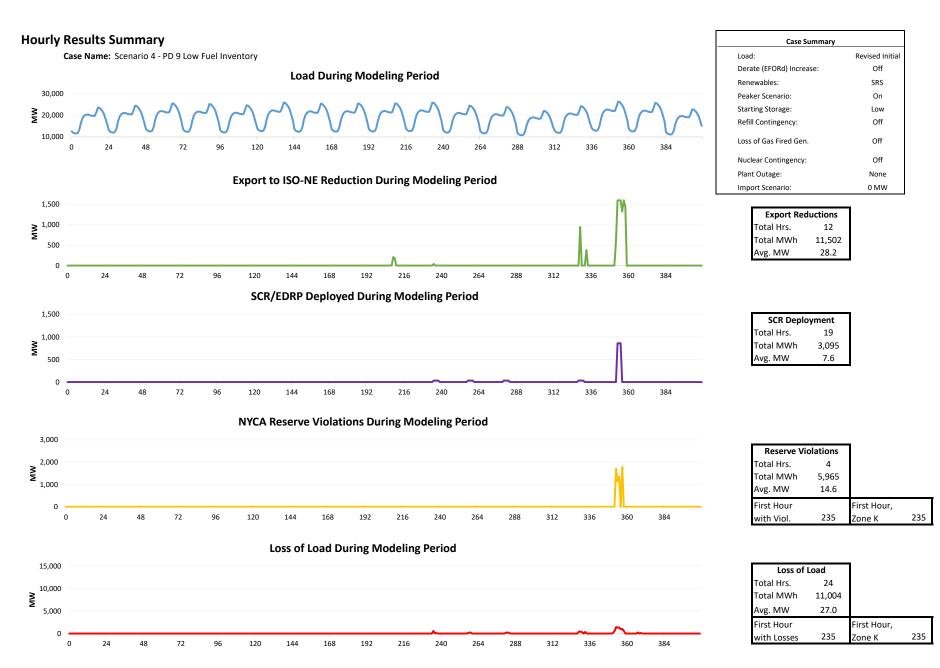


NYCA Emergency Actions and Lost Load Duration (MWh)



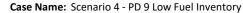
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

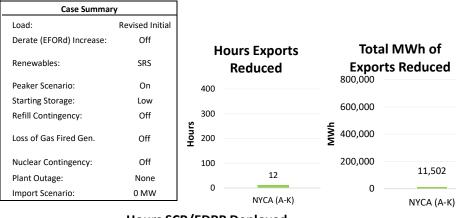
Case: Scenario 4 - PD 9 Low Fuel Inventory



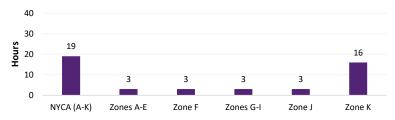
₹

Full Period Results Summary

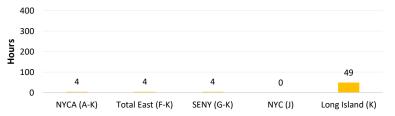




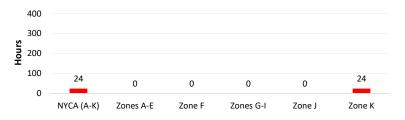




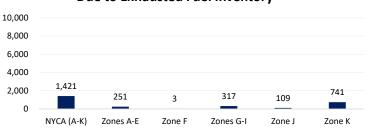




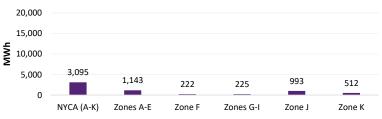
Hours with Loss of Load



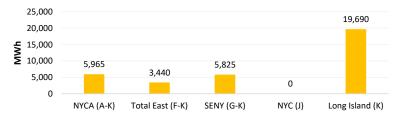
Average Capacity Not Available Due to Exhausted Fuel Inventory



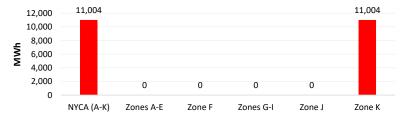
Total MWh SCR/EDRP Deployed

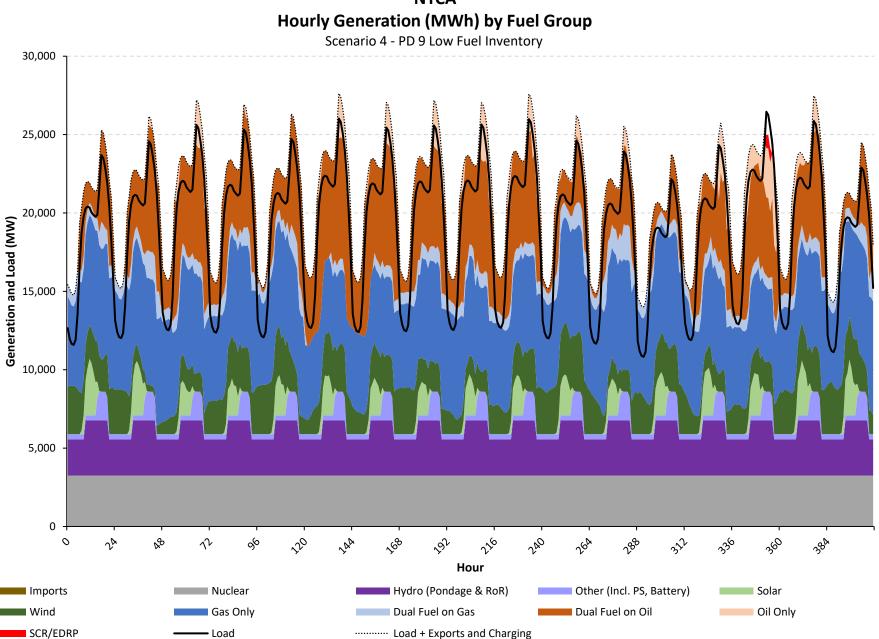


Total MWh of Reserve Violations

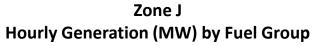


Total MWh of Lost Load

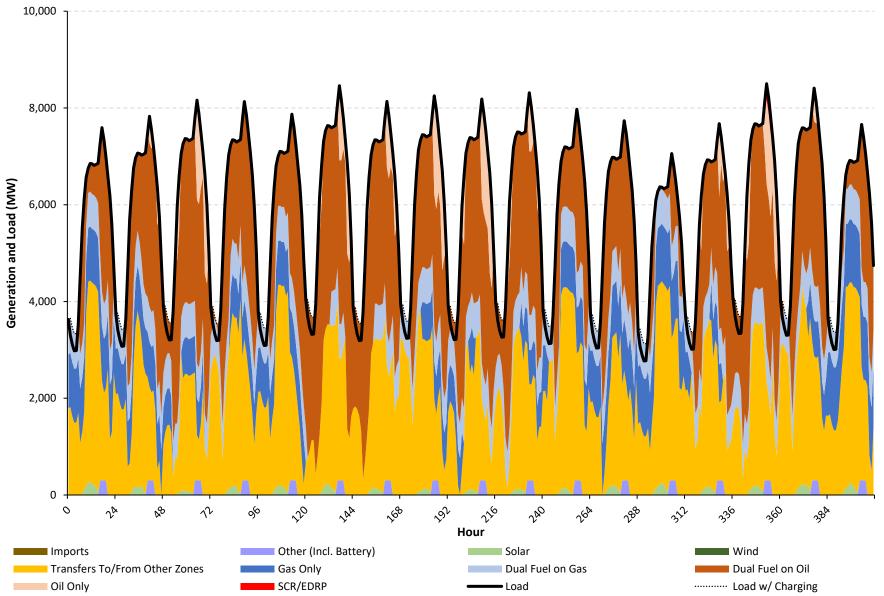




NYCA

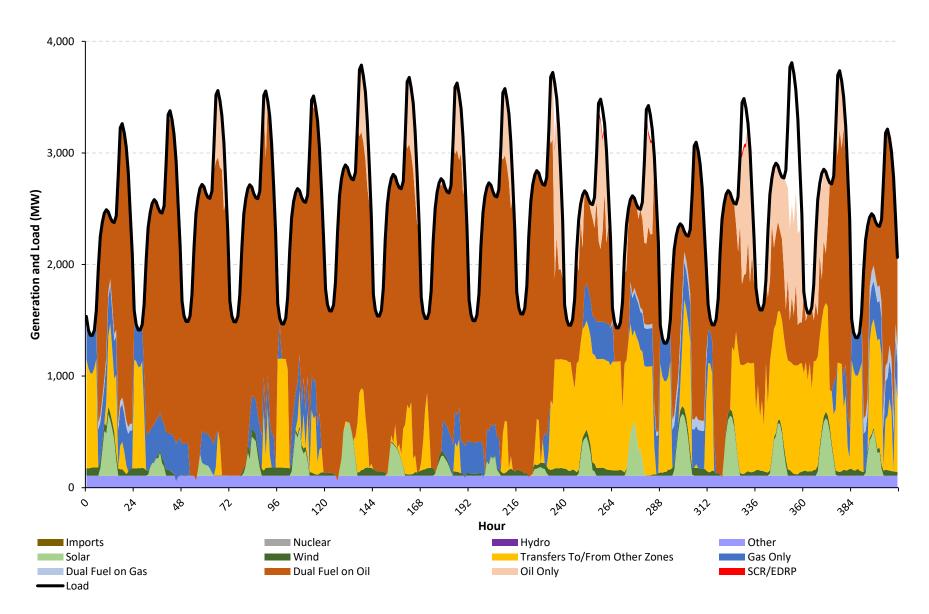


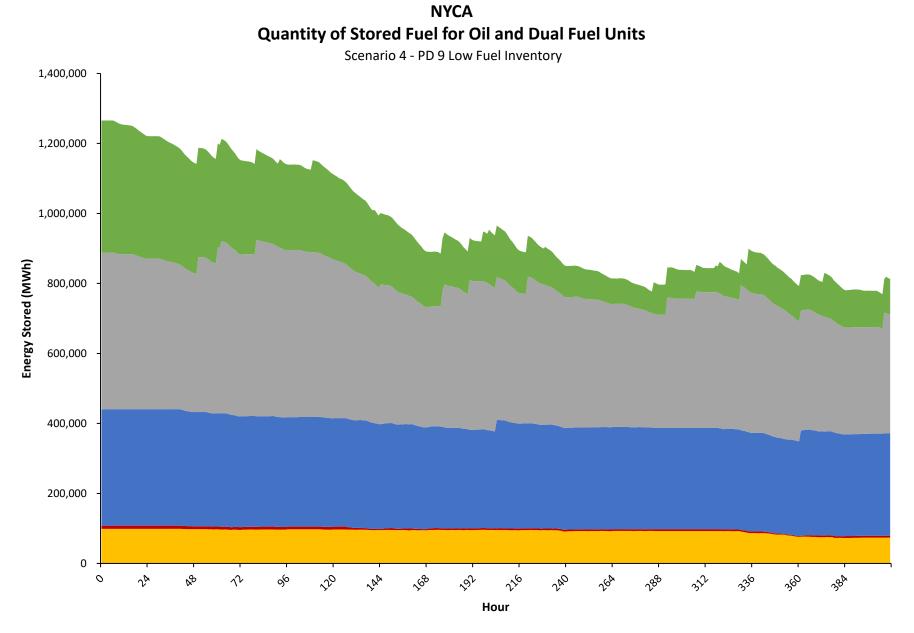




Zone K Hourly Generation (MW) by Fuel Group

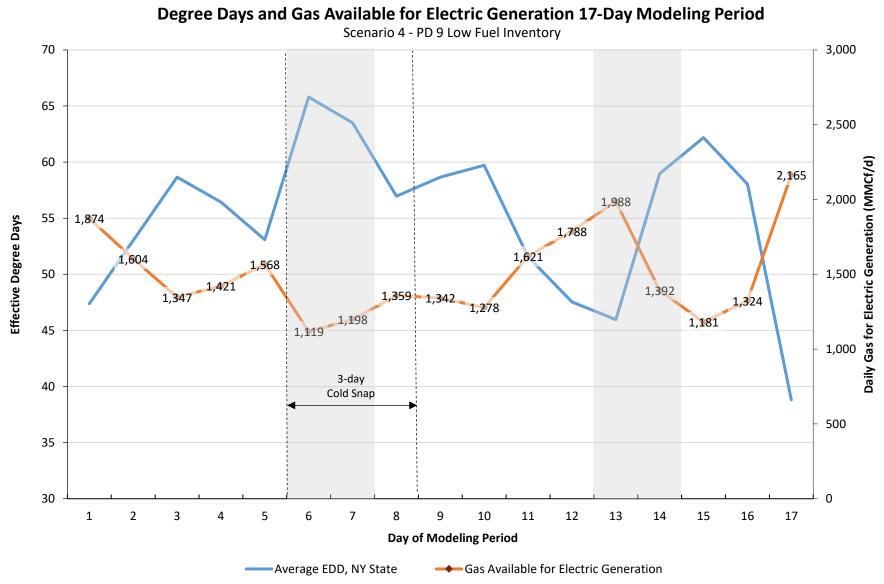
Scenario 4 - PD 9 Low Fuel Inventory





Zones A-E Zone F Zones G-I Zone J Zone K

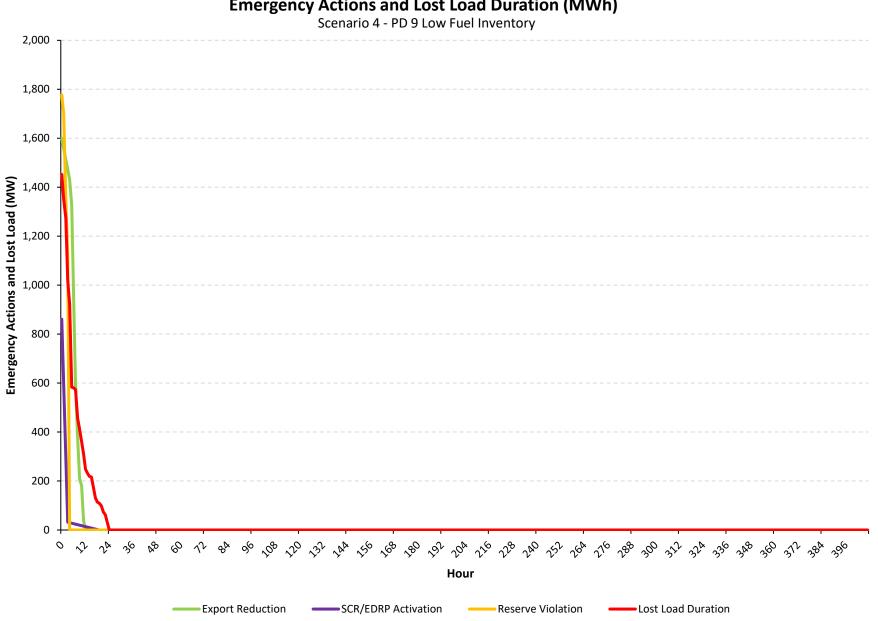
NYCA



Notes:

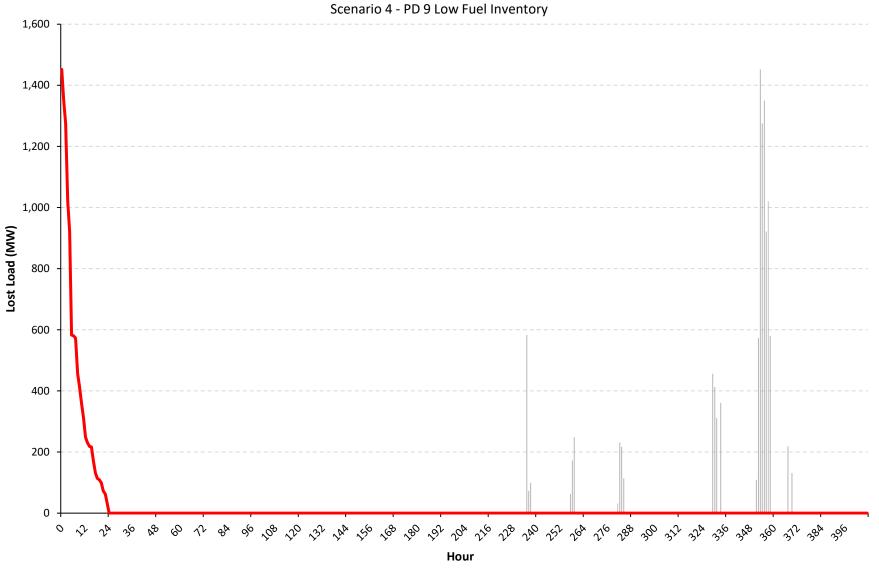
[1] Weekends are shaded in gray.

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



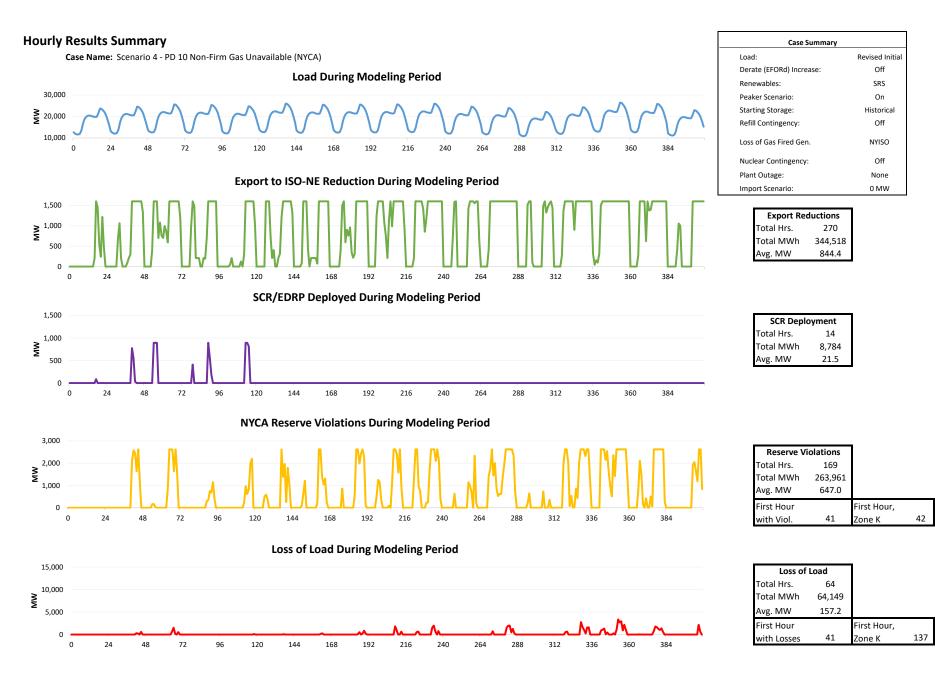
NYCA Emergency Actions and Lost Load Duration (MWh)





Lost Load Lost Load Duration

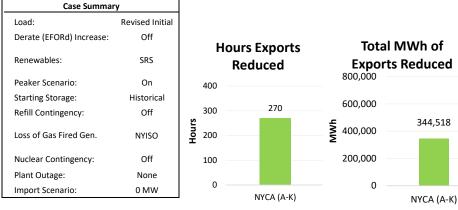
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 4 - PD 10 Non-Firm Gas Unavailable (NYCA)



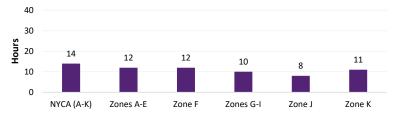
₹

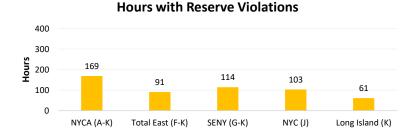
Full Period Results Summary

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

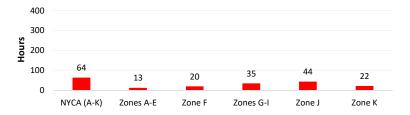




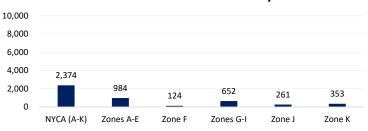




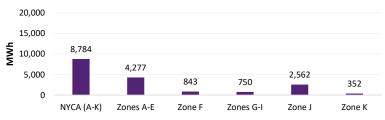
Hours with Loss of Load



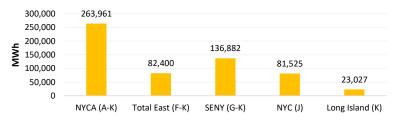
Average Capacity Not Available Due to Exhausted Fuel Inventory



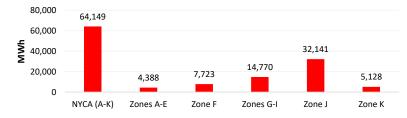
Total MWh SCR/EDRP Deployed

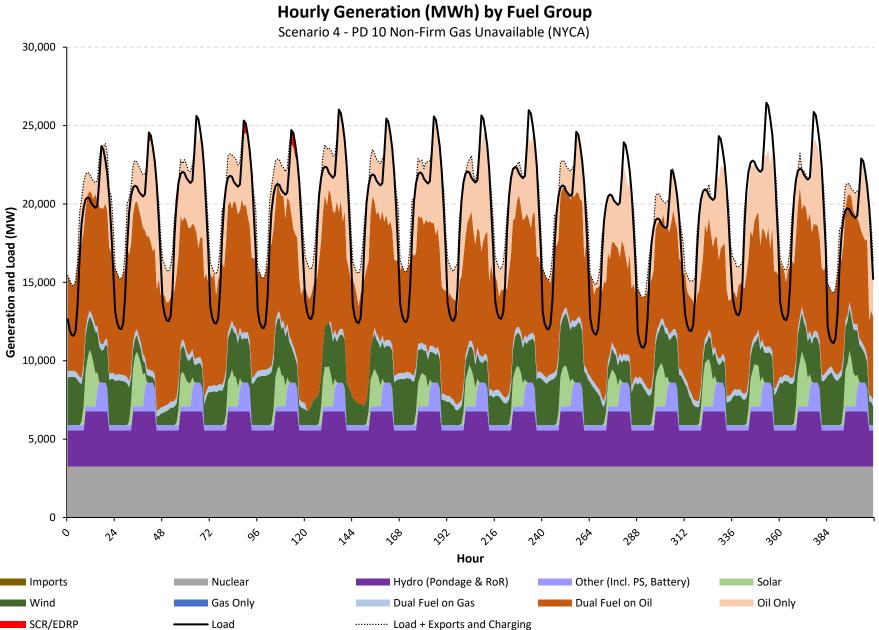


Total MWh of Reserve Violations



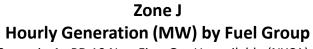
Total MWh of Lost Load



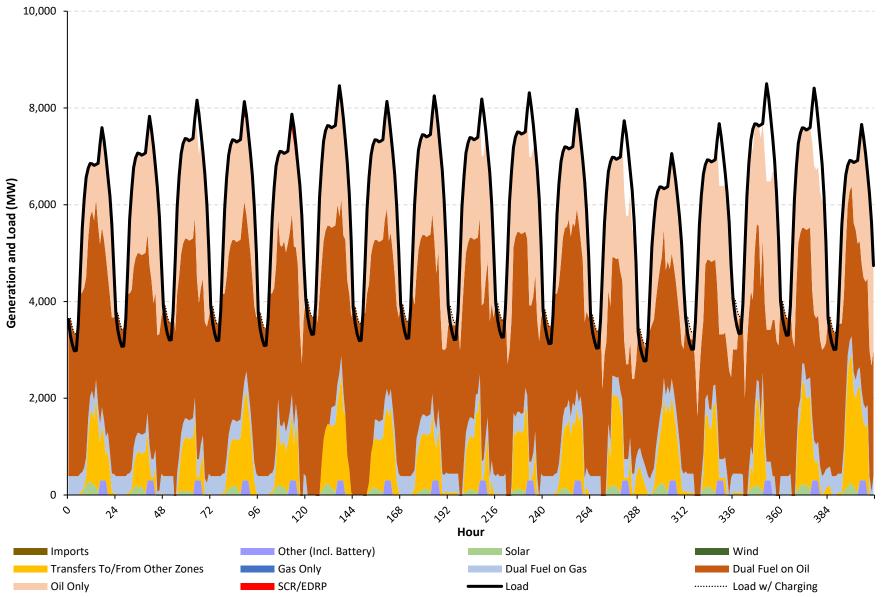


NYCA

Analysis Group, Inc.

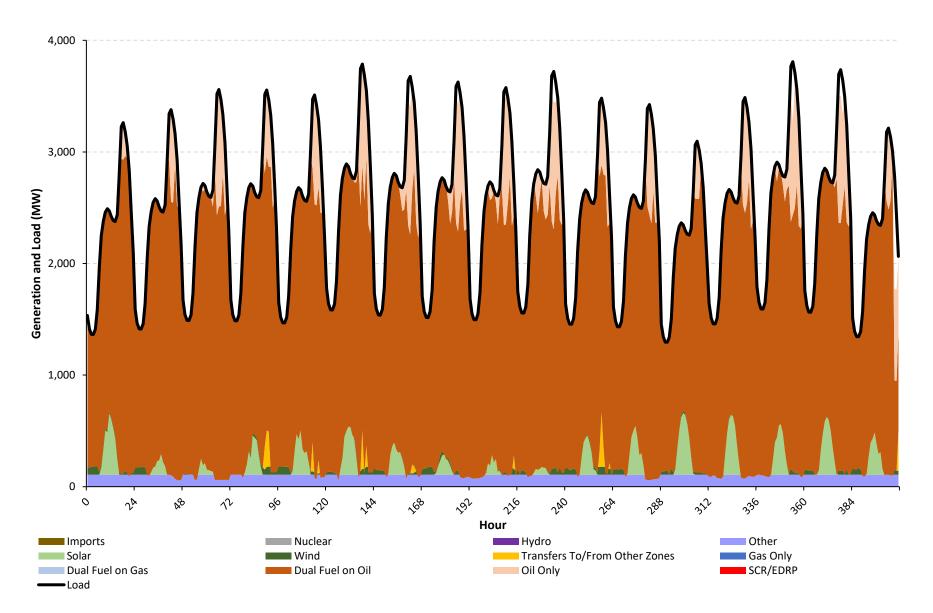




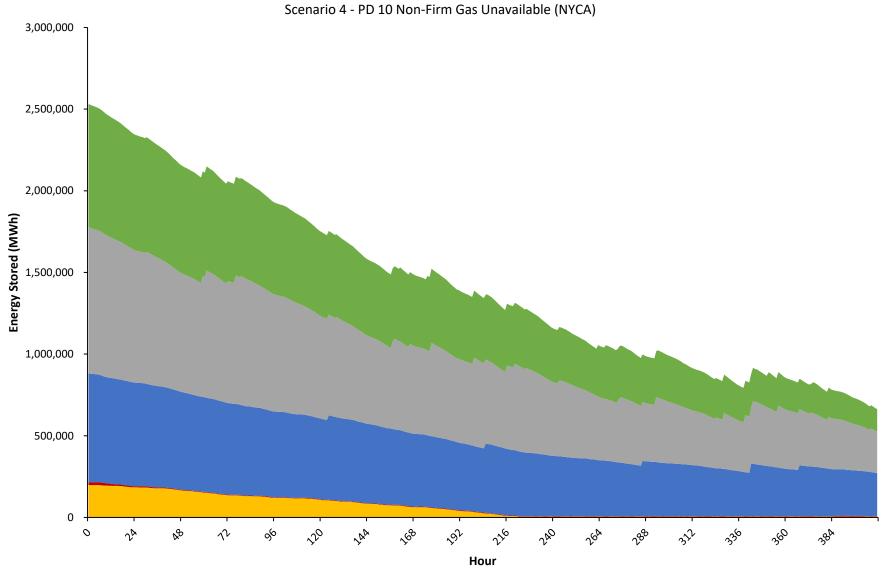


Zone K Hourly Generation (MW) by Fuel Group

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

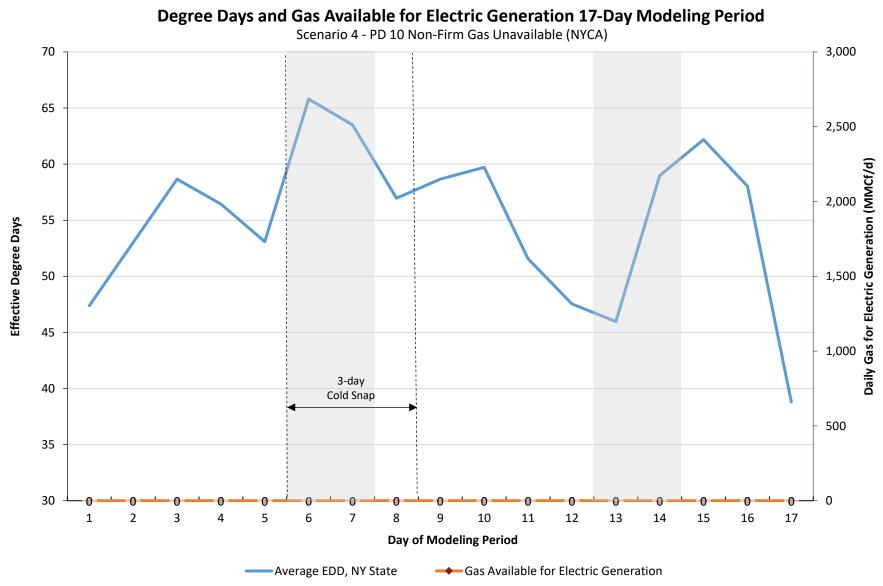






Zones A-E Zone F Zones G-I Zone J Zone K

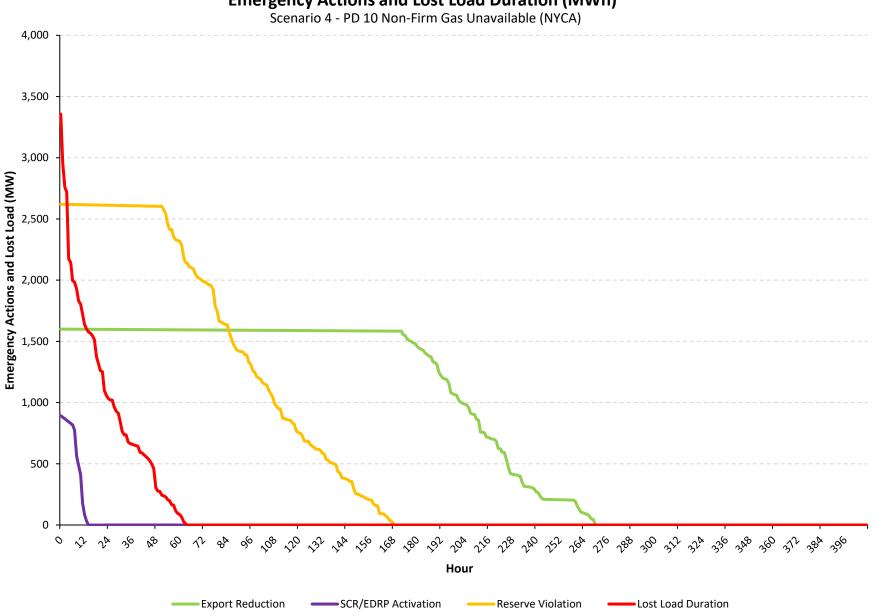
NYCA



Notes:

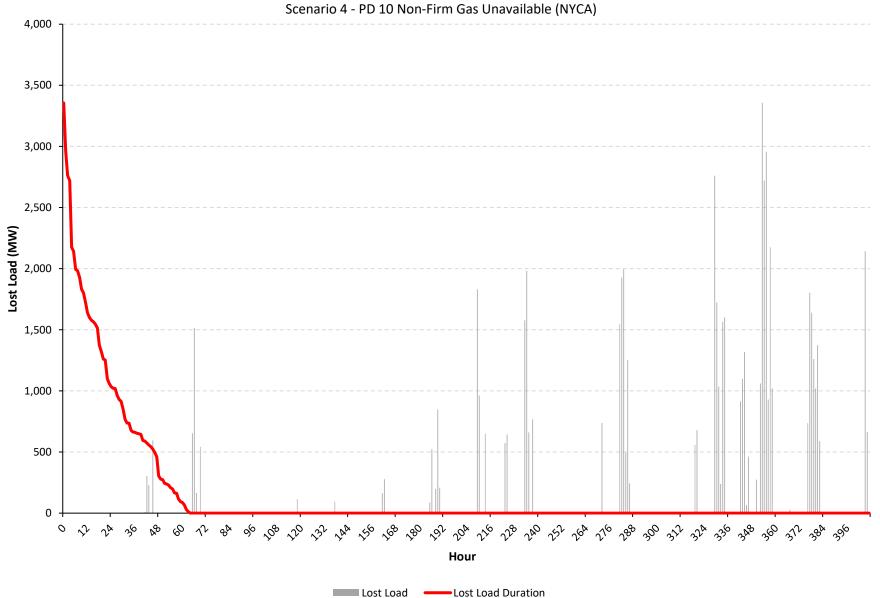
[1] Weekends are shaded in gray.

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

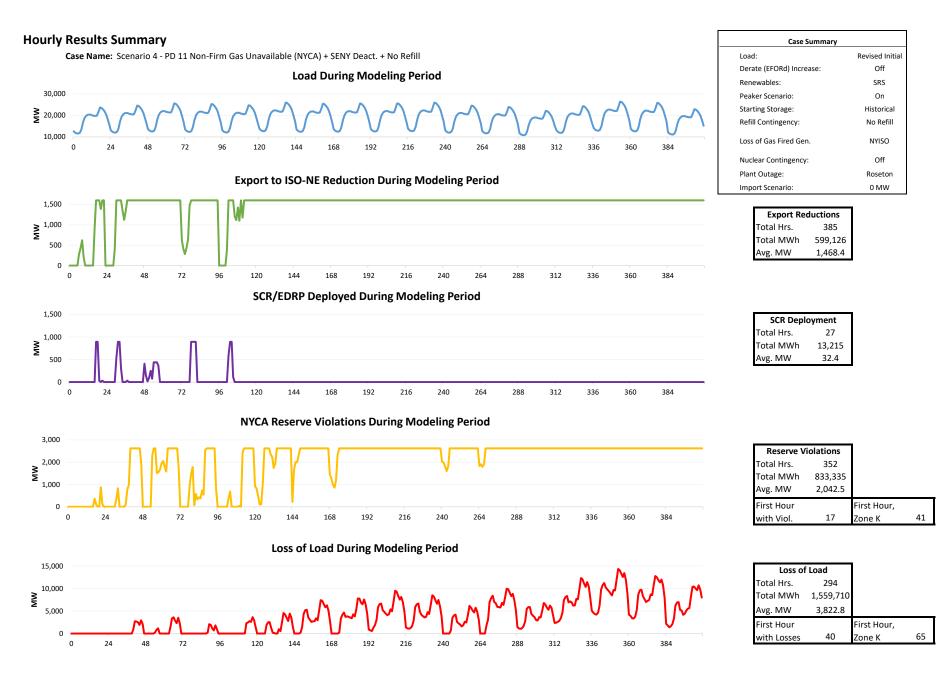


NYCA Emergency Actions and Lost Load Duration (MWh)

NYCA Lost Load Duration (MWh)



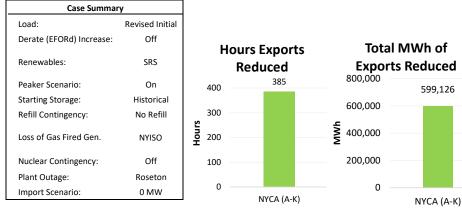
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 4 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill



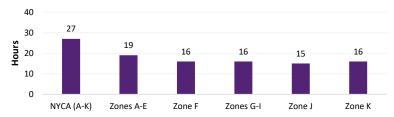
₹

Full Period Results Summary

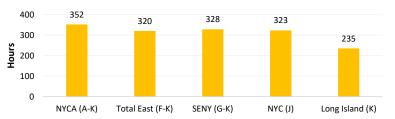
Case Name: Scenario 4 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill



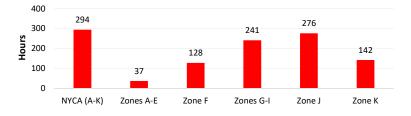
Hours SCR/EDRP Deployed



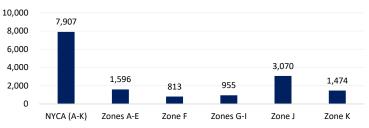
Hours with Reserve Violations



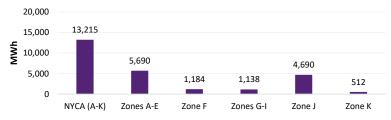
Hours with Loss of Load



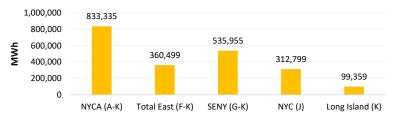




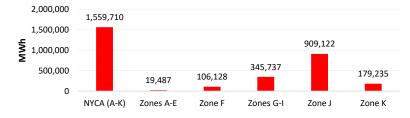
Total MWh SCR/EDRP Deployed



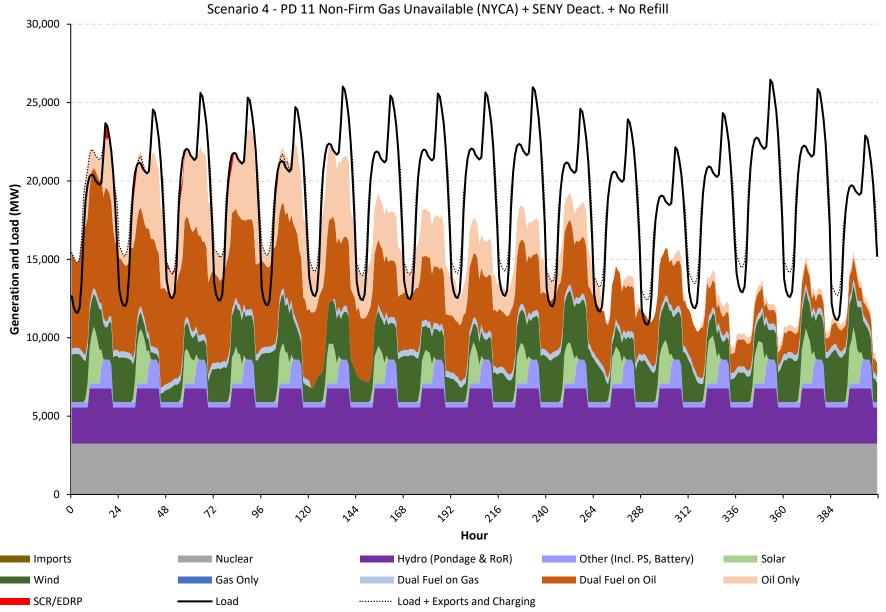
Total MWh of Reserve Violations

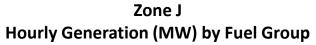


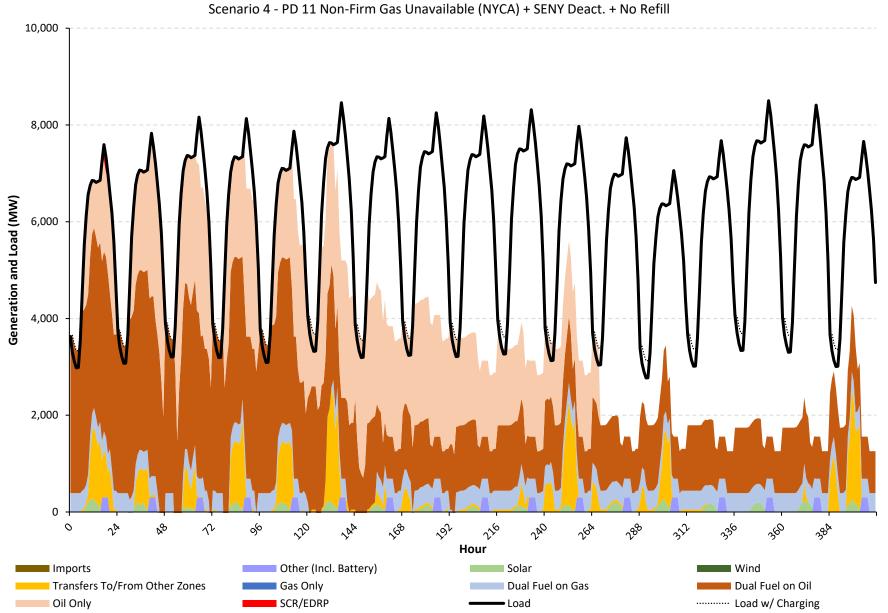
Total MWh of Lost Load



NYCA Hourly Generation (MWh) by Fuel Group

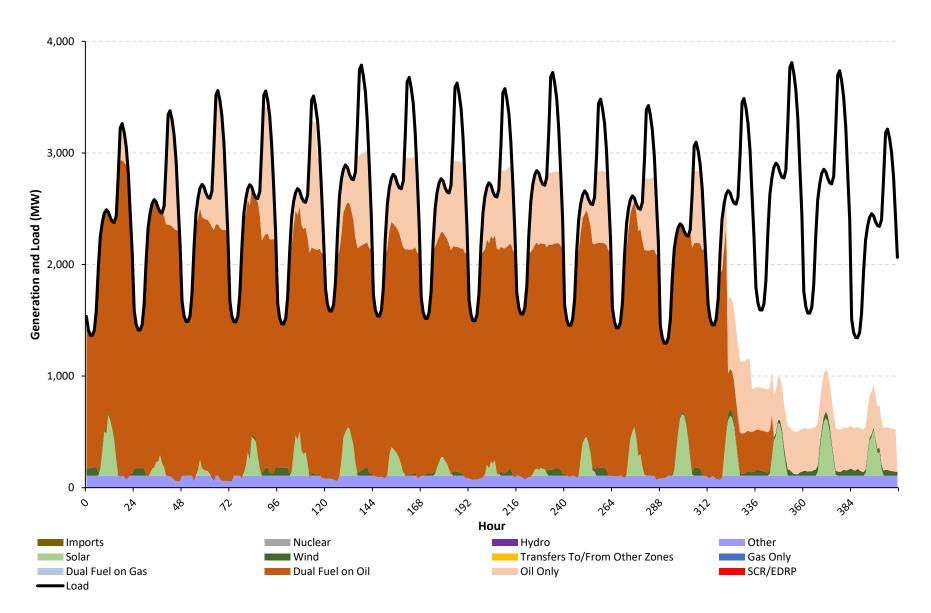




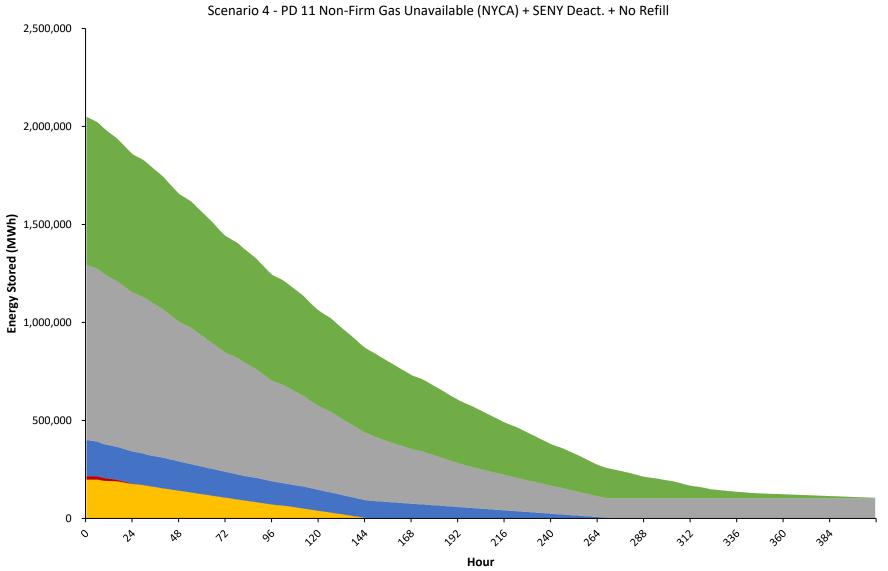


Zone K Hourly Generation (MW) by Fuel Group

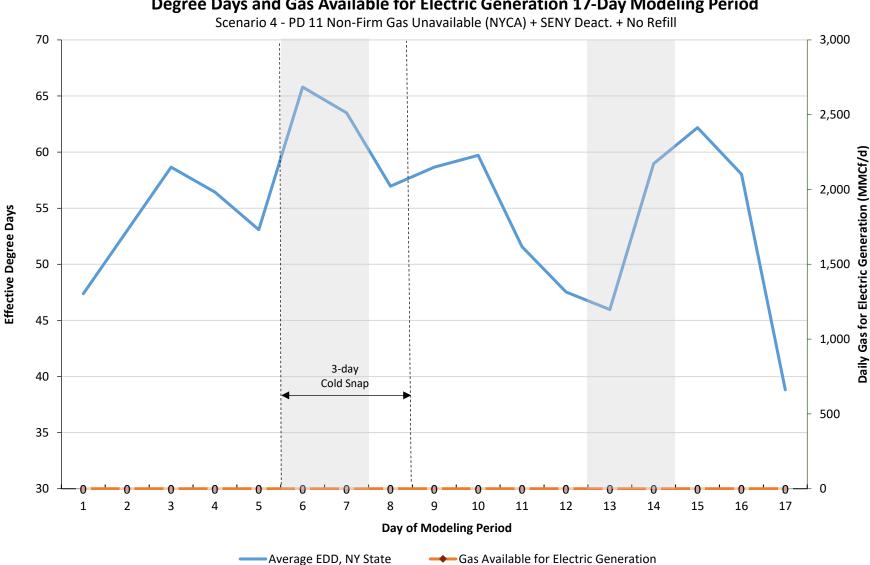
Scenario 4 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill







Zones A-E Zone F Zones G-I Zone J Zone K

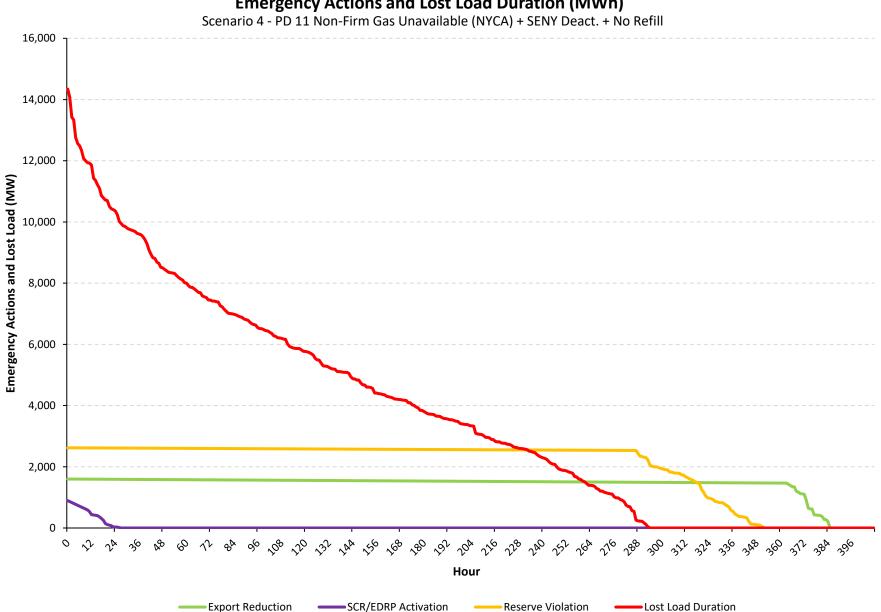


NYCA Degree Days and Gas Available for Electric Generation 17-Day Modeling Period

Notes:

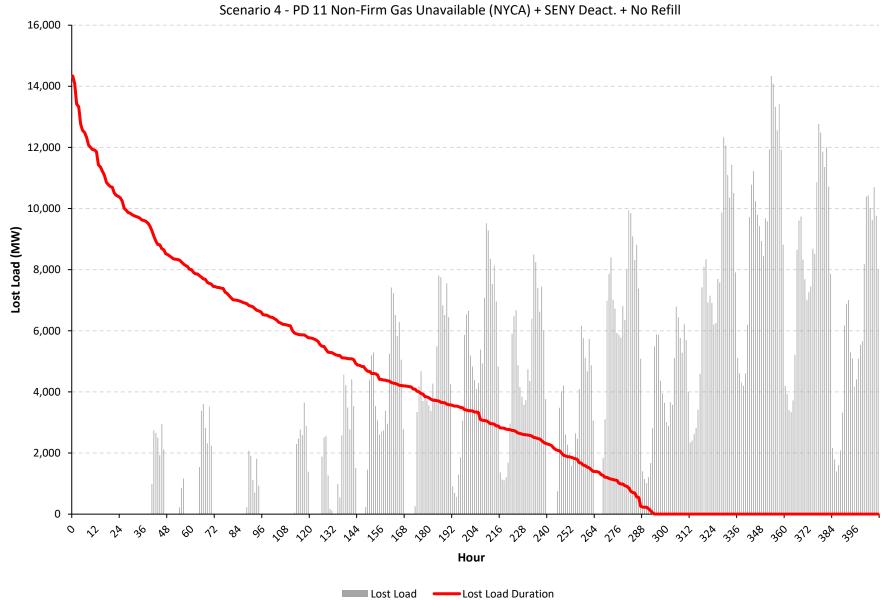
[1] Weekends are shaded in gray.

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



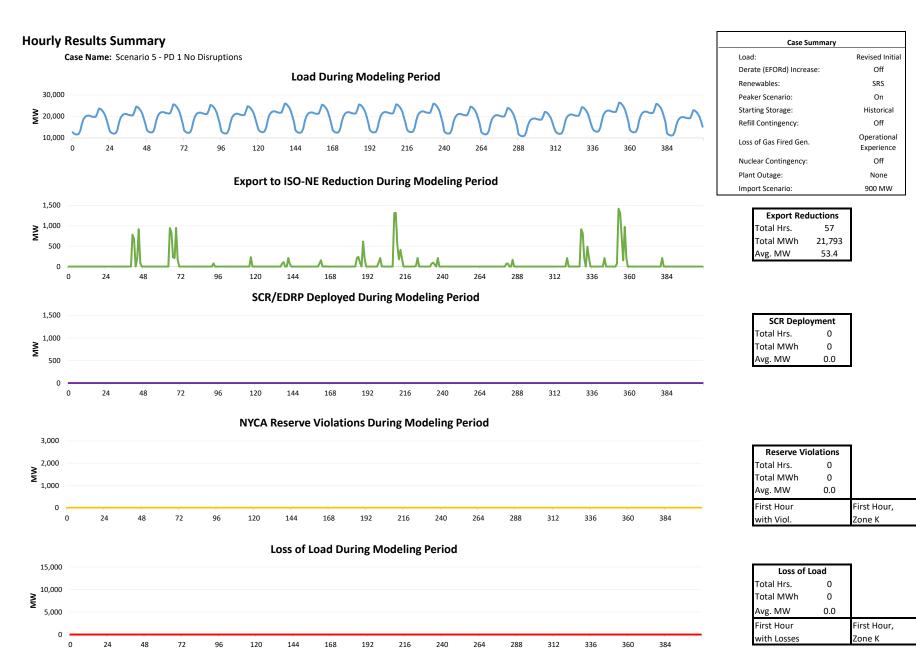
NYCA Emergency Actions and Lost Load Duration (MWh)

NYCA Lost Load Duration (MWh)



Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 5 - PD 1 No Disruptions



258

Zone K

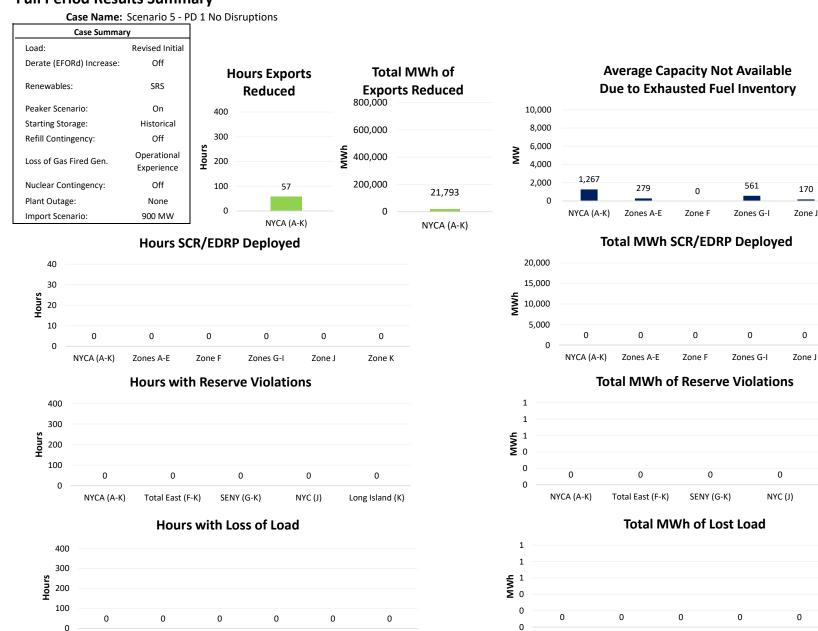
0

Zone K

0

Long Island (K)

Full Period Results Summary



NYCA (A-K)

Zones A-E

Zone F

Zones G-I

Zone J

NYCA (A-K)

Zones A-E

Zone F

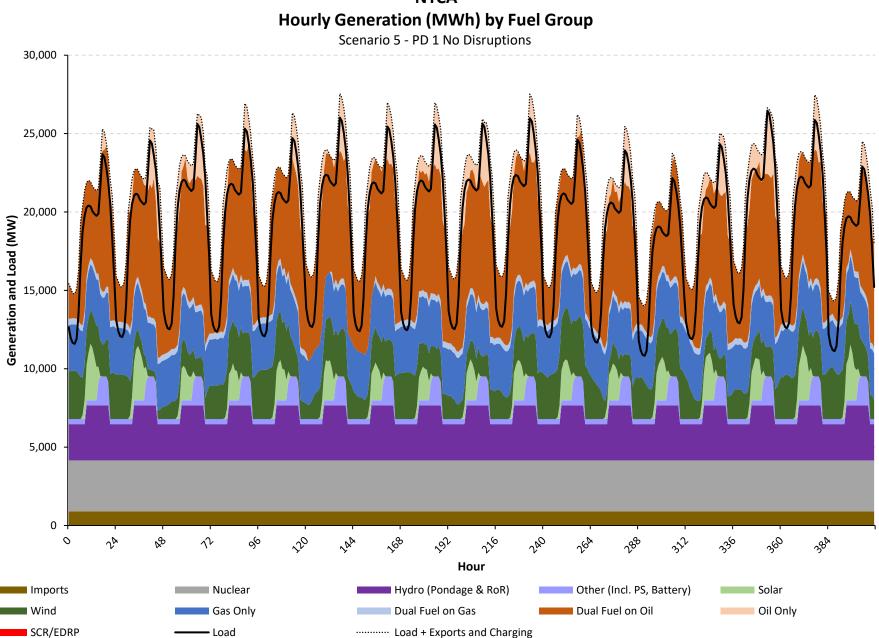
Zones G-I

Zone J

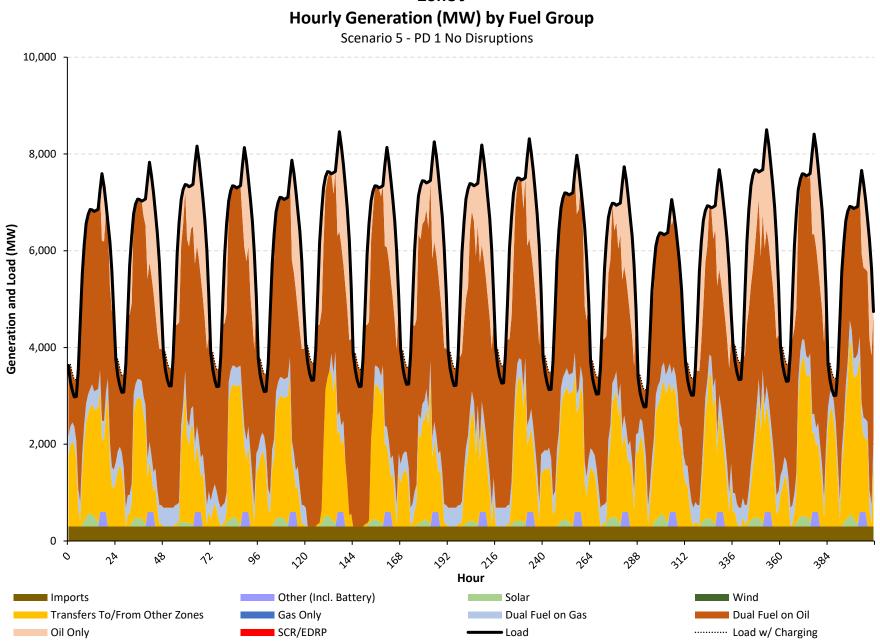
Zone K

0

Zone K

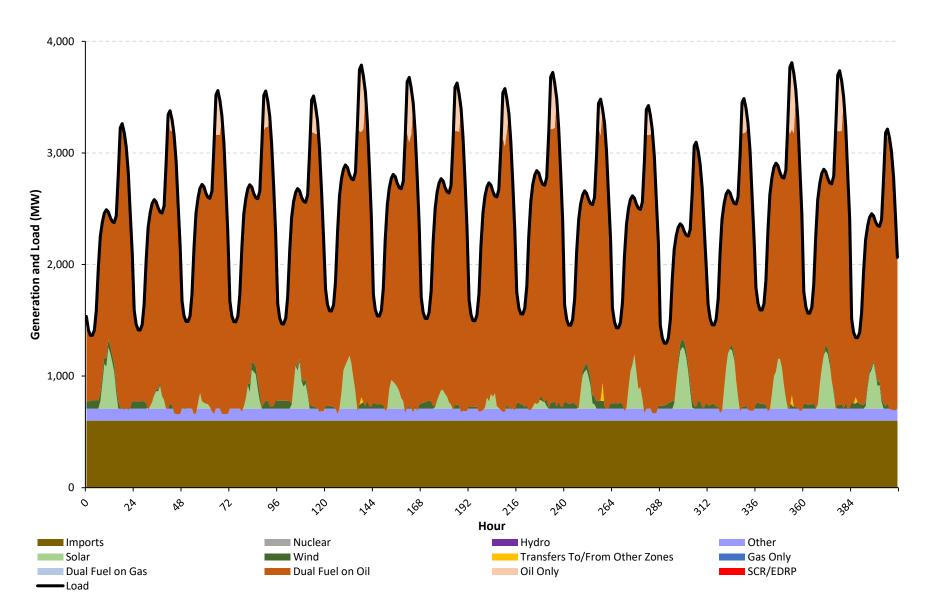


NYCA

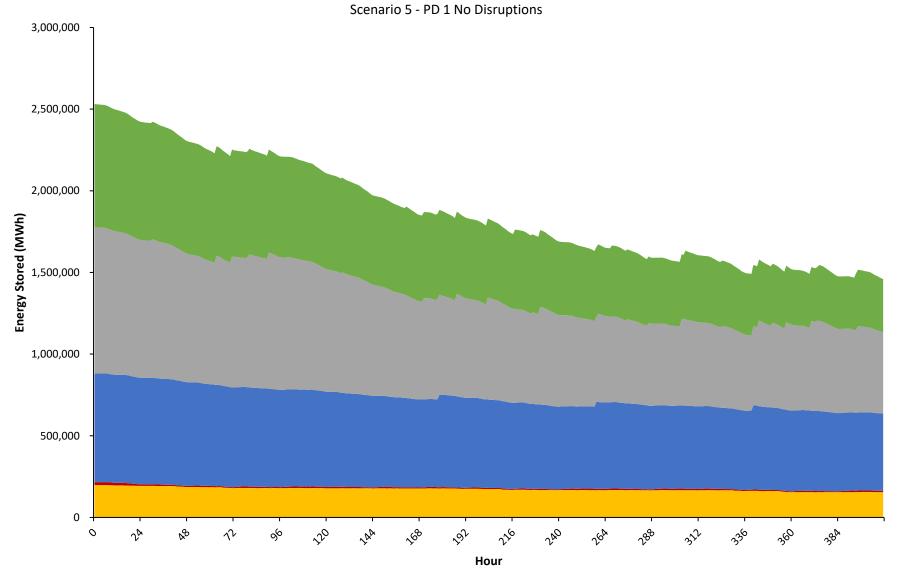


Zone K Hourly Generation (MW) by Fuel Group

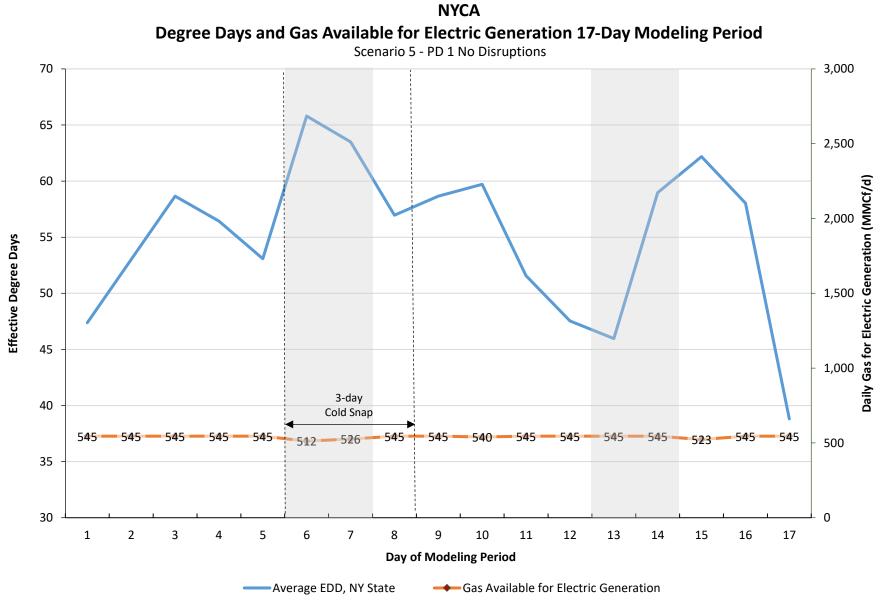
Scenario 5 - PD 1 No Disruptions







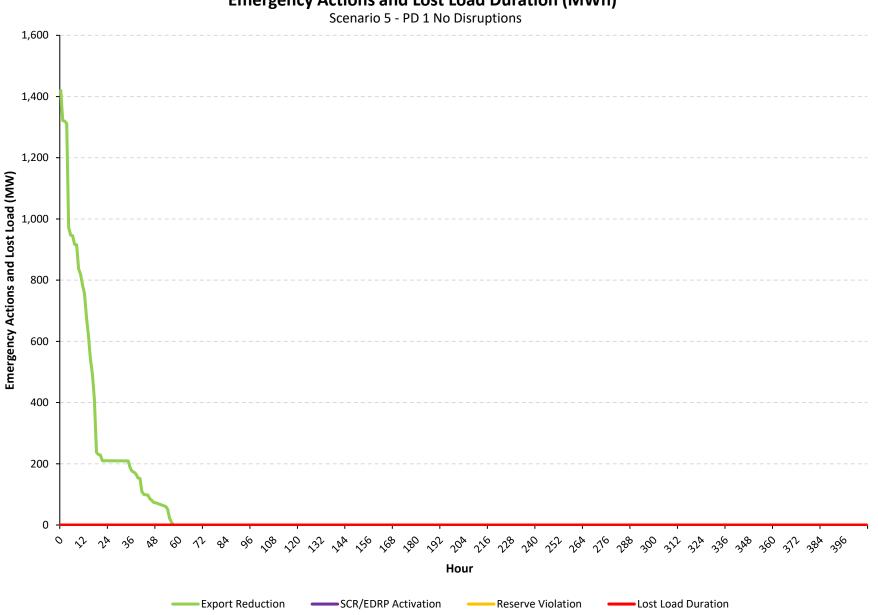
Zones A-E Zone F Zones G-I Zone J Zone K



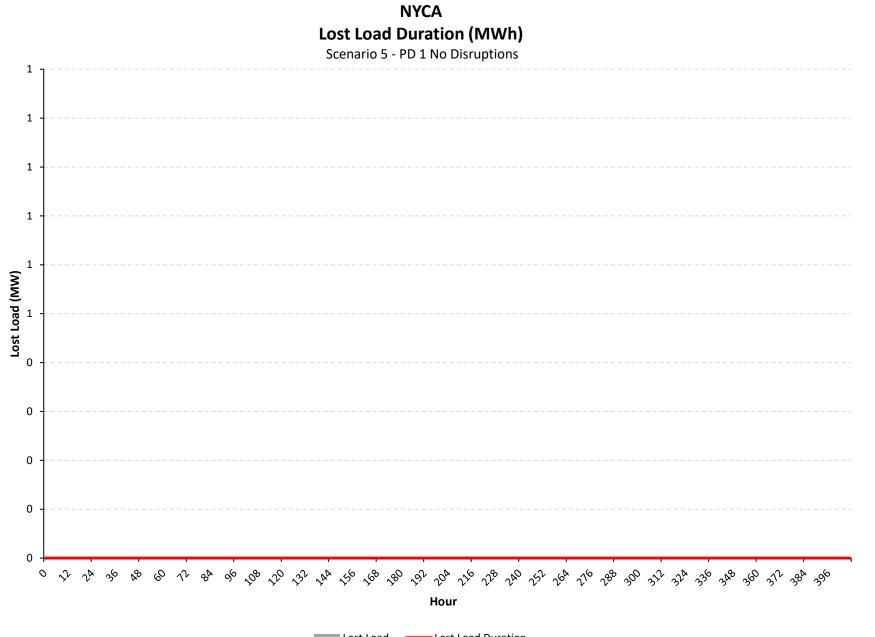
Notes:

[1] Weekends are shaded in gray.

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



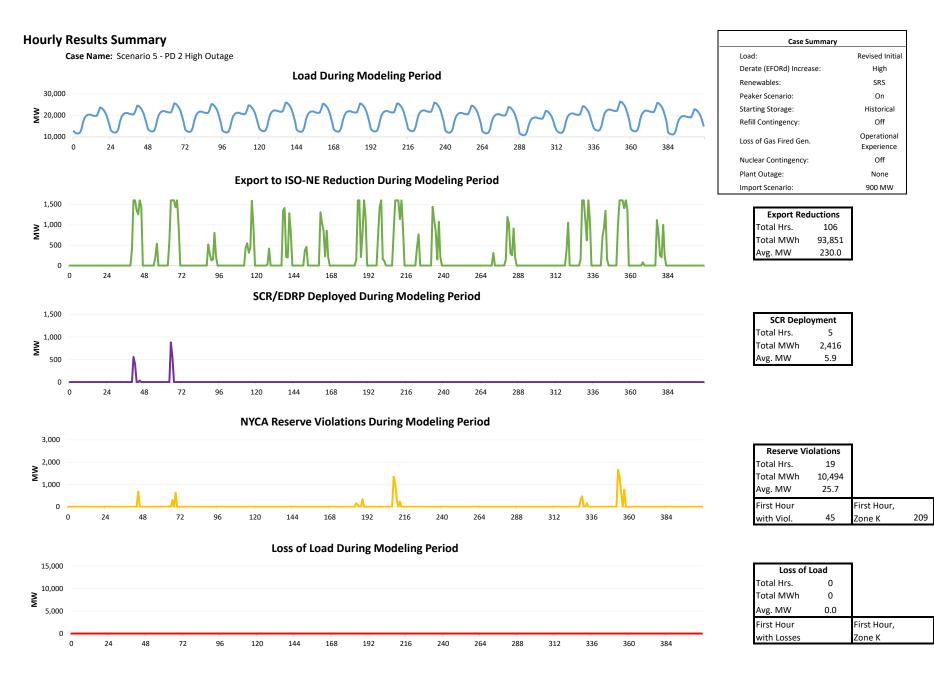
NYCA Emergency Actions and Lost Load Duration (MWh)



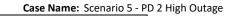
Lost Load Lost Load Duration

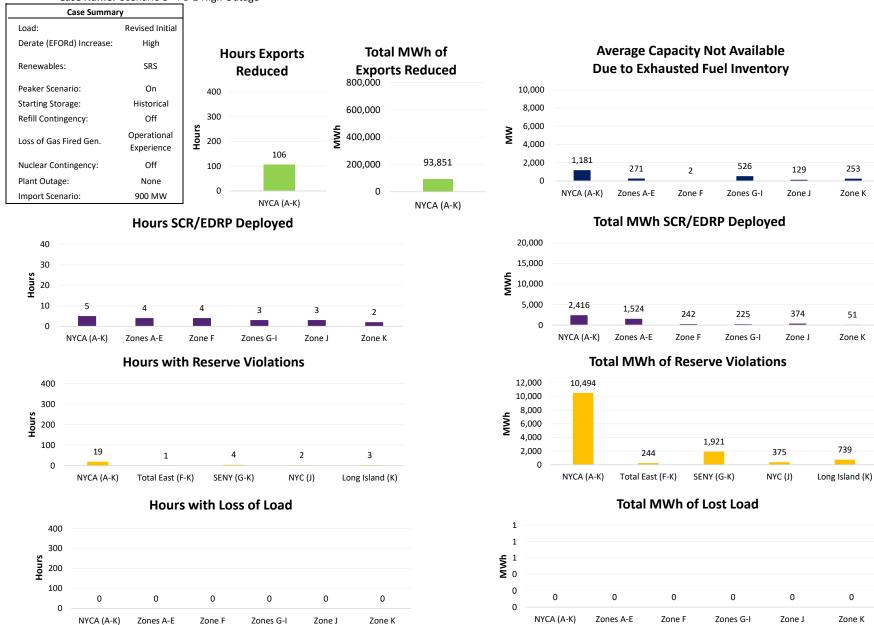
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 5 - PD 2 High Outage

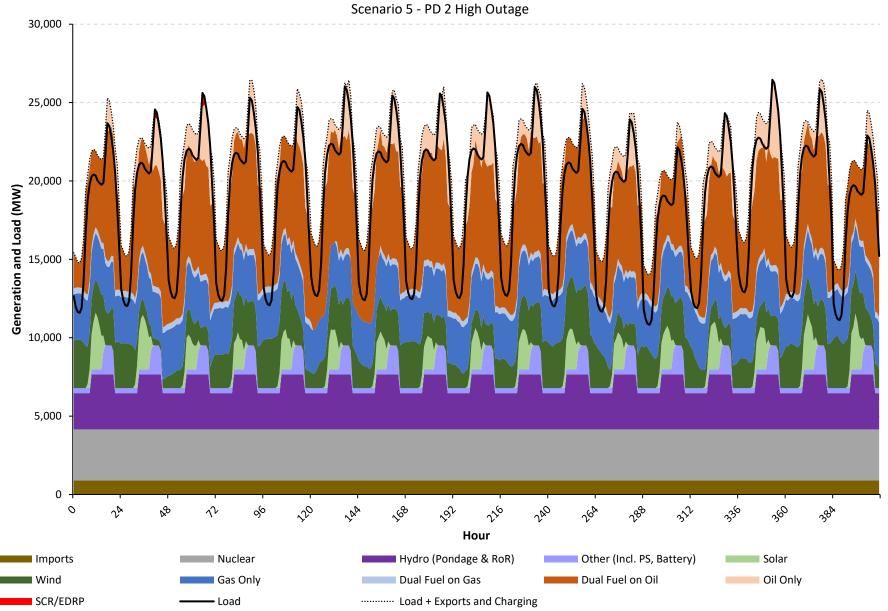


Full Period Results Summary

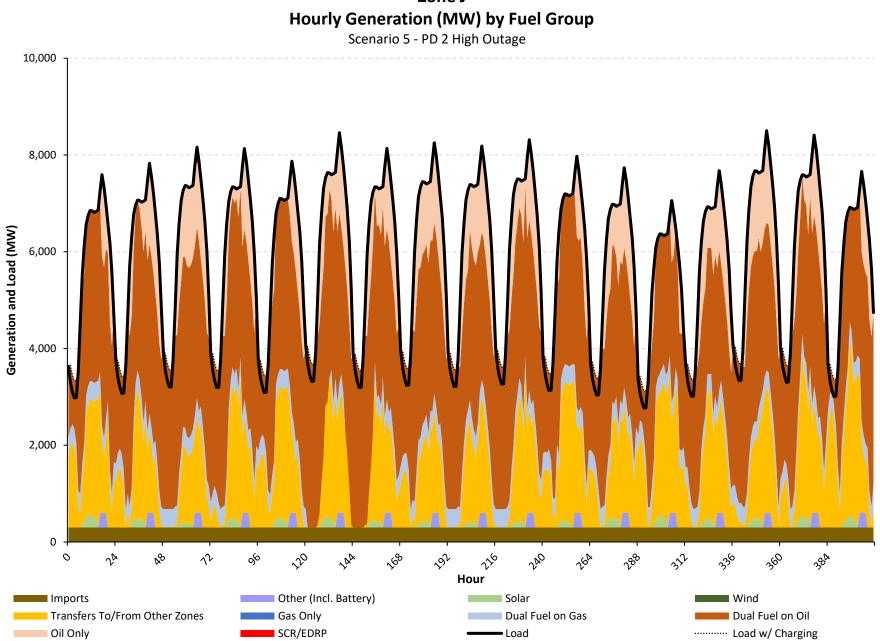




NYCA Hourly Generation (MWh) by Fuel Group



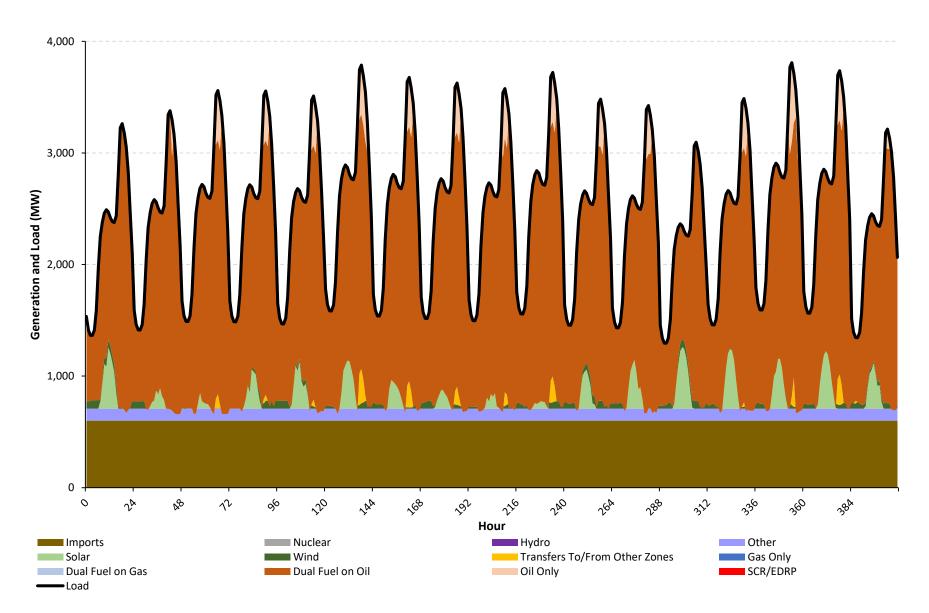
Analysis Group, Inc.



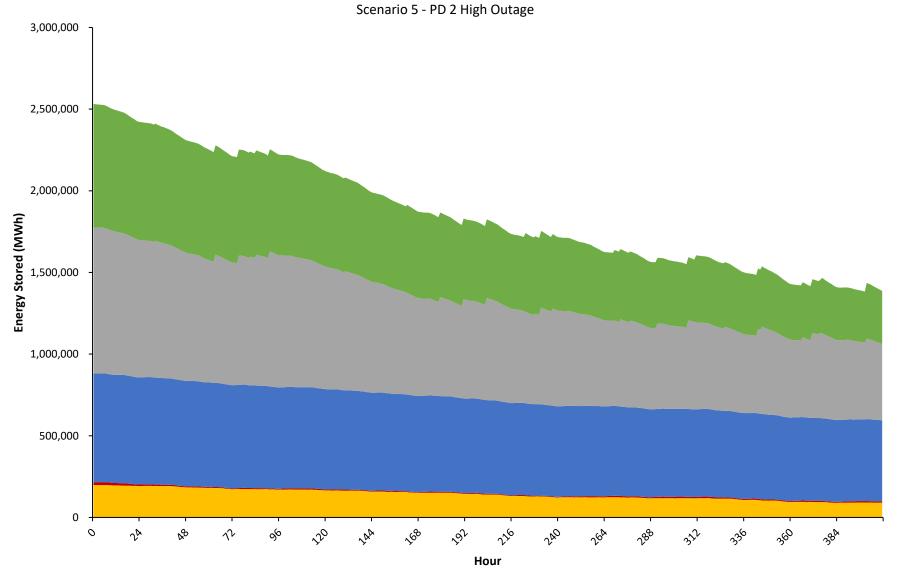
Zone J

Zone K Hourly Generation (MW) by Fuel Group

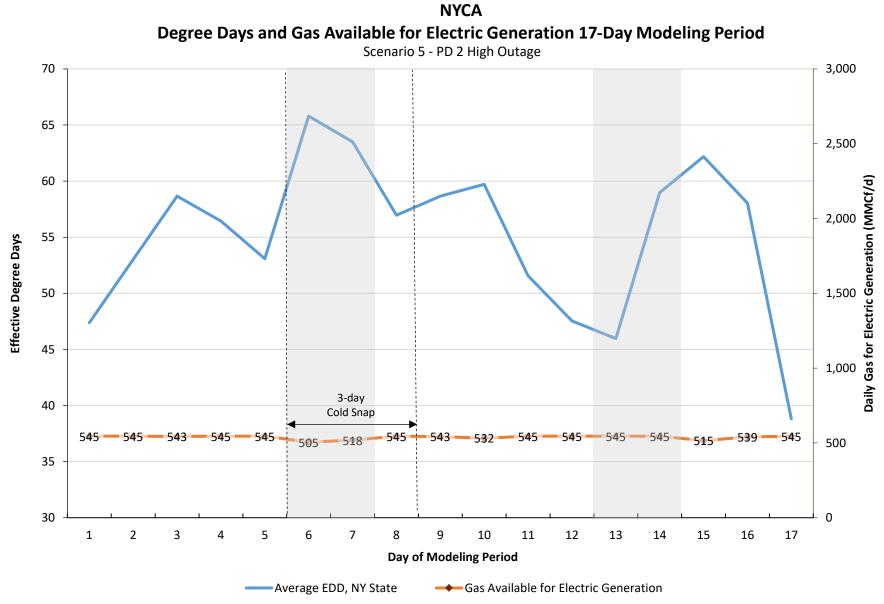
Scenario 5 - PD 2 High Outage







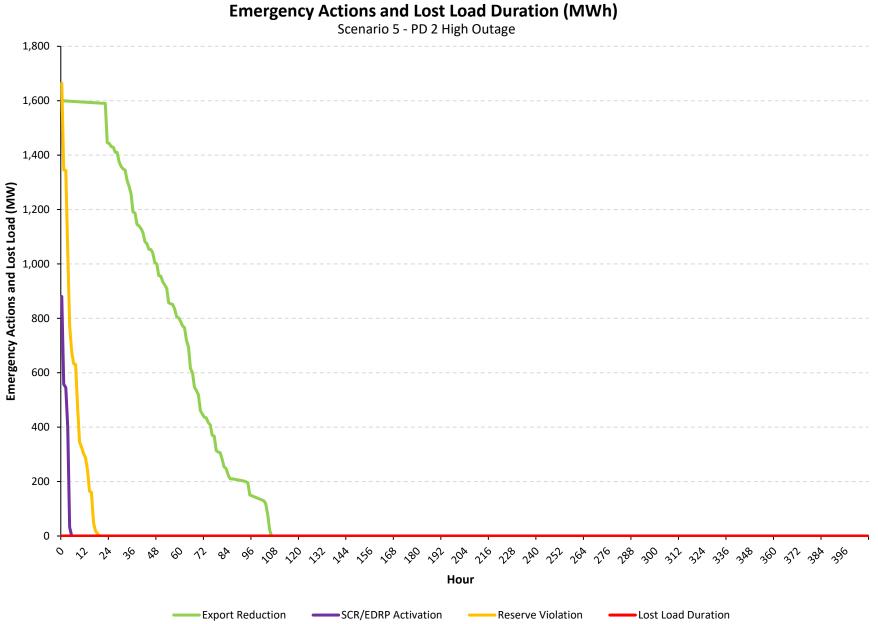
Zones A-E Zone F Zones G-I Zone J Zone K



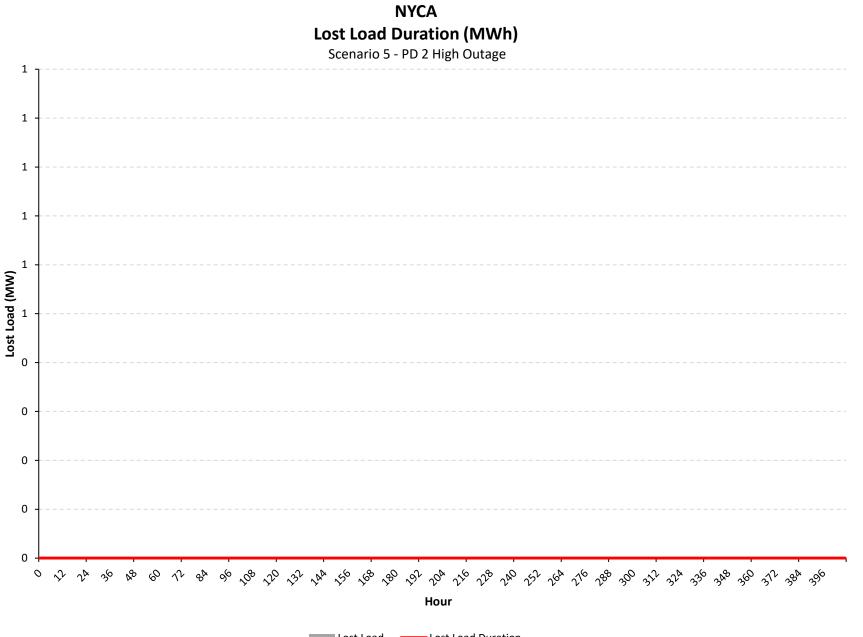
Notes:

[1] Weekends are shaded in gray.

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



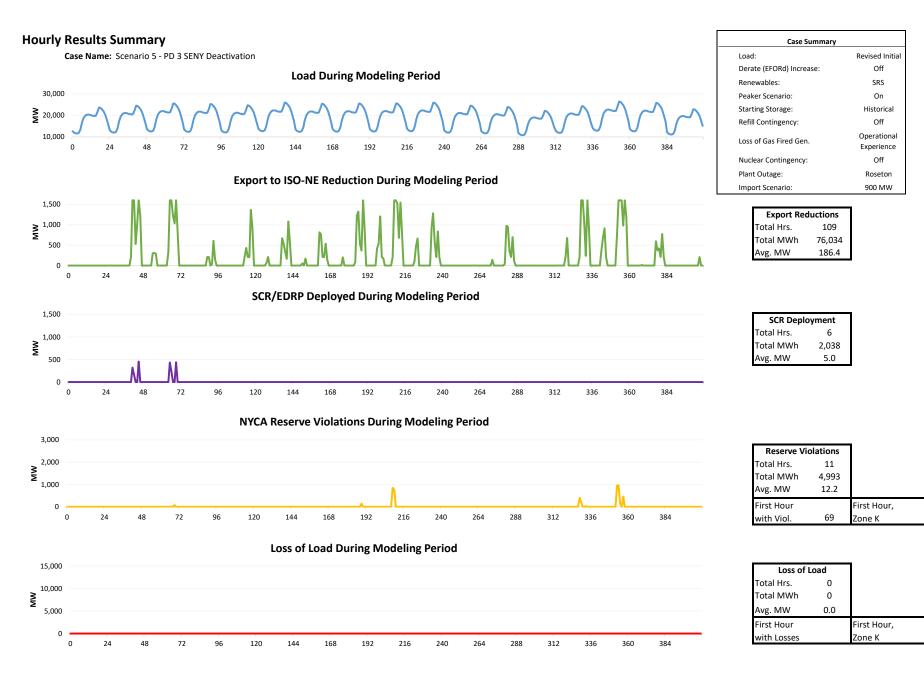
NYCA



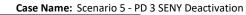
Lost Load Lost Load Duration

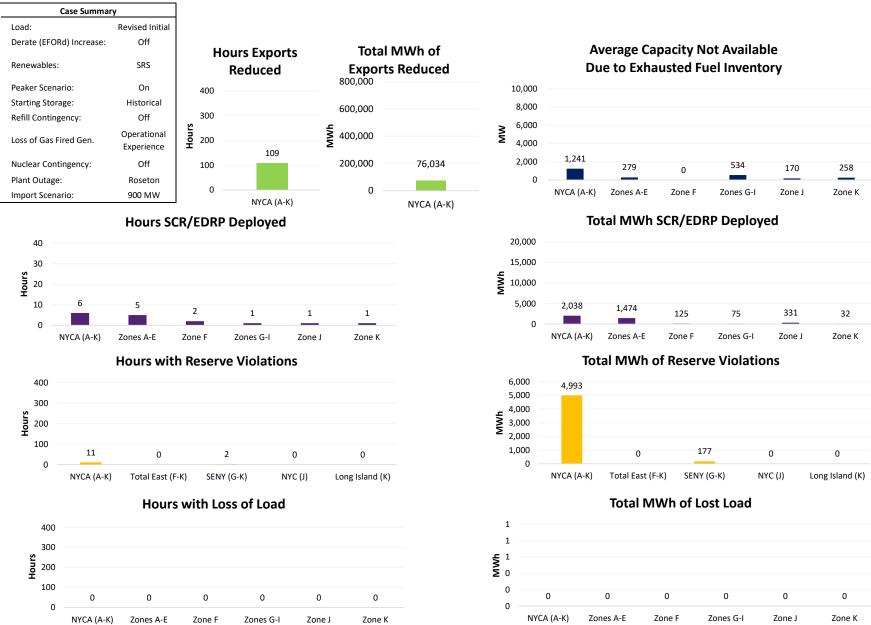
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

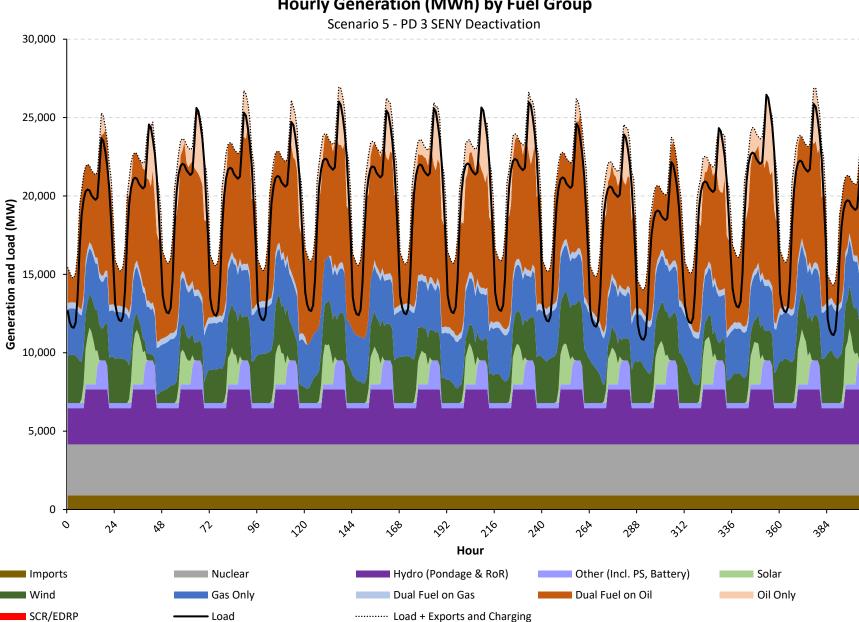
Case: Scenario 5 - PD 3 SENY Deactivation



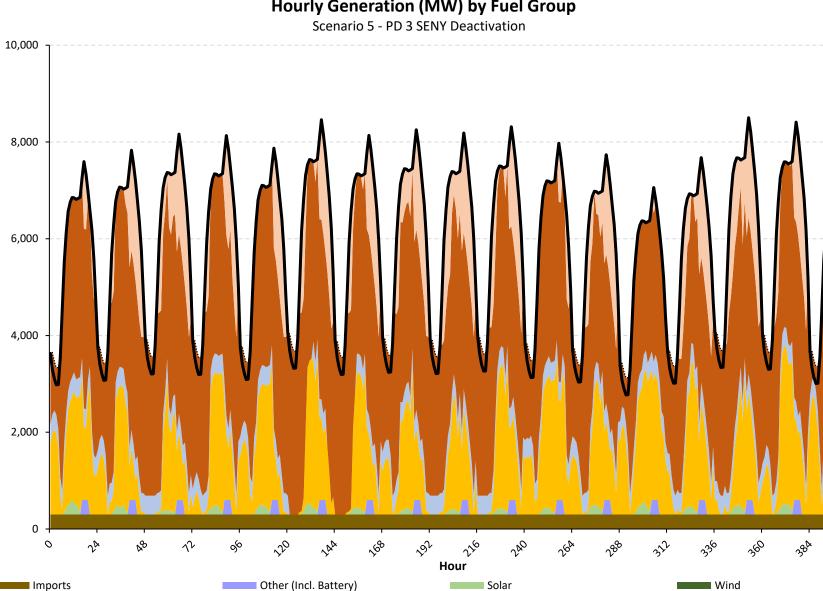
Full Period Results Summary







NYCA Hourly Generation (MWh) by Fuel Group



Dual Fuel on Gas

Load

Zone J Hourly Generation (MW) by Fuel Group

Oil Only

Transfers To/From Other Zones

Gas Only

SCR/EDRP

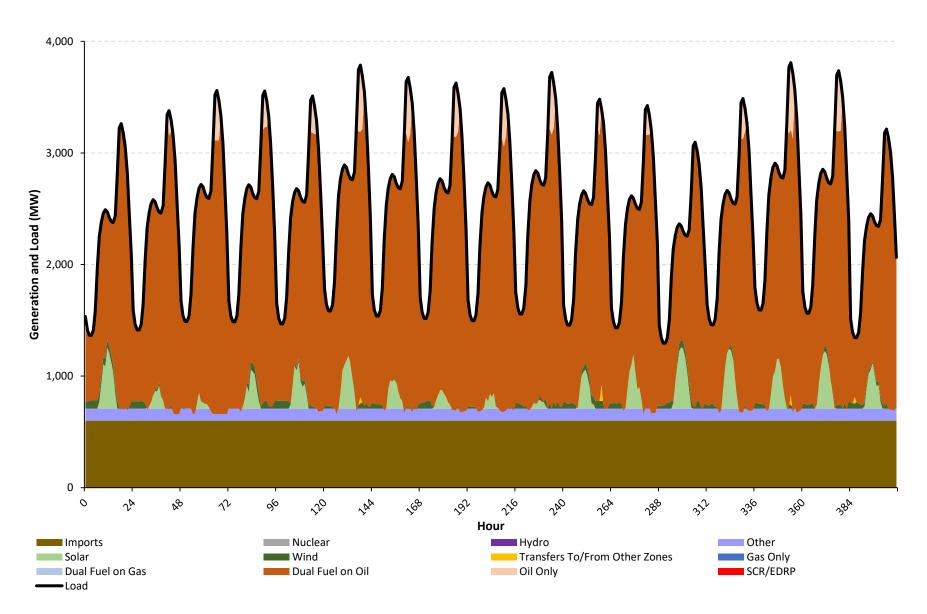
Generation and Load (MW)

Dual Fuel on Oil

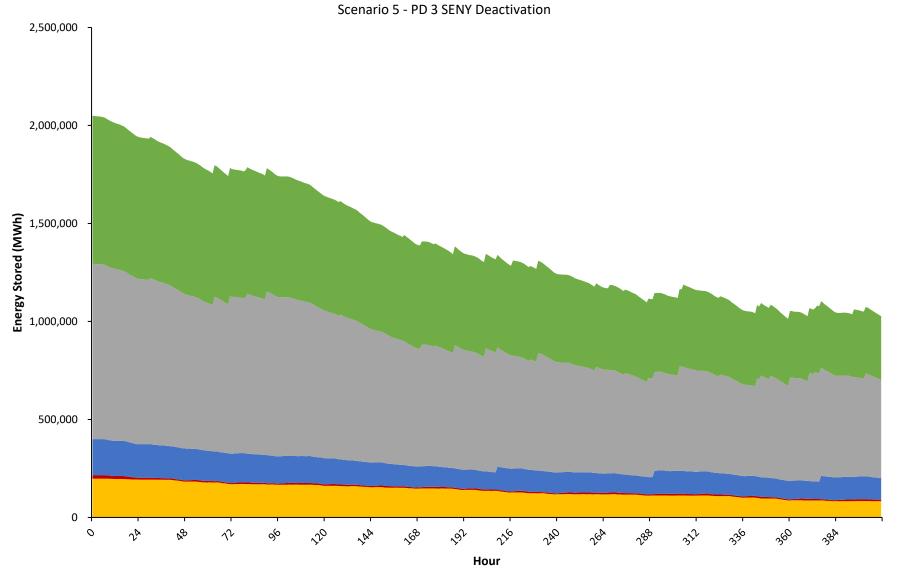
..... Load w/ Charging

Zone K Hourly Generation (MW) by Fuel Group

Scenario 5 - PD 3 SENY Deactivation

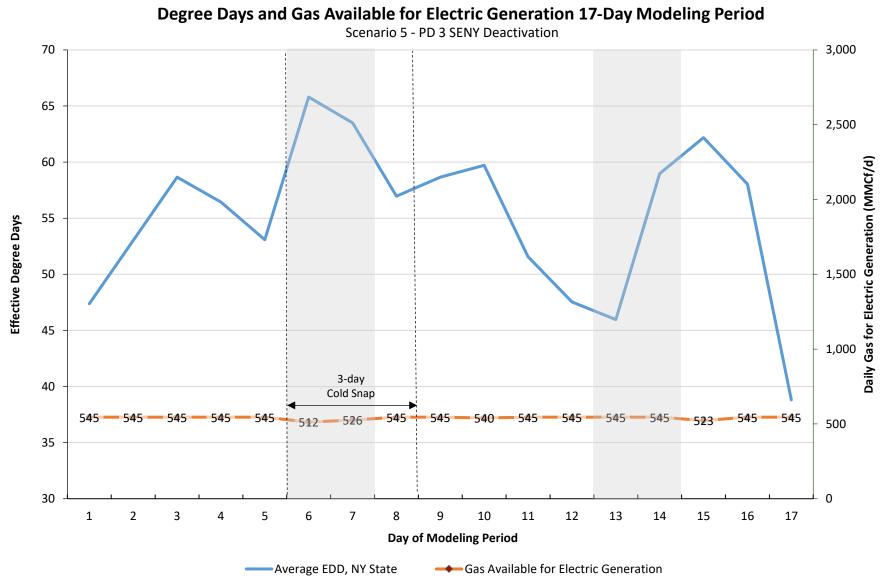






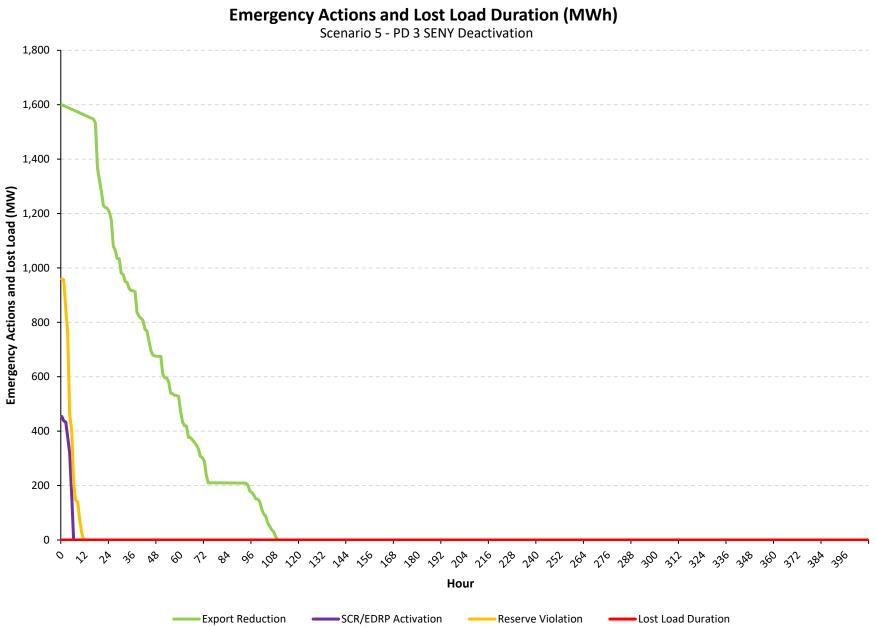
Zones A-E Zone F Zones G-I Zone J Zone K

NYCA

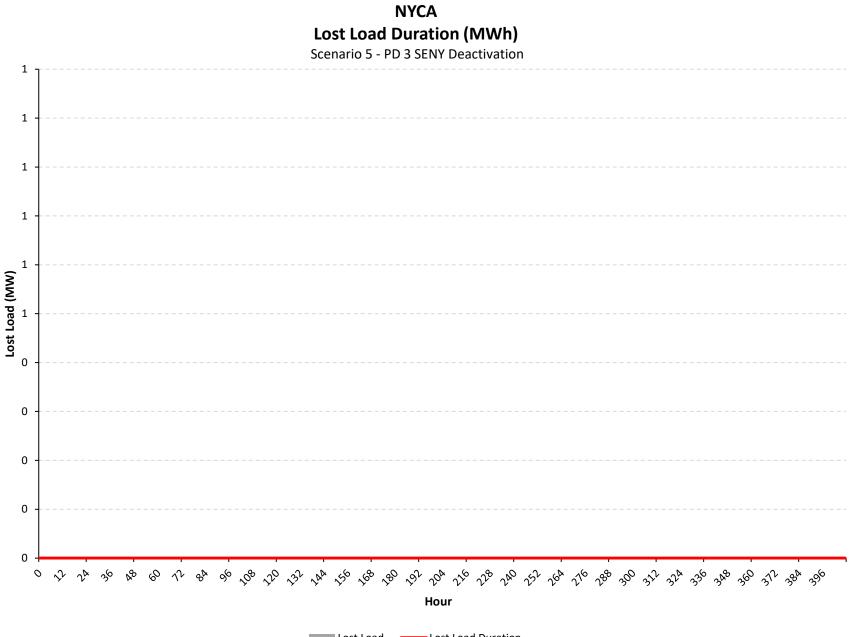


Notes:

[1] Weekends are shaded in gray.

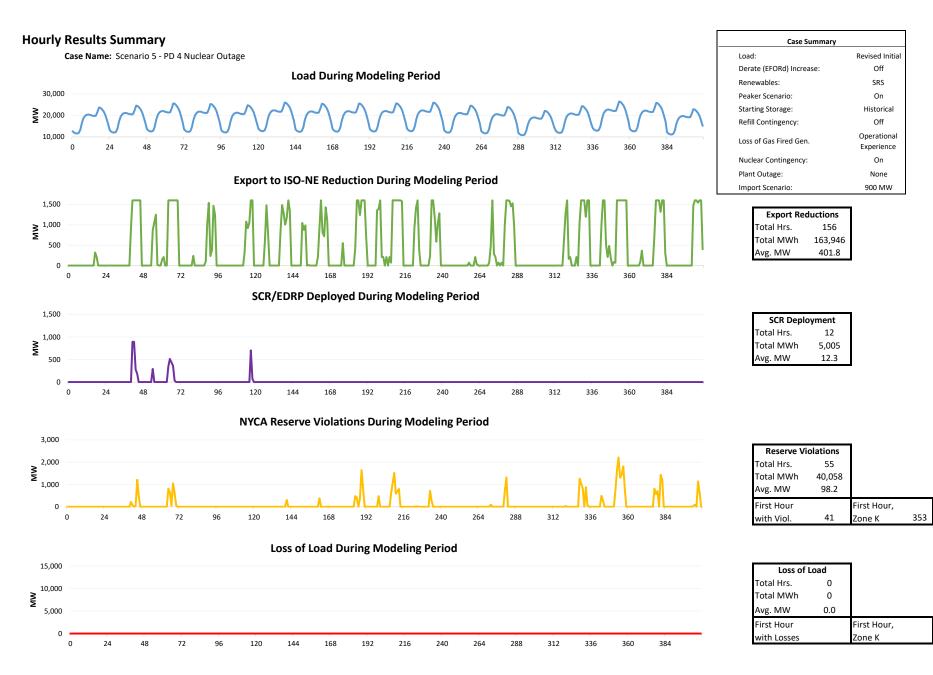


NYCA



Lost Load — Lost Load Duration

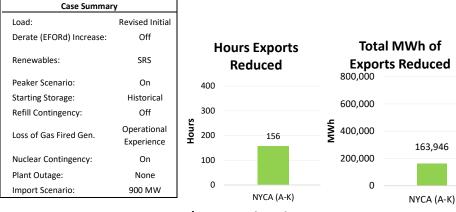
Case: Scenario 5 - PD 4 Nuclear Outage



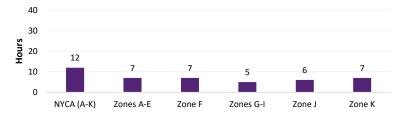
₹

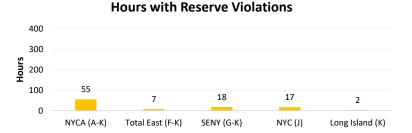
Full Period Results Summary



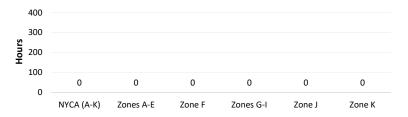


Hours SCR/EDRP Deployed

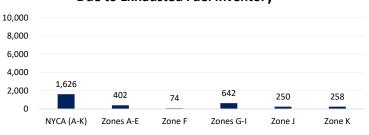




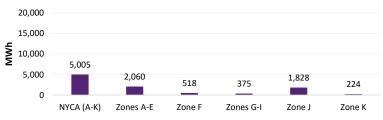
Hours with Loss of Load



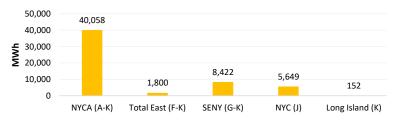
Average Capacity Not Available Due to Exhausted Fuel Inventory



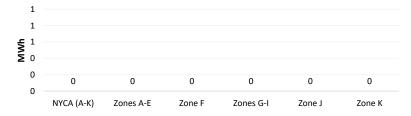
Total MWh SCR/EDRP Deployed



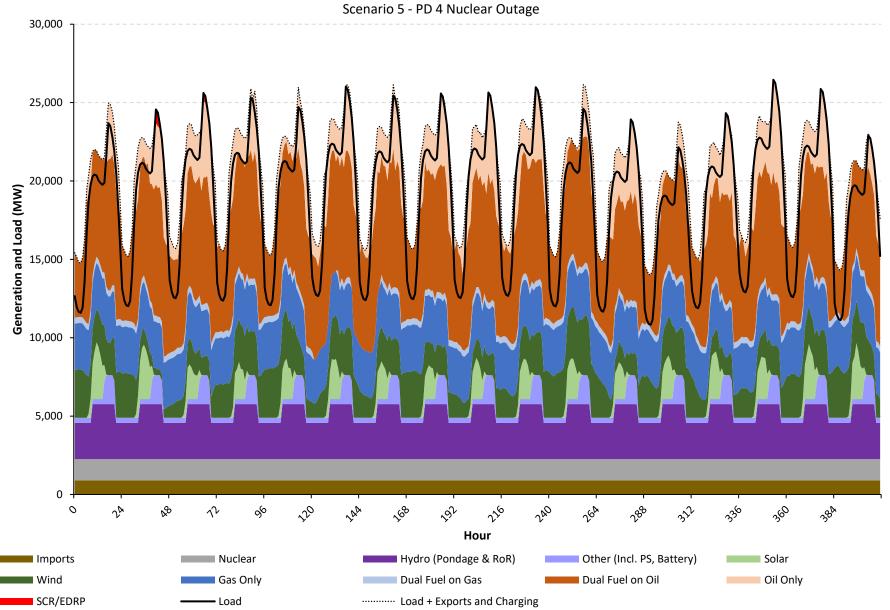
Total MWh of Reserve Violations

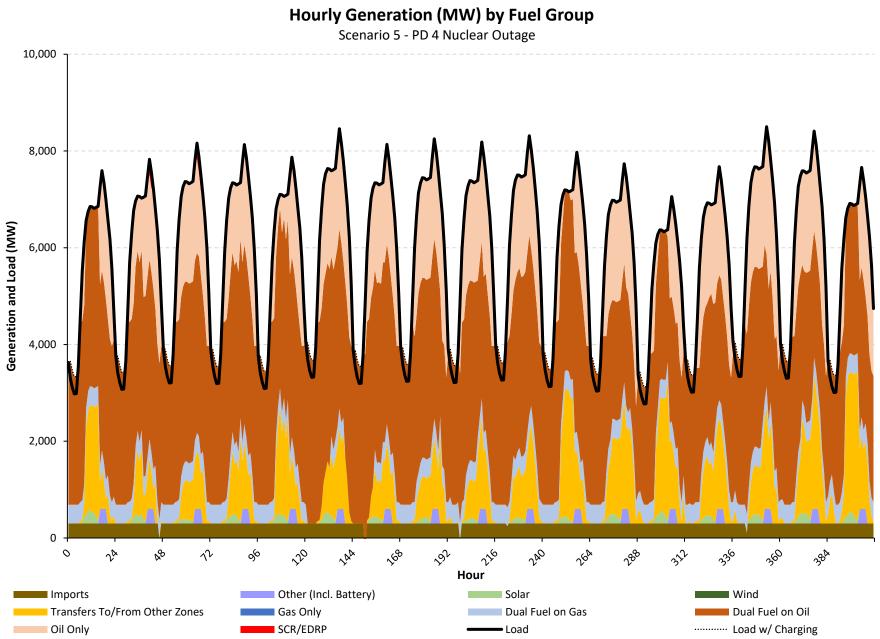


Total MWh of Lost Load



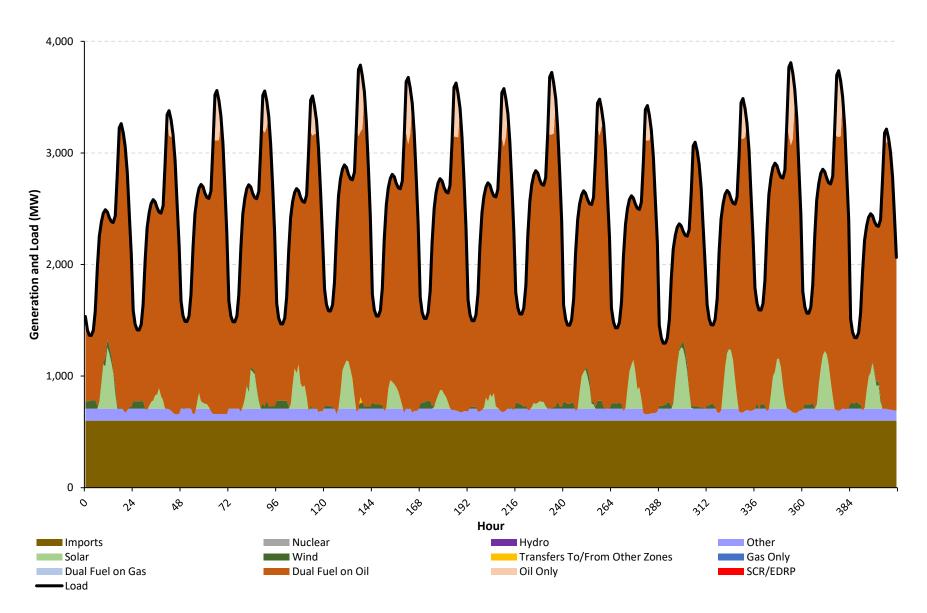
NYCA Hourly Generation (MWh) by Fuel Group



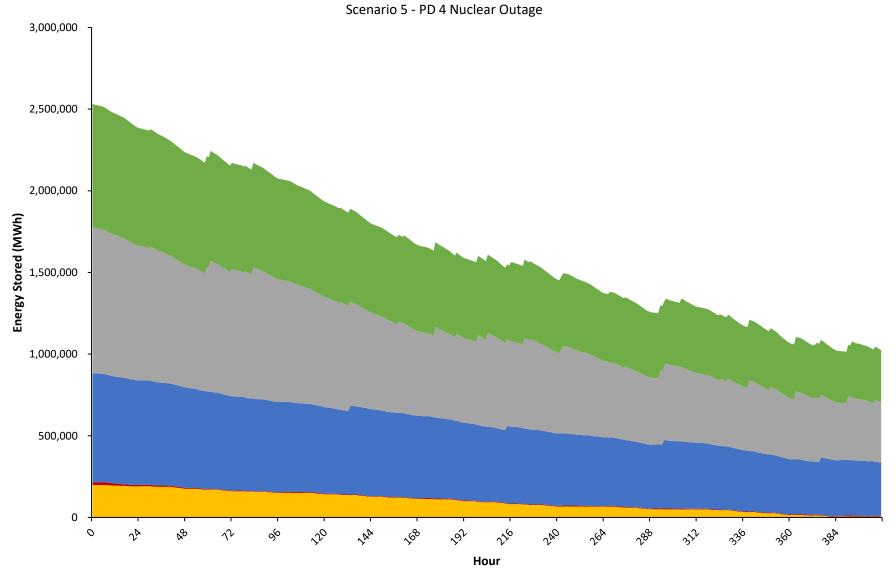


Zone K Hourly Generation (MW) by Fuel Group

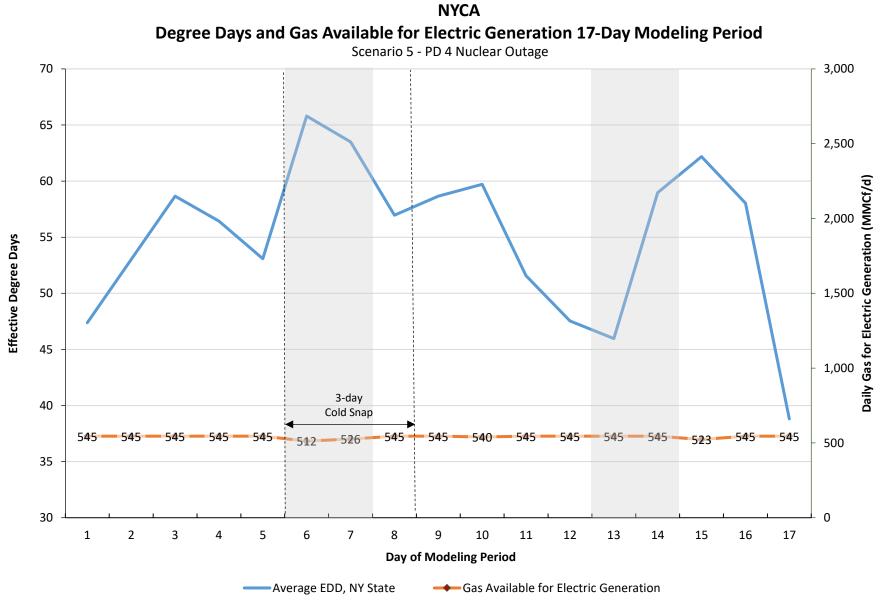
Scenario 5 - PD 4 Nuclear Outage





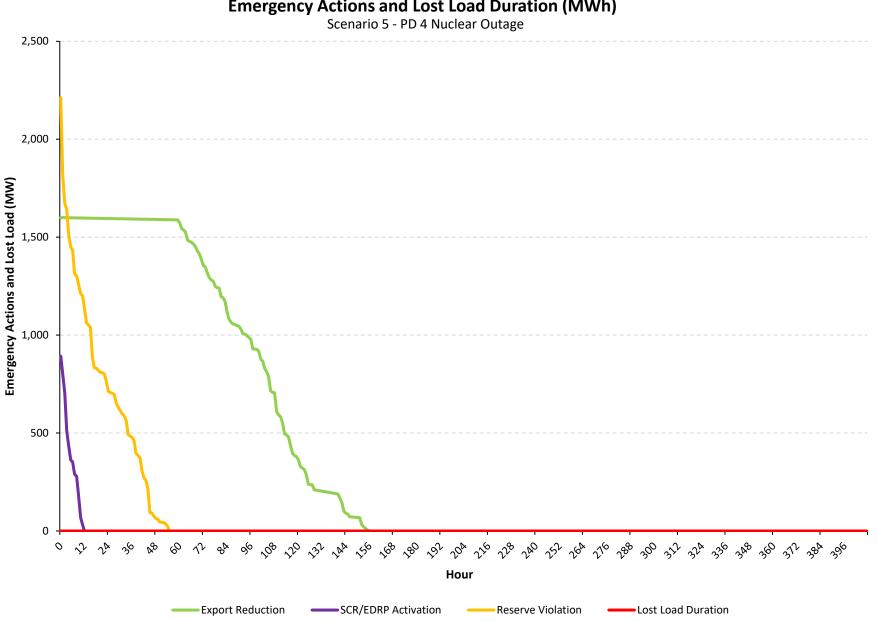


Zones A-E Zone F Zones G-I Zone J Zone K

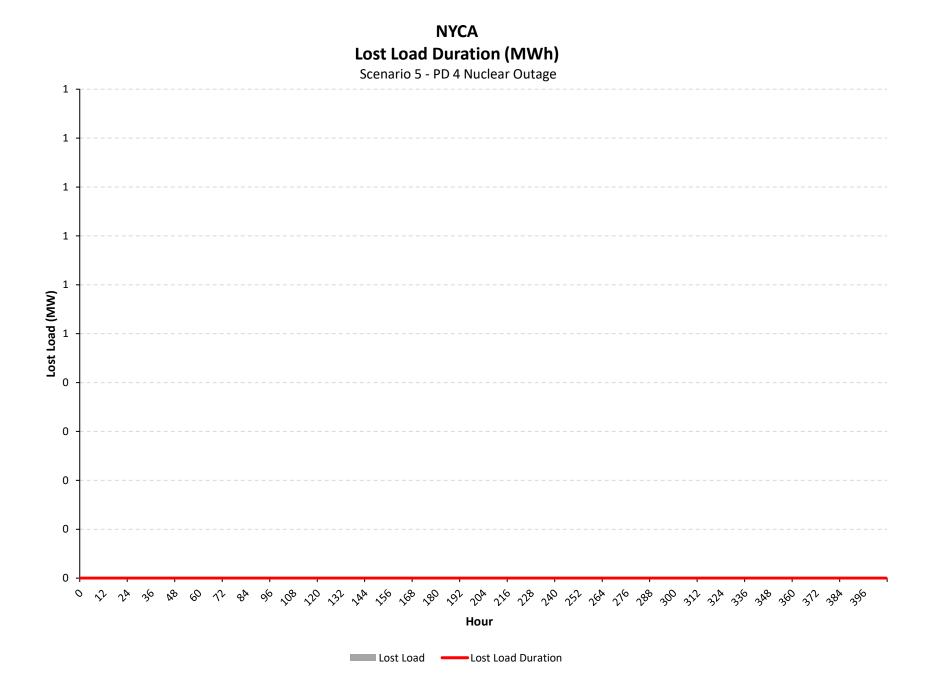


Notes:

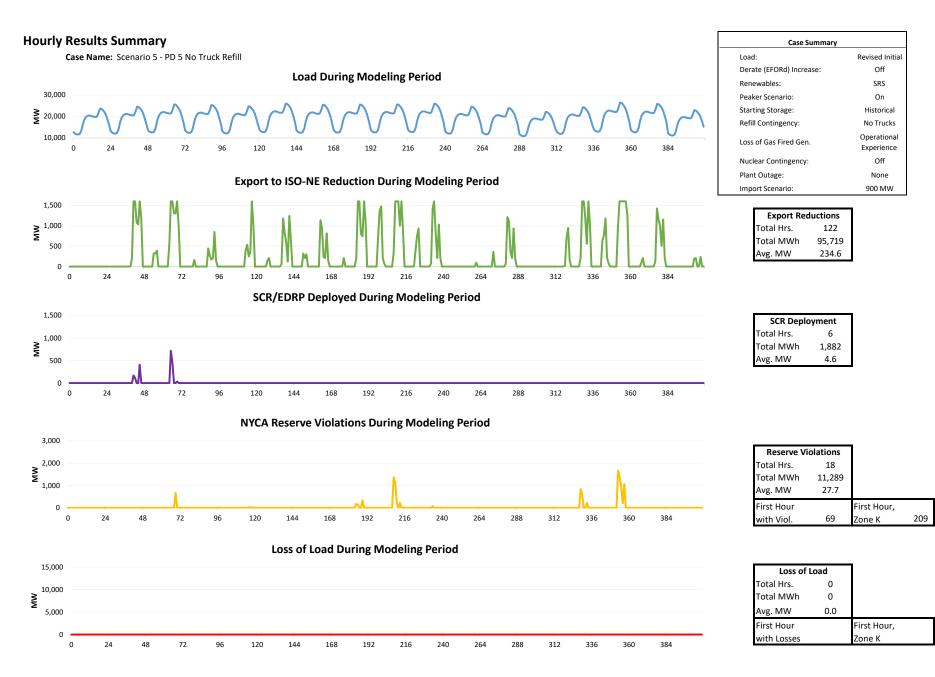
[1] Weekends are shaded in gray.



NYCA Emergency Actions and Lost Load Duration (MWh)



Case: Scenario 5 - PD 5 No Truck Refill



NYCA (A-K)

Zones A-E

Zone F

Zones G-I

698

Zone K

32

Zone K

1,074

Long Island (K)

170

Zone J

185

Zone J

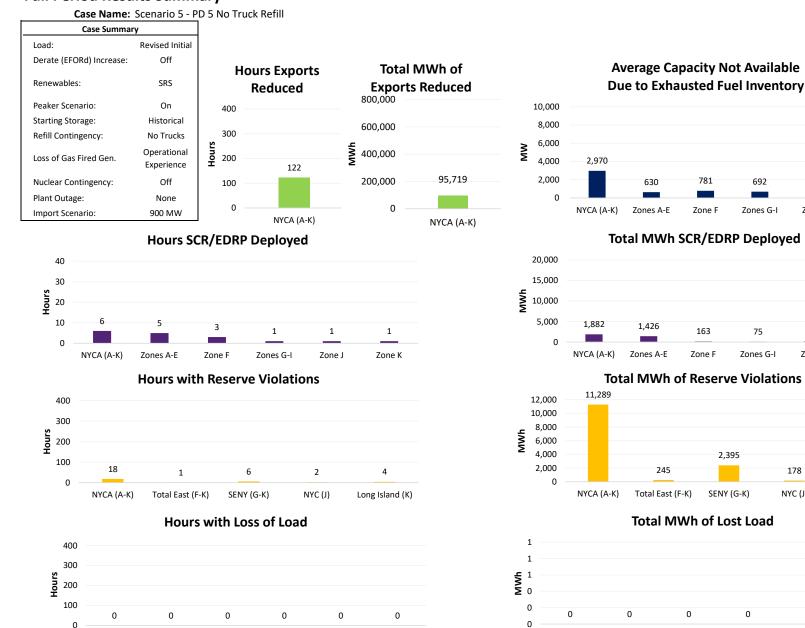
178

NYC (J)

0

Zone J

Full Period Results Summary



NYCA (A-K)

Zones A-E

Zone F

Zones G-I

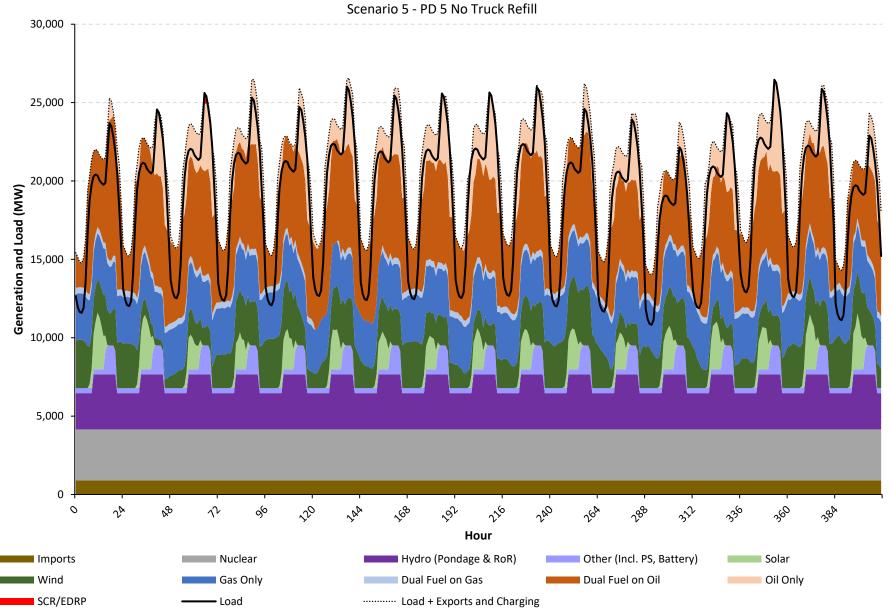
Zone J

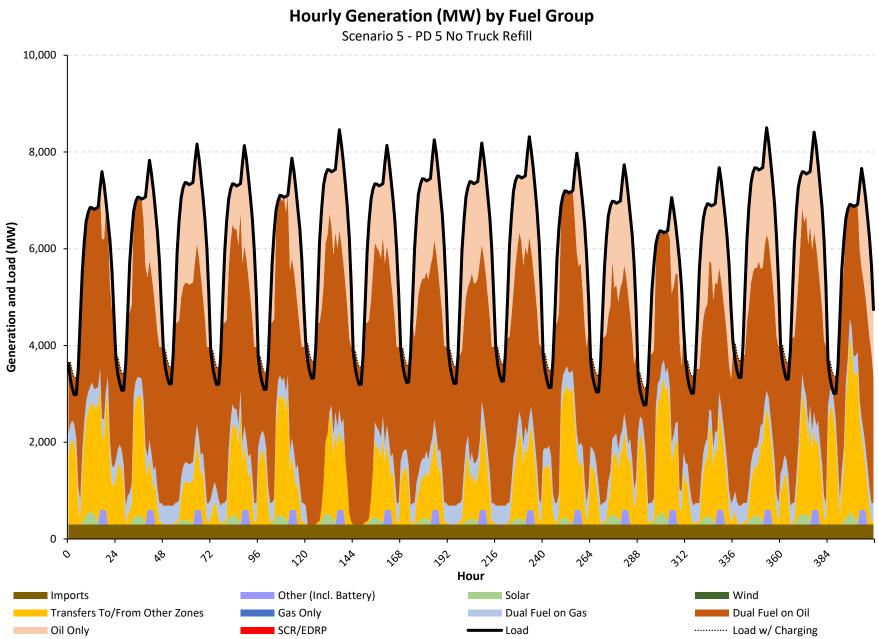
Zone K

0

Zone K

NYCA Hourly Generation (MWh) by Fuel Group

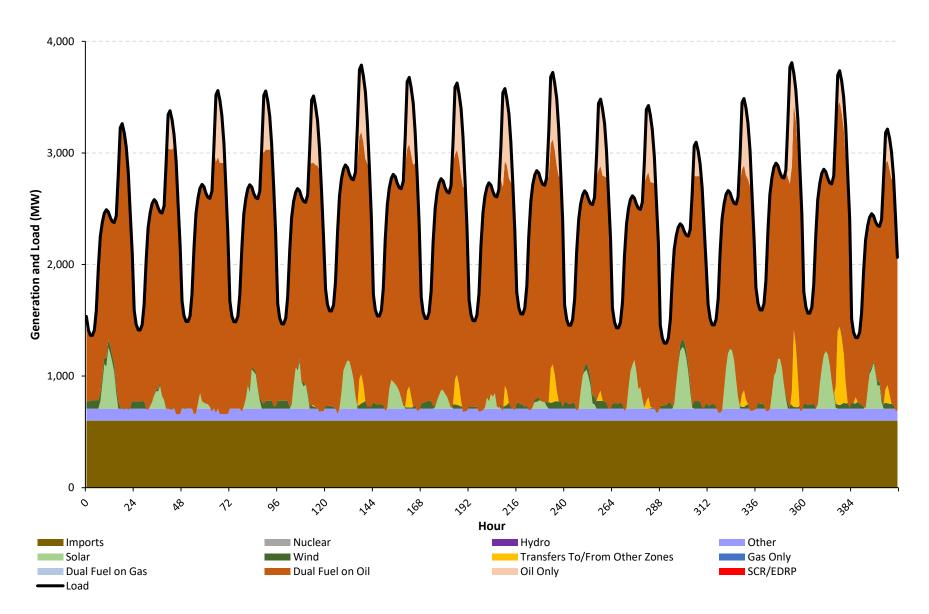




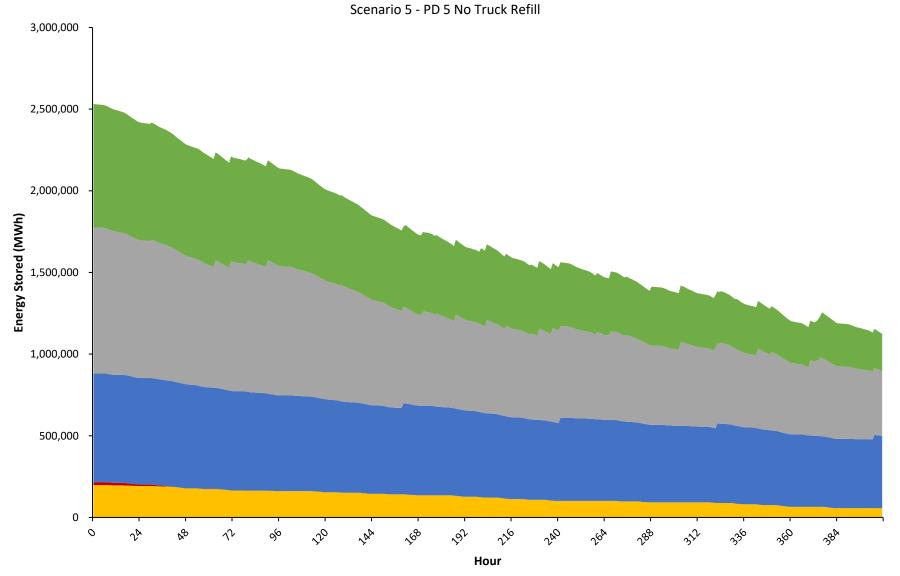
Zone J

Zone K Hourly Generation (MW) by Fuel Group

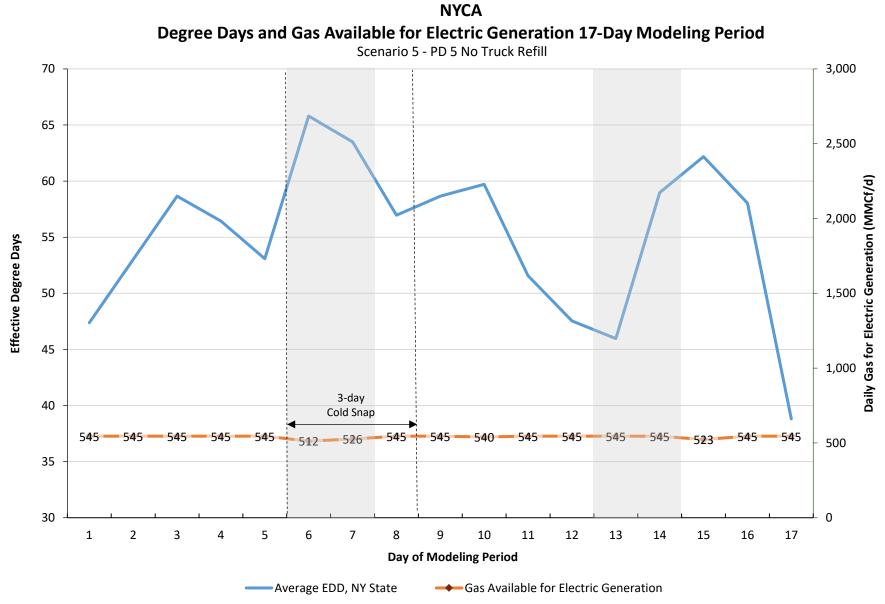
Scenario 5 - PD 5 No Truck Refill





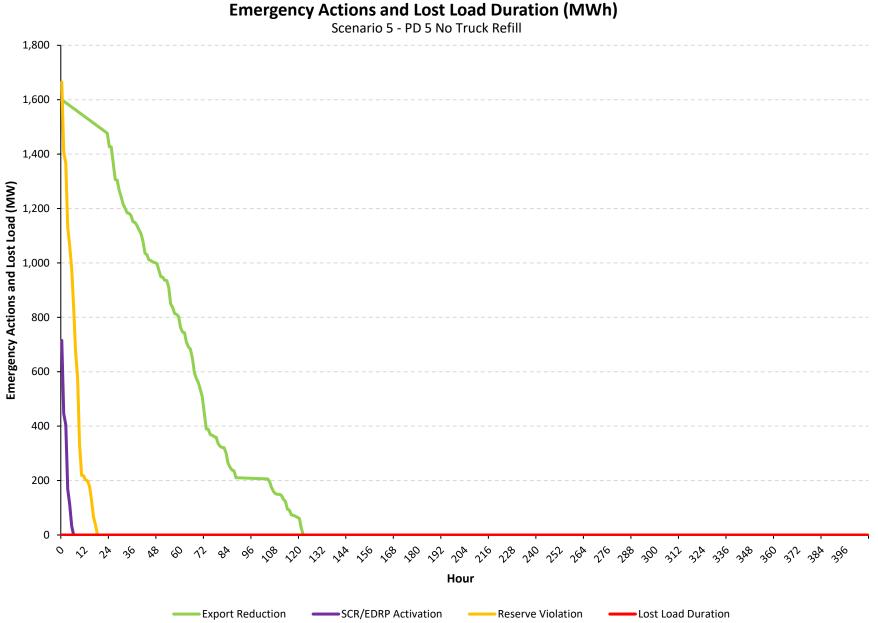


Zones A-E Zone F Zones G-I Zone J Zone K

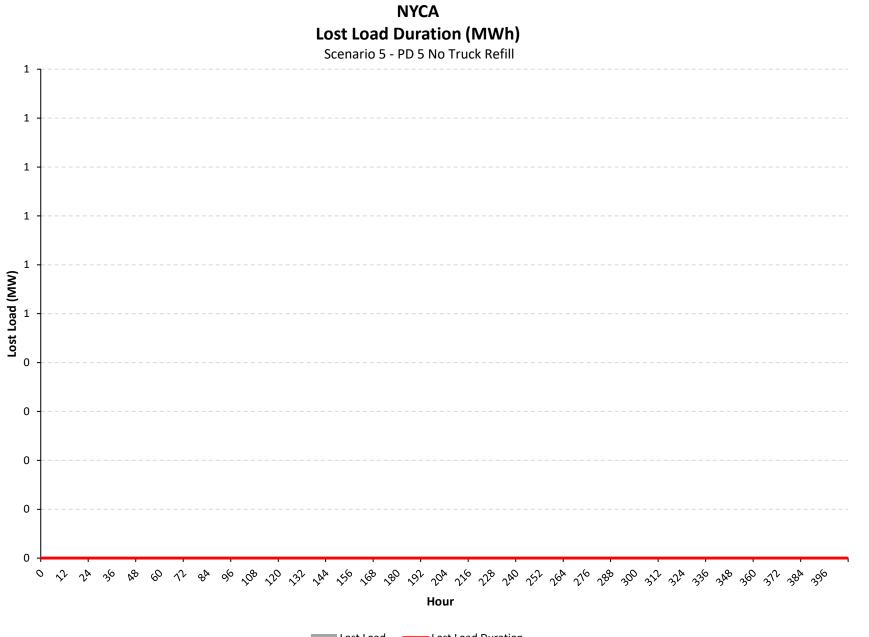


Notes:

[1] Weekends are shaded in gray.

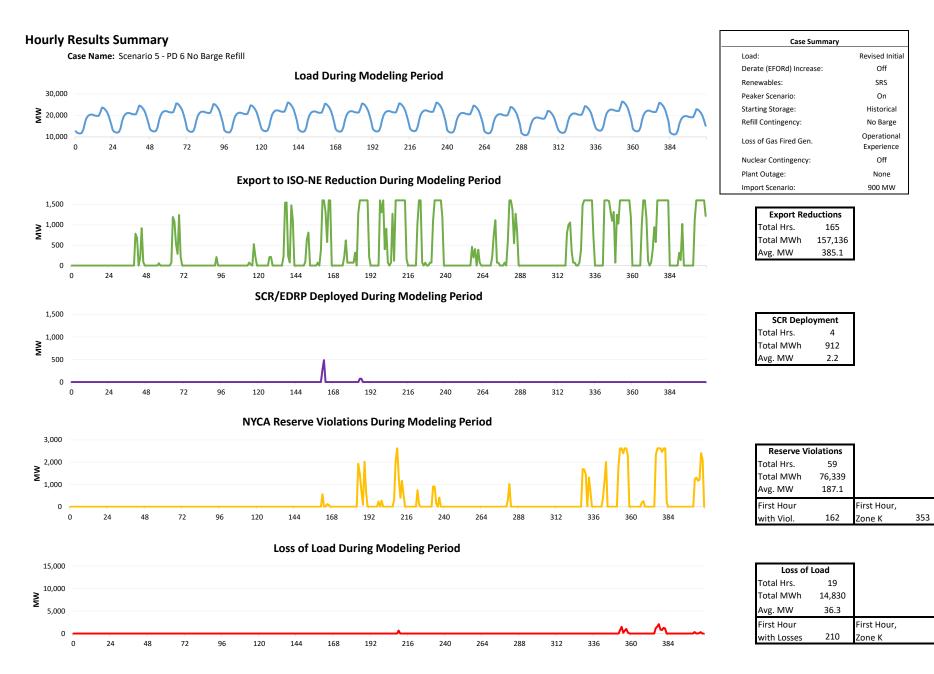


NYCA Emergency Actions and Lost Load Duration (MWh)



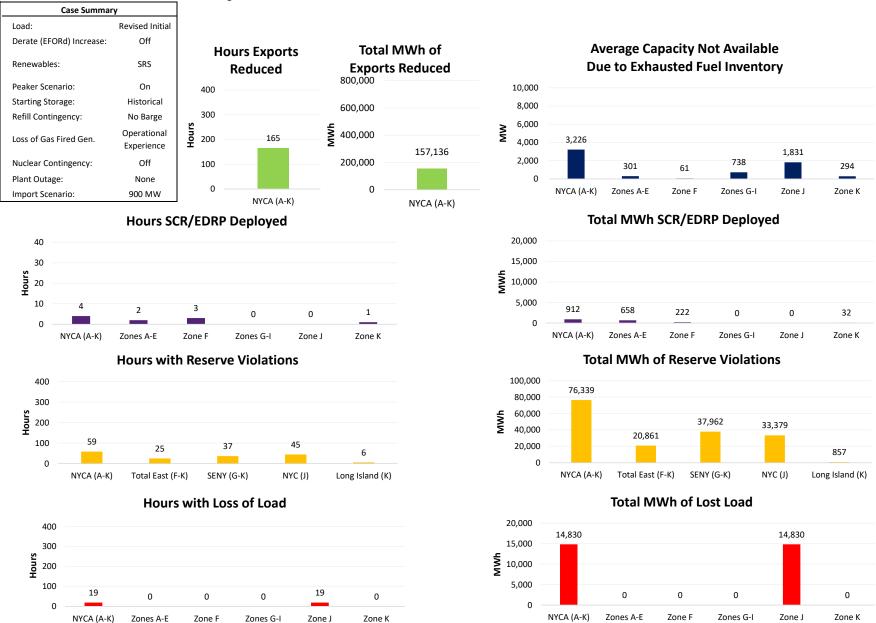
Lost Load —Lost Load Duration

Case: Scenario 5 - PD 6 No Barge Refill

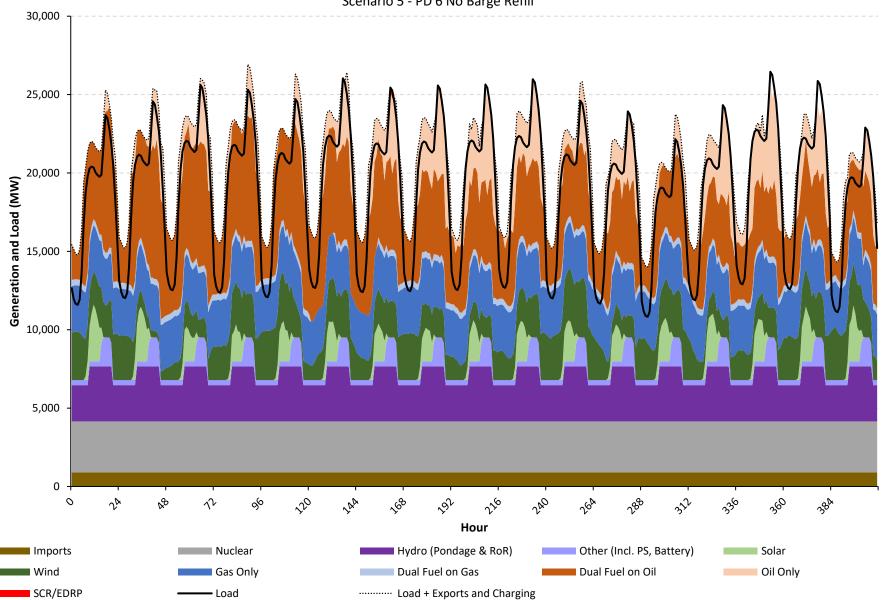


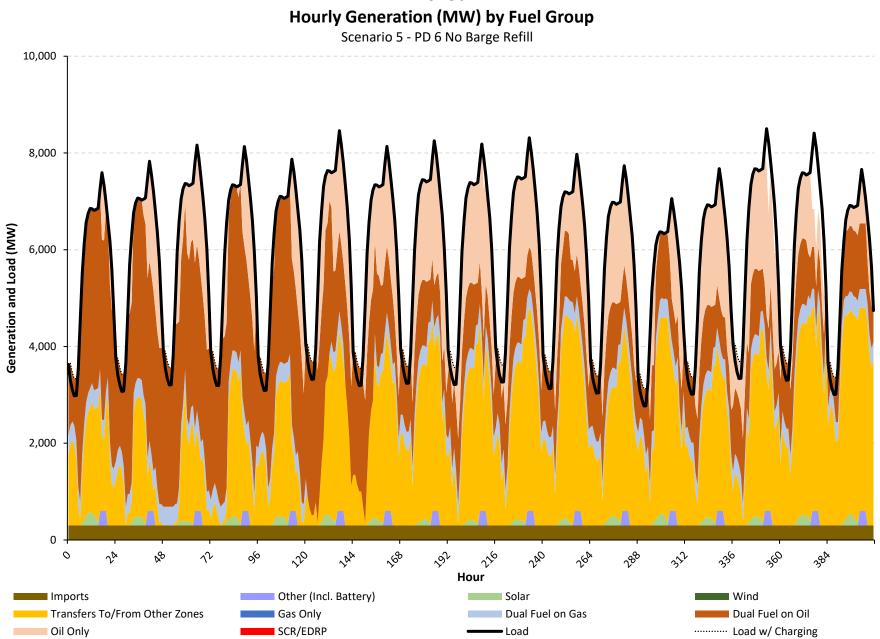
Full Period Results Summary





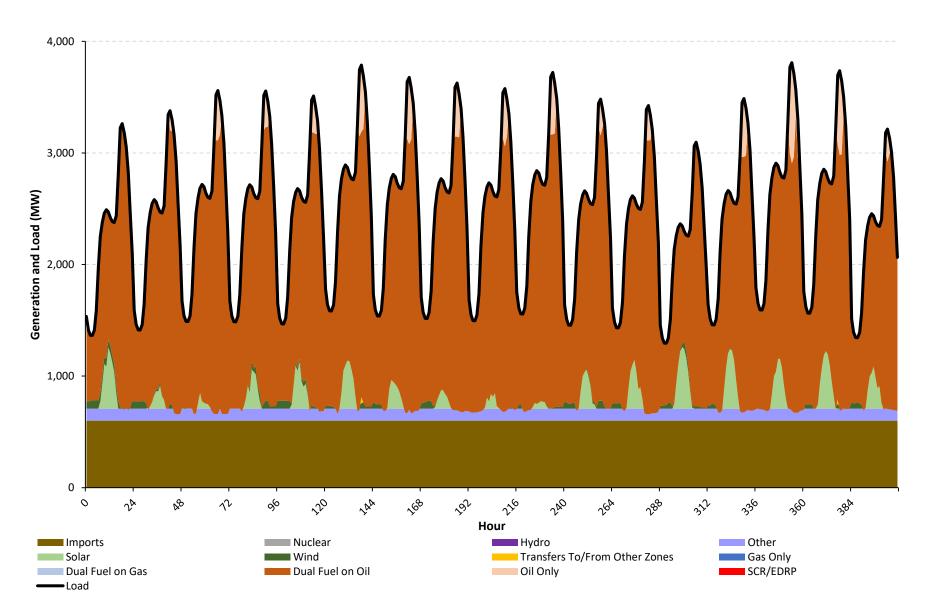
NYCA Hourly Generation (MWh) by Fuel Group Scenario 5 - PD 6 No Barge Refill



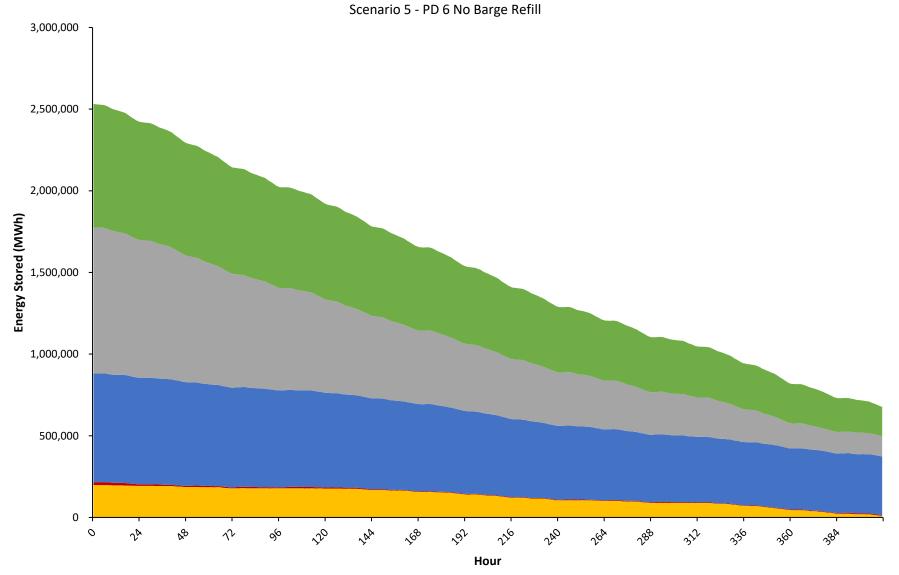


Zone K Hourly Generation (MW) by Fuel Group

Scenario 5 - PD 6 No Barge Refill

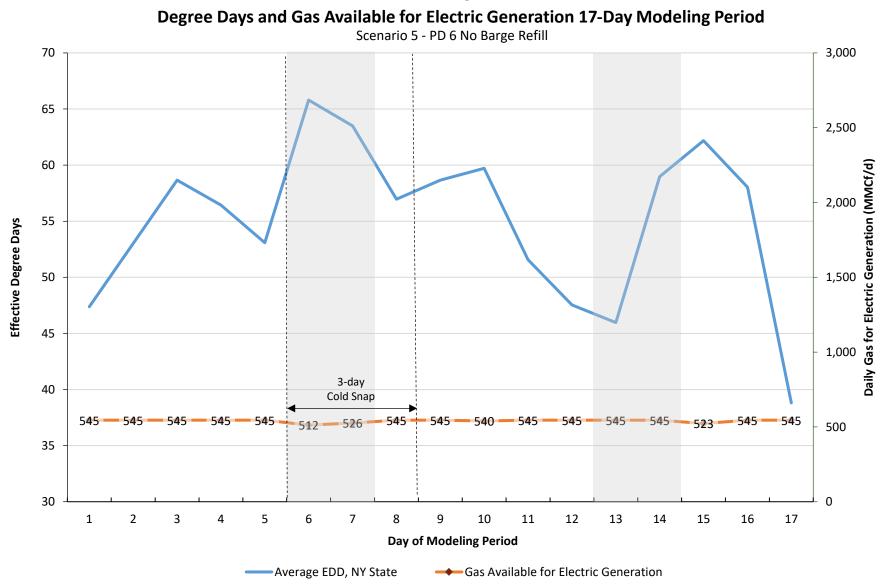






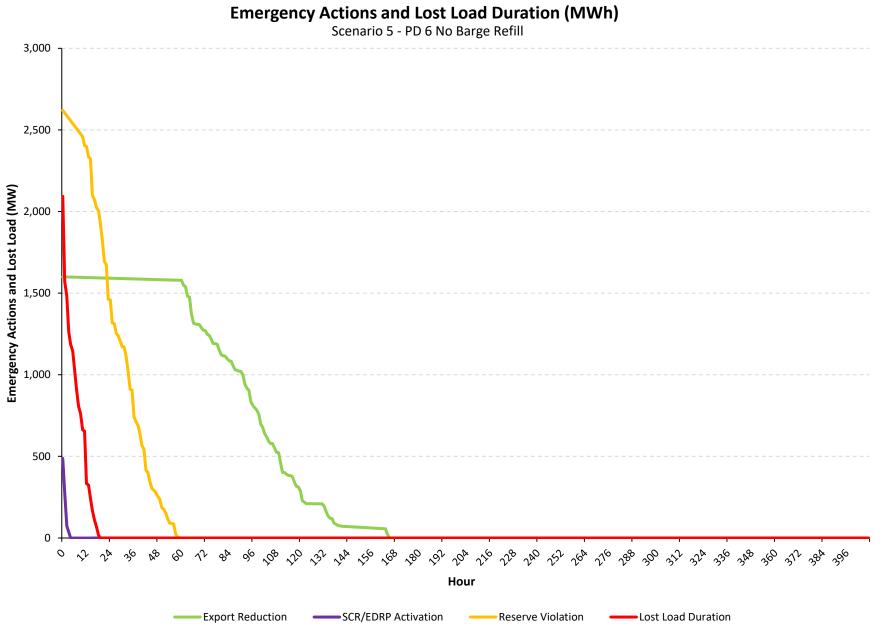
Zones A-E Zone F Zones G-I Zone J Zone K

NYCA

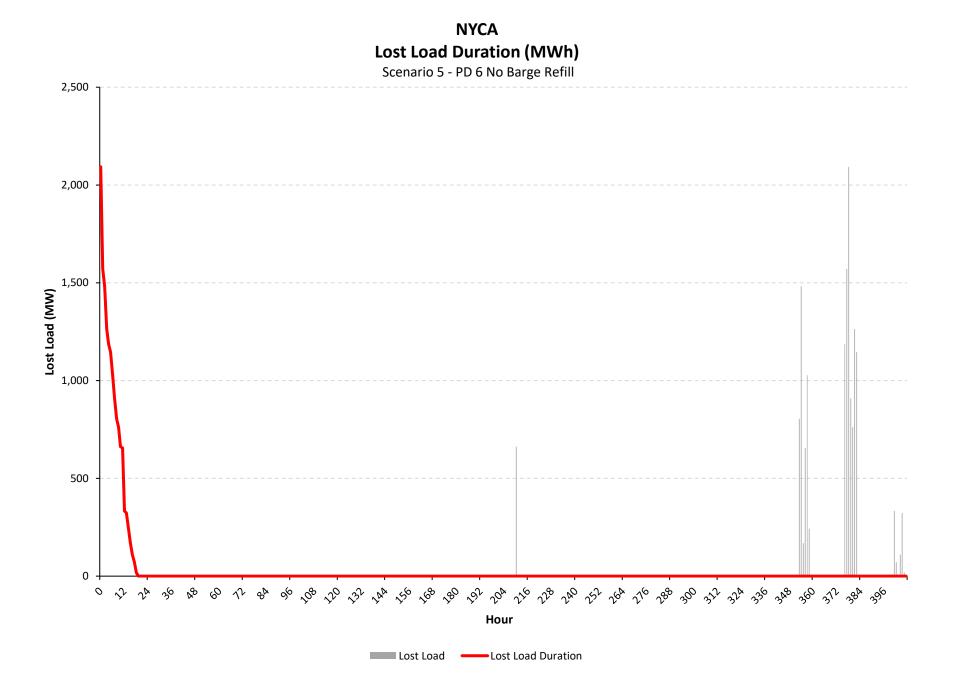


Notes:

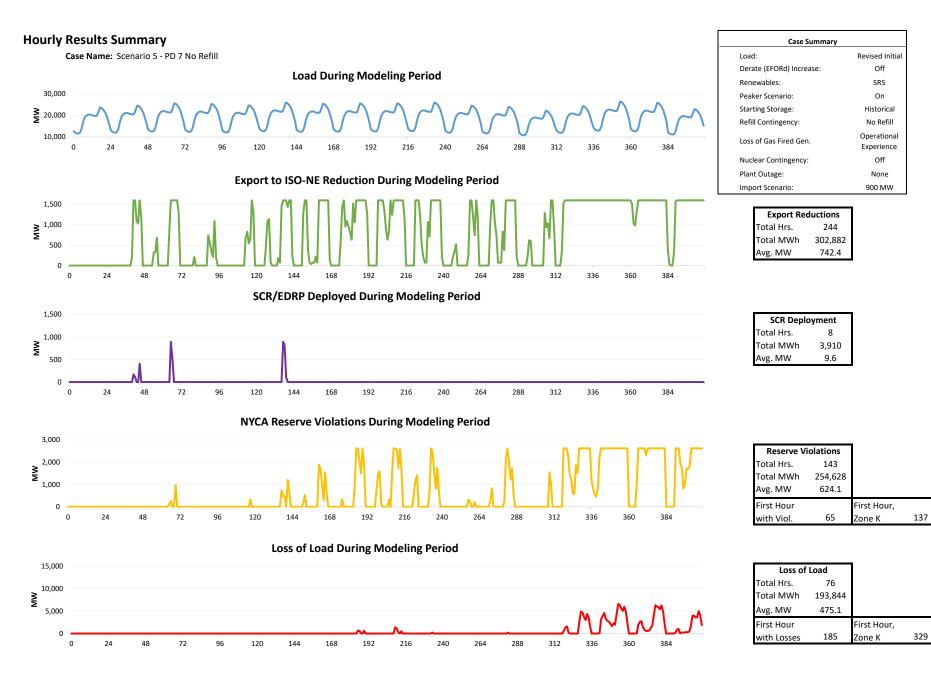
[1] Weekends are shaded in gray.



NYCA



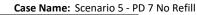
Case: Scenario 5 - PD 7 No Refill

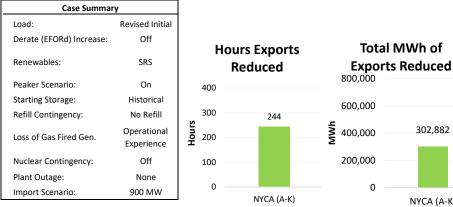


302,882

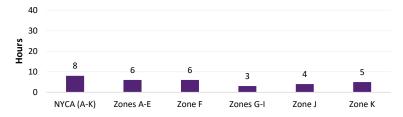
NYCA (A-K)

Full Period Results Summary





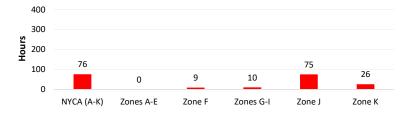
Hours SCR/EDRP Deployed



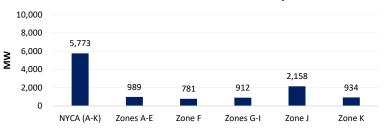




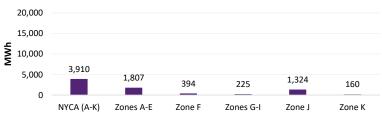




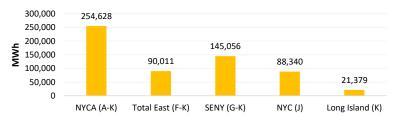
Average Capacity Not Available Due to Exhausted Fuel Inventory



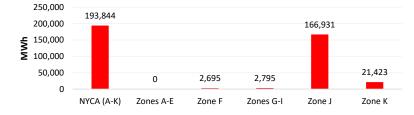
Total MWh SCR/EDRP Deployed

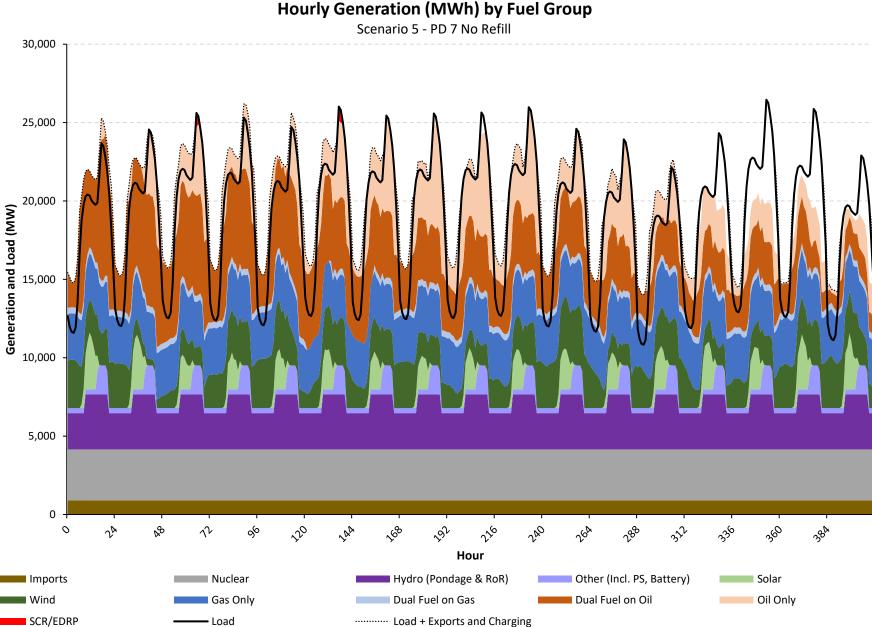


Total MWh of Reserve Violations

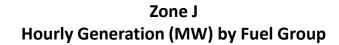


Total MWh of Lost Load

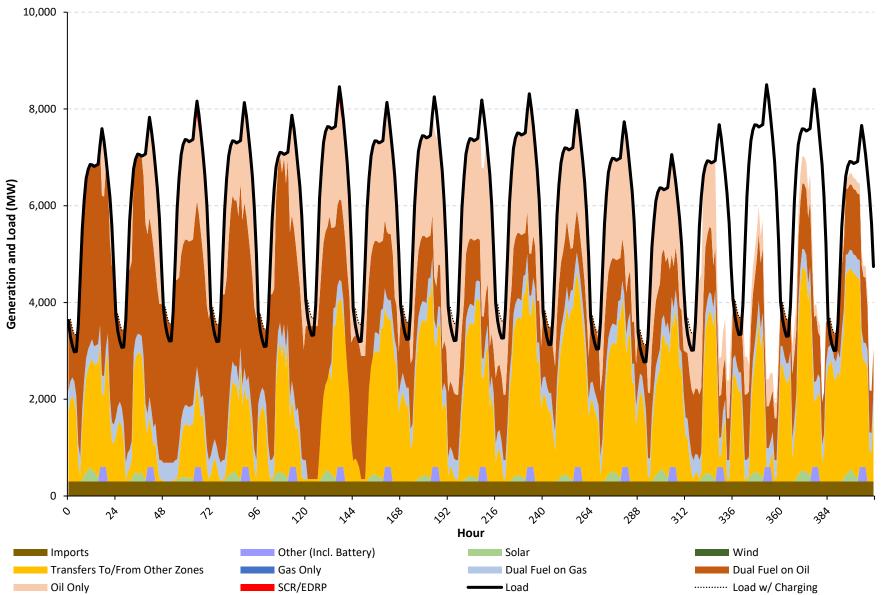




NYCA Hourly Generation (MWh) by Fuel Group

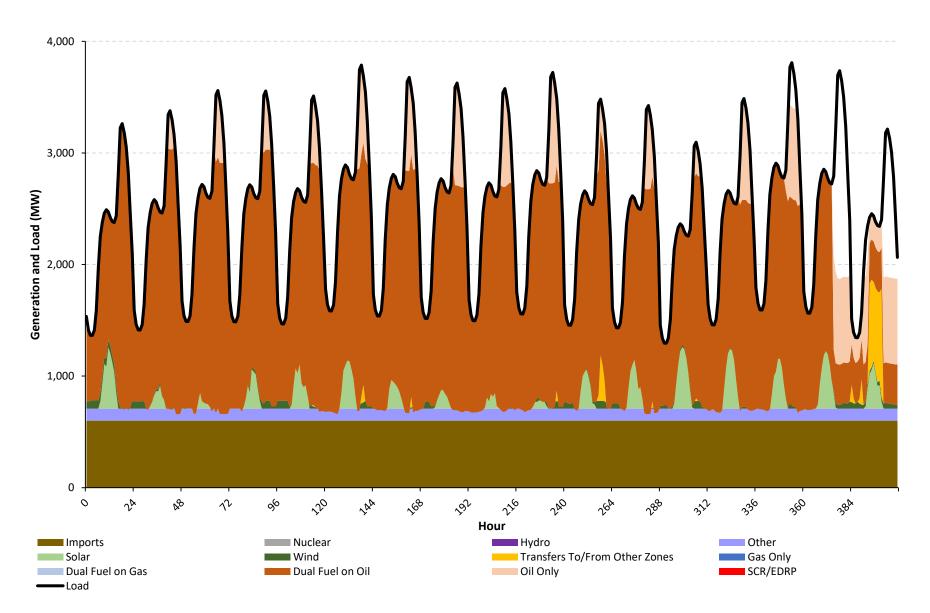


Scenario 5 - PD 7 No Refill



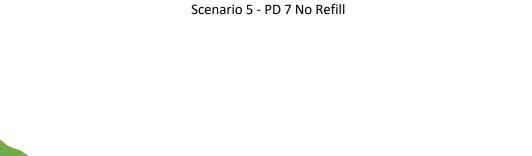
Zone K Hourly Generation (MW) by Fuel Group

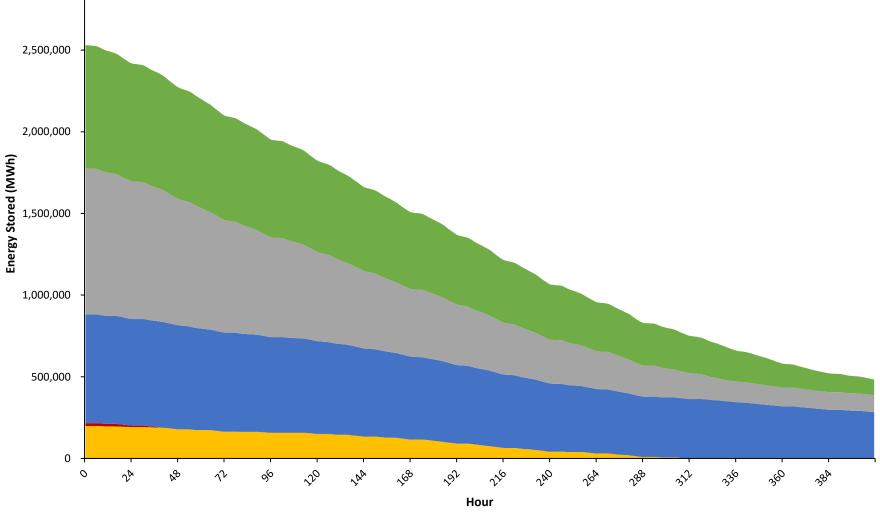
Scenario 5 - PD 7 No Refill



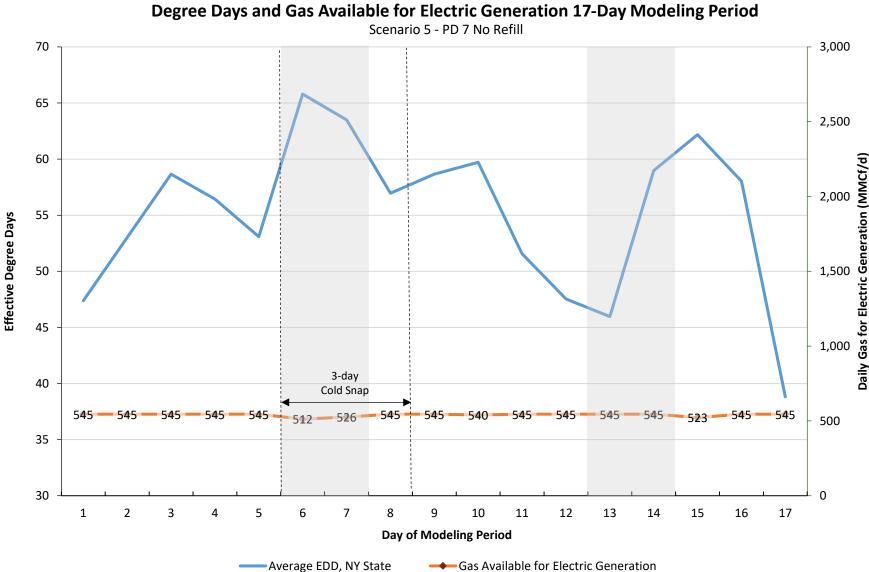
3,000,000







Zones A-E Zone F Zones G-I Zone J Zone K

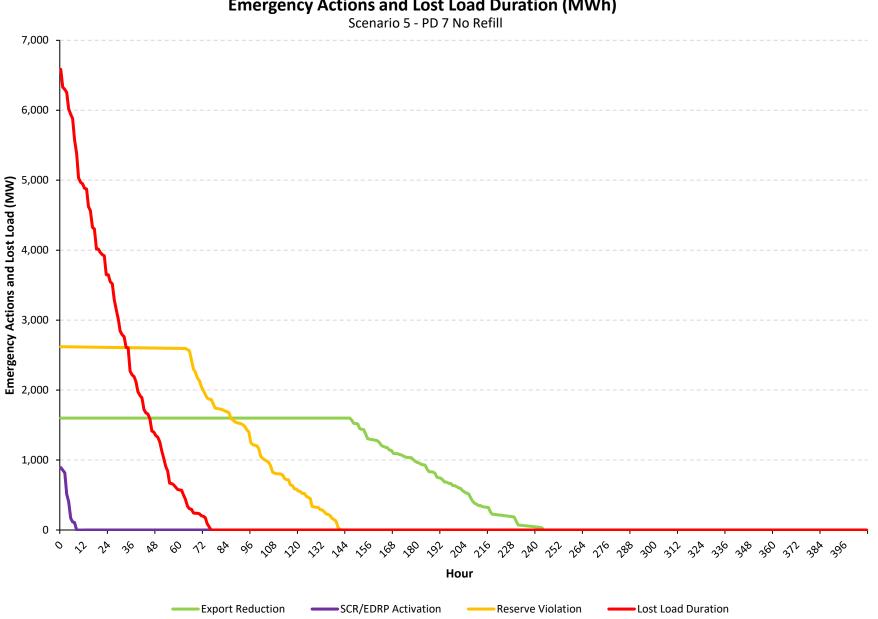


NYCA

Notes:

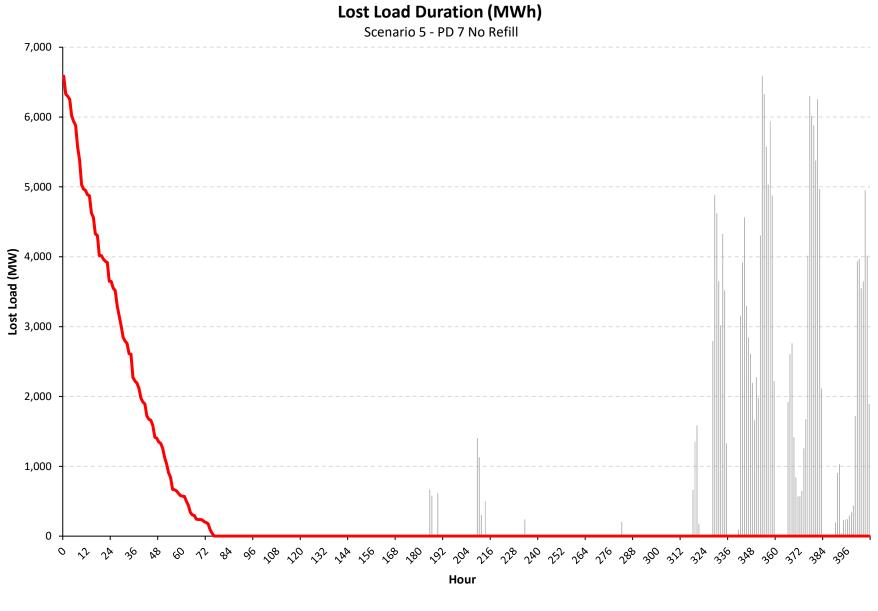
[1] Weekends are shaded in gray.

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



NYCA Emergency Actions and Lost Load Duration (MWh)

NYCA

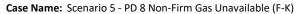


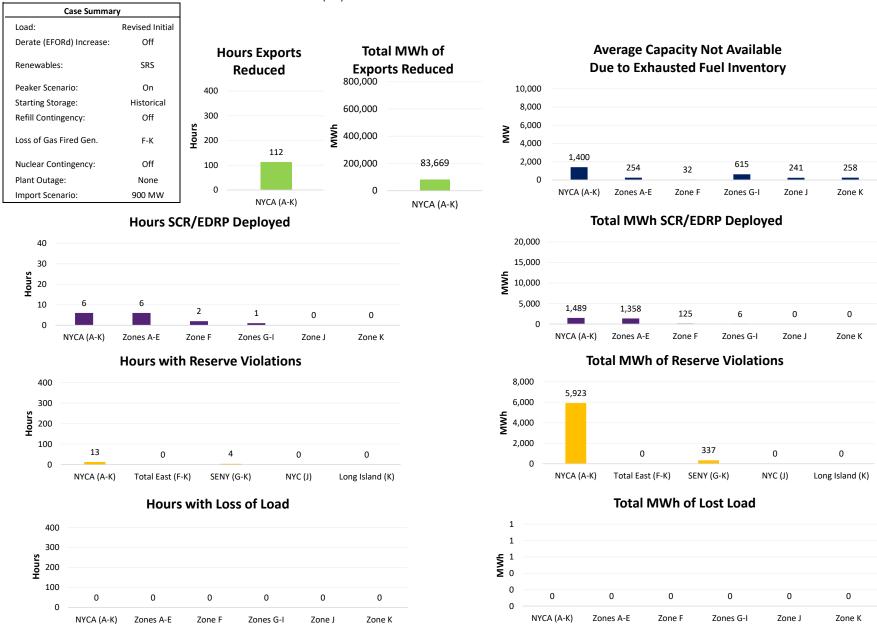
Lost Load Lost Load Duration

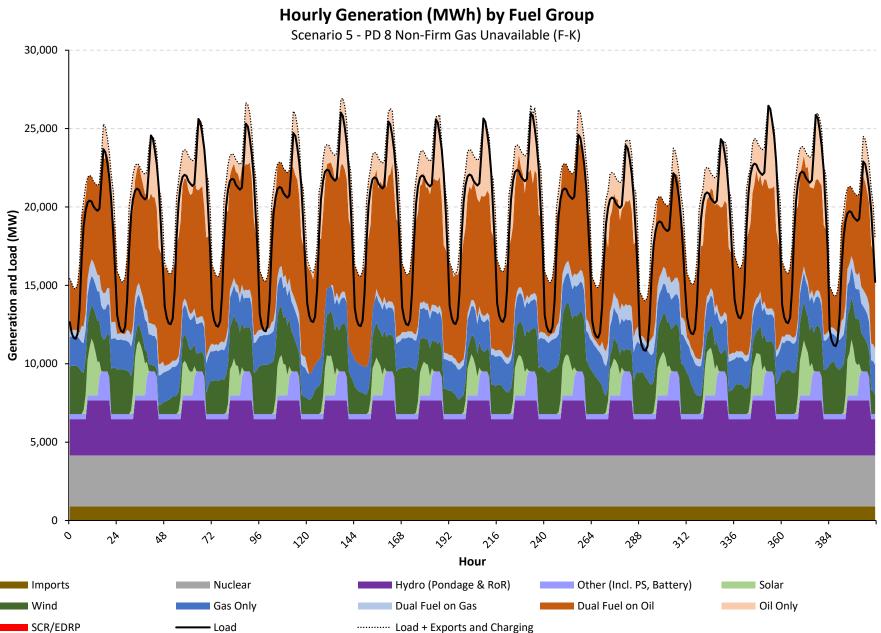
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 5 - PD 8 Non-Firm Gas Unavailable (F-K)



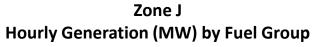
Full Period Results Summary



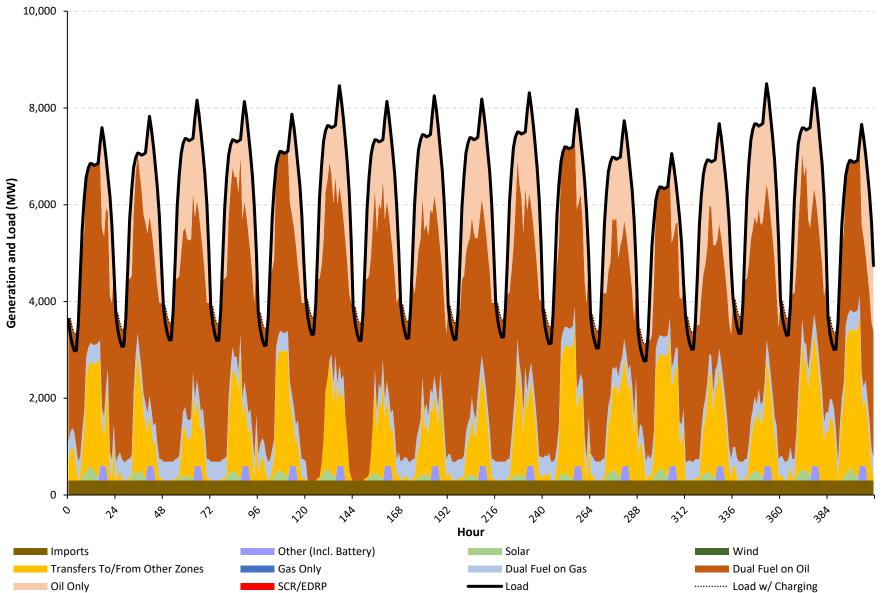




NYCA

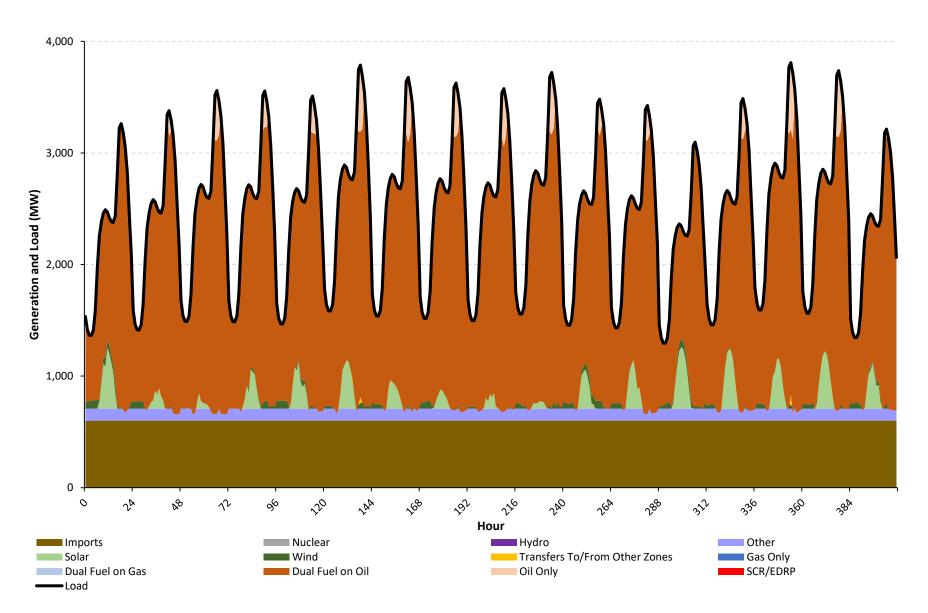


Scenario 5 - PD 8 Non-Firm Gas Unavailable (F-K)



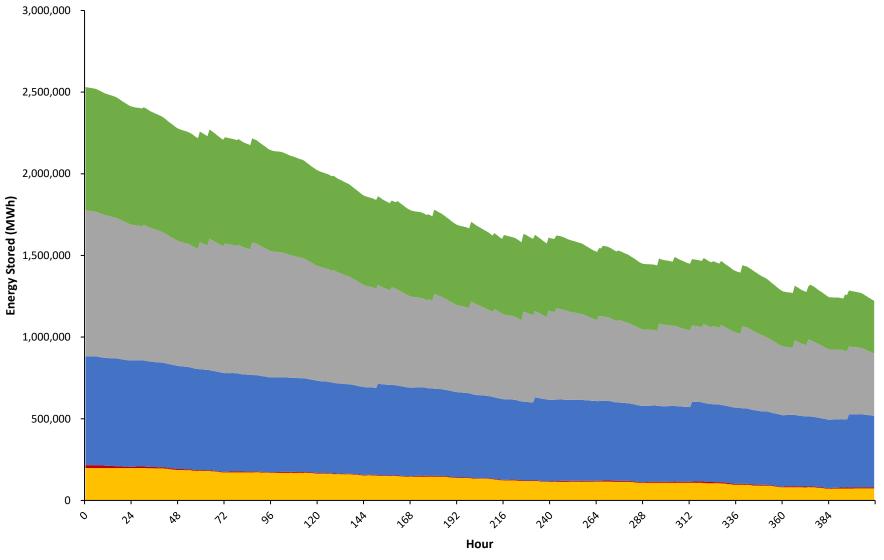
Zone K Hourly Generation (MW) by Fuel Group

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

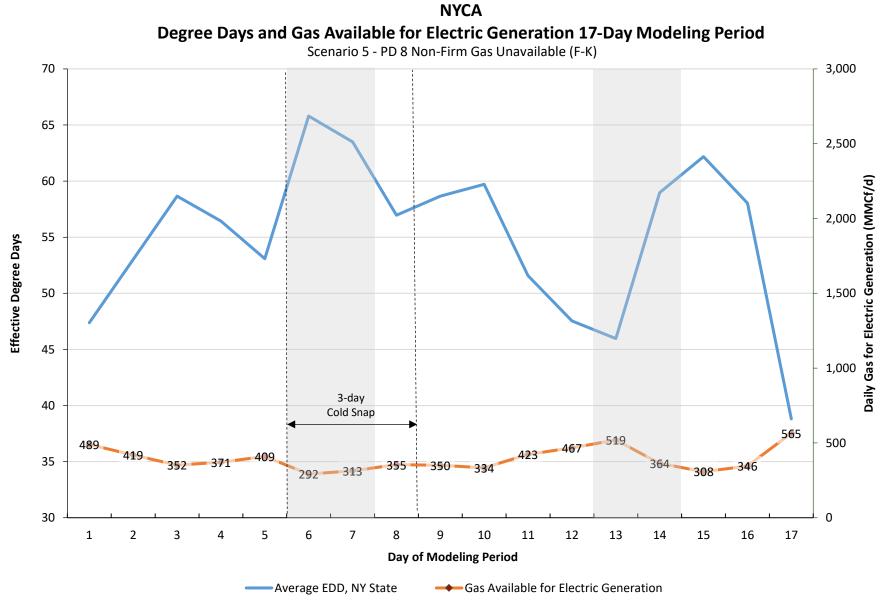




Scenario 5 - PD 8 Non-Firm Gas Unavailable (F-K)



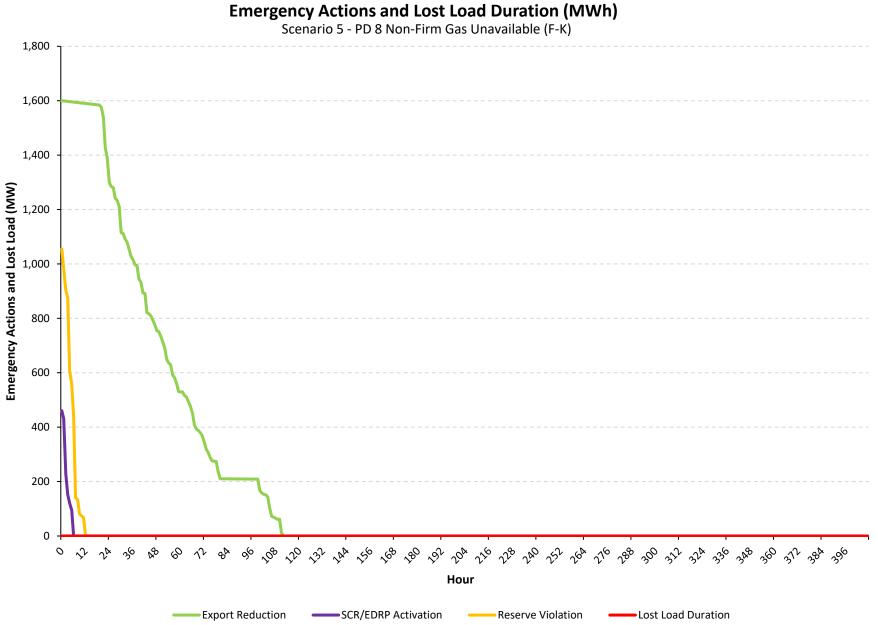
Zones A-E Zone F Zones G-I Zone J Zone K



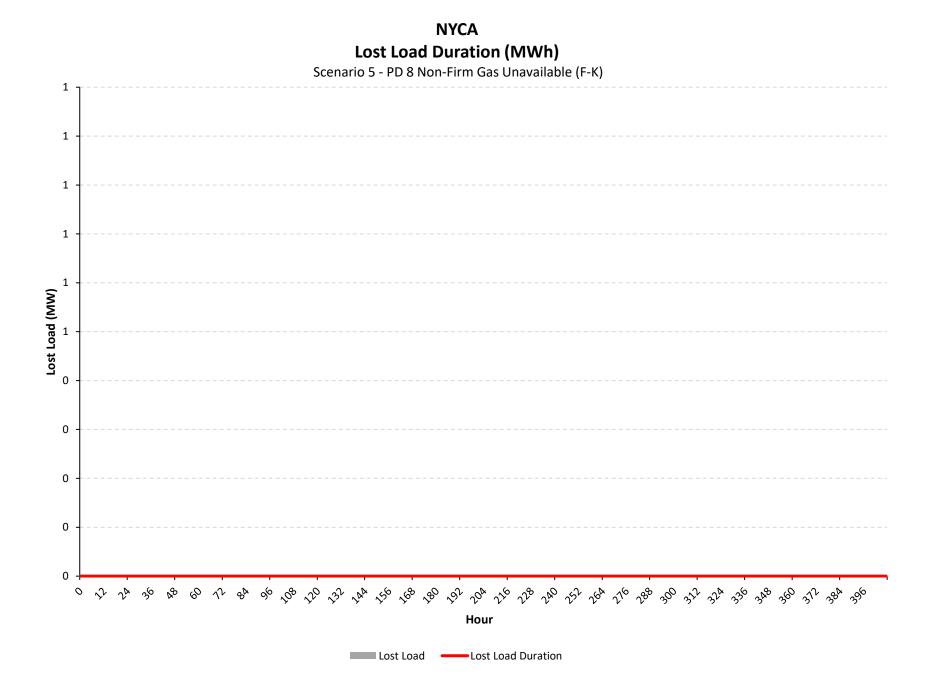
Notes:

[1] Weekends are shaded in gray.

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

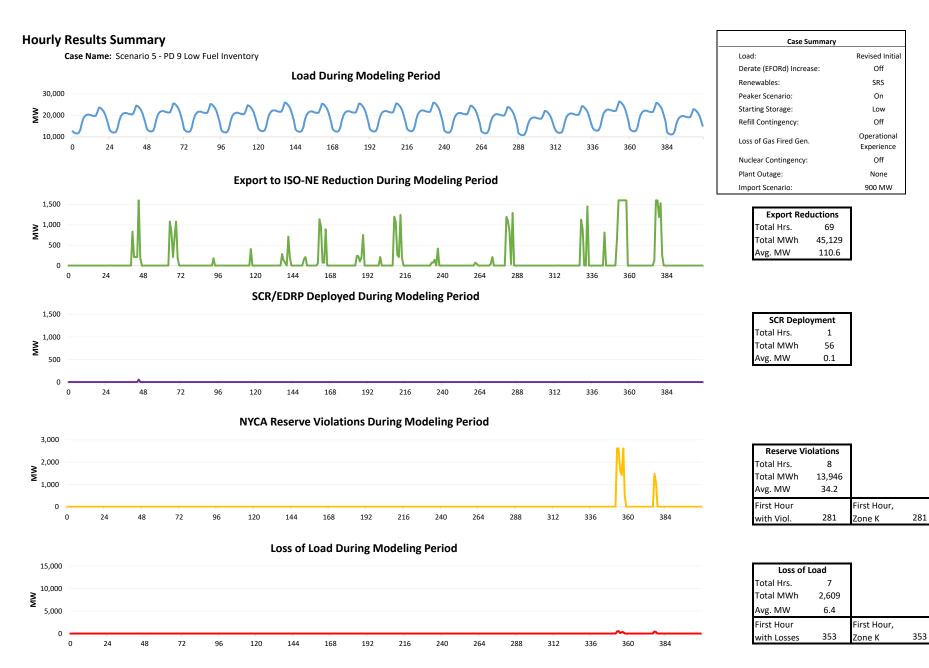


NYCA **Emergency Actions and Lost Load Duration (MWh)**

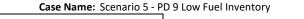


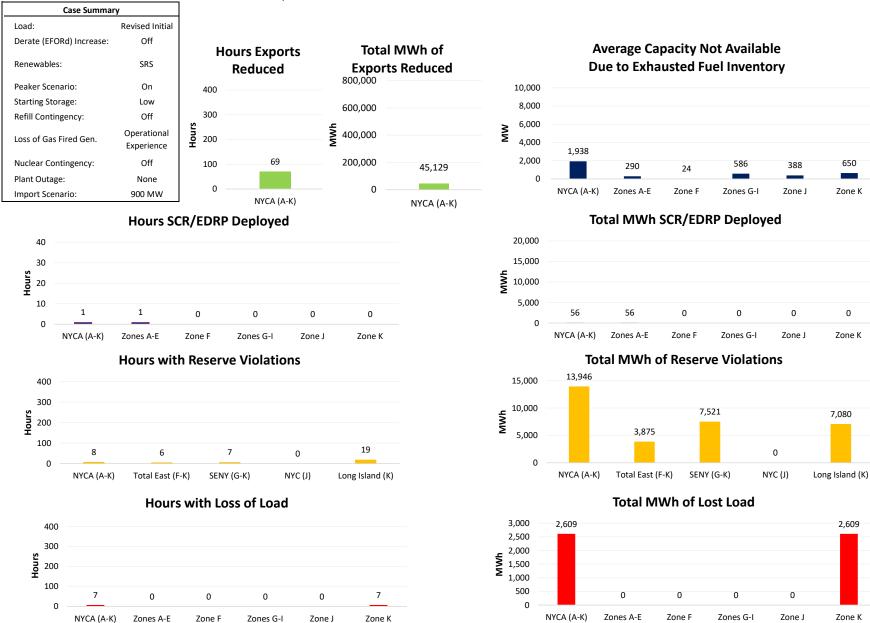
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

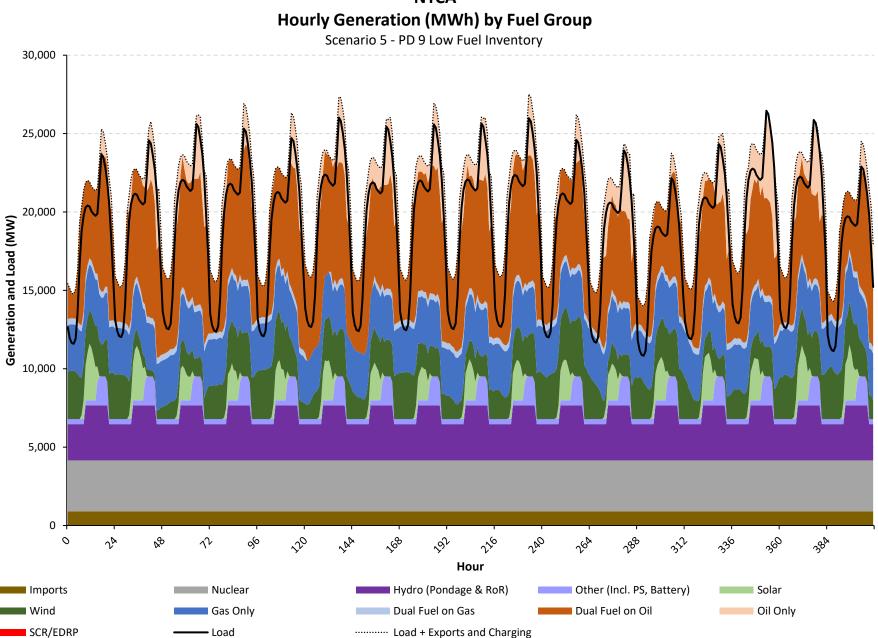
Case: Scenario 5 - PD 9 Low Fuel Inventory



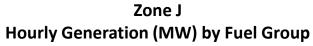
Full Period Results Summary



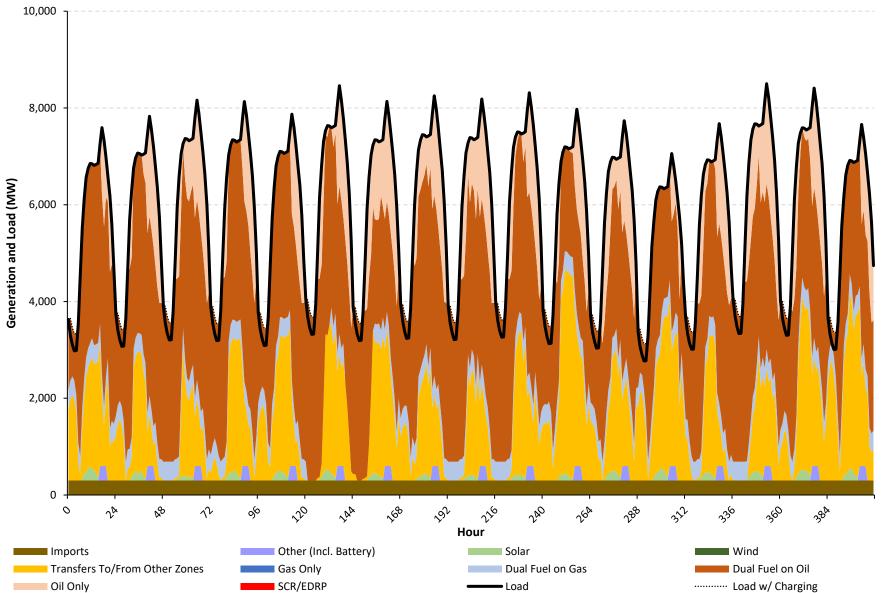




NYCA

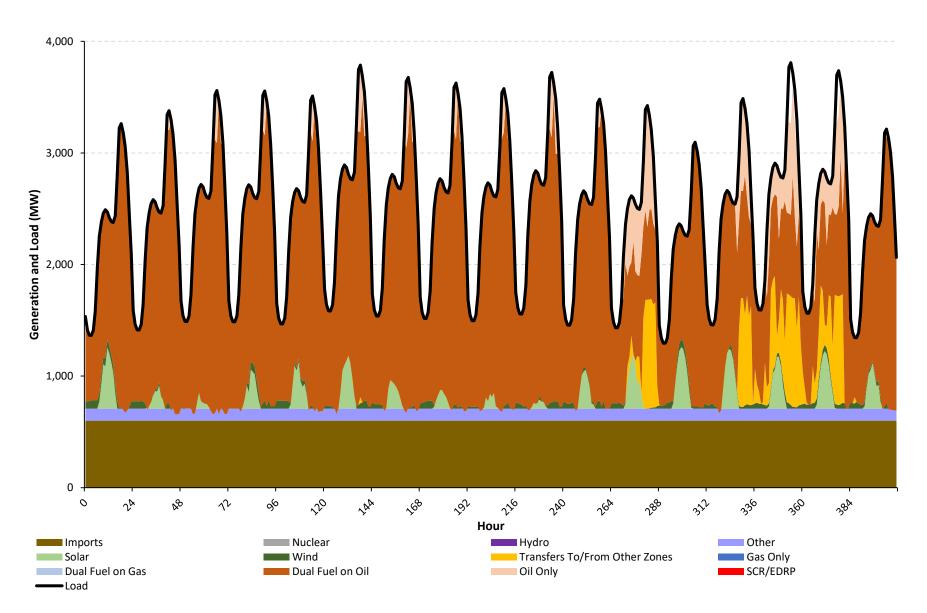


Scenario 5 - PD 9 Low Fuel Inventory

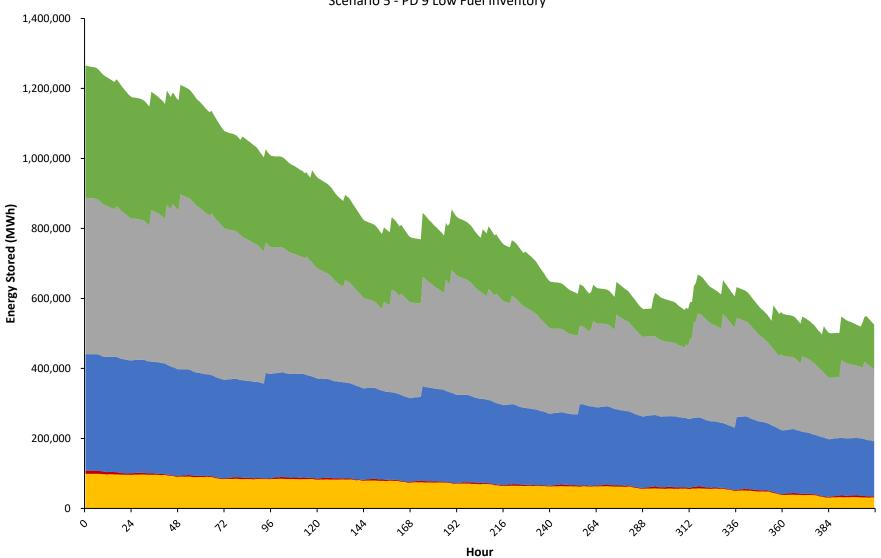


Zone K Hourly Generation (MW) by Fuel Group

Scenario 5 - PD 9 Low Fuel Inventory

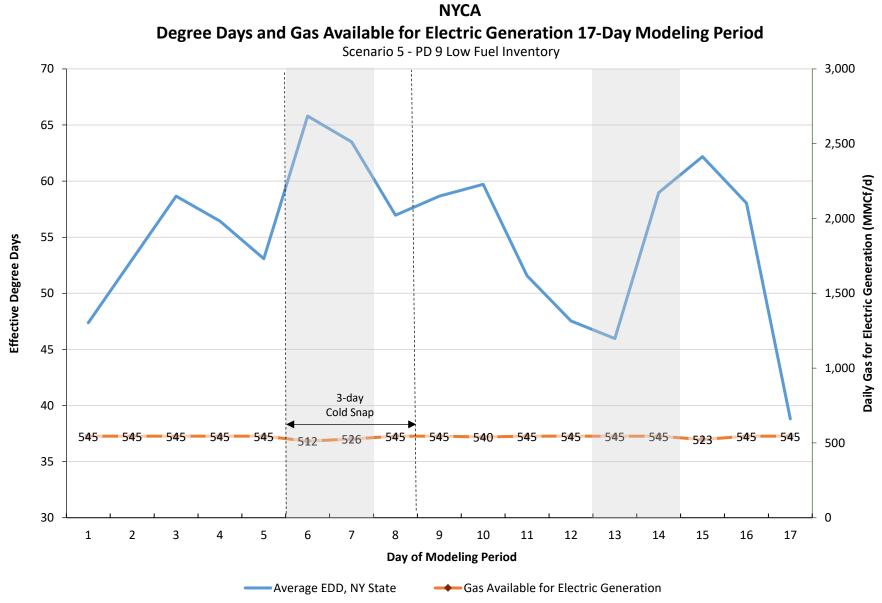






Scenario 5 - PD 9 Low Fuel Inventory

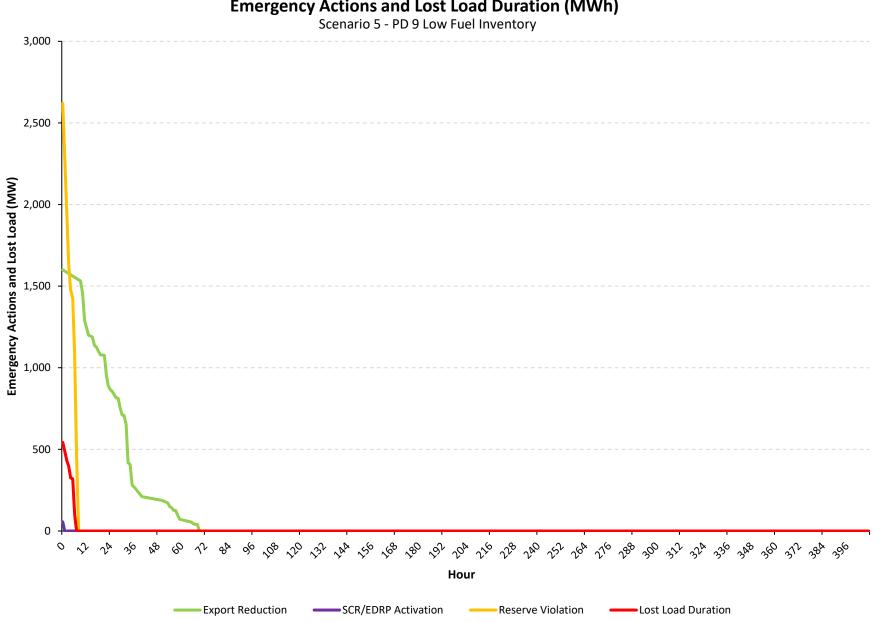
Zones A-E Zone F Zones G-I Zone J Zone K



Notes:

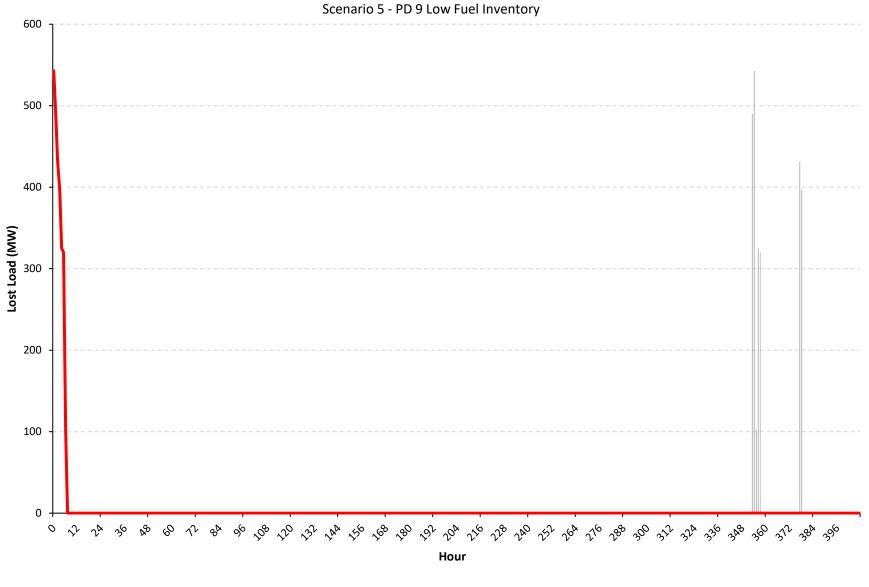
[1] Weekends are shaded in gray.

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



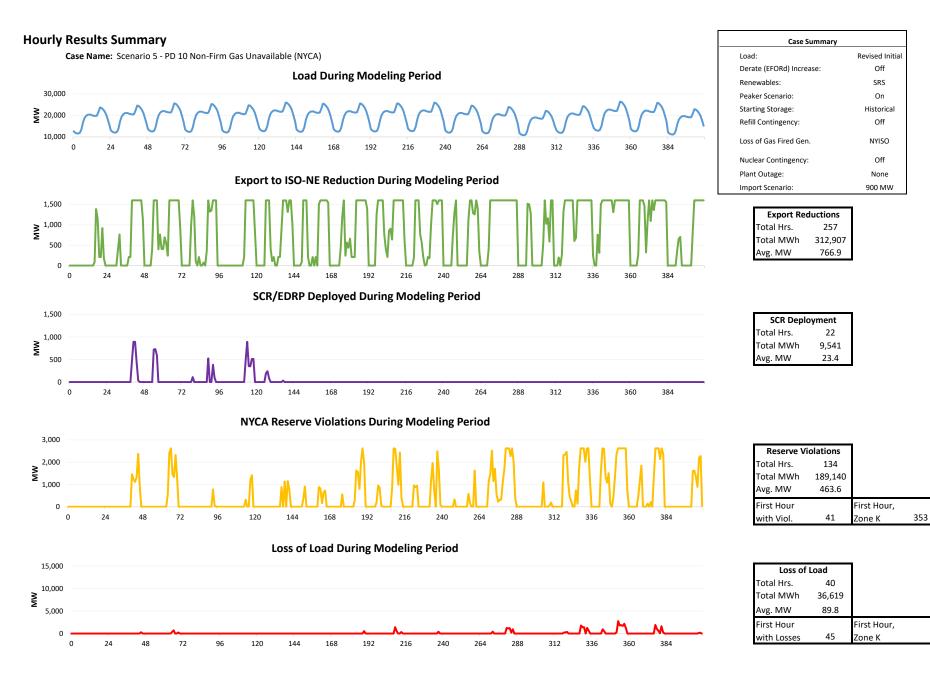
NYCA Emergency Actions and Lost Load Duration (MWh)





Lost Load —Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 5 - PD 10 Non-Firm Gas Unavailable (NYCA)

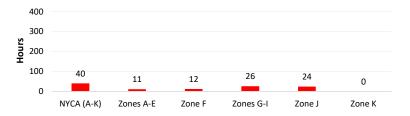


Full Period Results Summary

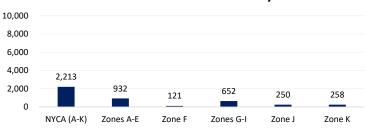
Case Name: Scenario 5 - PD 10 Non-Firm Gas Unavailable (NYCA)



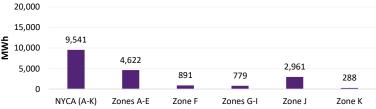
Hours with Loss of Load



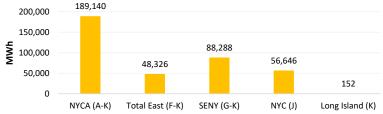
Average Capacity Not Available Due to Exhausted Fuel Inventory



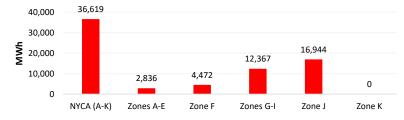
Total MWh SCR/EDRP Deployed

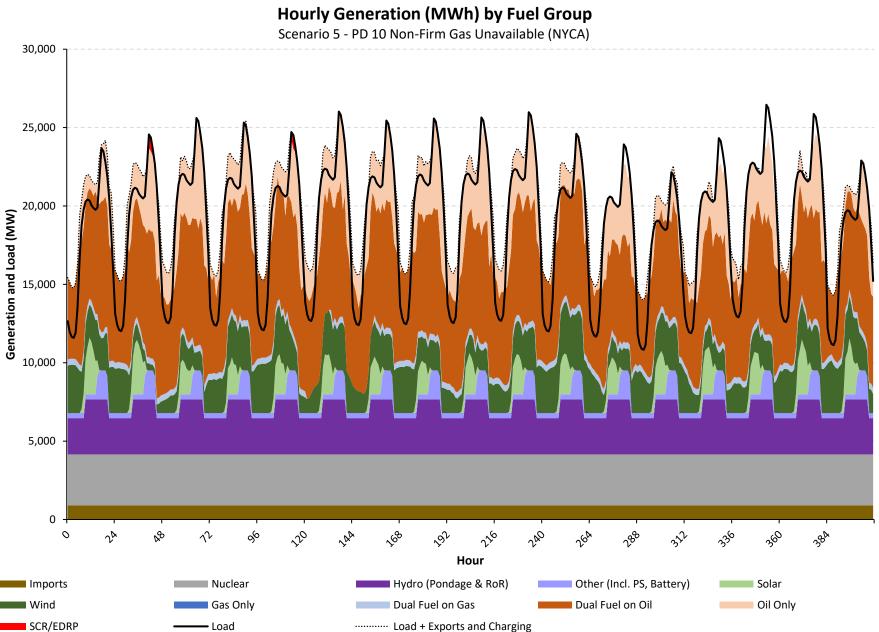


Total MWh of Reserve Violations



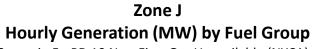
Total MWh of Lost Load



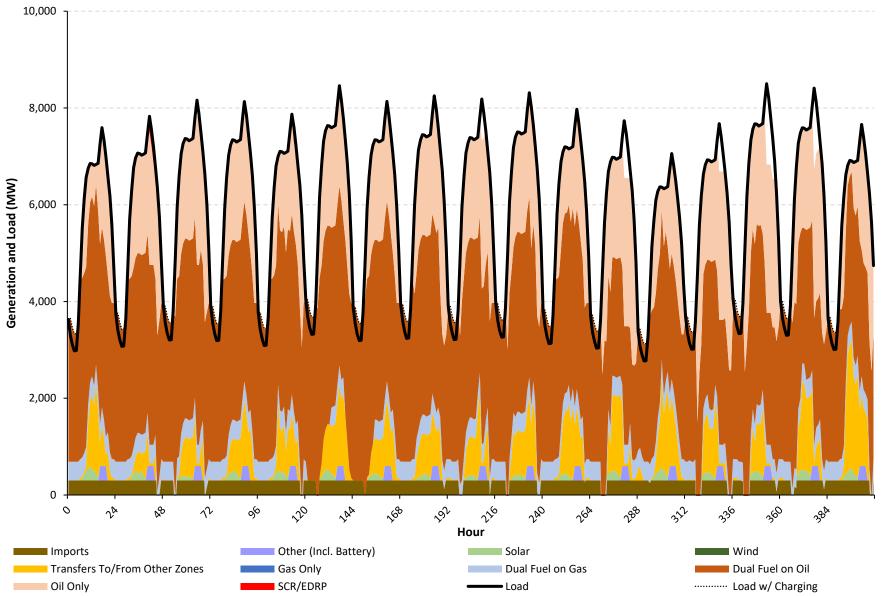


NYCA

Analysis Group, Inc.

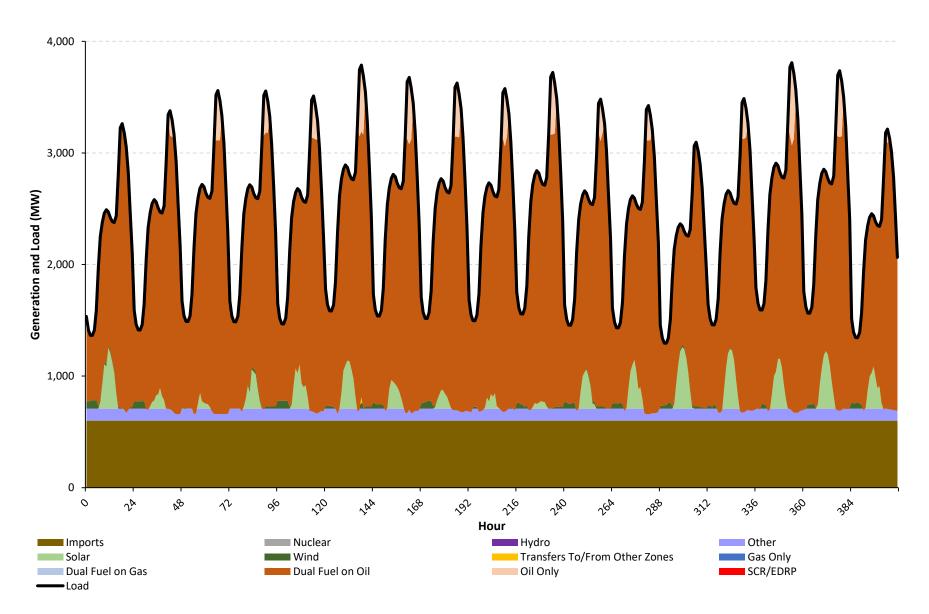




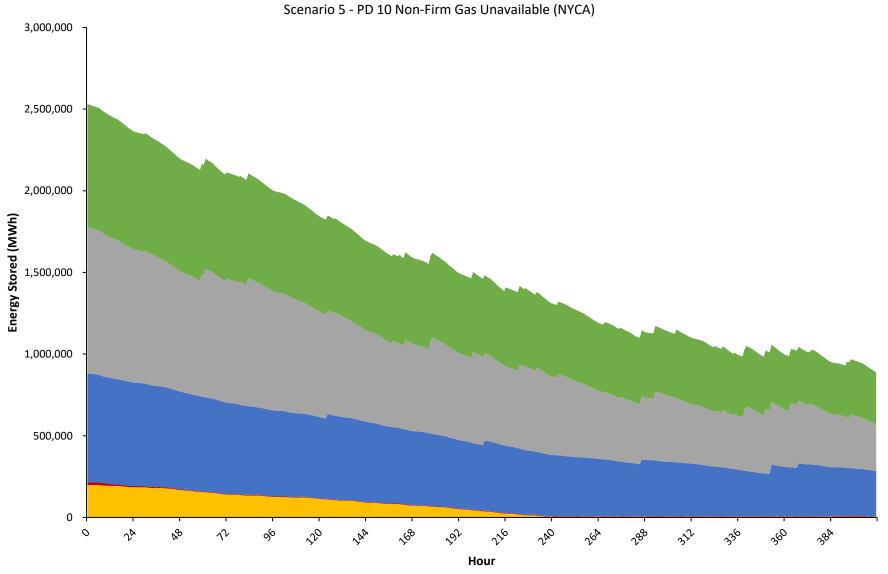


Zone K Hourly Generation (MW) by Fuel Group

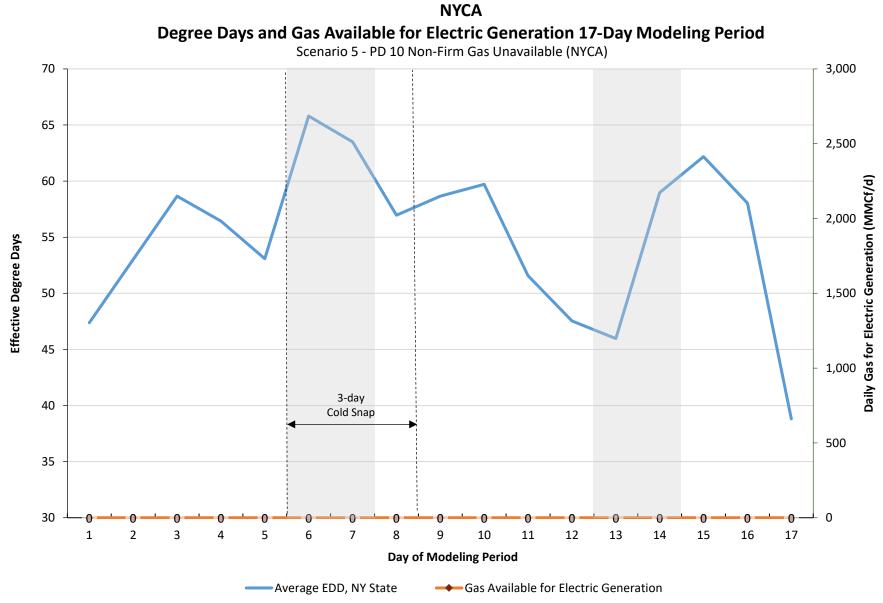
Scenario 5 - PD 10 Non-Firm Gas Unavailable (NYCA)







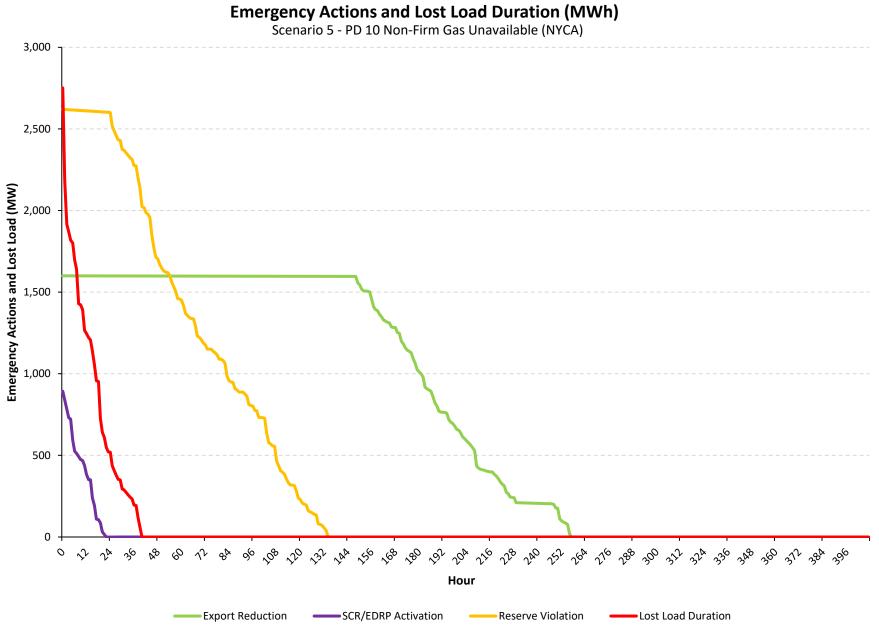
Zones A-E Zone F Zones G-I Zone J Zone K



Notes:

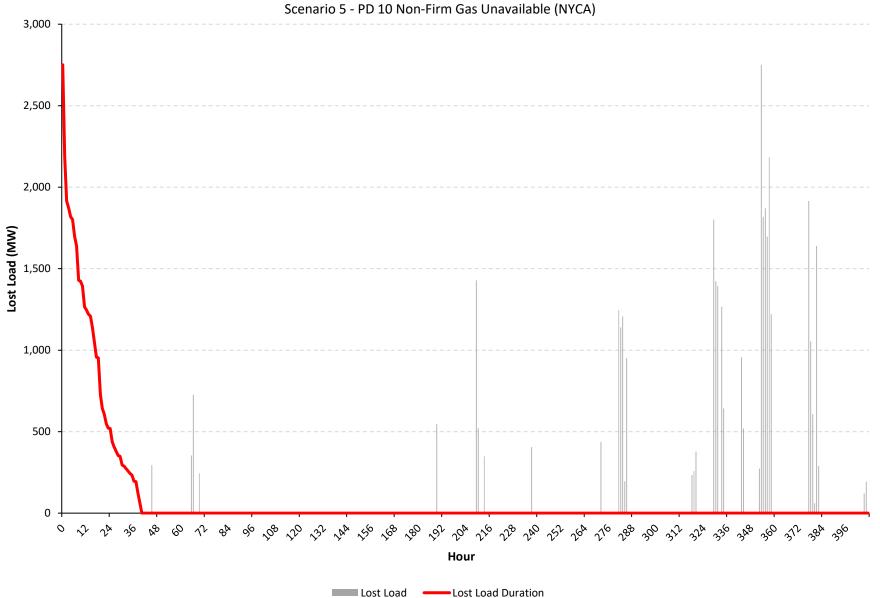
[1] Weekends are shaded in gray.

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

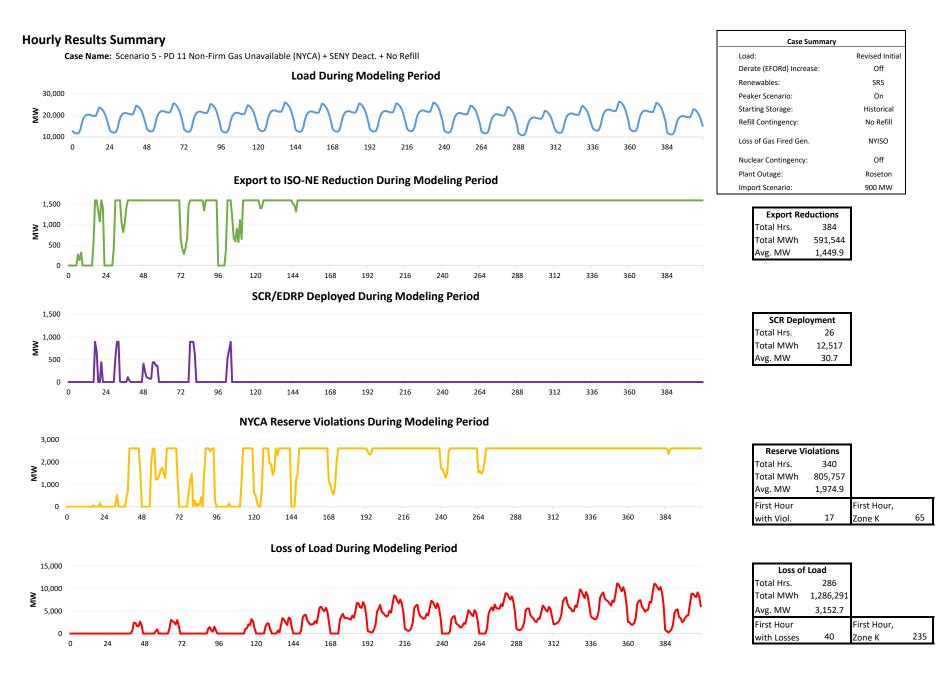


NYCA

NYCA Lost Load Duration (MWh)



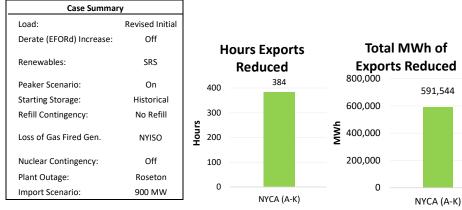
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 5 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill



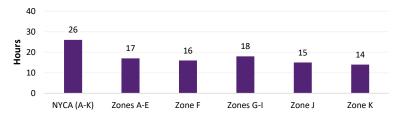
591,544

Full Period Results Summary

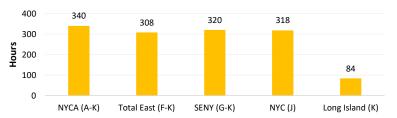
Case Name: Scenario 5 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill



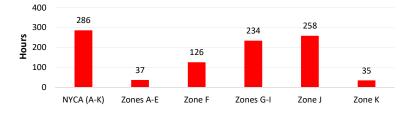
Hours SCR/EDRP Deployed



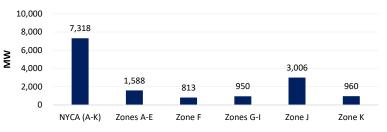
Hours with Reserve Violations



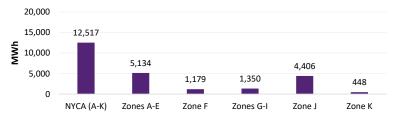
Hours with Loss of Load



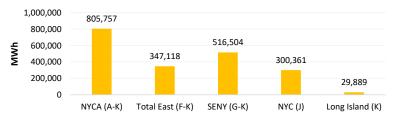
Average Capacity Not Available Due to Exhausted Fuel Inventory



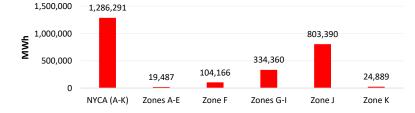
Total MWh SCR/EDRP Deployed



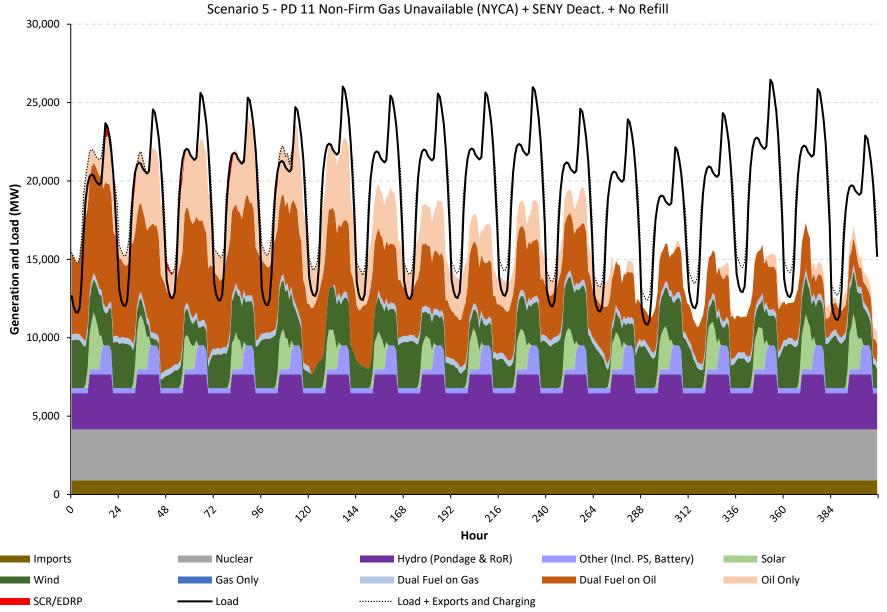
Total MWh of Reserve Violations

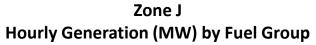


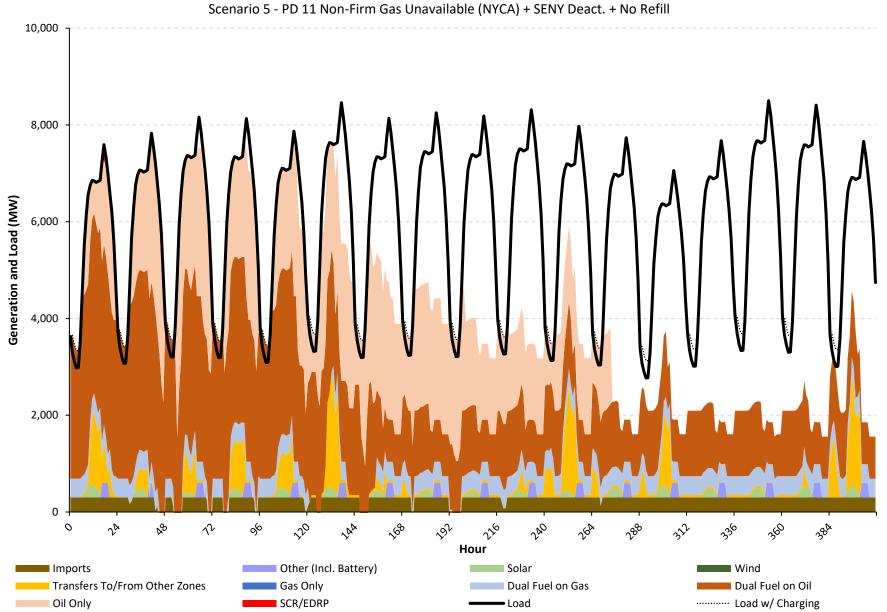
Total MWh of Lost Load



NYCA Hourly Generation (MWh) by Fuel Group

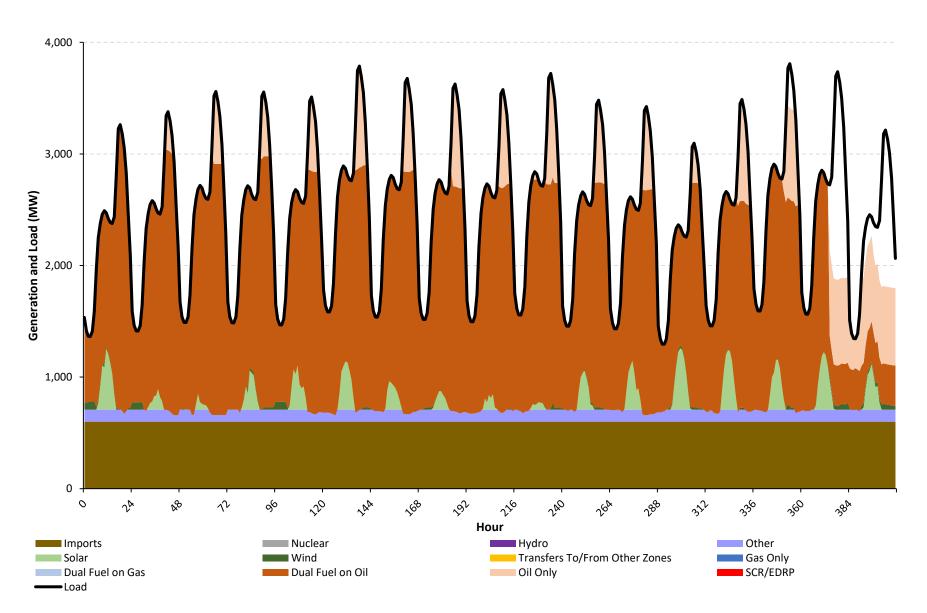




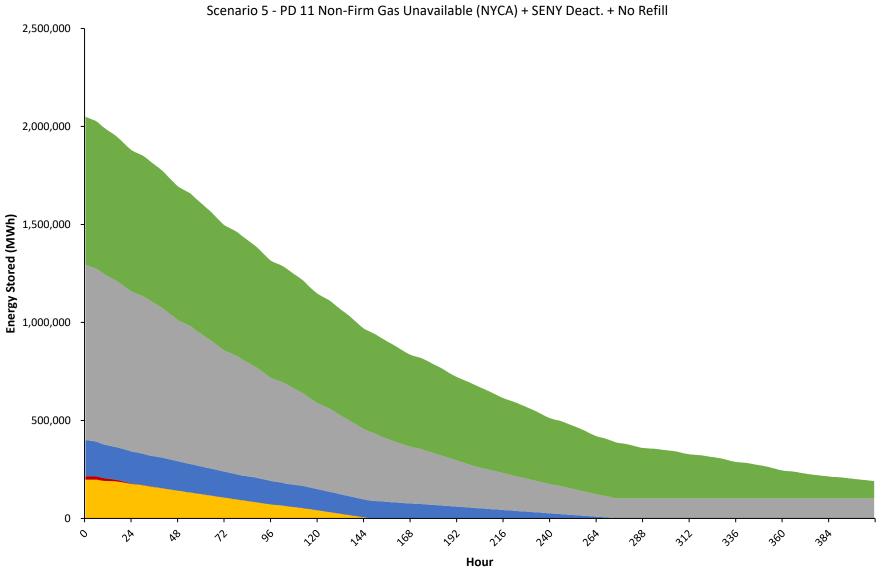


Zone K Hourly Generation (MW) by Fuel Group

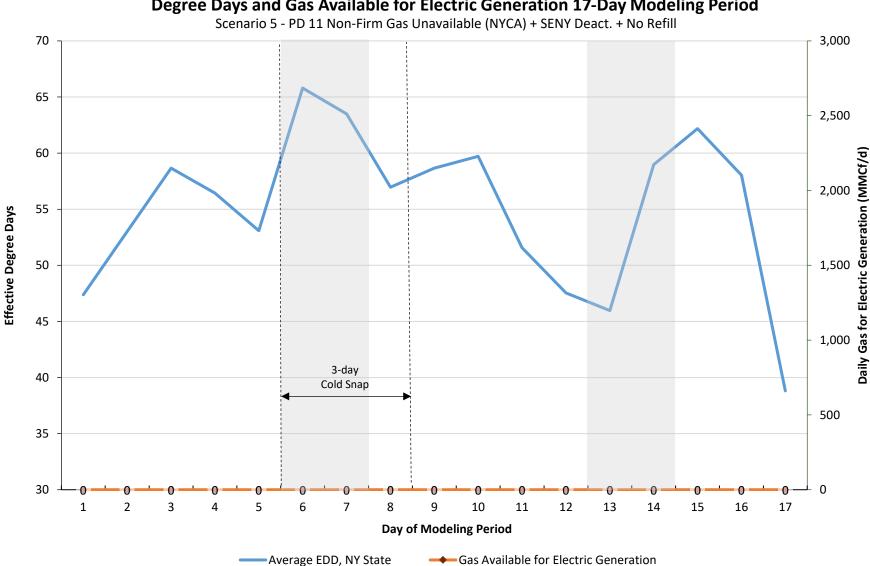
Scenario 5 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill







Zones A-E Zone F Zones G-I Zone J Zone K

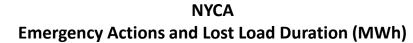


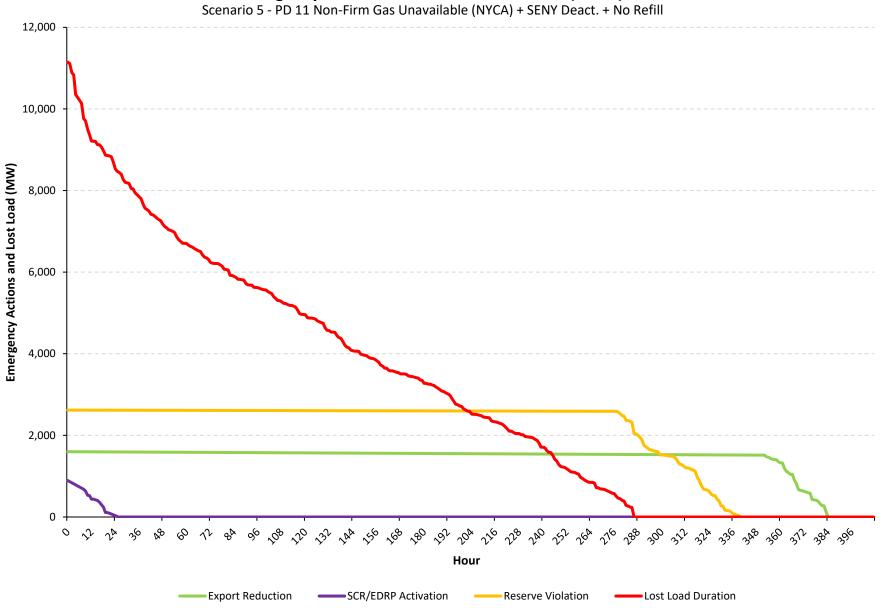
NYCA Degree Days and Gas Available for Electric Generation 17-Day Modeling Period

Notes:

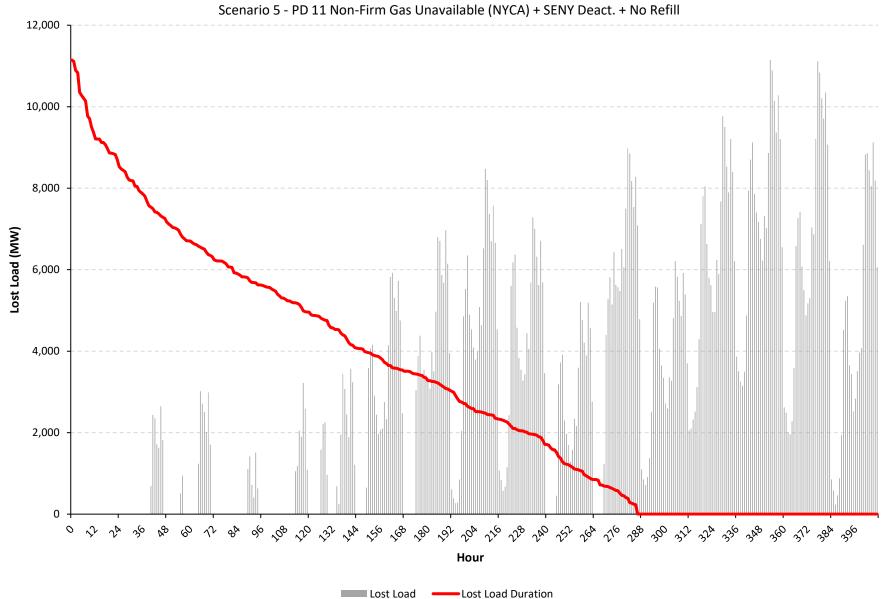
[1] Weekends are shaded in gray.

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



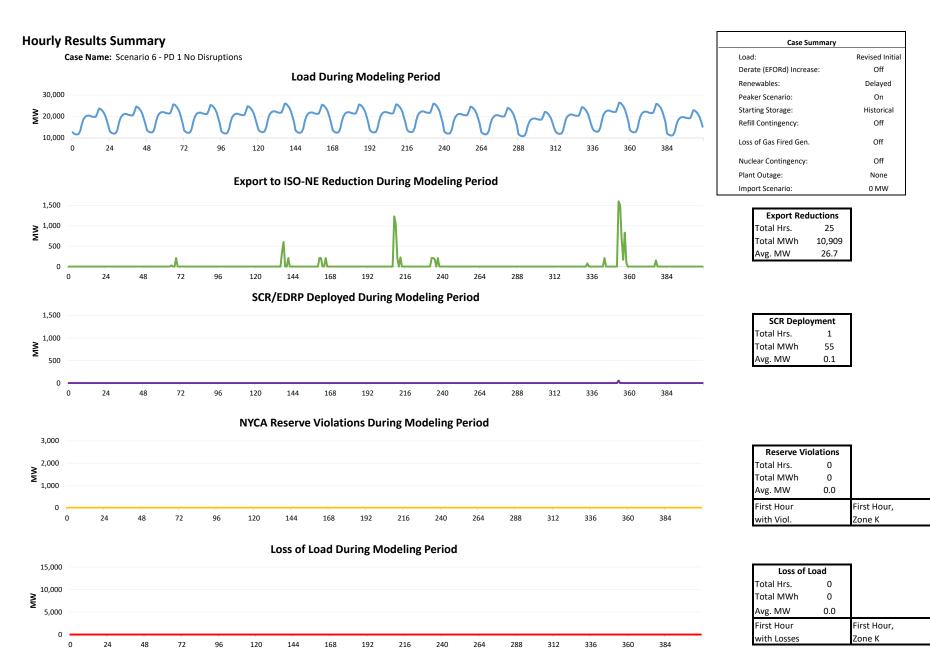


NYCA Lost Load Duration (MWh)



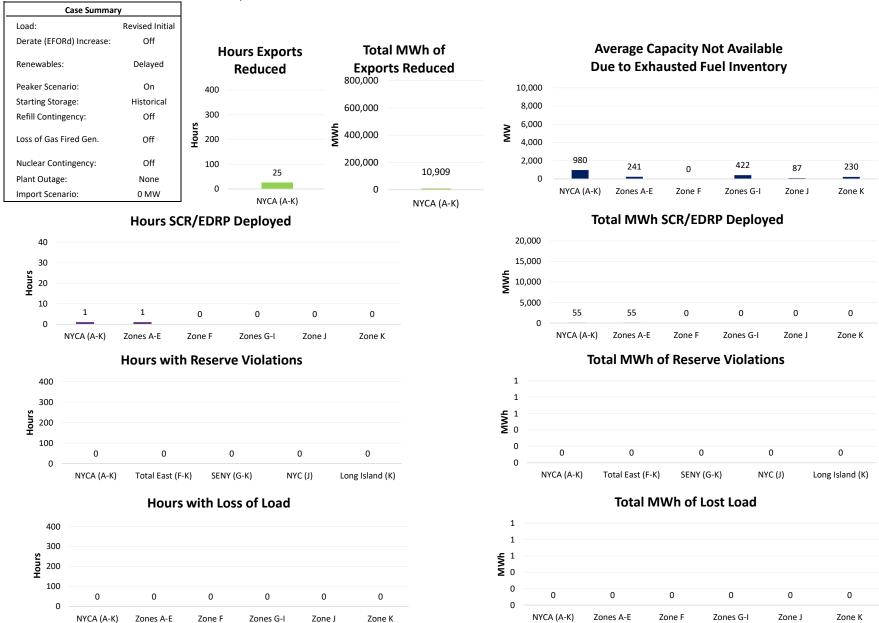
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

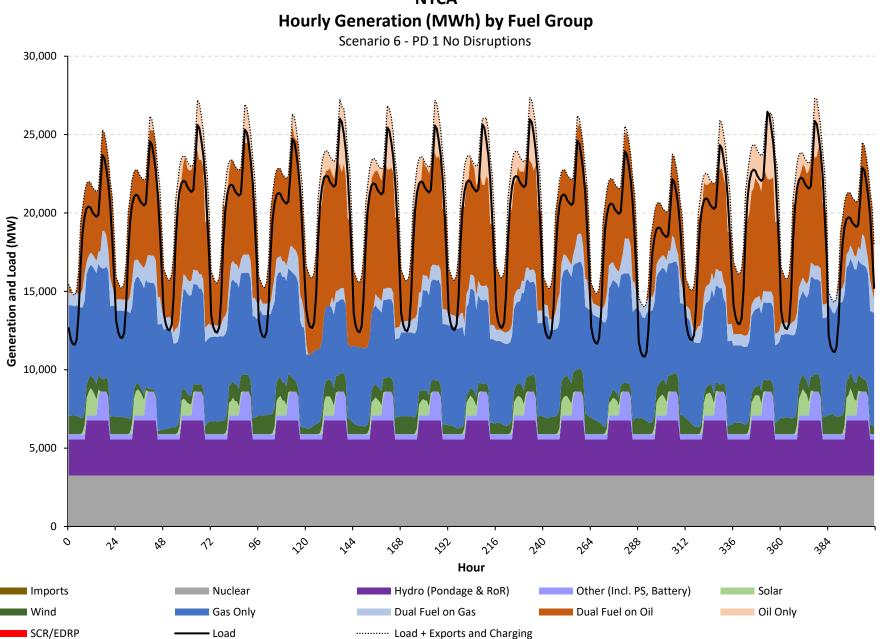
Case: Scenario 6 - PD 1 No Disruptions



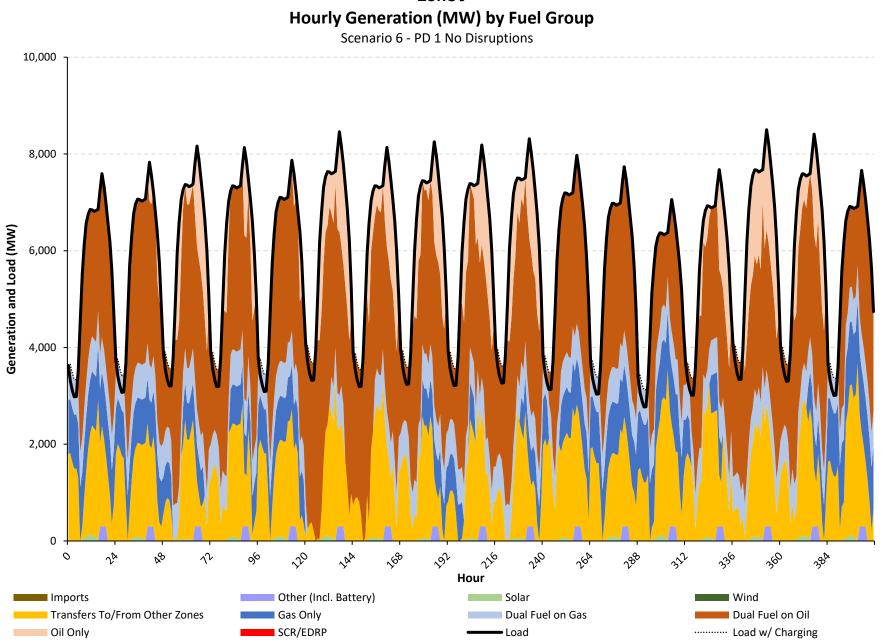
Full Period Results Summary







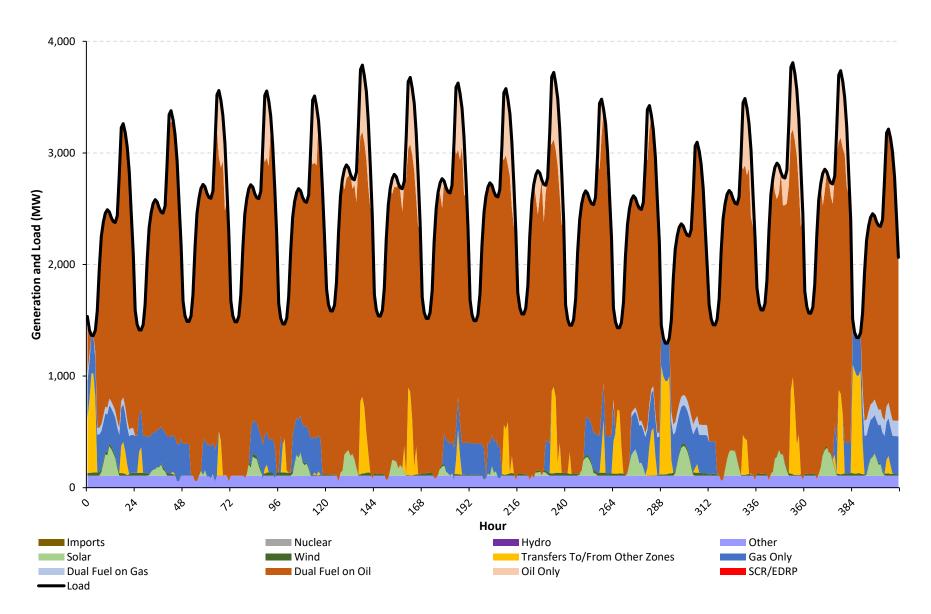
NYCA



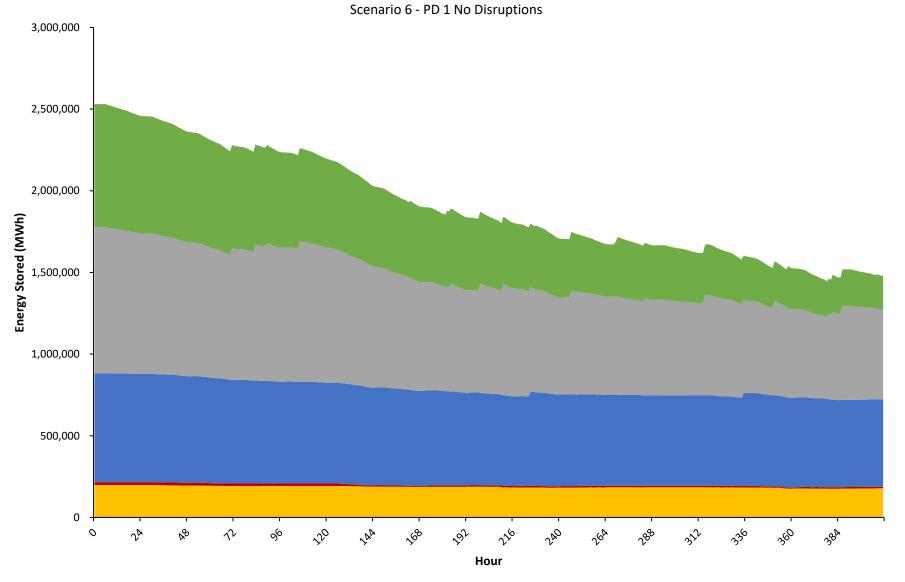
Zone J

Zone K Hourly Generation (MW) by Fuel Group

Scenario 6 - PD 1 No Disruptions

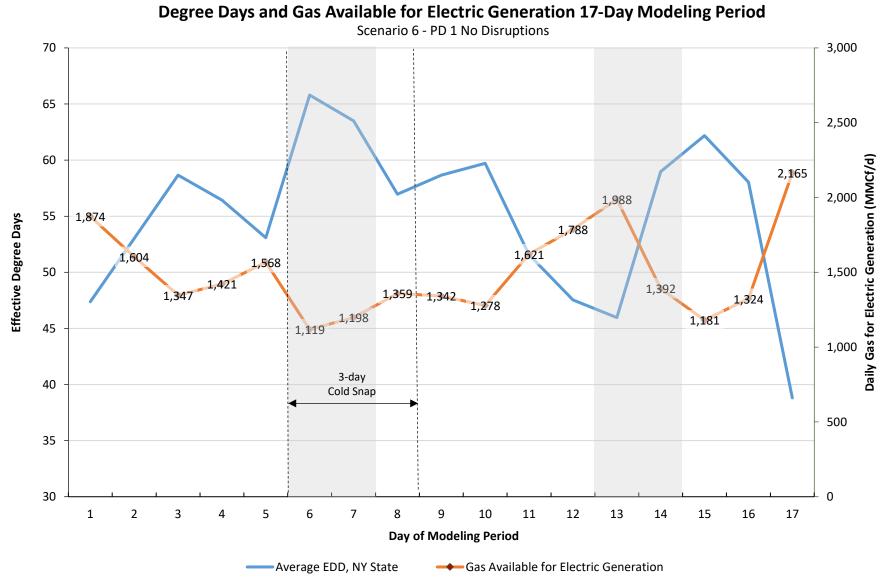






Zones A-E Zone F Zones G-I Zone J Zone K

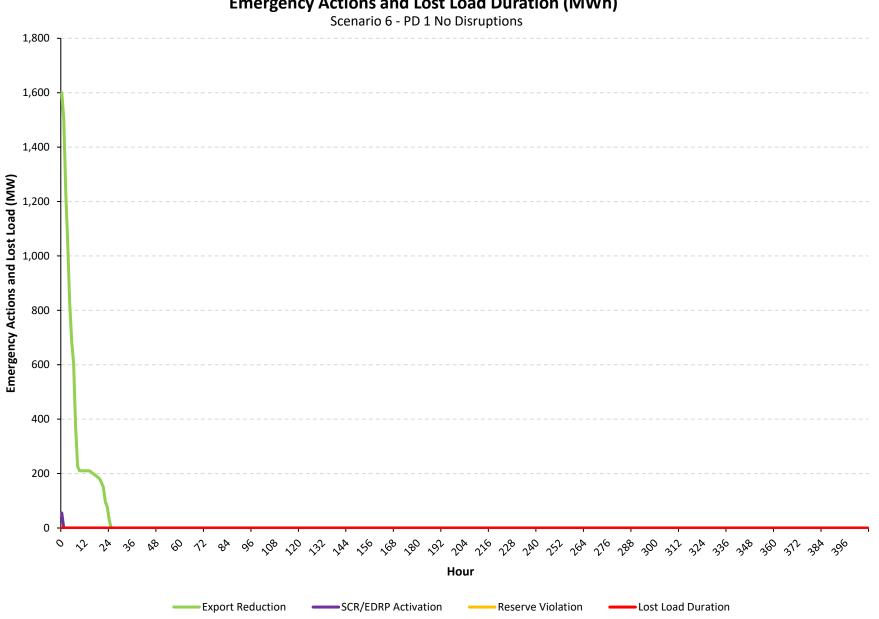
NYCA



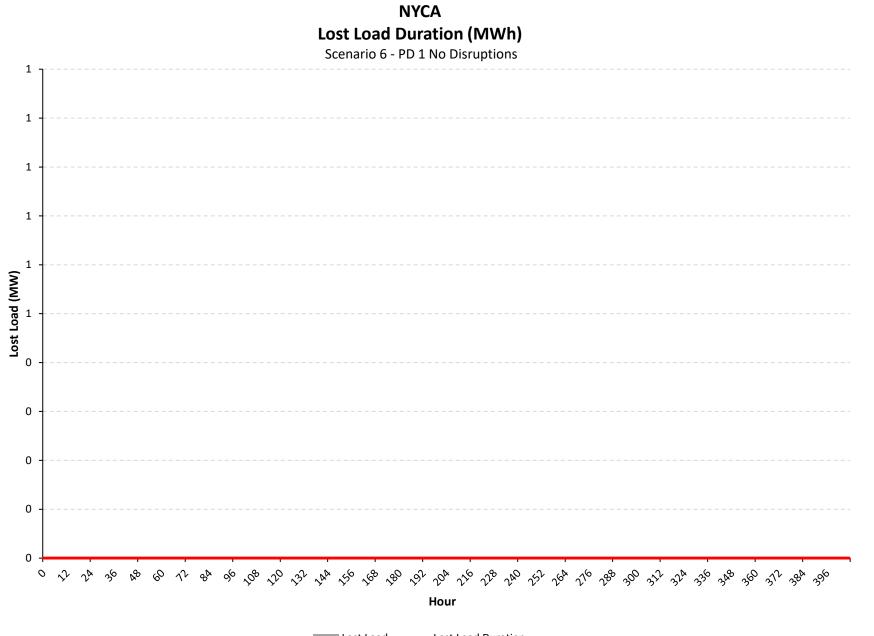
Notes:

[1] Weekends are shaded in gray.

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



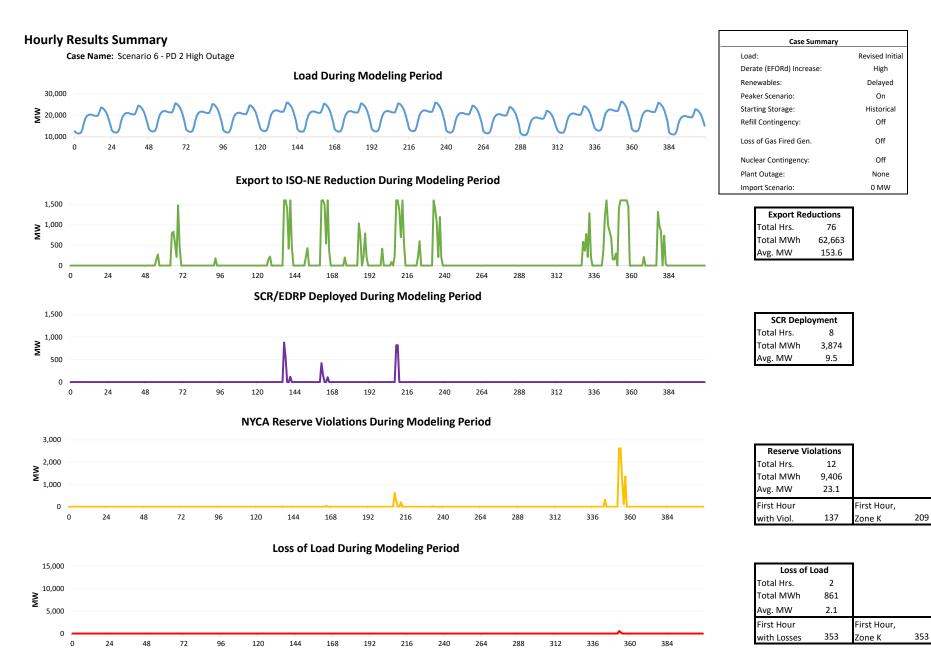
NYCA Emergency Actions and Lost Load Duration (MWh)



Lost Load —Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 6 - PD 2 High Outage



183

Zone K

113

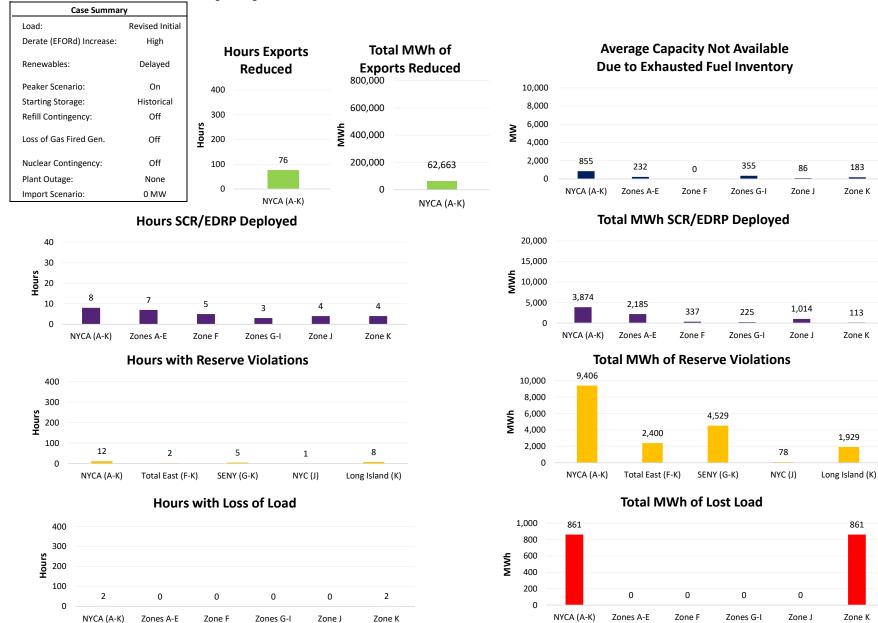
Zone K

1,929

861

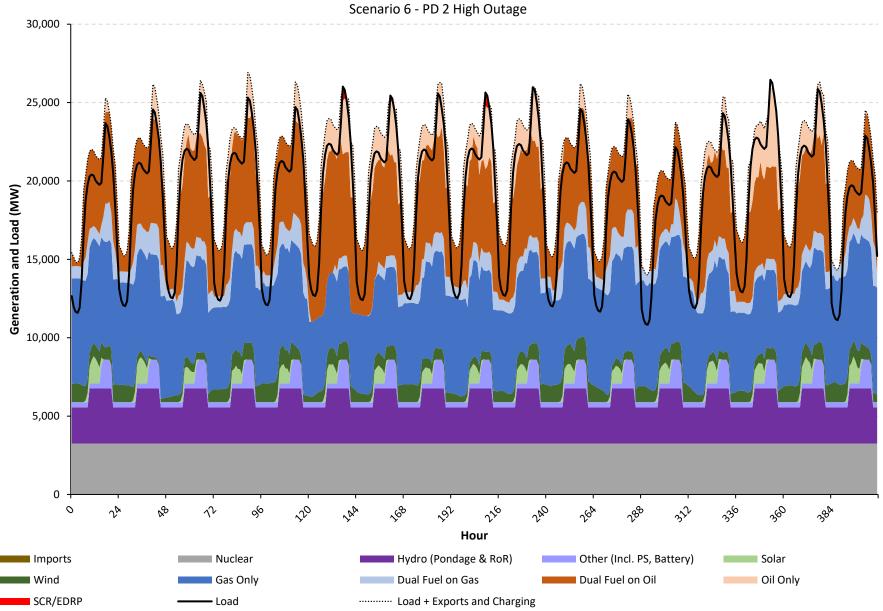
Full Period Results Summary

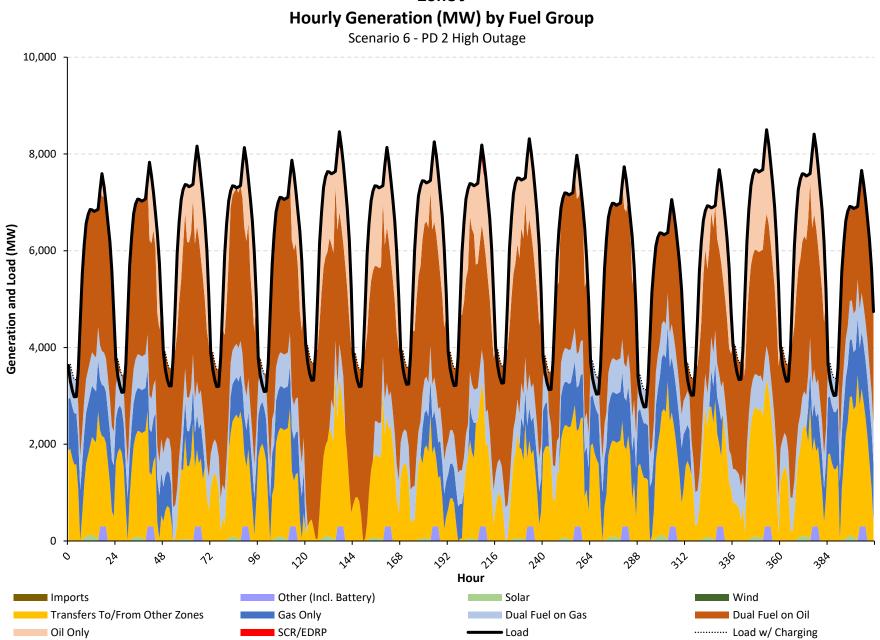




Zone K

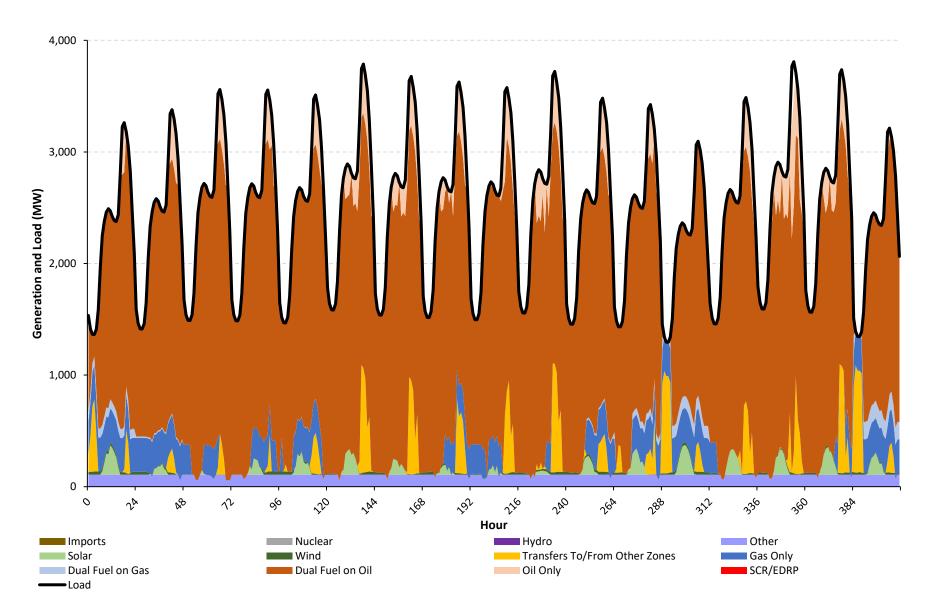
NYCA Hourly Generation (MWh) by Fuel Group



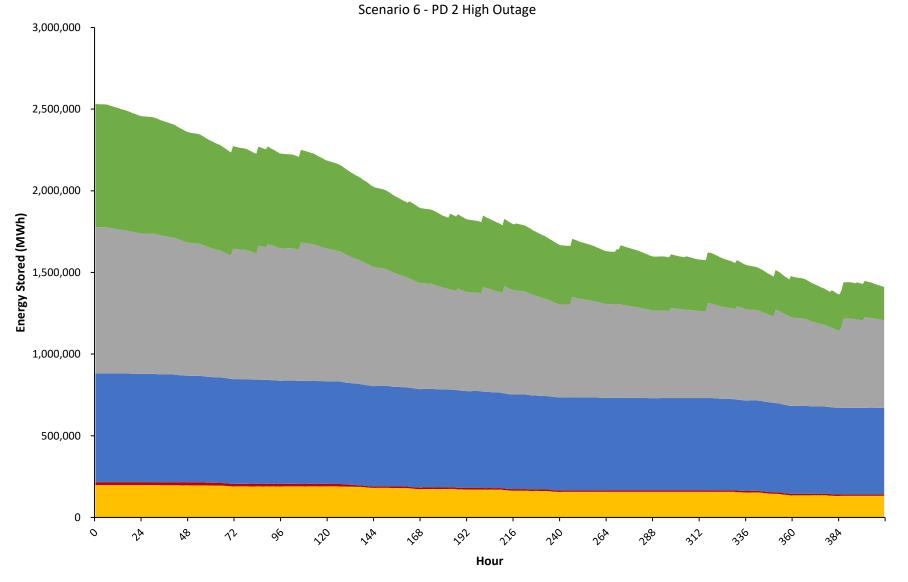


Zone K Hourly Generation (MW) by Fuel Group

Scenario 6 - PD 2 High Outage

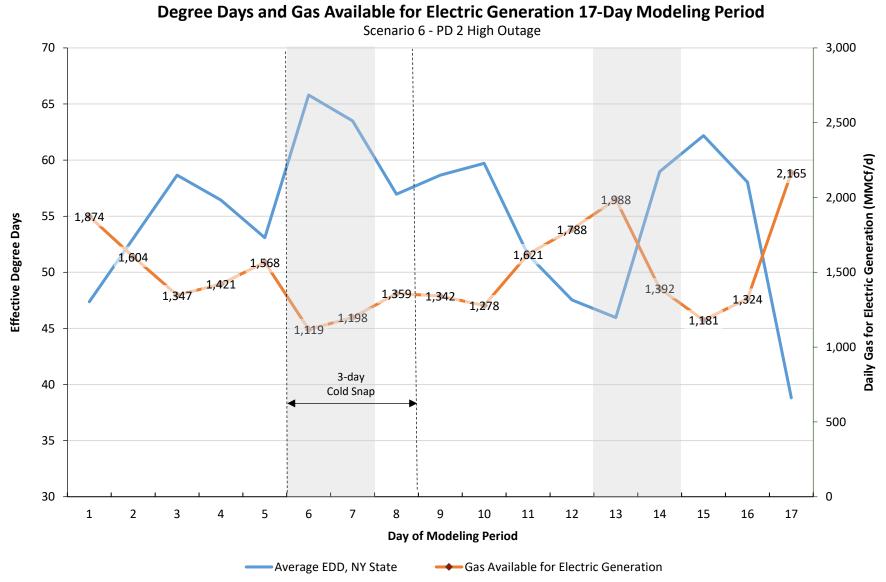






Zones A-E Zone F Zones G-I Zone J Zone K

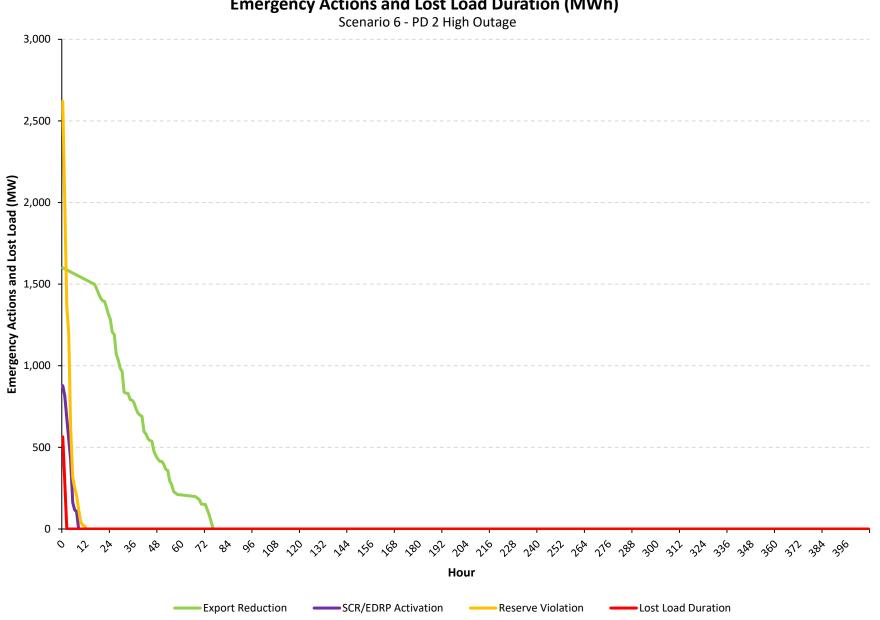
NYCA



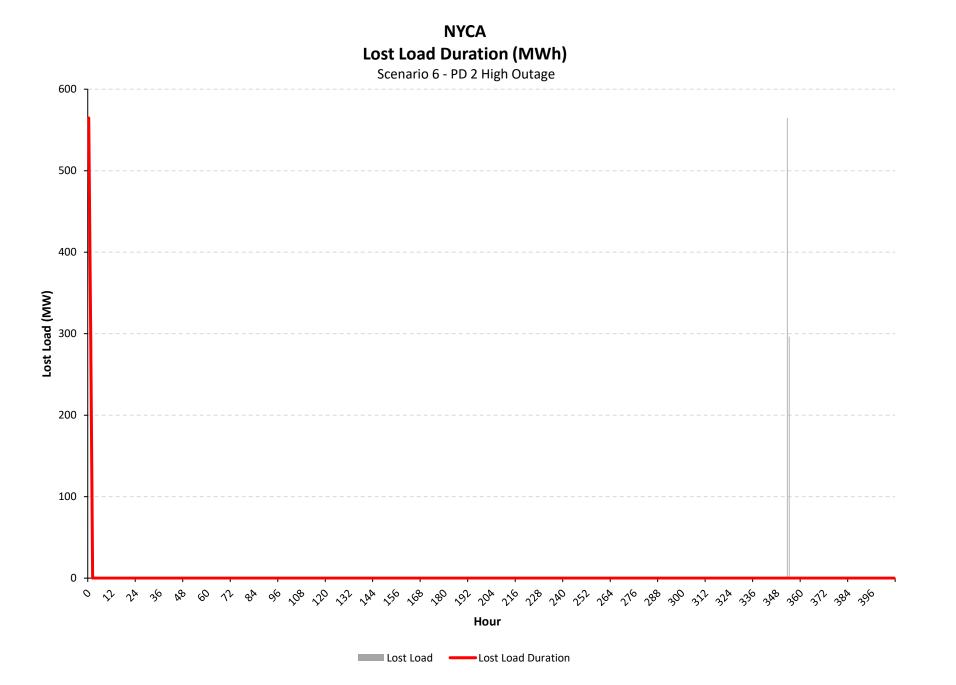
Notes:

[1] Weekends are shaded in gray.

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



NYCA Emergency Actions and Lost Load Duration (MWh)

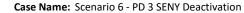


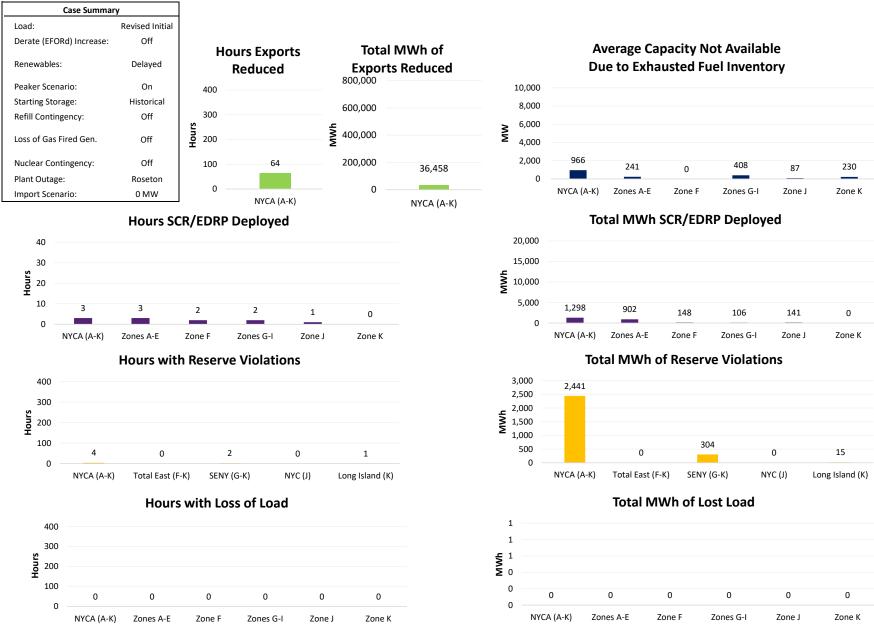
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 6 - PD 3 SENY Deactivation



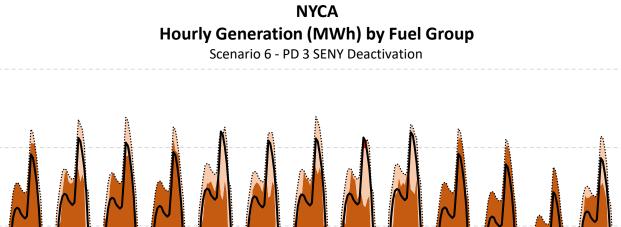
Full Period Results Summary

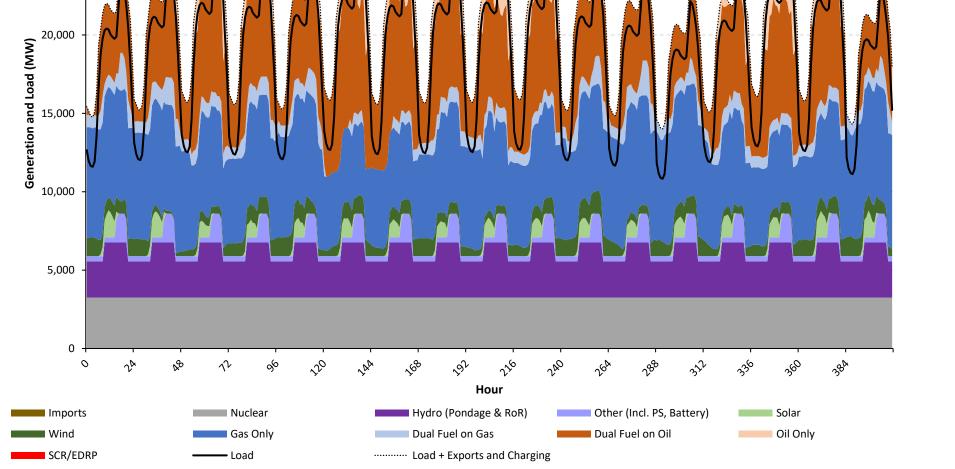


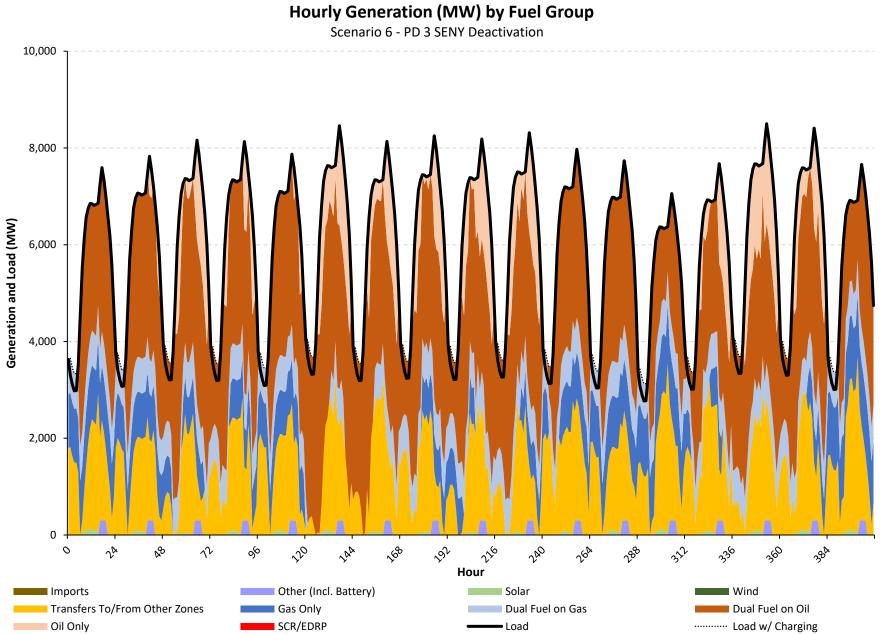


30,000

25,000



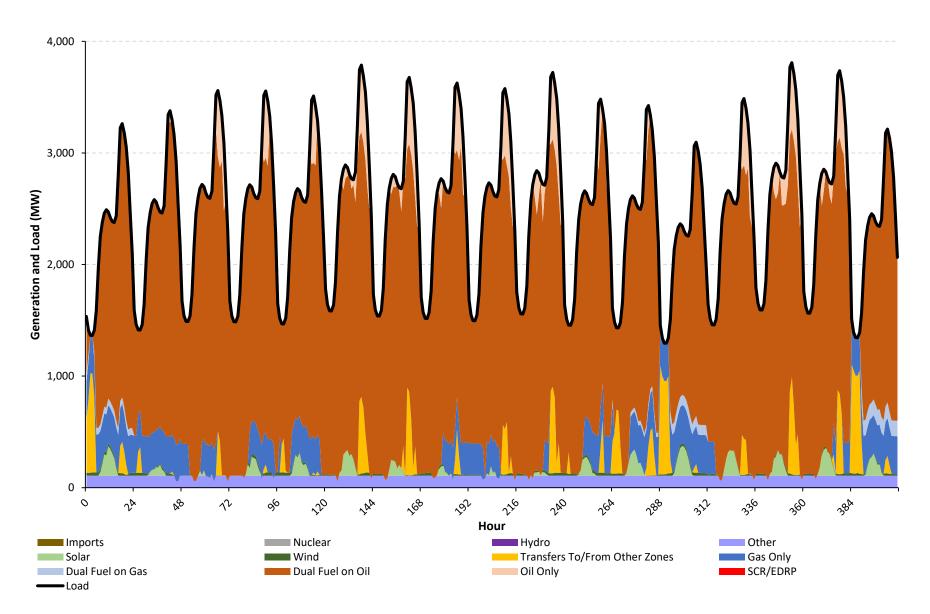




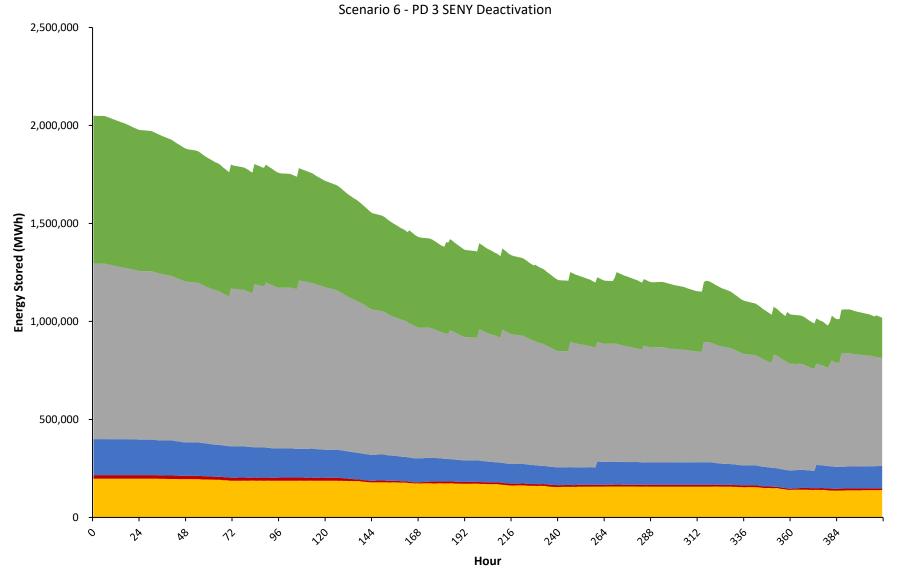
Zone J

Zone K Hourly Generation (MW) by Fuel Group

Scenario 6 - PD 3 SENY Deactivation

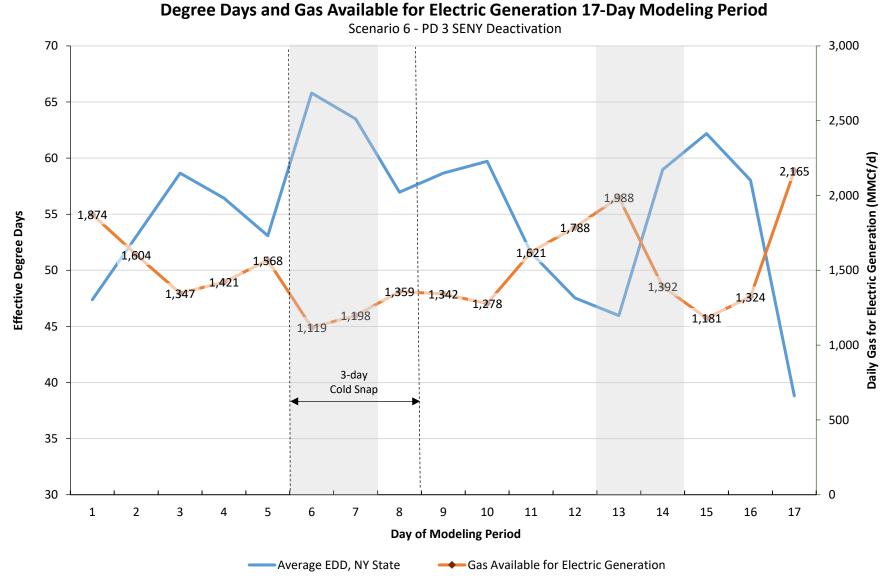






Zones A-E Zone F Zones G-I Zone J Zone K

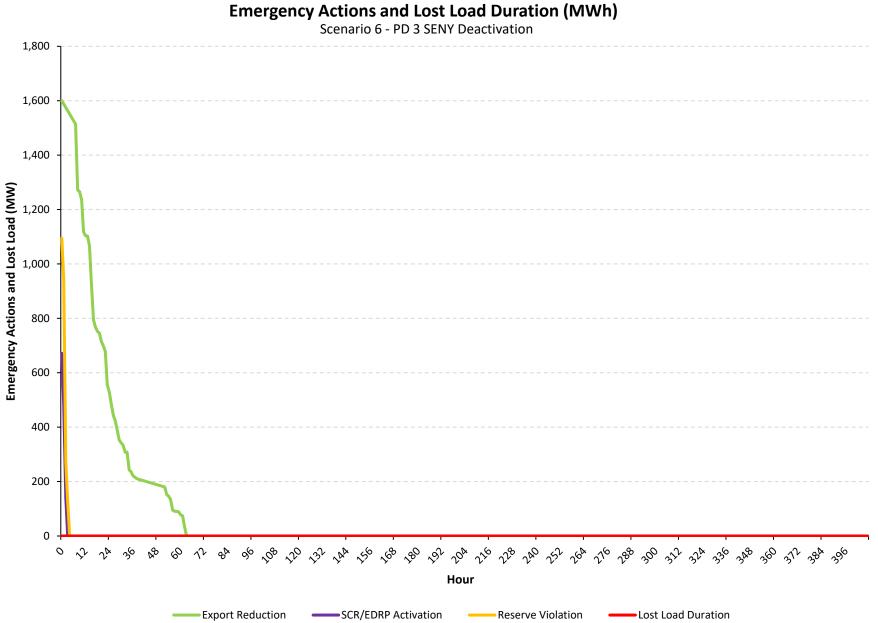
NYCA



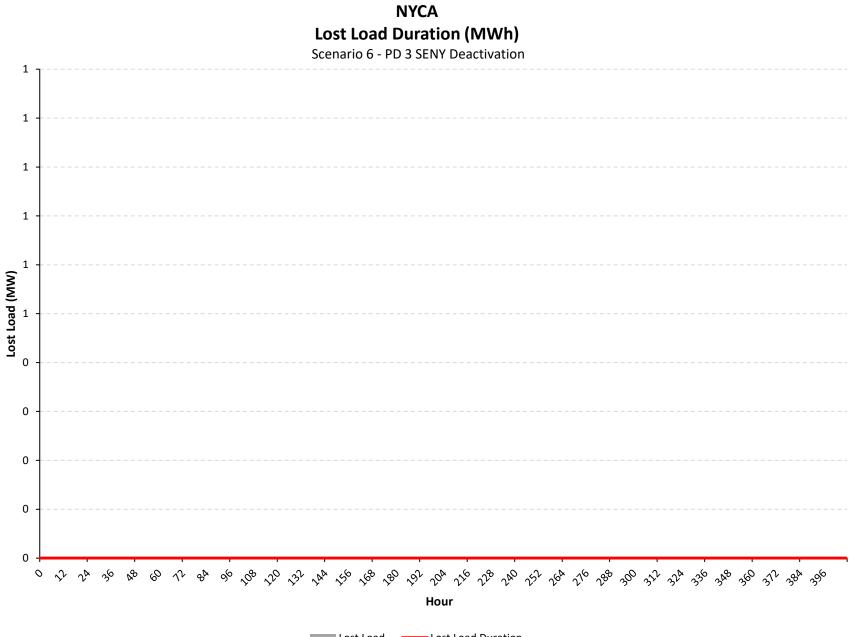
Notes:

[1] Weekends are shaded in gray.

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



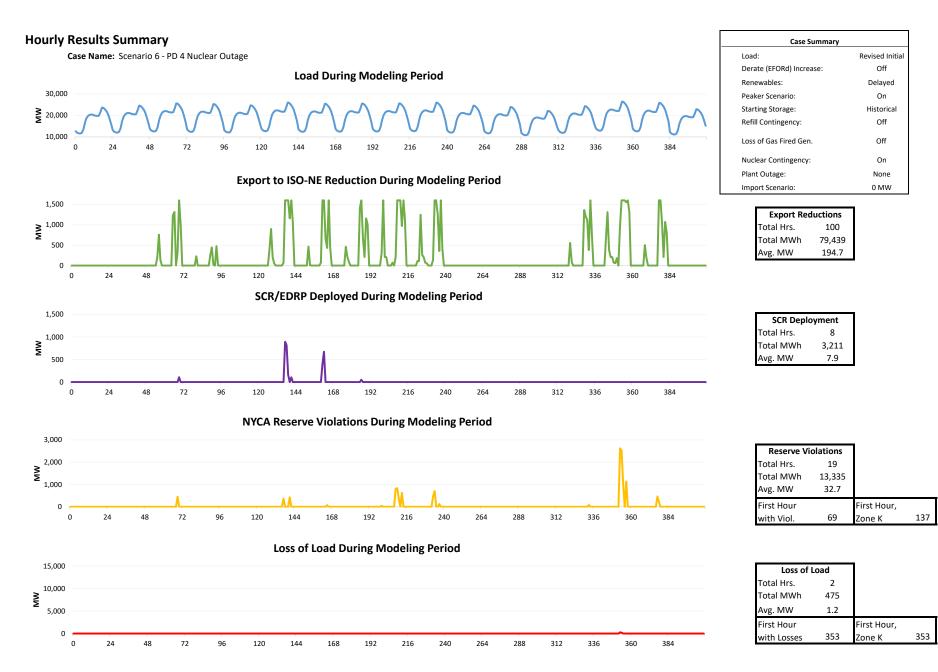
NYCA



Lost Load — Lost Load Duration

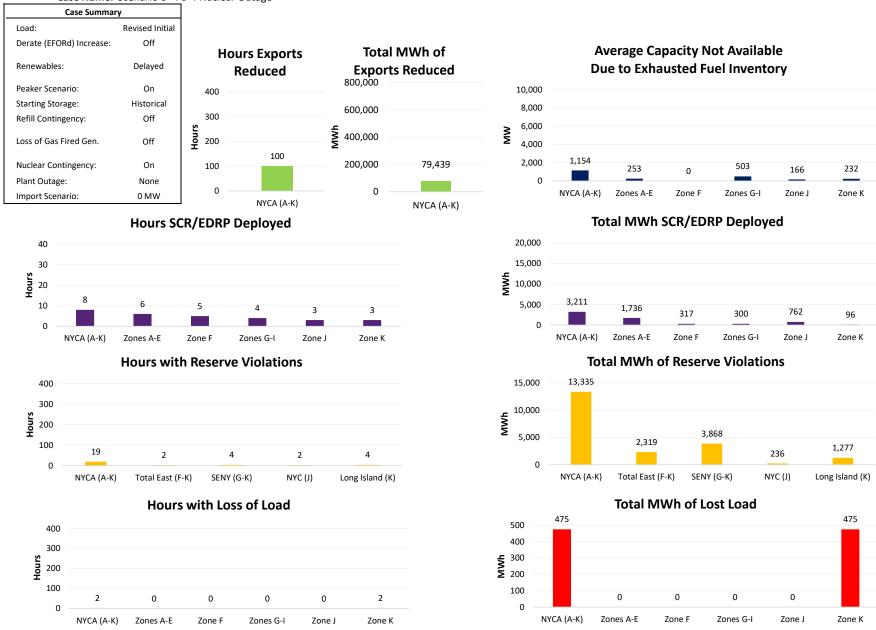
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 6 - PD 4 Nuclear Outage

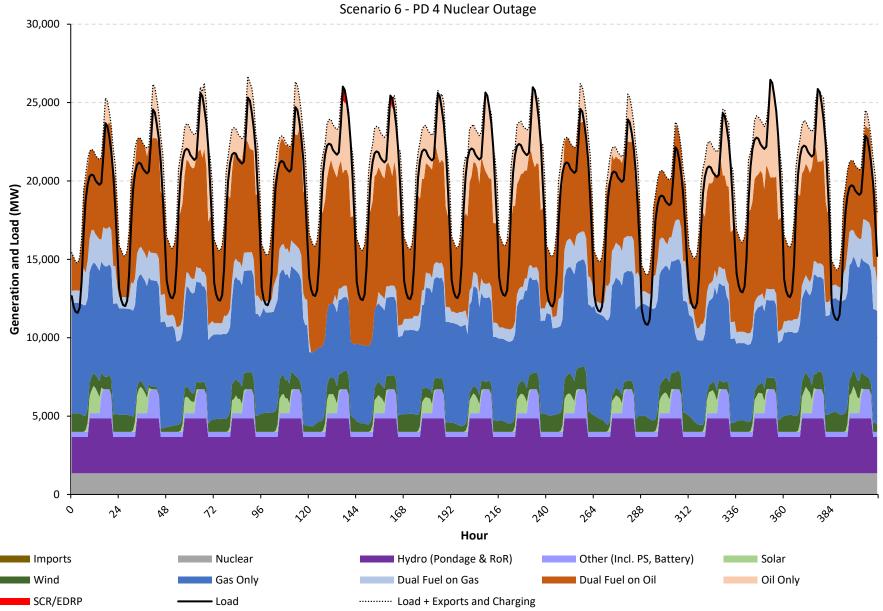


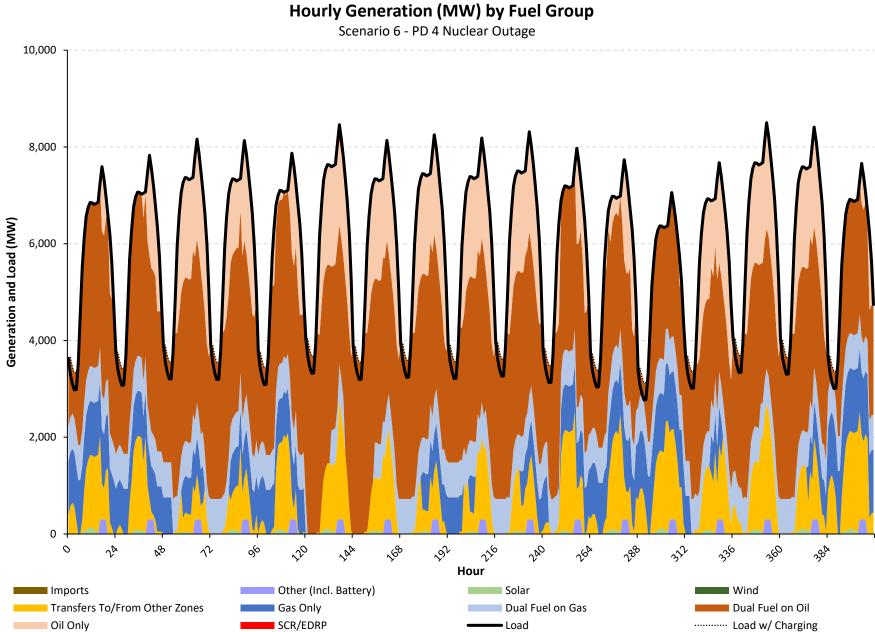
Full Period Results Summary





NYCA Hourly Generation (MWh) by Fuel Group

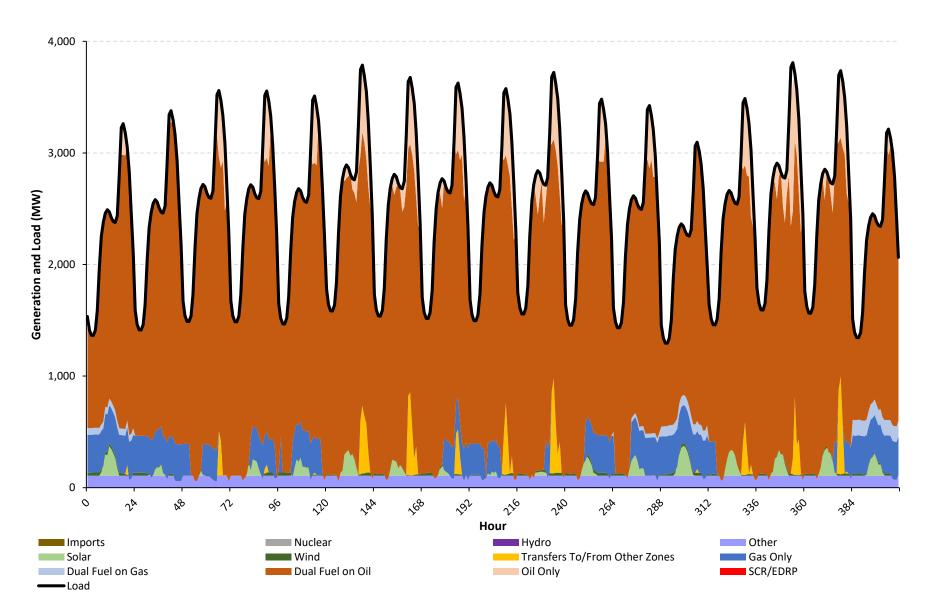




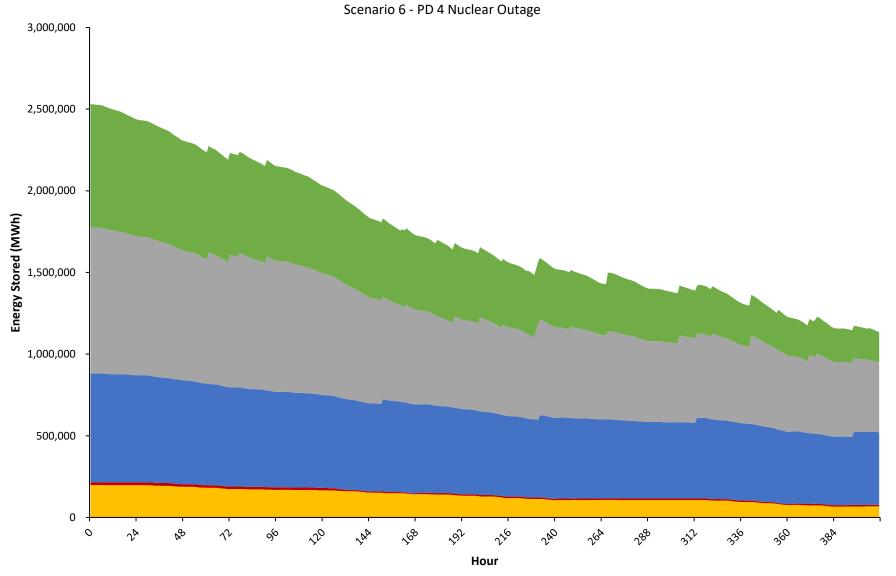
Zone J

Zone K Hourly Generation (MW) by Fuel Group

Scenario 6 - PD 4 Nuclear Outage

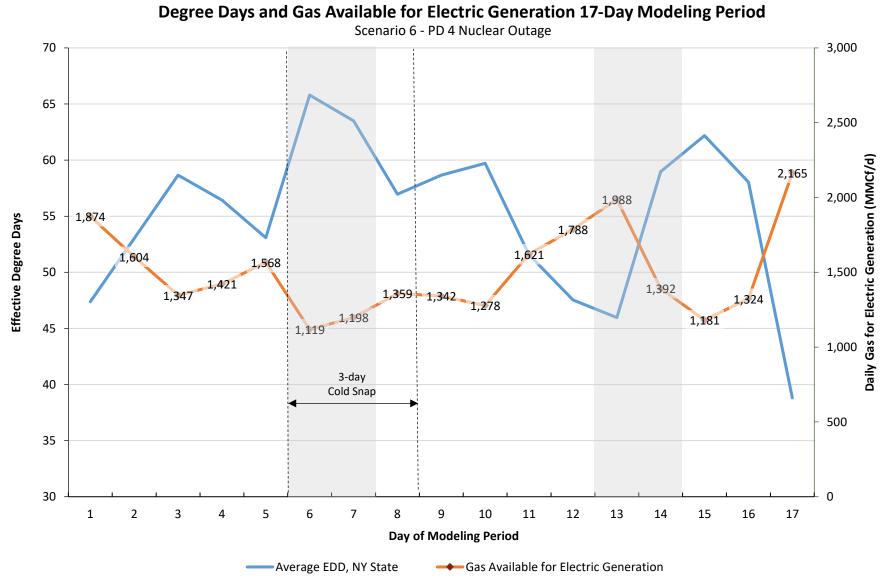






Zones A-E Zone F Zones G-I Zone J Zone K

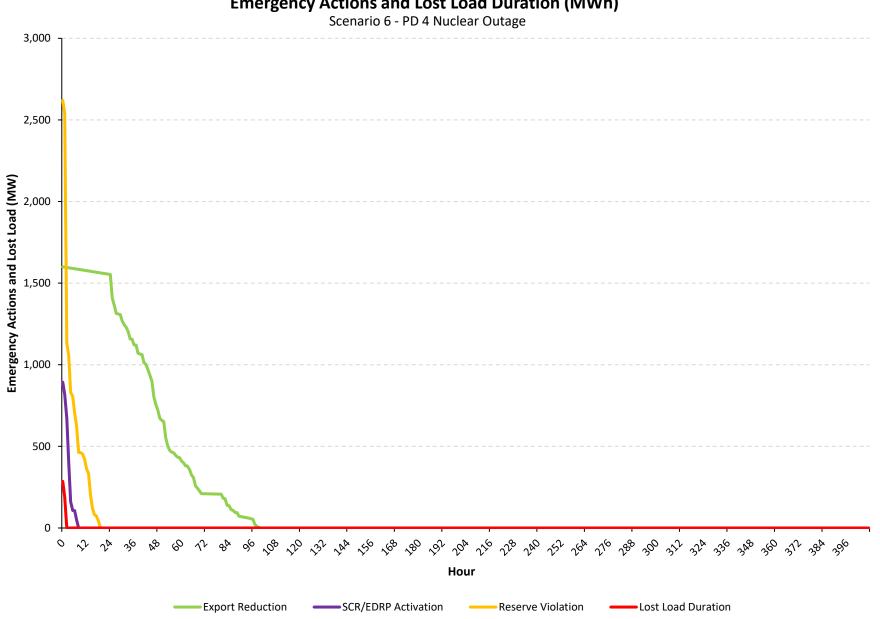
NYCA



Notes:

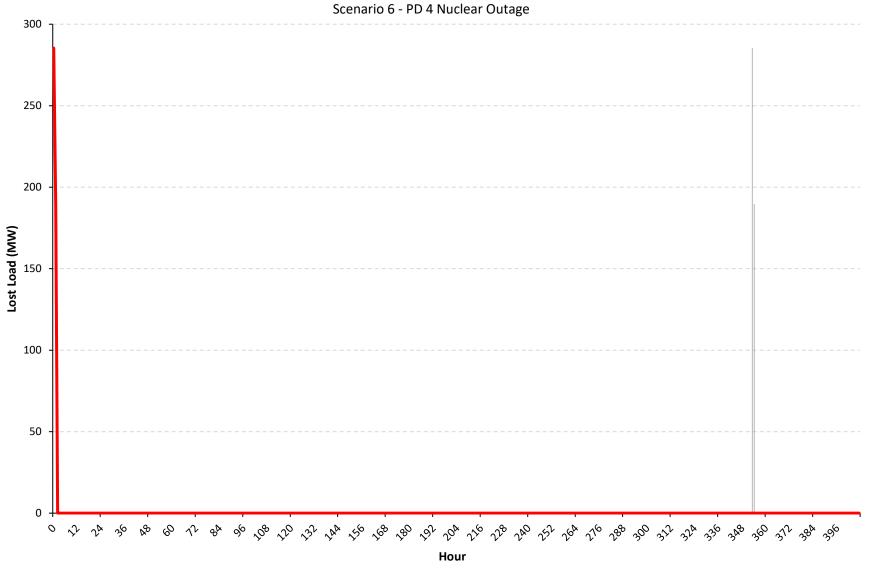
[1] Weekends are shaded in gray.

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



NYCA Emergency Actions and Lost Load Duration (MWh)





Lost Load —Lost Load Duration

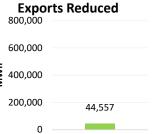
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 6 - PD 5 No Truck Refill



Full Period Results Summary



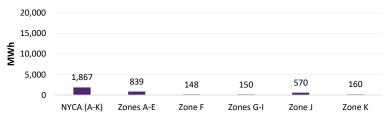


₹

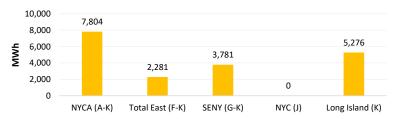
Average Capacity Not Available Due to Exhausted Fuel Inventory



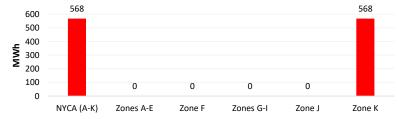
Total MWh SCR/EDRP Deployed



Total MWh of Reserve Violations

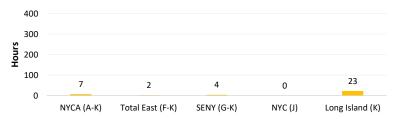


Total MWh of Lost Load

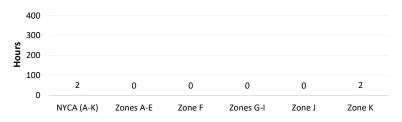


Plant Outage: None 0 0 MW Import Scenario: NYCA (A-K) NYCA (A-K) Hours SCR/EDRP Deployed 40 30 Hours 20 10 5 5 3 2 2 2 0 NYCA (A-K) Zones A-E Zone I Zones G-I Zone J Zone K

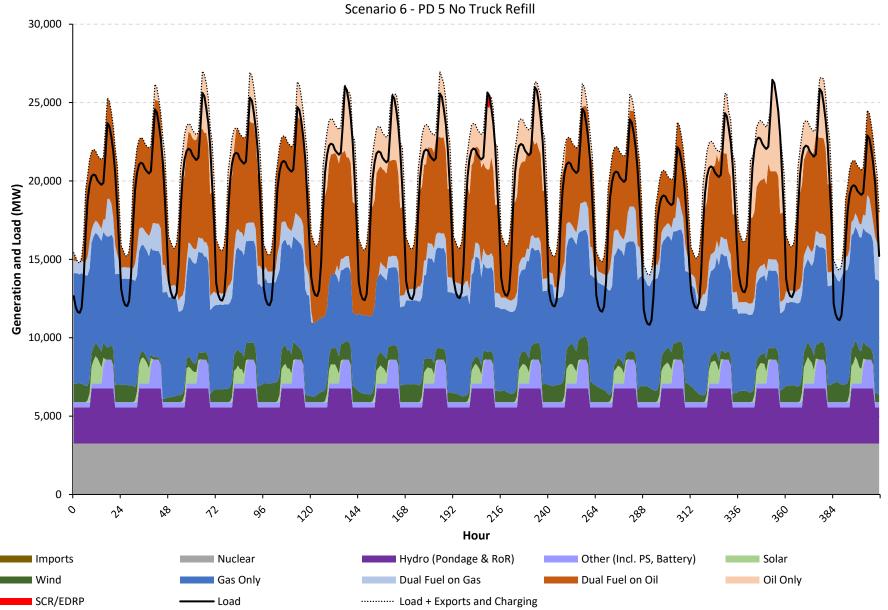
Hours with Reserve Violations

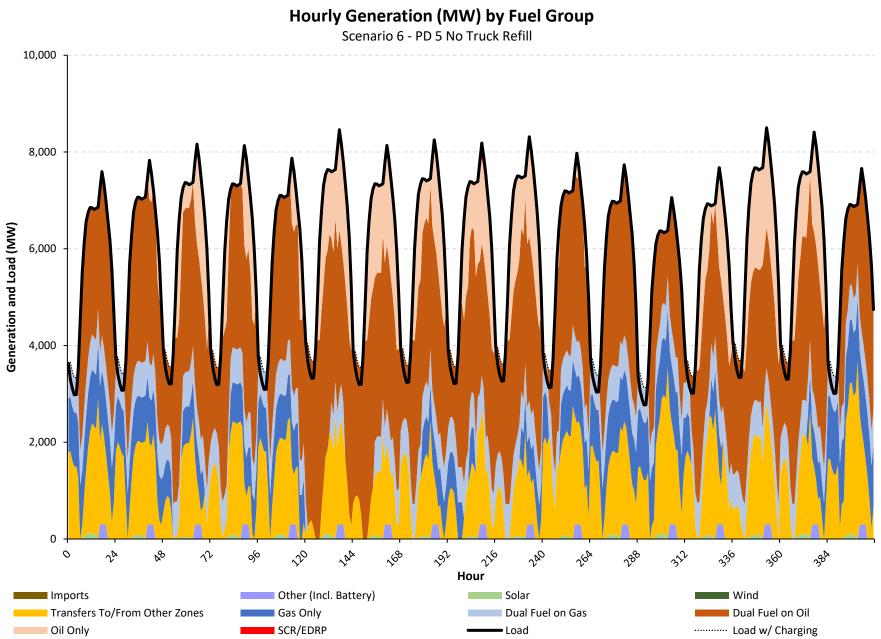


Hours with Loss of Load



NYCA Hourly Generation (MWh) by Fuel Group

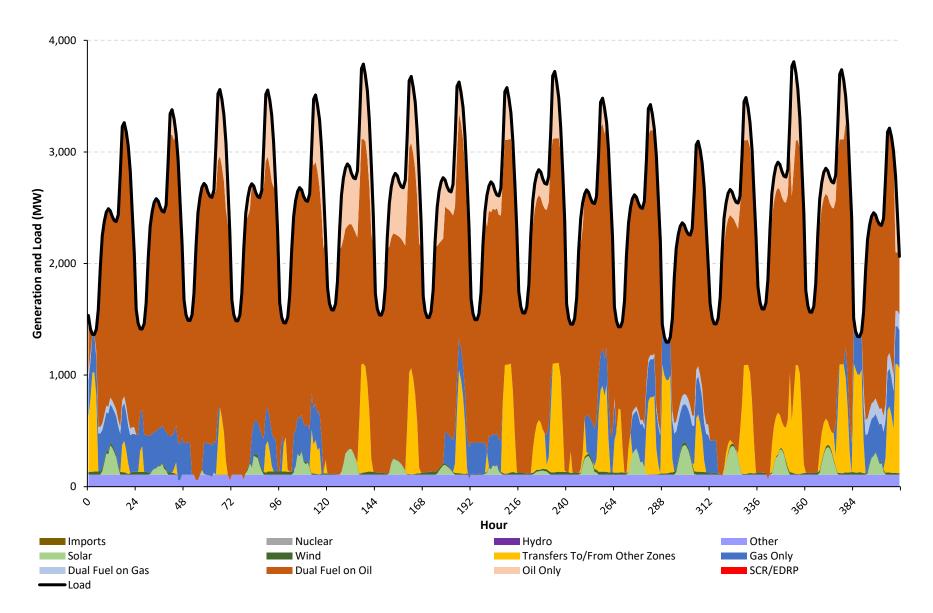




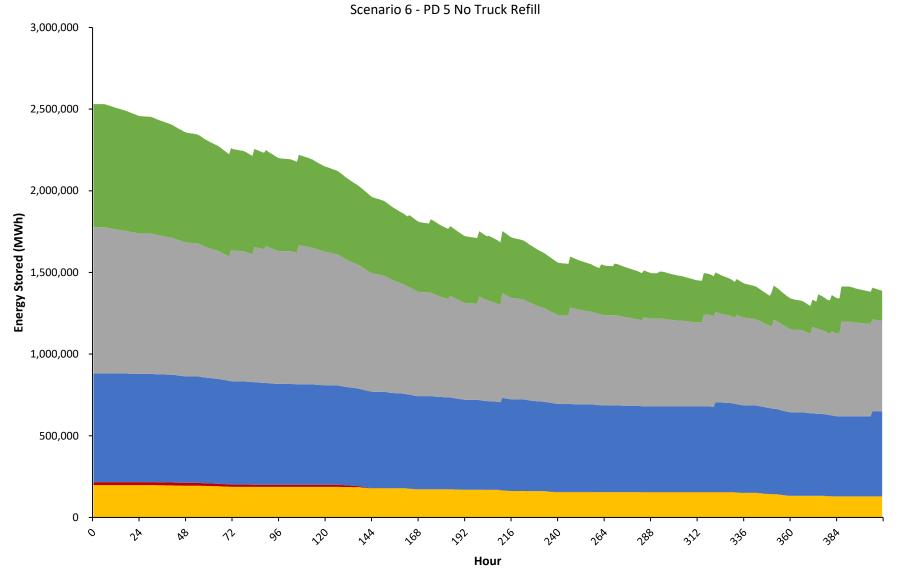
Zone J

Zone K Hourly Generation (MW) by Fuel Group

Scenario 6 - PD 5 No Truck Refill

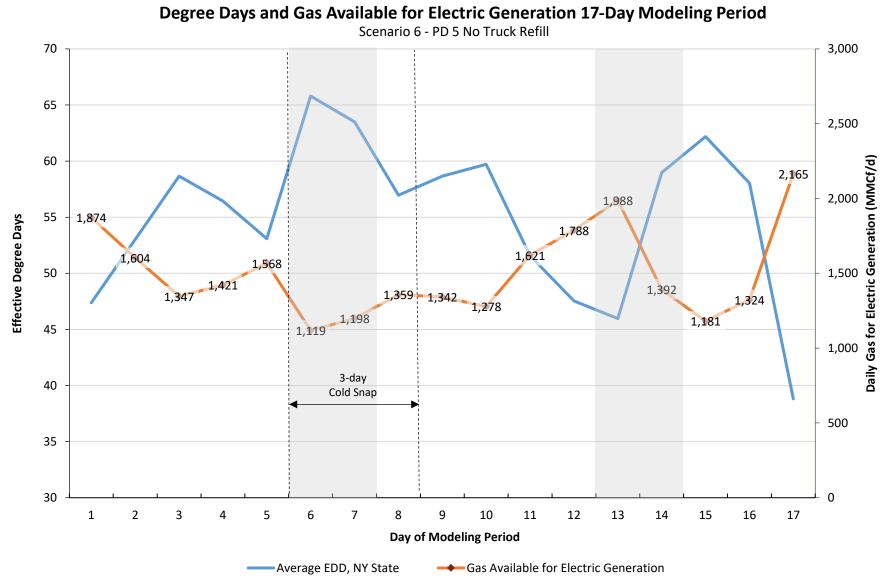






Zones A-E Zone F Zones G-I Zone J Zone K

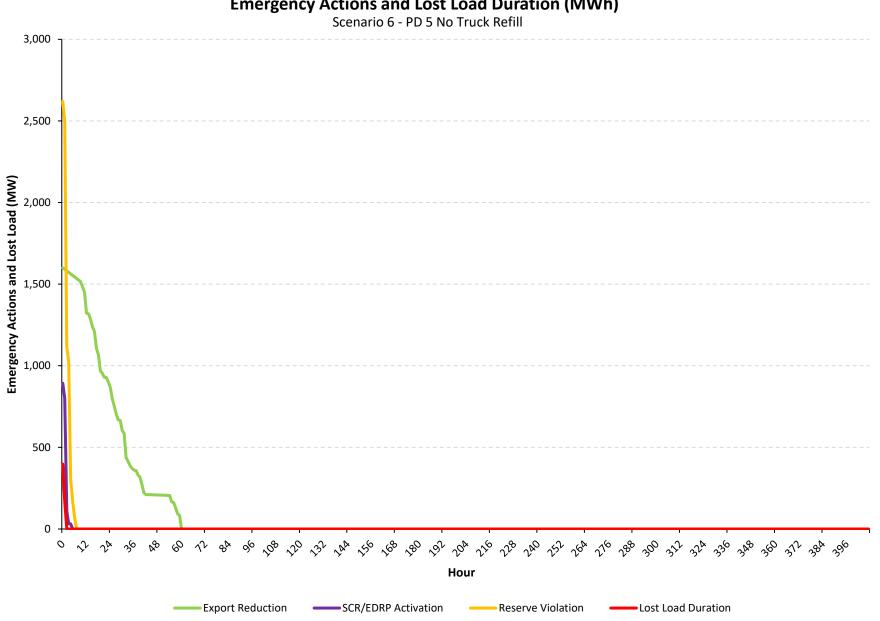
NYCA



Notes:

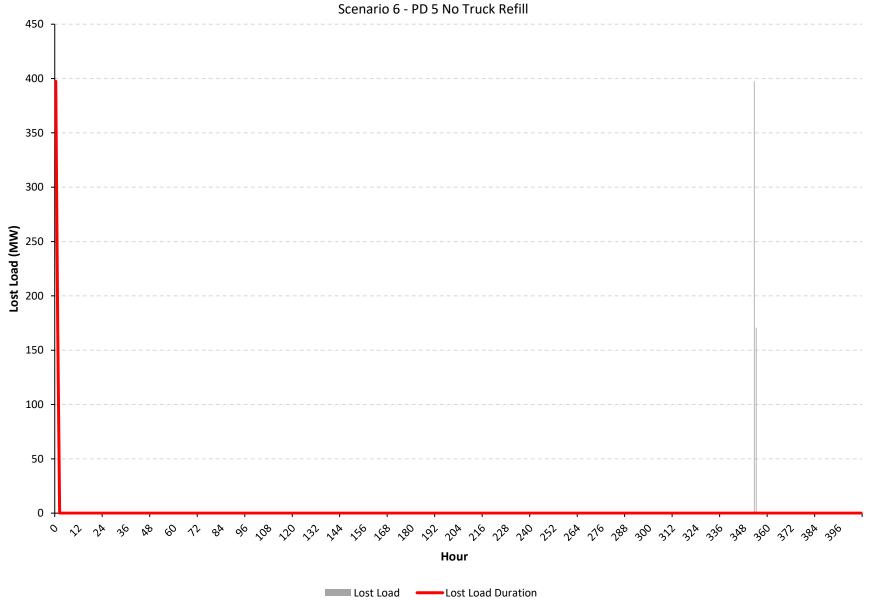
[1] Weekends are shaded in gray.

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



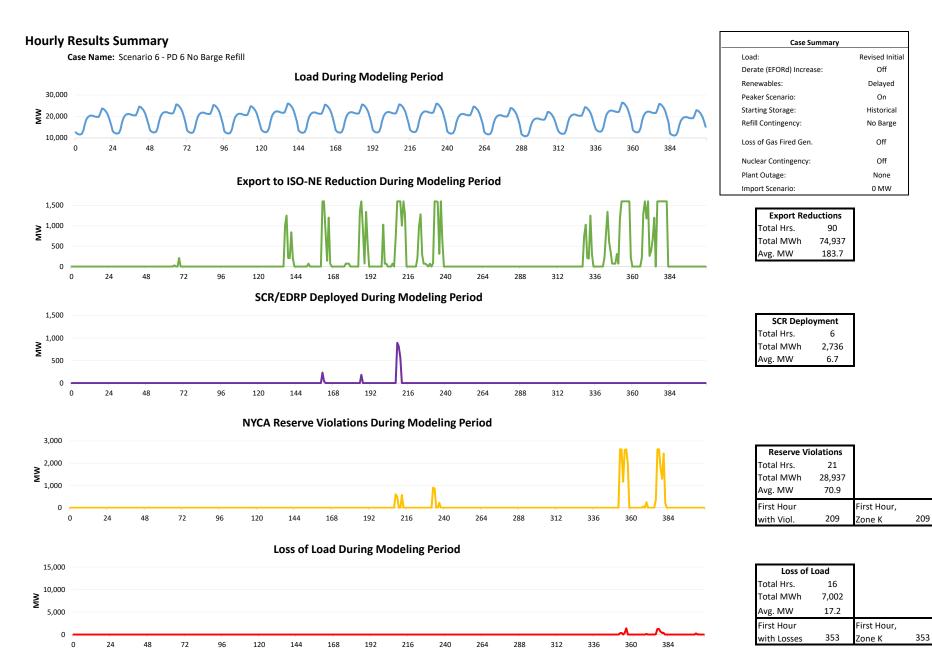
NYCA Emergency Actions and Lost Load Duration (MWh)

NYCA Lost Load Duration (MWh)

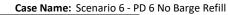


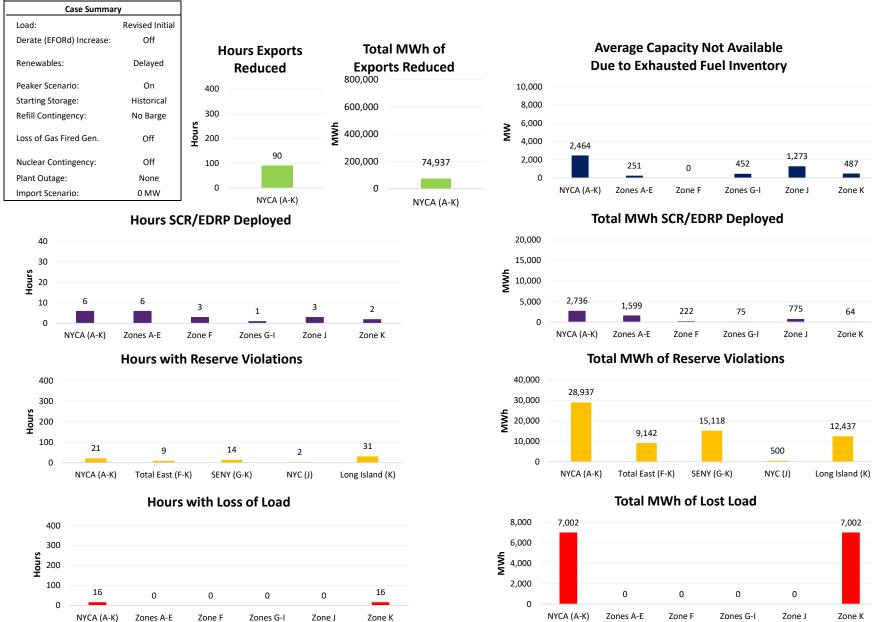
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

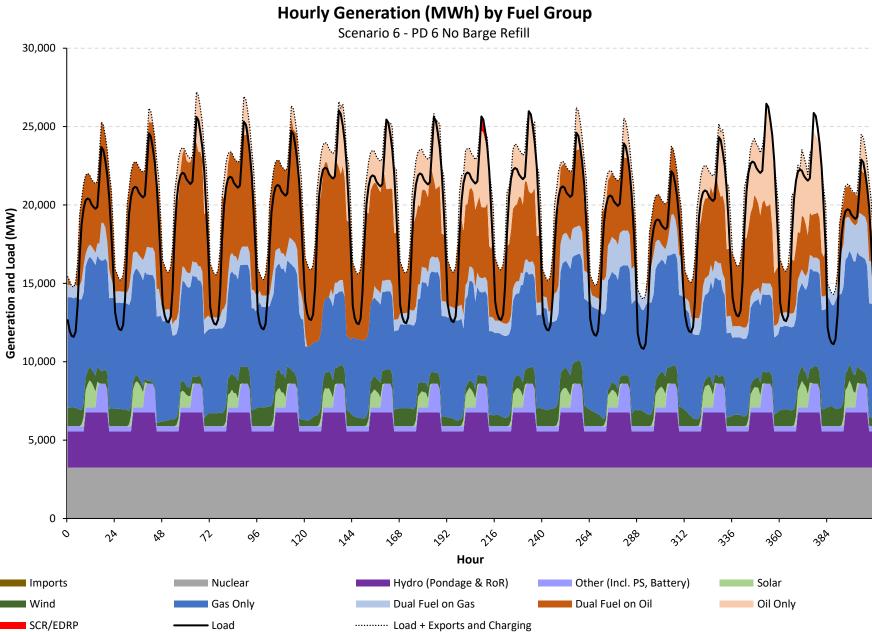
Case: Scenario 6 - PD 6 No Barge Refill



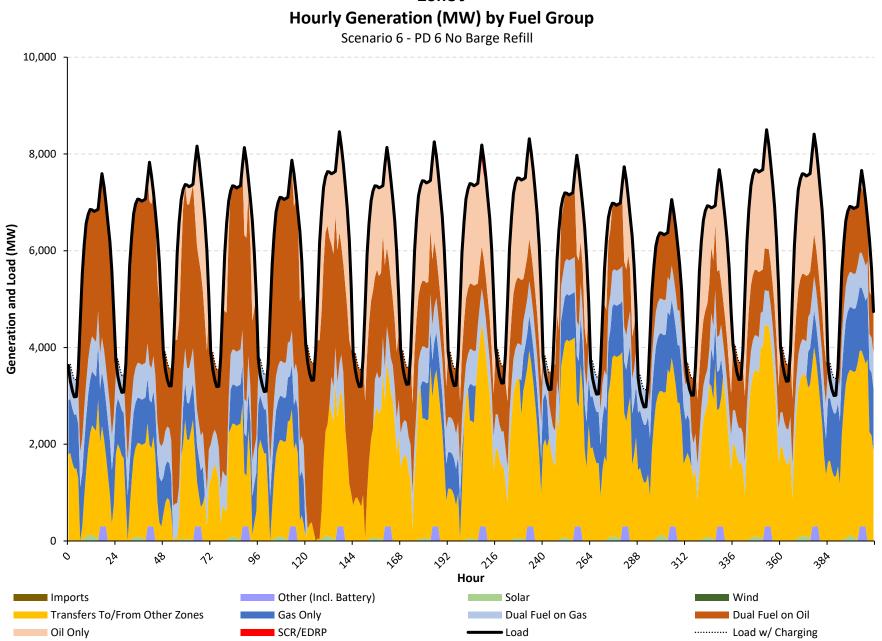
Full Period Results Summary







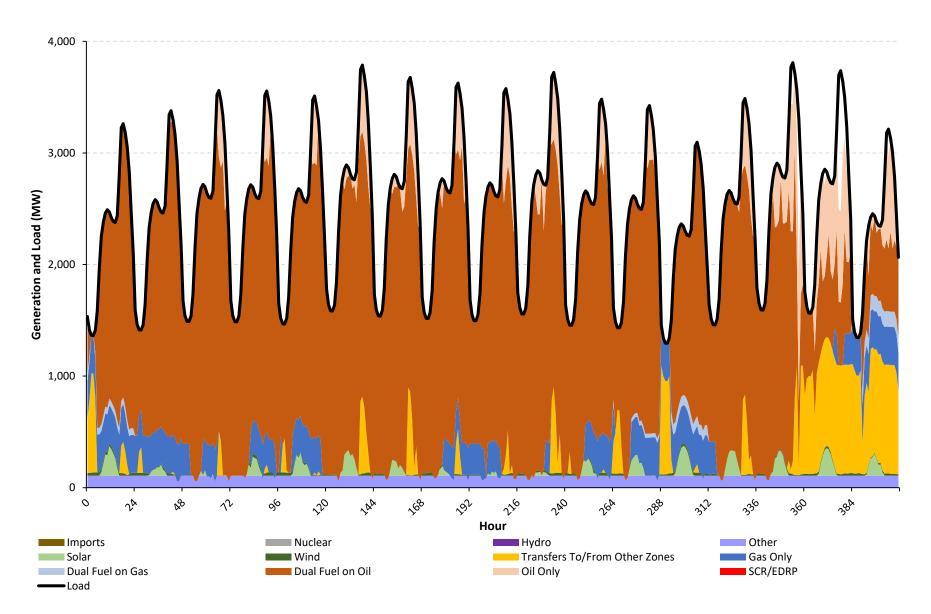
NYCA



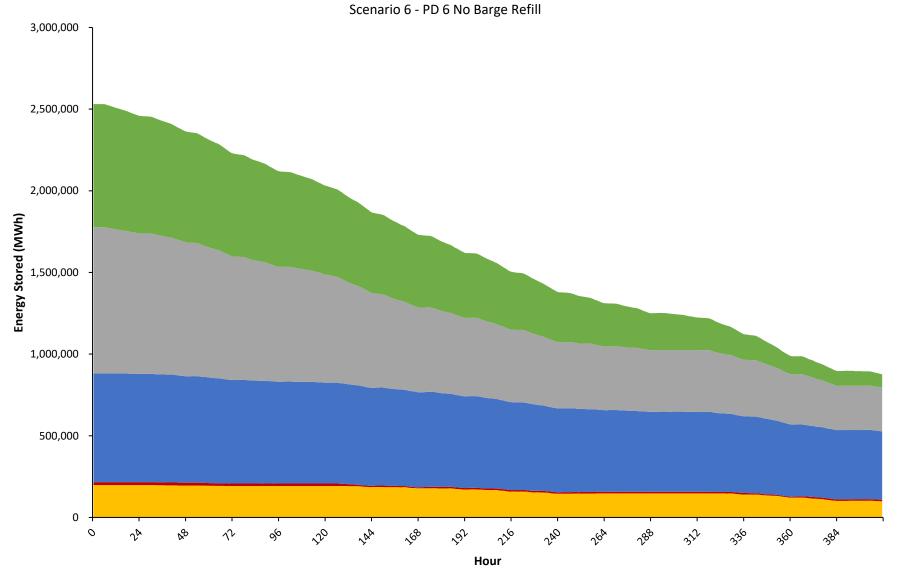
Zone J

Zone K Hourly Generation (MW) by Fuel Group

Scenario 6 - PD 6 No Barge Refill

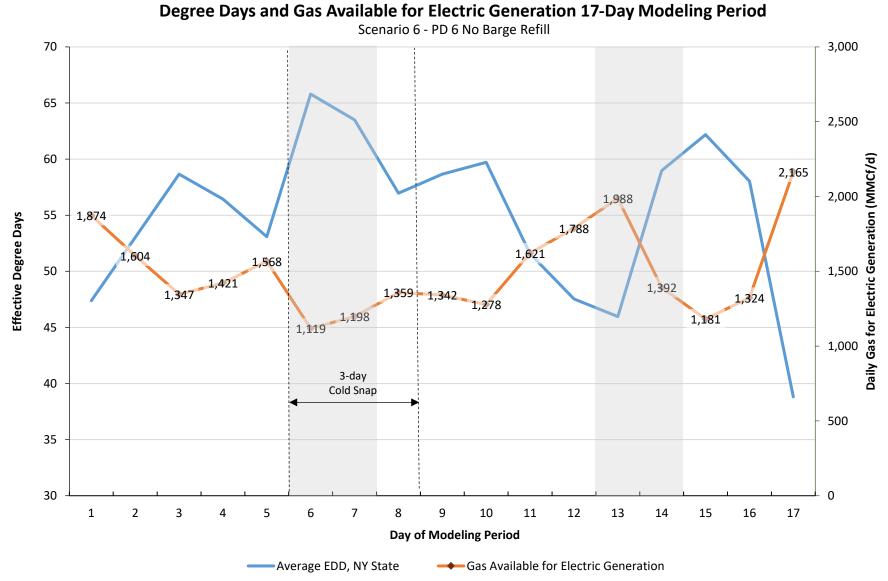






Zones A-E Zone F Zones G-I Zone J Zone K

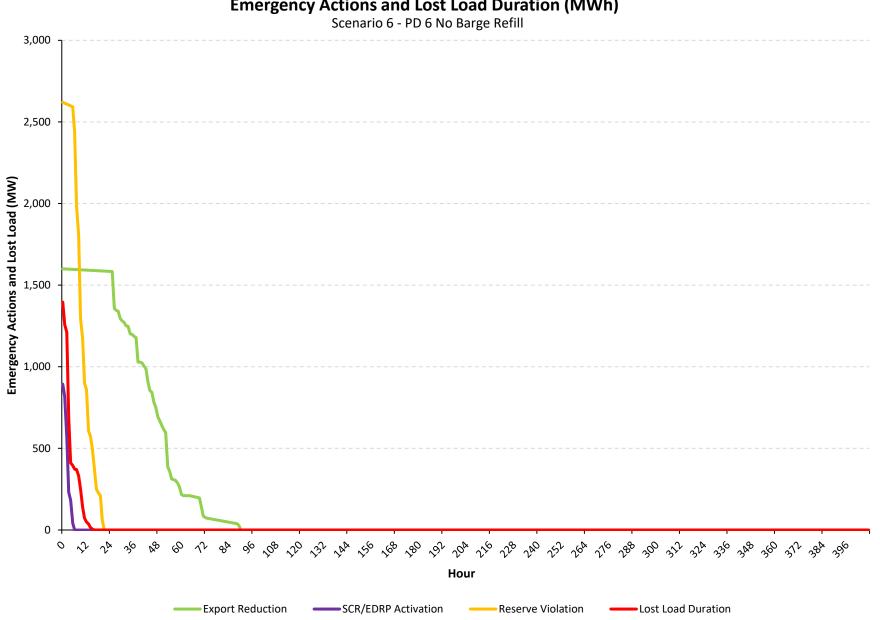
NYCA



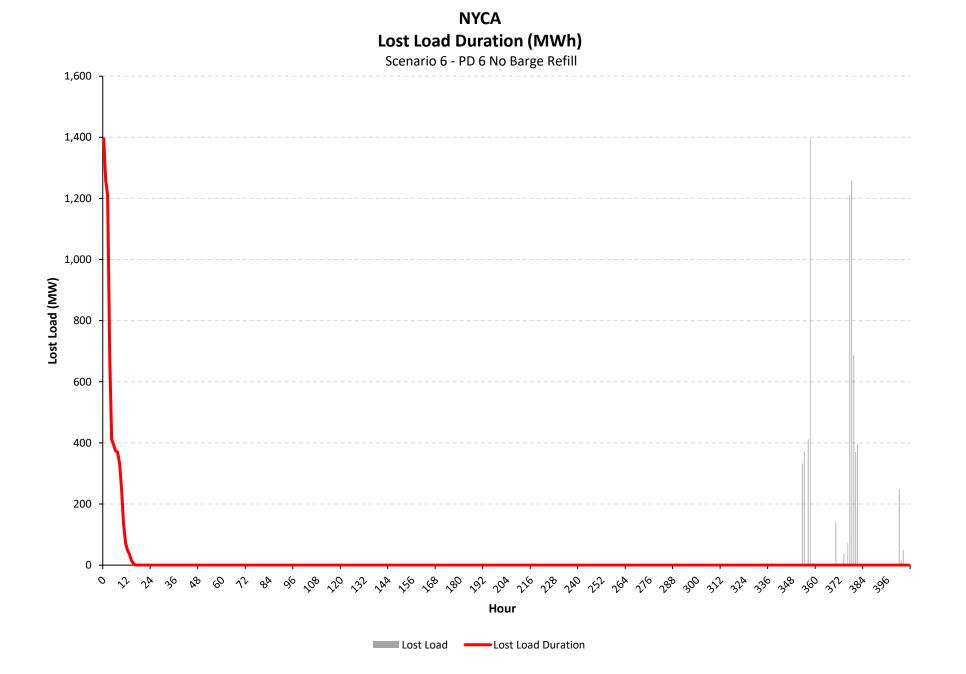
Notes:

[1] Weekends are shaded in gray.

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

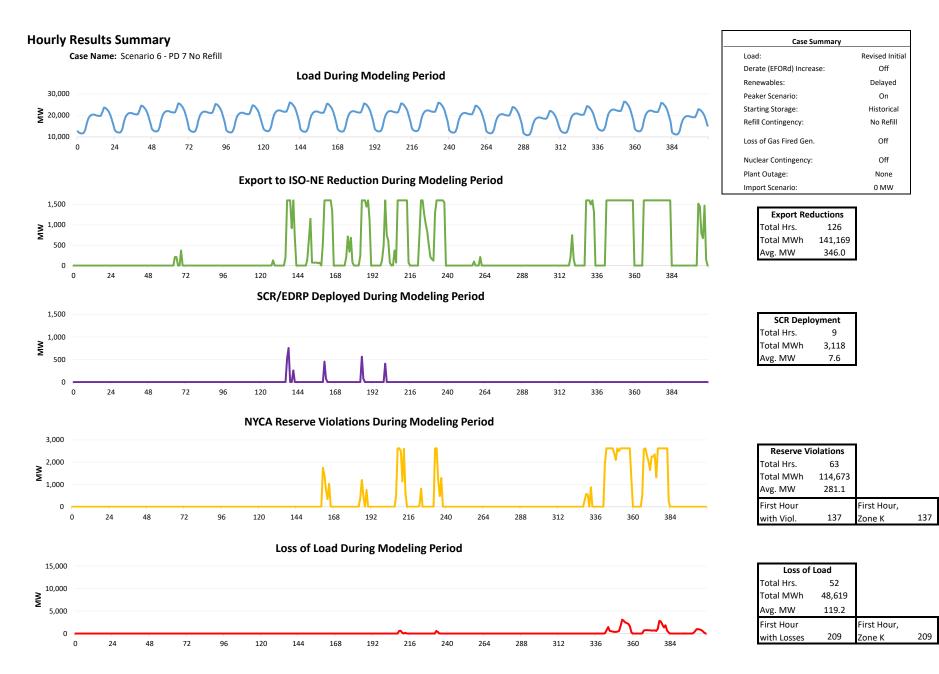


NYCA Emergency Actions and Lost Load Duration (MWh)



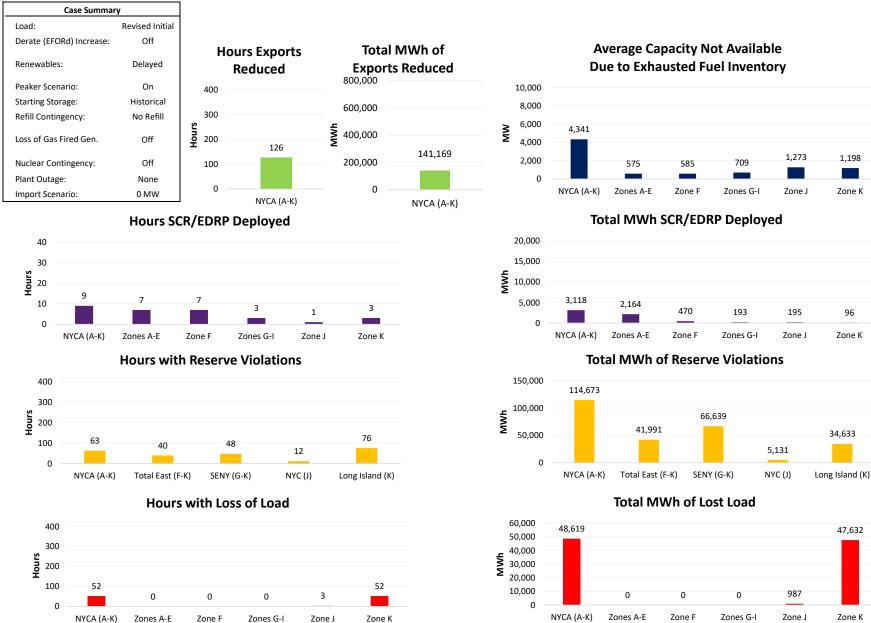
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 6 - PD 7 No Refill

Analysis Group, Inc.

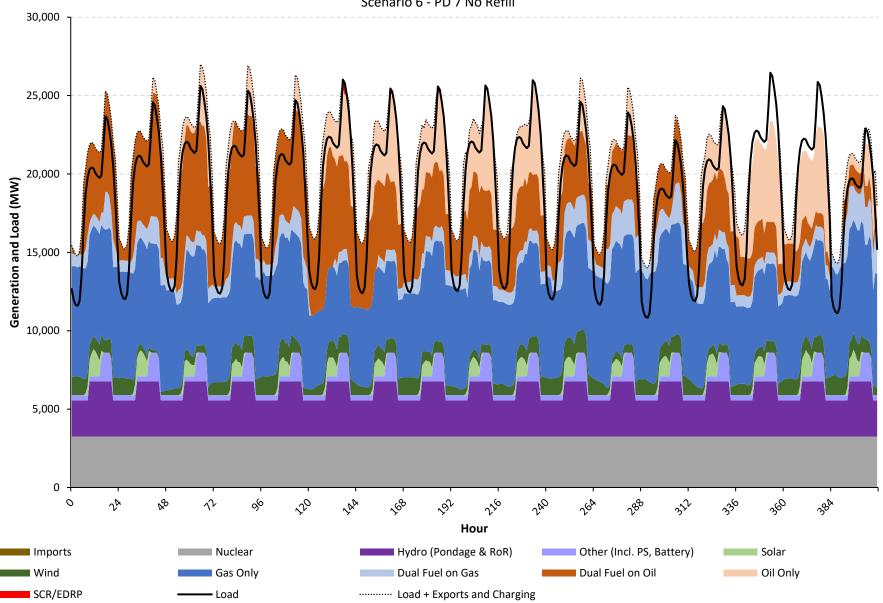


Full Period Results Summary

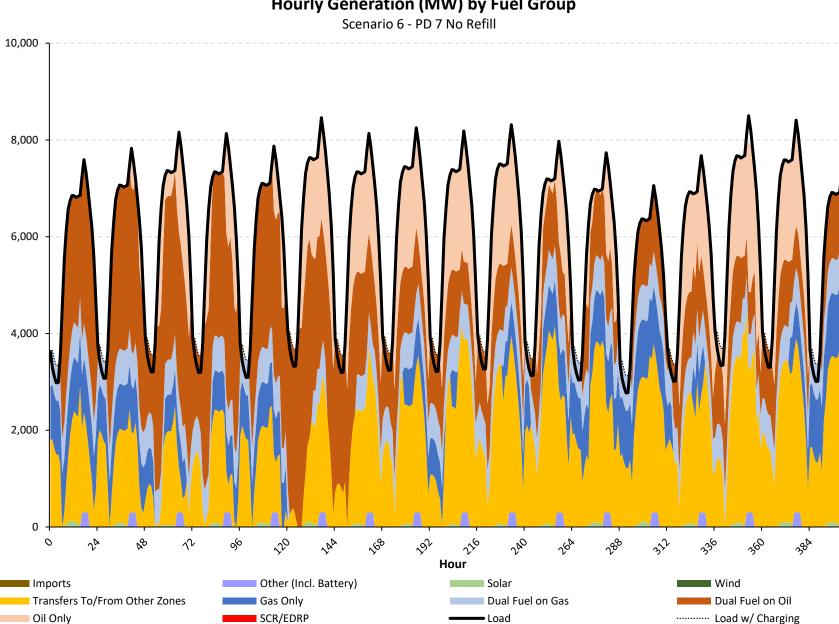




NYCA Hourly Generation (MWh) by Fuel Group Scenario 6 - PD 7 No Refill



Analysis Group, Inc.

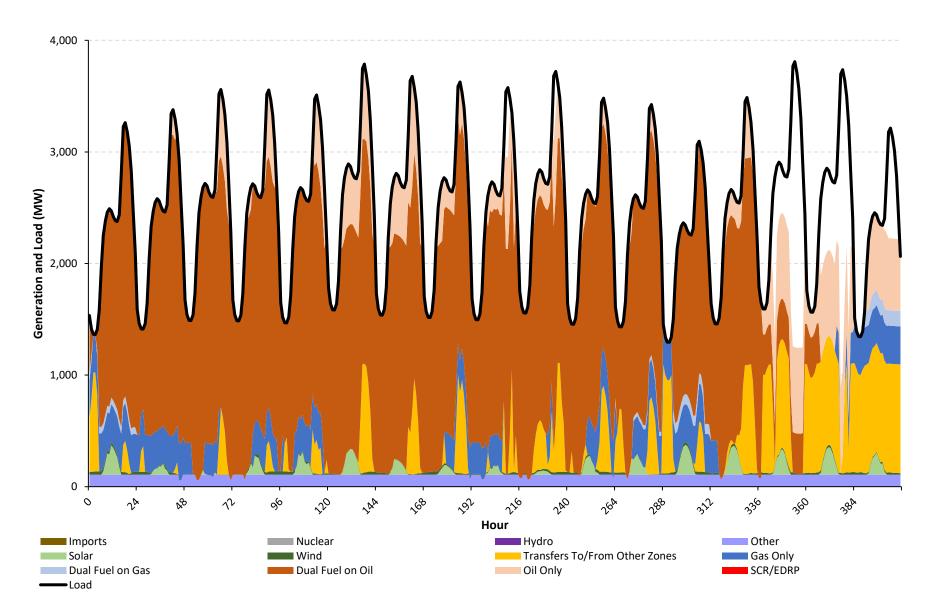


Zone J Hourly Generation (MW) by Fuel Group

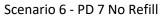
Generation and Load (MW)

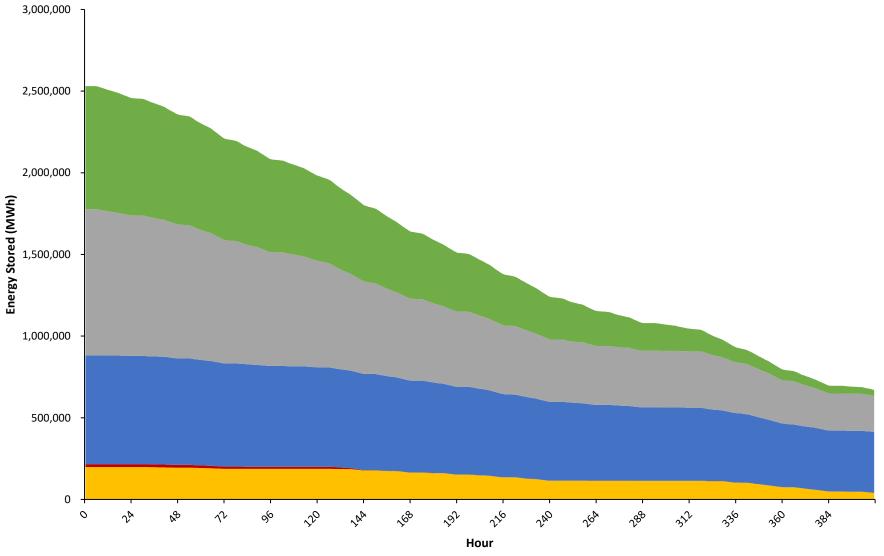
Zone K Hourly Generation (MW) by Fuel Group

Scenario 6 - PD 7 No Refill

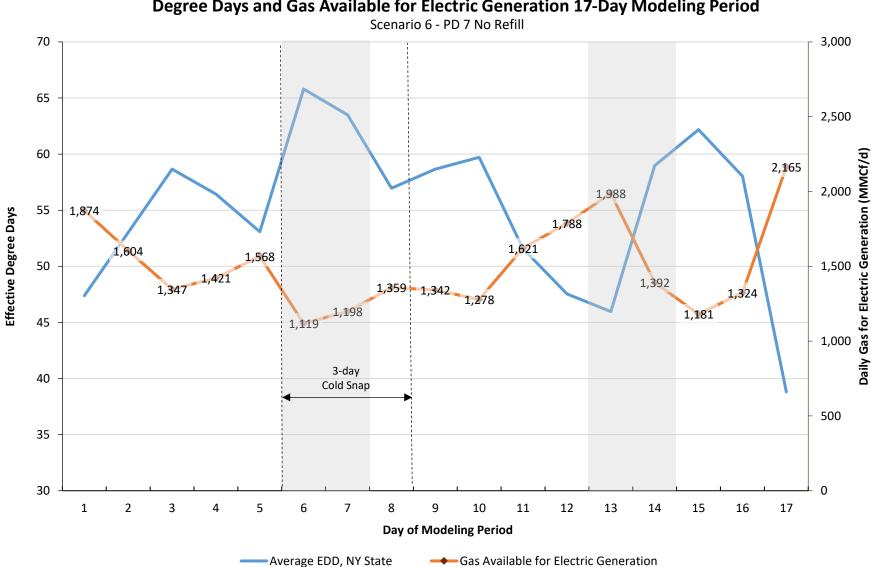








Zones A-E Zone F Zones G-I Zone J Zone K

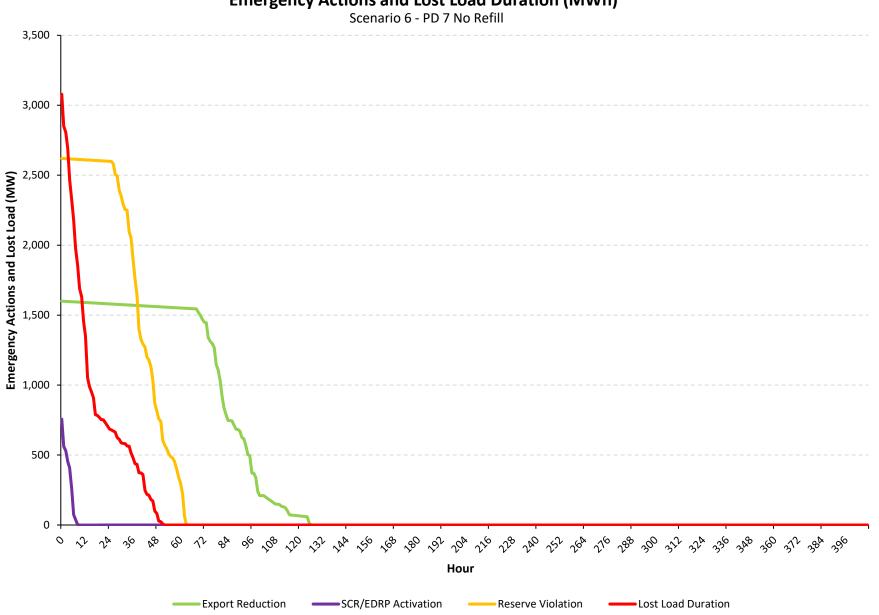


NYCA Degree Days and Gas Available for Electric Generation 17-Day Modeling Period

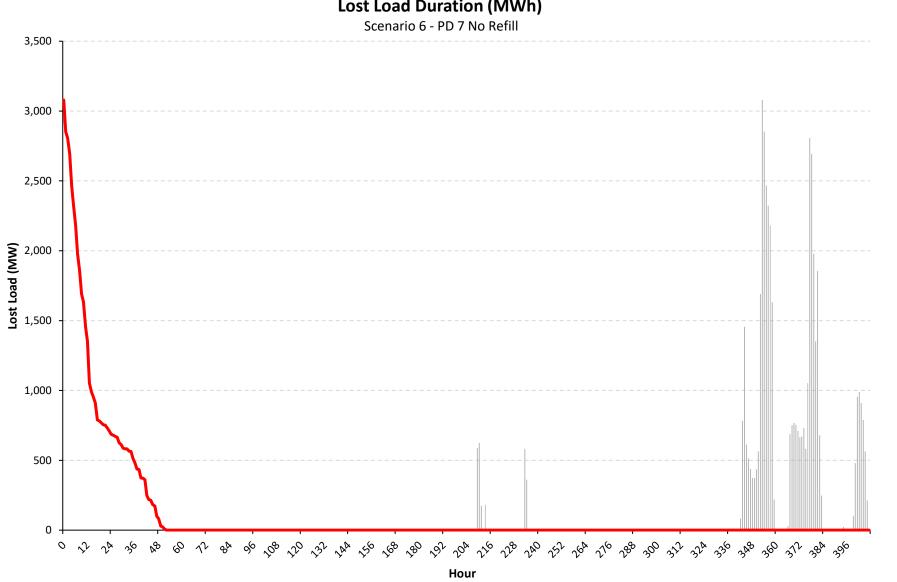
Notes:

[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)



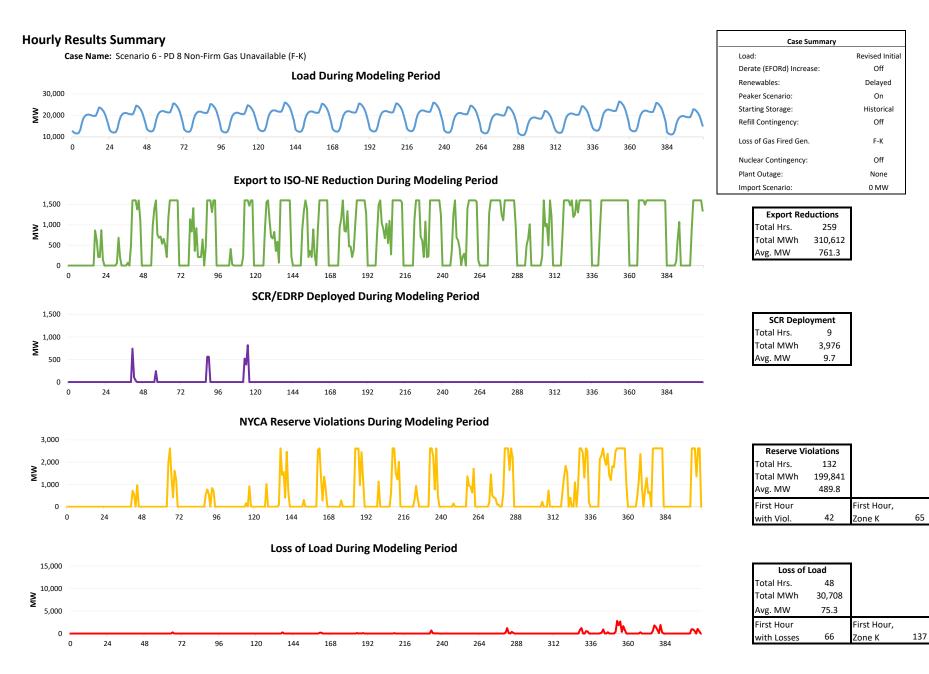
Lost Load Duration

Lost Load

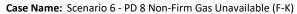
Lost Load Duration (MWh)

NYCA

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 6 - PD 8 Non-Firm Gas Unavailable (F-K)



Full Period Results Summary





28

Zone J

11

Zones G-I

7

Zone F

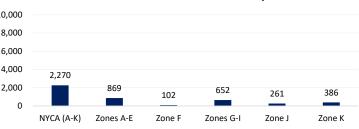
0

Zones A-E

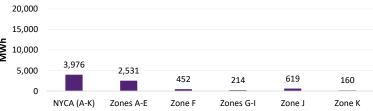
24

Zone K

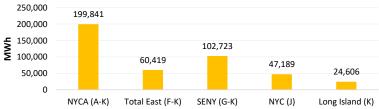




Total MWh SCR/EDRP Deployed



Total MWh of Reserve Violations



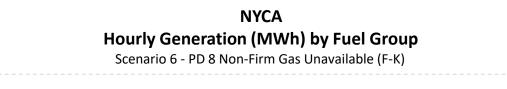
Total MWh of Lost Load

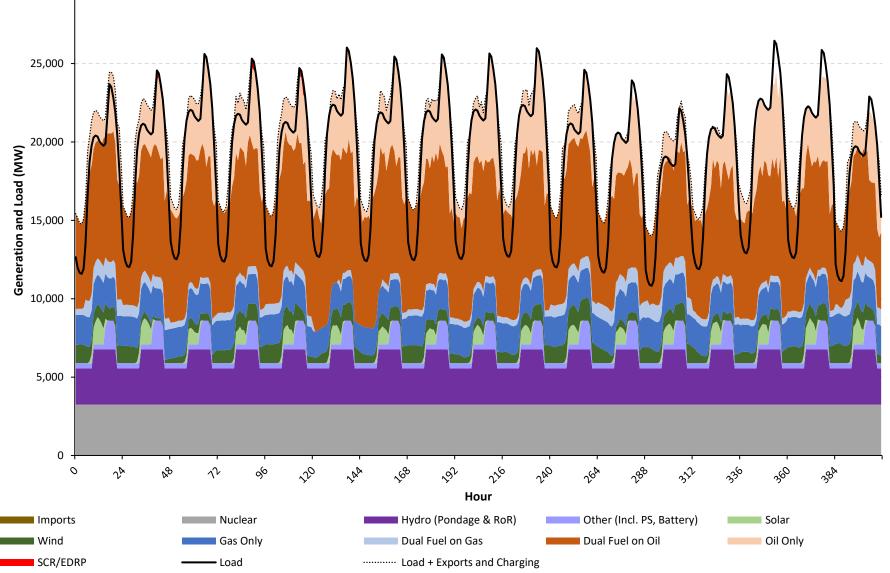


0

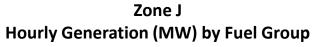
NYCA (A-K)

30,000

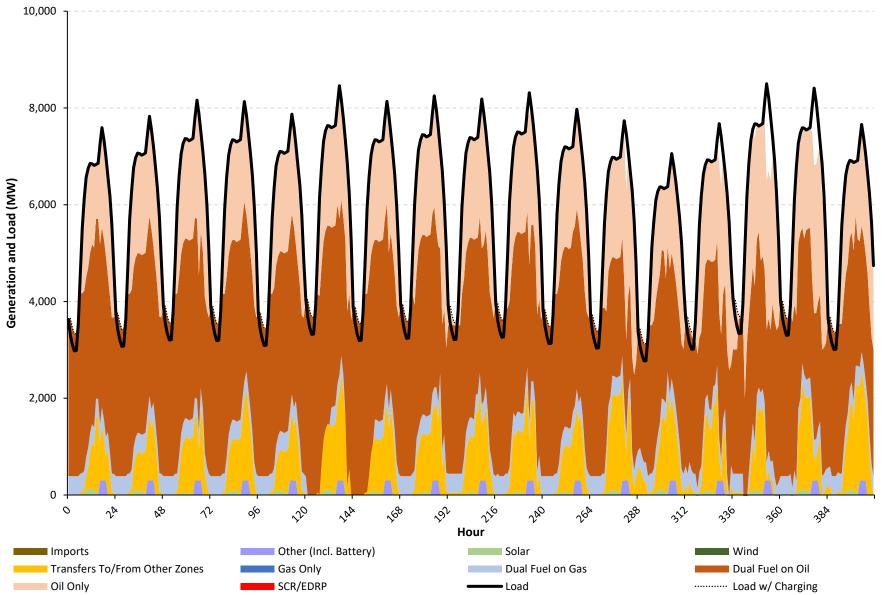




Analysis Group, Inc.

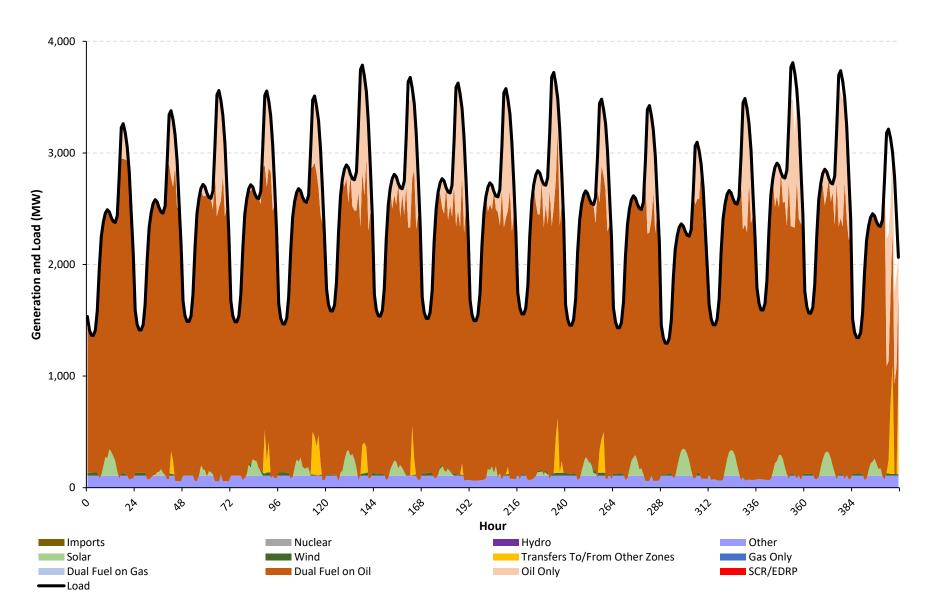


Scenario 6 - PD 8 Non-Firm Gas Unavailable (F-K)



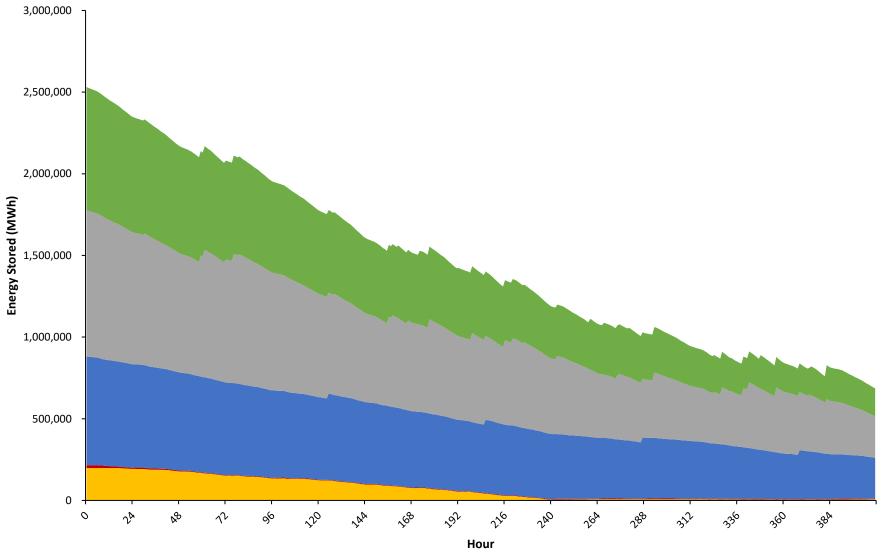
Zone K Hourly Generation (MW) by Fuel Group

Scenario 6 - PD 8 Non-Firm Gas Unavailable (F-K)

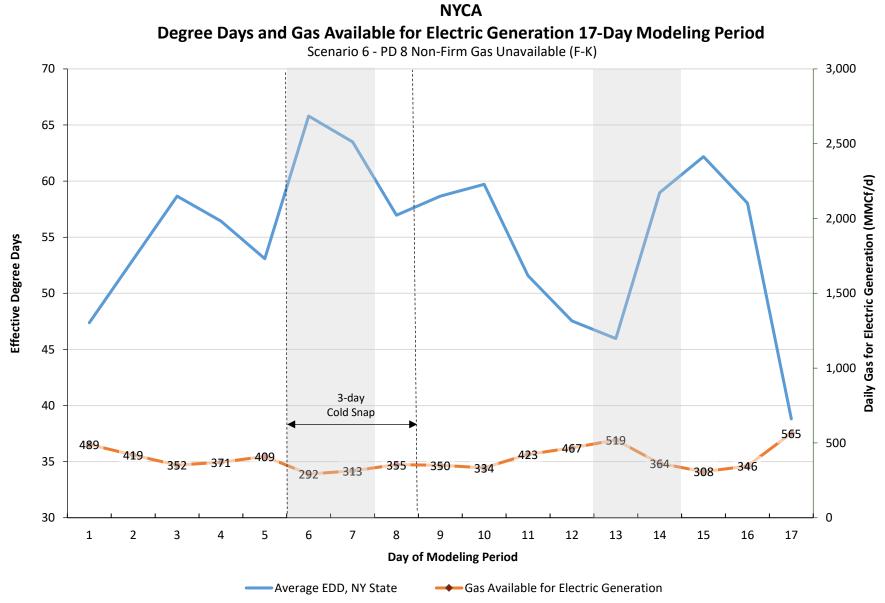




Scenario 6 - PD 8 Non-Firm Gas Unavailable (F-K)



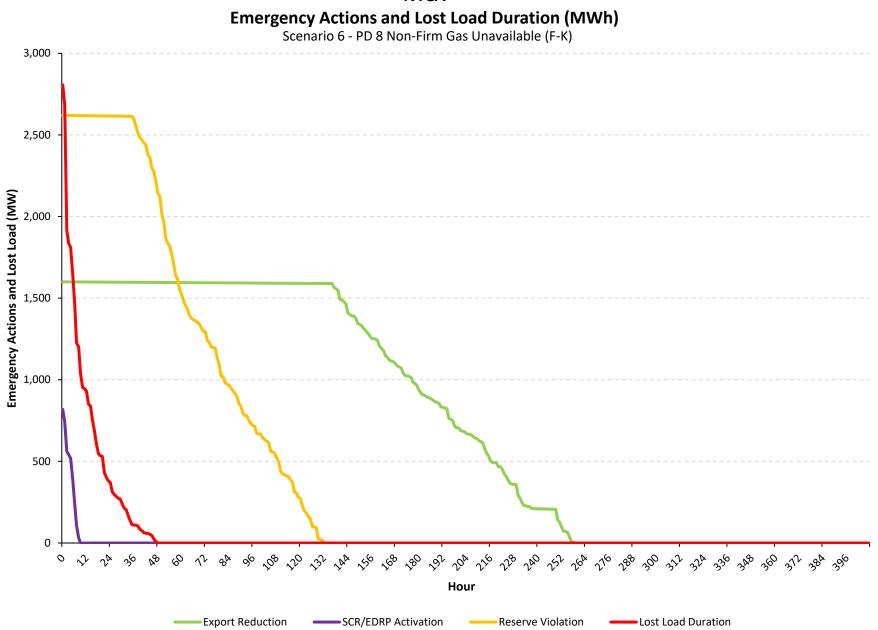
Zones A-E Zone F Zones G-I Zone J Zone K



Notes:

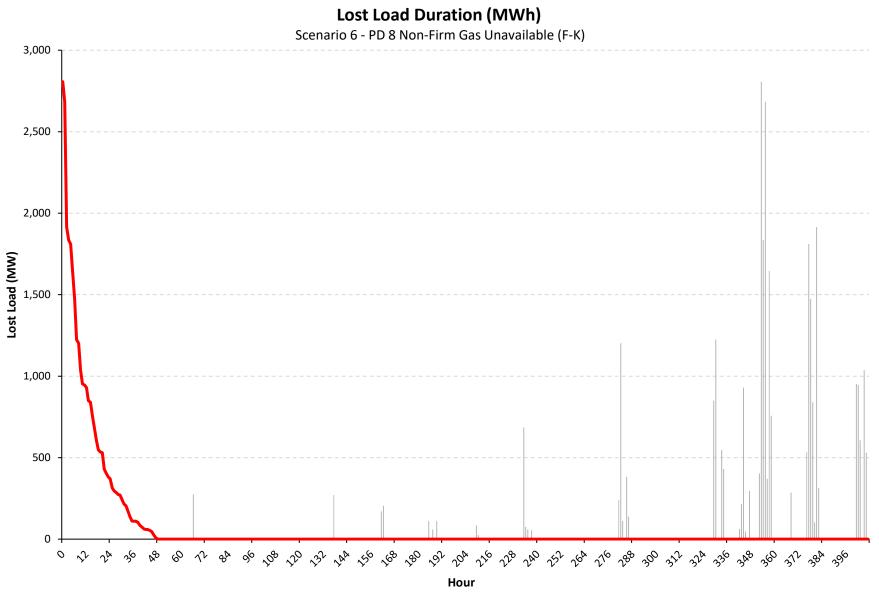
[1] Weekends are shaded in gray.

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



NYCA

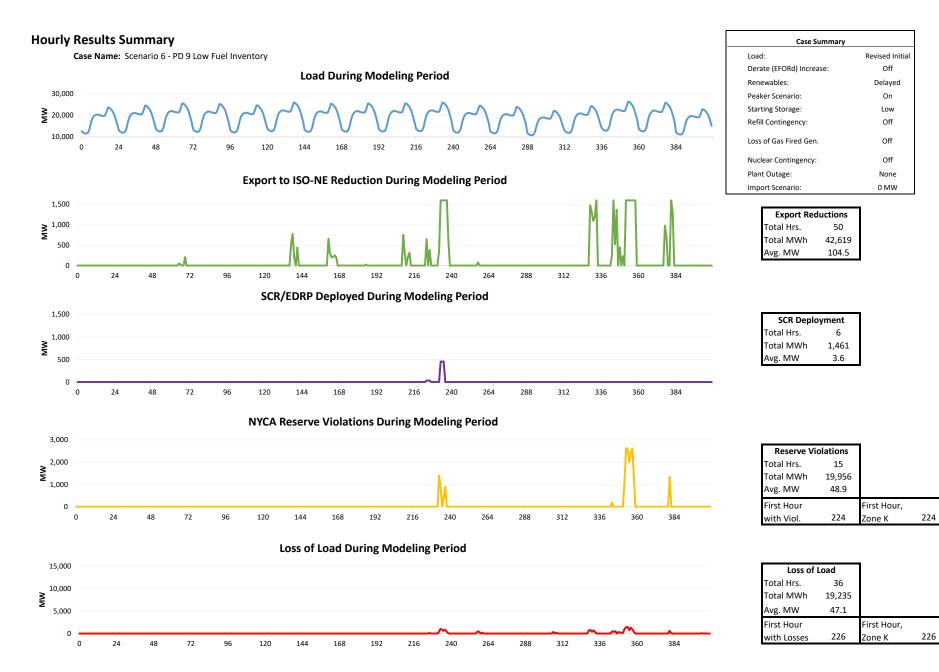
NYCA



Lost Load — Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 6 - PD 9 Low Fuel Inventory



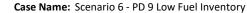
984

Zone K

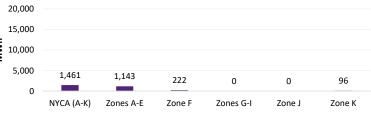
224

Zone J

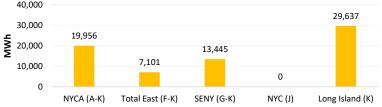
Full Period Results Summary

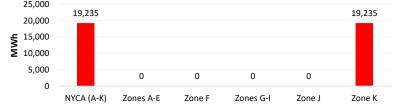




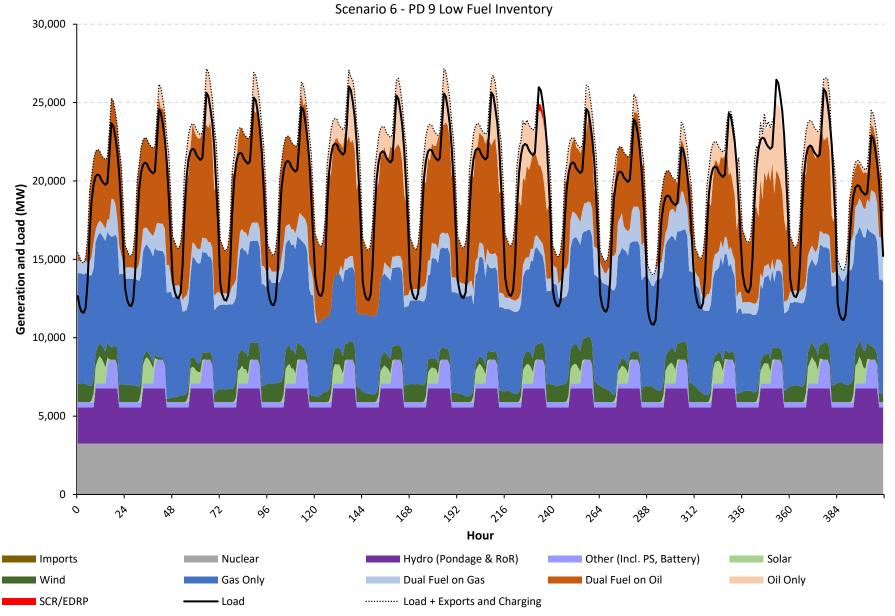


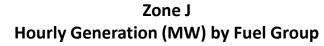
Total MWh of Reserve Violations



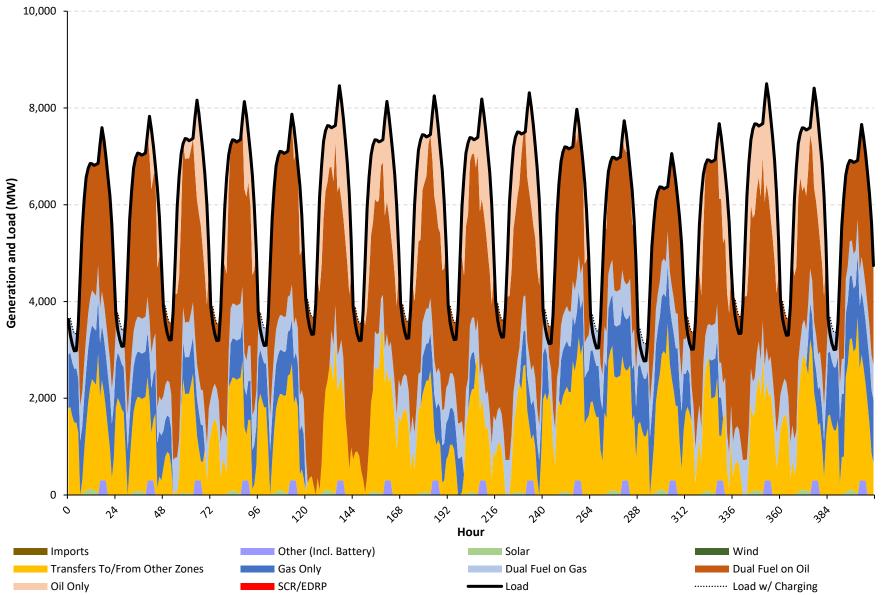


NYCA Hourly Generation (MWh) by Fuel Group



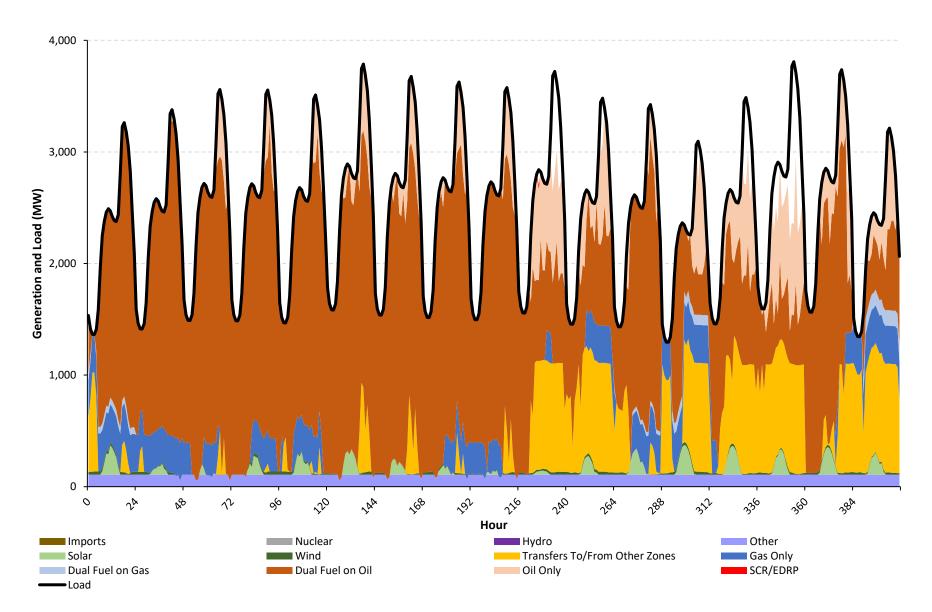


Scenario 6 - PD 9 Low Fuel Inventory

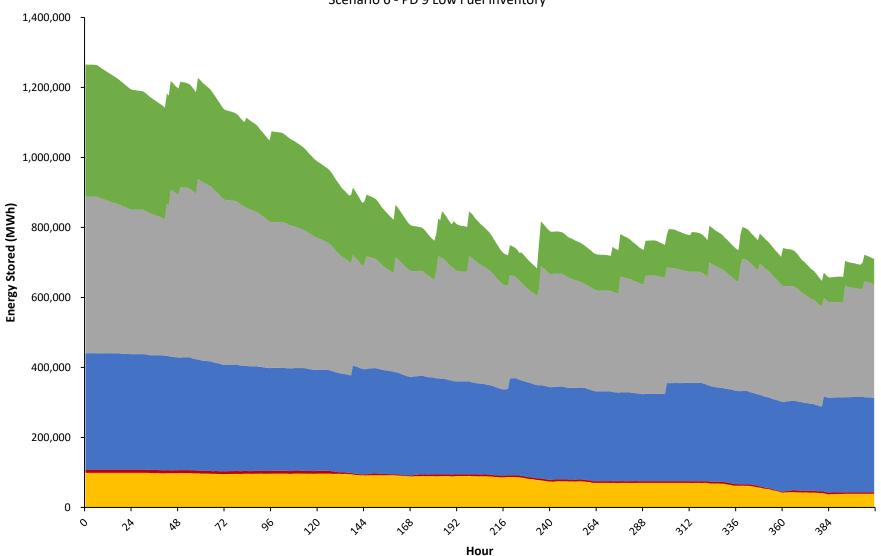


Zone K Hourly Generation (MW) by Fuel Group

Scenario 6 - PD 9 Low Fuel Inventory



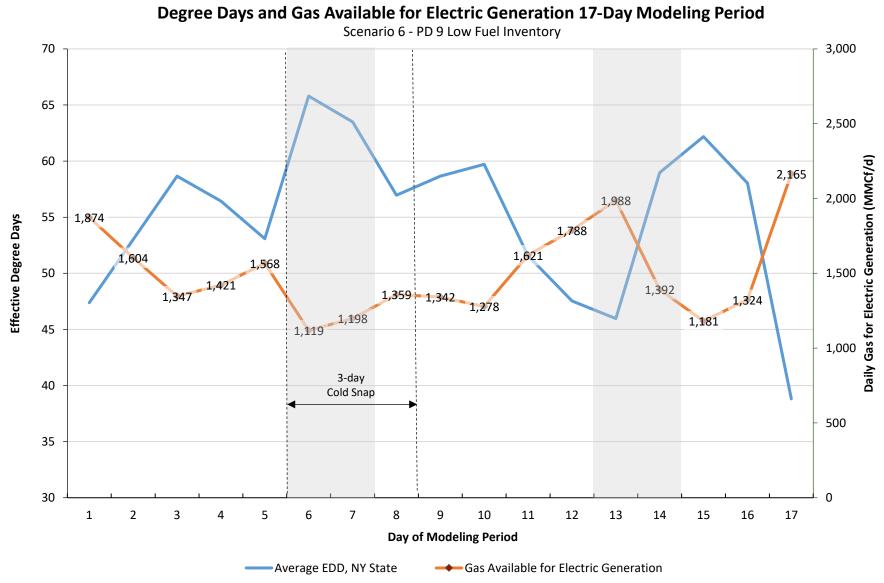




Scenario 6 - PD 9 Low Fuel Inventory

Zones A-E Zone F Zones G-I Zone J Zone K

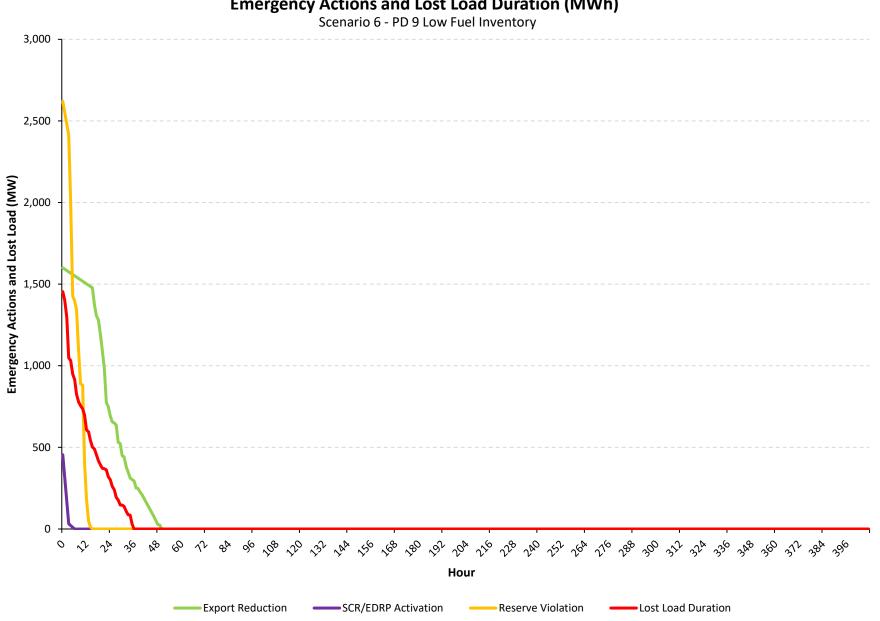
NYCA



Notes:

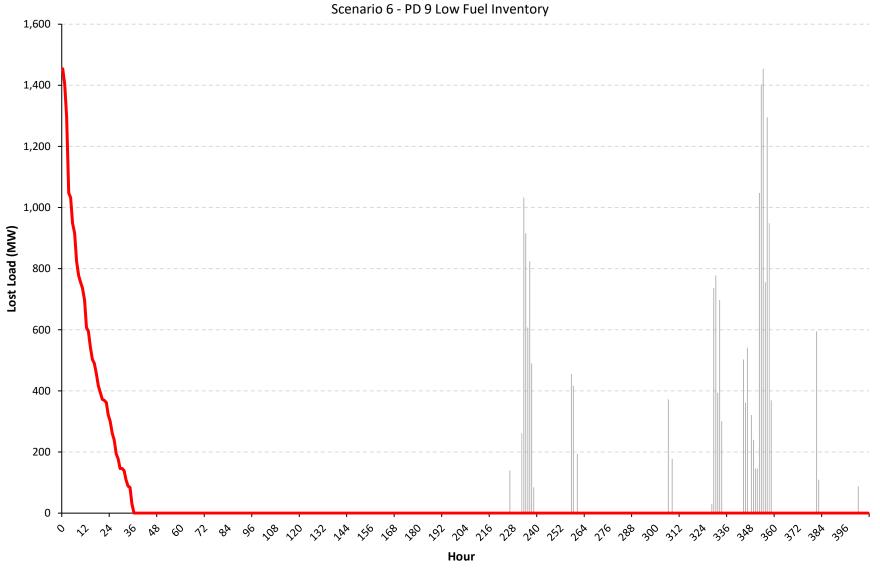
[1] Weekends are shaded in gray.

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



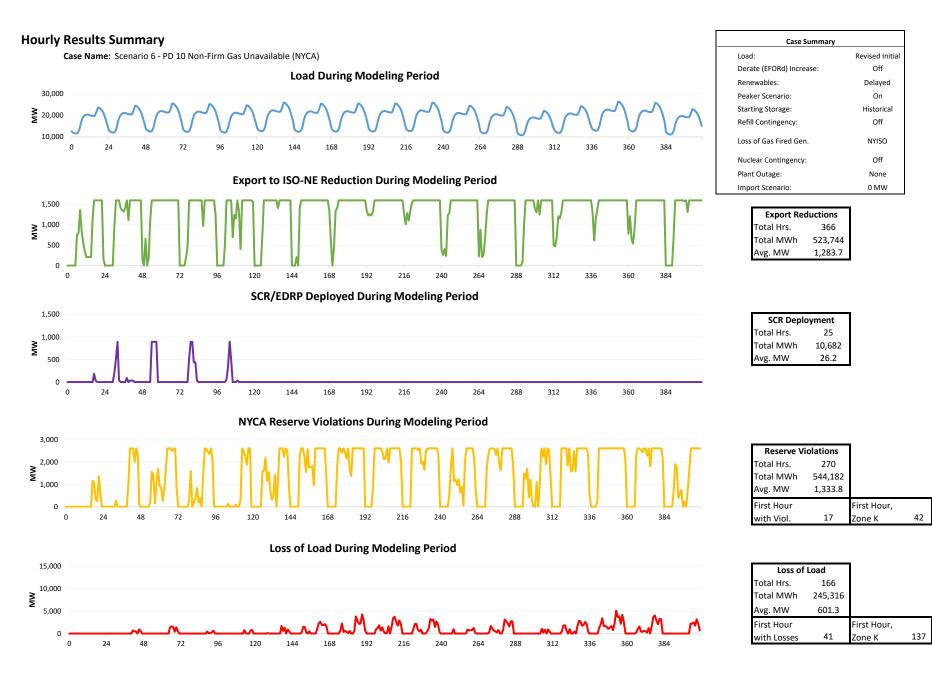
NYCA Emergency Actions and Lost Load Duration (MWh)





Lost Load — Lost Load Duration

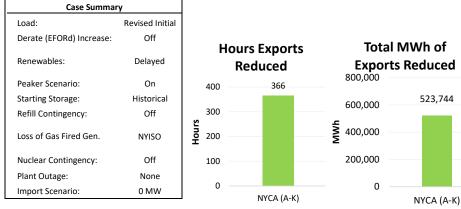
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 6 - PD 10 Non-Firm Gas Unavailable (NYCA)



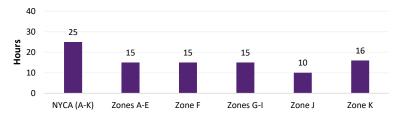
₹

Full Period Results Summary

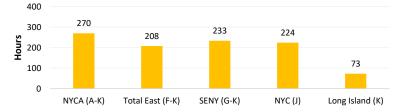
Case Name: Scenario 6 - PD 10 Non-Firm Gas Unavailable (NYCA)



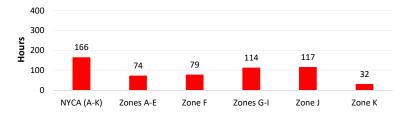
Hours SCR/EDRP Deployed



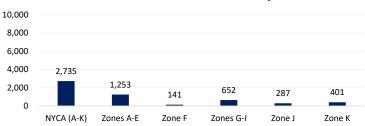
Hours with Reserve Violations



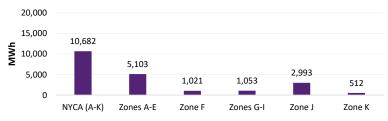
Hours with Loss of Load



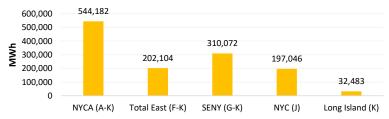




Total MWh SCR/EDRP Deployed

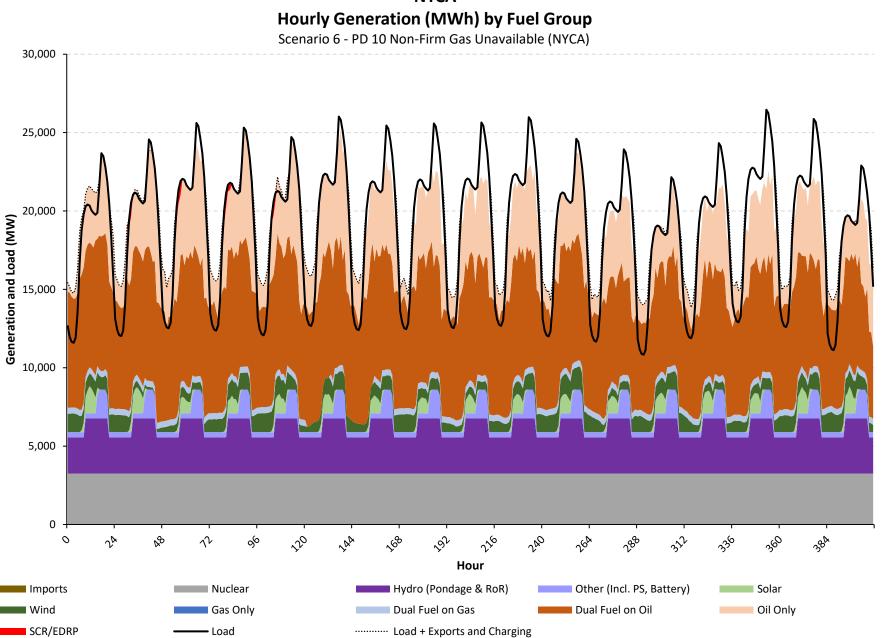


Total MWh of Reserve Violations



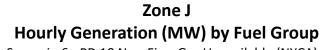
Total MWh of Lost Load



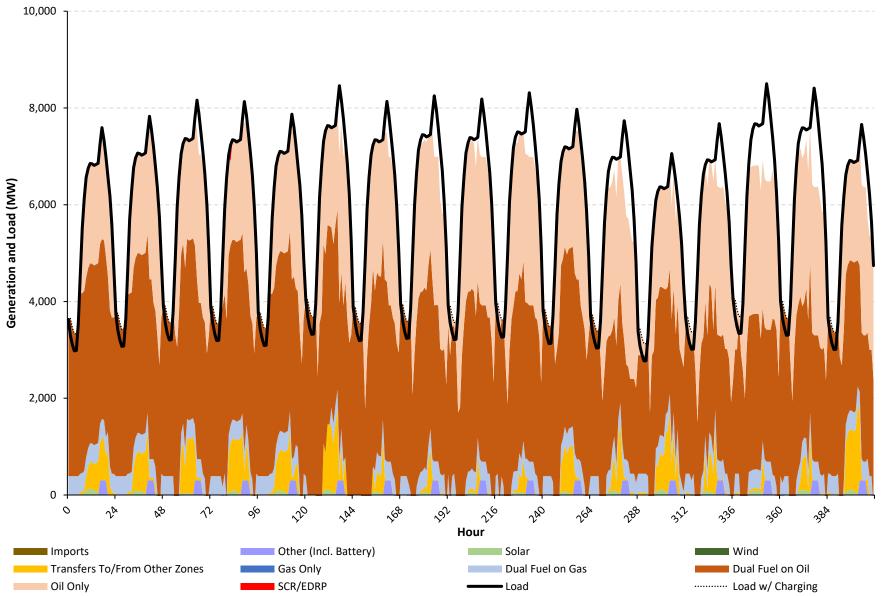


NYCA

Analysis Group, Inc.

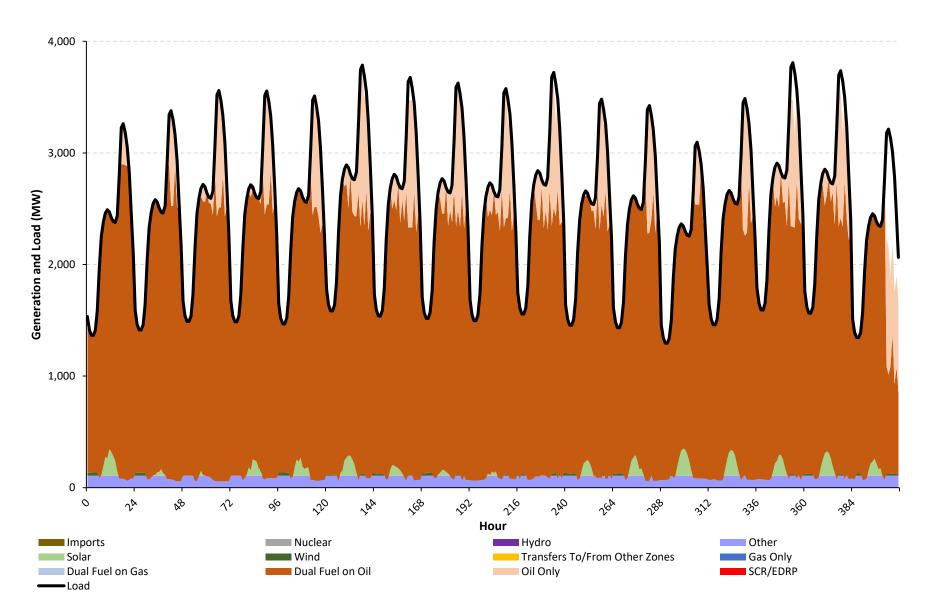




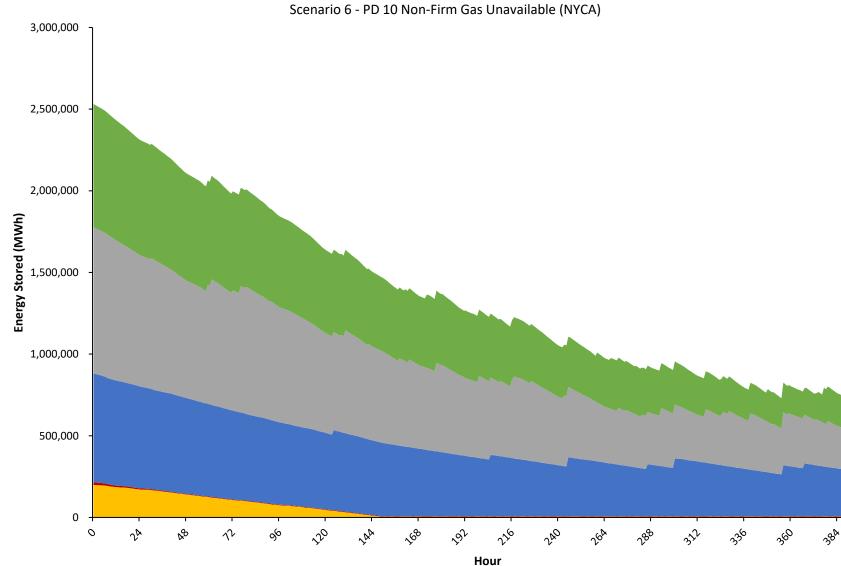


Zone K Hourly Generation (MW) by Fuel Group

Scenario 6 - PD 10 Non-Firm Gas Unavailable (NYCA)

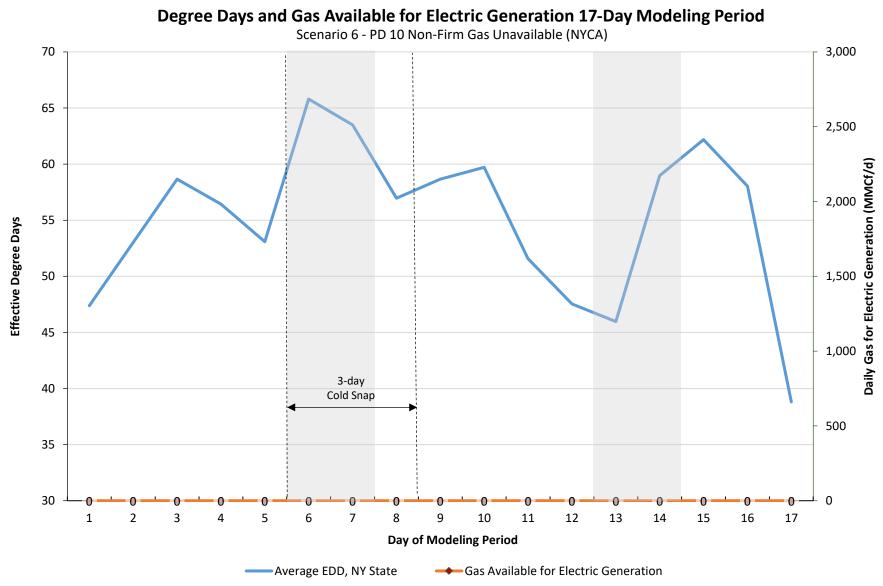






Zones A-E Zone F Zones G-I Zone J Zone K

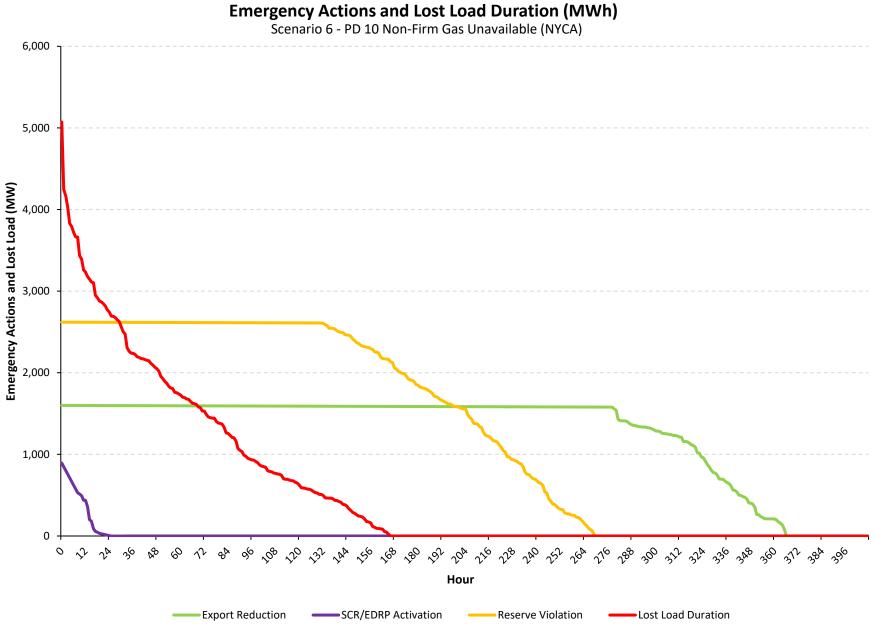
NYCA

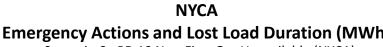


Notes:

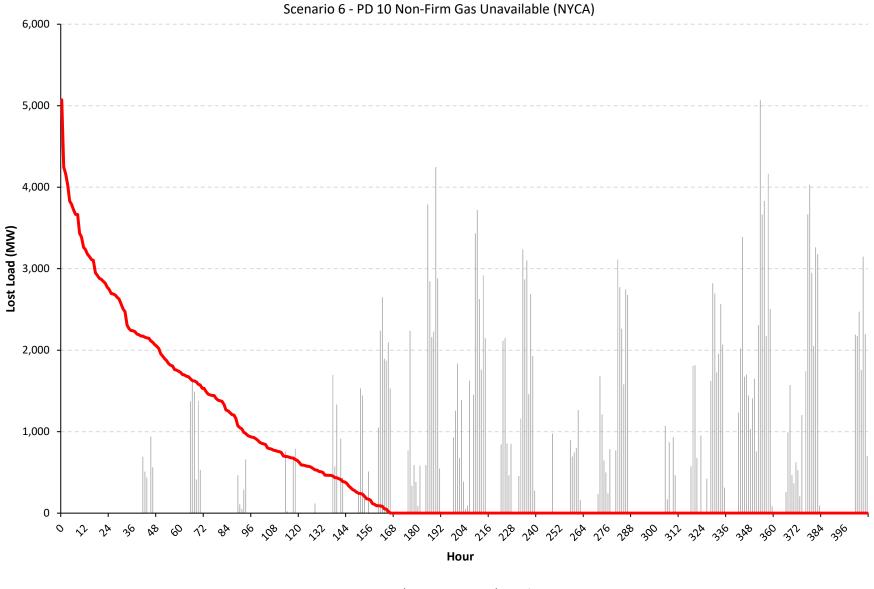
[1] Weekends are shaded in gray.

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



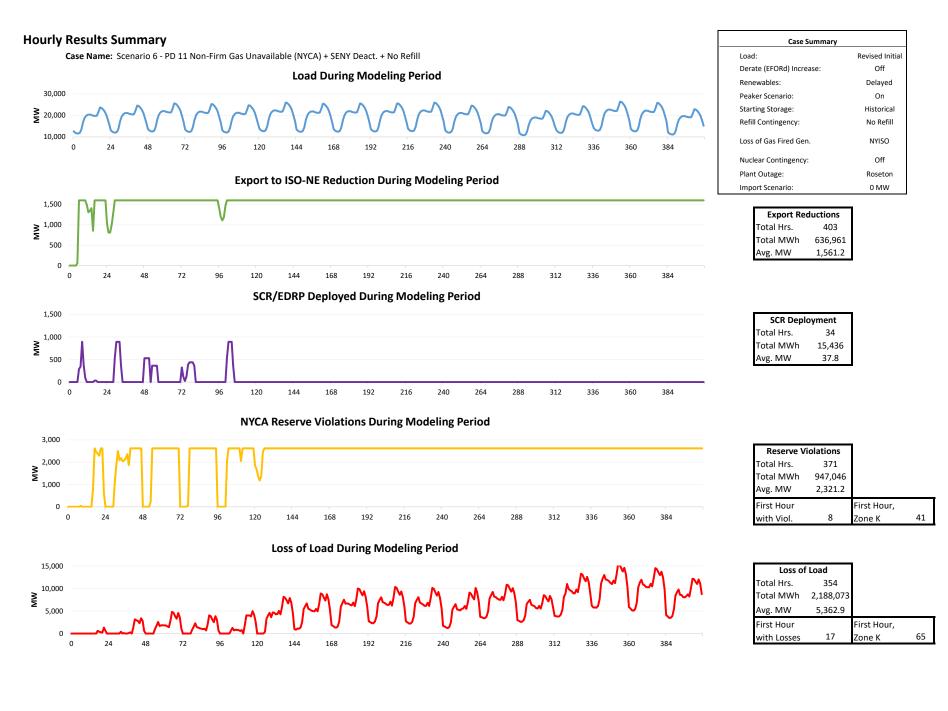






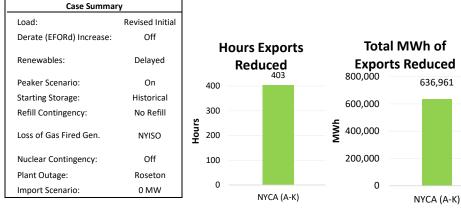
Lost Load — Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 6 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill

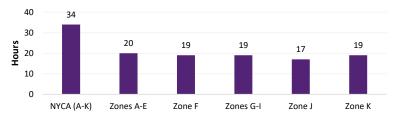


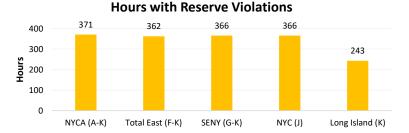
Full Period Results Summary

Case Name: Scenario 6 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill

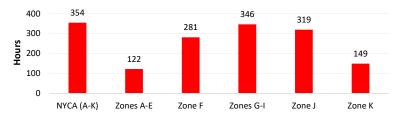


Hours SCR/EDRP Deployed

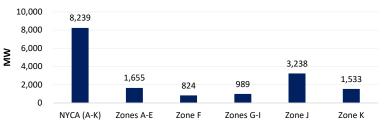




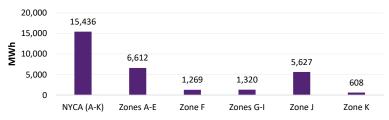
Hours with Loss of Load



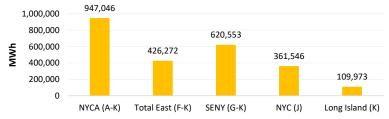
Average Capacity Not Available Due to Exhausted Fuel Inventory



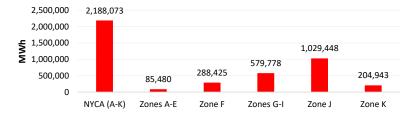
Total MWh SCR/EDRP Deployed



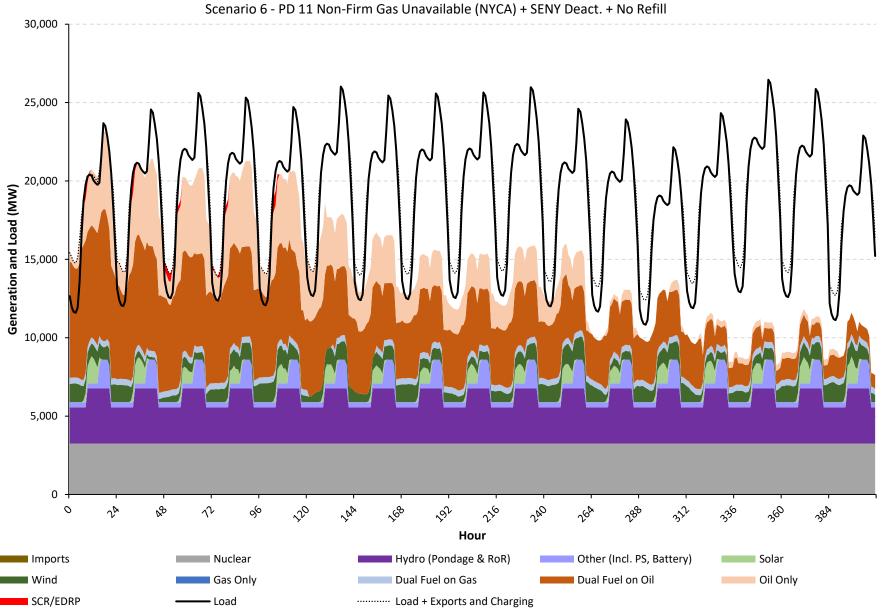
Total MWh of Reserve Violations



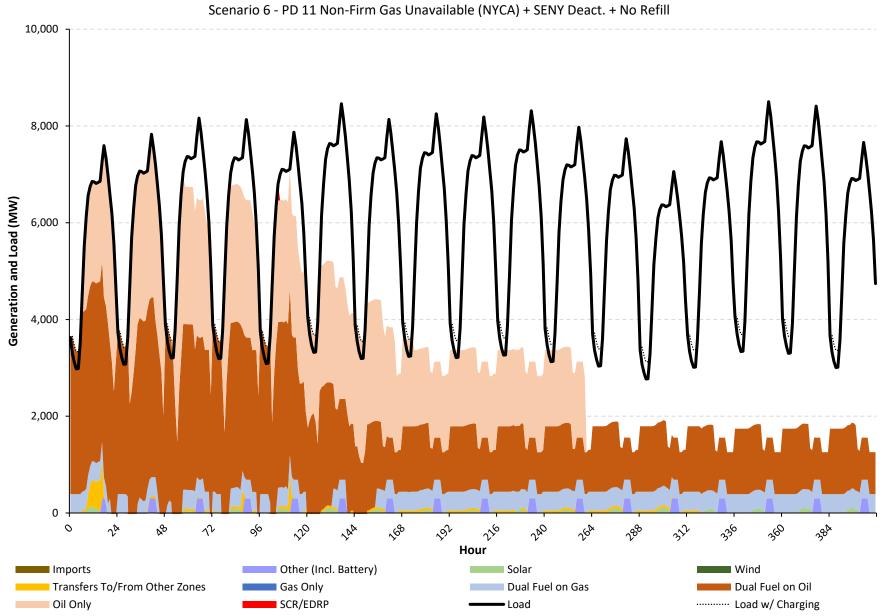
Total MWh of Lost Load



NYCA Hourly Generation (MWh) by Fuel Group

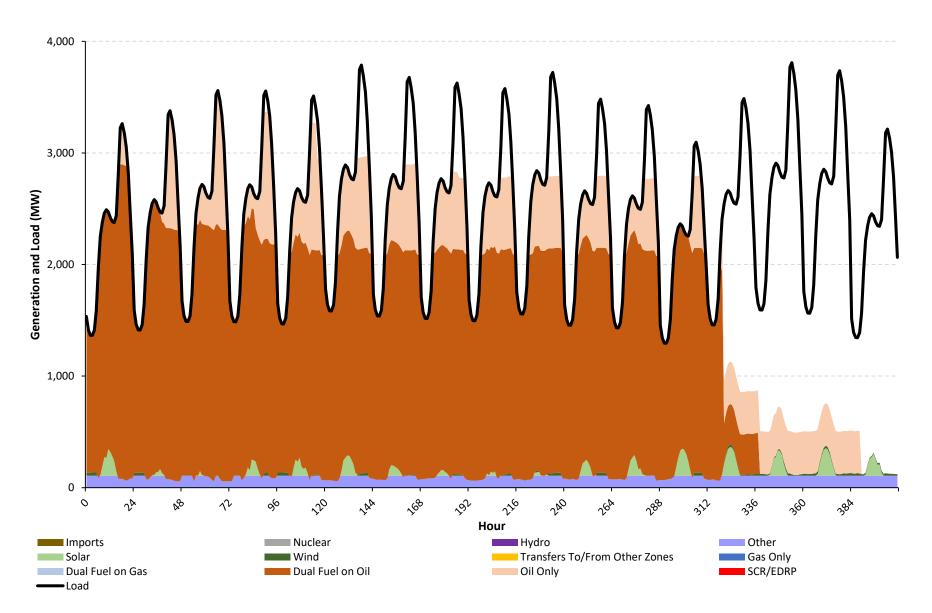


Zone J Hourly Generation (MW) by Fuel Group

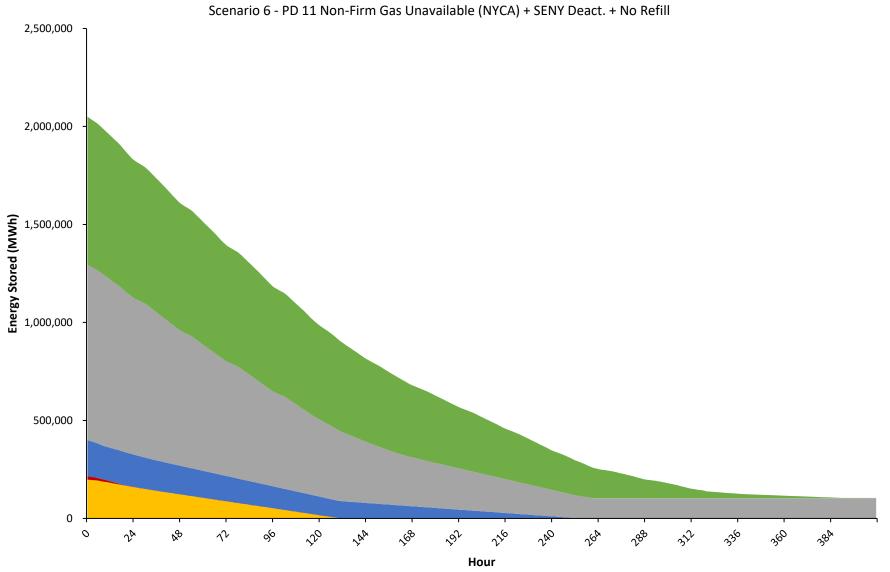


Zone K Hourly Generation (MW) by Fuel Group

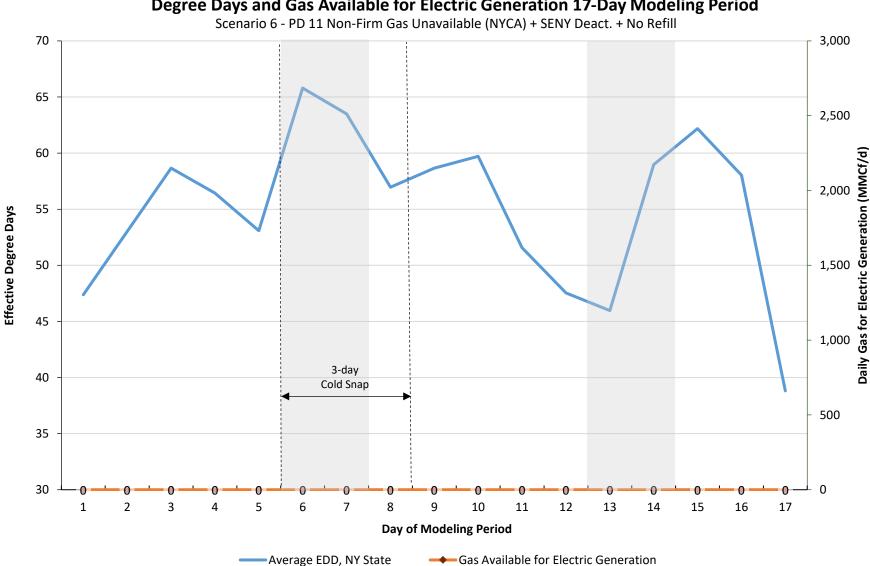
Scenario 6 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill







Zones A-E Zone F Zones G-I Zone J Zone K

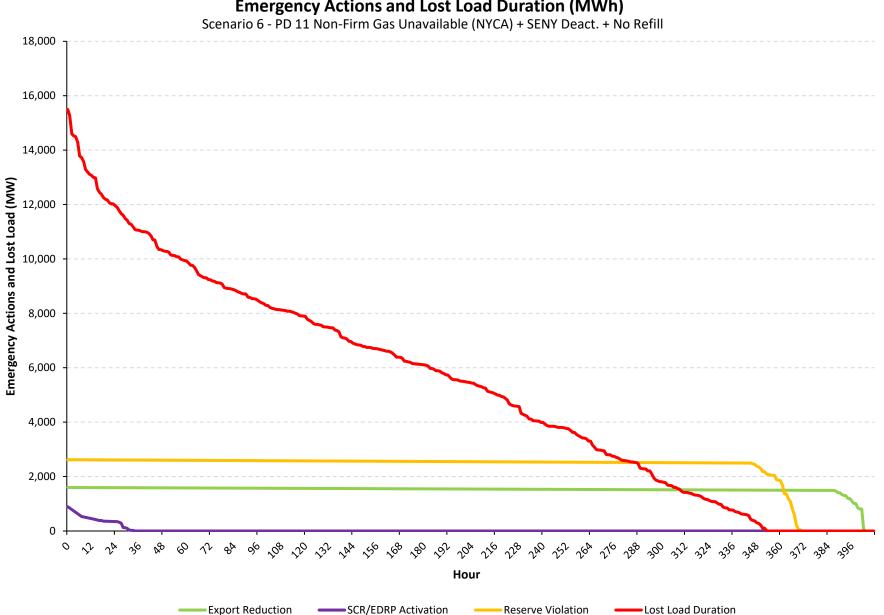


NYCA Degree Days and Gas Available for Electric Generation 17-Day Modeling Period

Notes:

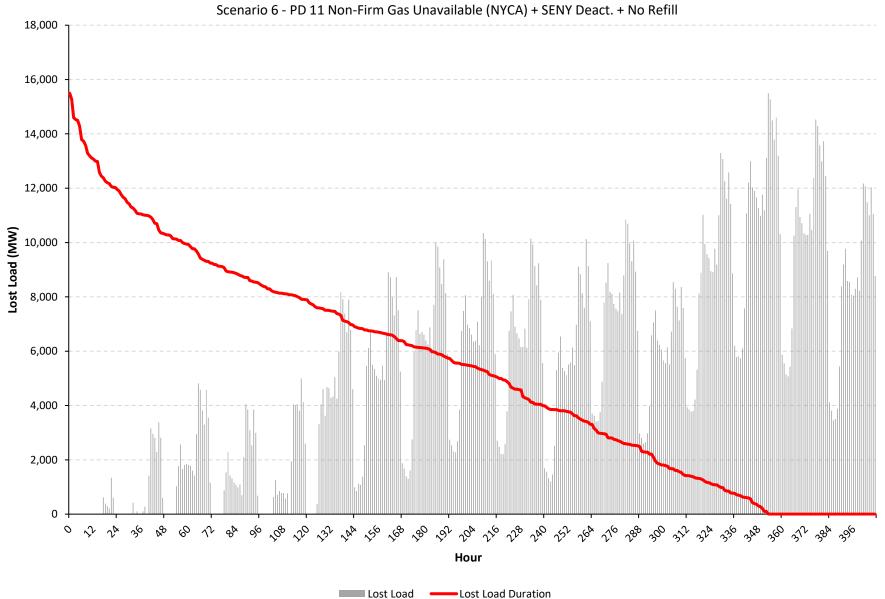
[1] Weekends are shaded in gray.

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



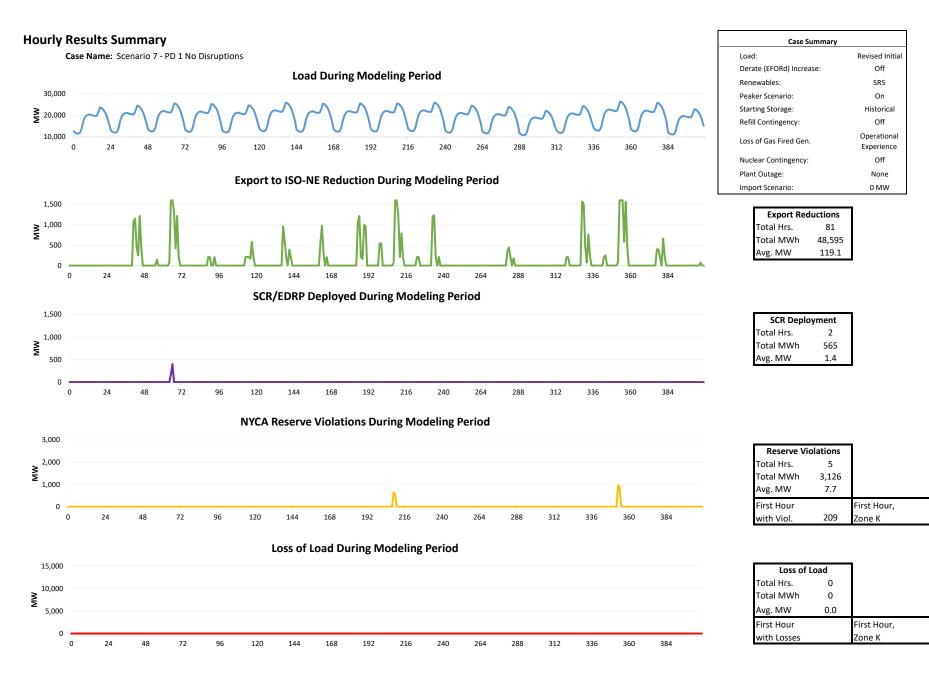
NYCA Emergency Actions and Lost Load Duration (MWh)

NYCA Lost Load Duration (MWh)

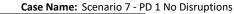


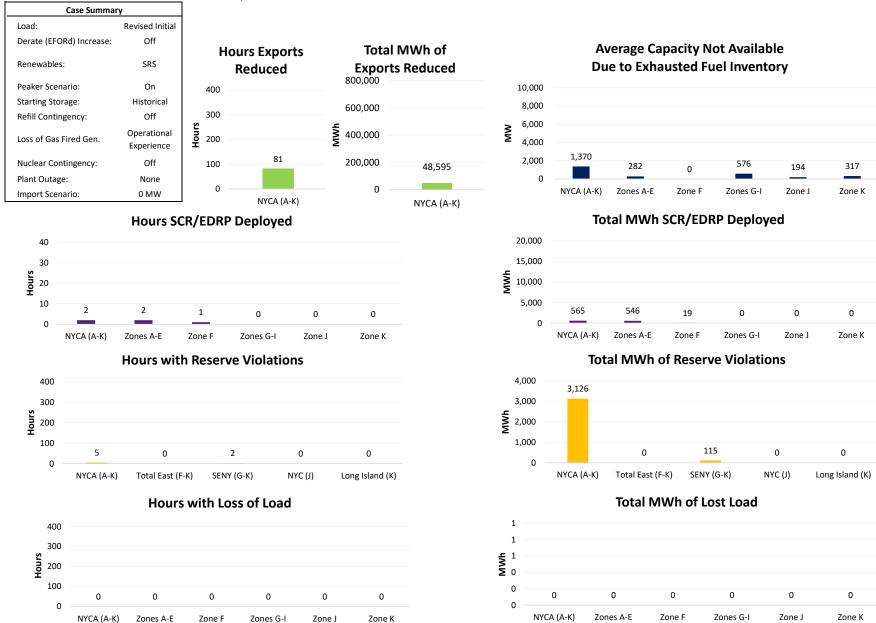
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

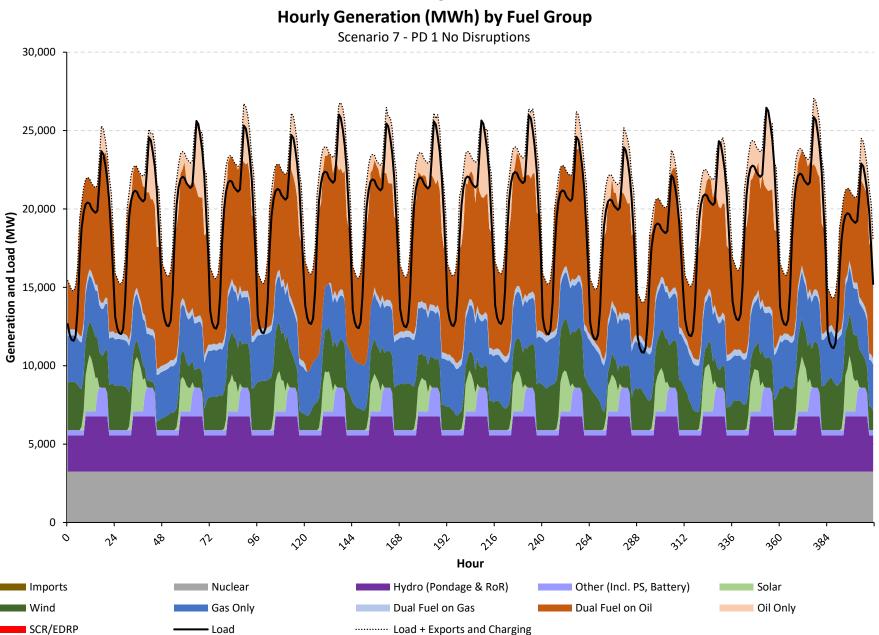
Case: Scenario 7 - PD 1 No Disruptions



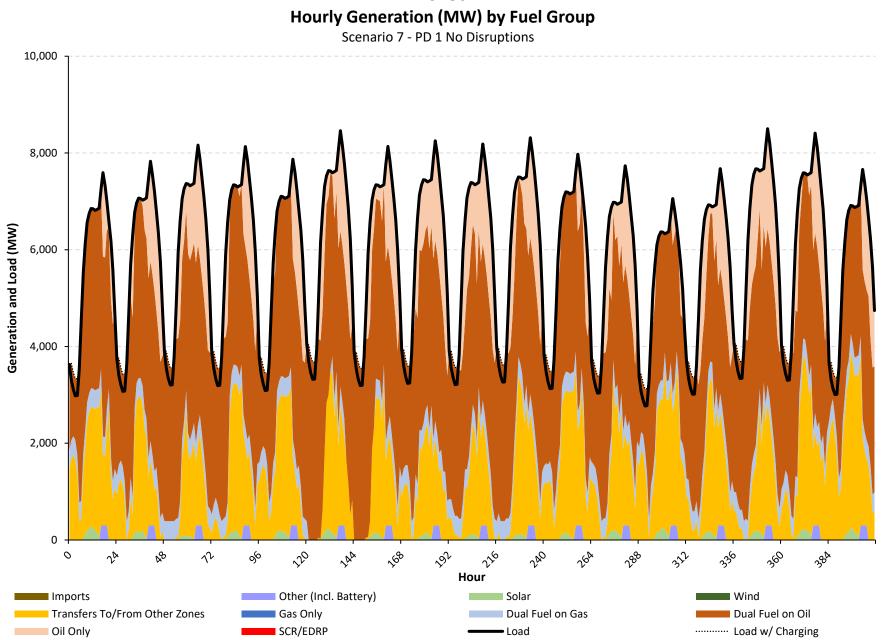
Full Period Results Summary





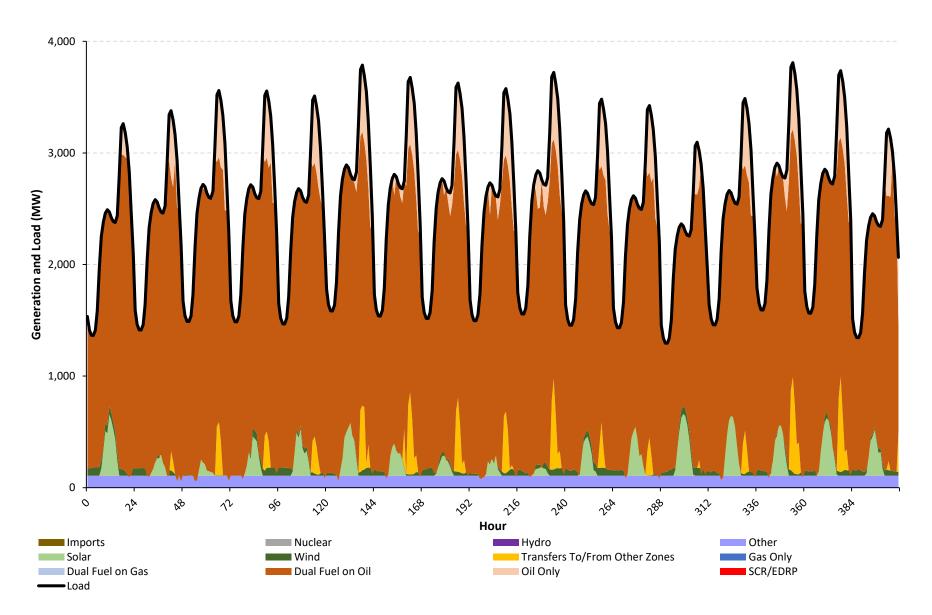


NYCA

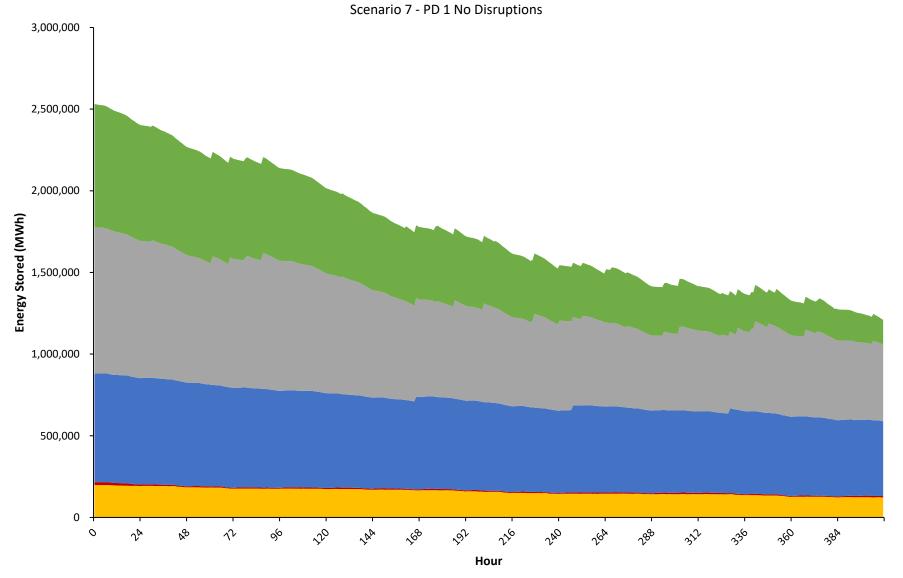


Zone K Hourly Generation (MW) by Fuel Group

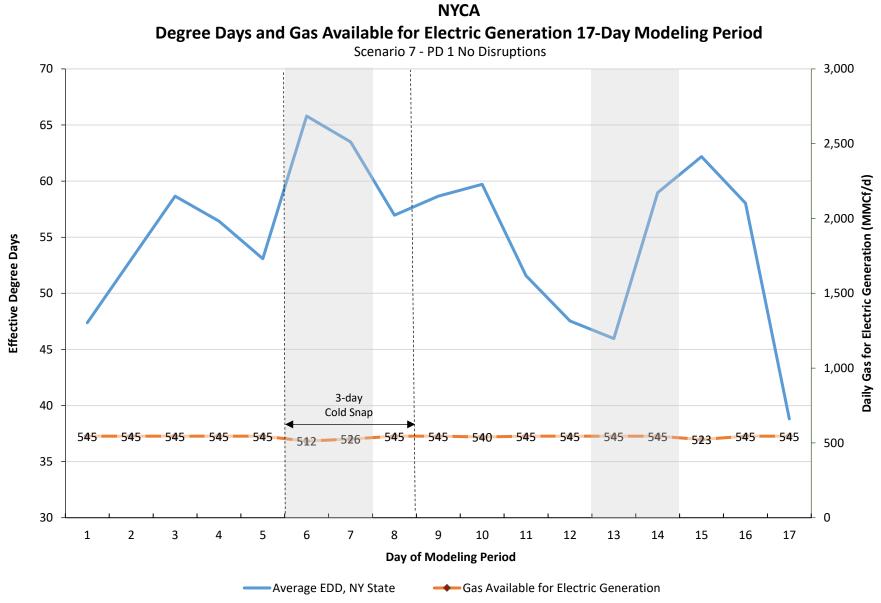
Scenario 7 - PD 1 No Disruptions







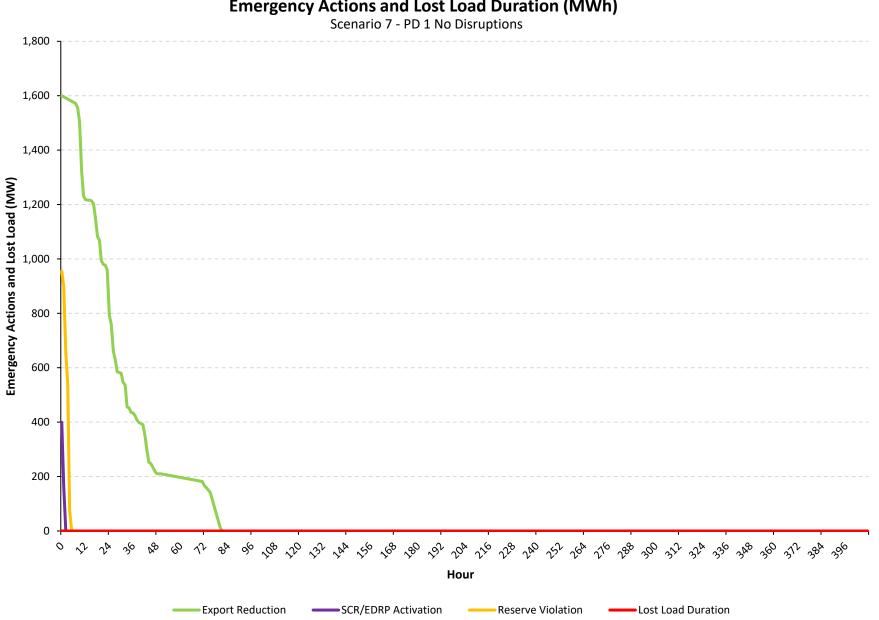
Zones A-E Zone F Zones G-I Zone J Zone K



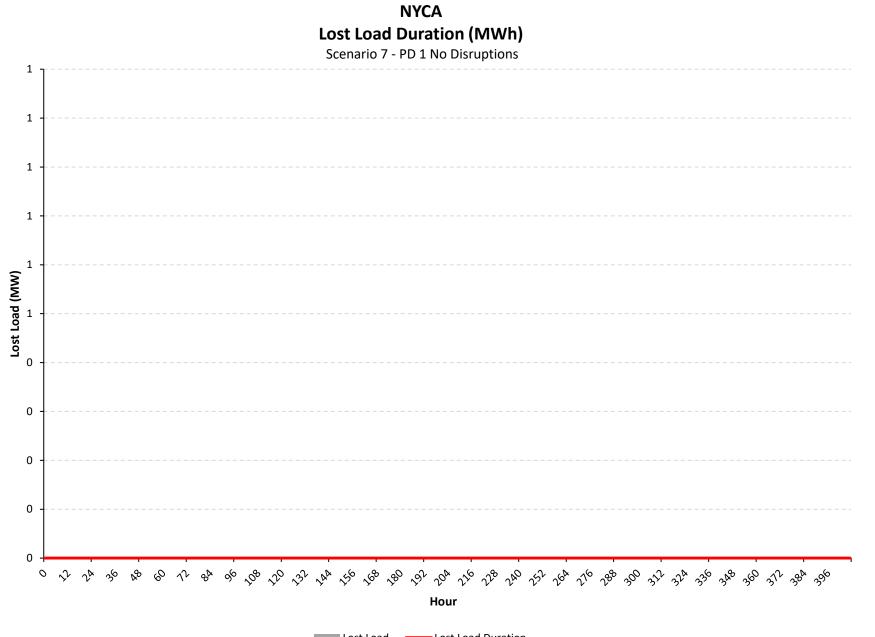
Notes:

[1] Weekends are shaded in gray.

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



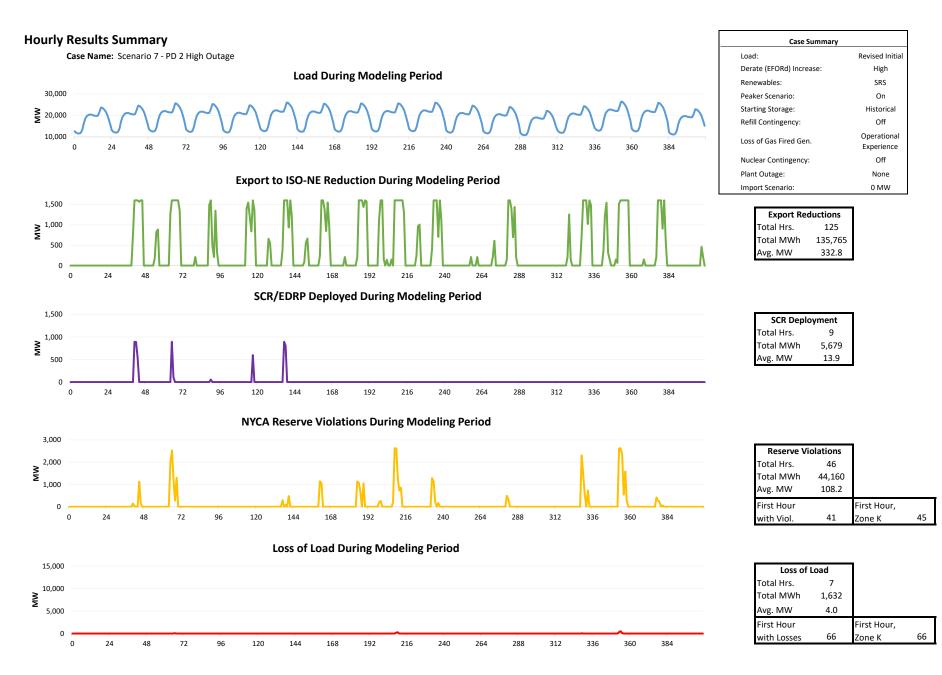
NYCA Emergency Actions and Lost Load Duration (MWh)



Lost Load —Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

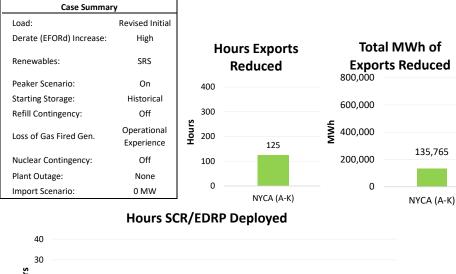
Case: Scenario 7 - PD 2 High Outage

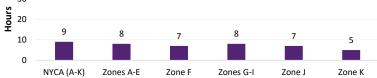


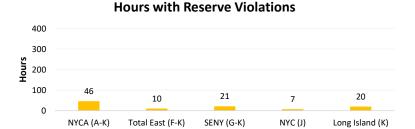
₹

Full Period Results Summary

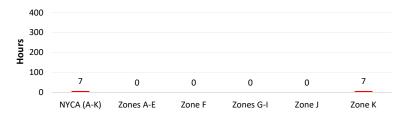




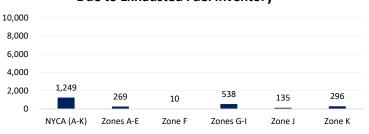




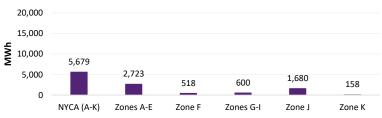
Hours with Loss of Load



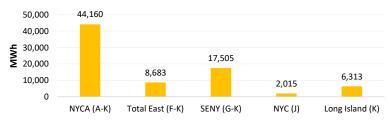
Average Capacity Not Available Due to Exhausted Fuel Inventory



Total MWh SCR/EDRP Deployed



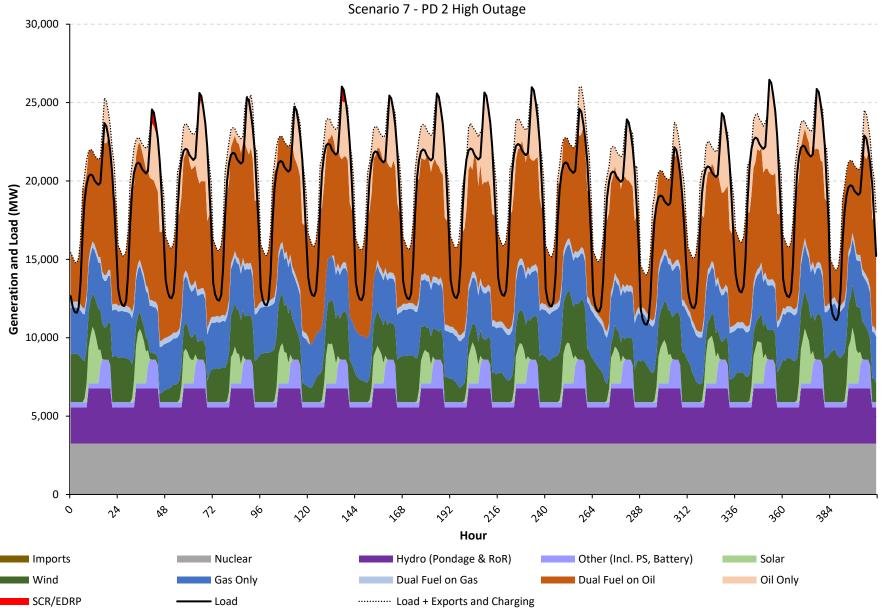
Total MWh of Reserve Violations

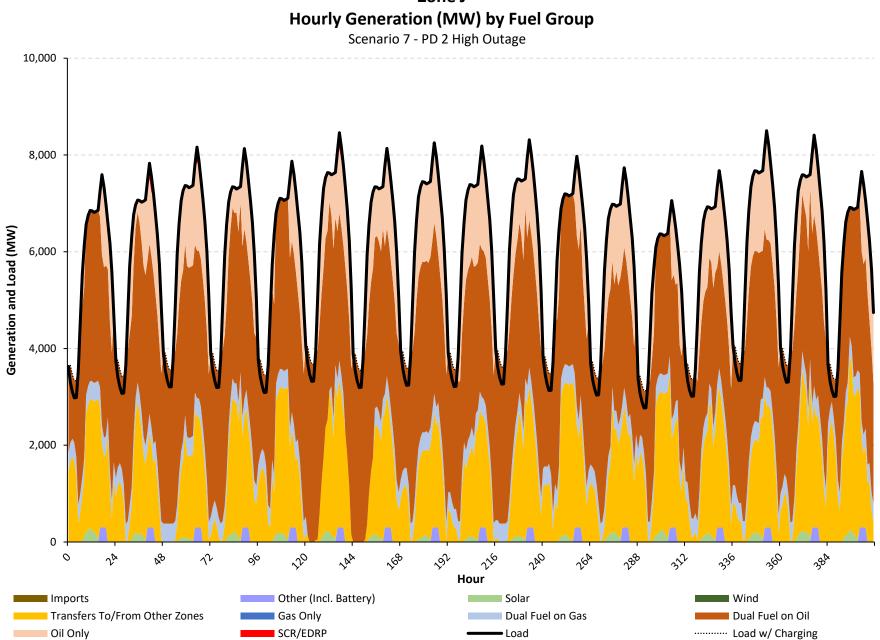


Total MWh of Lost Load



NYCA Hourly Generation (MWh) by Fuel Group

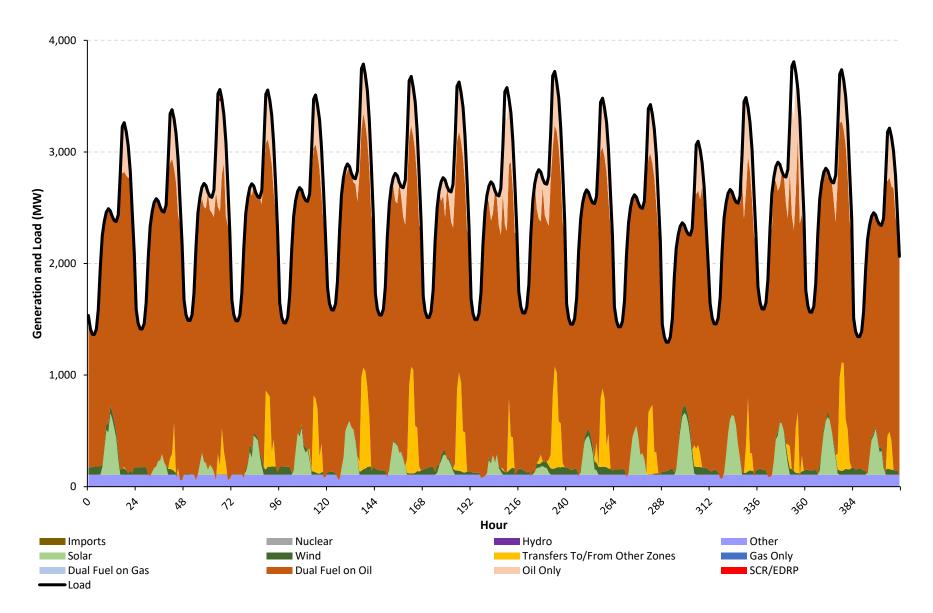




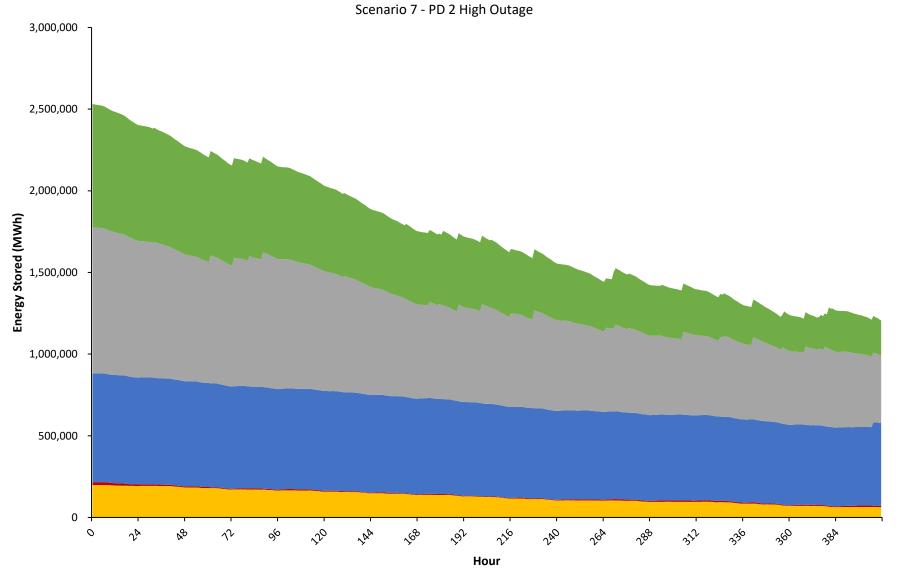
Zone J

Zone K Hourly Generation (MW) by Fuel Group

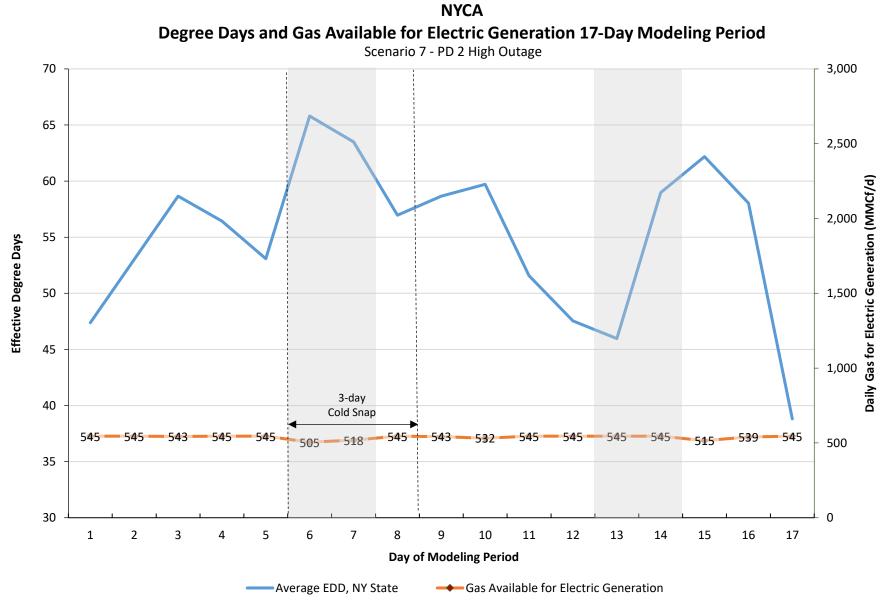
Scenario 7 - PD 2 High Outage







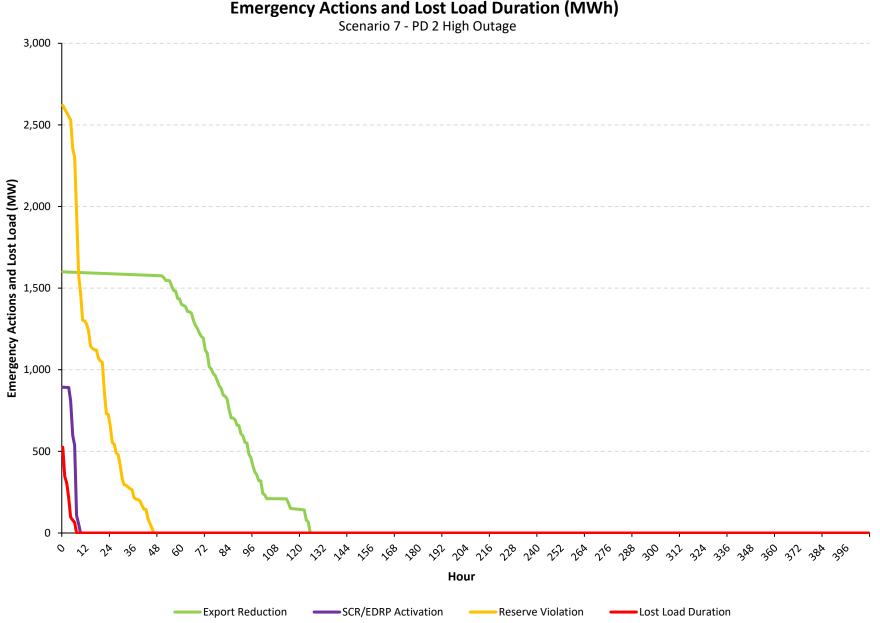
Zones A-E Zone F Zones G-I Zone J Zone K



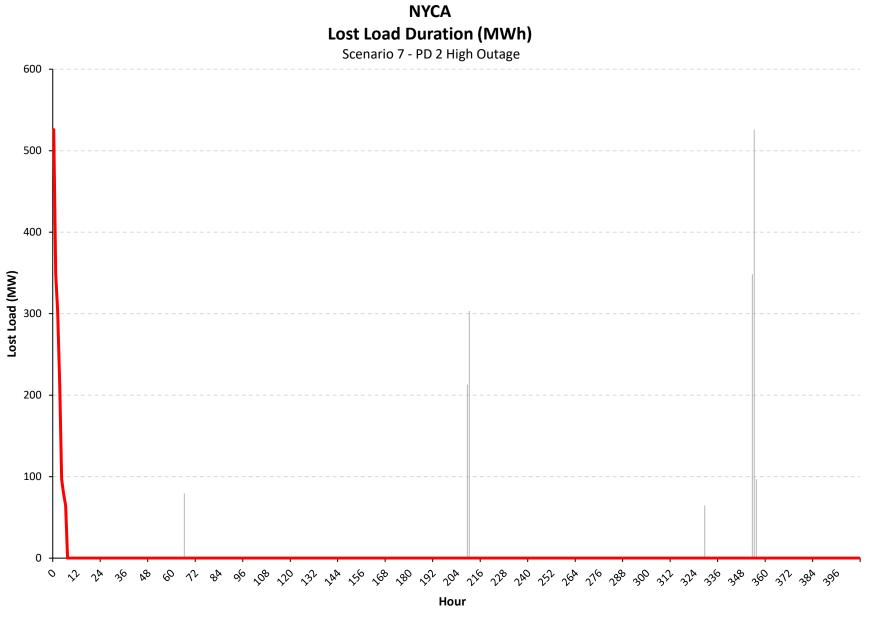
Notes:

[1] Weekends are shaded in gray.

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



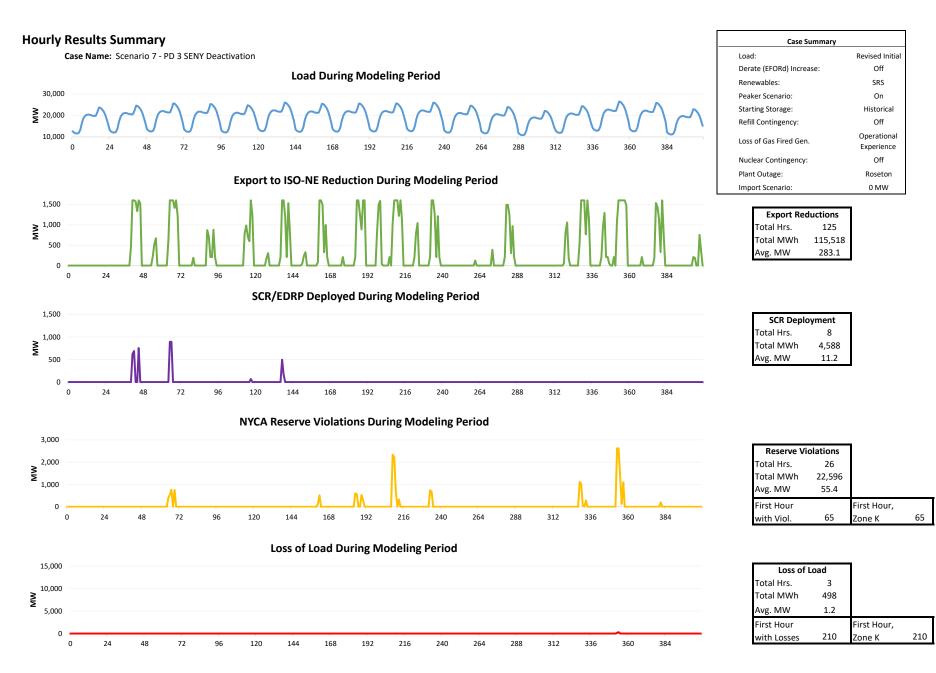
NYCA Emergency Actions and Lost Load Duration (MWh)



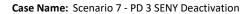
Lost Load —Lost Load Duration

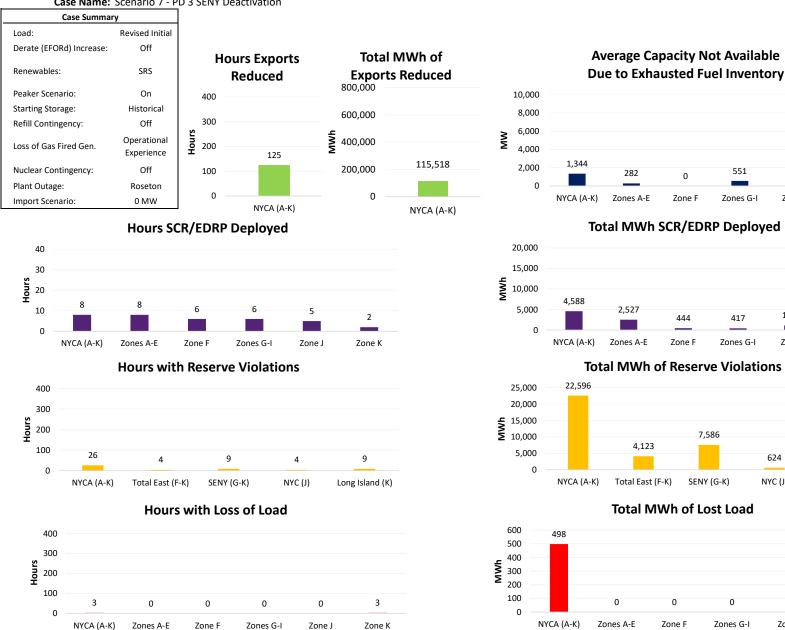
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 7 - PD 3 SENY Deactivation



Full Period Results Summary







0

Zone F

551

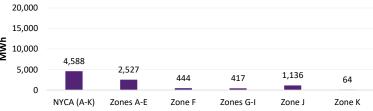
Zones G-I

194

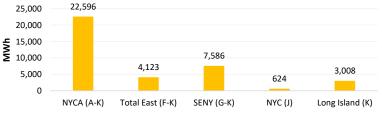
Zone J

317

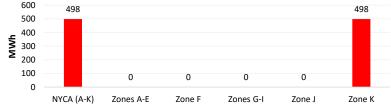
Zone K



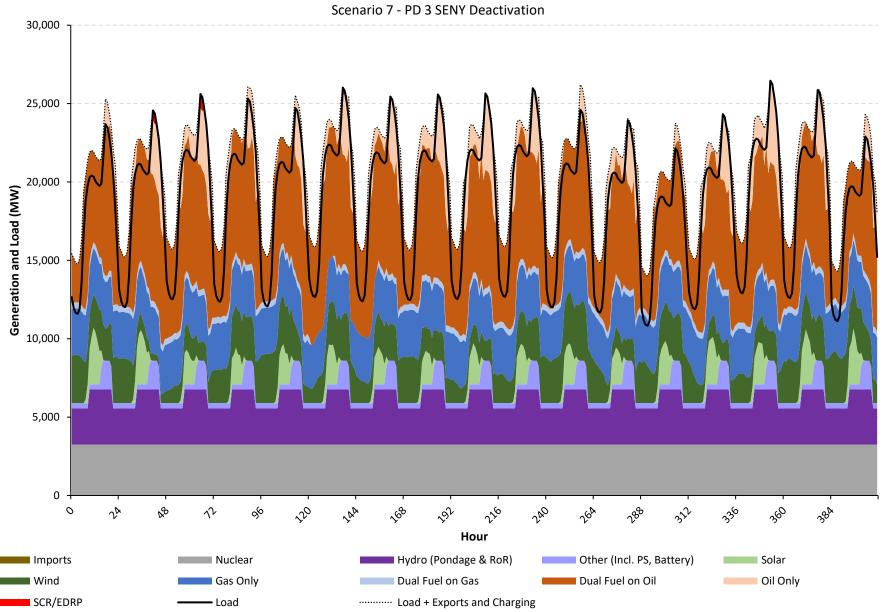
Total MWh of Reserve Violations

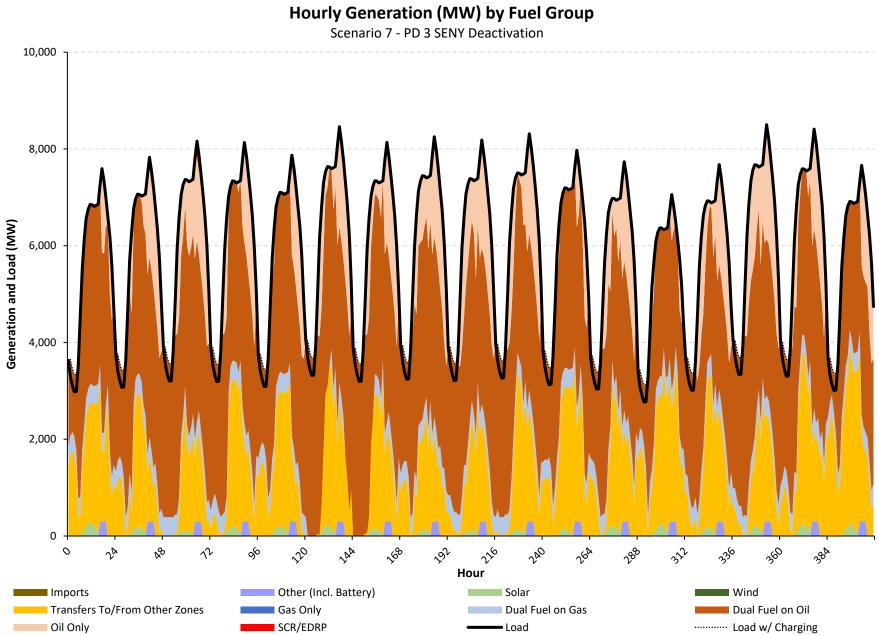


Total MWh of Lost Load



NYCA Hourly Generation (MWh) by Fuel Group

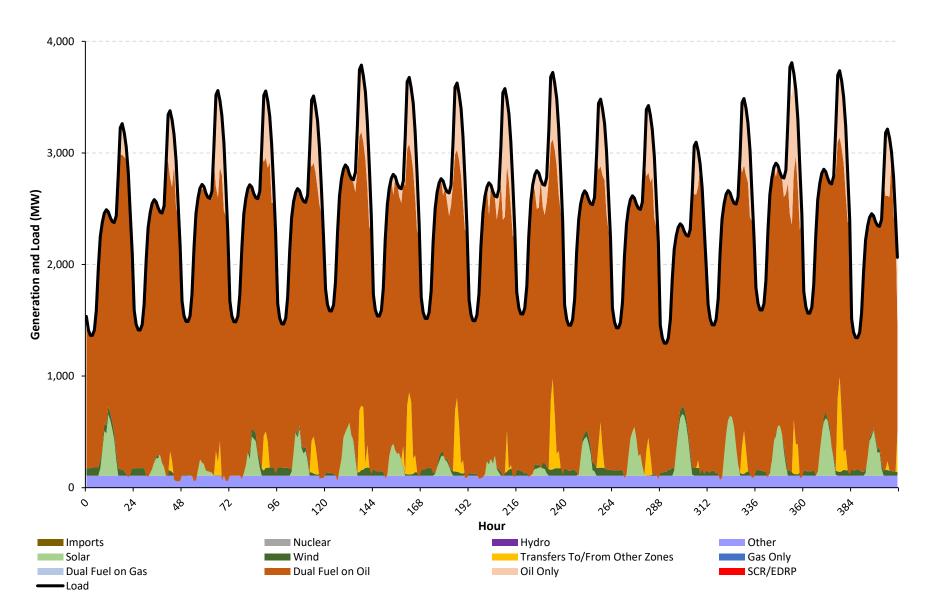




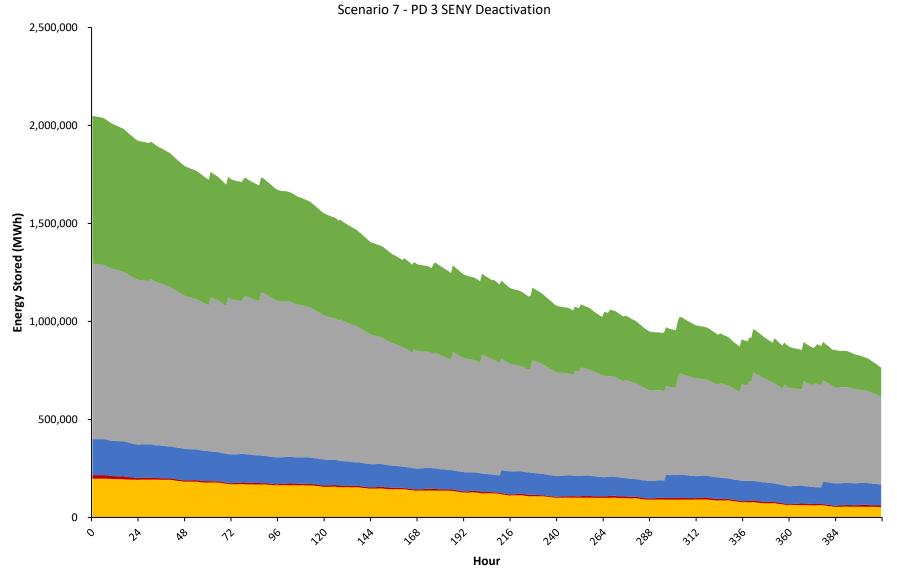
Zone J

Zone K Hourly Generation (MW) by Fuel Group

Scenario 7 - PD 3 SENY Deactivation

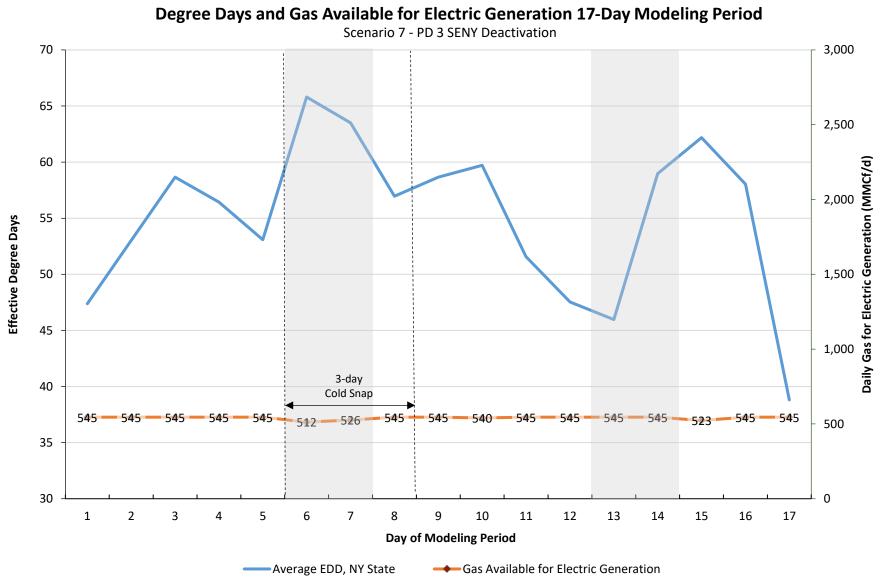






Zones A-E Zone F Zones G-I Zone J Zone K

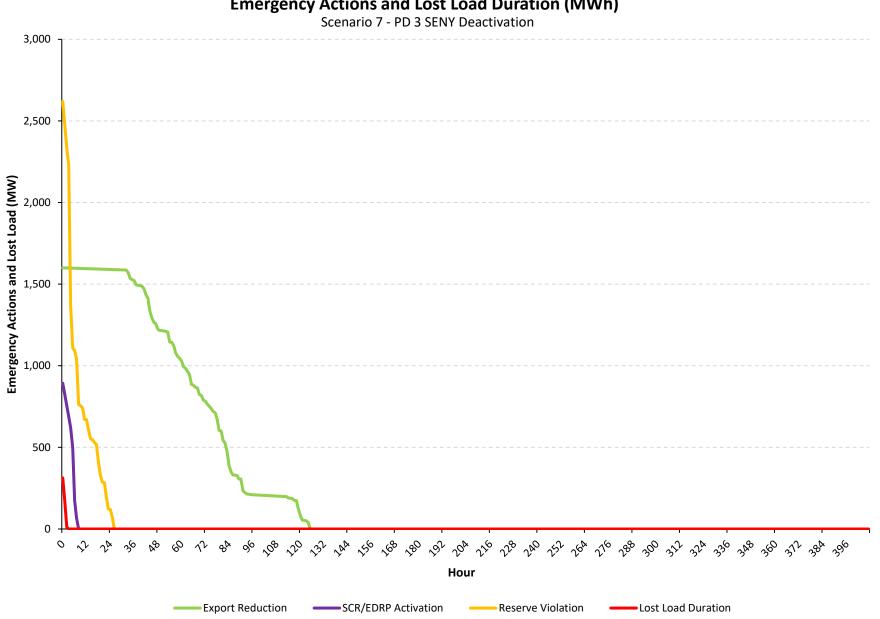
NYCA



Notes:

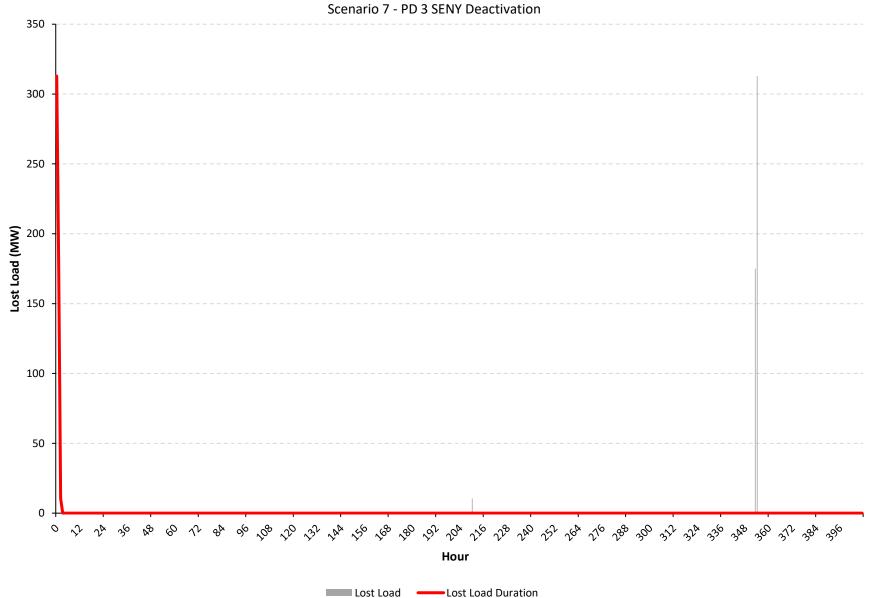
[1] Weekends are shaded in gray.

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



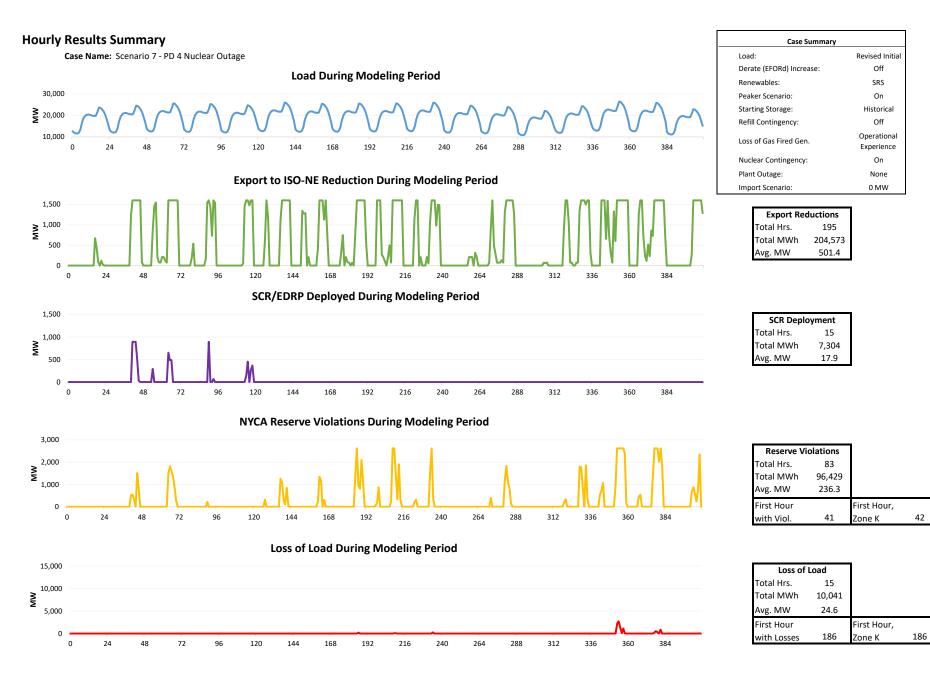
NYCA Emergency Actions and Lost Load Duration (MWh)

NYCA Lost Load Duration (MWh)



Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 7 - PD 4 Nuclear Outage

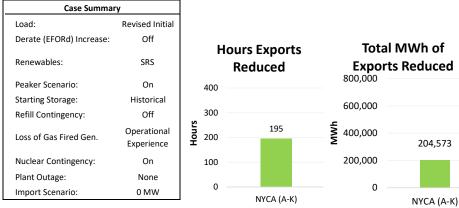


204,573

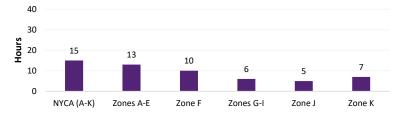
₹

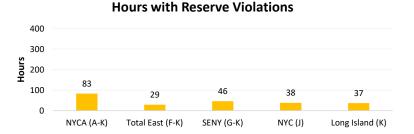
Full Period Results Summary



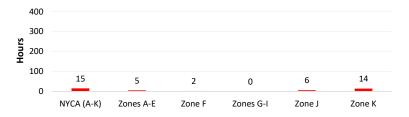




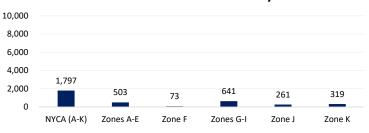




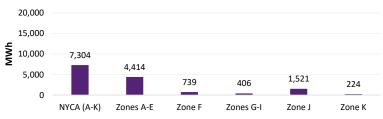
Hours with Loss of Load



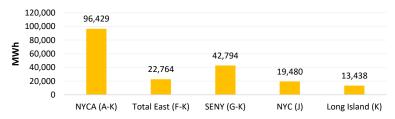
Average Capacity Not Available Due to Exhausted Fuel Inventory



Total MWh SCR/EDRP Deployed



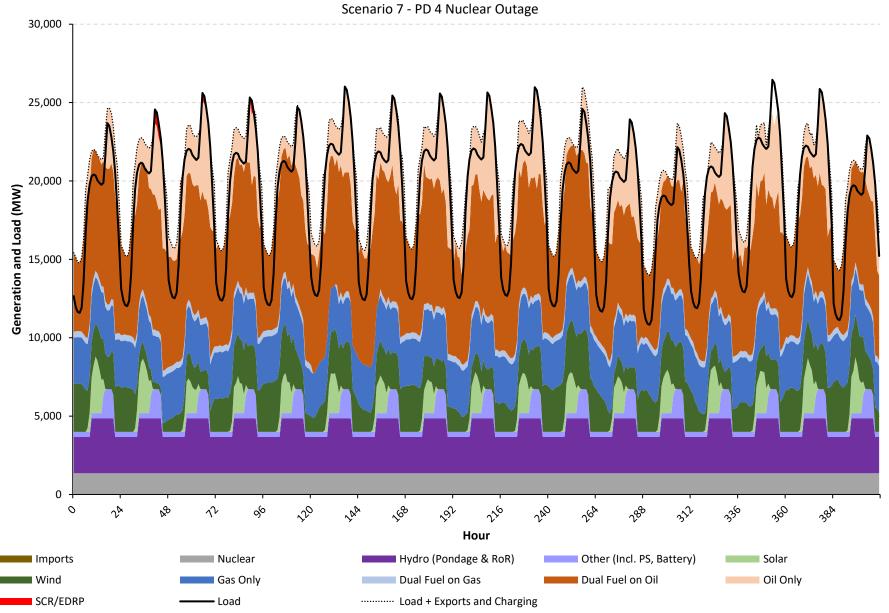
Total MWh of Reserve Violations

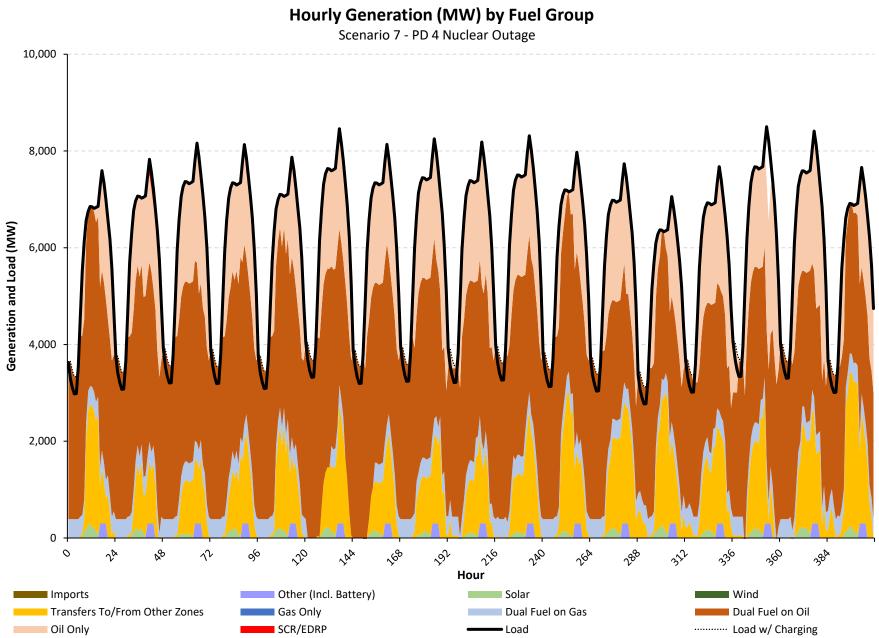


Total MWh of Lost Load



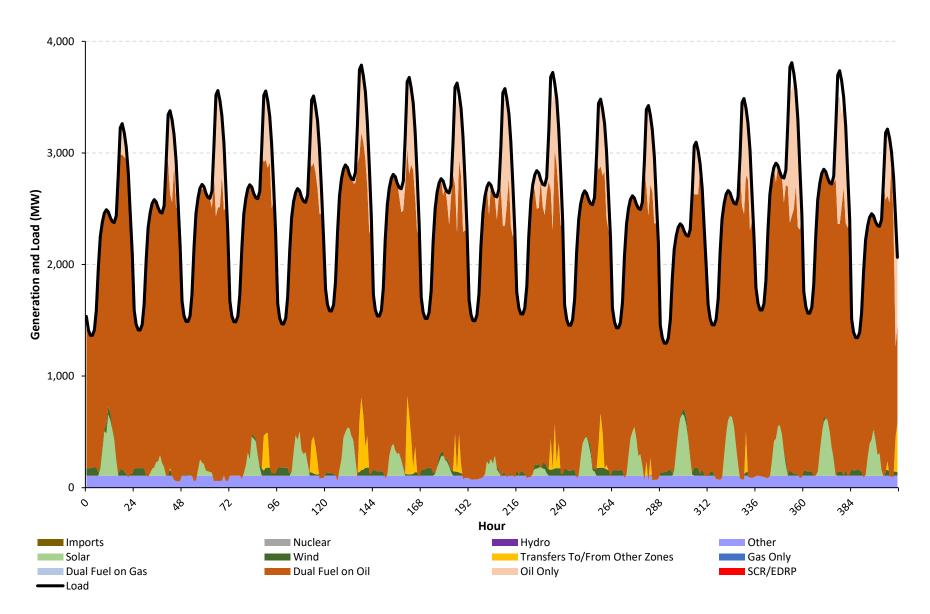
NYCA Hourly Generation (MWh) by Fuel Group



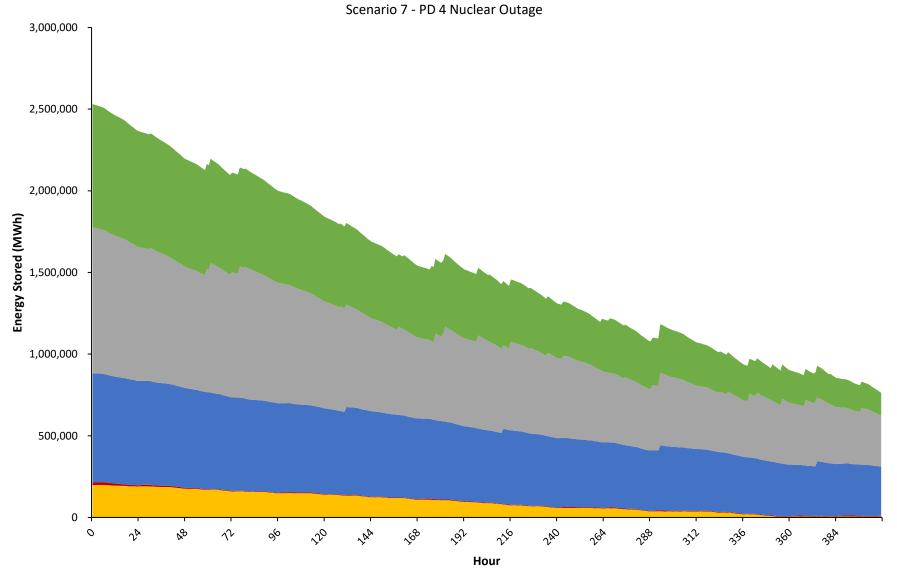


Zone K Hourly Generation (MW) by Fuel Group

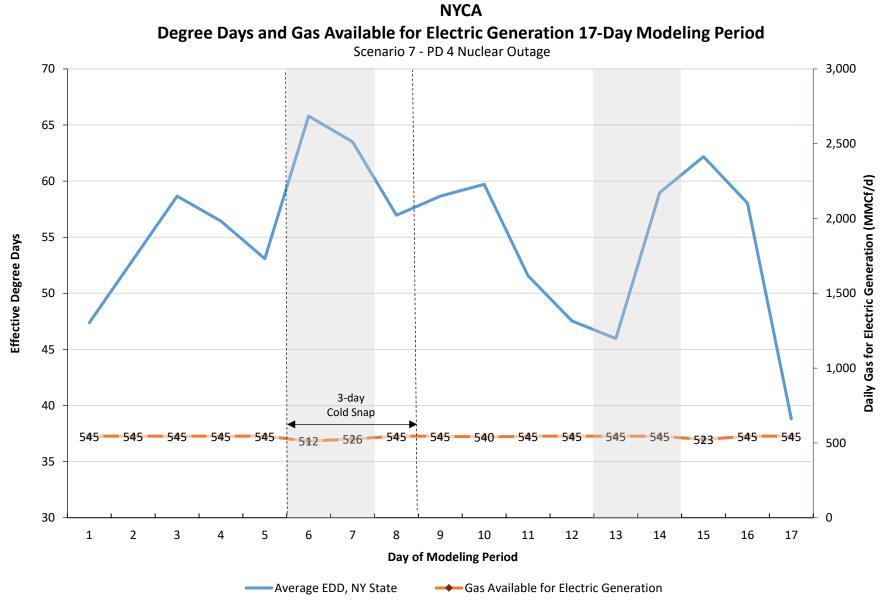
Scenario 7 - PD 4 Nuclear Outage







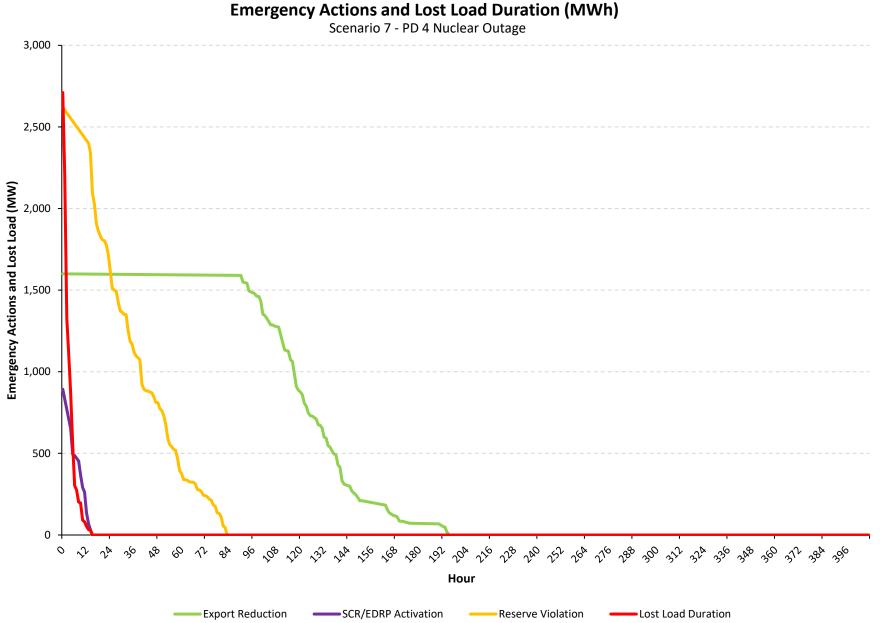
Zones A-E Zone F Zones G-I Zone J Zone K



Notes:

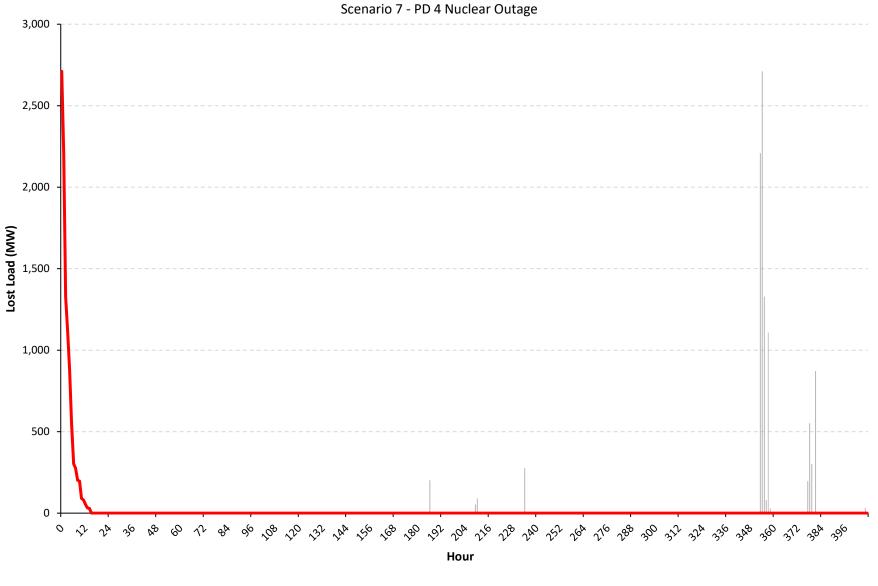
[1] Weekends are shaded in gray.

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



NYCA Emergency Actions and Lost Load Duration (MWh)

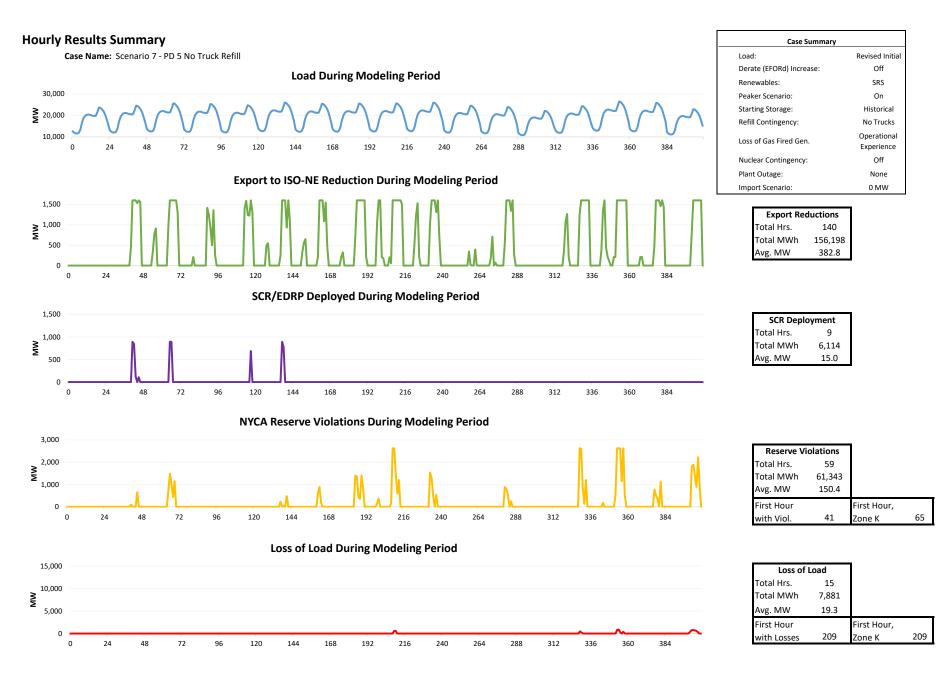




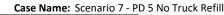
Lost Load Lost Load Duration

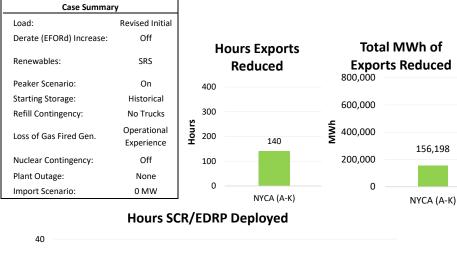
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 7 - PD 5 No Truck Refill

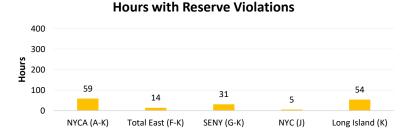


Full Period Results Summary

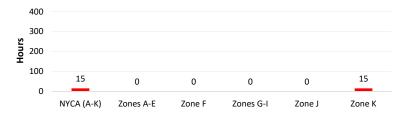








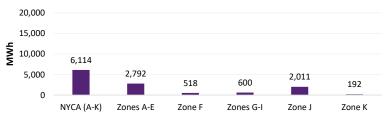
Hours with Loss of Load



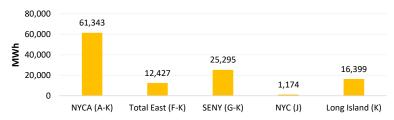
Average Capacity Not Available Due to Exhausted Fuel Inventory



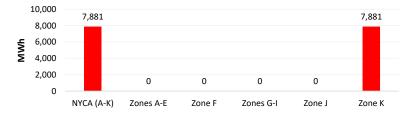
Total MWh SCR/EDRP Deployed



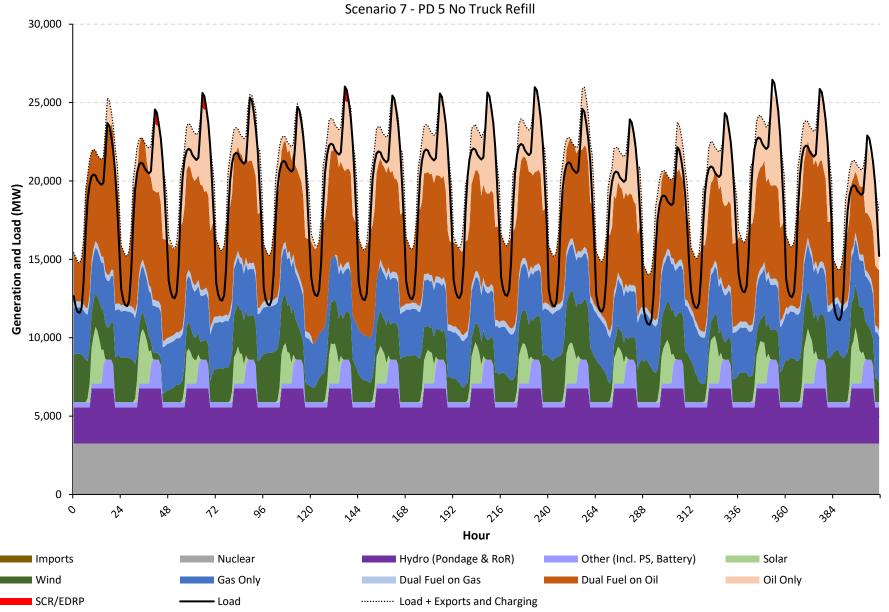
Total MWh of Reserve Violations

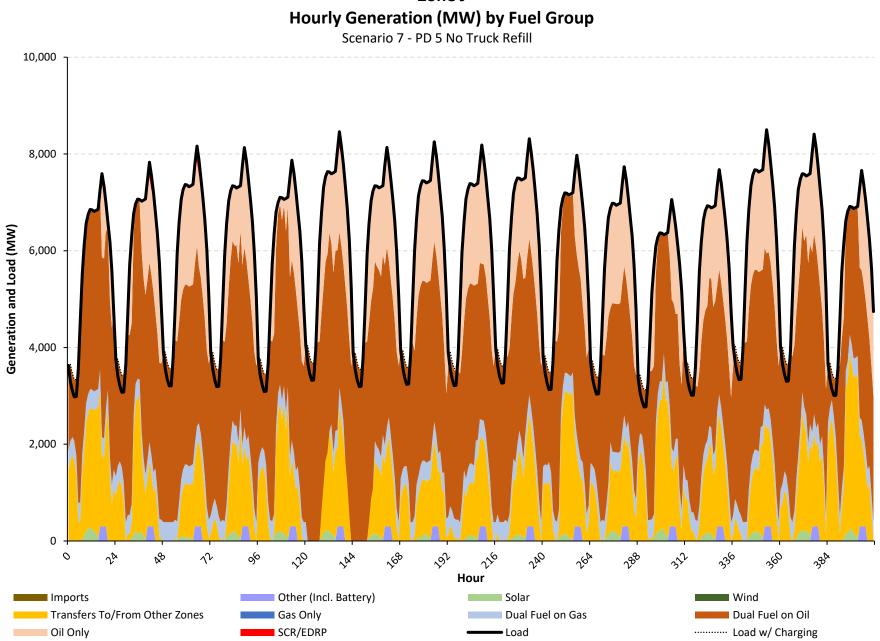


Total MWh of Lost Load



NYCA Hourly Generation (MWh) by Fuel Group

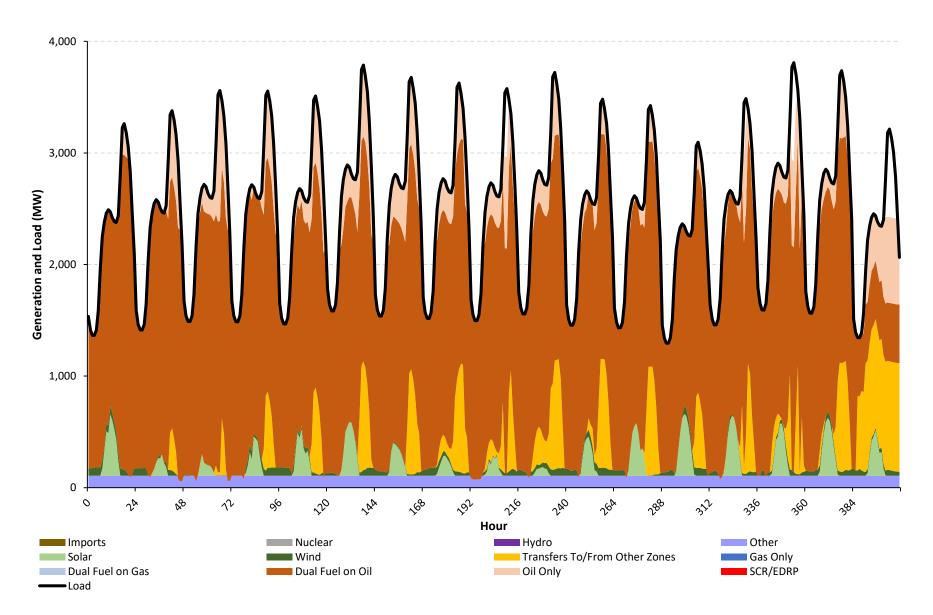




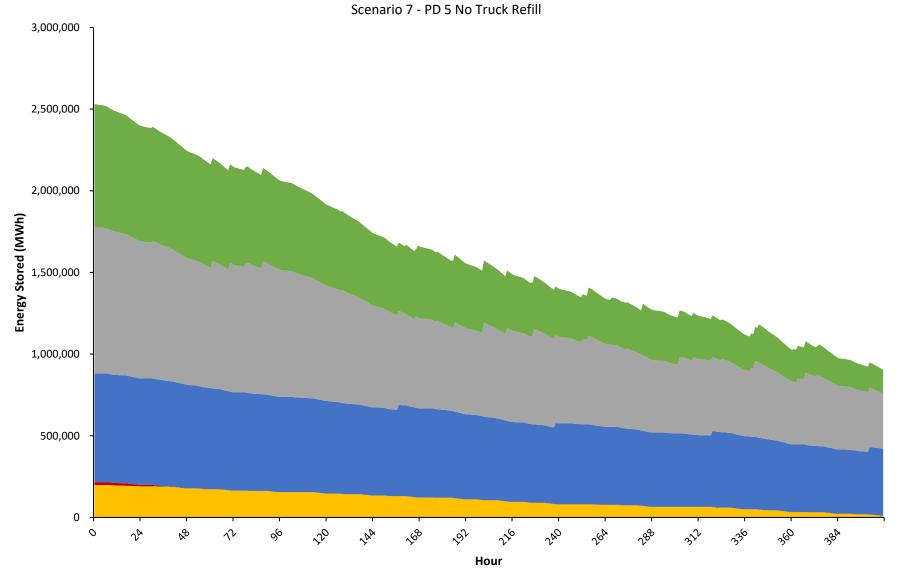
Zone J

Zone K Hourly Generation (MW) by Fuel Group

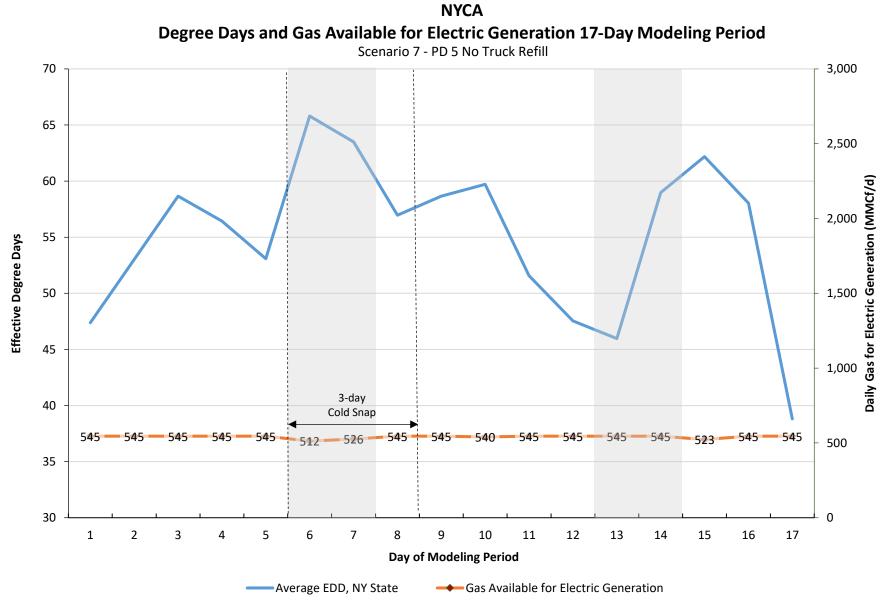
Scenario 7 - PD 5 No Truck Refill







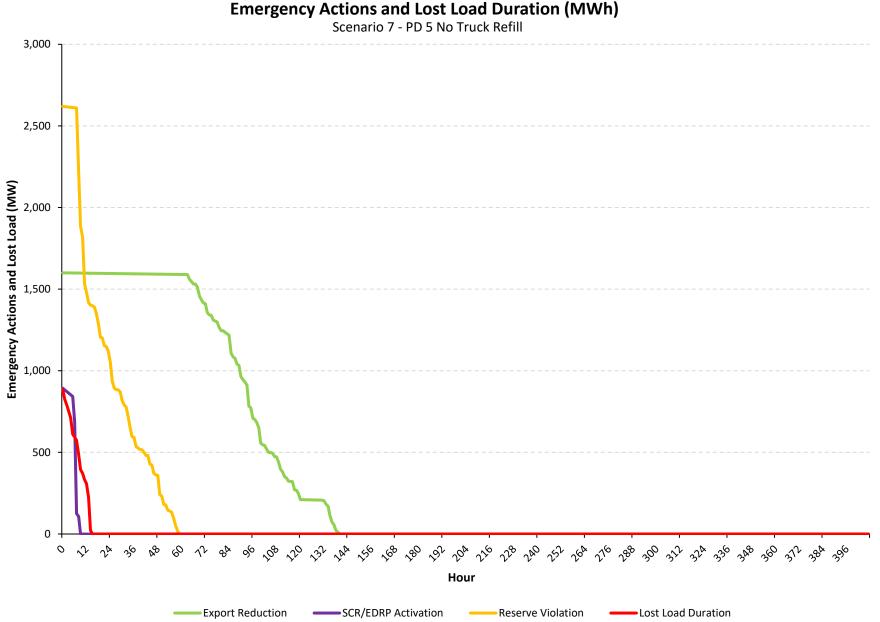
Zones A-E Zone F Zones G-I Zone J Zone K



Notes:

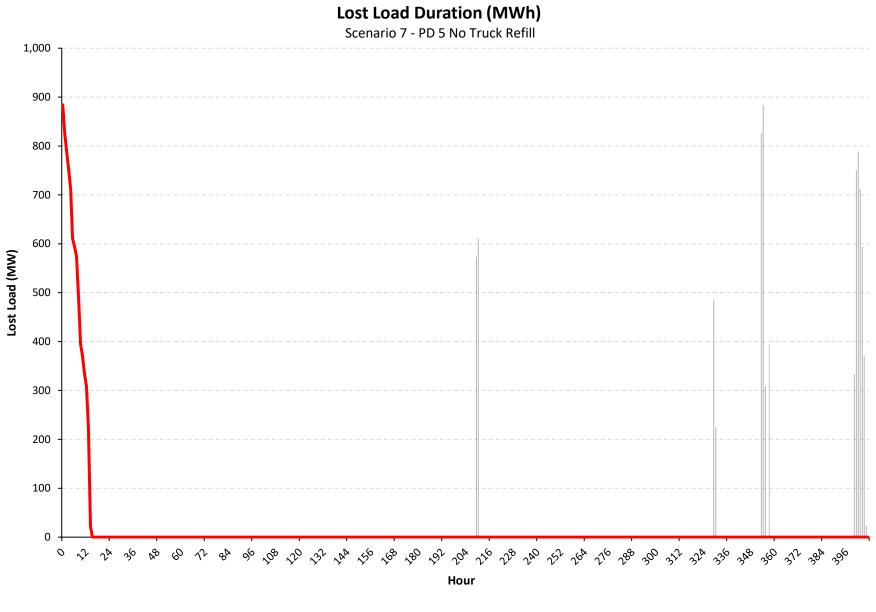
[1] Weekends are shaded in gray.

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



NYCA Emergency Actions and Lost Load Duration (MWh)

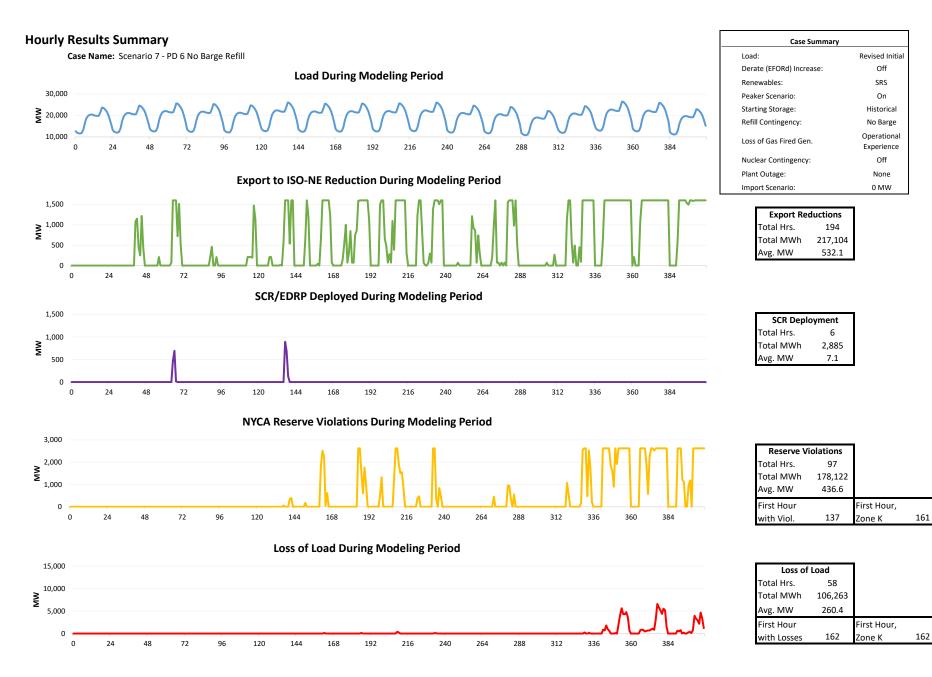
NYCA



Lost Load — Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 7 - PD 6 No Barge Refill



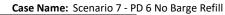
686

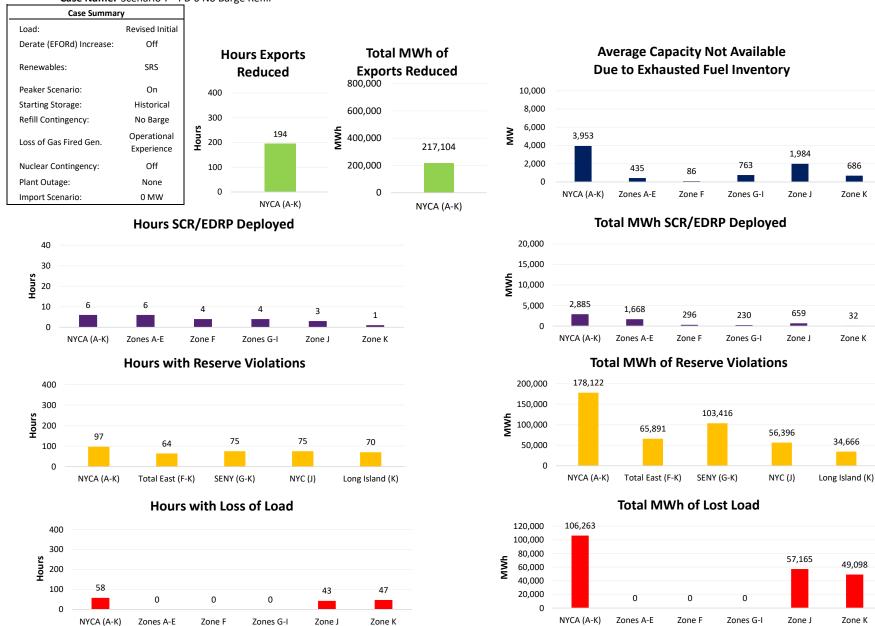
Zone K

32

Zone K

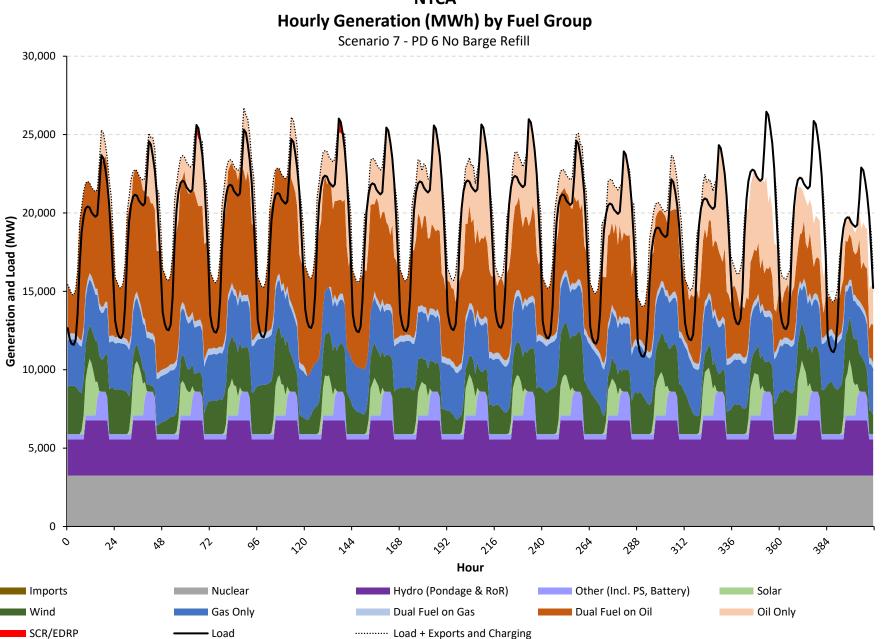
Full Period Results Summary





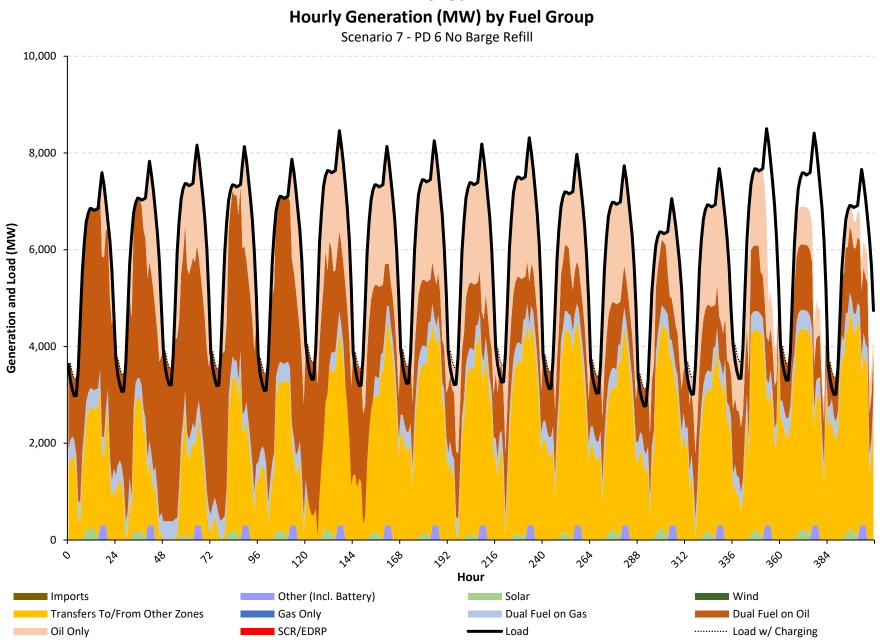
49,098

Zone K



NYCA

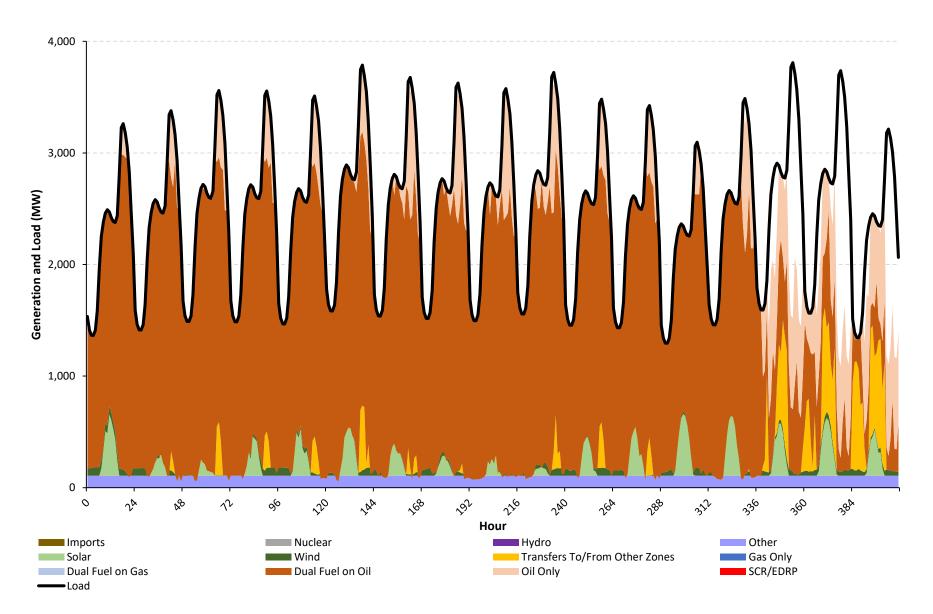
Analysis Group, Inc.



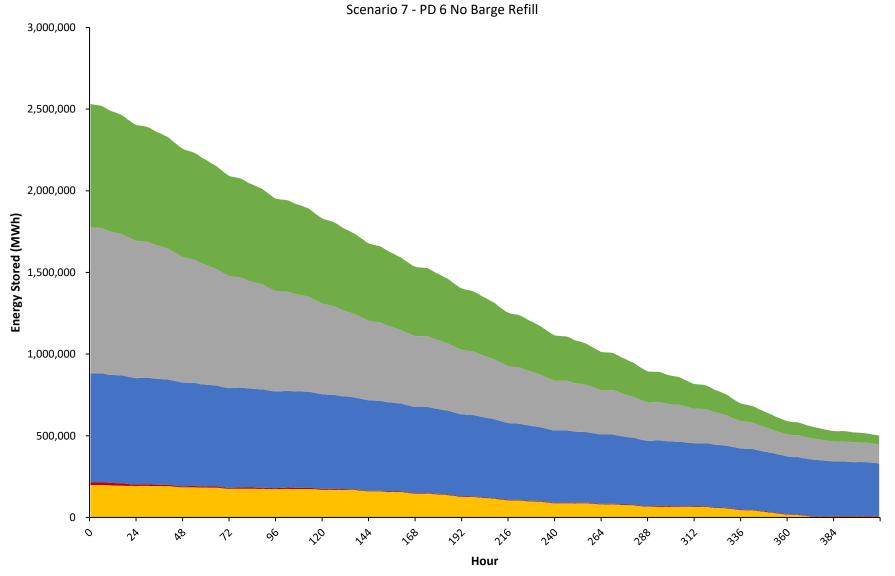
Zone J

Zone K Hourly Generation (MW) by Fuel Group

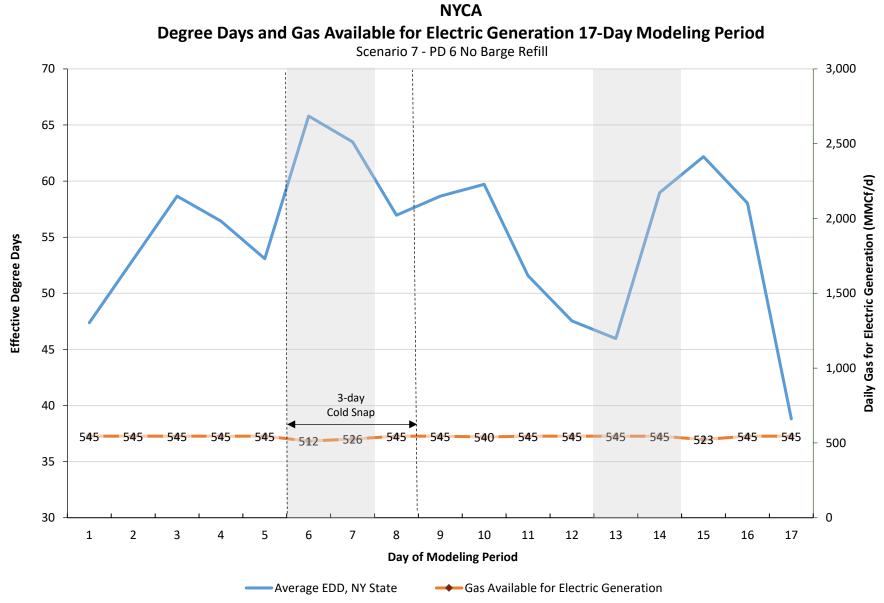
Scenario 7 - PD 6 No Barge Refill







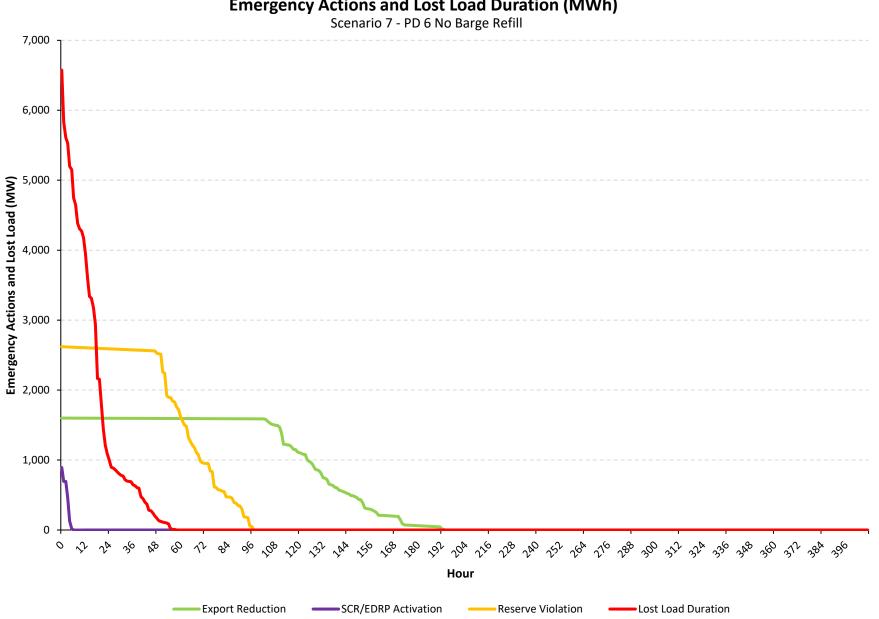
Zones A-E Zone F Zones G-I Zone J Zone K



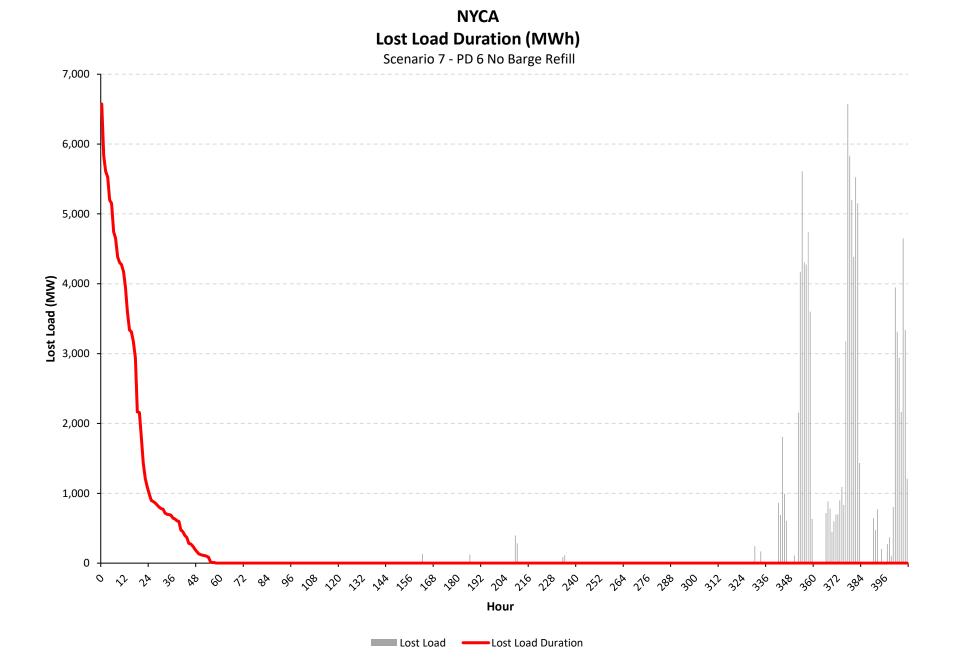
Notes:

[1] Weekends are shaded in gray.

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

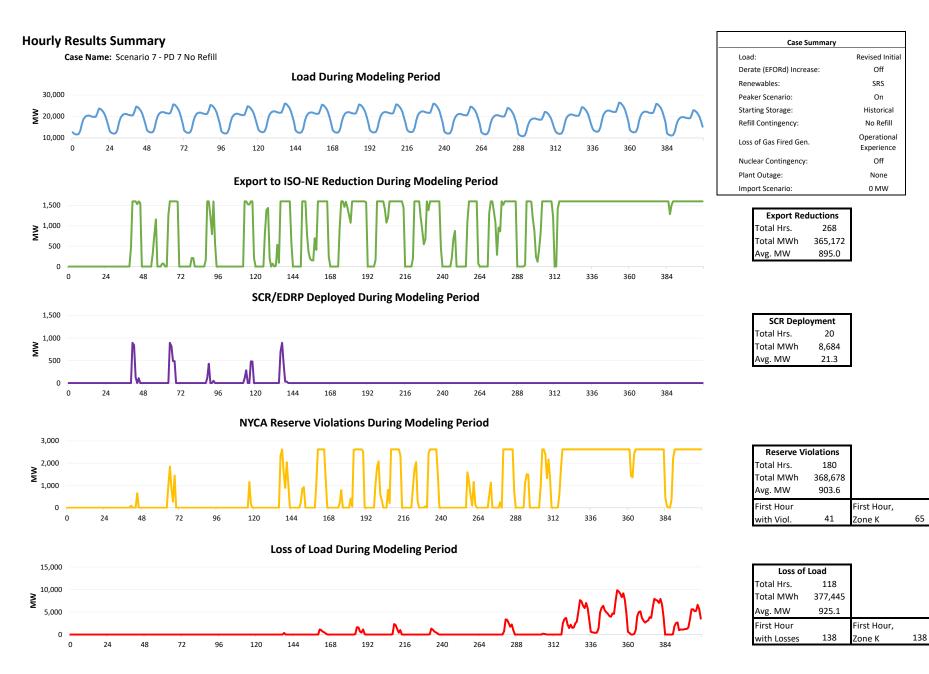


NYCA Emergency Actions and Lost Load Duration (MWh)



Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 7 - PD 7 No Refill



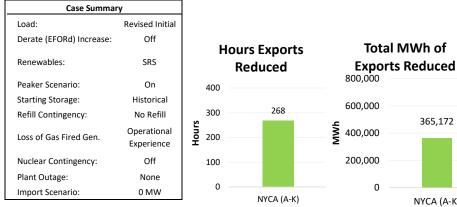
365,172

NYCA (A-K)

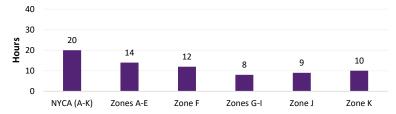
0

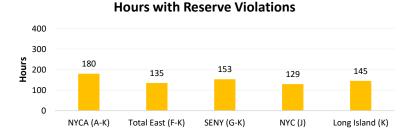
Full Period Results Summary



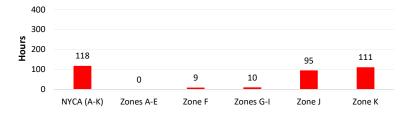




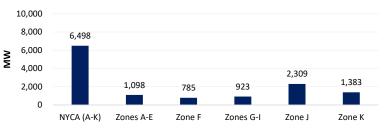




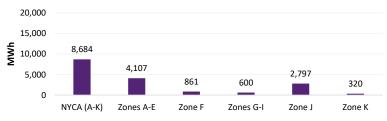




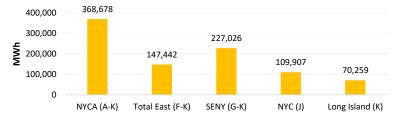
Average Capacity Not Available Due to Exhausted Fuel Inventory



Total MWh SCR/EDRP Deployed



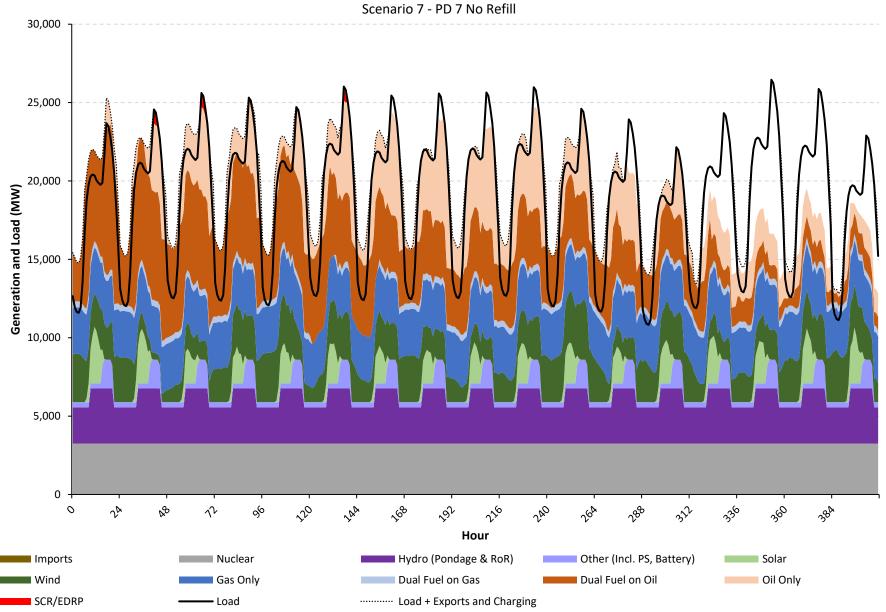
Total MWh of Reserve Violations

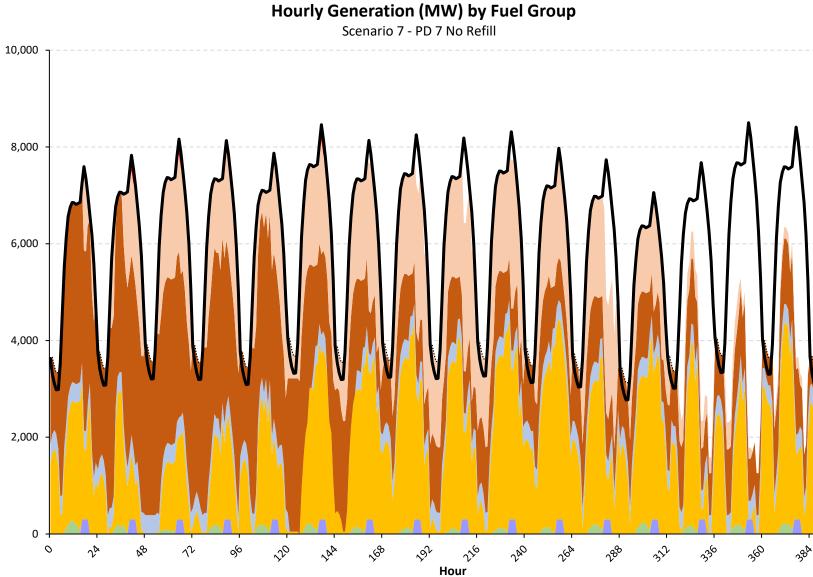


Total MWh of Lost Load



NYCA Hourly Generation (MWh) by Fuel Group





Solar

Load

Dual Fuel on Gas

Other (Incl. Battery)

Gas Only

SCR/EDRP

Zone J Hourly Generation (MW) by Fuel Group

Transfers To/From Other Zones

Imports

Oil Only

Generation and Load (MW)

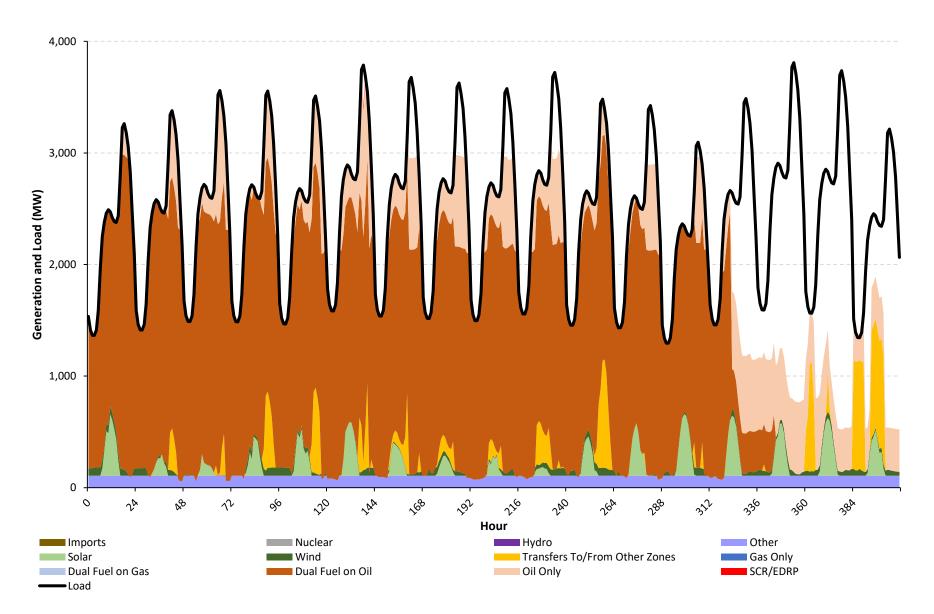
Wind

Dual Fuel on Oil

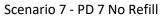
..... Load w/ Charging

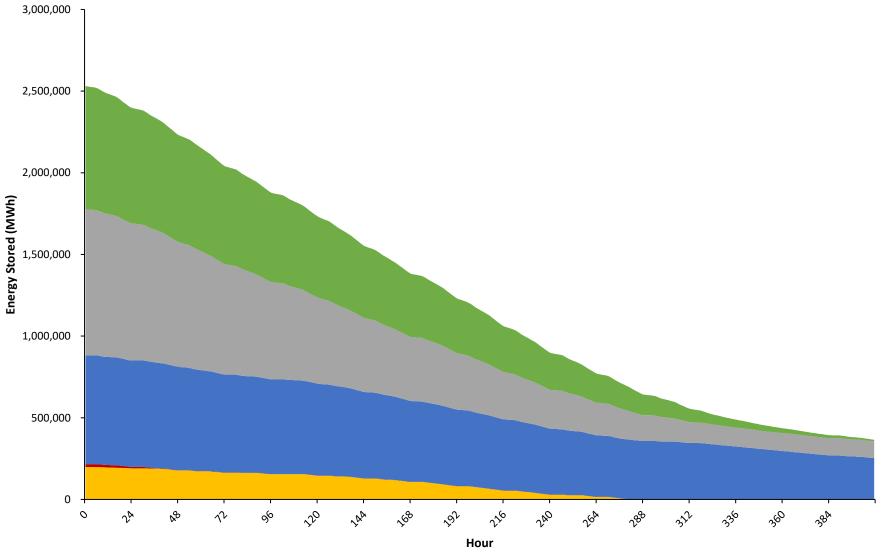
Zone K Hourly Generation (MW) by Fuel Group

Scenario 7 - PD 7 No Refill

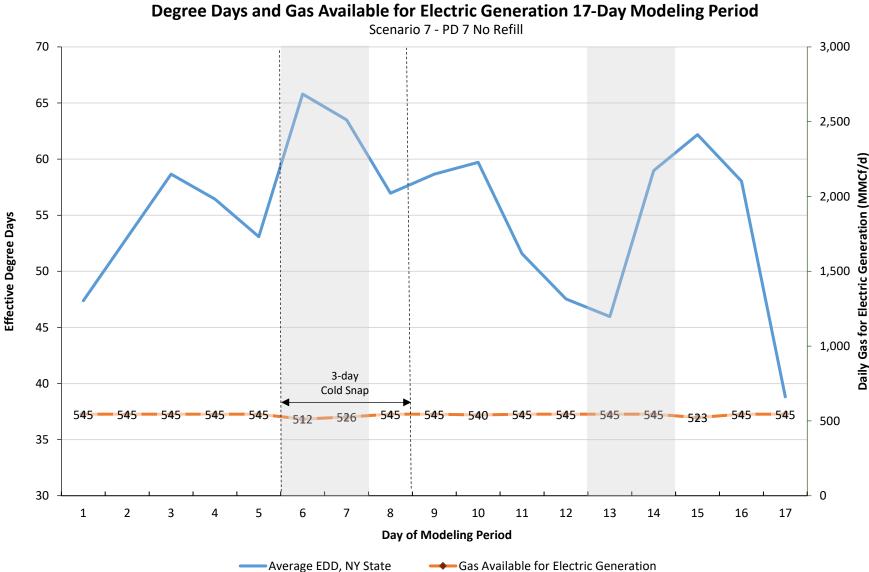








Zones A-E Zone F Zones G-I Zone J Zone K

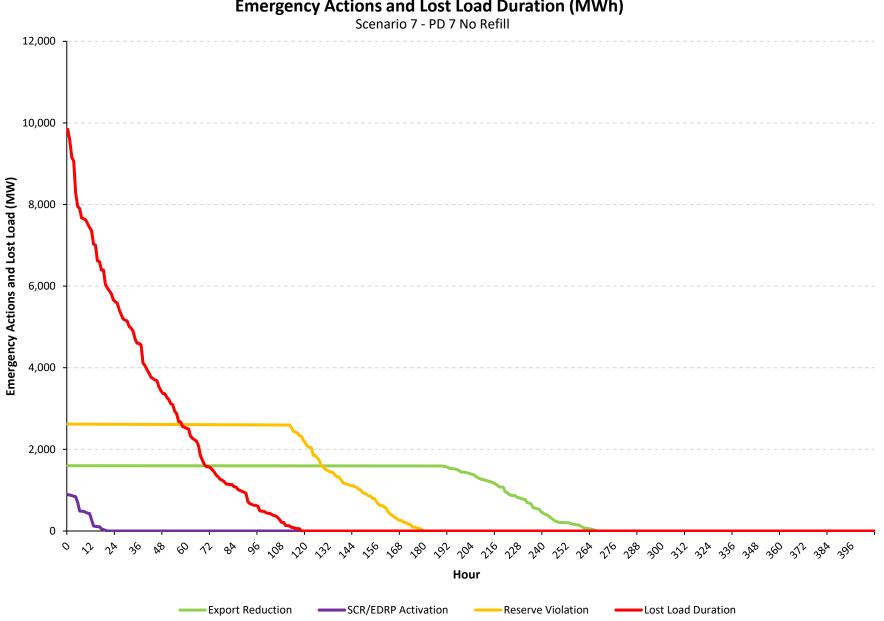


NYCA

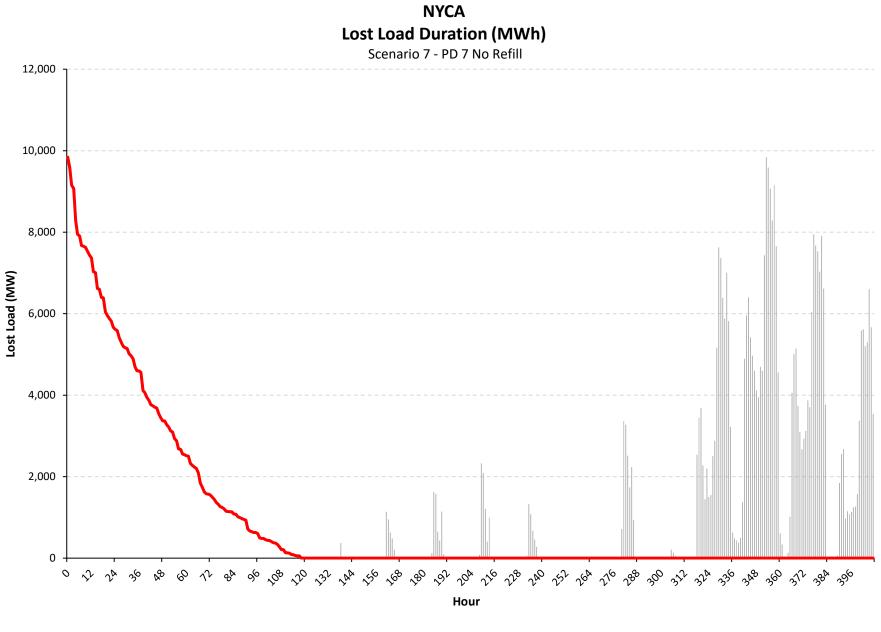
Notes:

[1] Weekends are shaded in gray.

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

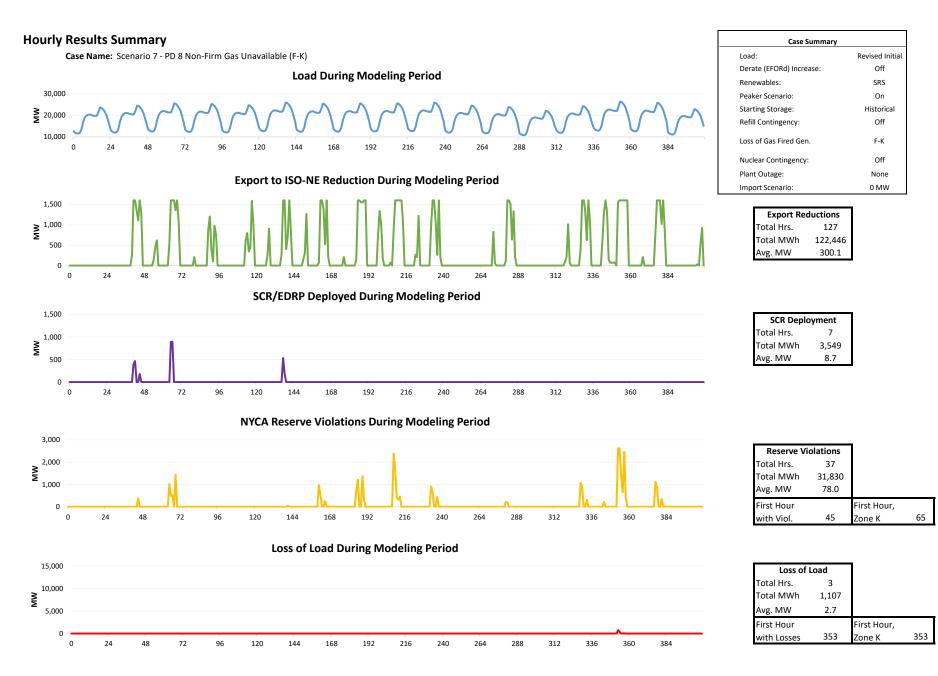


NYCA Emergency Actions and Lost Load Duration (MWh)

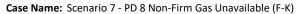


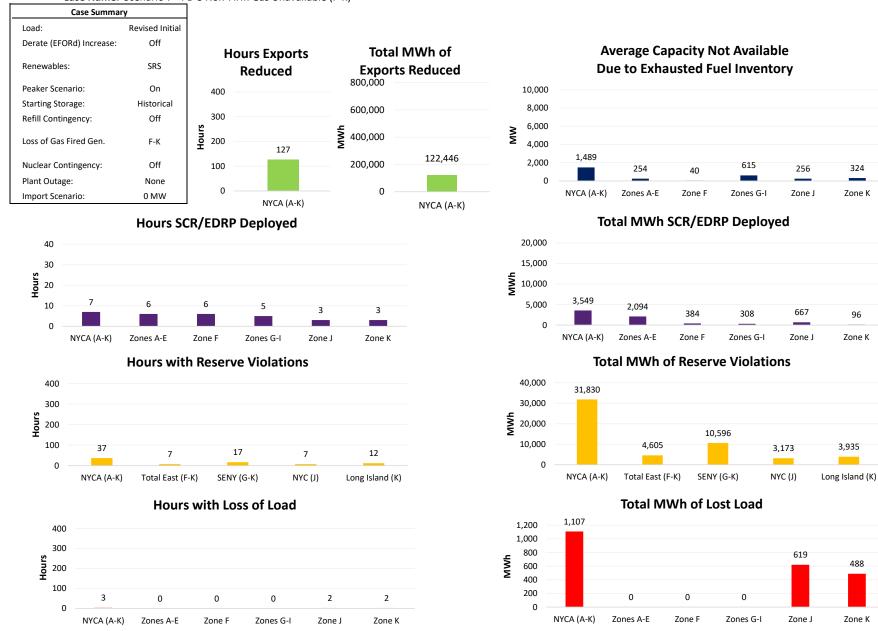
Lost Load — Lost Load Duration

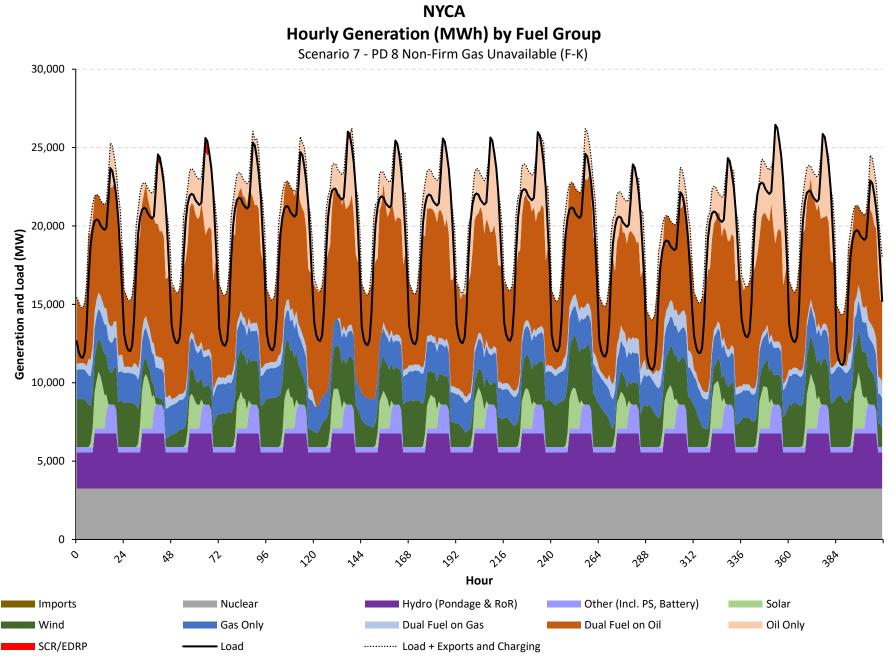
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 7 - PD 8 Non-Firm Gas Unavailable (F-K)

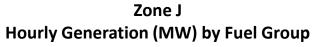


Full Period Results Summary

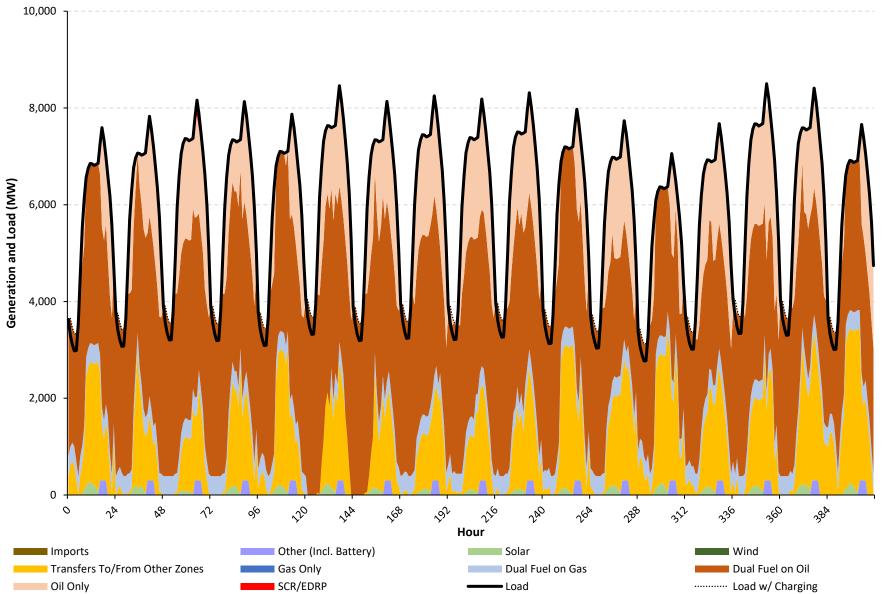






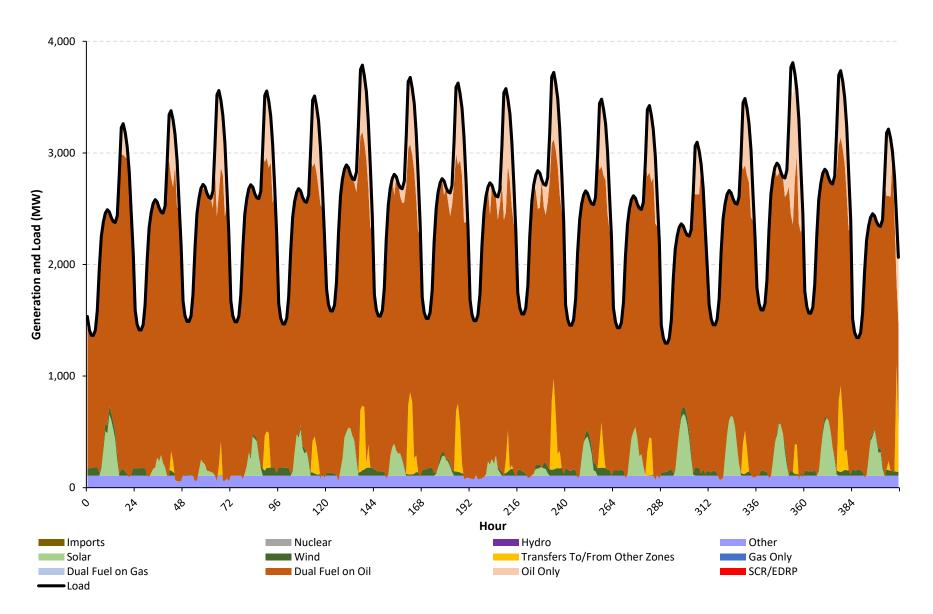


Scenario 7 - PD 8 Non-Firm Gas Unavailable (F-K)



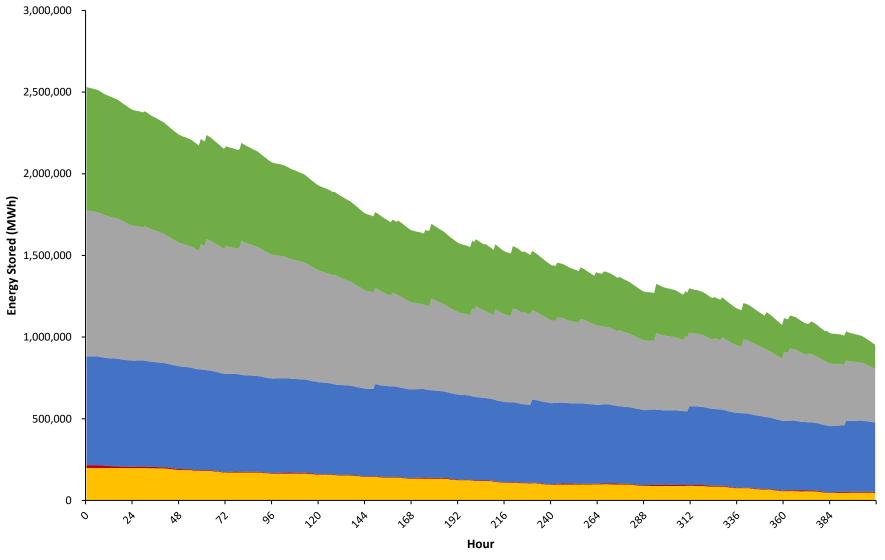
Zone K Hourly Generation (MW) by Fuel Group

Scenario 7 - PD 8 Non-Firm Gas Unavailable (F-K)

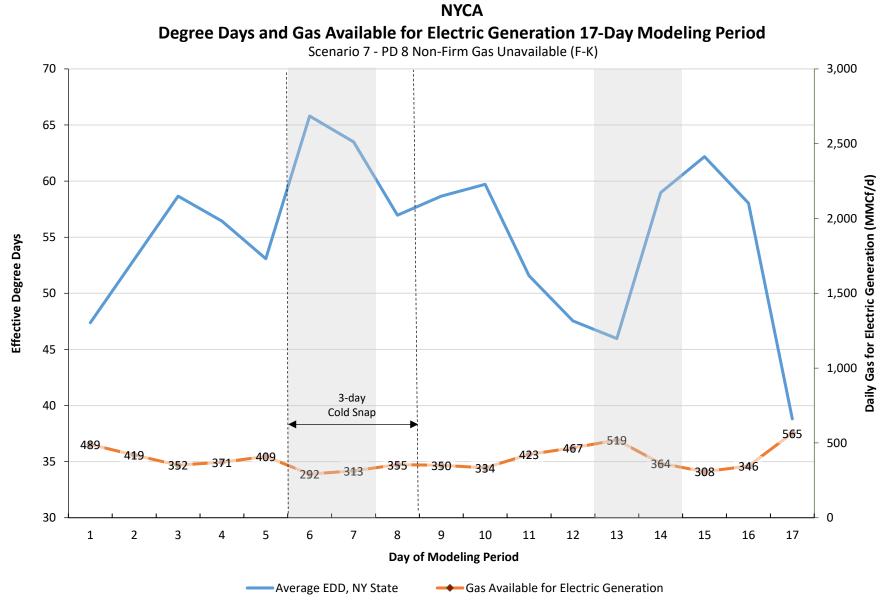




Scenario 7 - PD 8 Non-Firm Gas Unavailable (F-K)



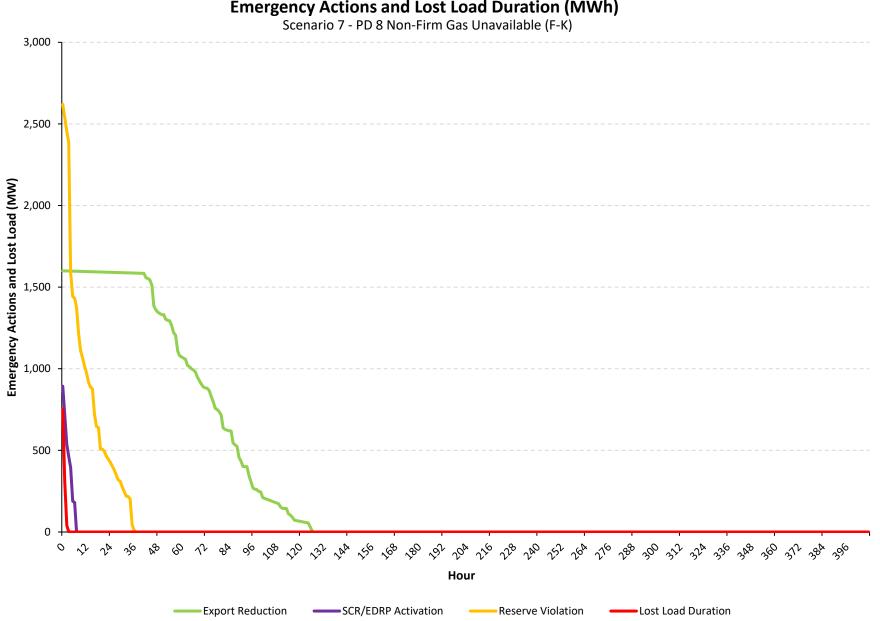
Zones A-E Zone F Zones G-I Zone J Zone K



Notes:

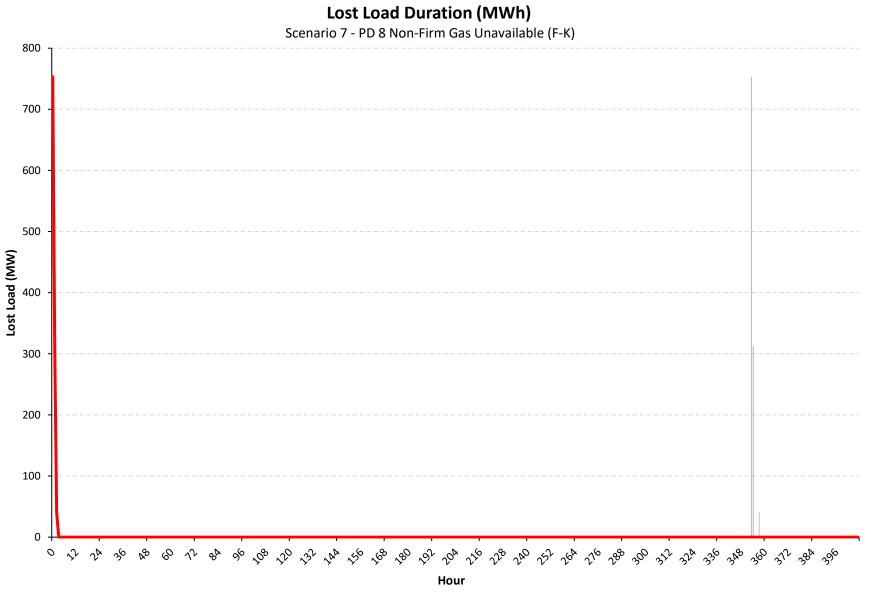
[1] Weekends are shaded in gray.

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



NYCA Emergency Actions and Lost Load Duration (MWh)

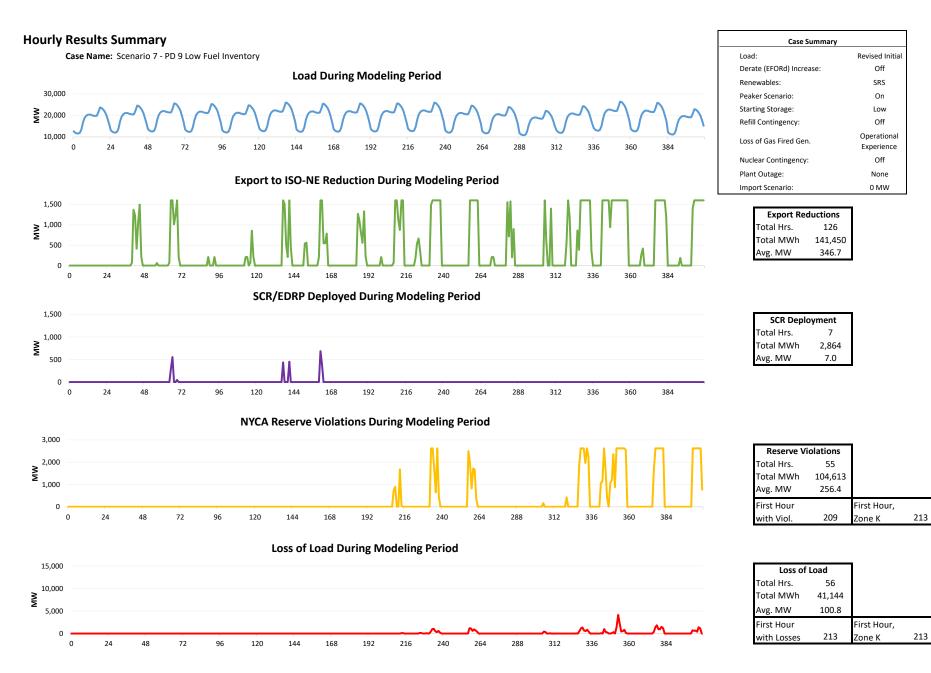
NYCA



Lost Load —Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 7 - PD 9 Low Fuel Inventory



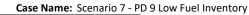
1,135

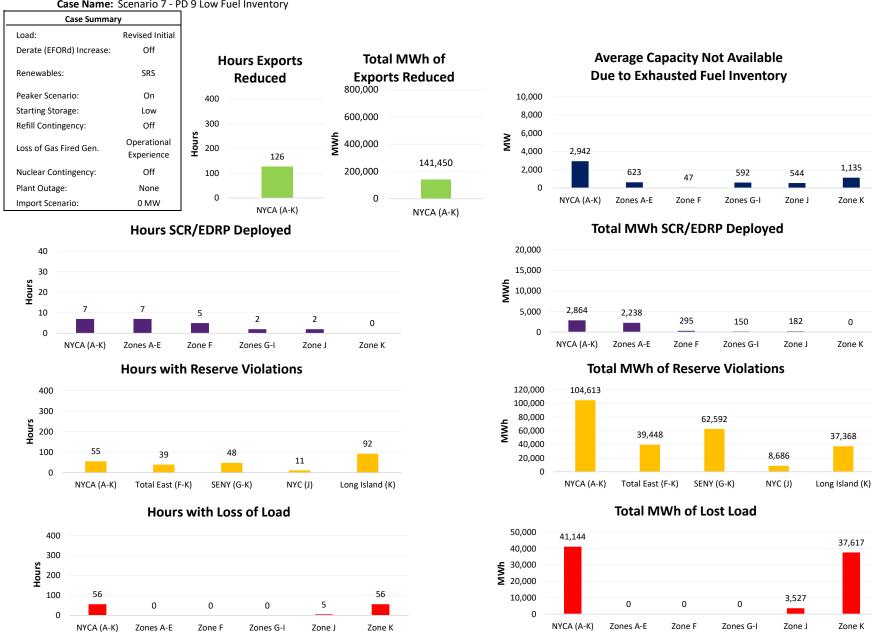
Zone K

0

Zone K

Full Period Results Summary

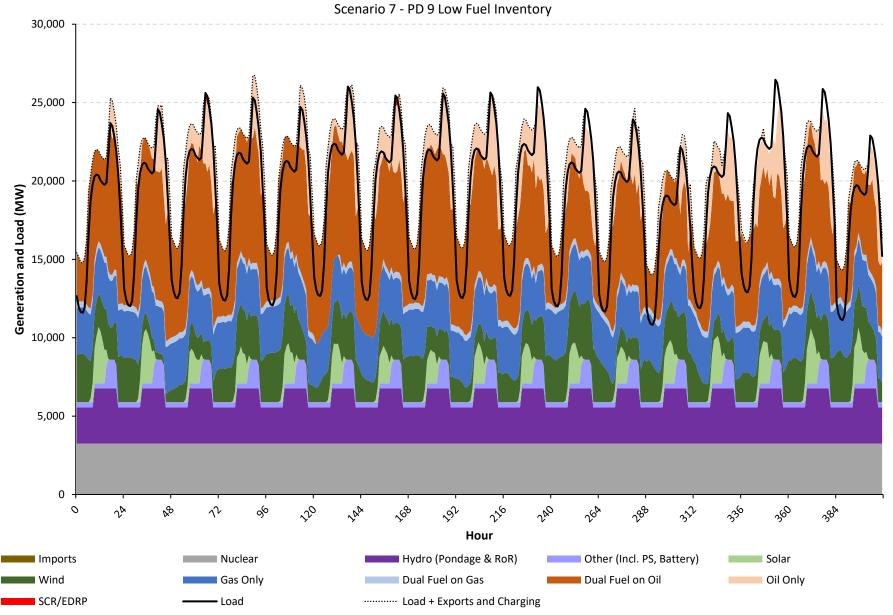




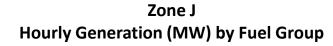
Zone K

37,617

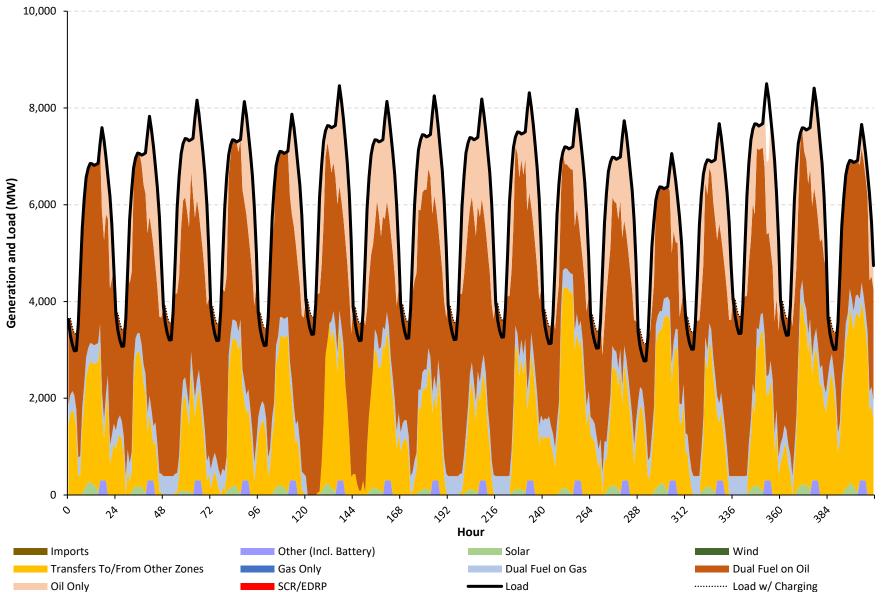
NYCA Hourly Generation (MWh) by Fuel Group



Analysis Group, Inc.

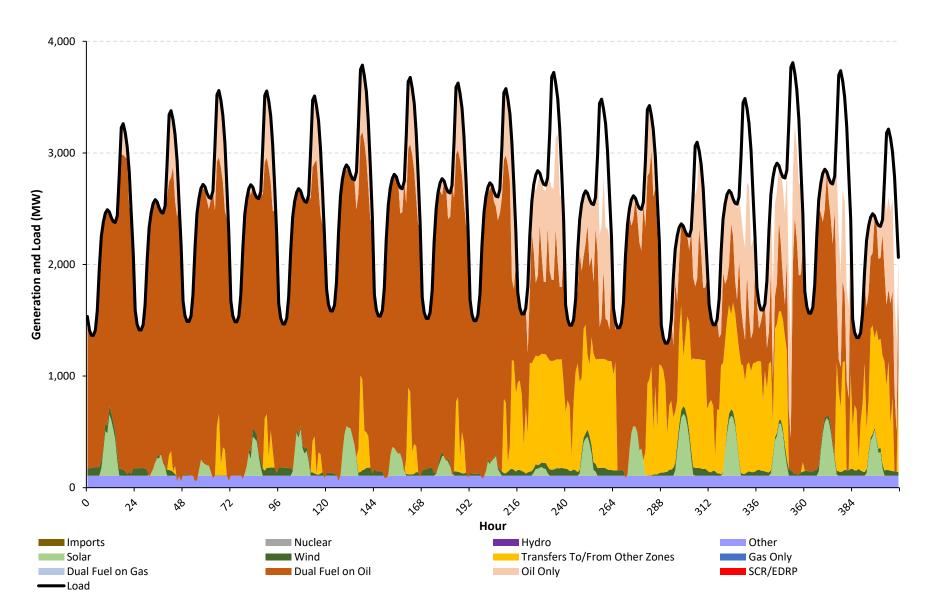


Scenario 7 - PD 9 Low Fuel Inventory

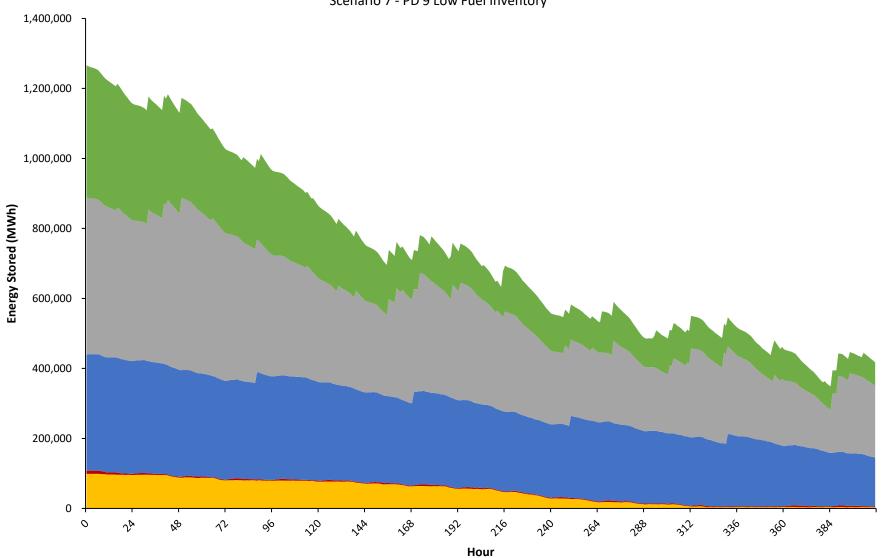


Zone K Hourly Generation (MW) by Fuel Group

Scenario 7 - PD 9 Low Fuel Inventory

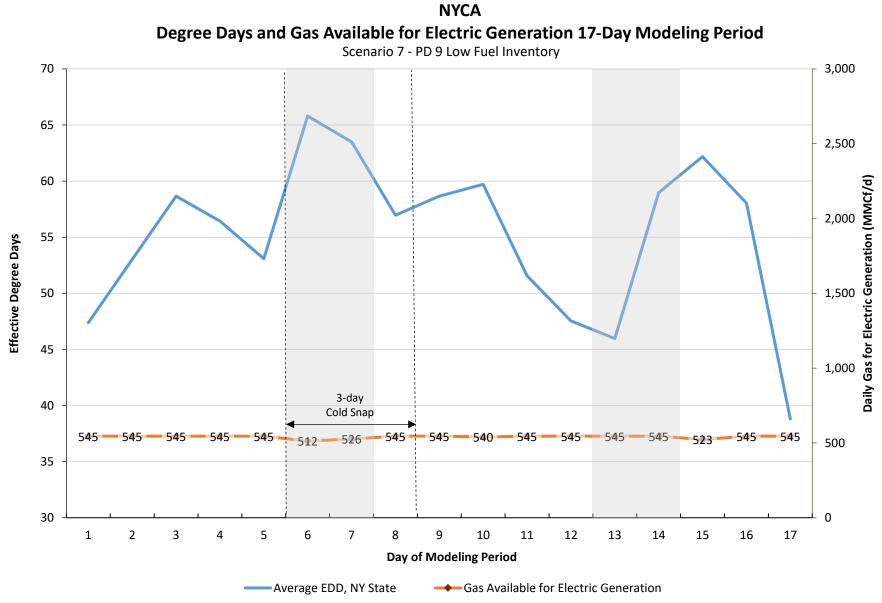






Scenario 7 - PD 9 Low Fuel Inventory

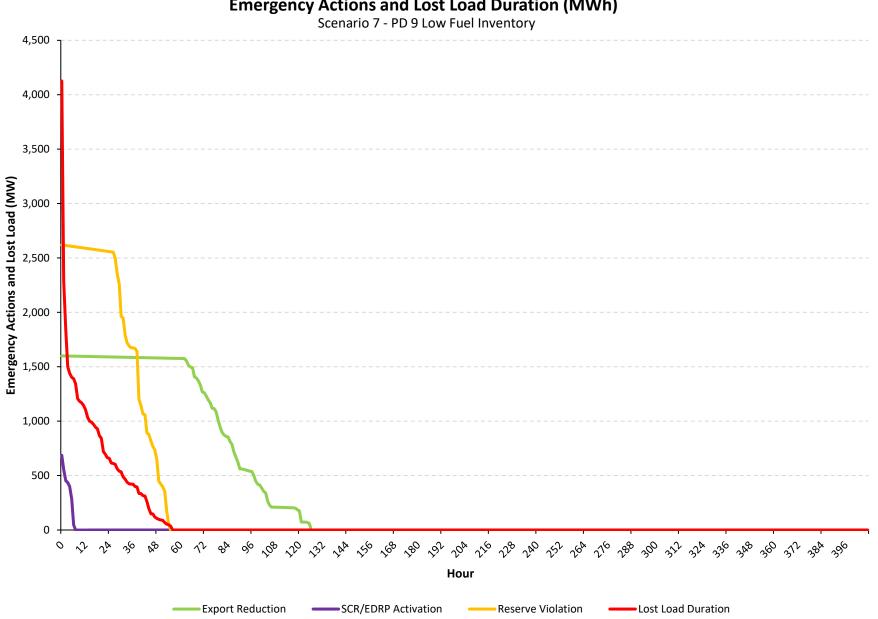
Zones A-E Zone F Zones G-I Zone J Zone K



Notes:

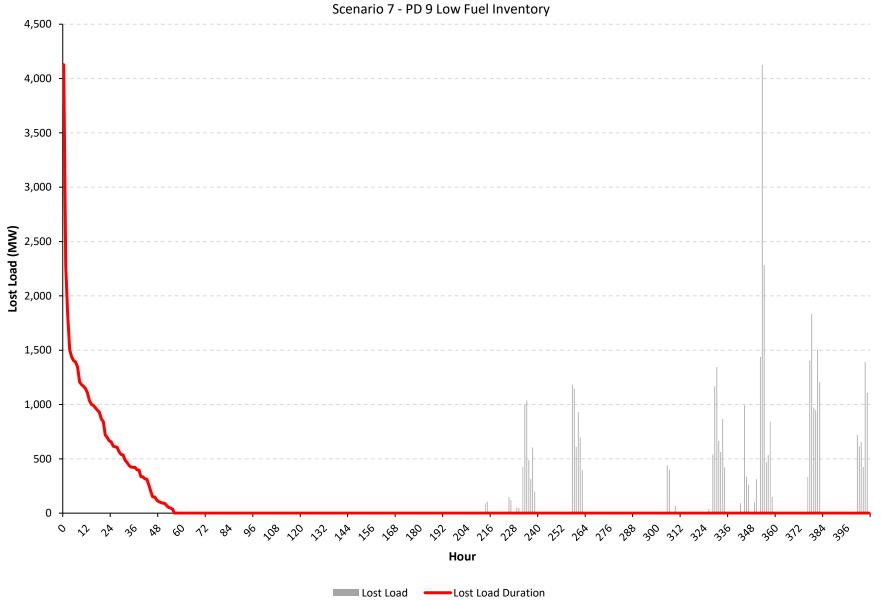
[1] Weekends are shaded in gray.

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

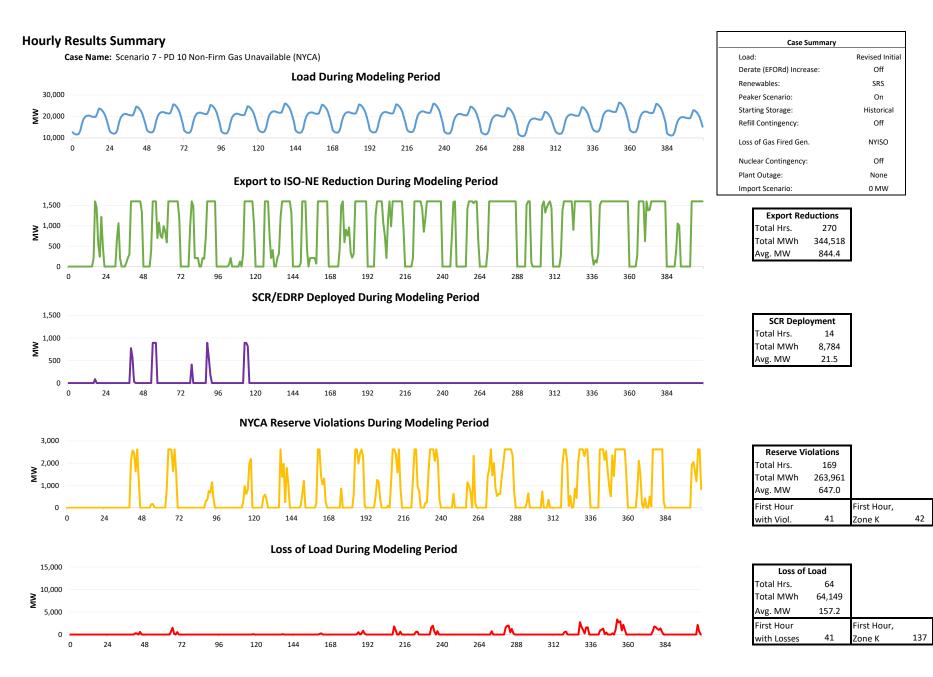


NYCA Emergency Actions and Lost Load Duration (MWh)

NYCA Lost Load Duration (MWh)

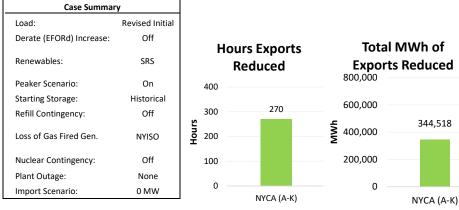


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 7 - PD 10 Non-Firm Gas Unavailable (NYCA)

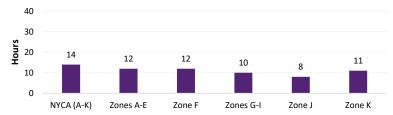


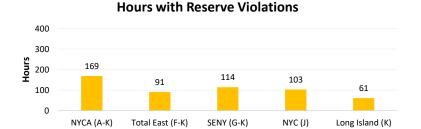
Full Period Results Summary

Case Name: Scenario 7 - PD 10 Non-Firm Gas Unavailable (NYCA)

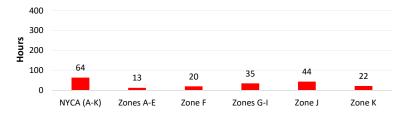




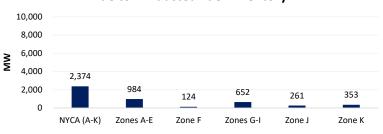




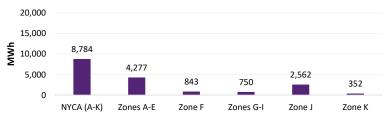




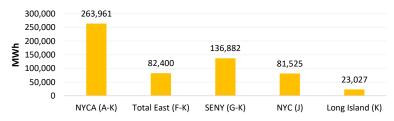
Average Capacity Not Available Due to Exhausted Fuel Inventory



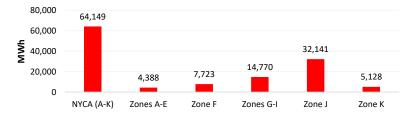
Total MWh SCR/EDRP Deployed

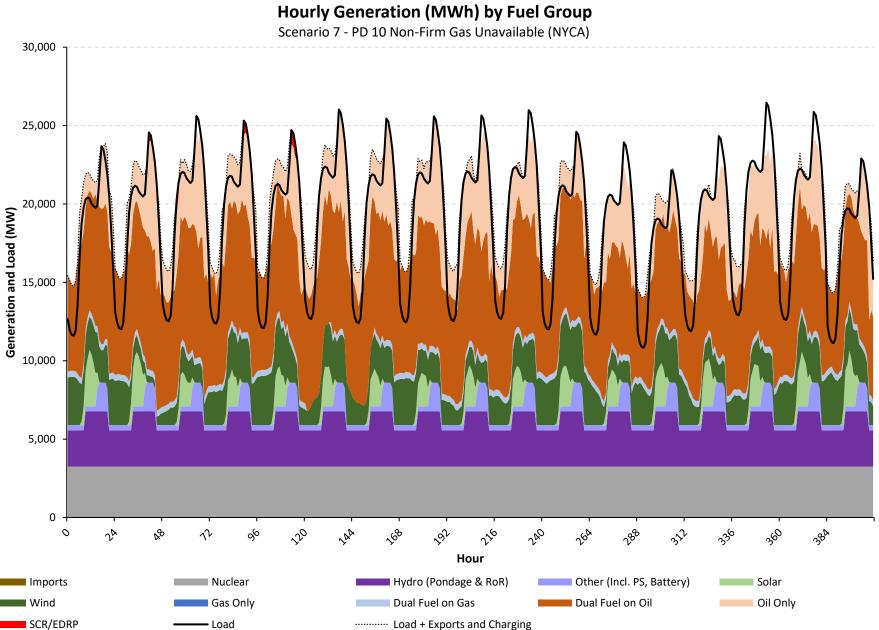


Total MWh of Reserve Violations



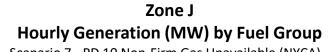
Total MWh of Lost Load

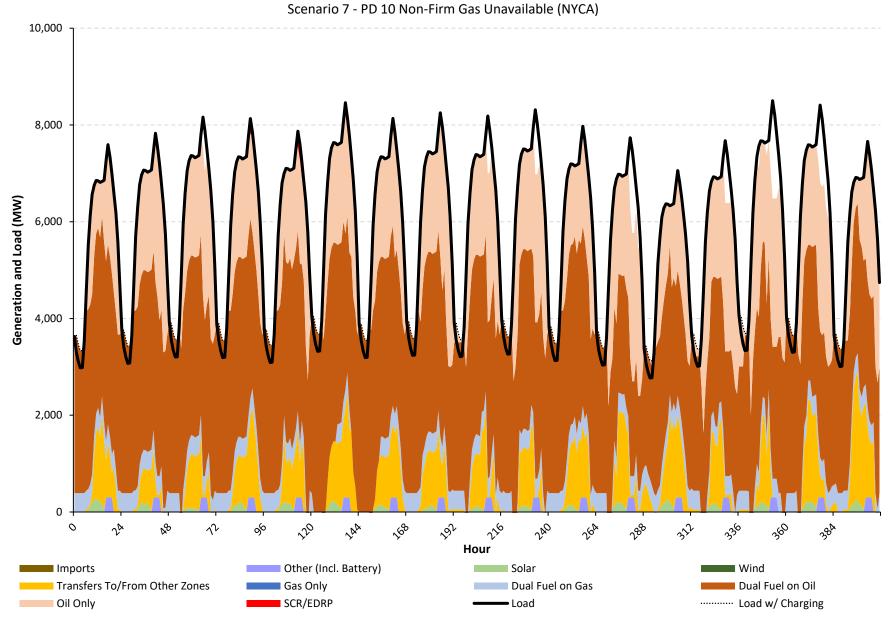




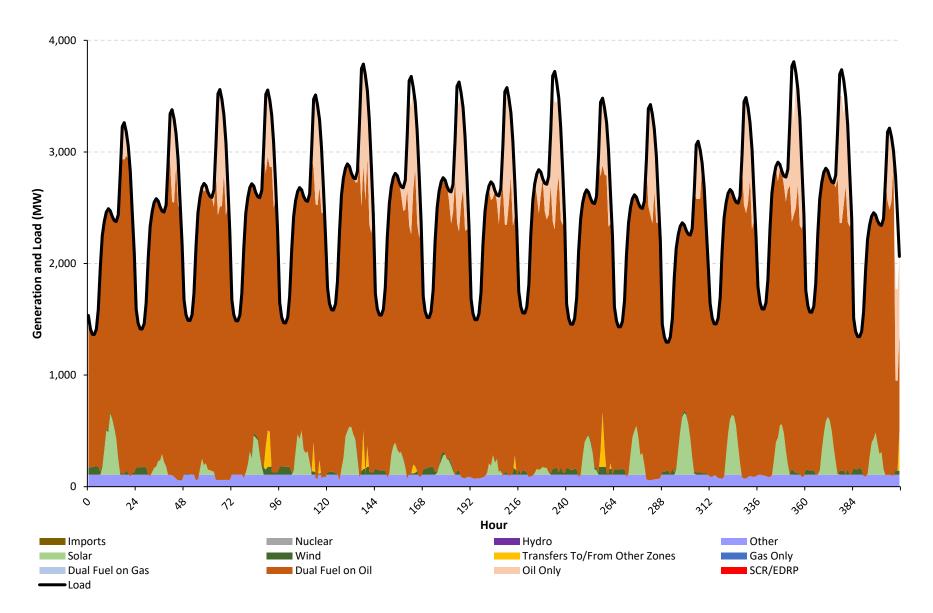
NYCA

Analysis Group, Inc.

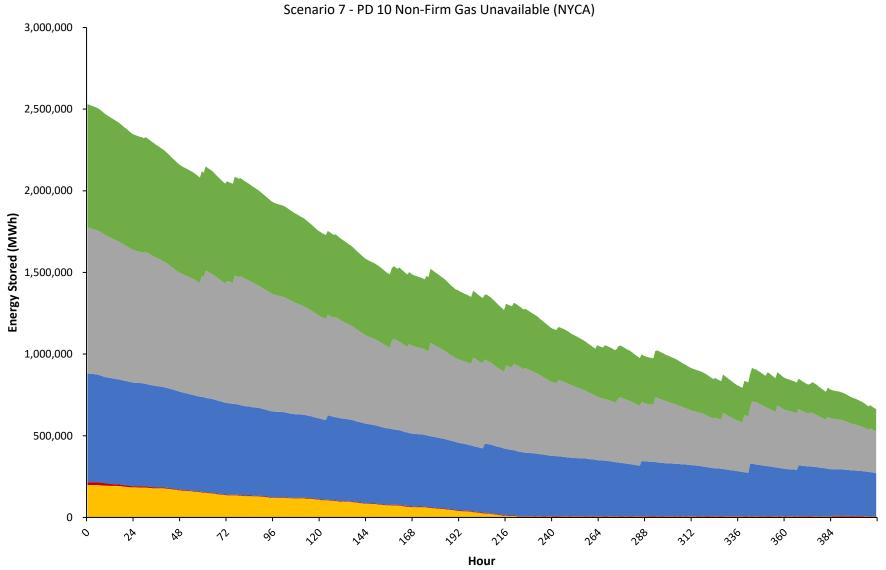


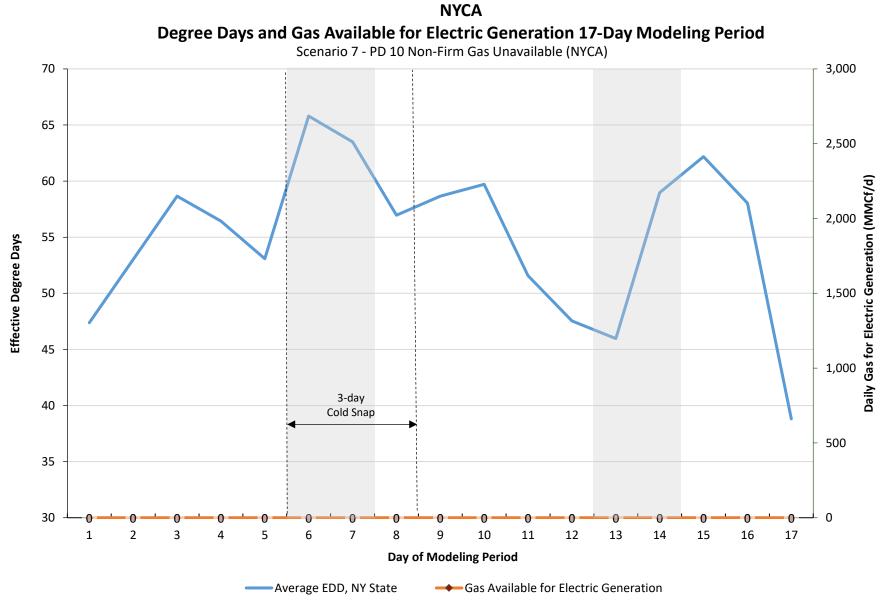


Scenario 7 - PD 10 Non-Firm Gas Unavailable (NYCA)

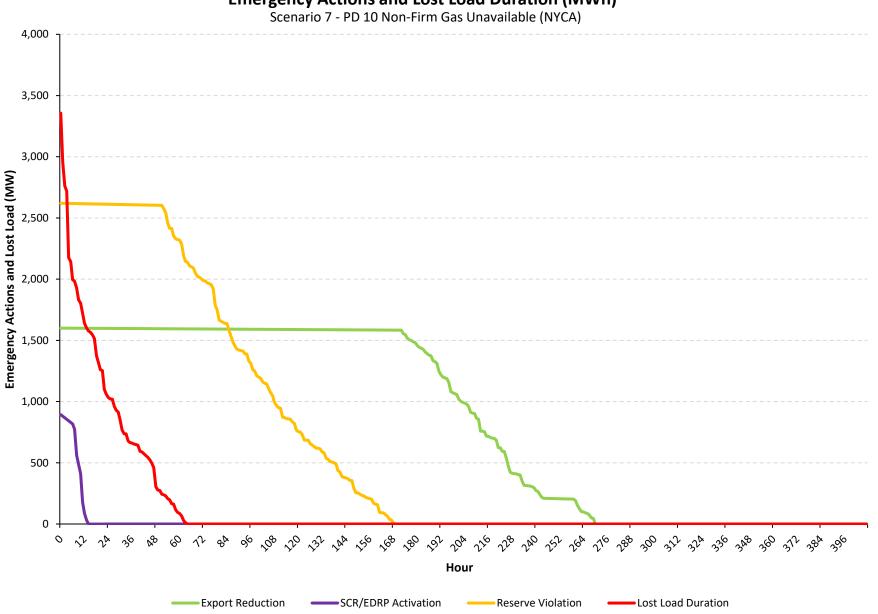






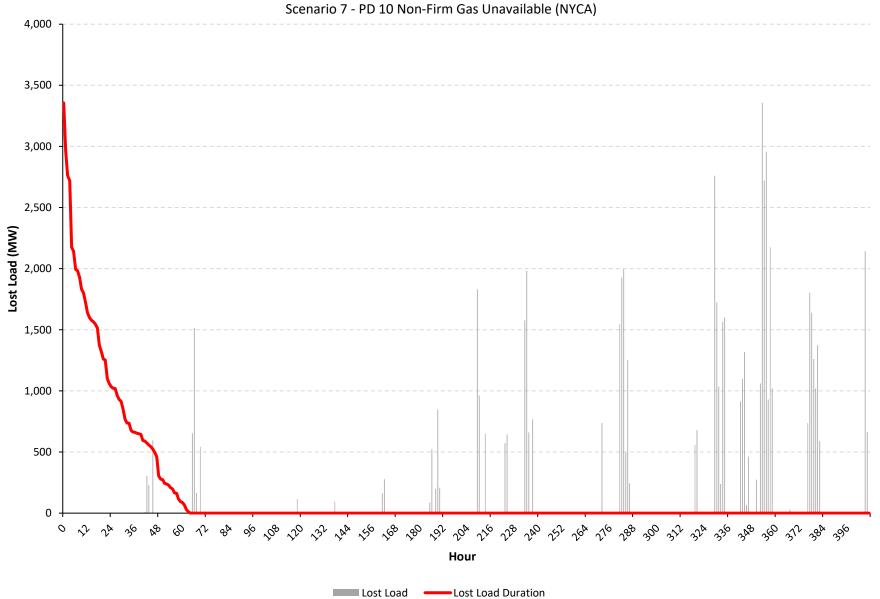


[1] Weekends are shaded in gray.

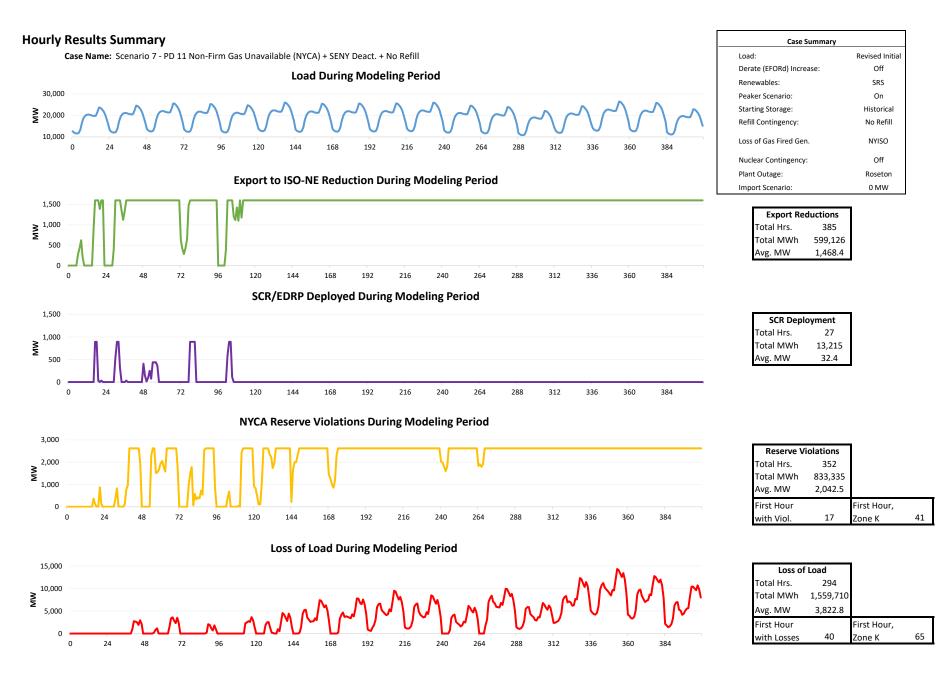


NYCA Emergency Actions and Lost Load Duration (MWh)

NYCA Lost Load Duration (MWh)

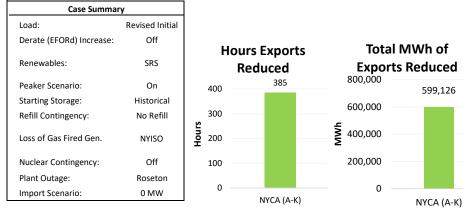


Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 7 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill

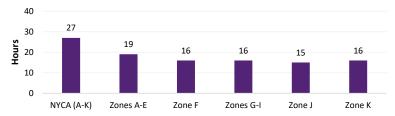


Full Period Results Summary

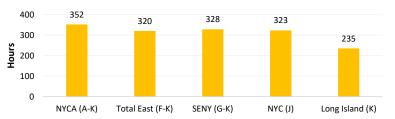
Case Name: Scenario 7 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill



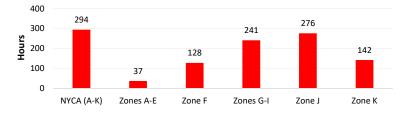


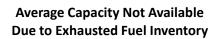


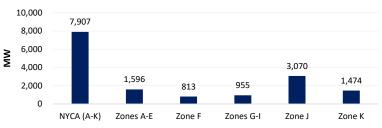
Hours with Reserve Violations



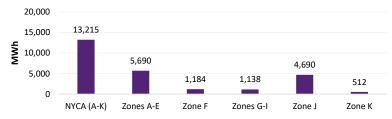
Hours with Loss of Load



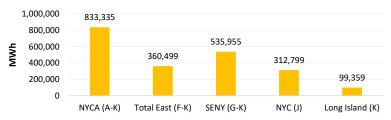




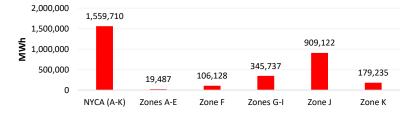
Total MWh SCR/EDRP Deployed



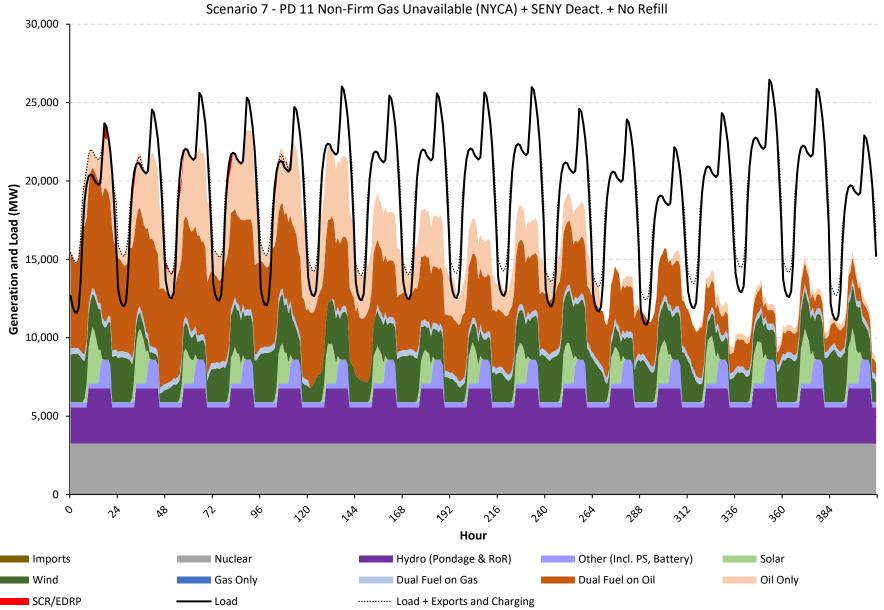
Total MWh of Reserve Violations

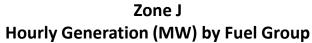


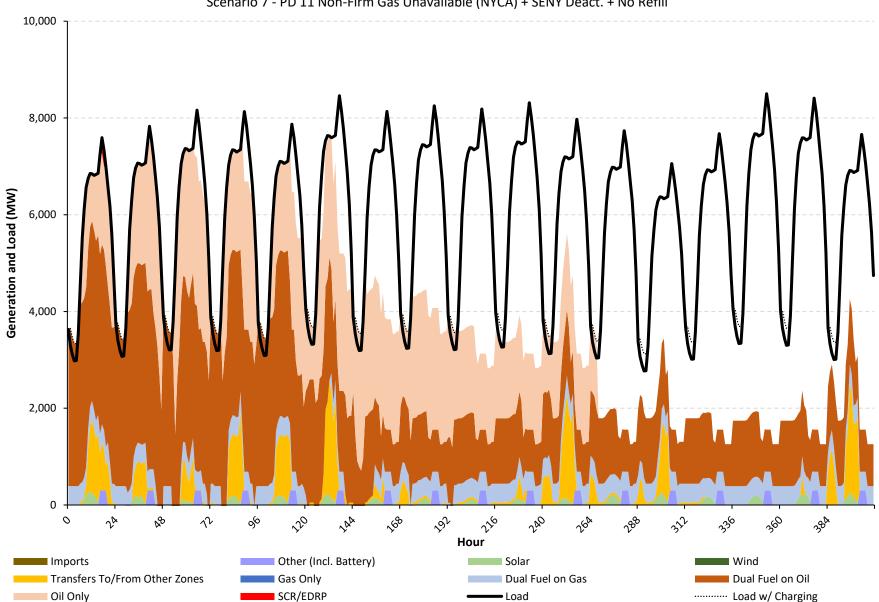
Total MWh of Lost Load

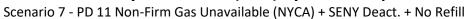


NYCA Hourly Generation (MWh) by Fuel Group

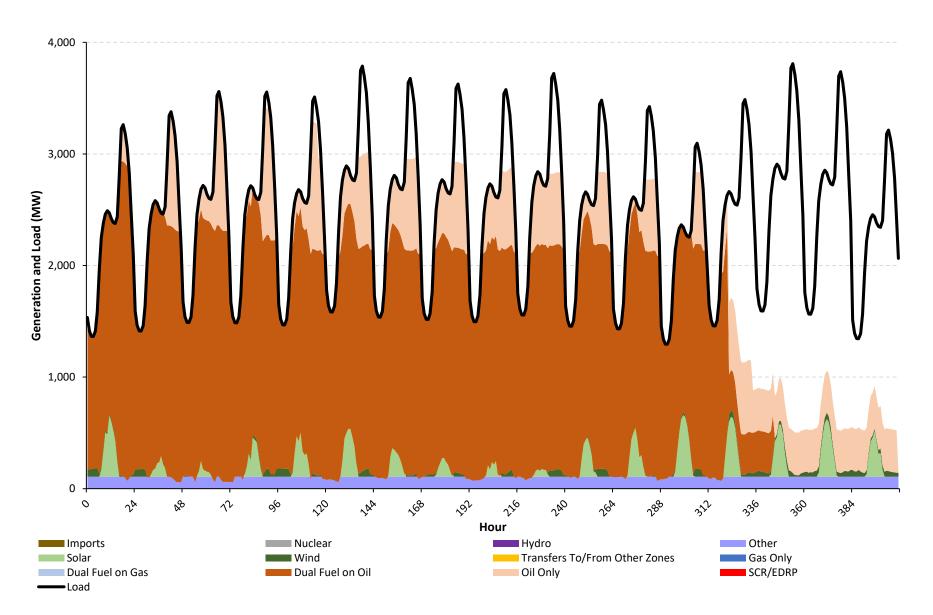




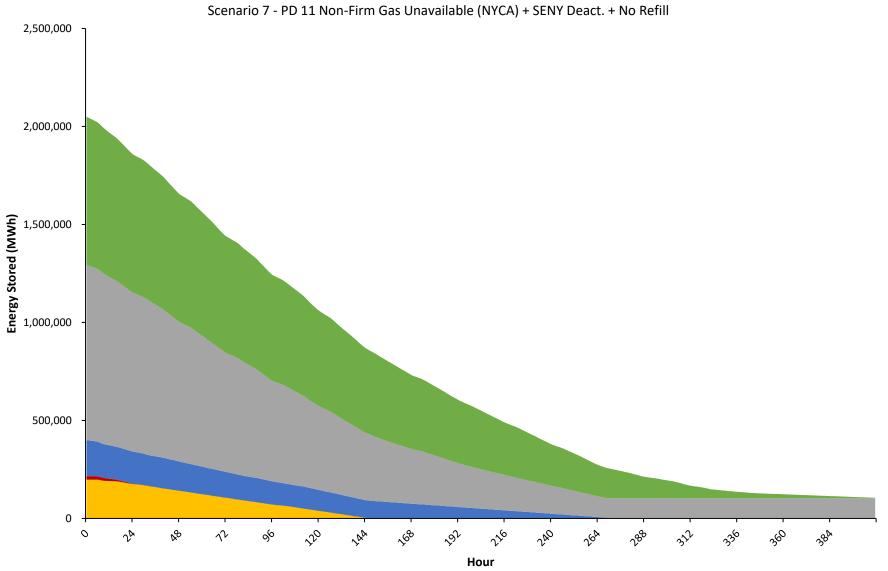


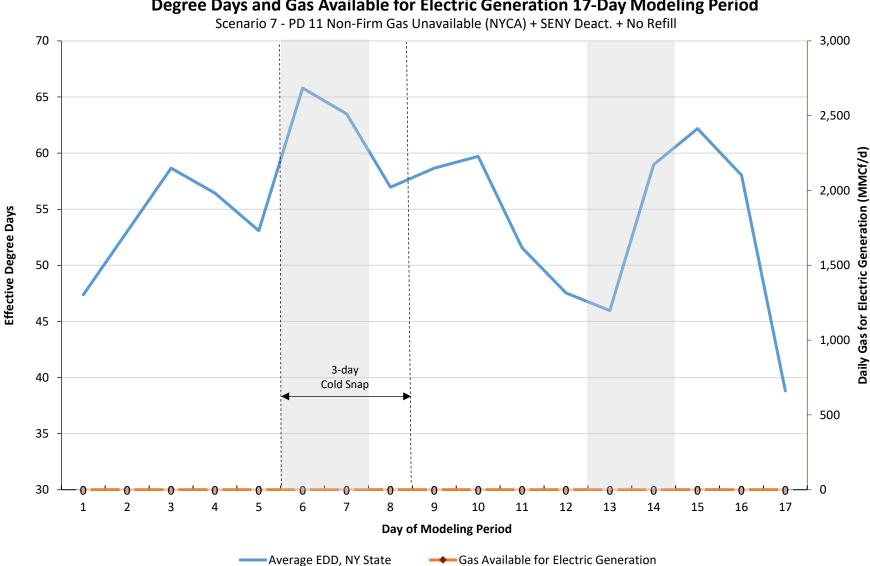


Scenario 7 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill



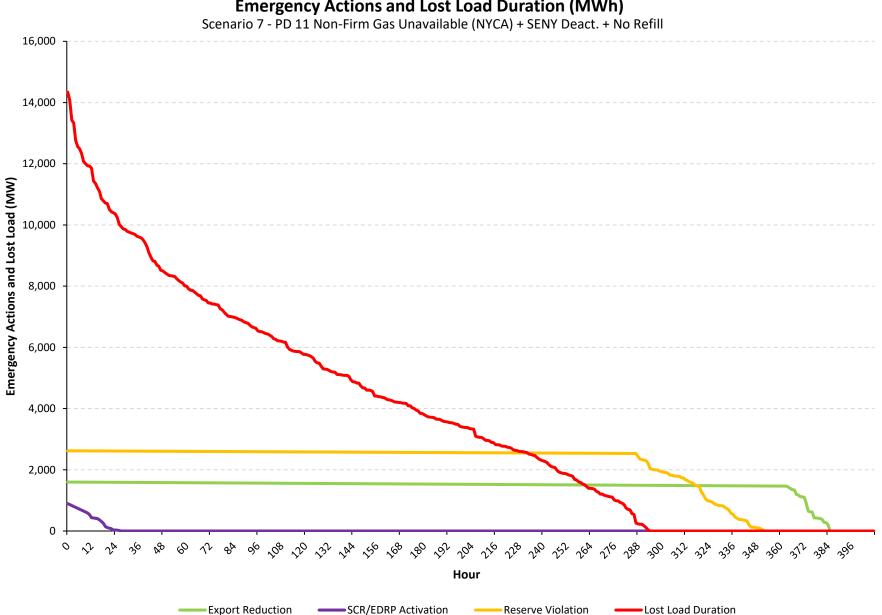






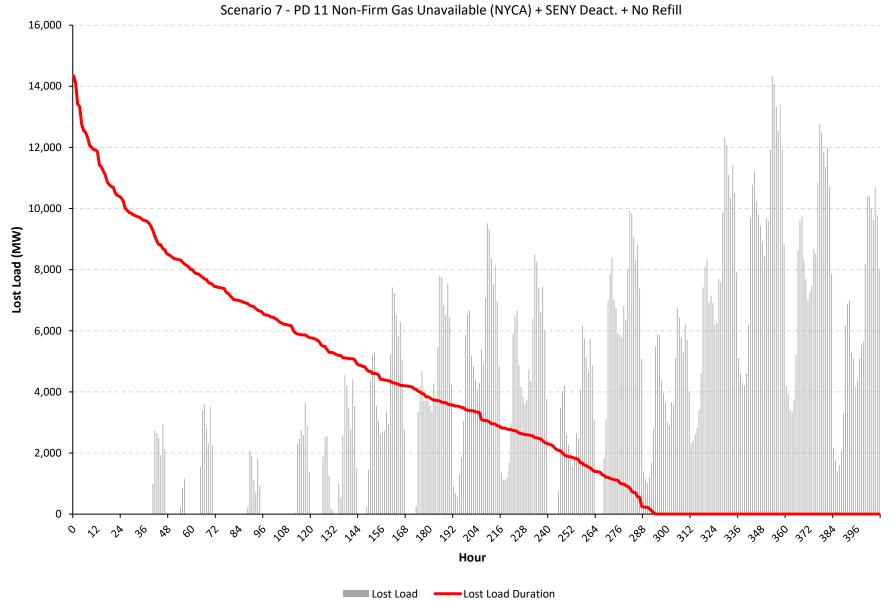
NYCA Degree Days and Gas Available for Electric Generation 17-Day Modeling Period

[1] Weekends are shaded in gray.



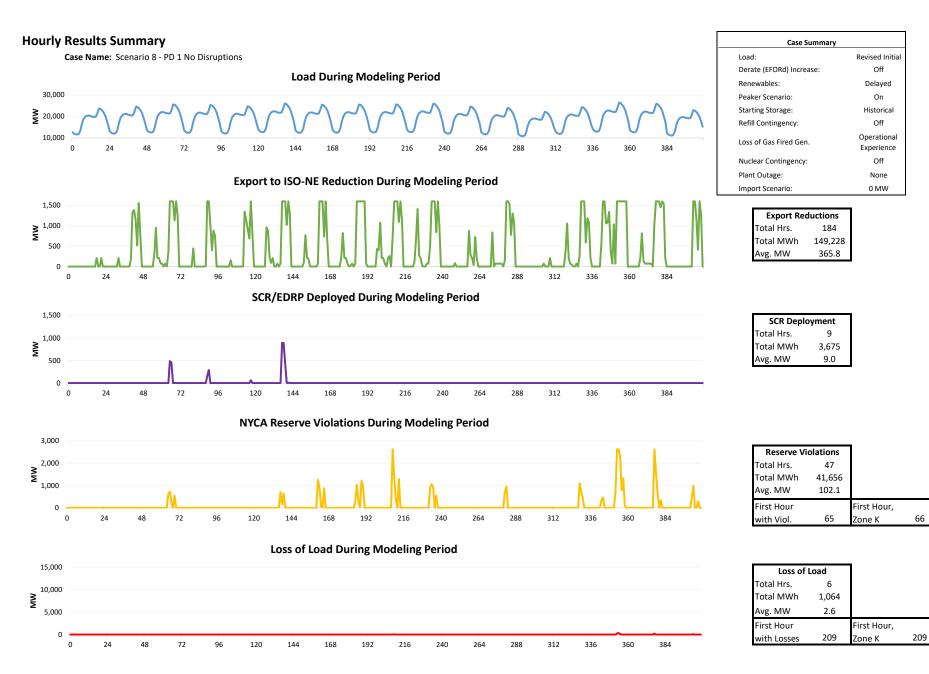
NYCA Emergency Actions and Lost Load Duration (MWh)

NYCA Lost Load Duration (MWh)

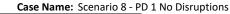


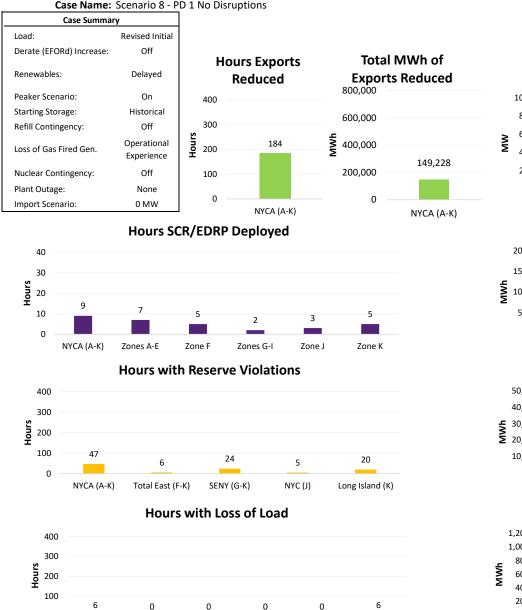
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 8 - PD 1 No Disruptions

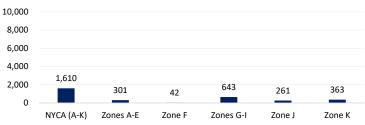


Full Period Results Summary

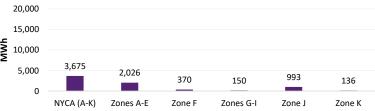




Average Capacity Not Available Due to Exhausted Fuel Inventory



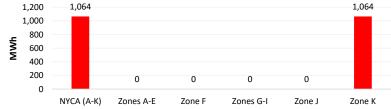
Total MWh SCR/EDRP Deployed



Total MWh of Reserve Violations



Total MWh of Lost Load



0

NYCA (A-K)

Zones A-E

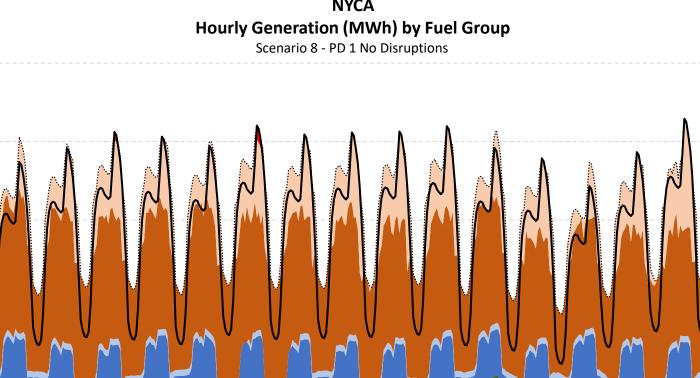
Zone F

Zones G-I

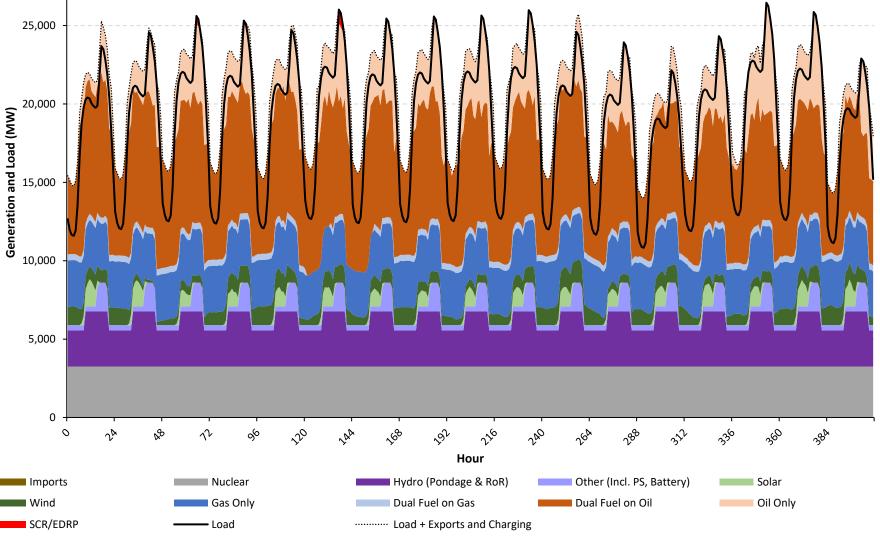
Zone J

Zone K

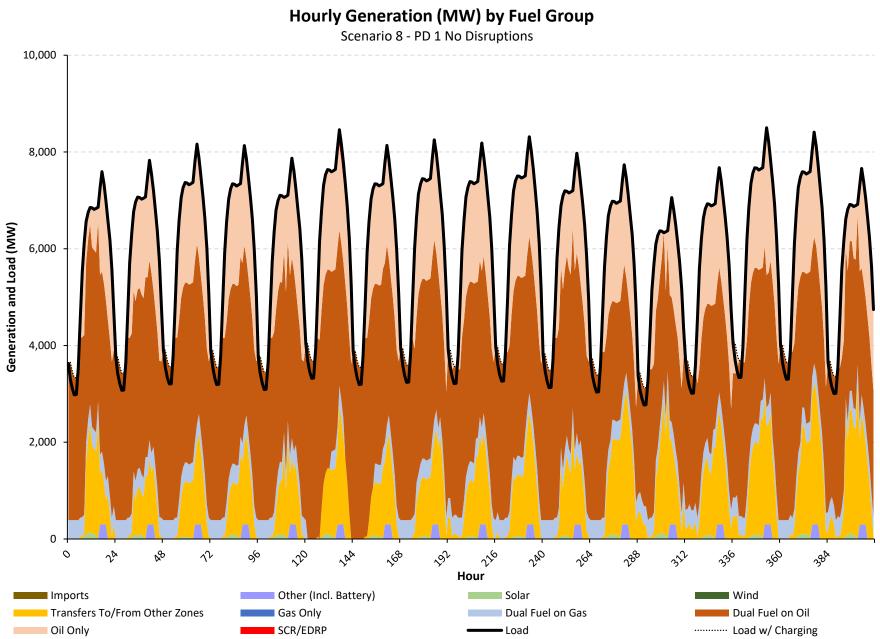
30,000



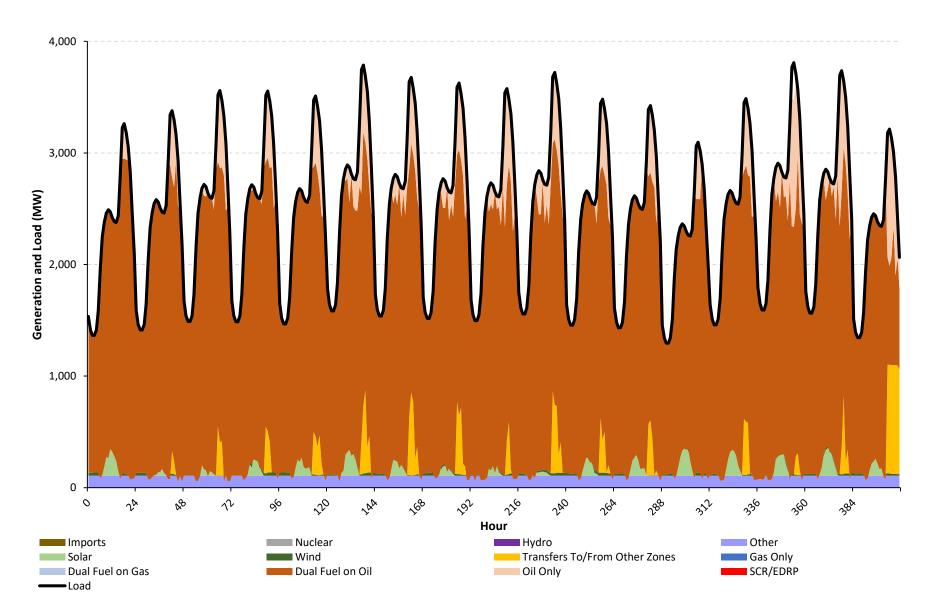




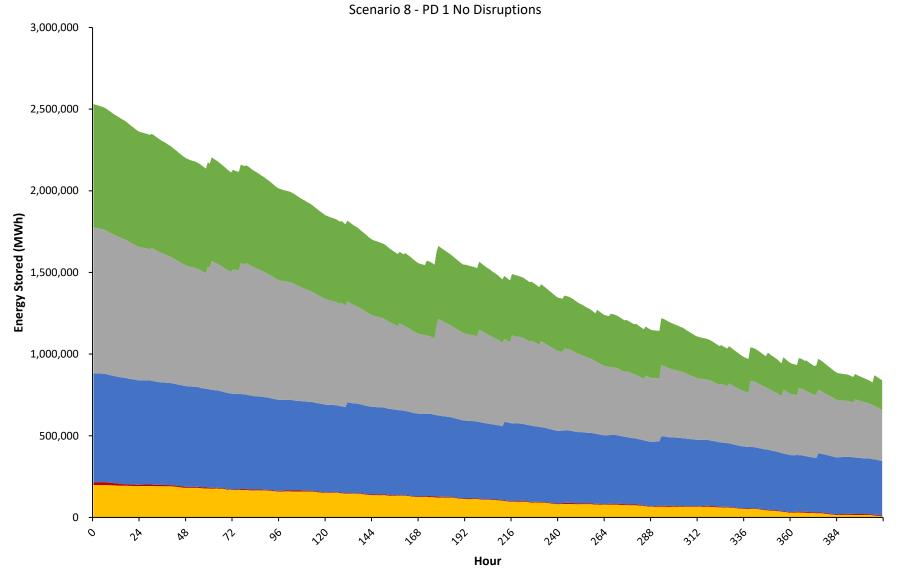
Analysis Group, Inc.

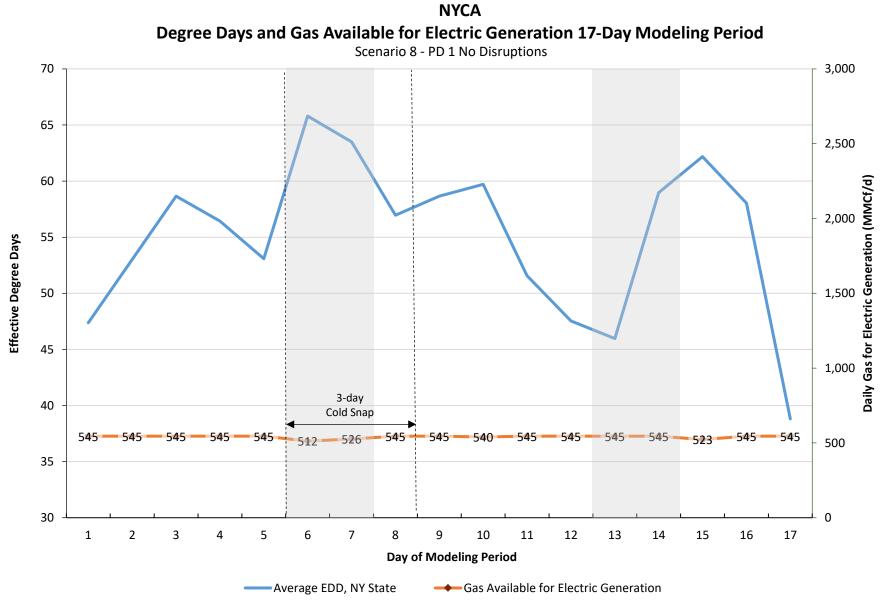


Scenario 8 - PD 1 No Disruptions

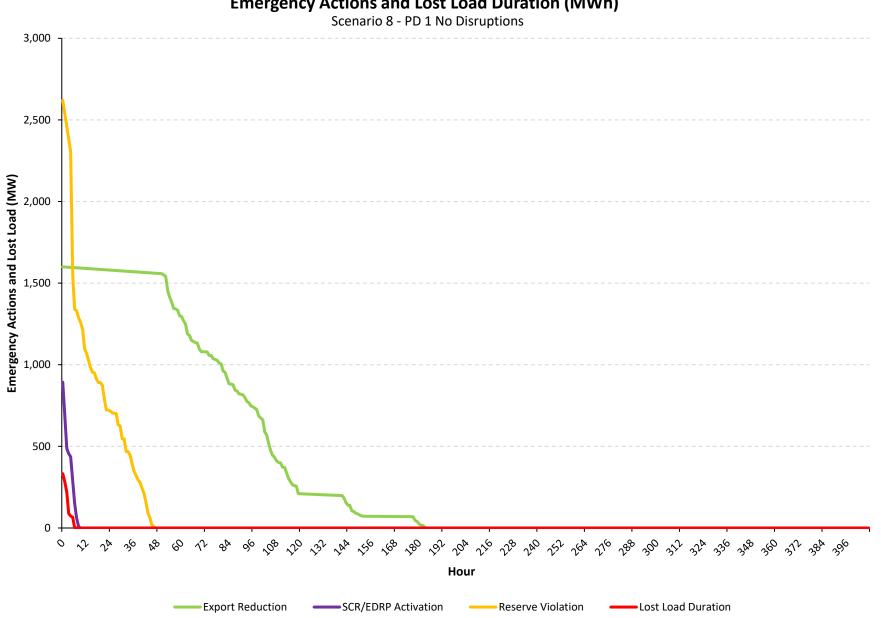






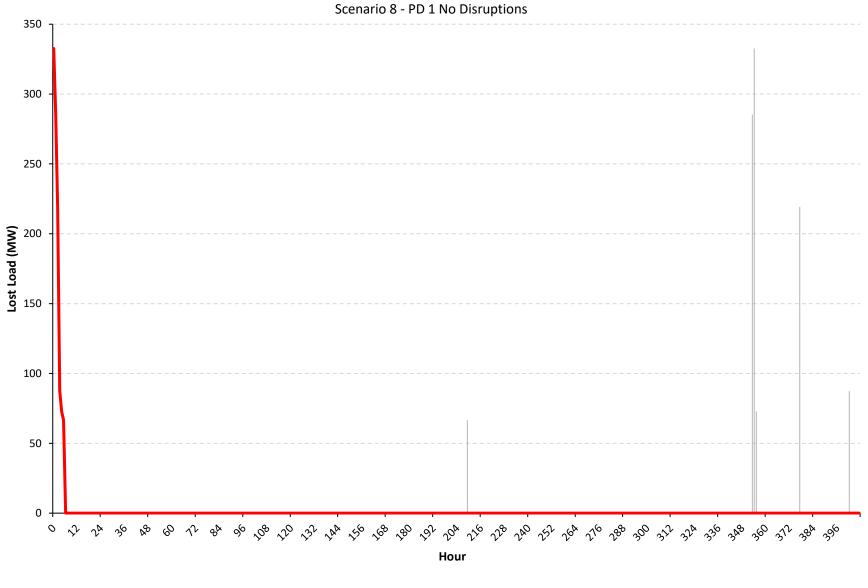


[1] Weekends are shaded in gray.



NYCA Emergency Actions and Lost Load Duration (MWh)

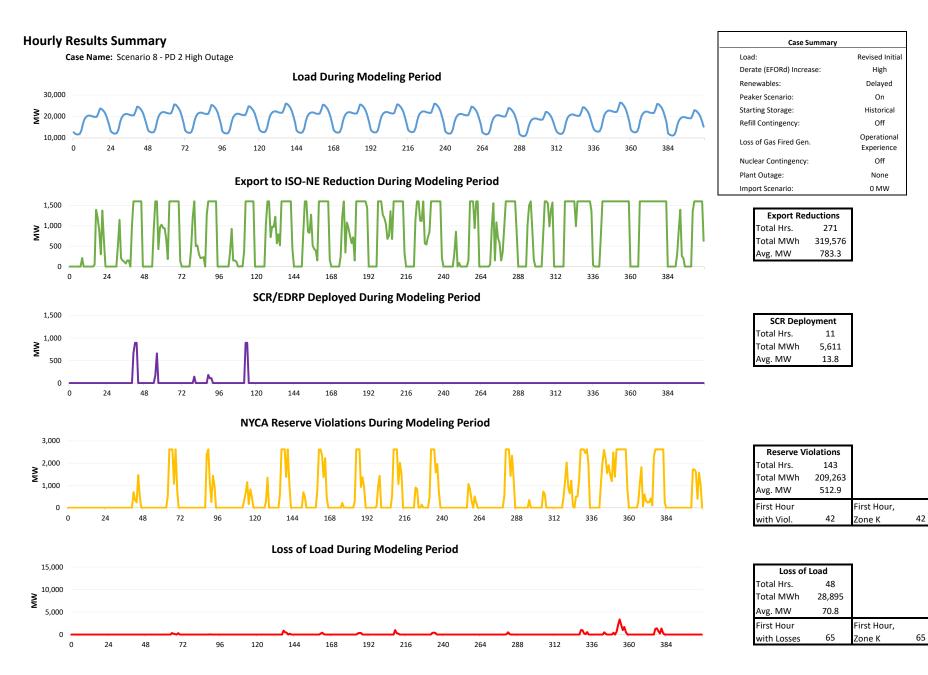




Lost Load Lost Load Duration

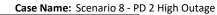
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

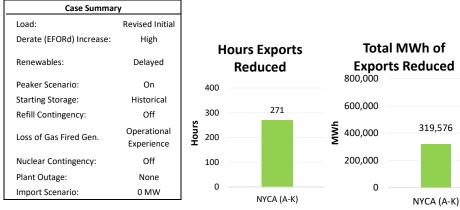
Case: Scenario 8 - PD 2 High Outage



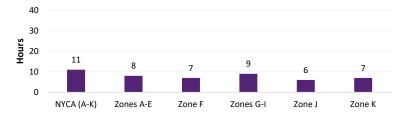
₹

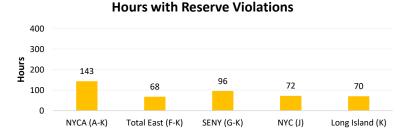
Full Period Results Summary



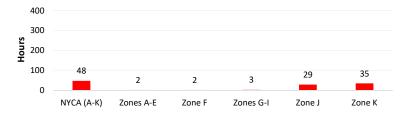


Hours SCR/EDRP Deployed

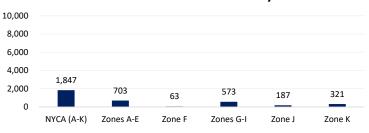




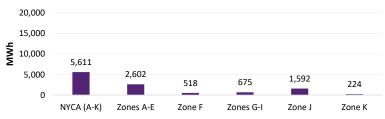
Hours with Loss of Load



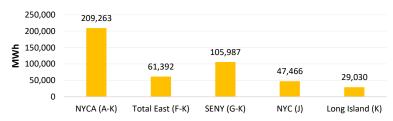
Average Capacity Not Available Due to Exhausted Fuel Inventory



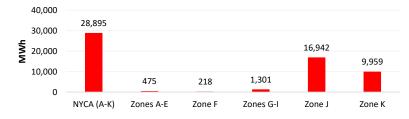
Total MWh SCR/EDRP Deployed



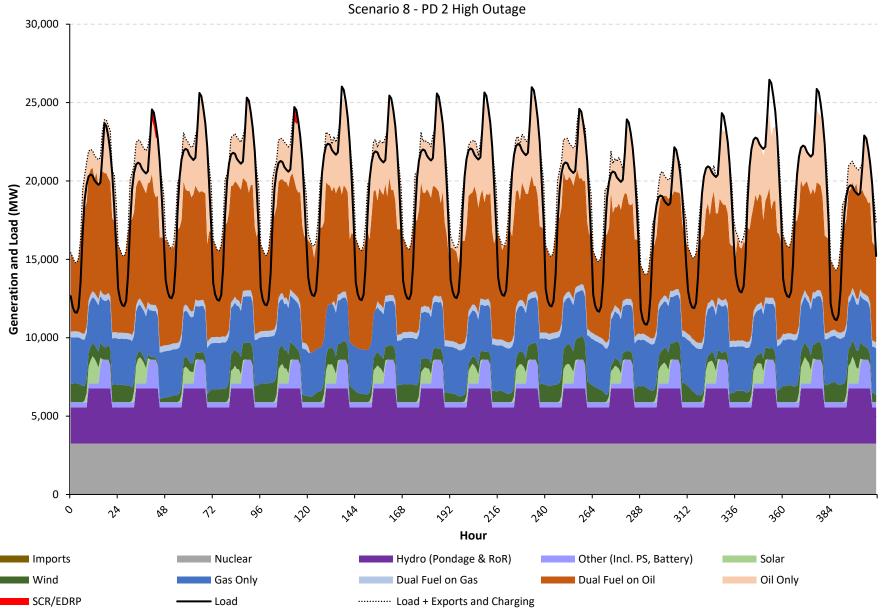
Total MWh of Reserve Violations

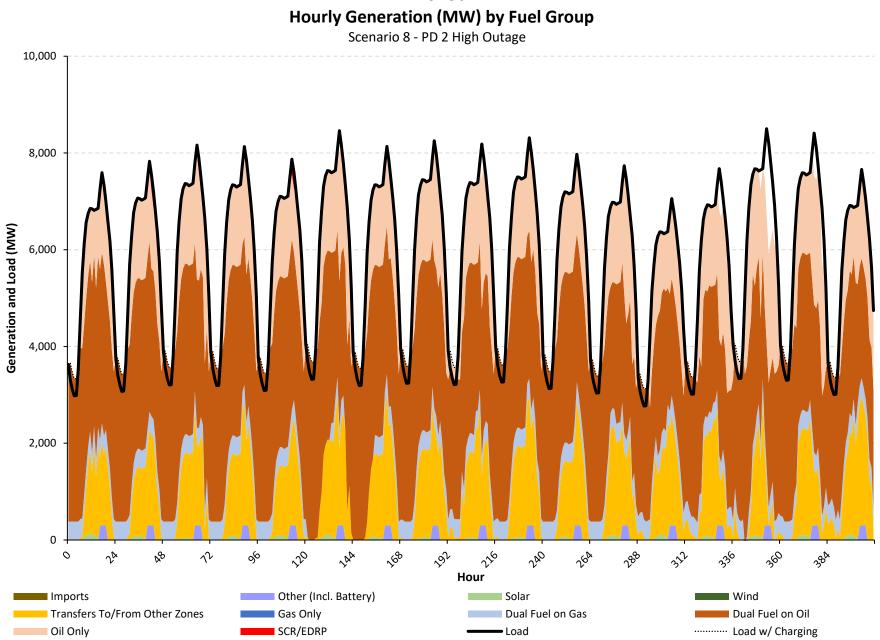


Total MWh of Lost Load

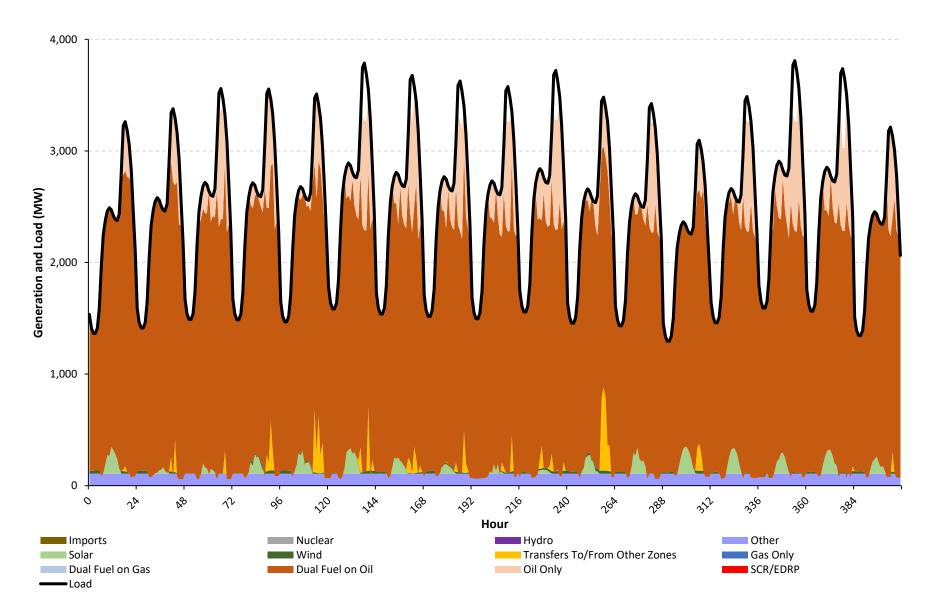


NYCA Hourly Generation (MWh) by Fuel Group

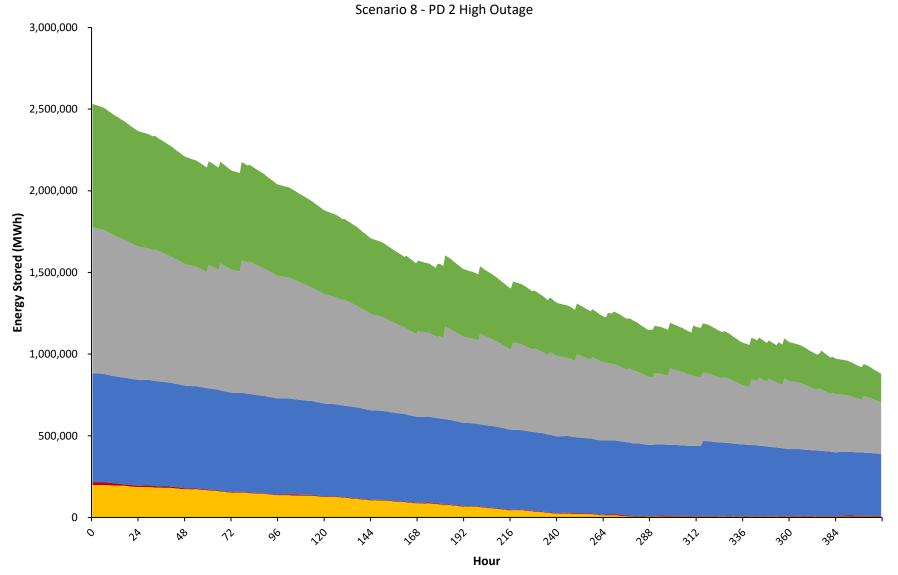


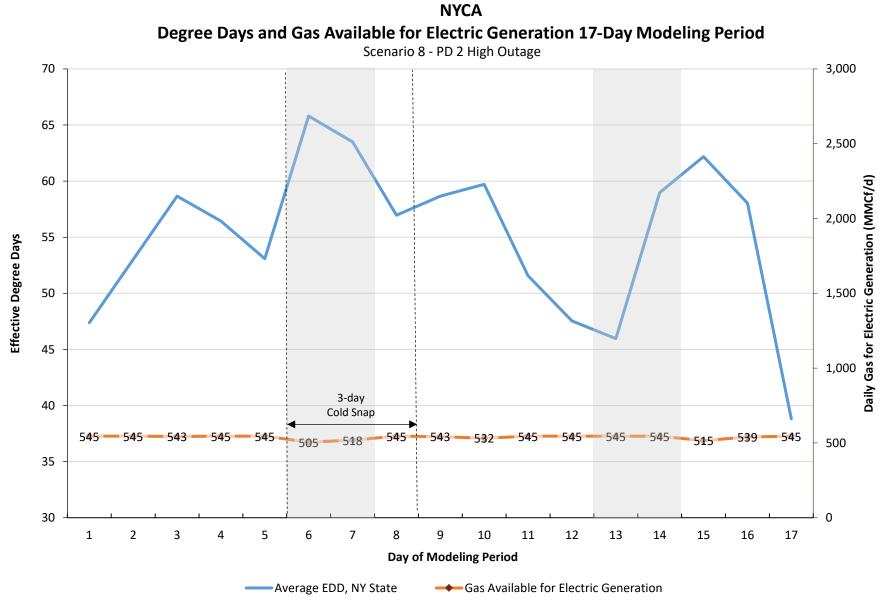


Scenario 8 - PD 2 High Outage

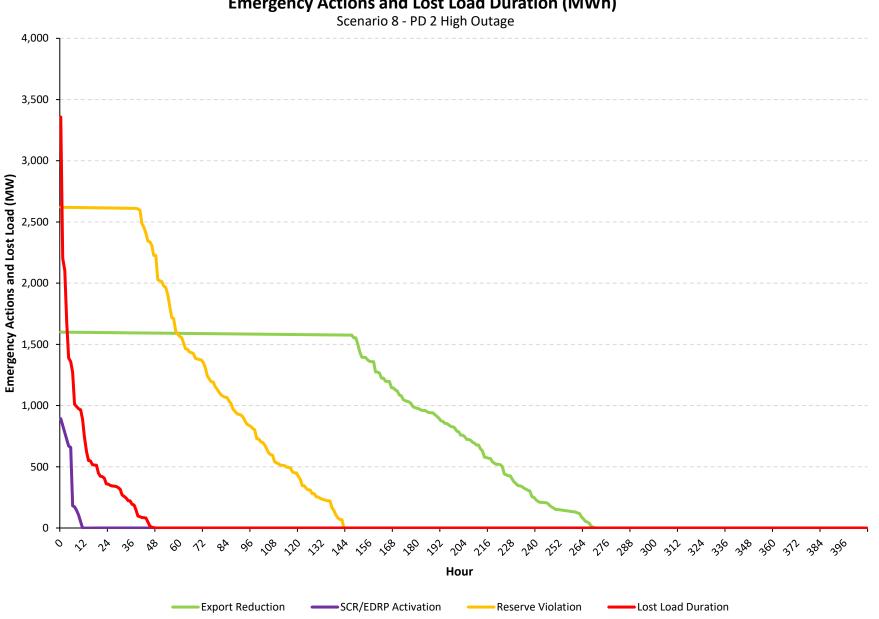




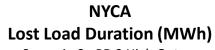


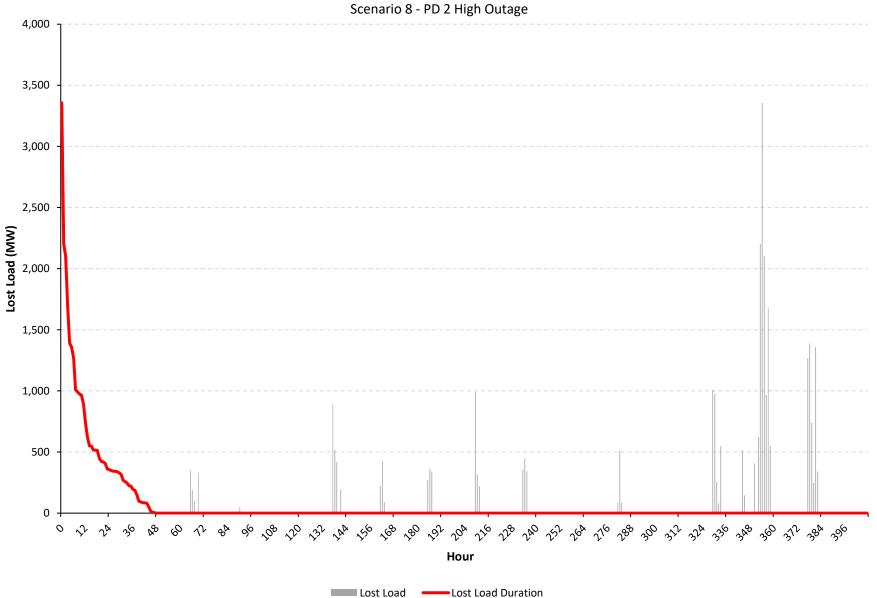


[1] Weekends are shaded in gray.



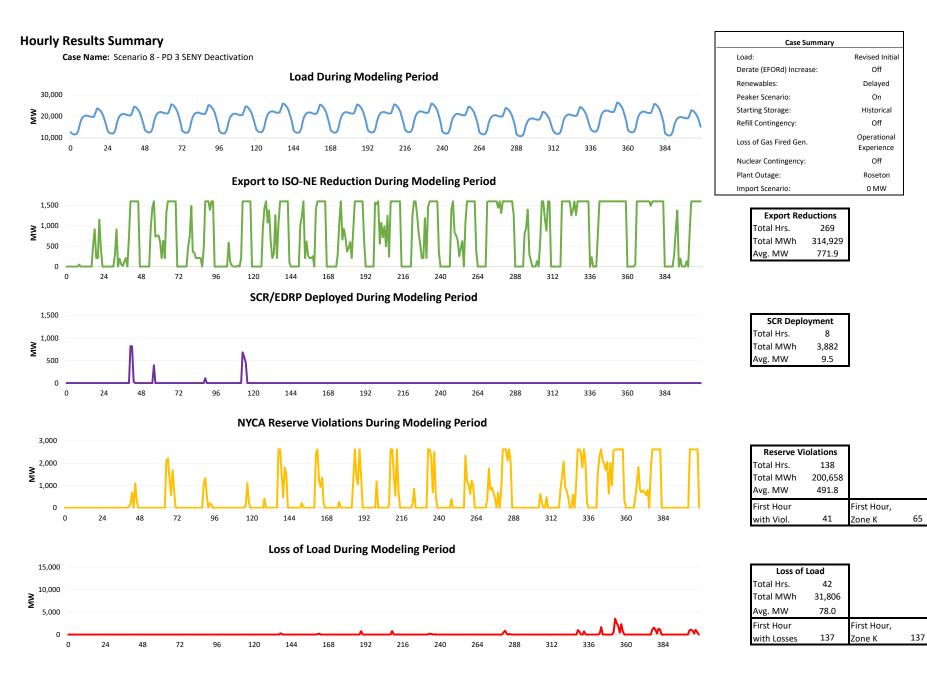
NYCA Emergency Actions and Lost Load Duration (MWh)



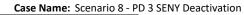


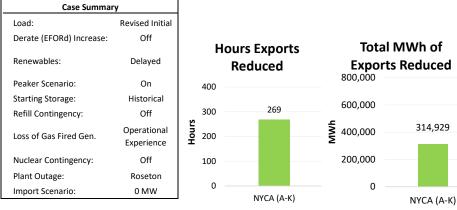
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 8 - PD 3 SENY Deactivation

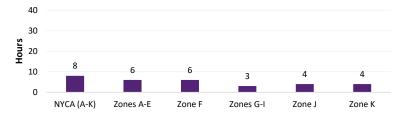


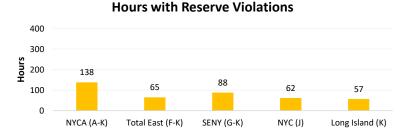
Full Period Results Summary



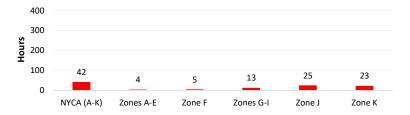


Hours SCR/EDRP Deployed

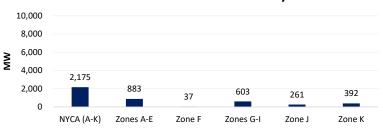




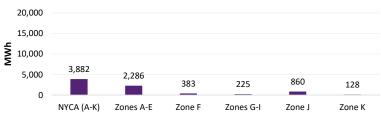
Hours with Loss of Load



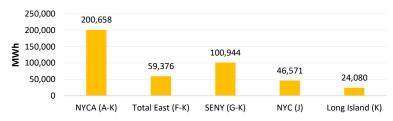
Average Capacity Not Available Due to Exhausted Fuel Inventory



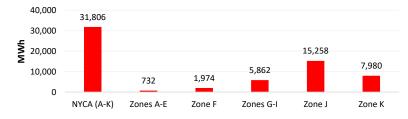
Total MWh SCR/EDRP Deployed



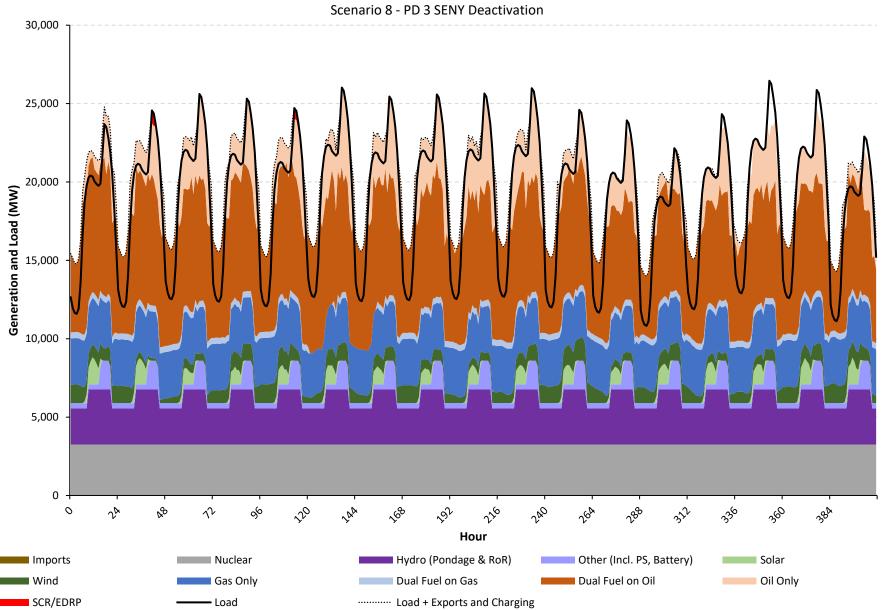
Total MWh of Reserve Violations



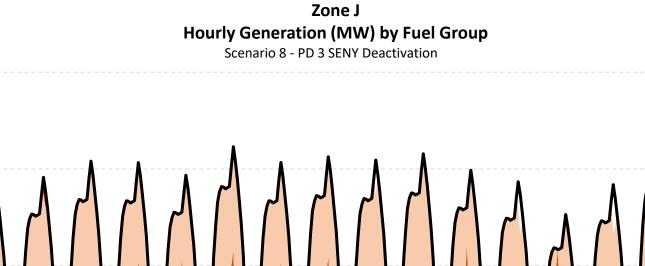
Total MWh of Lost Load

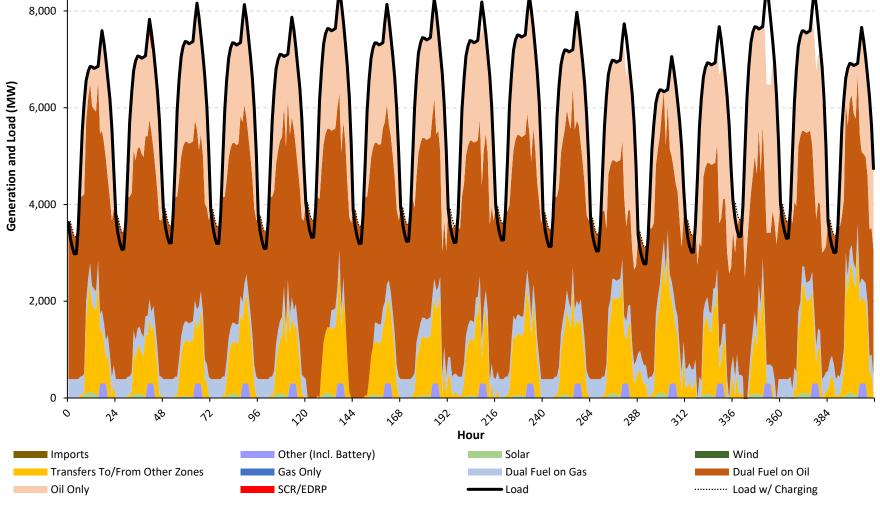


NYCA Hourly Generation (MWh) by Fuel Group



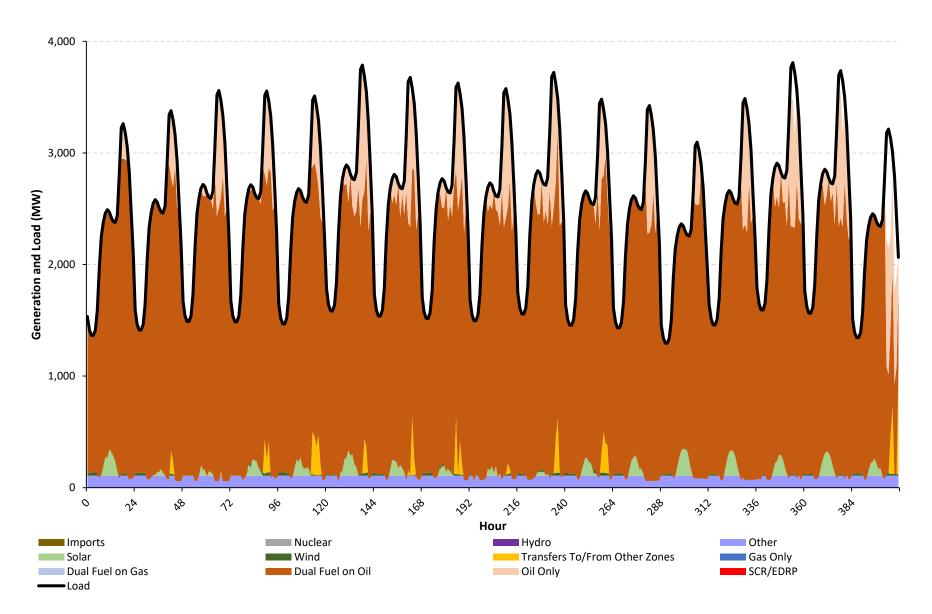
Analysis Group, Inc.



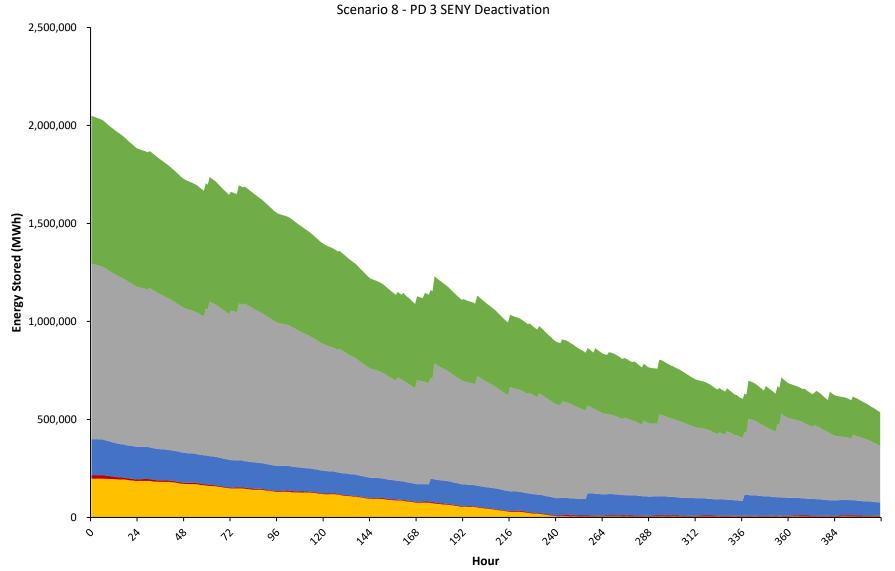


Zone K Hourly Generation (MW) by Fuel Group

Scenario 8 - PD 3 SENY Deactivation

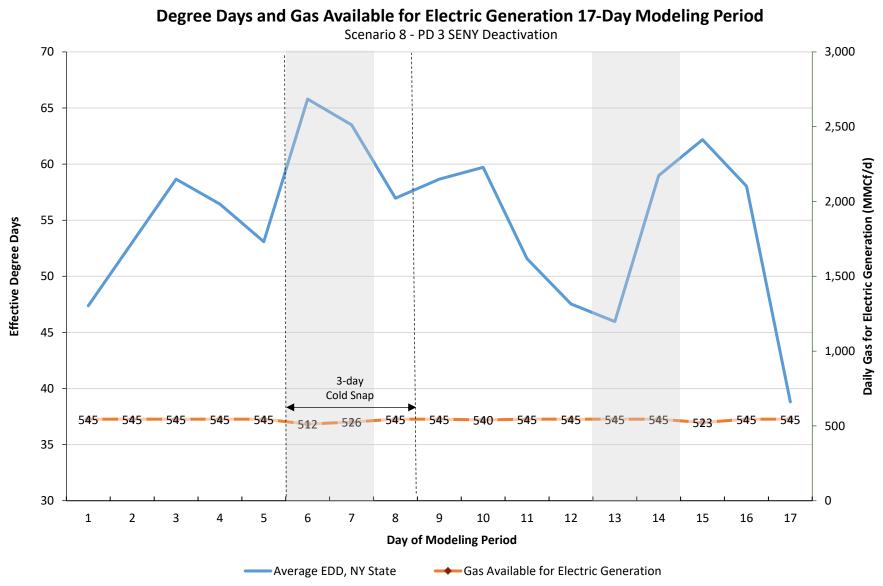






Zones A-E Zone F Zones G-I Zone J Zone K

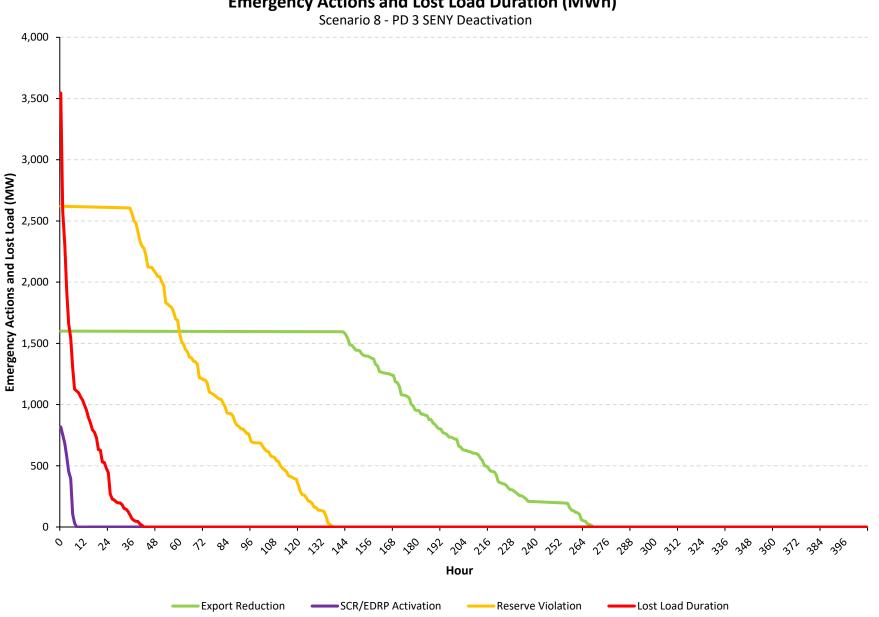
NYCA



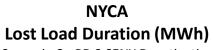
Notes:

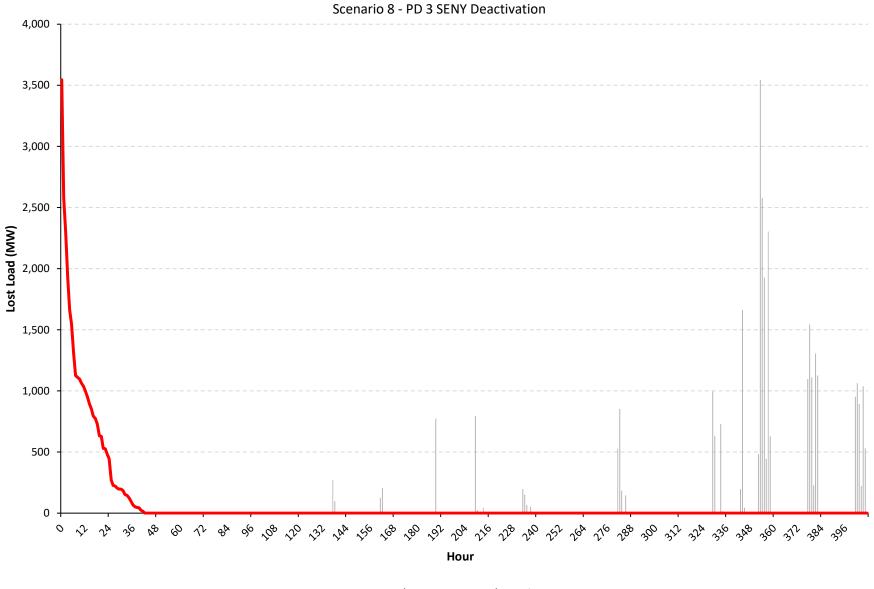
[1] Weekends are shaded in gray.

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



NYCA Emergency Actions and Lost Load Duration (MWh)

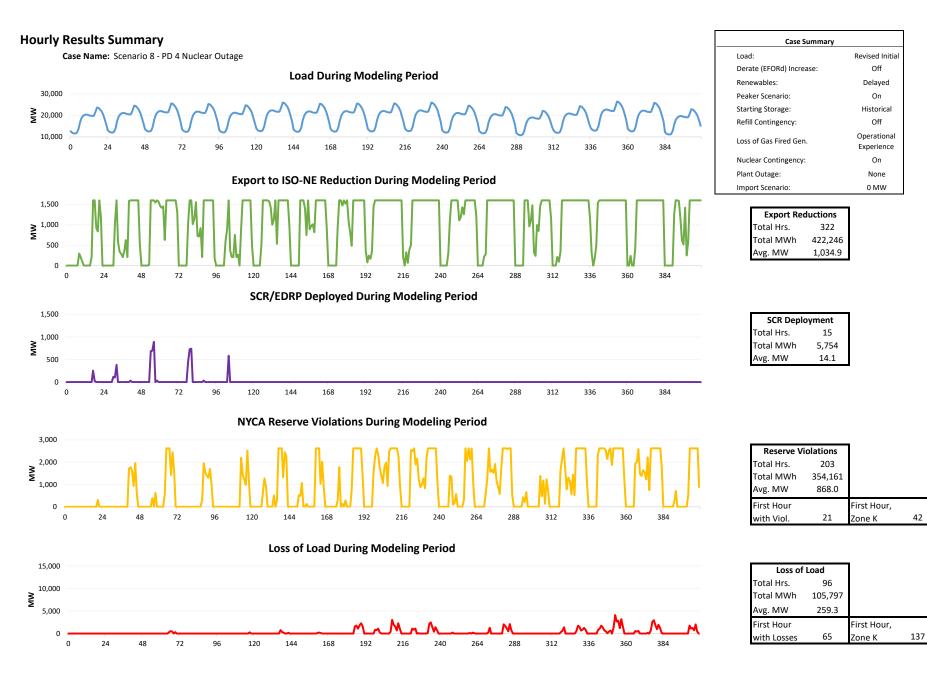




Lost Load Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

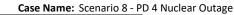
Case: Scenario 8 - PD 4 Nuclear Outage

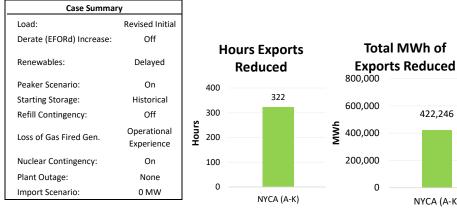


NYCA (A-K)

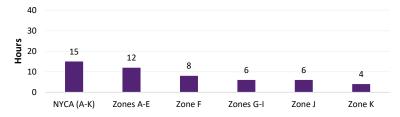
₹

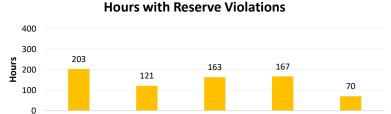
Full Period Results Summary











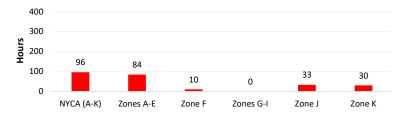
Total East (F-K)

Hours with Loss of Load

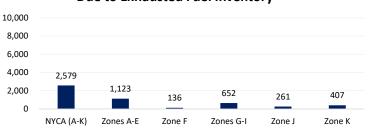
SENY (G-K)

NYC (J)

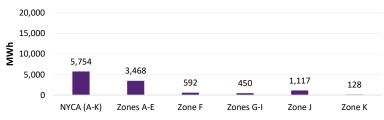
Long Island (K)



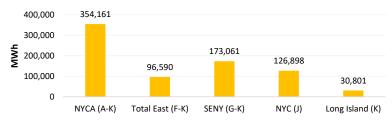
Average Capacity Not Available Due to Exhausted Fuel Inventory



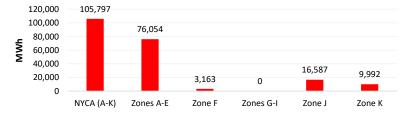
Total MWh SCR/EDRP Deployed



Total MWh of Reserve Violations

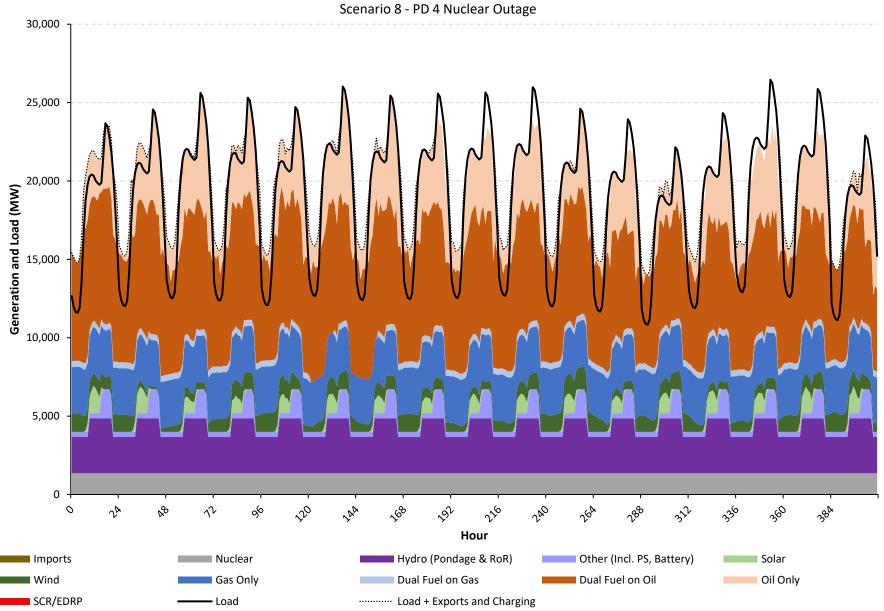


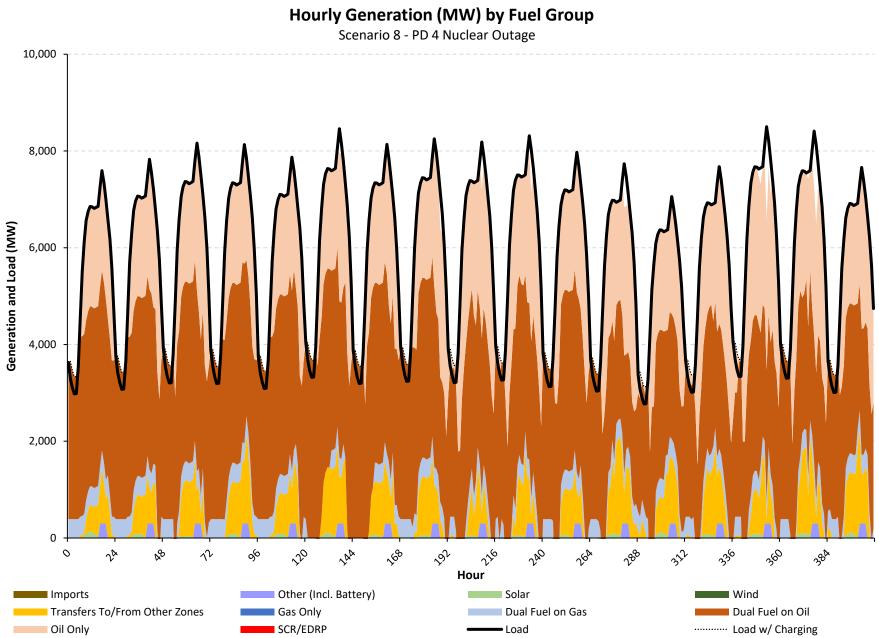
Total MWh of Lost Load



NYCA (A-K)

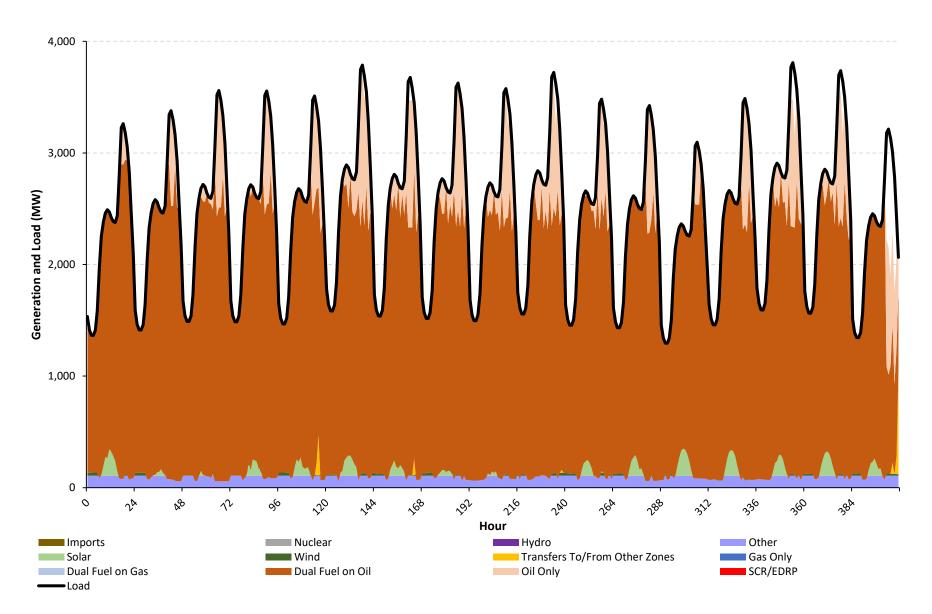
NYCA Hourly Generation (MWh) by Fuel Group



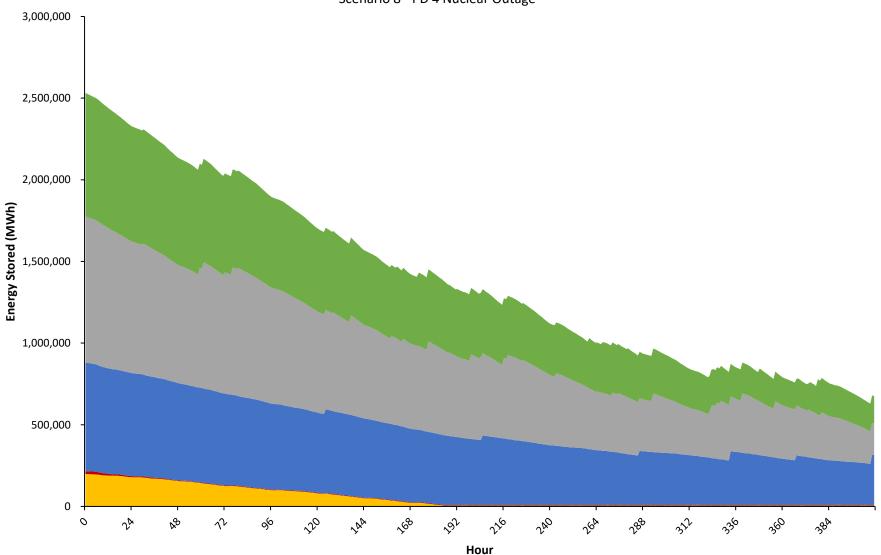


Zone K Hourly Generation (MW) by Fuel Group

Scenario 8 - PD 4 Nuclear Outage

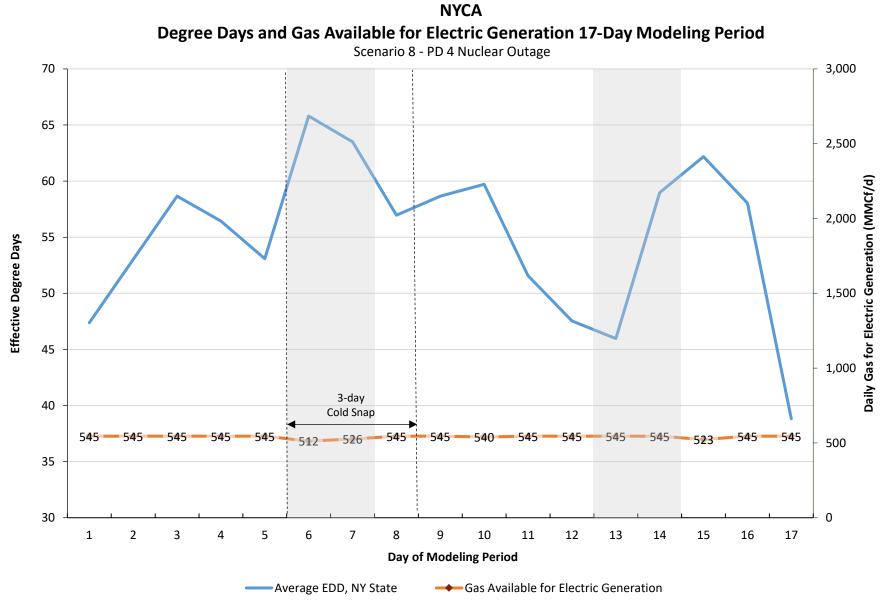






Scenario 8 - PD 4 Nuclear Outage

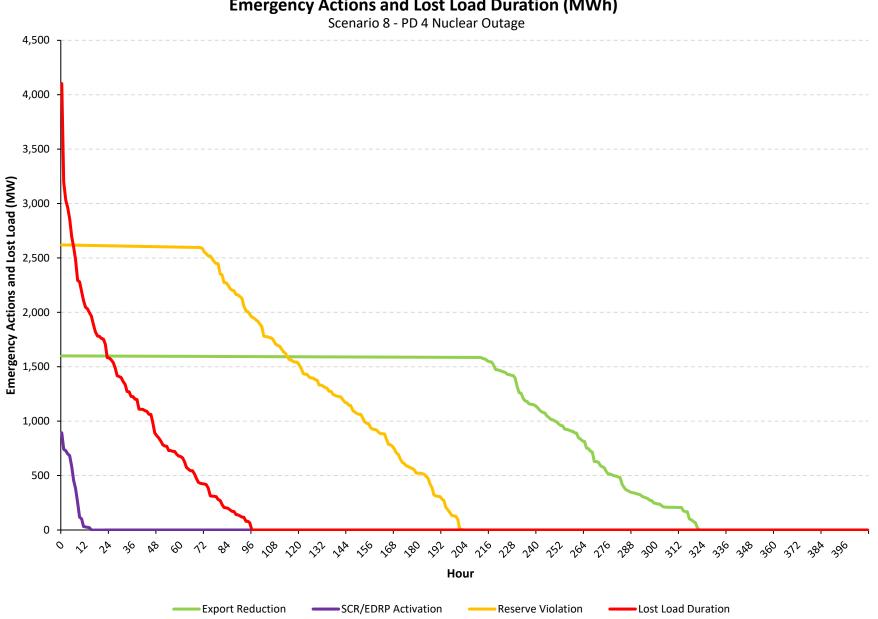
Zones A-E Zone F Zones G-I Zone J Zone K



Notes:

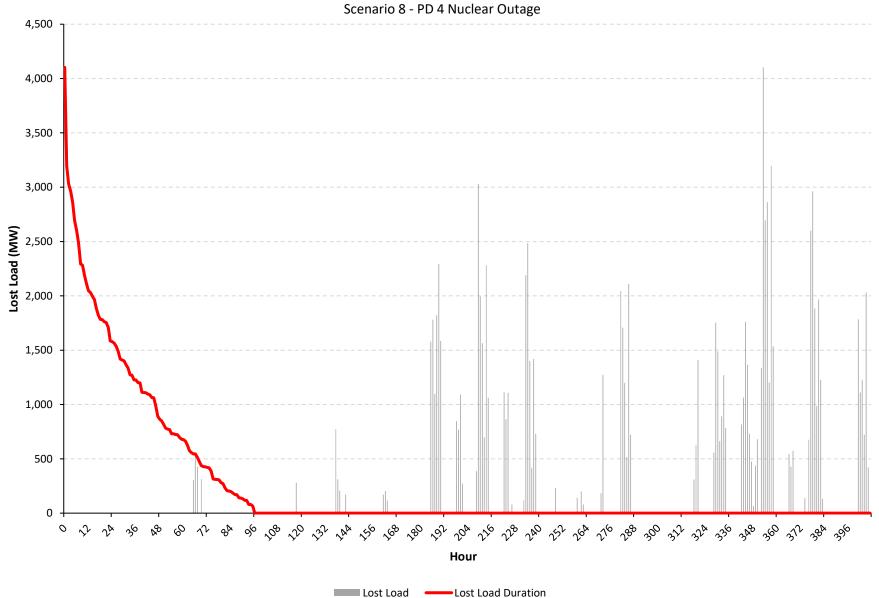
[1] Weekends are shaded in gray.

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



NYCA Emergency Actions and Lost Load Duration (MWh)

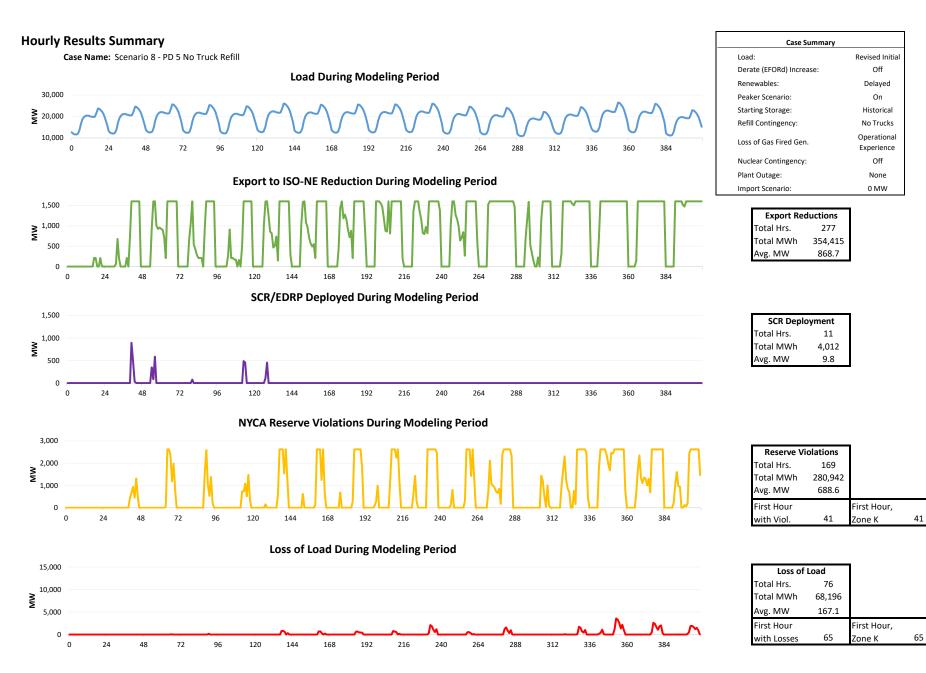




Analysis Group, Inc.

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 8 - PD 5 No Truck Refill

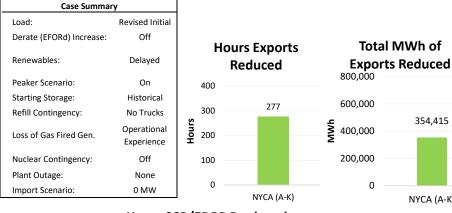


354.415

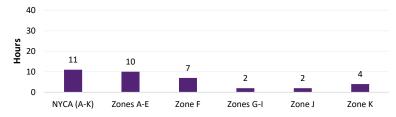
NYCA (A-K)

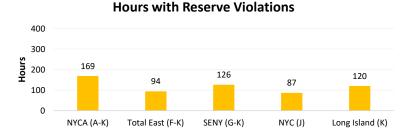
Full Period Results Summary



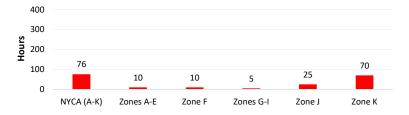




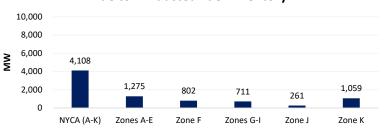




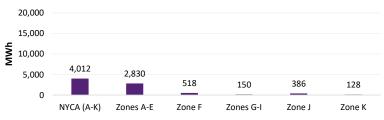




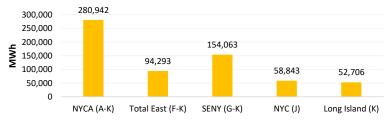
Average Capacity Not Available Due to Exhausted Fuel Inventory



Total MWh SCR/EDRP Deployed



Total MWh of Reserve Violations



Total MWh of Lost Load



25,000

20,000

15,000

10,000

5,000

0

Imports

SCR/EDRP

Wind

0

20

28

~~

Nuclear

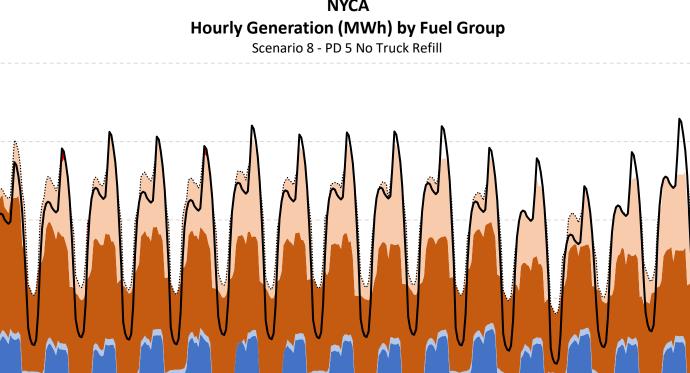
- Load

Gas Only

%

20

Generation and Load (MW)



244

168

292

Hydro (Pondage & RoR)

Dual Fuel on Gas

..... Load + Exports and Charging

226

Hour

240

264

 $2^{2^{2^{2^{2}}}}$

Other (Incl. PS, Battery)

Dual Fuel on Oil

3j2

336

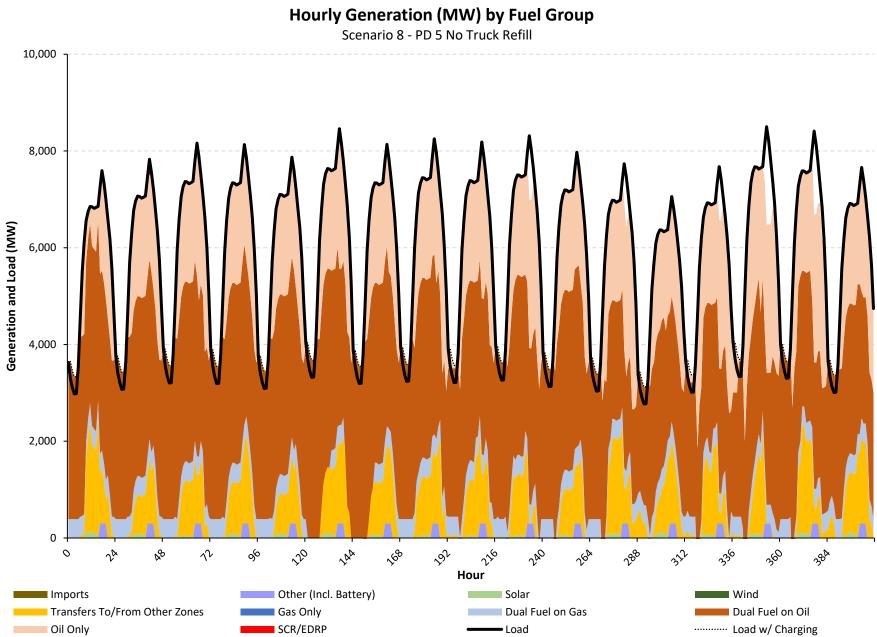
360

Solar

Oil Only

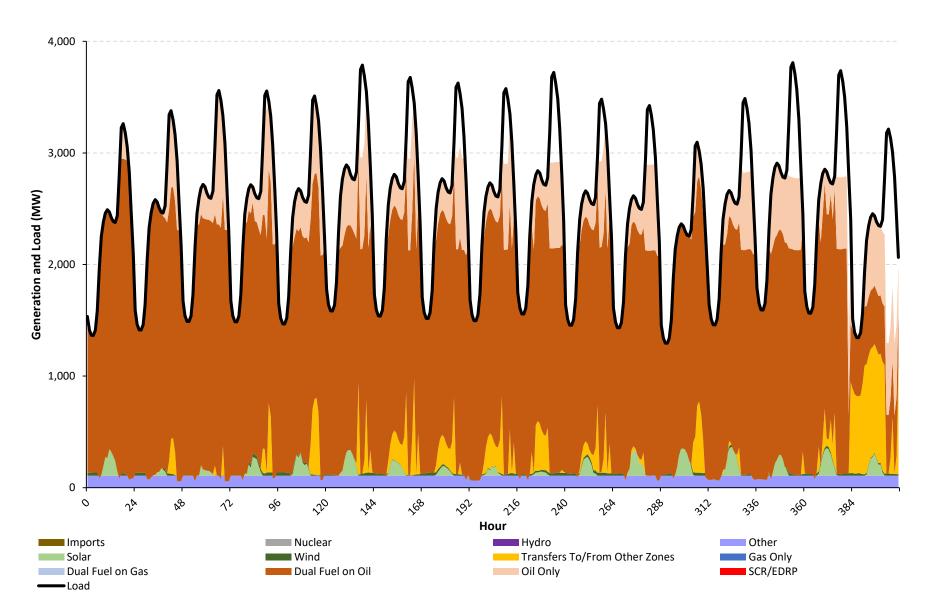
38^A

NYCA

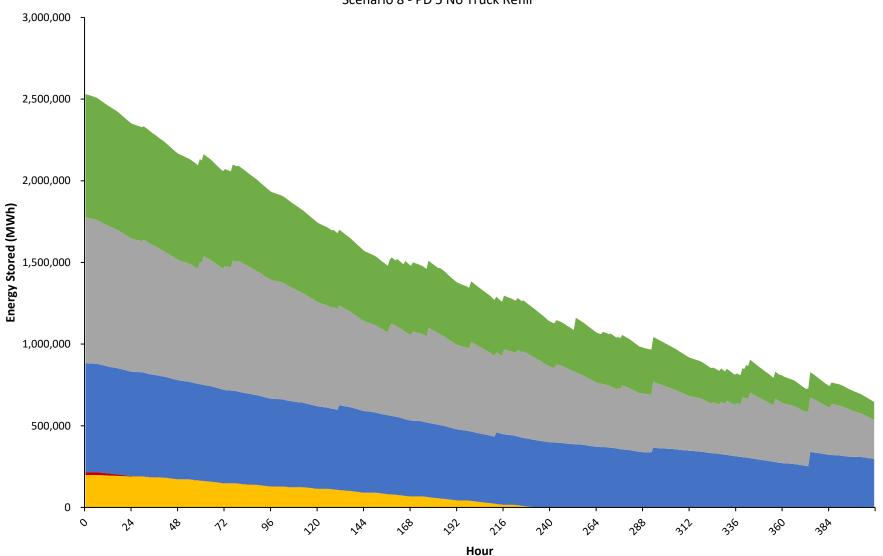


Zone K Hourly Generation (MW) by Fuel Group

Scenario 8 - PD 5 No Truck Refill

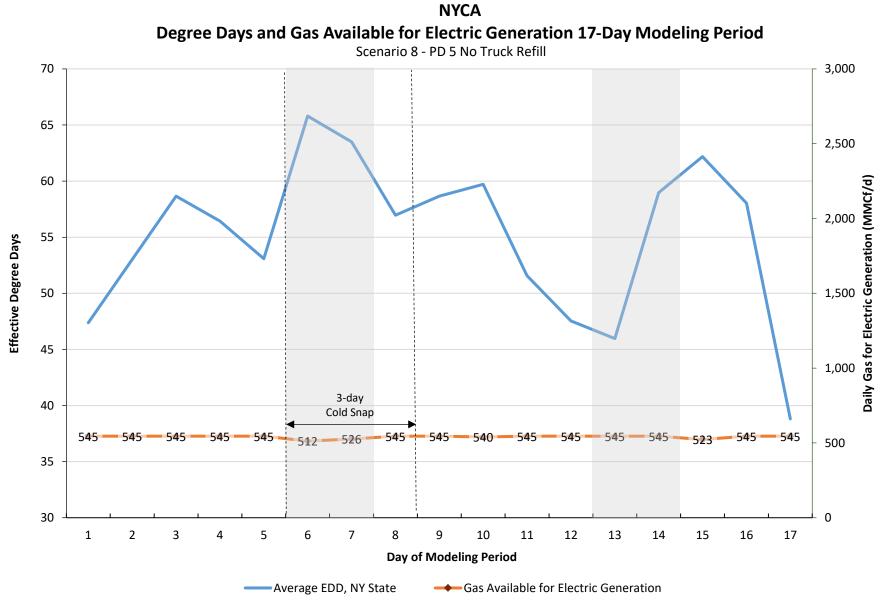






Scenario 8 - PD 5 No Truck Refill

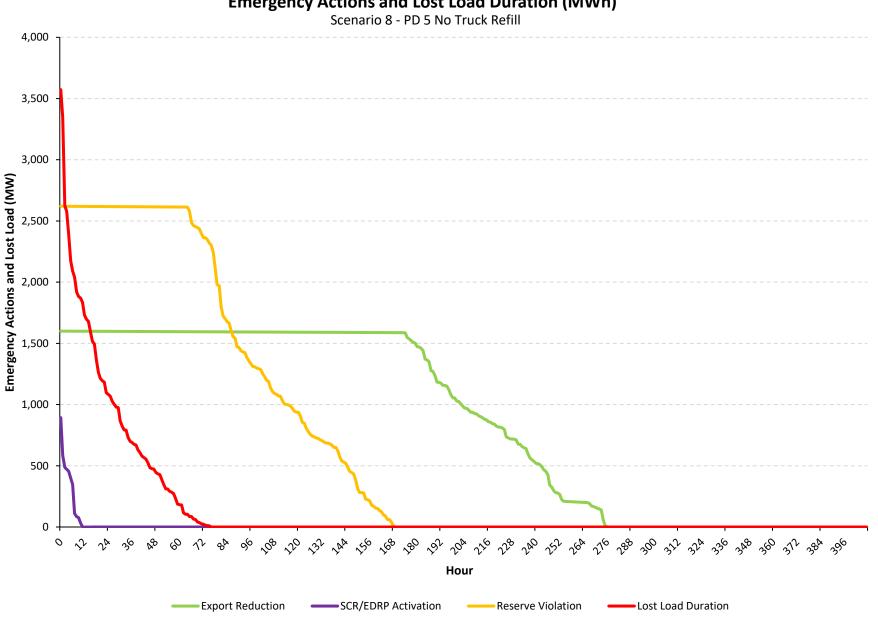
Zones A-E Zone F Zones G-I Zone J Zone K



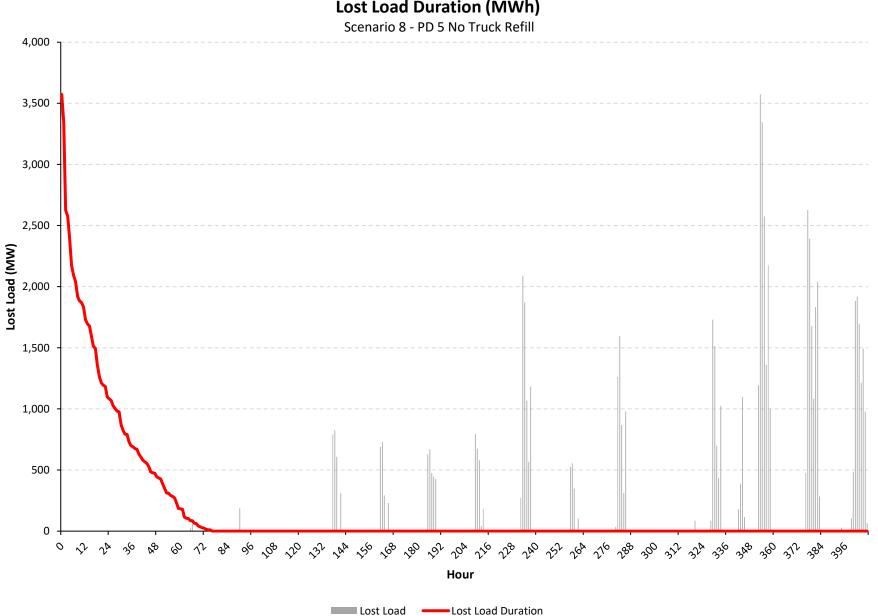
Notes:

[1] Weekends are shaded in gray.

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

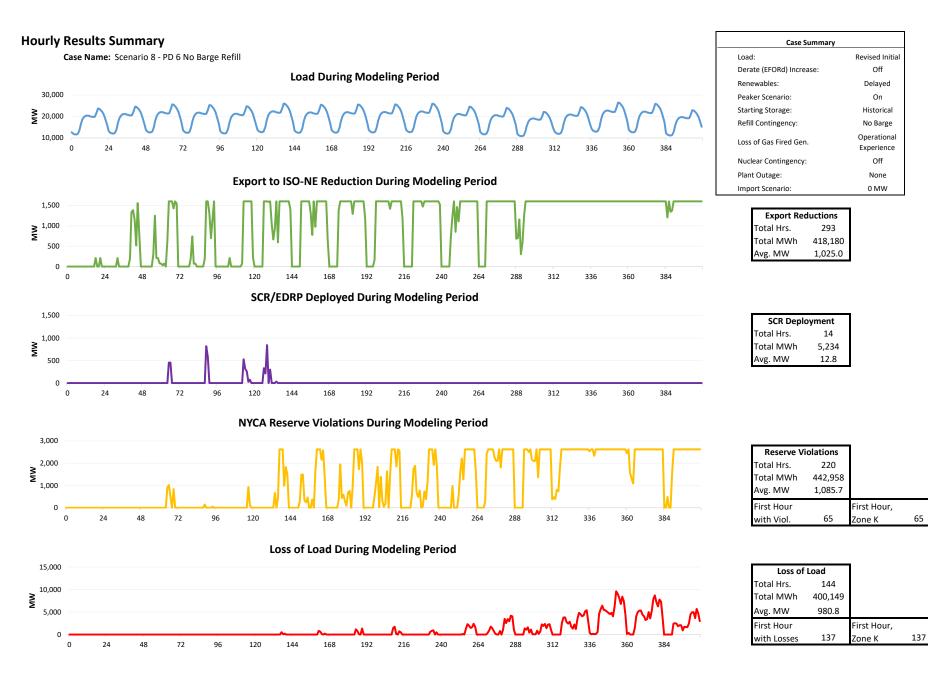


NYCA Emergency Actions and Lost Load Duration (MWh)



Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 8 - PD 6 No Barge Refill

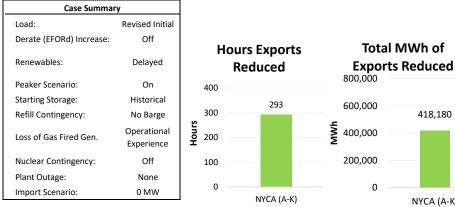


NYCA (A-K)

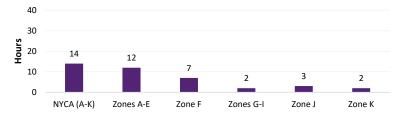
0

Full Period Results Summary





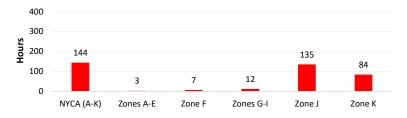


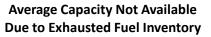


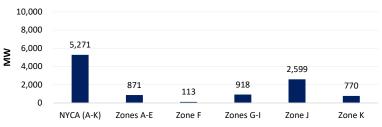
Hours with Reserve Violations

400 300 220 Hours 180 170 166 200 111 100 0 NYCA (A-K) Total East (F-K) SENY (G-K) NYC (J) Long Island (K)

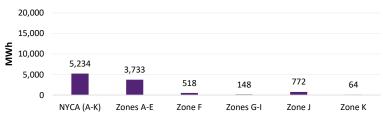
Hours with Loss of Load



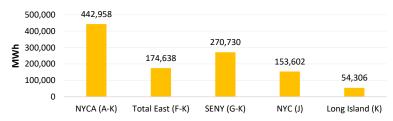




Total MWh SCR/EDRP Deployed

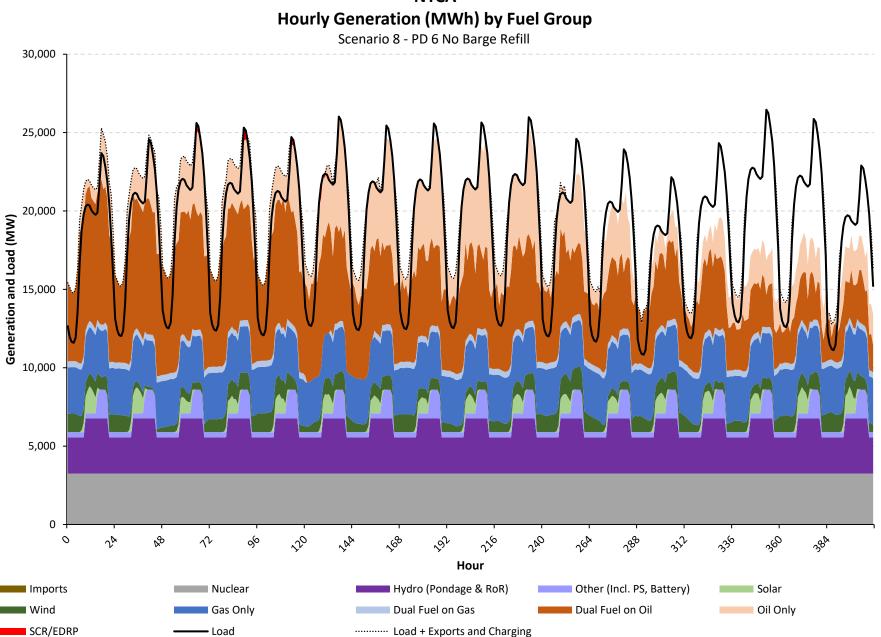


Total MWh of Reserve Violations

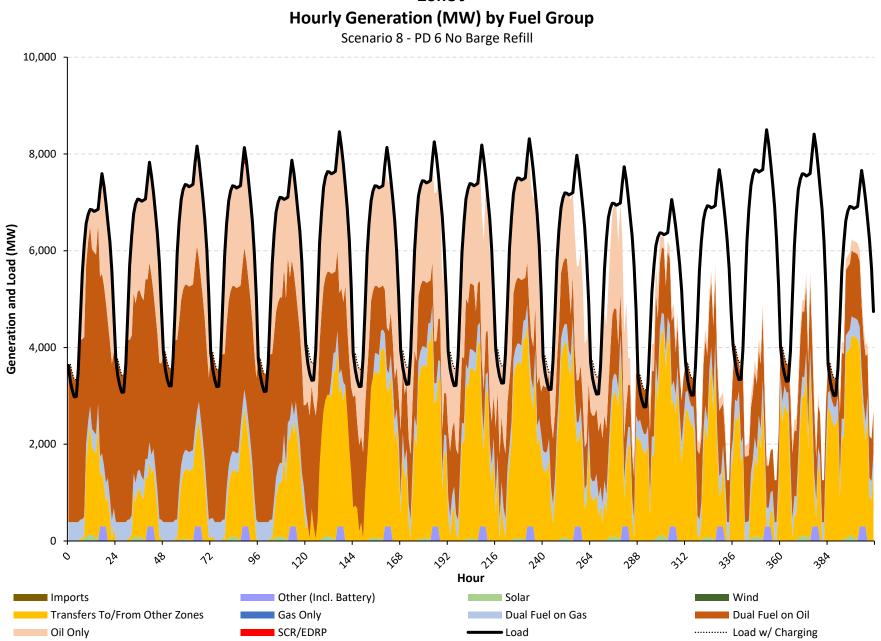


Total MWh of Lost Load





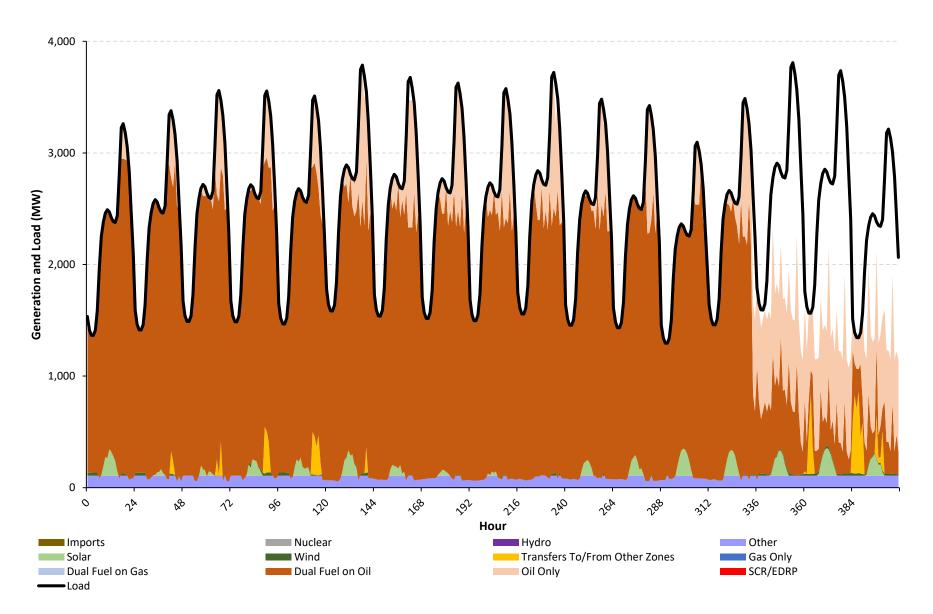
NYCA



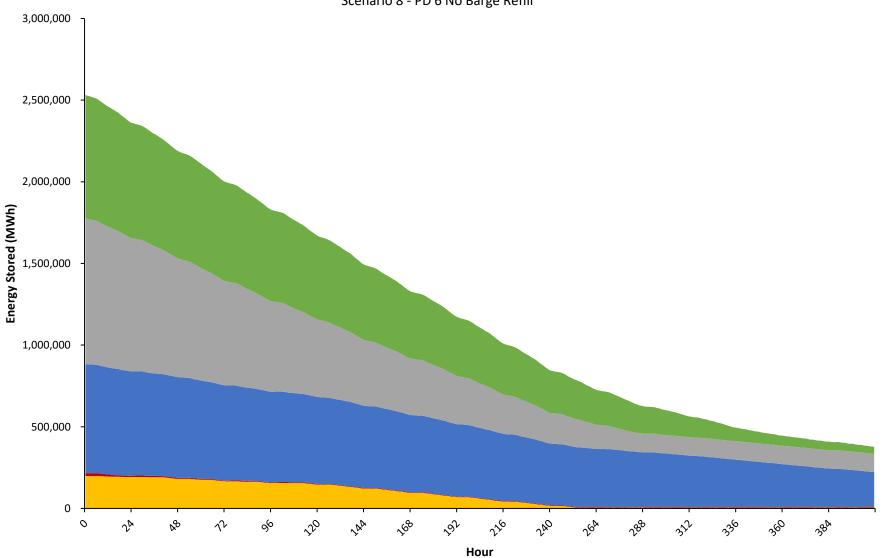
Zone J

Zone K Hourly Generation (MW) by Fuel Group

Scenario 8 - PD 6 No Barge Refill



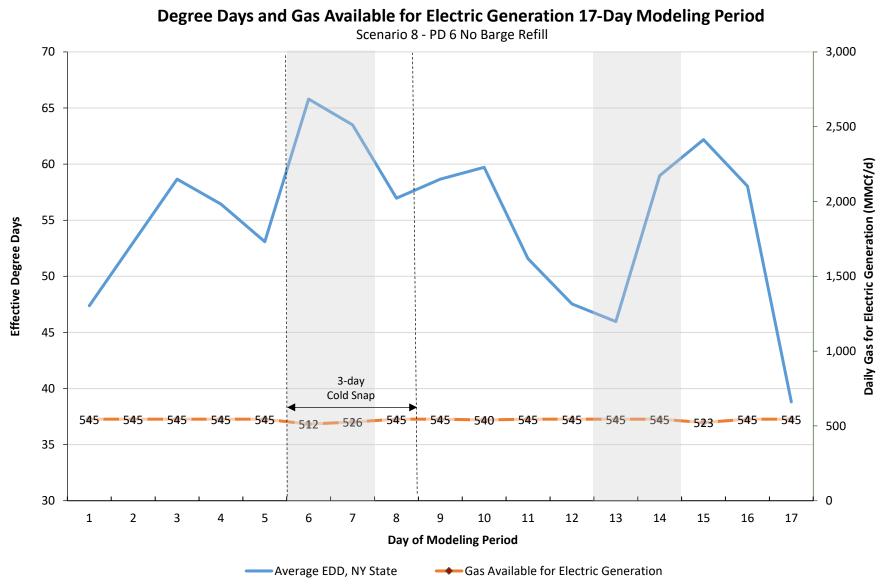




Scenario 8 - PD 6 No Barge Refill

Zones A-E Zone F Zones G-I Zone J Zone K

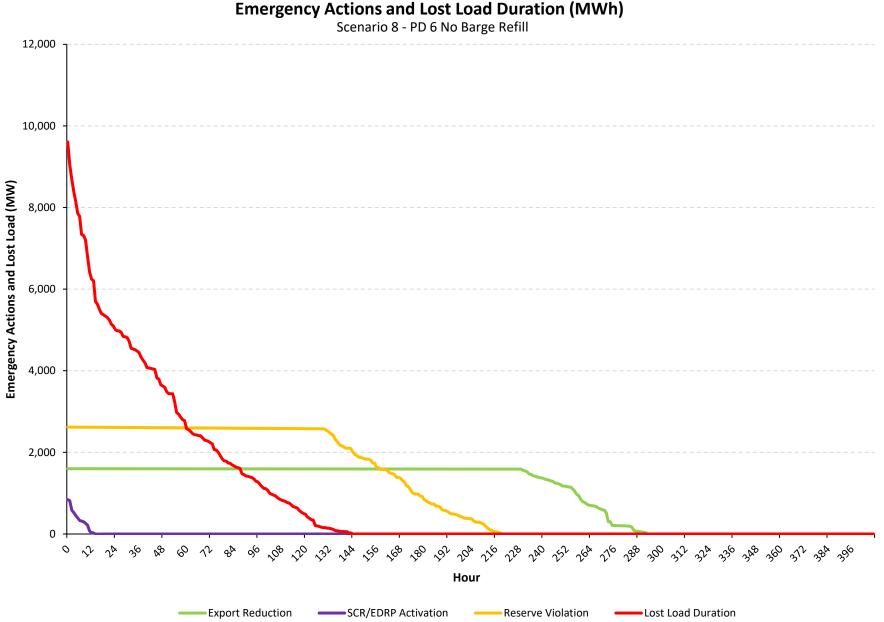
NYCA



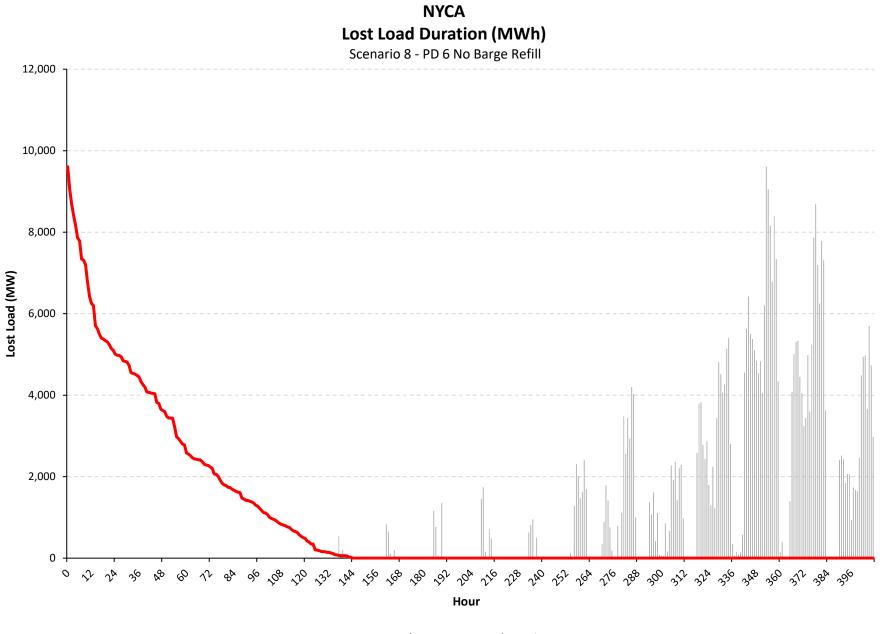
Notes:

[1] Weekends are shaded in gray.

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



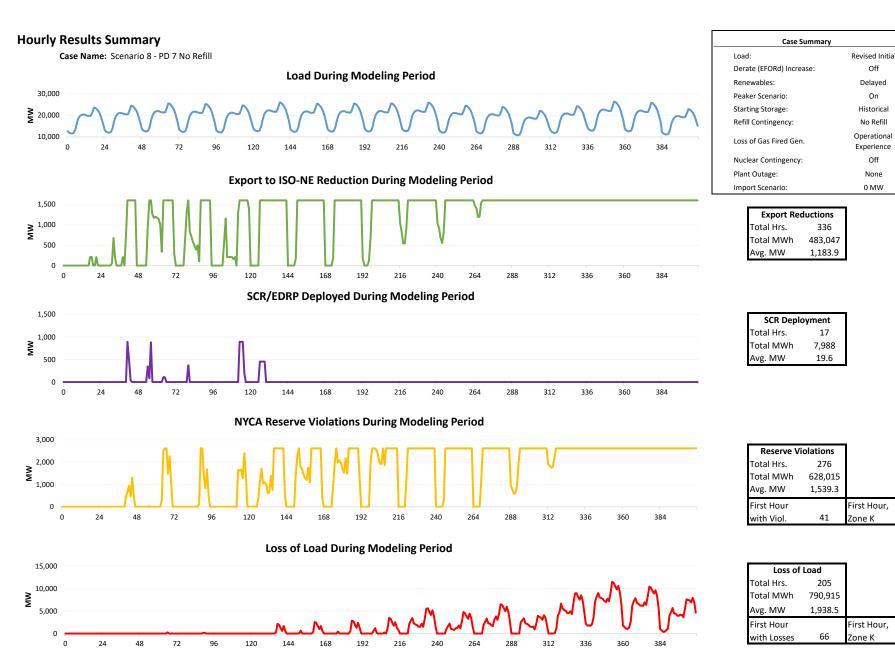
NYCA Emergency Actions and Lost Load Duration (MWh)



Lost Load — Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 8 - PD 7 No Refill



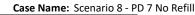
41

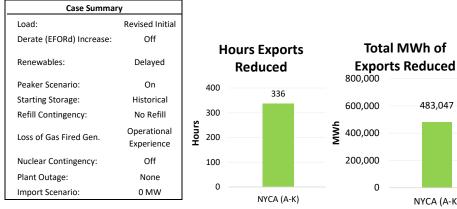
66

483,047

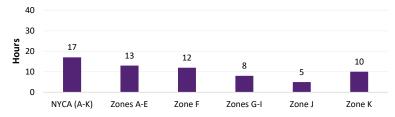
NYCA (A-K)

Full Period Results Summary

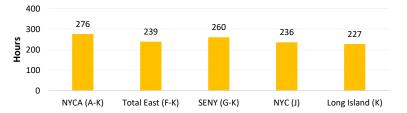




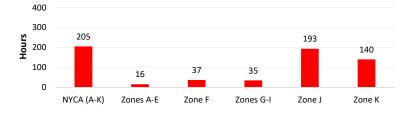




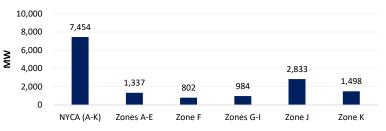
Hours with Reserve Violations



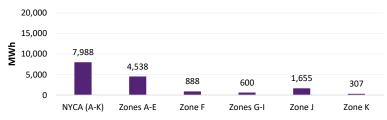




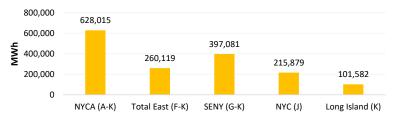
Average Capacity Not Available Due to Exhausted Fuel Inventory



Total MWh SCR/EDRP Deployed



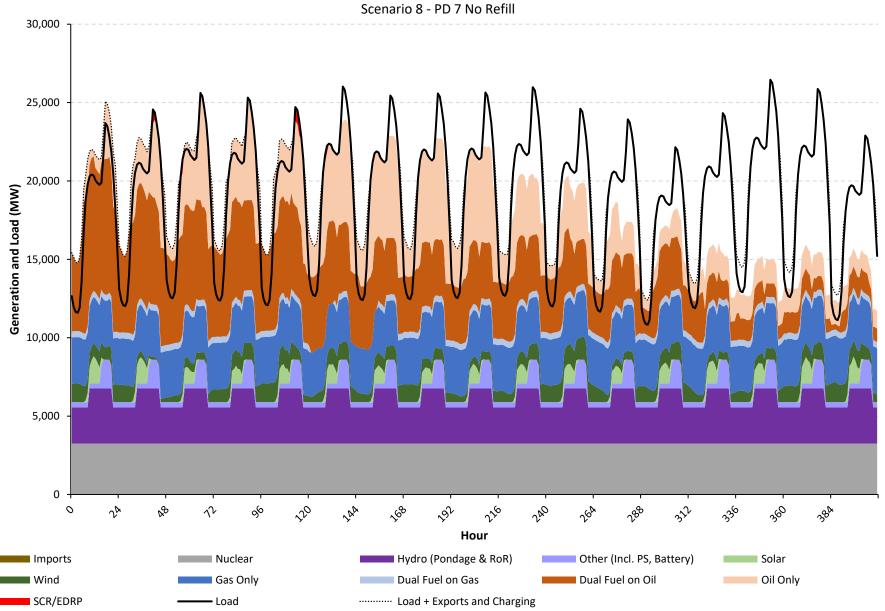
Total MWh of Reserve Violations

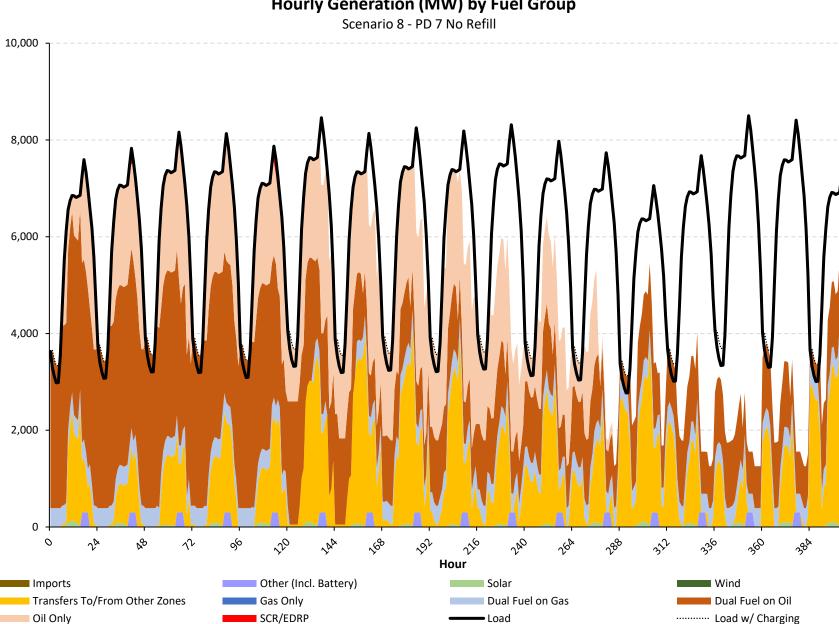


Total MWh of Lost Load



NYCA Hourly Generation (MWh) by Fuel Group



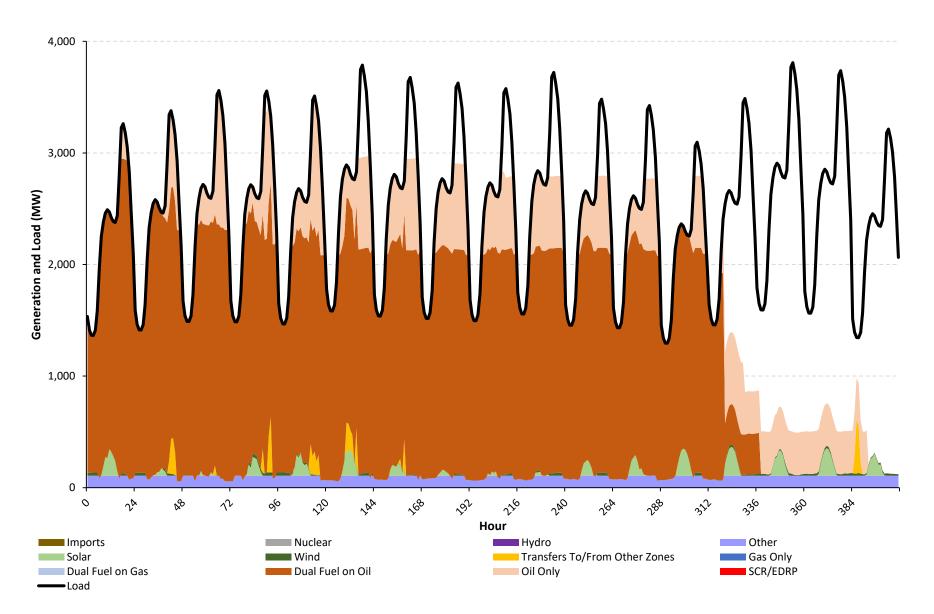


Zone J Hourly Generation (MW) by Fuel Group

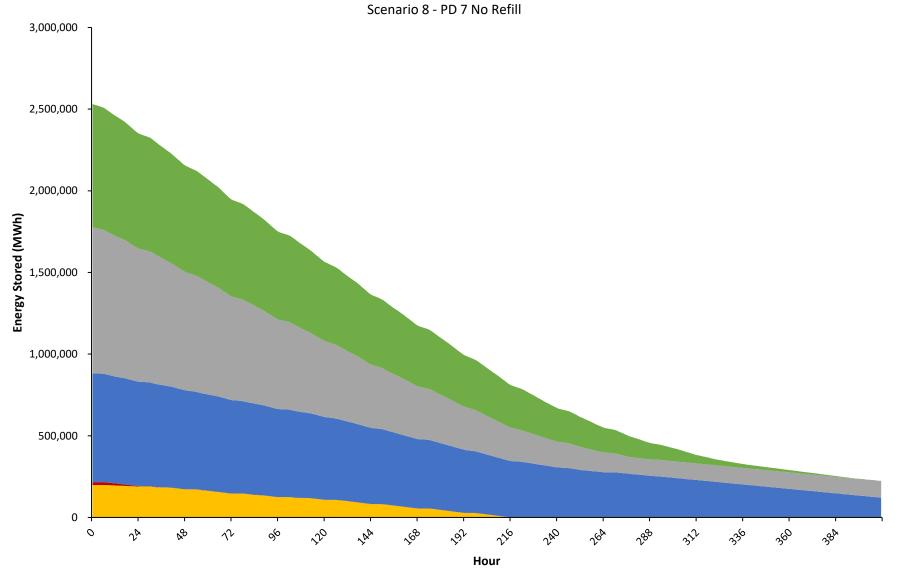
Generation and Load (MW)

Zone K Hourly Generation (MW) by Fuel Group

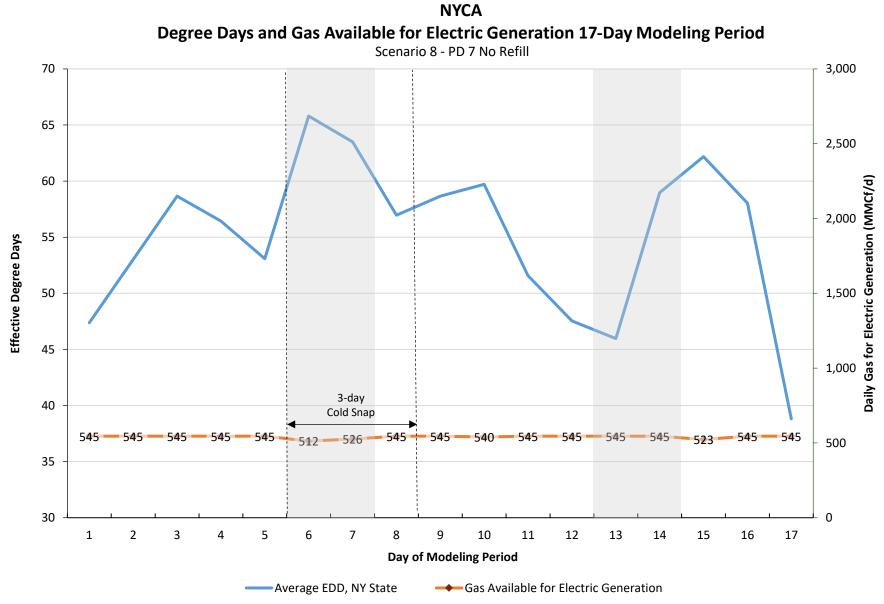
Scenario 8 - PD 7 No Refill







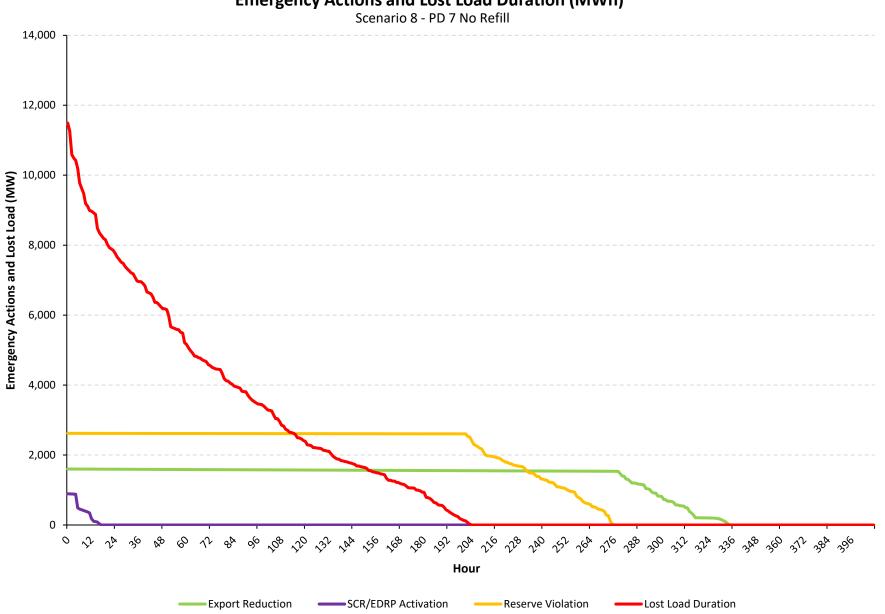
Zones A-E Zone F Zones G-I Zone J Zone K



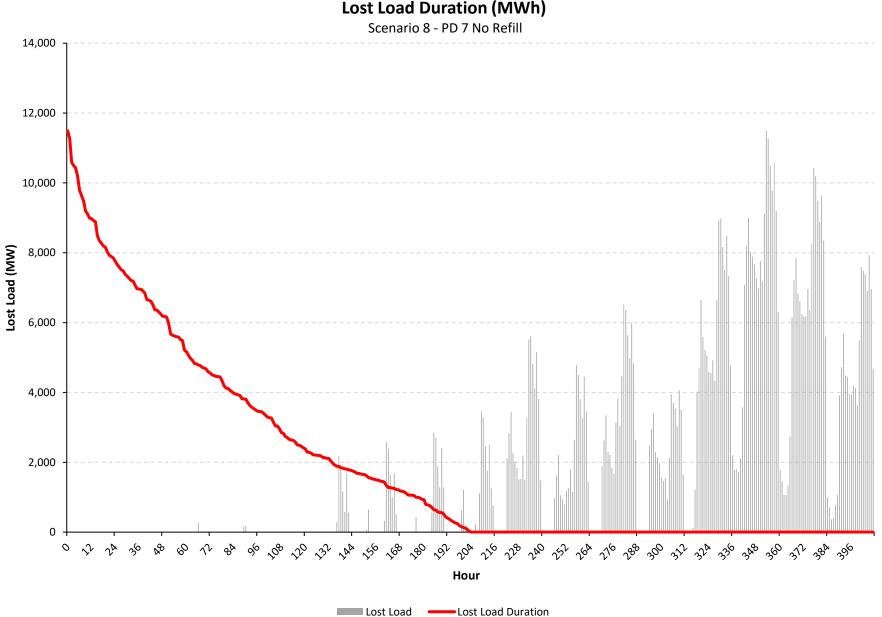
Notes:

[1] Weekends are shaded in gray.

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

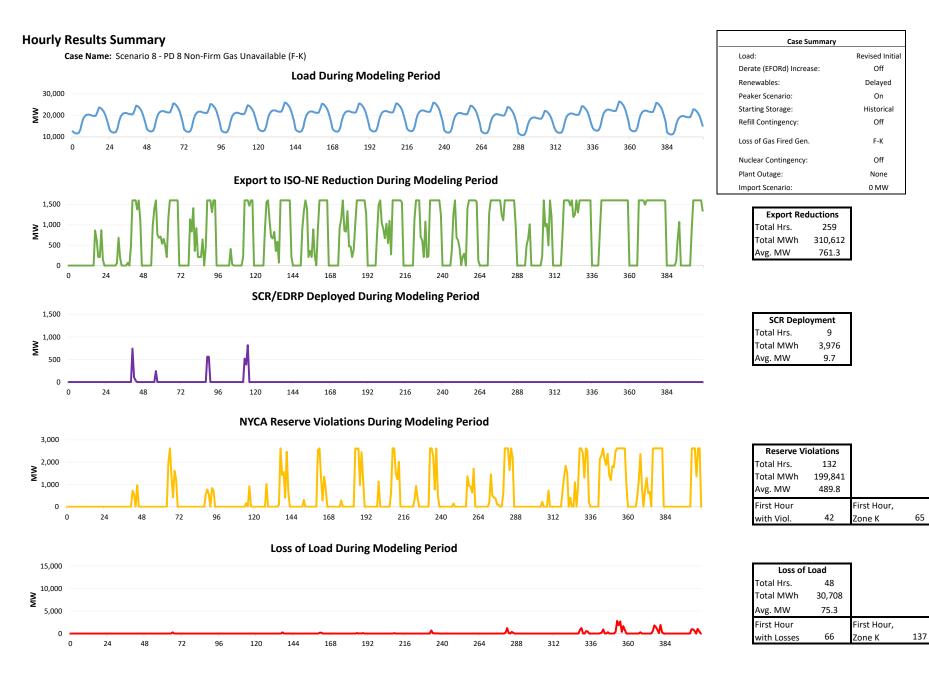


NYCA Emergency Actions and Lost Load Duration (MWh)

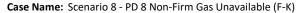


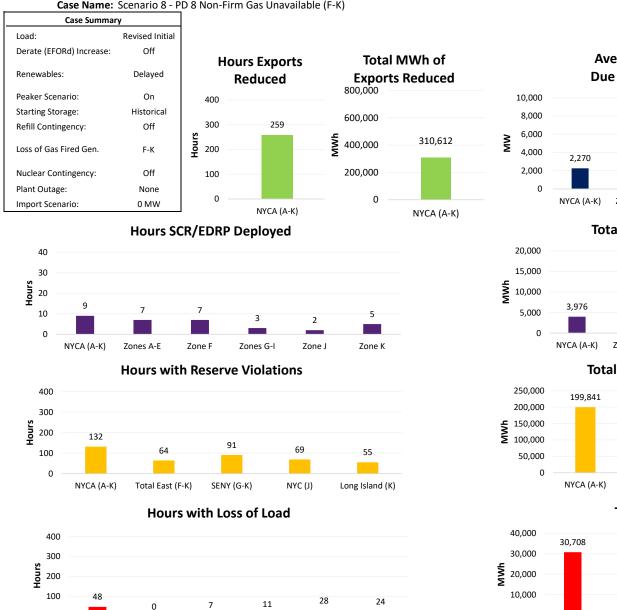
NYCA Lost Load Duration (MWh)

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 8 - PD 8 Non-Firm Gas Unavailable (F-K)



Full Period Results Summary



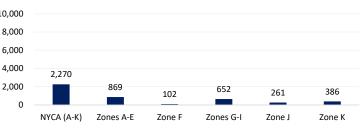


Zone J

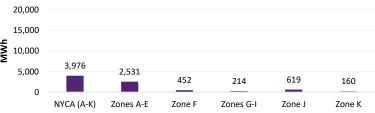
Zone K

Zones G-I

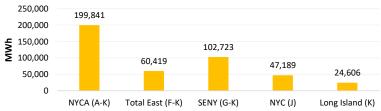
Average Capacity Not Available Due to Exhausted Fuel Inventory



Total MWh SCR/EDRP Deployed



Total MWh of Reserve Violations



Total MWh of Lost Load



0

NYCA (A-K)

Zones A-E

Zone F

30,000

25,000

20,000

15,000

10,000

5,000

0

Imports

SCR/EDRP

Wind

0

20

28

2

Nuclear

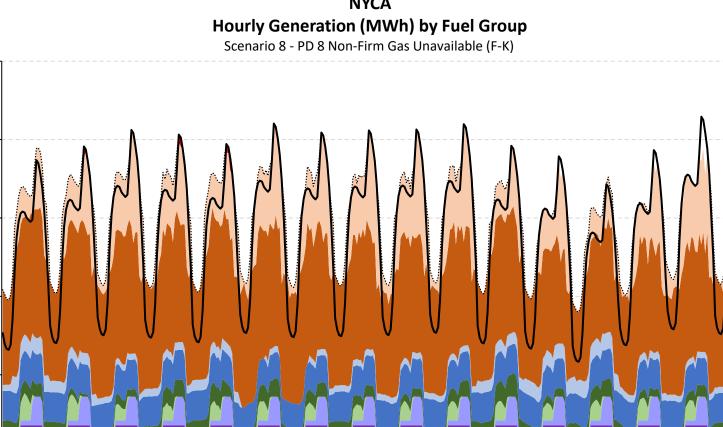
- Load

Gas Only

%

20

Generation and Load (MW)



2AA

168

226

Hour

292

Hydro (Pondage & RoR)

Dual Fuel on Gas

..... Load + Exports and Charging

240

264

re

Other (Incl. PS, Battery)

Dual Fuel on Oil

32

336

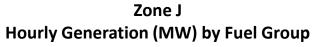
360

Solar

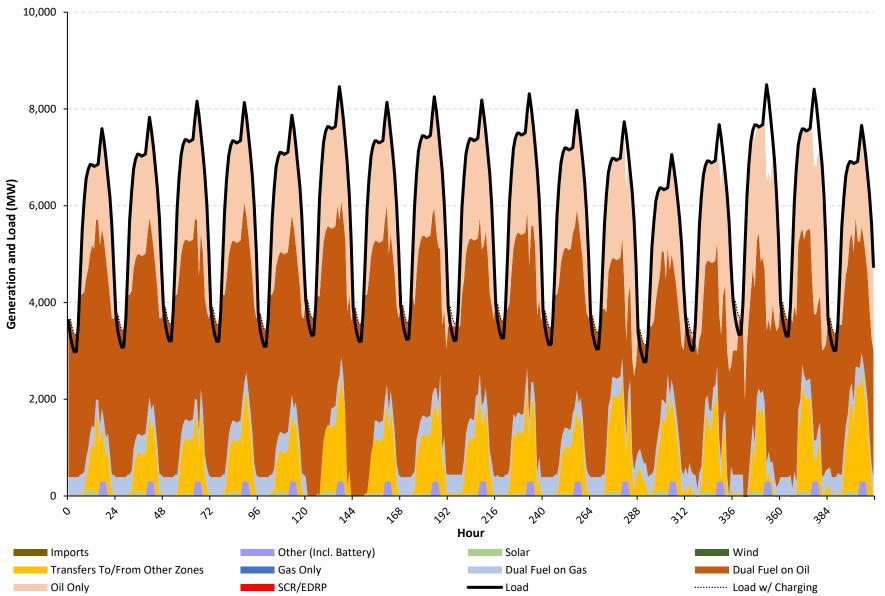
Oil Only

384

NYCA

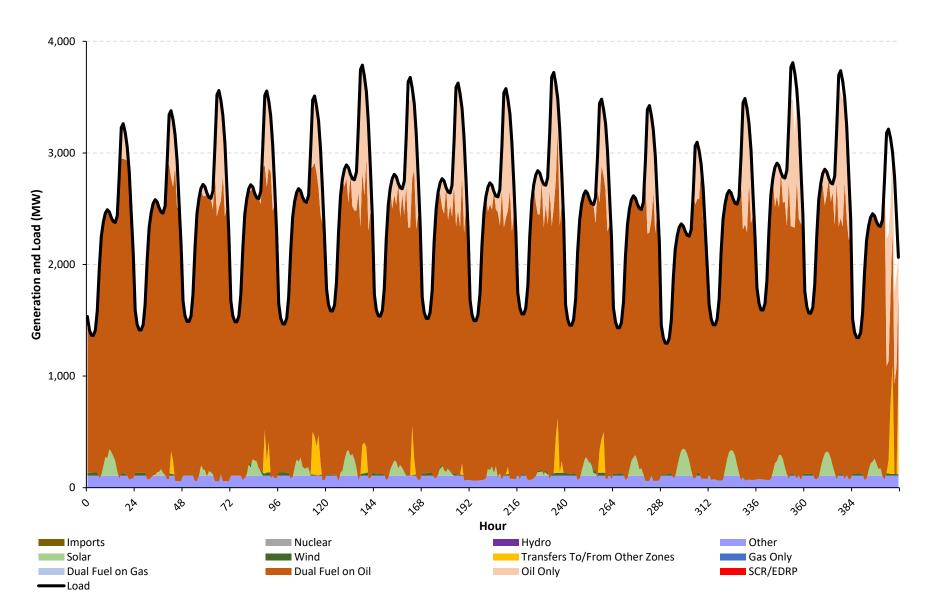


Scenario 8 - PD 8 Non-Firm Gas Unavailable (F-K)



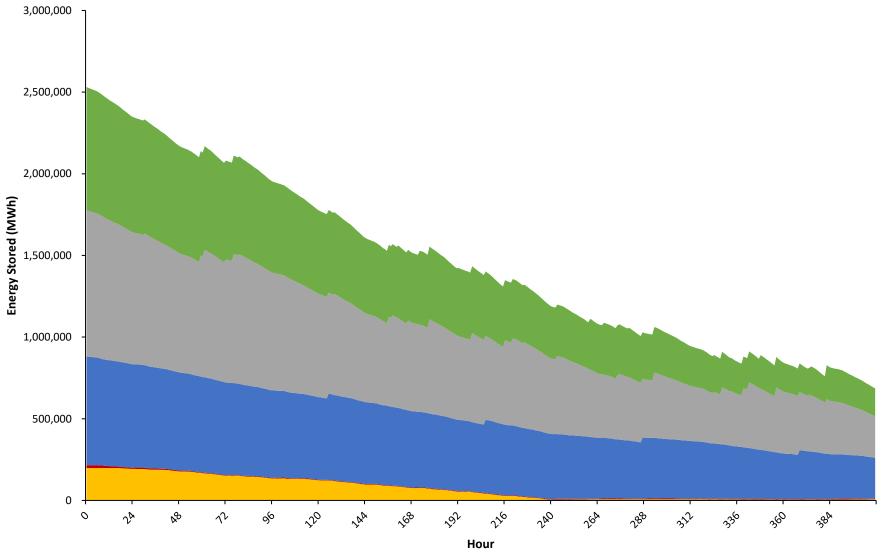
Zone K Hourly Generation (MW) by Fuel Group

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

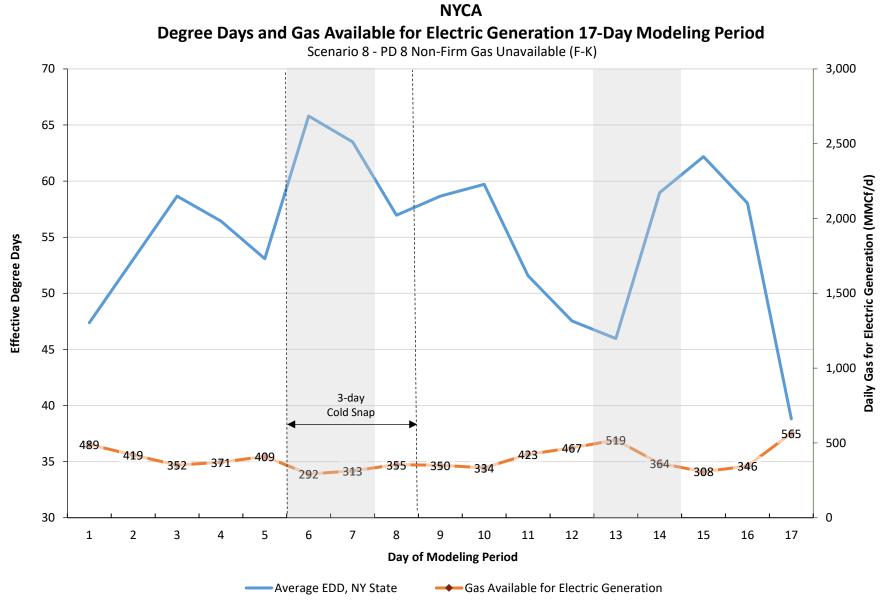




Scenario 8 - PD 8 Non-Firm Gas Unavailable (F-K)



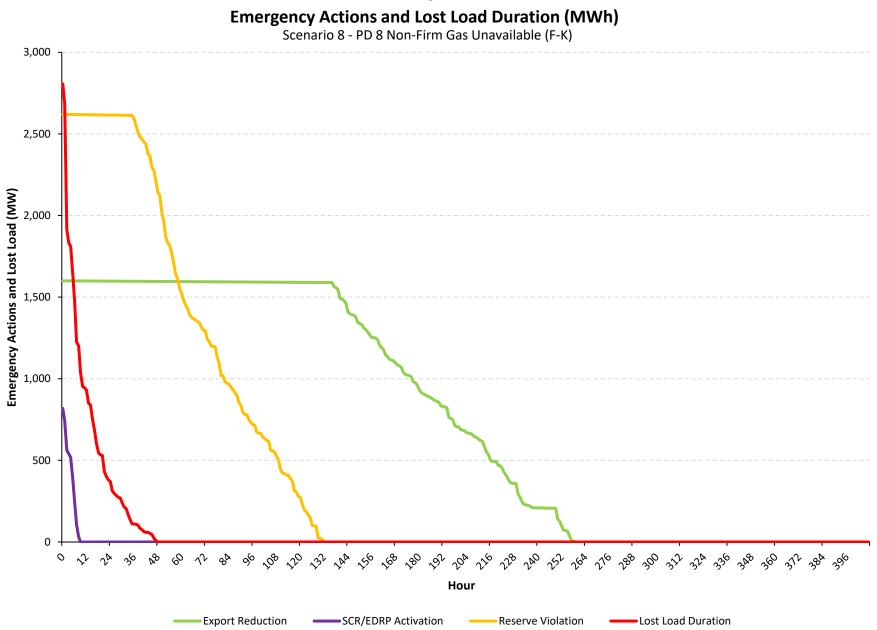
Zones A-E Zone F Zones G-I Zone J Zone K



Notes:

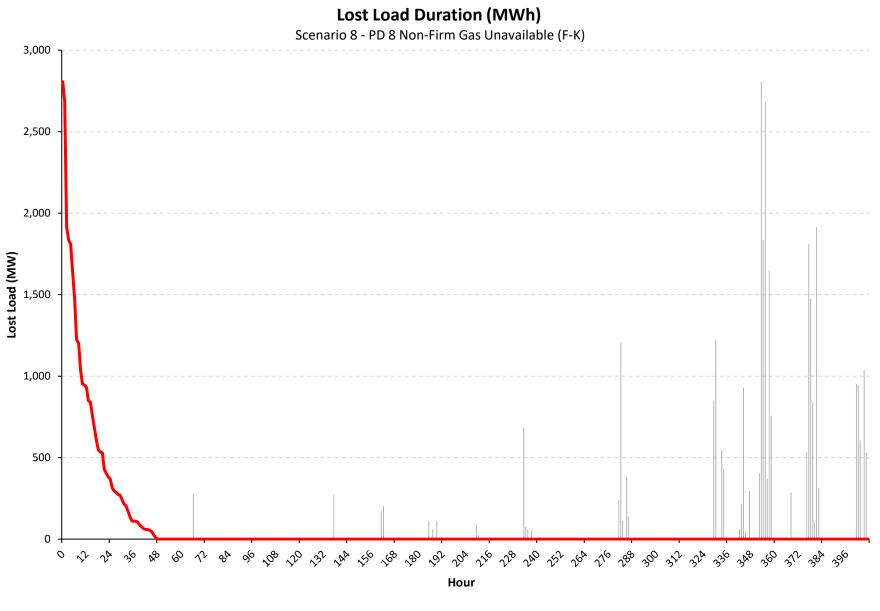
[1] Weekends are shaded in gray.

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



NYCA

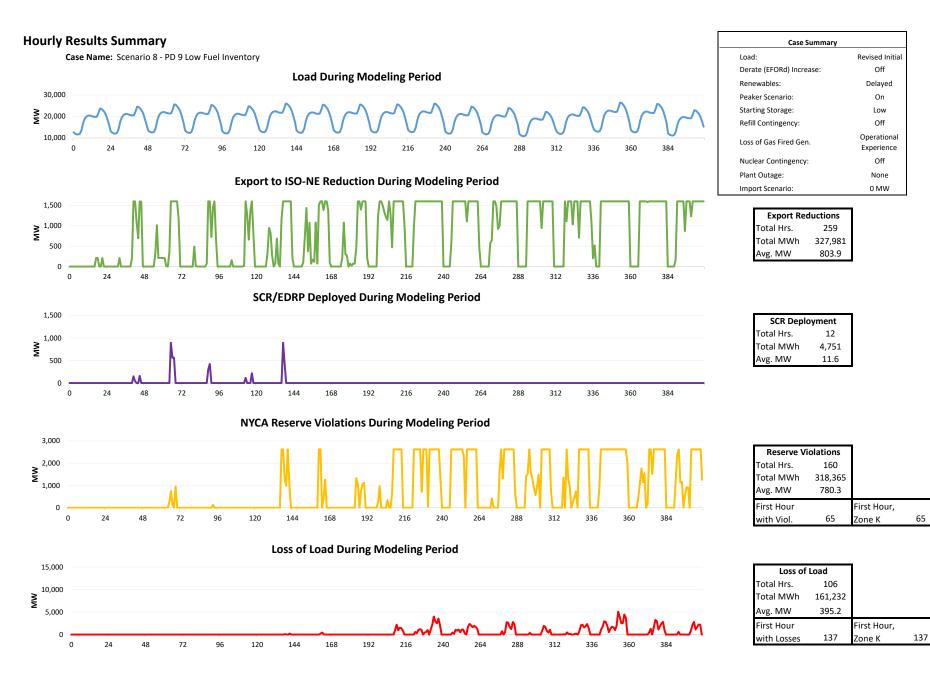
NYCA



Lost Load — Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks

Case: Scenario 8 - PD 9 Low Fuel Inventory

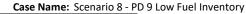


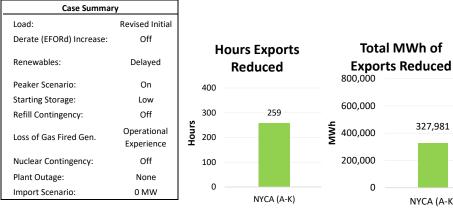
65

327,981

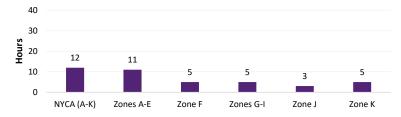
NYCA (A-K)

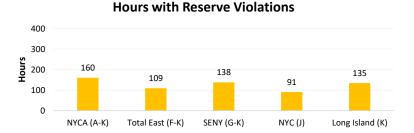
Full Period Results Summary



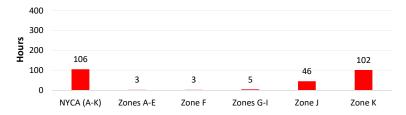


Hours SCR/EDRP Deployed

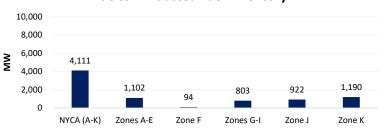




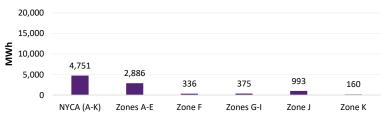
Hours with Loss of Load



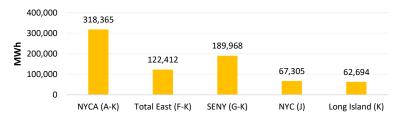
Average Capacity Not Available Due to Exhausted Fuel Inventory



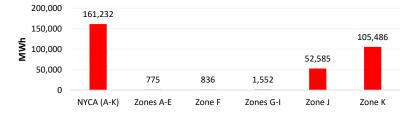
Total MWh SCR/EDRP Deployed



Total MWh of Reserve Violations



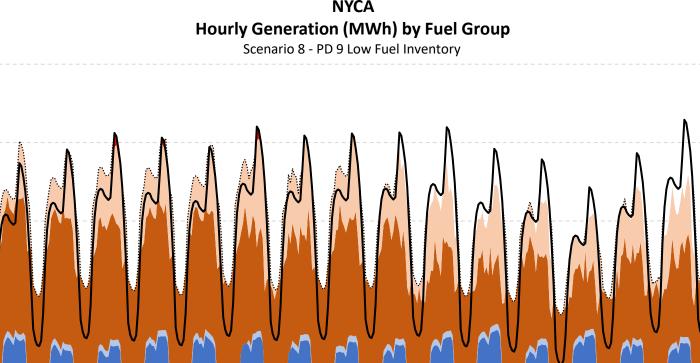
Total MWh of Lost Load



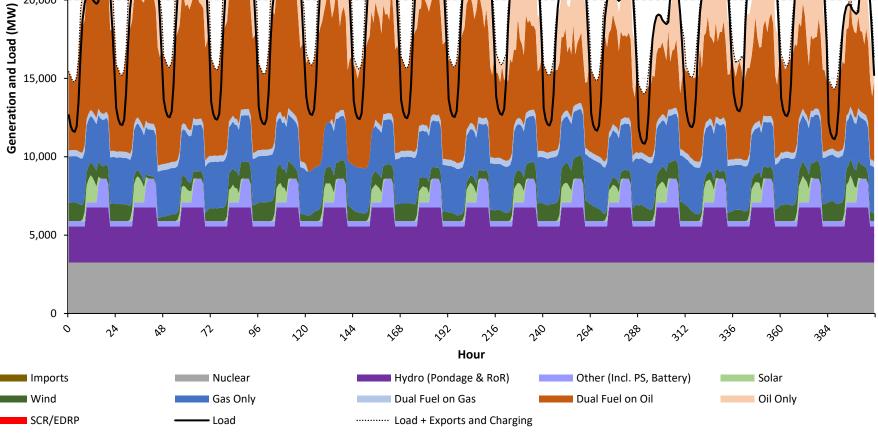
30,000

25,000

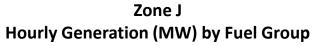
20,000



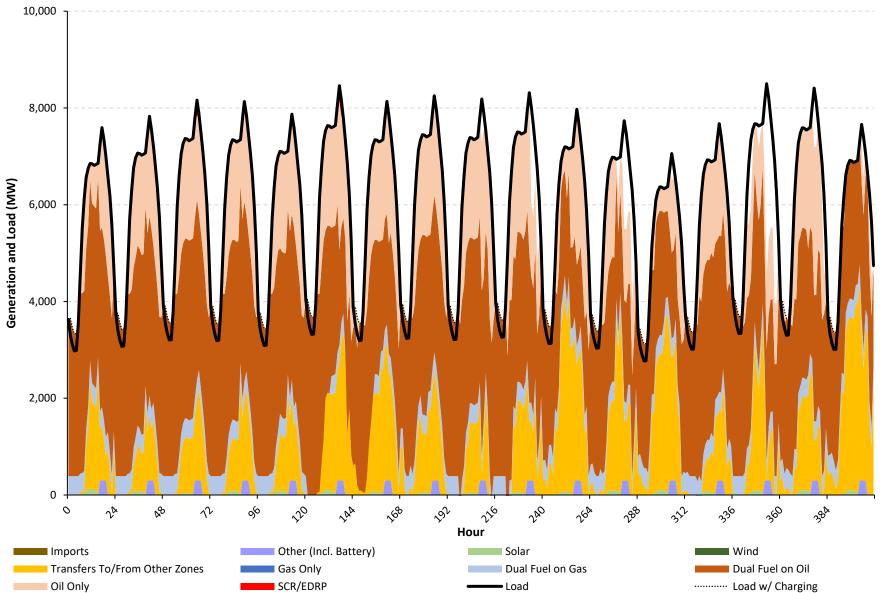
NYCA



Analysis Group, Inc.

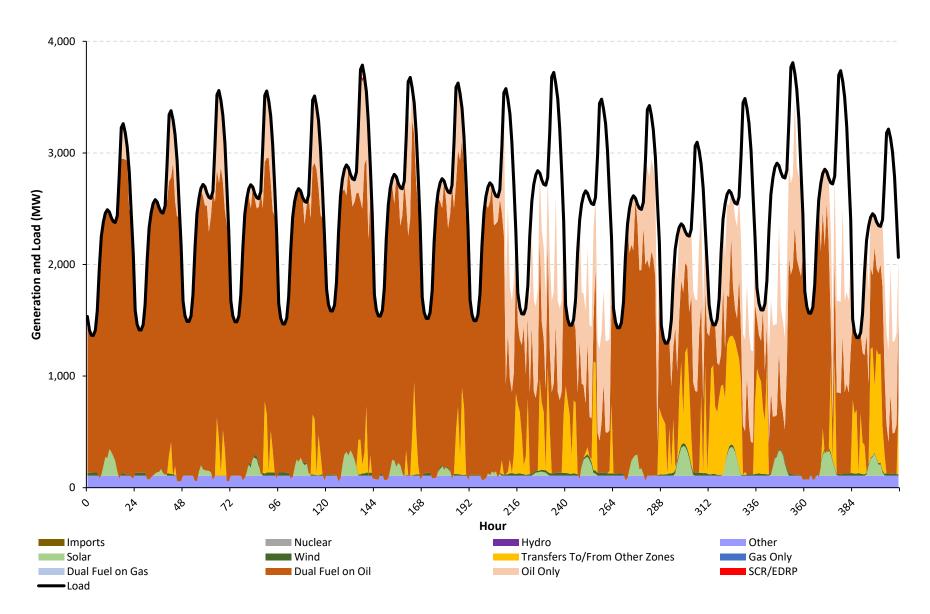


Scenario 8 - PD 9 Low Fuel Inventory

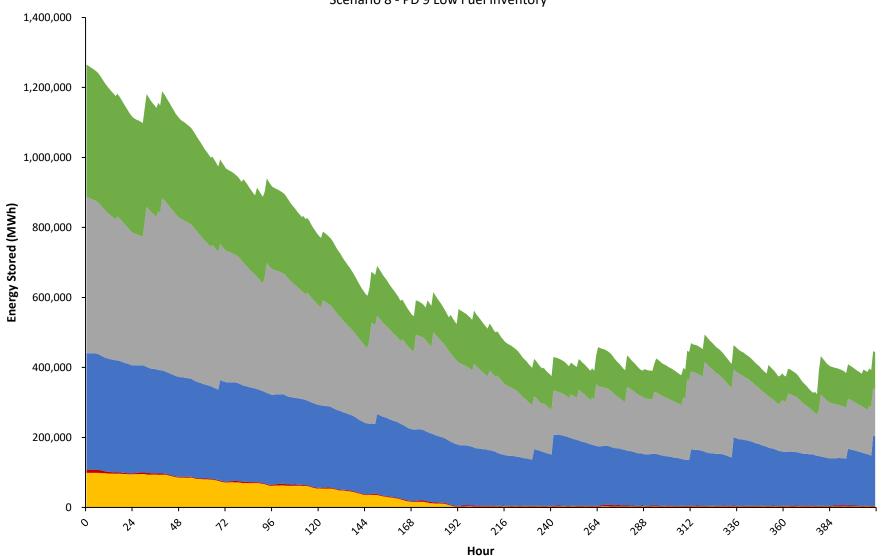


Zone K Hourly Generation (MW) by Fuel Group

Scenario 8 - PD 9 Low Fuel Inventory

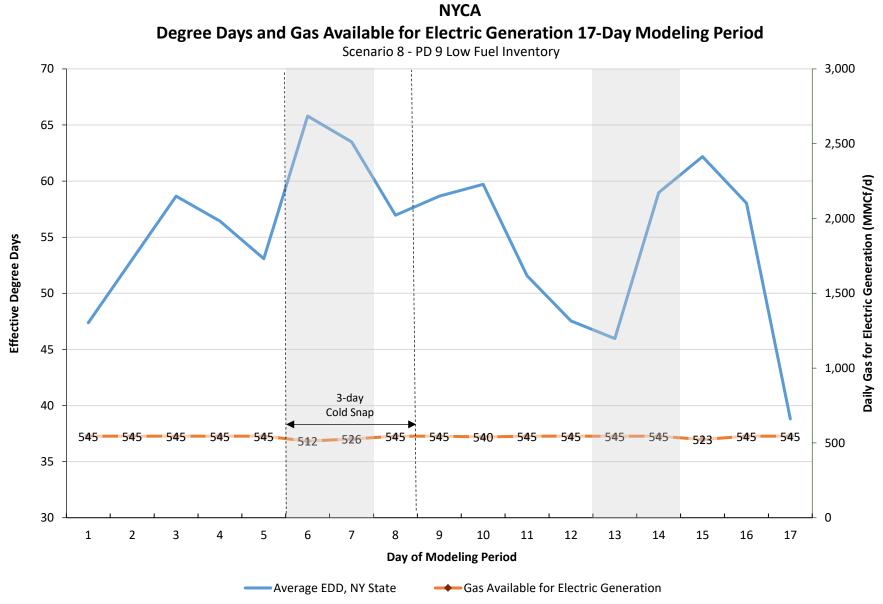






Scenario 8 - PD 9 Low Fuel Inventory

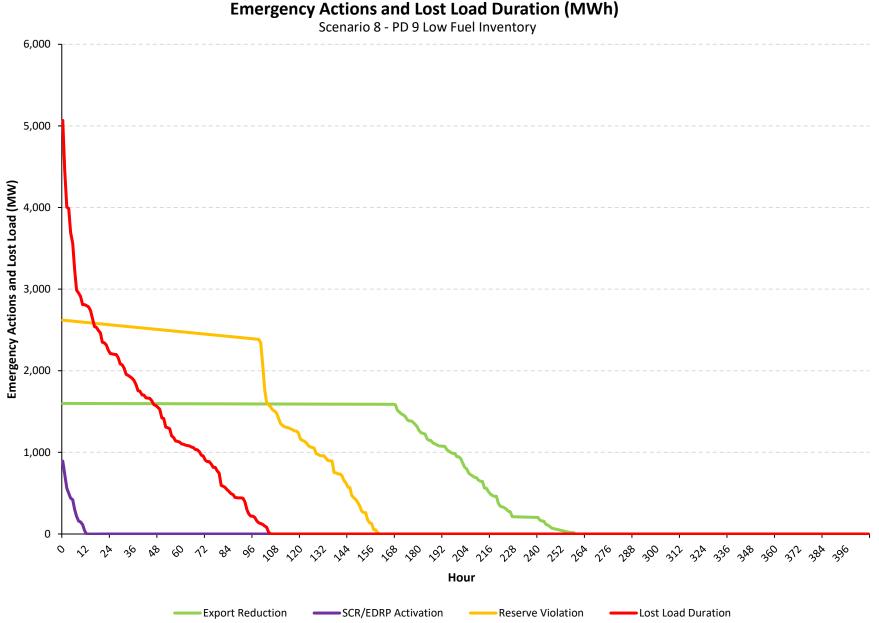
Zones A-E Zone F Zones G-I Zone J Zone K



Notes:

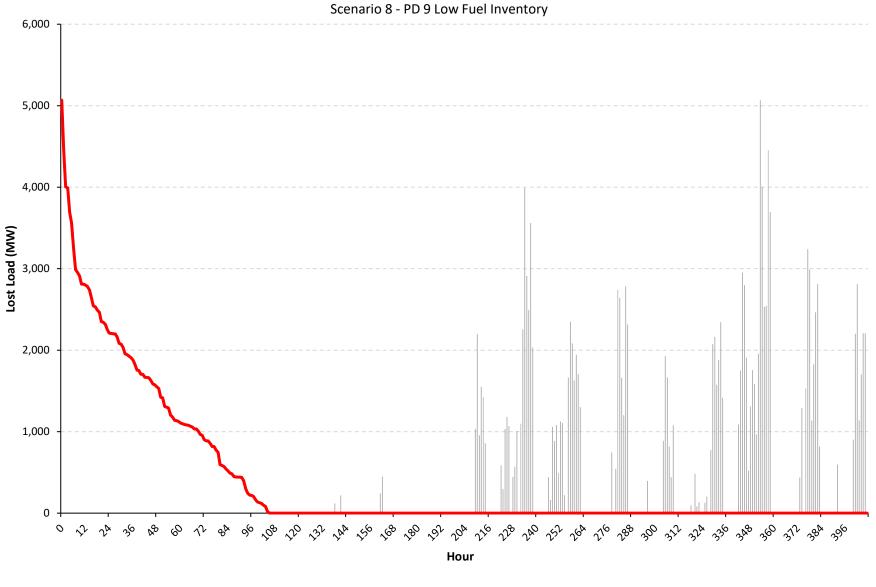
[1] Weekends are shaded in gray.

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



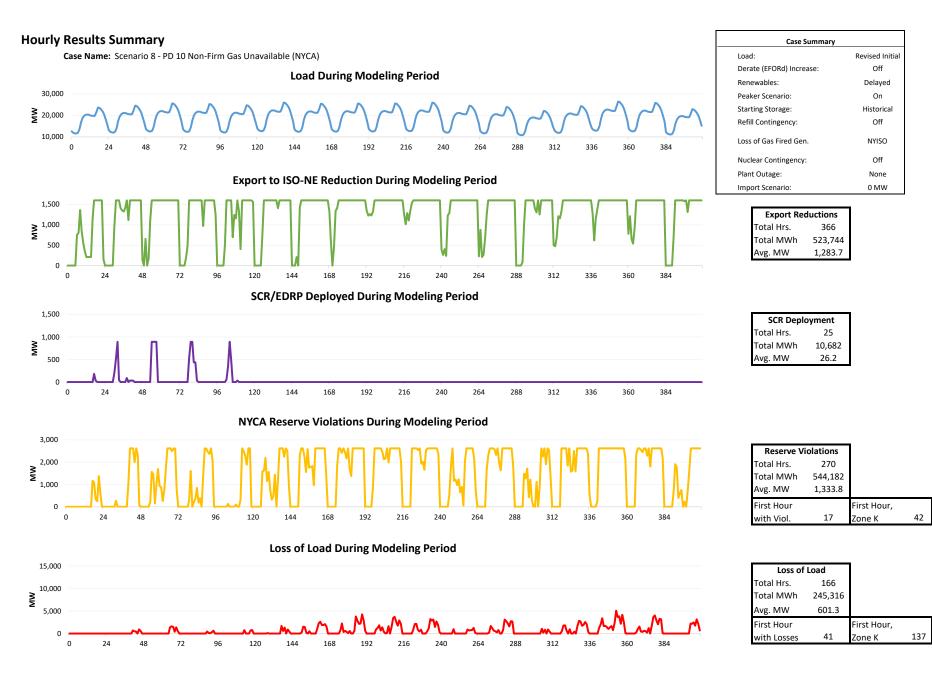
NYCA Emergency Actions and Lost Load Duration (MWh)





Lost Load — Lost Load Duration

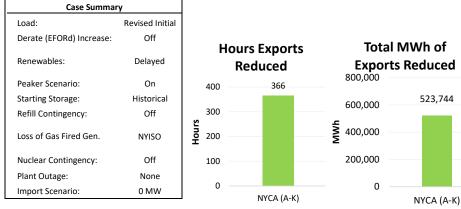
Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 8 - PD 10 Non-Firm Gas Unavailable (NYCA)



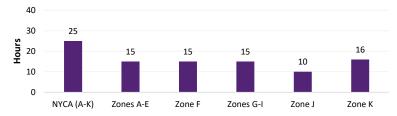
₹

Full Period Results Summary

Case Name: Scenario 8 - PD 10 Non-Firm Gas Unavailable (NYCA)



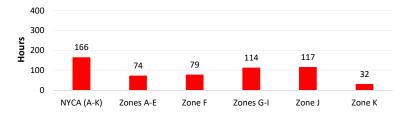
Hours SCR/EDRP Deployed



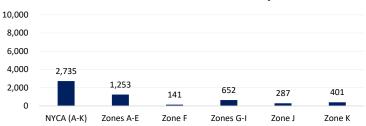
Hours with Reserve Violations



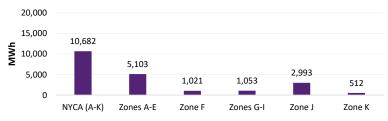
Hours with Loss of Load



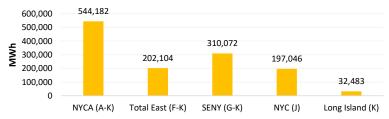




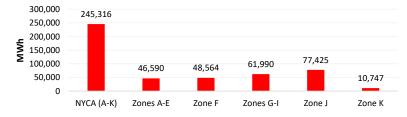
Total MWh SCR/EDRP Deployed

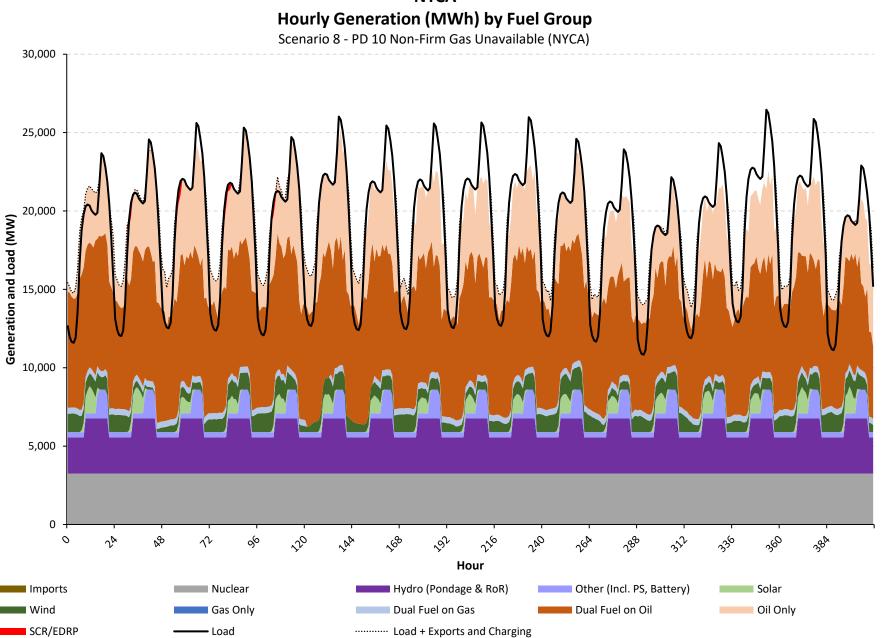


Total MWh of Reserve Violations



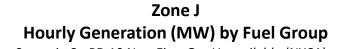
Total MWh of Lost Load



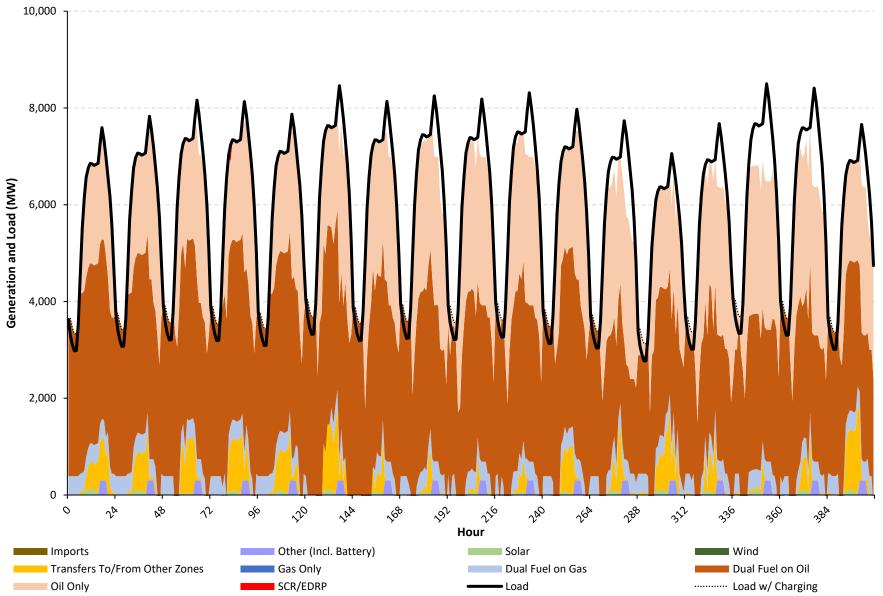


NYCA

Analysis Group, Inc.

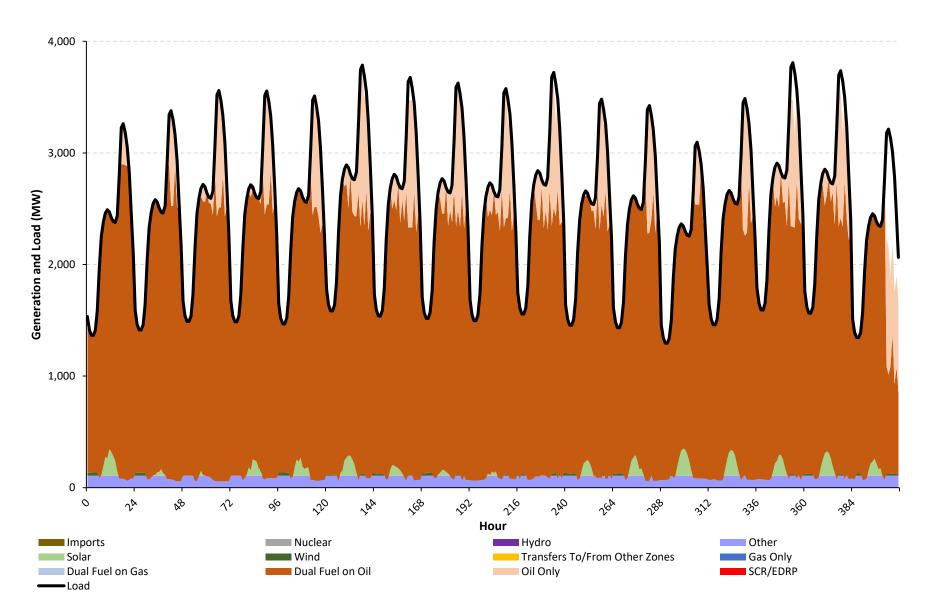




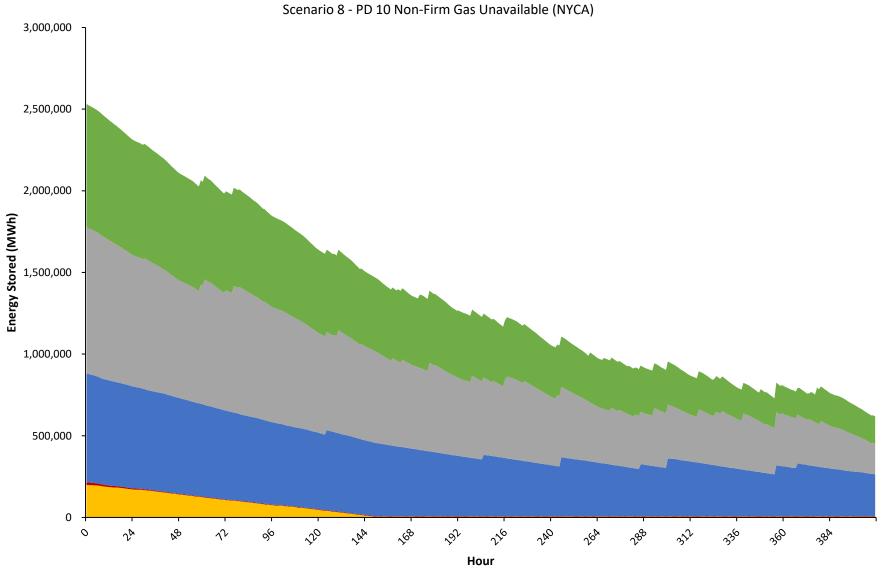


Zone K Hourly Generation (MW) by Fuel Group

Scenario 8 - PD 10 Non-Firm Gas Unavailable (NYCA)

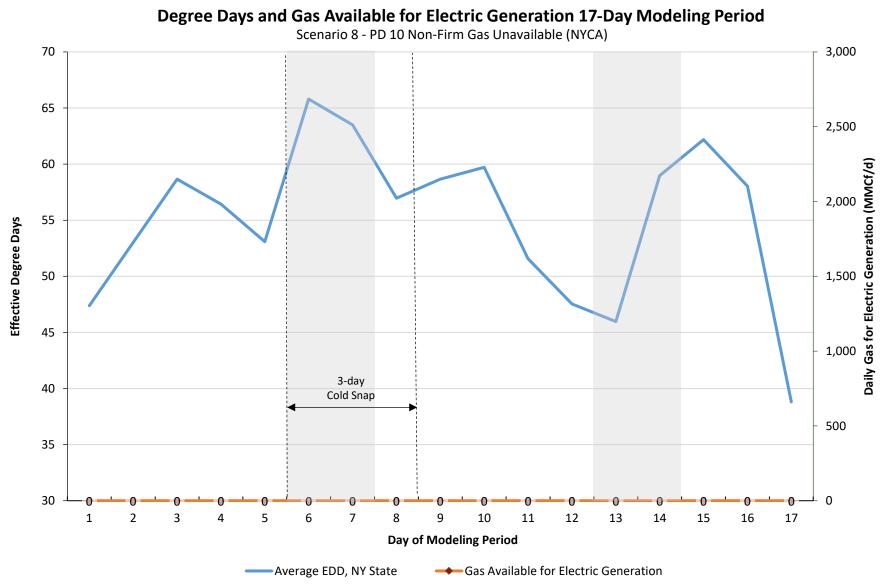






Zones A-E Zone F Zones G-I Zone J Zone K

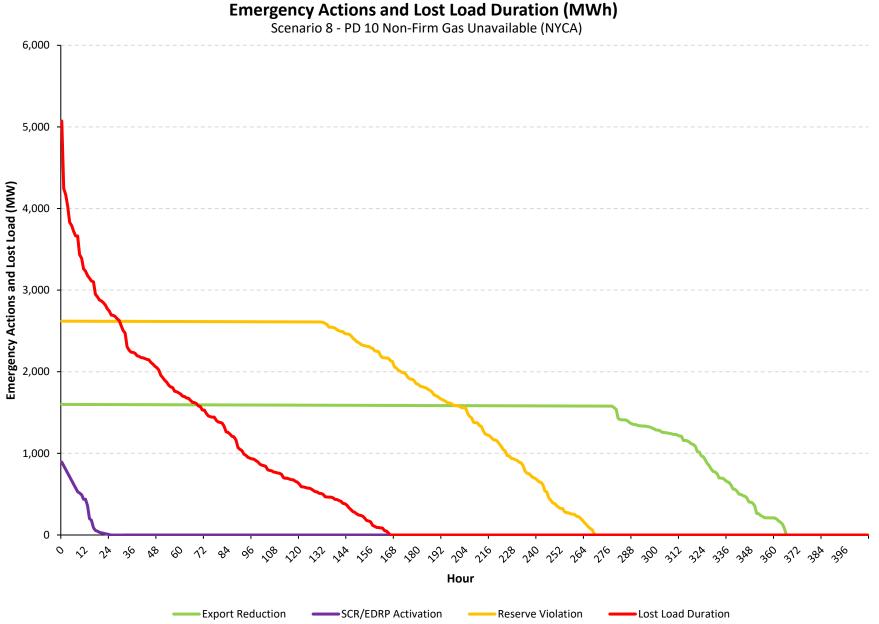
NYCA



Notes:

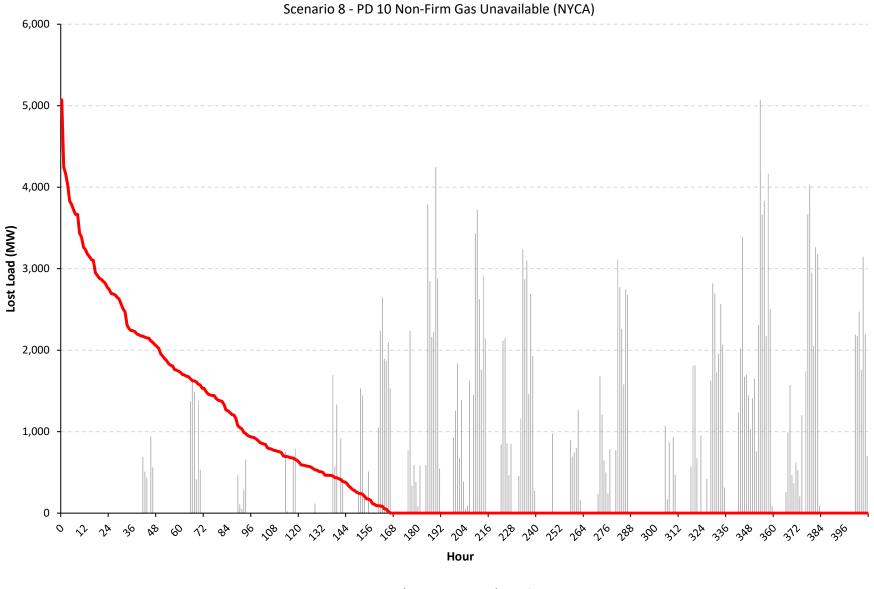
[1] Weekends are shaded in gray.

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



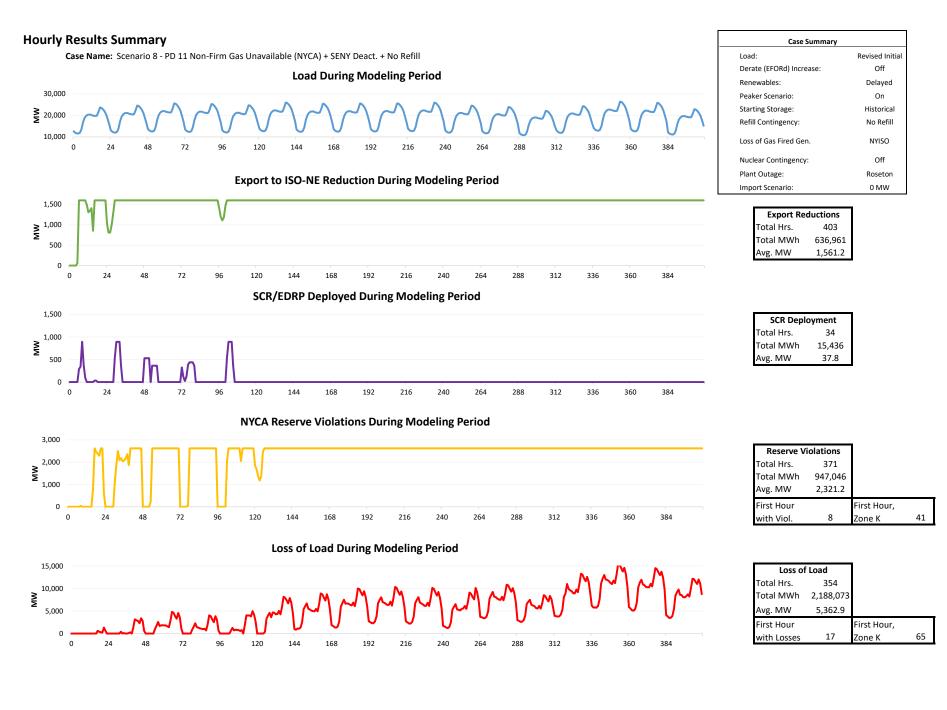
NYCA **Emergency Actions and Lost Load Duration (MWh)**





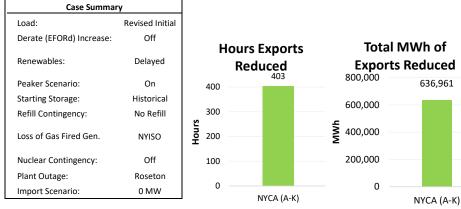
Lost Load — Lost Load Duration

Appendix E. Diagnostic Charts for Cases with Identified Reliability Risks Case: Scenario 8 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill

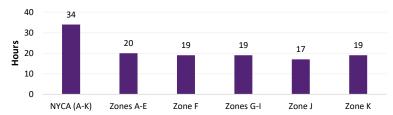


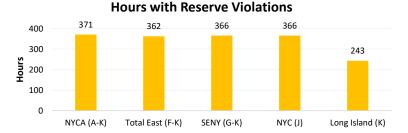
Full Period Results Summary

Case Name: Scenario 8 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill

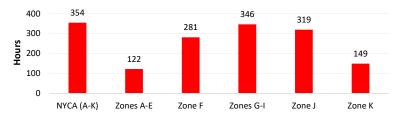


Hours SCR/EDRP Deployed

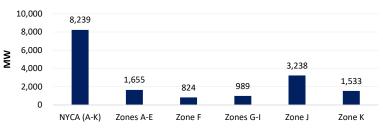




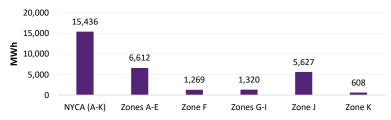
Hours with Loss of Load



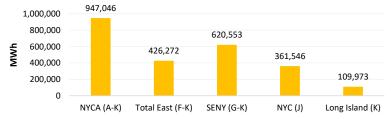
Average Capacity Not Available Due to Exhausted Fuel Inventory



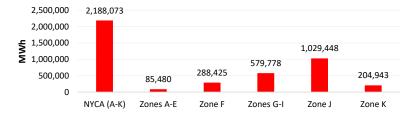
Total MWh SCR/EDRP Deployed



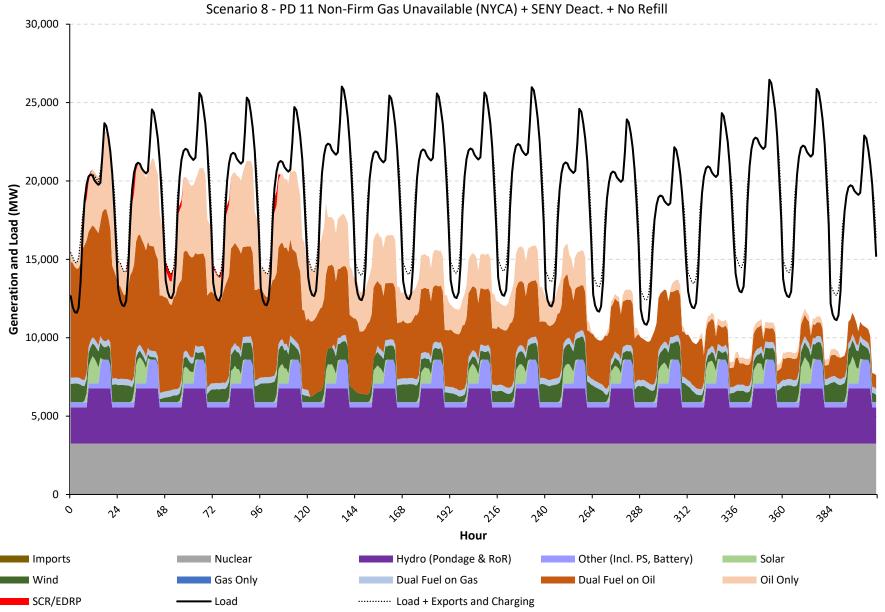
Total MWh of Reserve Violations



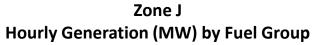
Total MWh of Lost Load

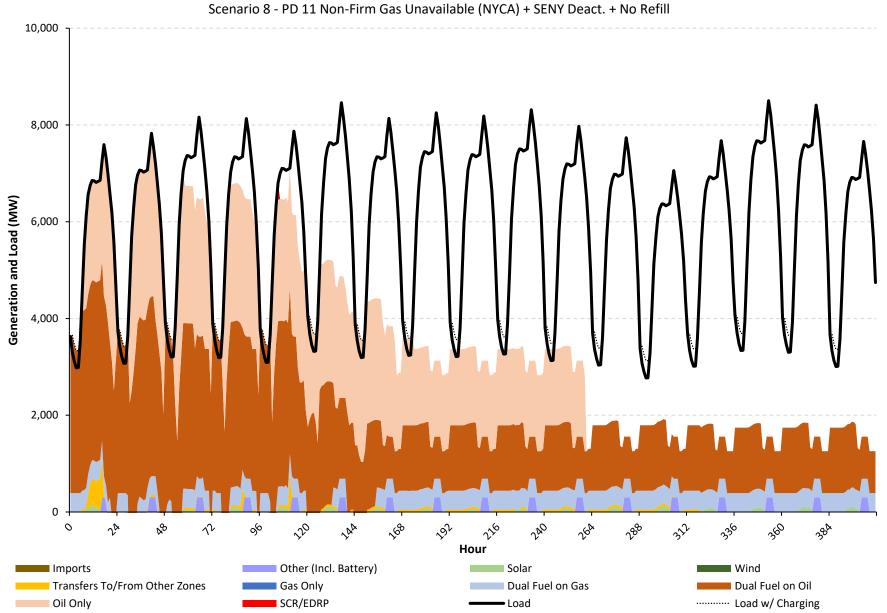


NYCA Hourly Generation (MWh) by Fuel Group



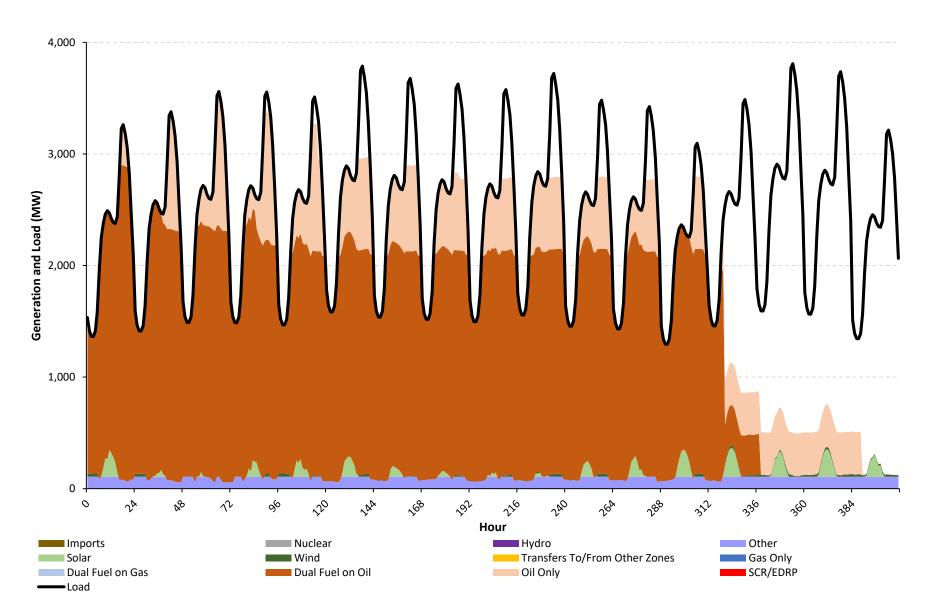
Analysis Group, Inc.



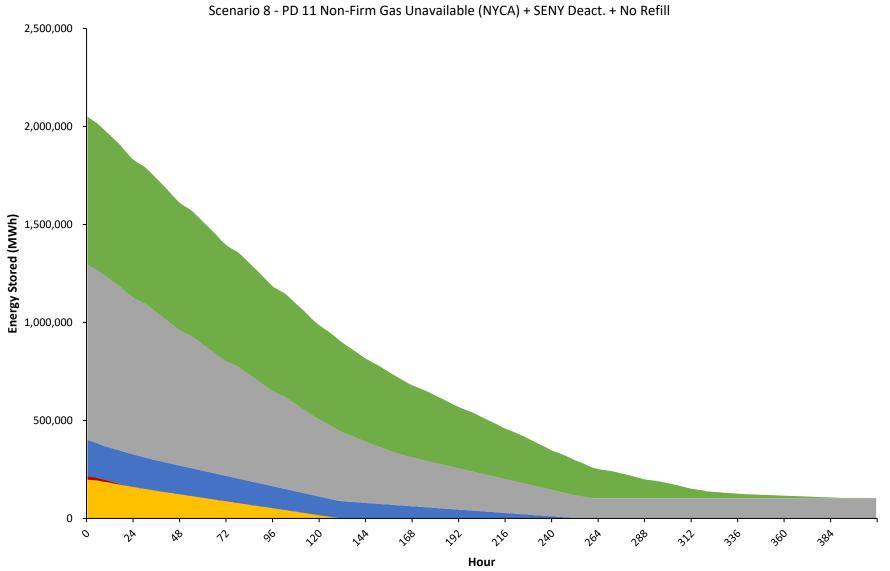


Zone K Hourly Generation (MW) by Fuel Group

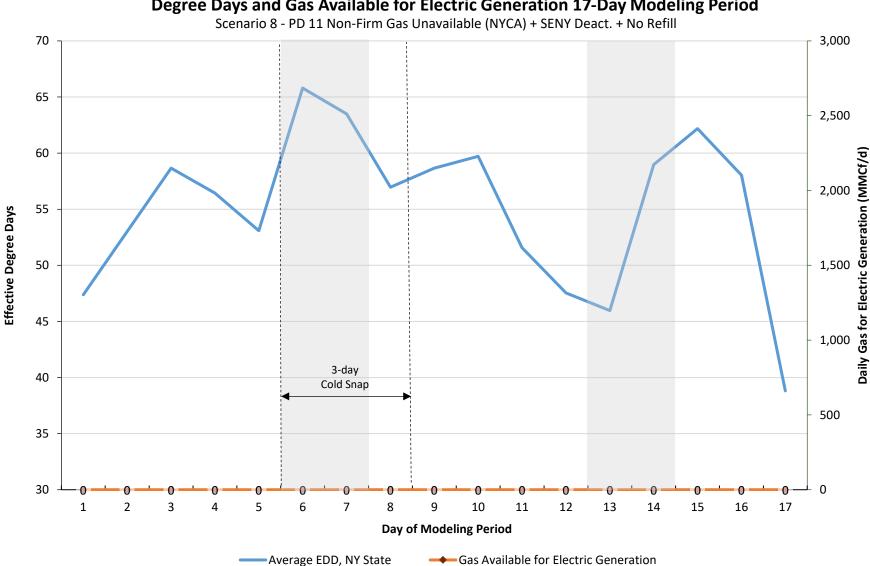
Scenario 8 - PD 11 Non-Firm Gas Unavailable (NYCA) + SENY Deact. + No Refill







Zones A-E Zone F Zones G-I Zone J Zone K

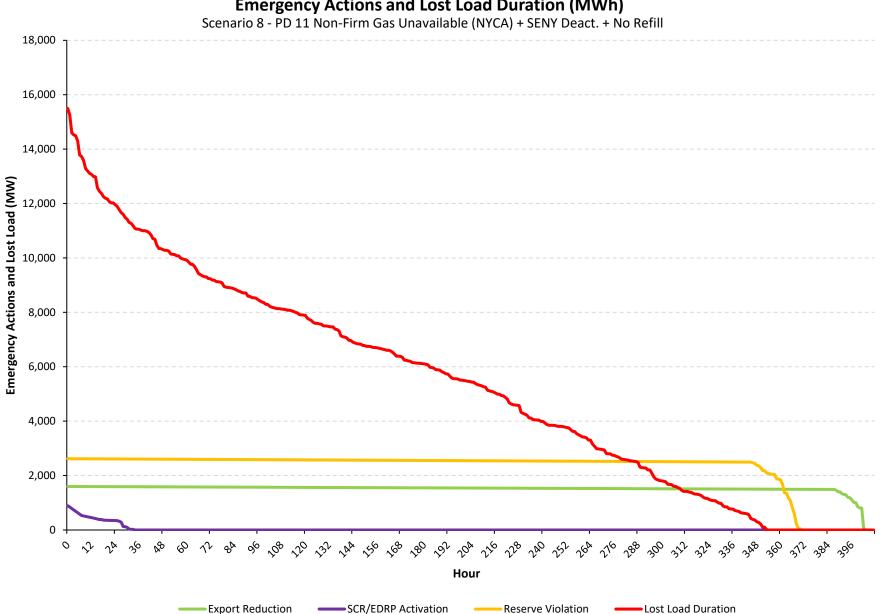


NYCA Degree Days and Gas Available for Electric Generation 17-Day Modeling Period

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)

NYCA Lost Load Duration (MWh)

