EIPC Gas-Electric System Interface Study

Sensitivities in Set #1 for Analysis Prior to SSC Mid-Point Meeting with Additional Sensitivities Approved as part of Set #2

Updated: 7/3/2014

Approved =>	Approved as part of Set #1
Approved =>	Approved as part of Set #2

<<All sensitivities run on #0 (prime) cases
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#	Sensitivity Case Short-Description	Reference Gas Demand Scenario	High Gas Demand Scenario	Low Gas Demand Scenario	Run in 2018 RGD' Case	Run in 2018 HGD' Case	Run in 2018 LGD' Case	Run in 2023 RGD' Case	Run in 2023 HGD' Case	Run in 2023 LGD' Case
0	Adjust for significant changes since the Roll-up Case creation	Creates the RGD' Case	Creates the HGD' Case	Creates the LGD' Case	YES	YES	YES	YES	YES	YES
1	Adjust the basis adder for the natural gas prices to reflect market pricing on a peak day				YES	YES	YES	YES	YES	YES
2	Remove incremental/decremental gas price changes from the High & Low Gas Demand Scenarios					YES	YES		YES	YES
3	Significantly lower delivered natural gas prices		in HGD'		YES			YES		
4	Deactivation of additional coal and nuclear - add gas fired resources		in HGD'							
5a	Deactivation of additional coal and nuclear - add wind and solar			Discussed and eliminated	YES		YES	YES		YES
5b	Deactivation of additional coal and nuclear - Quebec hydro by wire			Discussed and eliminated				YES		YES
5c	Deactivation of additional coal and nuclear - add EE/DR			Discussed and eliminated	YES		YES	YES		YES
6	Increased electric and gas EE/DR, including potential increase in dispatchable gas-side DR during the Peak Heating Season			in LGD'						
7	Combination of #5 and #6	same as #5		same as #5						
8	Extend nuclear licenses			Discussed and eliminated			YES			YES
9	All Ontario nuclear units to-be-refurbished reach the end of life after 2018 and before 2023 + retirement of Indian Point 2/3 by end of 2015					YES			YES	

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10	Inclusion of new transmission build-out sensitivity – interconnection queue (?)		included in each sensitvity								
11	Energy East pipeline does not proceed		defer to second set								
12	Significantly higher natural gas prices, including significant new environmental regulations that raise prices in shale producing basins		in LGD'		in LGD'						
13	Increased infrastructure to enable additional Marcellus/Utica flows to neighboring PPAs					YES			YES		
14	Increased underground gas storage availability (quantity and deliverability)					YES			YES		
15	Increased electric storage availability		Discussed and eliminated			YES			YES		
16	Increased sendout from Canaport and Distrigas LNG import terminals			would need higher gas prices		YES			YES		
17	Backup fuel inventory sensitivity (applicable to dual fuel units), high and low (e.g. 30-day backup fuel inventory, 5-day backup fuel inventory)		Will be Considered in Target 4			YES			YES		

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18	High electric load growth			in HGD'		YES			YES		
19	High industrial natural gas demand			in HGD'		YES			YES		
20	#4 + #18 + #19 – will require information on locations of LDC increased demand – active coordination with LDCs needed		Prefer #31 over this	in HGD'		YES			YES		
21	Low electric load growth (economic stagnation)		Discussed and eliminated		in LGD'	YES			YES		
22	Low industrial natural gas demand (Should be combined with low electric growth?) – How to determine locations for additional demand?		Discussed and eliminated		in LGD'	YES			YES		
23	High/Increased LNG exports, e.g., along the Gulf of Mexico or Atlantic Seaboard				does not fit scenario	YES			YES		
24	Extreme weather – higher priority due to recent experience (cold snap)			in HGD'							
25	Delayed restart of Ontario nuclear units and no nuclear refurbishment – The nuclear units reach end of life and are retired			moved to new #9							
26	Additional coal and nuclear retirements + oil retirements in New England + the postponement / cancellation of certain proposed transmission projects including Northern Pass Transmission (Run same case as #4 + remove transmission?)			in HGD'							

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27	Additional coal retirements + retirement of Indian Point 2/3 + significant delay in the restart of nuclear units in Ontario (Run same case as #4?)			in HGD'							
28	Increased RCI Gas Demand		Prefer #31 over this	Prefer #31 over this		YES	YES		YES	YES	
29	System restoration after a blackout event under high gas demand										
30	Prohibit dual fuel units across the Study Region from running on gas and force them to run on backup fuel					YES	YES				
31	Electric load at 90/10 and high RCI gas demand - polar vortex? Very-cold snap					YES			YES		
32	New technology enables trade-off of electric demand for gas demand (fuel source)		Discussed and eliminated								
33	#31 + High outage rate on coal and oil gen units, leave gas unit FOR the same					YES			YES		
34	Force gas units to run to test maximum gas demand from the electric sector					YES			YES		
35	High electric demand in summer with nuclear outages to stress the gas generation fleet		Discussed and eliminated								
36	#33 + unavailability of nuclear units per the experience of 2014 winter, but not to the point that demand cannot be satified.					YES			YES		

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37	#13 + Add Canaport as an LNG export facility. Interest in Canaport conversion stand alone from other LNG export increases. Added by PPAs on 6/30/14.								YES		