

## Winter Test Cost Analysis

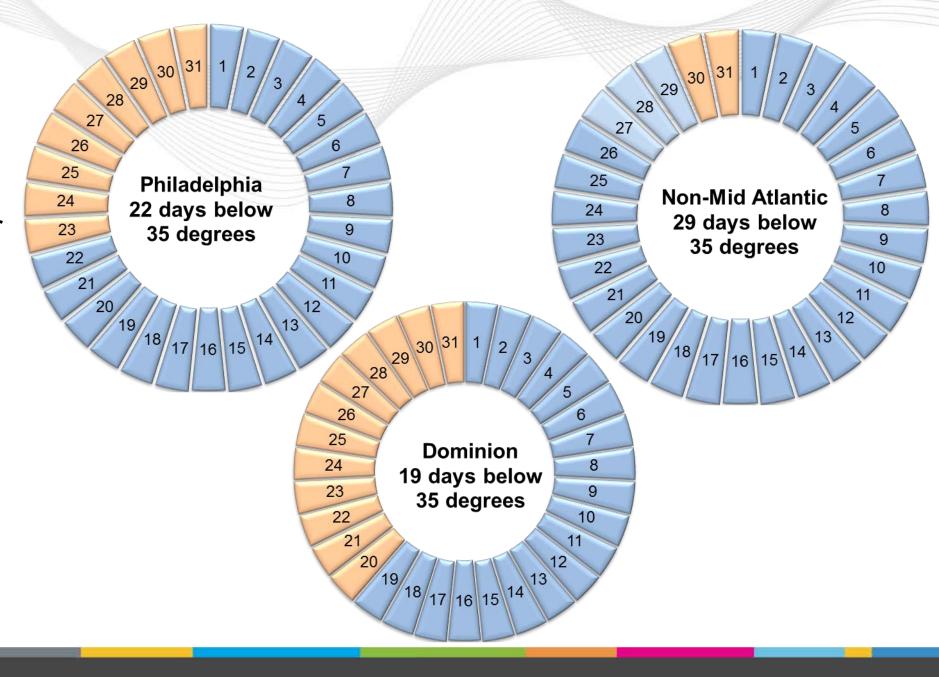
September 17, 2014



## December 2013

Over 50% of December was below 35°F in all regions

71% in Mid-Atlantic,94% in Non Mid-Atlantic,61% in Dominion



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336 of the 1422 active generation did not operate during the months of October and November 2013

Of the 336, 62% CTs, 33% Steam, 4% Diesels, 1% Hydro

197 of the 336 units submitted outage tickets totaling 14,216.5 MWs

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- Resources committed in Day Ahead
- Using the Max, Min and Average LMP for each individual Gen Bus across the min run hours from the PLS and calculated the expected energy payment
- Max cost schedule, resource parameters submitted for the reference month were used in the total cost calculation
- For Dual Fuel Capability resources applicable adder provided by Monitoring Analytics was applied to the max bid price calculation



Energy Revenue = December LMP (for that particular gen bus) \* Eco Min \* Min Run Time

Total Cost = Max Startup Cost for the month +[ (Eco Min \* (Eco Min Bid Price + Fuel Adder) +Max No Load Cost for the month) \* Min Run Time]

Make Whole = Total Cost - Energy Revenue

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$/MWh = (Make Whole $/Real Time Load + Export)/# of days
# of days - Econ Min = 12869.2/1000 = 13
# of days - Econ Max = 20110/1000 = 20
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	Low	Min	High
Make Whole \$ (Econ Min)	\$5,032,307.33	\$11,923,728.30	\$14,199,346.57
\$/MWh by day	\$0.17	\$0.39	\$0.47
Make Whole \$ (Econ Max)	\$6,863,107.87	\$17,109,251.42	\$21,825,298.32
\$/MWh by day	\$0.15	\$0.37	\$0.47



- Day Ahead Spot Market Settlements
- Day Operating Reserve DA load plus exports
- Balancing Spot Market Settlements
- Balancing Operating Reserve Settlements RT load plus exports
- Resource deviated from the Day Ahead Schedule will be subjected to deviation charges