Peak Load Shaving Analysis: Impact on Zonal Load Forecast & Capacity Allocation

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Forecasting Exercise Methodology

- Historical loads were reduced on the RTO 10 Coincident Peak (CP) days for the past 1, 2, 3, …,10, and 18 years
  - In the 18 year scenario, historical loads are revised on 176 days*
- Reduction amount was equal to 23% of available DR in the 2016 Delivery Year (2,019 MW)
  - Amount represents behind-the-meter generation capability used to reduce load. Increasing this amount does not impact the results.
- Compare baseline forecast to the revised forecast affected by peak load shaving
  - Calculate the % drop as a share of the load reduction amount

** Four of the 10CPs in 2015 are in September and thus fall outside of the estimation period*

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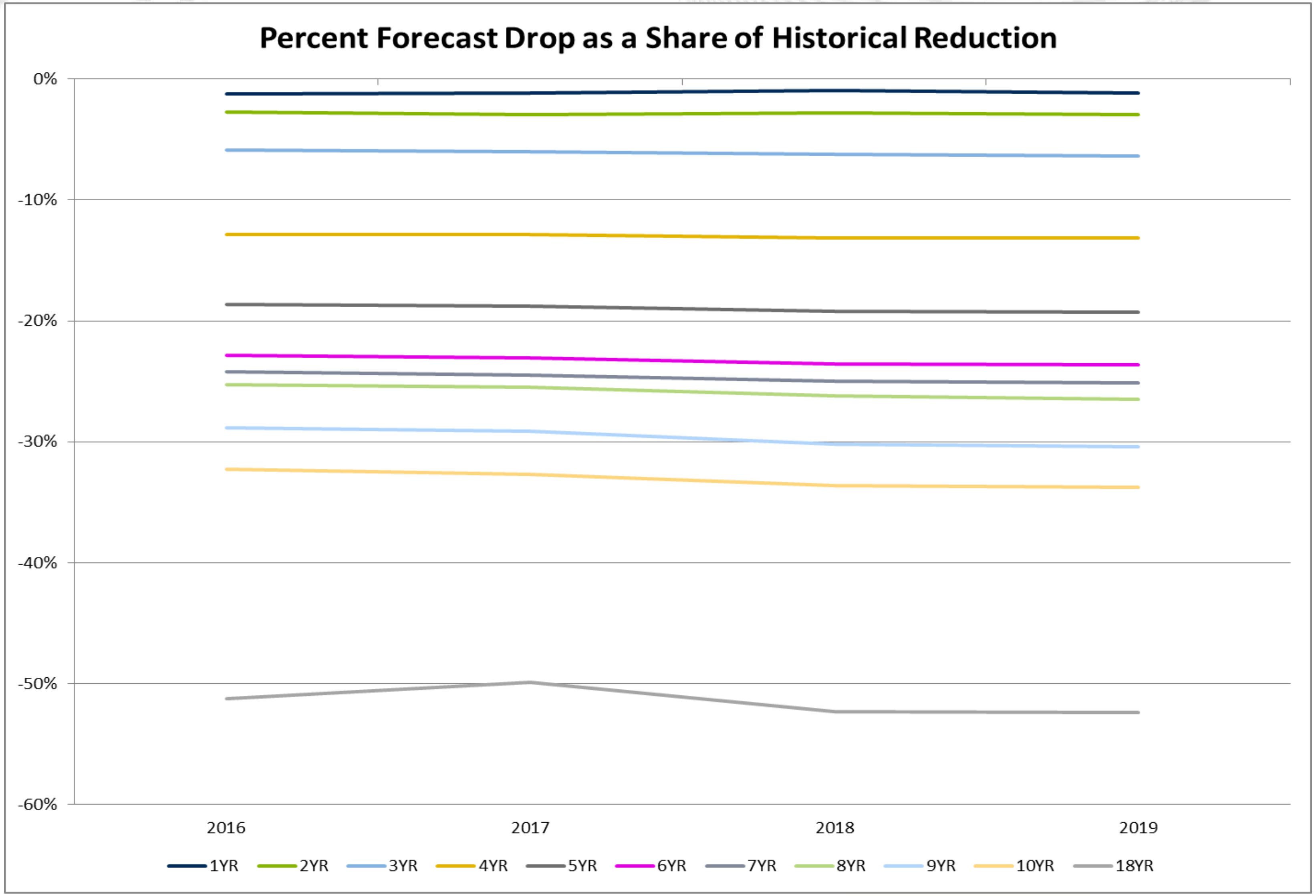
Forecast Results



- Reduction in zonal load forecast as a percent of peak shaving MWs
- Additional analyses indicate that the percent reductions are not very sensitive to the MW magnitude of the historical load drop

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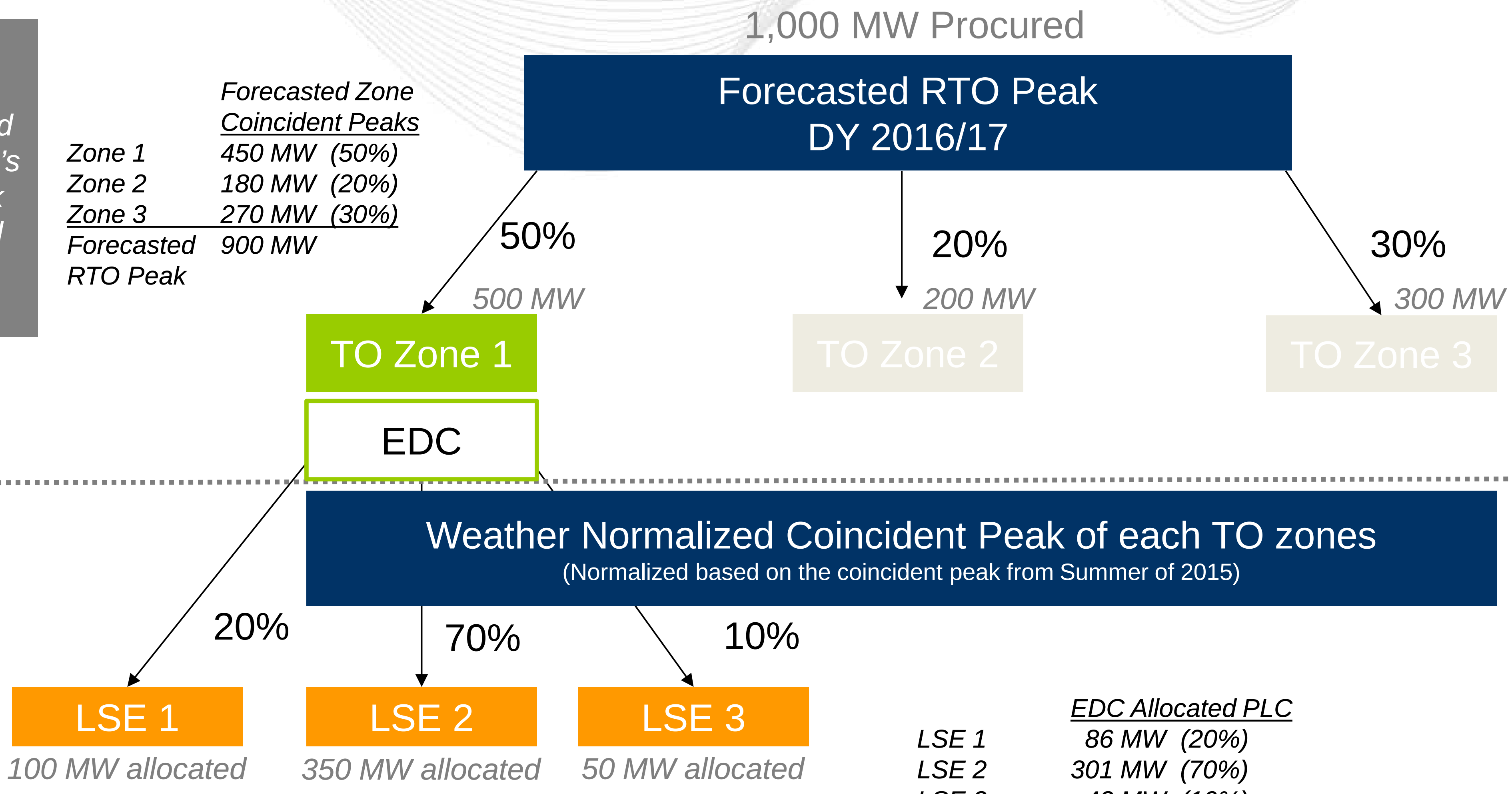
Summary

- Reducing on the 10 Coincident Peak days does not have a one-for-one impact on the forecasted load
  - Reducing on all 10 CPs back to 1998 would only yield a forecast drop equal to approximately 50% of the historical load drop
- The load forecast looks at load back to 1998 and reducing on the 10 CPs is a small share of all days
  - 153 days (May to September, no September in 2015) x 18 years (1998 to 2015) = ***2724 summer daily observations***
  - 176 days of reduction / 2724 total days = ***6.5% of total summer observations in the 18 year scenario***

Capacity Cost Allocation: No Peak Shaving

allocation of total RTO capacity obligation allocated to TO Zones based on zone's forecasted coincident peak (coincident with forecasted RTO peak)

	Forecasted Zone Coincident Peaks
Zone 1	450 MW (50%)
Zone 2	180 MW (20%)
Zone 3	270 MW (30%)
Forecasted RTO Peak	900 MW



zonal capacity obligation allocated to LSEs within zone based on EDC allocation of w/n zone coincident peak

	EDC Allocated PLC
LSE 1	86 MW (20%)
LSE 2	301 MW (70%)
LSE 3	43 MW (10%)
Zone 1 w/n Peak	430 MW

Values depicted in this example are all summer period

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Capacity Cost Allocation: 50 MW Peaking Shaving by LSE 2

972.2 MW Procured

allocation of total RTO capacity obligation allocated to TO Zones based on zone's forecasted coincident peak (coincident with forecasted RTO peak)

	Forecasted Zone Coincident Peaks
Zone 1	425 MW (48.6%)
Zone 2	180 MW (20.6%)
Zone 3	270 MW (30.8%)
Forecasted RTO Peak	875 MW

Forecasted RTO Peak
DY 2016/17

48.6% — 472.5 MW — TO Zone 1

20.6% — 200.3 MW — TO Zone 2

30.8% — 299.4 MW — TO Zone 3

EDC

zonal capacity obligation allocated to LSEs within zone based on EDC allocation of w/n zone coincident peak

Weather Normalized Coincident Peak of each TO zones
(Normalized based on the coincident peak from Summer of 2015)

22.6% — LSE 1 — *106.9 MW allocated*

66.1% — LSE 2 — *312.1 MW allocated*

11.3% — LSE 3 — *53.5 MW allocated*

	EDC Allocated PLC
LSE 1	86 MW (22.6%)
LSE 2	251 MW (66.1%)
LSE 3	43 MW (11.3%)
Zone 1 w/n Peak	380 MW

Values depicted in this example are all summer period

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