

PJM Proposal Updates

Summer-Only Demand Response Senior Task Force

June 29, 2018

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- Changes were made to the proposal to be more responsive to participant needs in program design yet still satisfying PJM's planning needs
 - Program needs to be both predictable and measurable



- Design Component 2c Curtailment Triggers
 - THI threshold as determined by PJM EDC
- Design Component 2j Performance Months
 - May October Program Specific
- Design Component 2k Interruption Days
 - Unlimited as dictated by the THI threshold
- Design Component 2I Interruption Hours
 - 6 Program Specific



- PJM would consider programs on a case-by-case basis
- Prefer THI (Temperature-Humidity Index) Trigger as it allows the opportunity to reflect historical behavior as well as anticipate future peak shaving
- Programs that are seeking to manage number of curtailments should do so through setting the THI threshold (higher/lower) rather than capping the aggregate number



- Load reduction programs governed by EDC tariffs that will meet the PJM load forecast adjustment criteria for the committed delivery year. Customers that are included in load forecast adjustment may not also participate as DR or PRD for the same Delivery Year
 - Make explicit the need to avoid double-counting



- Supervisory Control
 - EDC Control Managed
- Operational Control
 - EDC Managed



PJM Proposal Walkthrough

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- PJM will initially generate a new lower load forecast based on a modified load history that assumes perfect curtailment compliance back to 1998.
 - Program will be assumed to be enacted every time a predetermined Temperature-Humidity Index (THI) threshold is reached or exceeded.
 - Perfect curtailment assumption will be re-visited based on actual performance.
 - Capacity value would be reflected through a lower load forecast and thus a reduced Reliability Requirement



- Each peak shaving event is 6 hours from HE14 to HE19
- Each peak shaving event will be triggered on non-holiday weekdays which have a max THI exceeding the threshold
- Peak shaving events can occur any day between May and October

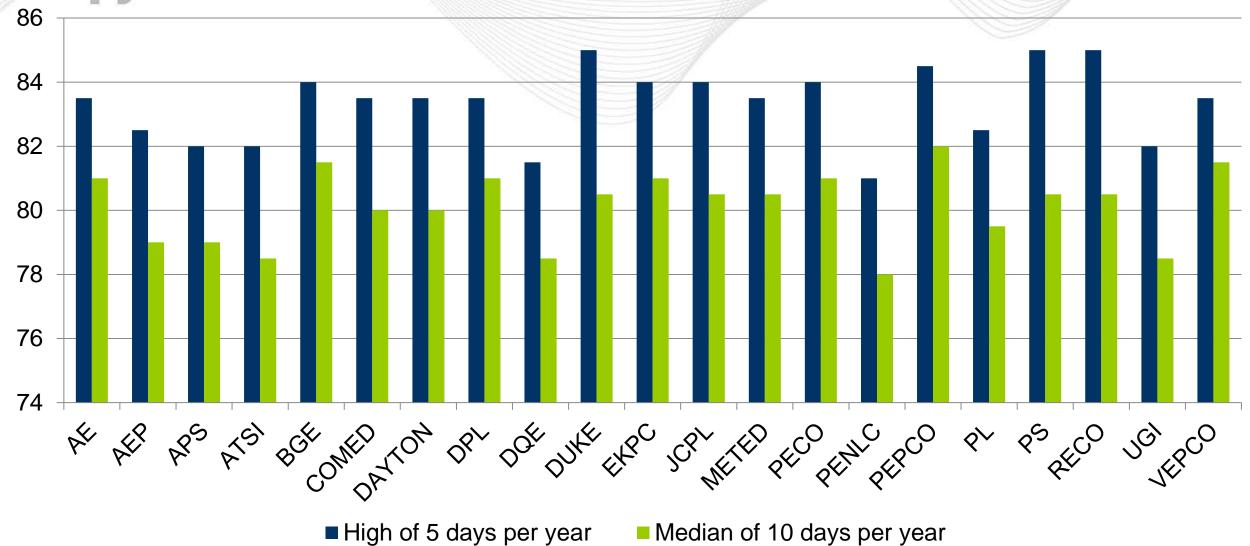


Design Component 2c – Curtailment Triggers

- "THI threshold as determined by PJM" → "THI threshold as determined by EDC"
 - Previous meeting, PJM shared results where the THI threshold is the first instance in which the median number of days per year exceeds 10
 - Computed results where the THI threshold is determined based on the first instance in which the max number of days per year exceeds 5
- Different thresholds would lead to different shaving frequency and inevitably different forecast outcomes

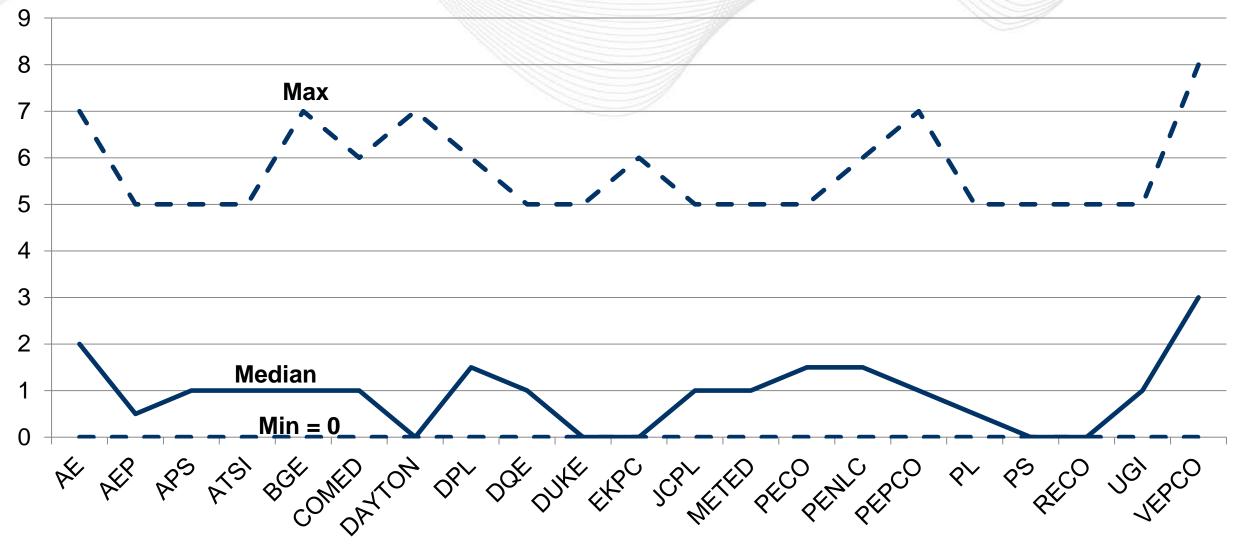


THI Thresholds



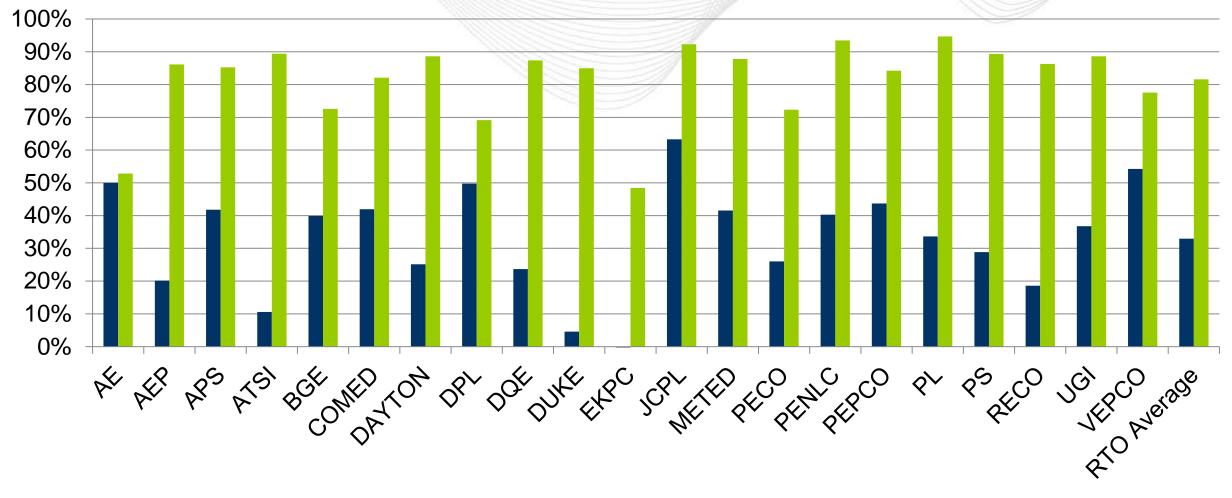


THI Threshold – Shaving Frequency (Cuts/Year)





Peak Forecast Impact as a Share of Shaving Amount (6%) by Zone

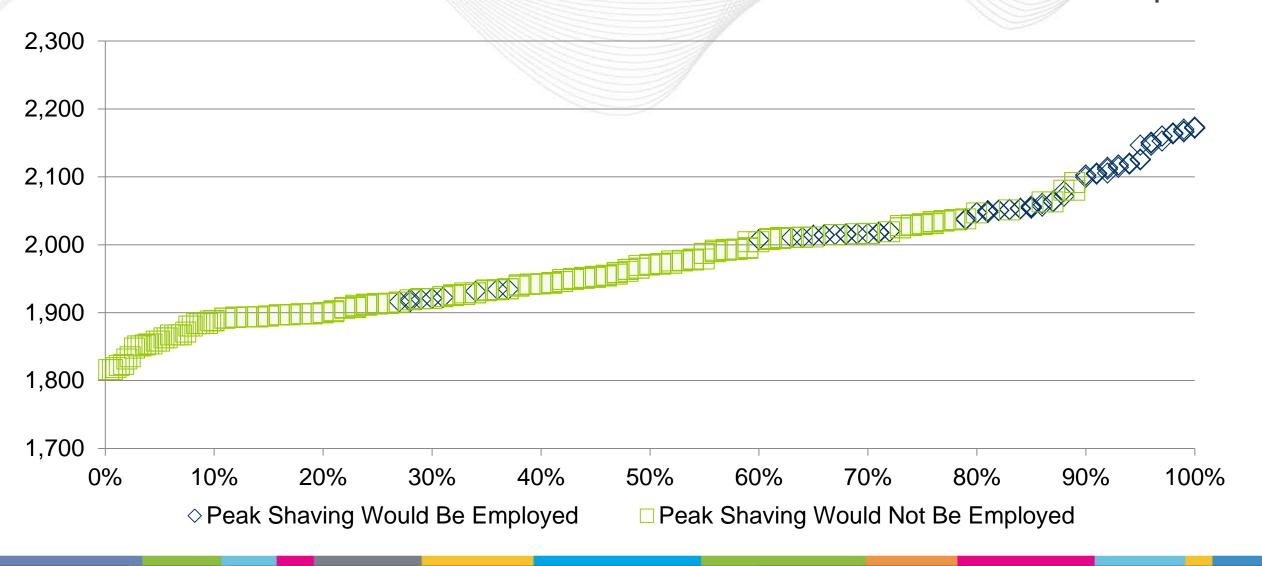


■ High of 5 days per year
■ M

Median of 10 days per year



Peak Distribution and Peak Shaving Implementation EKPC Example





Example - Capacity Market Implications 2021/2022 Planning Parameters

Posted								
	PS	PEPCO	ATSI	COMED	BGE	PLGRP*	DAYTON	DEOK
CETO	5620	1550	6020	-640	4470	-850	2480	3110
Reliability								
Requirement	11501	8073	15598	26112	7910	9974	3979	7557
			With Shavi	ng at 6%				
CETO	5840	1770	6640	550	4900	-350	2640	3250
Reliability								
Requirement	11402	7902	15533	25798	7744	9899	3976	7543
Shave Amount	562	367	745	1288	383	422	195	320
Rel Rqt Reduction as a Share of								
Shave Amount	18%	47%	9%	24%	43%	18%	1%	4%

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^{*} PLGRP results only included shaving in PL zone, not UGI



ATSI Example – Capacity Market Implications Variable Resource Requirement Curve

