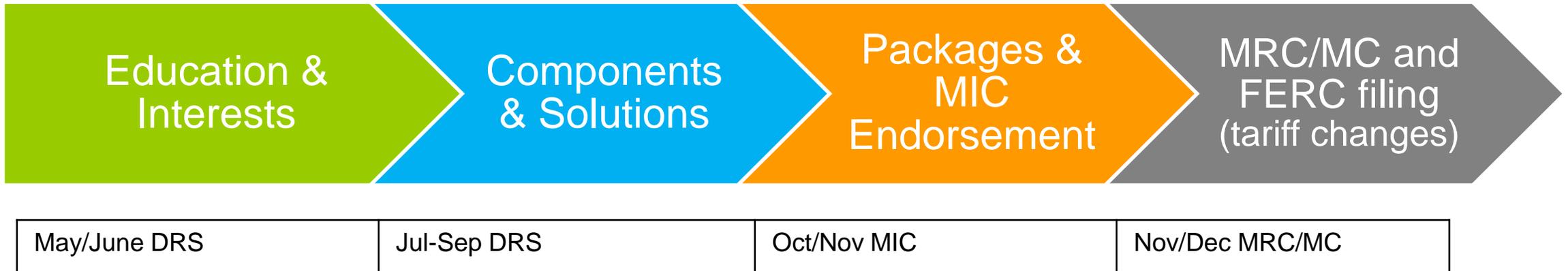


Price Responsive Demand (PRD) review for CP requirements



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Manager, Demand Response Operations
Market Implementation Committee
November 8, 2017

- PRD developed (2010 – 2012) prior to CP rules
- PJM received and approved PRD plans for the first time in January 2017 for 2020/2021 Delivery Year
- Some key DR rules were updated with the implementation of CP but PRD rules were not reviewed or updated



file endorsed changes by January – allow approved PRD plans submitted in January to be terminated because of rule changes if accepted by FERC before BRA

Proposal	Support
Status Quo – load does not need to reduce in winter and maintain event based penalty structure (similar to DR rules prior to CP changes)	27%
PJM proposal – leverage DR rules that were extensively discussed and updated for CP for PRD (load reduction from supply or demand side is still a load reduction and required in summer and winter)	71%
Whisker Labs proposal – extend existing PRD rules for Winter period (required load reduction in winter), create new Summer only PRD product and allow seasonal auction aggregation with a supply resource	23%
Proposal C – same as PJM but use PAH to trigger compliance	52%

*When only allowed to support 1 proposal the results were:
 Status Quo (10%), PJM (32%), Whisker Labs (14%), Proposal C (44%)*



Consensus items for all 3 proposal

Component	Status Quo	Status
Auction/FRR Plan credit requirement	Credit based on base capacity rate	Consensus (use CP rate)
Auction/FRR Plan Nominated capacity amount (PRD plan)		Consensus (same as status quo)
Nominated capacity amount (PRD registration)	Based on summer load reduction capability only	All agree to incorporate summer and winter capability
Daily Commitment Compliance Penalty Rate		Consensus (same as status quo)
Event Compliance Penalty Rate	Similar to daily commitment compliance penalty rate but for 1 year and on event basis (not hourly)	Consensus (new CP non-performance penalty provisions/rates)
Test Failure Charge Rate		Consensus (same as status quo)
load reduction measurement	Not required to reduce load in winter if summer load is higher than winter load	All agree on need to reduce load in summer and winter
add back (PJM unrestricted load for forecast and customer PLC input)	Emergency events and 5 CPs	Consensus (based on PRD curve)
Trigger to assess CP Penalty	LMP at or above PRD curve AND max emergency gen action	All 3 agree PAH should be part of the trigger
Overperformance/bonus payments	Not applicable	Consensus
Registration aggregation		Consensus (same as status quo)
PRD-eligible RPM Auction aggregation	Not applicable	Included in 1 proposal

Component	PJM	Whisker Labs	Proposal C
Nominated capacity amount (PRD registration)	Use Peak Load Contribution (PLC) and Winter Peak Load (WPL) to determine nominated amount	Use Expected Peak Load – includes adjustment (Zonal Forecast Peak / Zonal W/N Peak) to PLC and WPL	Same as PJM
Load reduction measurement	Use PLC and WPL compared to Summer and Winter Firm Service Level	Use Expected Peak Load (Summer/Winter) compared to adjusted Firm Service Level (Summer/Winter). Adjustment based on zonal load/forecast zonal load (must be ≥ 1)	Same as PJM
Trigger to assess CP Penalty	Performance Assessment Hour (PAH) and LMP greater than PRD curve	Same as PJM	PAH
PRD-eligible RPM Auction aggregation	Not applicable	Create PRD summer only product that can be aggregated with supply side winter resource in auction process to create CP resource	Not applicable