

State Proposal Walkthrough and Dialogue

Summer Only Demand Resource

Senior Task Force

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PJM vs. State proposal

<u>Item/Parameter</u>	<u>PJM</u>	<u>State</u>
Trigger	THI	THI or DA forecast
Summer Period	Program Spc.	Program Specific
Consec. Min. Hrs. Per Day	Program Spc.	No min [compromise – 4 or more]
# Events/Year	Fnc. of THI	No min [compromise - 6 or more]
Market Participation	BRAs	IAs and BRAs
Price Sensitivity	Price Taker	Price Taker or Min. capacity price
Compensation	LSE	Peaking Shaving Provider or state alloc.

Mechanism

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 pre-determined Temperature-Humidity Index (THI) or Day Ahead (DA) forecast threshold is reached or exceeded.
 - **Discuss** difficulties, if any of maintaining two forecasts – unadjusted prior to peaking sharing, and adjusted, with peak shaving included.
 - **Discuss/Analyze** differences in accuracy of THI vs. DA as triggers
 - **Discuss** complexities of having more than 1 trigger vs. market benefits of more than 1 trigger.
- Perfect curtailment assumption will be re-visited based on actual performance. [same as PJM proposal]
- Capacity value would be reflected through a lower load forecast and thus a reduced Reliability Requirement. [same as PJM proposal]

Details

- Each summer peak shaving event will be 4 hours or more, but the Peak Shaving administrator may use any combination of customers to meet the 4 hour minimum each trigger day.
 - **Discuss/analyze** the performance improvement value and modeling complexities of specifying the exact hours. PJM proposes HE 14 - HE 19.
- Each peak shaving event will be triggered on non-holiday weekdays which have a max THI or DA forecast exceeding the threshold.
- Peak shaving events can occur any day between May and October.
 - **Discuss/analyze** the added value of June-Sep vs. May-Oct.
- **Discuss/analyze** benefits of peak shaving down to a maximum customer contract quantity [as opposed to a fixed reduction amount every triggered hour].

Forecast Model Approaches to Peak Shaving

- Proposed: Modify forecast model to include shaving (or load management) as an independent variable. [Same as PJM]
 - Not relying on shaving to get reflected in regression model parameters
 - Forecast values would be more consistent with expected operation
 - Can more easily reflect non-performance (Design Component 2b)

[no change from PJM proposal]

Walkthrough – Forecast Impact

- Step 1: Zone would identify future shaving amounts
- Step 2: PJM runs the forecast
- Step 3: Capacity Market MW Valuation (Design Component 2e)

- [Not proposing any changes from the PJM proposal]

Peaking Shaving in Incremental Auctions

Only implemented if zonal obligations [forecast or parameters] cause an increase on zonal capacity obligations, or if a cleared generation unit unexpectedly exits the market due to operational degradation.

- Increases reliability – another “tool in the tool box” if zonal load requirements increase unexpectedly.
- Provides a potential market for peaking shaving programs during the transition period.
- Enhances “fuel security and diversity”.
- PJM BRA timeline does not align well with State planning timelines.

Price Sensitivity

Peaking shaving resources should be able to specify a minimum price threshold if the market participant chooses to [voluntary]

- Like any resource, it should be able to respond to market prices. If market prices rise, market response cannot be as effective if a resource can't dynamically respond to that price and shift its load profile.
- PJM currently has no mechanism for peaking shaving response to market prices. Absent such a mechanism, there can be no transition to true market-based programs— only state directed programs, which some stakeholders propose to “mitigate”.
- **Discuss** – deeper discussion of implementation complexities, if any.

Compensation

Example: Peak Shaving program VRR curve shifts clearing price from Volume 1, Price 1 (V1P1) to Volume 2, Price 2 (V2P2) in the BRA

- Zonal LSE's in aggregate pay $P2 * V1$
- Peak Shaving Provider gets a credit of $P2 * (V1-V2)$

BENEFITS

- Peak Shaving Provider can be an EDC, LSE, or CSP
- Peak Shaving Provider receives funds for program implementation, and can implement revenue sharing with its customers [flexibility for market unbundling of load shifting services]