



# PJM Package

SODRSTF  
May 9, 2018

- 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) 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

***Forecast Adjustment based on load forecast run with modified load history that assumes anticipated curtailment behavior occurred in the past. VRR curve is reflective of the reliability requirement, which depends on the load forecast and the monthly load profile.***

***Status Quo: M&V per current rules***

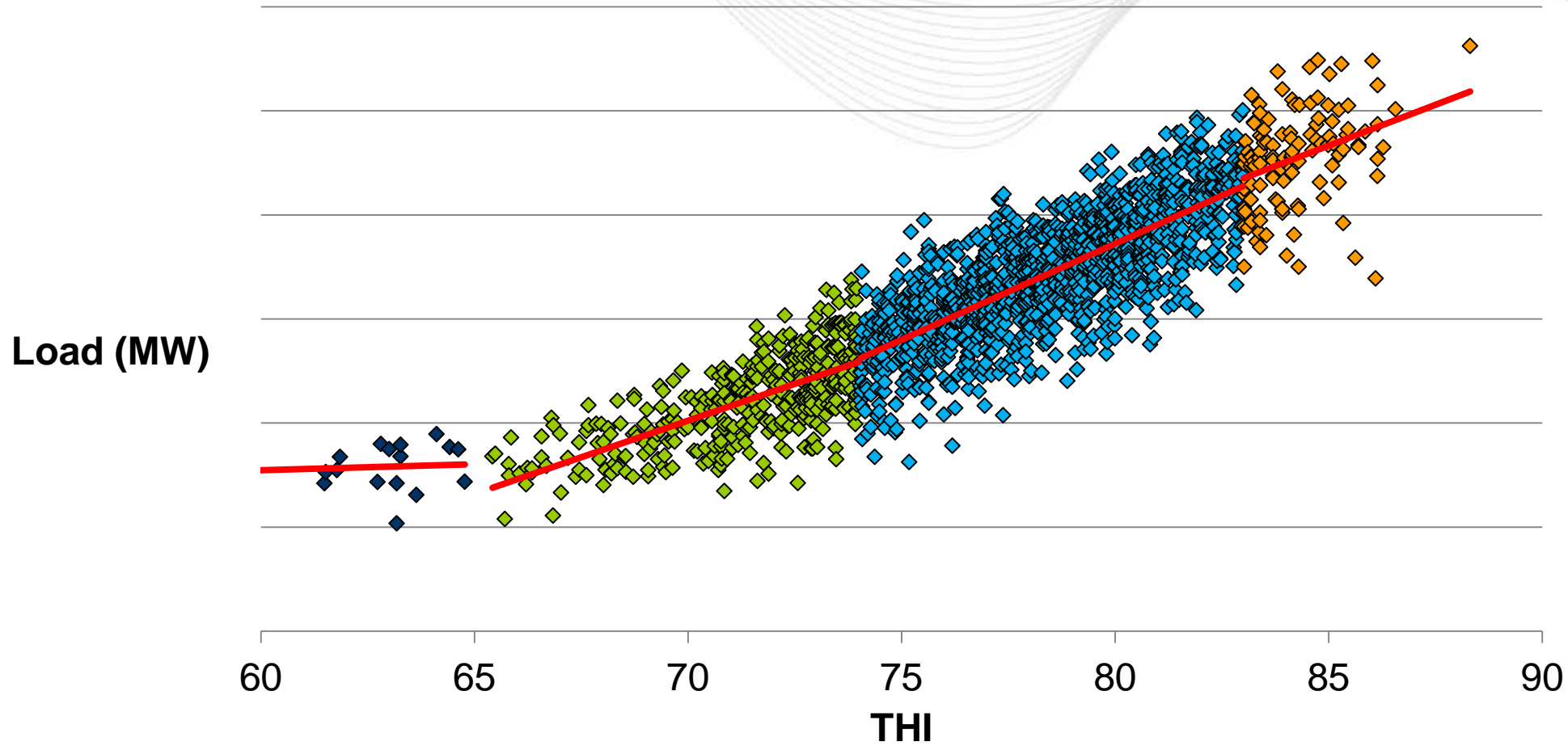
## ***Modification to forecast adjustment based on most recent performance.***

- No financial penalty for non performance
- After each Summer, programs will be evaluated for compliance and forecast assumptions will be modified. This will be done on a rolling basis.
  - For instance if a program was found to be 60% compliant, then the modifications to load history would be adjusted to reflect that and the resulting forecast would be higher.

## ***THI threshold as determined by PJM***

- PJM currently uses a spline approach to account for varying load-to-weather relationships. This could be the basis for the THI threshold by zone.
- Alternatively, weather analysis could be performed to determine say a 90<sup>th</sup> percentile Summer weather day.

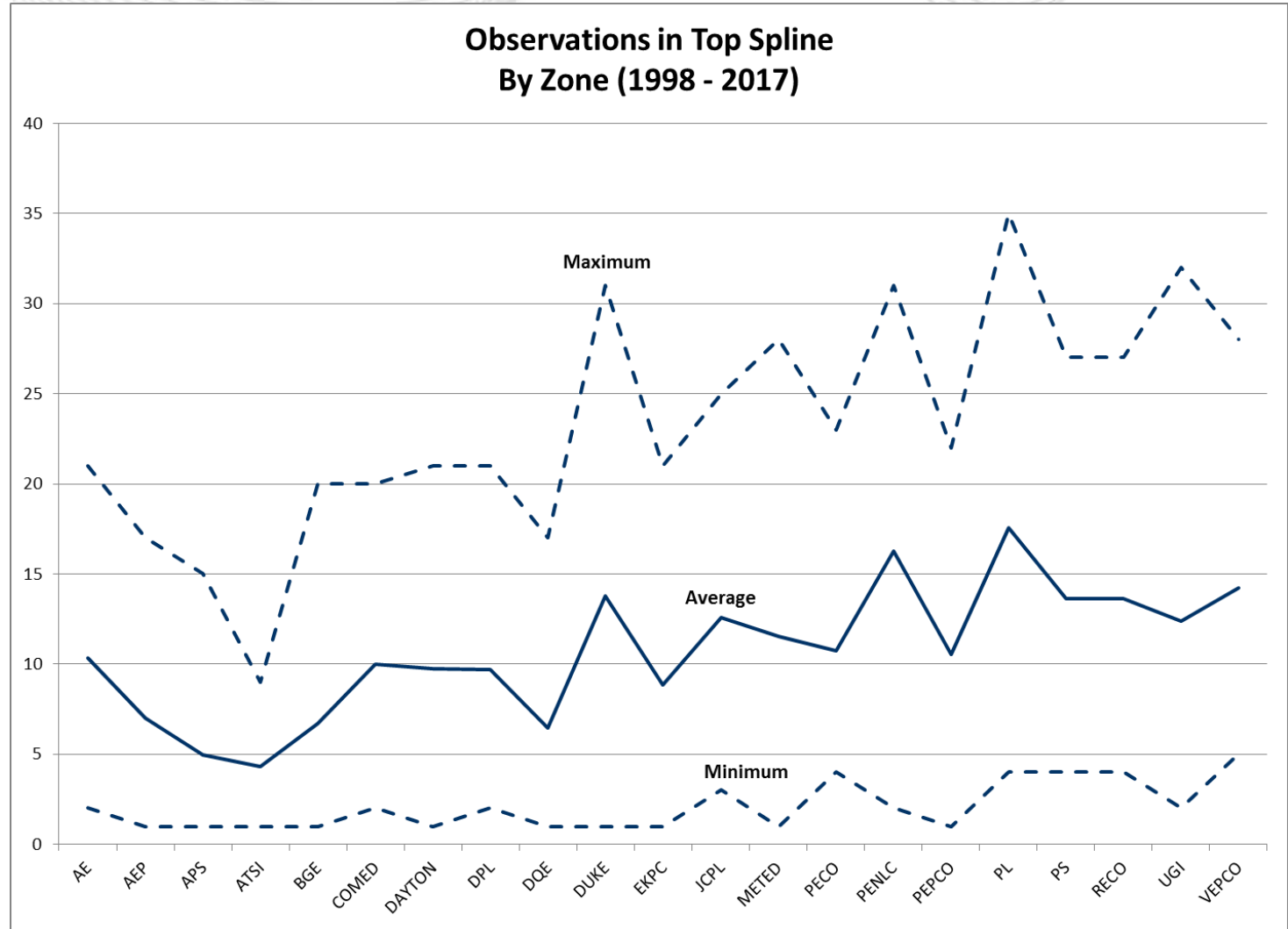
# Sample Splines for a Regression of Load vs. THI





# Design Component 2c Curtailment Triggers – Potential THI Thresholds

Zone	Maximum Daily THI
AE	82
AEP	81
APS	81
ATSI	81
BGE	83
COMED	81
DAYTON	81
DEOK	81
DLCO	80
DomVP	82
DPL	82
EKPC	82
JCPL	81
METED	81
PECO	82
PENLC	78
PEPCO	83
PL	79
PS	81
RECO	81
UGI	79







# Design Component 2d Energy Market Must-Offer Requirement

***Status Quo: Not Applicable***

***VRR curve is reflective of the reliability requirement, which depends on the load forecast and the monthly load profile.***

- The load forecast run with revised history produces a lower Summer peak forecast.
- Results are an input to CETO calculations (via PRISM) that determine reliability requirement

## ***EDC***

- EDC will hold all responsibility for program administration

## ***Status Quo: Not Applicable***

- Peak shaving programs are accounted for as load forecast adjustments. If prior to a delivery year, the peak shaving program is eliminated, the updated load forecast (used in Incremental Auctions) will reflect this elimination.

Program will need to be available ***May-October*** for an ***Unlimited*** number of days for ***6 hours per interruption.***

- Program will be expected to interrupt on any day that exceeds the pre-determined THI threshold for 6 hours
  - The number of curtailment days is expected to vary considerably by year depending on the severity of the Summer season

**State-sponsored with a tariff that requires mandatory load reductions under specific conditions and establishes supervisory control through an EDC**

***VRR curve is reflective of the reliability requirement, which depends on the load forecast and the monthly load profile.***

- The load forecast run with revised history produces a lower Summer peak forecast.
- Results are an input to CETO calculations (via PRISM) that determine reliability requirement

### ***Zone***

- The zone wherein the peak shaving program operates receives a lower capacity market charge



## *Status Quo*

- Peak shaving programs are accounted for as load forecast adjustments. Aggregation applies only to supply-side resources in the capacity market.

## ***August 31st prior to BRA***

- PJM releases the load forecast at the end of the calendar year, and time is needed to make appropriate adjustments.
  - Note that the load forecast is an input to the CETO work, and so delay beyond Aug. 31 would be problematic.