



# Peak Shaving Forecast Adjustments

Load Analysis Subcommittee  
November 30, 2018

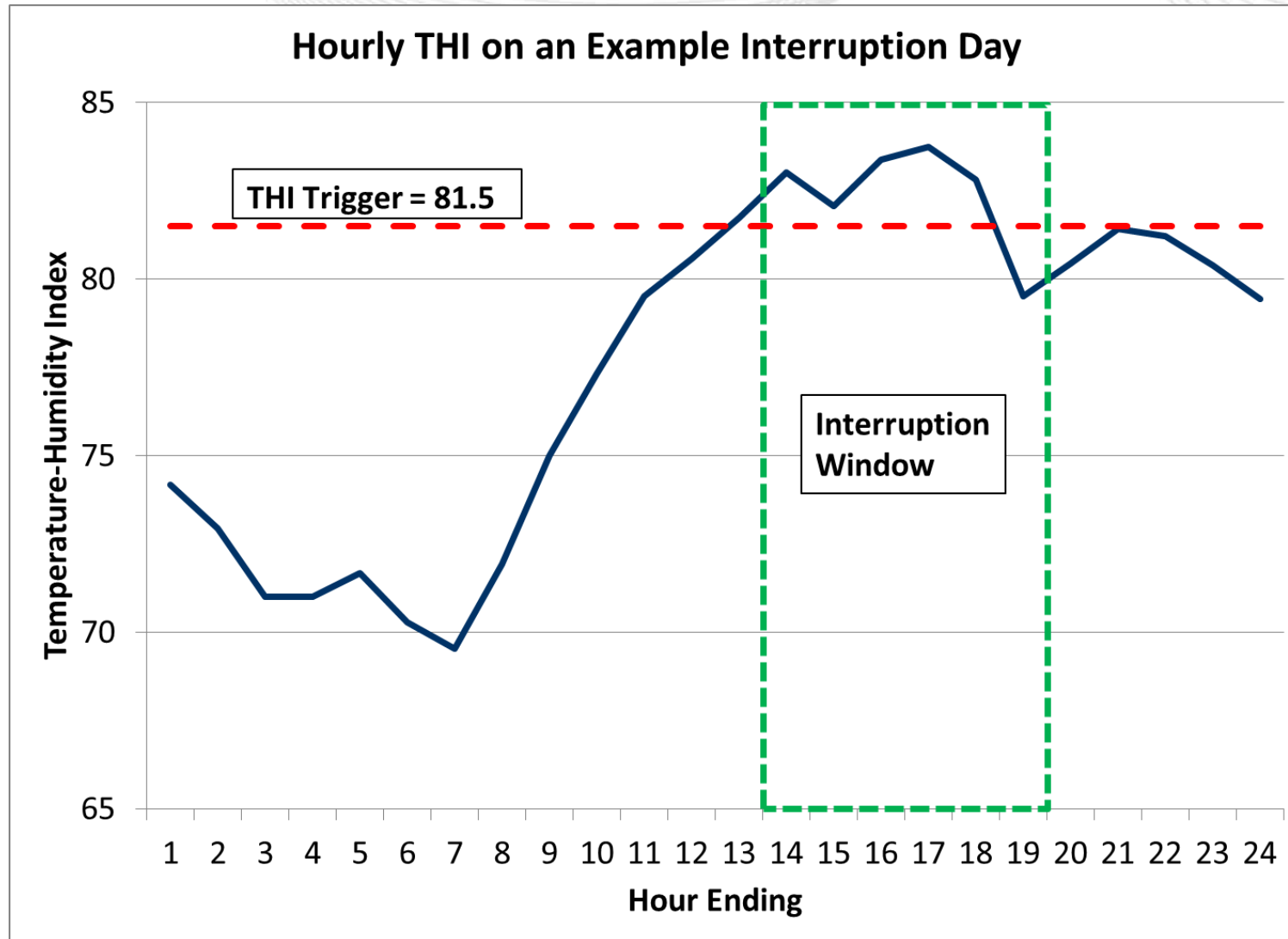
- PJM will consider programs on a case-by-case basis
- The program participant must provide PJM with:
  - A THI (Temperature-Humidity Index) Trigger for interruption
  - The duration of the interruption in hours
  - The MW value of the curtailment (this may vary by hour)
  - The months over which the interruption can occur
  - All historical addbacks for the nominated programs
- Programs must file their plans no later than ten business days prior to September 30 for inclusion in the next PJM load forecast

- A THI (Temperature-Humidity Index) Trigger for interruption
  - THI of 81.5
    - On any non-holiday weekday in which the daily maximum THI exceeds the trigger, the program will be activated
- The duration of the interruption in hours
  - Six hours (HE14 to HE19)
    - Program administrator needs to provide the hours in which the program will be activated

- The MW value of the curtailment (this may vary by hour)
  - 100 MW applied to program administrator supplied hourly ratios

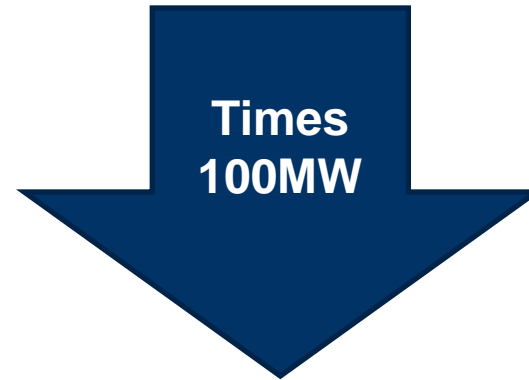
	THI																												
	89.0	88.5	88.0	87.5	87.0	86.5	86.0	85.5	85.0	84.5	84.0	83.5	83.0	82.5	82.0	81.5	81.0	80.5	80.0	79.5	79.0	78.5	78.0	77.5	77.0	76.5	76.0	75.5	75.0
Hour Ending 14	120%	118%	115%	113%	111%	108%	106%	104%	102%	99%	97%	95%	92%	90%	88%	85%	83%	81%	78%	76%	74%	72%	69%	67%	65%	63%	61%	59%	58%
15	161%	157%	152%	148%	143%	139%	135%	130%	126%	121%	117%	112%	108%	103%	99%	94%	90%	85%	81%	76%	72%	68%	64%	60%	56%	53%	50%	47%	44%
16	160%	156%	152%	148%	144%	140%	136%	131%	127%	123%	119%	115%	111%	107%	103%	99%	95%	90%	86%	82%	78%	74%	71%	67%	64%	61%	57%	55%	52%
17	183%	177%	172%	166%	161%	155%	150%	144%	139%	133%	128%	122%	117%	111%	106%	100%	94%	89%	83%	78%	72%	67%	63%	58%	54%	50%	47%	43%	40%
18	138%	135%	132%	129%	126%	123%	120%	117%	114%	111%	108%	105%	102%	99%	96%	93%	90%	87%	84%	81%	78%	75%	72%	70%	67%	65%	62%	60%	58%
19	138%	135%	132%	129%	126%	123%	120%	117%	114%	111%	108%	105%	102%	99%	96%	93%	90%	87%	84%	81%	78%	75%	72%	70%	67%	65%	62%	60%	58%

- The months over which the interruption can occur
  - May to September



# Hypothetical Program – Example Day

Program Performance as a Share of Reported Curtailment																							
		THI																					
		89.0	88.5	88.0	87.5	87.0	86.5	86.0	85.5	85.0	84.5	84.0	83.5	83.0	82.5	82.0	81.5	81.0	80.5	80.0	79.5	79.0	78.5
Hour Ending	14	120.0%	117.7%	115.4%	113.1%	110.8%	108.5%	106.2%	103.8%	101.5%	99.2%	96.9%	94.6%	92.3%	90.0%	87.6%	85.3%	83.0%	80.7%	78.4%	76.1%	73.8%	71.5%
	15	161.4%	156.9%	152.4%	148.0%	143.5%	139.0%	134.5%	130.1%	125.6%	121.1%	116.6%	112.2%	107.7%	103.2%	98.7%	94.3%	89.8%	85.3%	80.8%	76.4%	71.9%	67.7%
	16	160.2%	156.1%	152.0%	147.9%	143.8%	139.7%	135.6%	131.5%	127.4%	123.3%	119.2%	115.1%	111.0%	106.9%	102.8%	98.7%	94.6%	90.5%	86.3%	82.2%	78.1%	74.2%
	17	182.8%	177.3%	171.8%	166.2%	160.7%	155.2%	149.7%	144.2%	138.6%	133.1%	127.6%	122.1%	116.6%	111.0%	105.5%	100.0%	94.5%	89.0%	83.4%	77.9%	72.4%	67.3%
	18	138.2%	135.1%	132.1%	129.1%	126.1%	123.1%	120.1%	117.1%	114.1%	111.1%	108.1%	105.1%	102.1%	99.1%	96.1%	93.1%	90.1%	87.1%	84.1%	81.1%	78.1%	75.2%
	19	138.2%	135.1%	132.1%	129.1%	126.1%	123.1%	120.1%	117.1%	114.1%	111.1%	108.1%	105.1%	102.1%	99.1%	96.1%	93.1%	90.1%	87.1%	84.1%	81.1%	78.1%	75.2%



Hour Ending	Curtailment MWs
14	92.3
15	98.7
16	115.1
17	127.6
18	102.1
19	81.1

- PJM will generate a new load forecast
  - Program will be assumed to be enacted every time a pre-determined Temperature-Humidity Index (THI) threshold is reached or exceeded
  - Examine historical hypothetical effectiveness of program in reducing daily peaks assuming perfect curtailment performance back to 1998
    - For LDAs, need to consider multiple programs (i.e. multiple zones having a program within PJM Mid-Atlantic or PJM RTO)
  - Use weather simulation process to enact the program. Program will be enacted on any weather scenario that fits the program criteria

- Once the program is in place...
  - At the conclusion of each summer, the program's actual MW curtailment for each event will be expressed as a percentage of the amount of MW it committed to curtail (this percentage is capped at 100%)
    - The metric to measure performance will be based on the customer baseline load (CBL)
    - The average performance factor of the last three years will then be the assumed performance over all historical years going back to 1998



- Peak Shaving Adjustment Plans need to be submitted to PJM by February 1, 2019
  - PJM will then coordinate with administrator to get supporting material by February 15, 2019
  - PJM will publish a new load forecast inclusive of the approved Peak Shaving Adjustments by March 15, 2019