Winter Peak Load Calculation and Process

DRS Meeting
October 30, 2017

- CSP determines Summer and Winter nominated capacity MWs with summer vs winter FSL

- Annual nomination is the lessor of:
  - Summer nominated capacity = PLC − [FSL(summer) * line loss factor)
  - Winter nominated capacity = {Winter Peak Load * Winter Weather Adjustment Factor – FSL (winter)} * line loss factor

- # Customer Winter Peak Load
  - PJM publishes winter 5 CP days (Dec/Jan/Feb)
  - CSP calculates Customer Winter Peak Load
    - Identifies customer's peak demand on PJM Winter 5 CP days from 6am through 9pm (CP availability window)
    - calculates the average of the 5 values
  - Customer Winter Peak Load based on Delivery Year minus 2
    - Example: registrations for 18/19 use winter 16/17
    - Exceptions if hourly load does not exist
- # Winter Weather Adjustment Factor by Zone (zonal WWAF)
  - PJM calculates Zonal Weather Normalized Winter Peak / Zonal Average of 5 CP Loads in Winter
  - PJM applies during capacity nomination on the registration

Winter 5CPs and WWAF by zone - http://www.pjm.com/-/media/markets-ops/demand-response/2016-2017-dy-winter-peak-for-18-19-wpl-calculation.ashx?la=en

WPL calculation example

EDC Account #	0129384091234					
Date	Fri, 12/15/17	Thu, 1/4/18	Tue, 1/16/18	Fri, 1/19/18	Mon, 1/22/18	
HE1	1,694	1,876	1,885	1,996	1,725	
HE2	1,697	1,773	1,908	2,044	1,690	
HE3	1,694	1,819	1,882	1,955	1,749	
HE4	1,727	1,812	1,757	1,606	1,716	
HE5	1,710	1,825	1,709	1,781	1,739	
HE6	1,740	2,046	1,944	1,912	1,599	
HE7	1,959	2,213	1,993	1,977	1,555	
HE8	2,084	2,290	1,991	2,078	1,790	
HE9	2,015	2,298	2,042	2,224	1,985	
HE10	2,014	2,421	2,025	2,331	2,102	
HE11	2,098	2,363	1,815	2,323	2,003	
HE12	2,089	2,305	1,805	2,249	2,023	
HE13	2,005	2,244	1,843	2,167	2,007	
HE14	2,073	2,325	2,007	2,131	2,049	
HE15	1,969	2,210	2,016	2,062	1,926	
HE16	1,912	2,134	1,976	2,035	1,813	
HE17	1,791	2,121	1,959	2,032	1,887	
HE18	1,777	2,131	1,858	1,947	1,758	
HE19	1,817	2,066	1,733	1,860	1,658	
HE20	1,768	2,113	1,691	1,883	1,619	
HE21	1,718	1,974	1,550	1,800	1,609	
HE22	1,742	1,898	1,506	1,828	1,675	
HE23	1,695	1,858	1,181	1,871	1,621	
HE24	1,651	1,820	721	1,740	1,602	
Peak7_21	2,098	2,421	2,042	2,331	2,102	2,199

- Apr 2017
  - PJM publishes Winter 2016/2017 (Dec 2016, Jan/Feb 2017) 5 CP days
  - PJM publishes Zonal Winter Weather Adjustment Factor
- Oct 2017
  - PJM publishes Summer 2017 5 CP days/hours
- Jan 2018
  - EDC distributes PLC for 2018/2019 based on summer load in 2017
  - CSP calculates Customer Winter Peak Load based on Winter 2016/2017 (Dec 2016 and Jan/Feb 2017)
- Jan – May 2018
  - CSP registers DR for 2018/2019 DY

- The Winter Peak Load is determined by the Curtailment Service Provider based on the customer's peak load between hour ending 7:00 EPT through 21:00 EPT on each of the PJM defined five coincident peak (5CP) days from December through February two Delivery Years prior to the Delivery Year for which the registration is submitted. The Winter Peak Load is calculated as the average of the customer's five peak demand values on the PJM defined winter 5 CP days. PJM posts the RTO winter 5 CP days on the pjm website. If no hourly load data exists for December through February two Delivery Years prior to the Delivery Year, then the CSP may use the most recent December through February hourly load data to calculate the Winter Peak Load. If no hourly load data for the customer exists for the last two December through February periods prior to the Deliver Year, the CSP may provide alternative data to support a Winter Peak Load subject to PJM's review and approval of the use of alternative data.

- Consider how to handle WPL calculation when customer load is down due to maintenance outage during Winter Peak day

- Consider winter add back if Load Management dispatched by PJM (so following year WPL does not go down)