NWEC Responses to UTC questions on Demand Response UE-190698 June 15, 2020

- 1. Which values of demand response (DR) are utilities currently incorporating into the IRP to identify cost-effective demand response?
 - a. Utility consideration of DR has often been limited to cost/capacity value and the ability of a demand response action to meet peak loads at very limited times, as almost an afterthought after all other approaches have been modeled. It is difficult to give a general answer, as all three IOUs have approached DR differently.

Like storage, DR has multiple values, not one; all values should be considered, not in isolation, but together, or as described with storage, with stacked values. Other parts of the country have employed a great deal of DR in effective and affordable ways and Washington can learn from their experiences.

- 2. What additional values need to be included to ensure all utility system costs and symmetrical non-utility impacts are accounted for?
 - a. While we are not sure what is meant by "symmetrical non-utility impacts", we do have some suggestions on what system of demand response should be considered.
 - DR is a very effective tool for peak shaving or peak load reductions, meeting narrow peaks such as during winter or summer weather-driven demand peaks with relatively little capital investment and should continue to be assessed for this system value.
 - As "flexible demand", DR provides cost effective reliability. DR should be assessed for all hours of the year in which stress conditions of tight supply/demand occur.
 - DR should also be given full credit for deferral or avoidance of new generation, transmission and distribution costs, on both a systemwide and location-specific basis (e.g., deferring substation upgrades for a specific feeder).
 - The value to the system from DR for ancillary services, such as dynamic system integration, frequency response and load regulation, daily load ramps and reserve services should also be evaluated.
 - DR can also absorb and integrate renewable resources and thermal storage providing flexibility.
 - By reducing load, DR often reduces CO2e/GHGs, as well as other air pollutants from fossil fuel combustion.
 - DR rate designs, such as time-of-use or Critical peak pricing, should also be assessed, both as stand-alone and as part of a programmatic package of techniques. However, these programs need thoughtful consideration of customer impacts prior to finalizing design and implementation.

- 3. Which values can be identified directly within the IRP modeling process and which need to be included in the demand response potential assessment?
 - a. Direct costs for demand response equipment and distribution system controls, software, etc., customer marketing and incentives and similar values should be calculated in demand response potential assessment, along with assessment of time-of-use or other rate design options. All of these should be revisited when considered in the full system context of the IRP in order to optimize the mix of demand response measures

It is also important to test the market for demand response services frequently to determine their costs and availability and to help assess the best approach to utility-managed and aggregator-managed demand response programs.

DR rate designs, such as time-of-use pricing and Critical peak pricing, either as a standalone option or to support programmatic demand response, should facilitate customer response but also avoid negative effects on nonparticipating customers. It is important to consider the tradeoffs of rate design on customer participation and program effectiveness, for example on opt in vs. opt-out rates as well as rate tiers, effective hours, notification modes, compensation levels, etc.

DR assessments for utility cost recovery should include program start-up; customer marketing, recruitment and incentives; and capital and operating expense for utility information technology (IT) and operational technology (OT) as well as the benefits to the system. Customers should be fully compensated for the demand response value they provide to utilities, as should all other options in the IRP process. It should be considered equally to other IRP programs, operation or capital investment options.

- 4. What type and level of guidance around demand response potential assessments would be useful?
 - a. While guidance for demand response potential assessments should allow for flexibility based on the circumstances of each utility, it should also strive to achieve basic consistency on the roles that demand response can play (peak load reduction, integration of renewable energy, ancillary services, deferral or avoidance of new generation, transmission and distribution investments), and adoption of similar metrics, for example cost and benefit categories and the range of response characteristics for demand response measures (for example, hours of event availability and number of events per season). Like conservation, DR should be frontloaded whenever possible.

- 5. Should DR targets in the CEIP be the same as the potential in the IRP? How should the be different?
 - a. Generally, yes. However, there may be instances where the specific requirements of the CEIP call for additional demand response.
- 6. How should DR pilots be treated in CEIP targets?
 - a. While pilot programs can be useful to test some approaches, there are many proven DR mechanisms available that should be implemented, rather than tested. Pilots should NOT count towards the CEIP targets, because as Pilots, they may not be long term programs with enduring results. While some pilots may still be necessary, we are generally encouraging utilities to move beyond the pilot stage to full scale implementation of demand response programs.
- 7. What type and level of guidance around setting demand response CEIP targets would be useful?
 - a. The guidance for CEIP targets should set the expectation that DR will be aggressively pursued and implemented expeditiously, in a process that considers the costs and the benefits to the system and to participating and nonparticipating customers. It will also be important that utilities consider the equitable distribution of benefits and impacts of demand response in the design and implementation.

We appreciate the opportunity to comment.

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