CPower Snapshot

6.3 GW of DER Capacity

60+ local energy solutions offered

20+ years of experience

17,000 sites across the U.S.

Unlocking the Value of Customer DERs to Provide Grid Flexibility and Reliability Solutions

24x7x365 dispatch

$1 Billion paid out to customers in grid revenue since 2015

2,400+ loyal customers

286,000 metric tons of CO2 avoided through DR solutions, equivalent to 317 million pounds of coal
Indiana DR Aggregator model allows procurement of Demand Response from customers directly or through a tariff.

- Indiana utilities get the benefit of the home-grown capacity resources developed from their customers.
- Allowing aggregators creates the opportunity for customer to benefit from innovative energy technologies and energy management solutions not available from the utility.
- Tariff allows for clear and transparent rules for aggregators and customers.

There is also another model, referred to here as a DR PPA, that should be considered an option in Indiana that is equally protective of state regulatory jurisdiction and may be more suited to meeting utility planning obligations.
What is needed to make implementation successful?

- Start with what is achievable and implementable today.
  - Demand Response has mature business rules in MISO and PJM and a track record.
  - If barriers in Indiana tariffs are overcome, valuable experience with DR will pave the way for implementing DERs.
  - Many DERs participate today in PJM/MISO as DR.
  - DER Participation model rules will likely be 5-15 years away in MISO
  - PJM will have DER rules in the next year or so, but little to no participation in the next 3-5 years.

DER Workshop needs to evaluate and improve the current models for aggregator DR, which will result in experience that will inform integration of DER resources.
Current Indiana Model (DR Feed In Tariff)
• Portfolio aggregation is not permitted across resources.
  ▪ Customers compensated/penalized for individual performance
  ▪ Severely constrains customer eligibility.
  ▪ Prevents innovation and customer energyspend management options.
Other problems with Current Indiana Model

- IN MISO Utilities – Do not allow customers to be enrolled as LMRs unless they are DRRs, a much more complex type of DR.
  - DRRs must be >1MW of curtailable load (vs. LMR minimum size of 0.1MW)
  - MISO Emergency DR tariff has a limited use case.
- AEP multi-year forward commitment and multi-year notice of cancellation.
- Order 745 backlash? “Marginal Foregone Retail Rate” deduction – Indiana MISO utility tariff(s) indicate in some cases the utility would receiving compensation for a retail energy sale related to energy that it did not sell the customer and did not have to buy or supply to the market.
Modified Indiana Model (DR Feed In Tariff)

Allows for portfolio aggregation and more diverse resource participation.

The key difference is that the aggregator serves as MISO-facing lead market participant.

Much less complicated for the utility.

PJM rules are a little different, but same result can be achieved.
Another Approach (DR PPA Model)

The Primary difference here is the procurement method: Tariff vs. RFP.

A feature of this model is that it allows for aggregators to draw upon larger pool of customers to meet obligations.

Disadvantage of this approach is that it can have higher transaction costs.
What do the aggregators still want us do consider?

**DR resources can do so much more than provide services in the wholesale market!**

Program stacking – A utility DR program that is compatible with simultaneous participation in wholesale DR that is designed to address local system needs not addressed by the wholesale market.

- Highly cost effective because customers already participating in wholesale DR.
- Don’t have to reinvent the wheel – can leverage established M&V methods.
- Additional compensation from dual participation attracts more customers.
Utility DR Program Stacking Example

<table>
<thead>
<tr>
<th>Program</th>
<th>Notfications</th>
<th>Rewards</th>
<th>Details</th>
</tr>
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<tbody>
<tr>
<td>COMMERCIAL SYSTEM RELIEF PROGRAM (CSRP)</td>
<td>21 hours prior to Planned events</td>
<td>• Brooklyn, Bronx, Manhattan, and Queens participants can earn $1/kW per month</td>
<td>Events are generally system-wide, with each network having an assigned call window throughout the day. Conditions that trigger an event include forecasted peak demand or temperature variable.</td>
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<tr>
<td>DISTRIBUTION LOAD RELIEF PROGRAM (DLRP)</td>
<td>2 hours prior to Contingency events, or fewer, prior to Immediate events</td>
<td>• Tier 1 Network participants can earn $1/kW per month; Tier 2 Network participants can earn $2/kW per month</td>
<td>Participants are generally called by network based on need. Conditions that trigger an event include being one contingency away from a &quot;Condition Yellow&quot; or an active voltage reduction by network.</td>
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Utility DR Program Stacking Considerations

- Wholesale DR is a complementary service to Retail DR.
- Retail DR costs less with simultaneous participation in Wholesale DR.
- Double counting is easy to avoid.
- Can be structured to be fully compatible so that utility and customers derive value from both.
- Value of DR and the incentives may be muted or diminished if try to achieve both in one approach.
Thank you!

Questions?