Interactions Between Co-Sited Curtailment and W-DER

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DERs
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• For W-DER behind a customer meter:
  – “W-DER Load Offsets” means end-use load that is
    fed from the W-DER and not from the grid.
  – “Curtailment” means a direct reduction in end-use
    load, by turning it off or down, etc.
• W-DER output and curtailment will both impact power
  flow through the POI and the meter there. They interact
  by virtue of sharing a single meter.
W-DER “Load Offsets” means end-use load that is fed from the W-DER and not from the grid.

“Curtailment” means a direct reduction in end-use load, by turning it off or down, etc.

At left:
- Gross load is 7 MW
- Load offset is 7 MW
- Curtailment is 0 MW
W-DER “Load Offsets” means end-use load that is fed from the W-DER and not from the grid.

“Curtailment” means a direct reduction in end-use load, by turning it off or down, etc.

At left:
- Gross load is 1 MW
- Load offset is 1 MW
- Curtailment is 6 MW
1. Separate W-DER market resource and curtailment (DR) market resource:
   - DR resource is measured via “gross load”, comparing the gross load baseline to gross load actual. Gross load is reconstituted using the W-DER submeter and the POI meter.
   - W-DER resource is based solely on the output at the POI meter.

2. Integrated market resource:
   - Resource schedules, offers, and is settled on total of <delta vs. baseline> + <net injections>
Examples of Interaction

• When load physically curtails, POI output will increase.
  – If separate: would dispatched Economic Demand Response be creating double value?
• When W-DER injects, it will necessarily be offsetting load
  – If the load wasn’t otherwise going to be offset, probably should represent the load offset vs. the baseline in SCED whenever the injection is scheduled.
• In cases of higher load than W-DER capability, an injection is not possible without a curtailment.
### Separate vs. Integrated: Pros and Cons

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- PJM looking at options for an integrated approach for offering and scheduling W-DER that are behind a customer meter and co-sited with physical curtailments that wish to provide Demand Response.