MI Power Grid Panel Discussion: LMR Underperformance and Barriers Experienced in PV 2019

Building on the presentations today, panelists and the audience will be asked to identify possible solutions to LMR underperformance and the pros/cons associated with each. Based on stakeholder input, MPSC Staff will record this information in real time below. The solutions identified today will be a key input into the Staff report. **Audience engagement encouraged!**

Key takeaway: Utilities and the RTO have made changes and fixed most glaring issues that led to LMR underperformance in PV 2019. However, there are some improvements that can still be made as DR becomes more heavily relied upon.

Solution: Clarity and consistency in communications processes

- 21st century communication options (text, call, automated notification)
- Emergency notification should sound and look different than economic/buy through notification
  - Sense of urgency is different

Initial MPSC Staff reaction:

Agree. The customer should be able to easily understand what is expected of them/if they are able to buy through, especially when DR is needed for a grid emergency.

Solution: Increased interaction with the customer

- Can't expect customer to respond if they are only called once every 10 years
  - Customers perform better when they use DR more frequently
  - Particularly if they participate in multiple DR programs (economic and emergency value stacking)
- Can’t expect customer to know the intricacies of DR tariffs
  - Frequent interaction with DR provider/program manager is key to performance
  - Customers that underperformed in PV 2019 now understand expectations and have streamlined demand reduction processes
- Utilities touch base with customer at least once annually
  - Is this frequent enough?
  - Customers have access to utility resources to help them perform

Initial MPSC Staff reaction:

Agree. As MI's DR portfolio expands and DR is used more often throughout the region, the DR provider should be in regular contact with the customer. Frequent interaction will set expectations, provide an opportunity to alleviate any concerns, and resolve performance issues before an event occurs. At a minimum, this interaction should occur on an annual basis, though bi-annual or quarterly contact may be preferable.

Solution: Use enabling technologies

- Automatic controls to quickly respond to events without manual intervention
- Real time telemetry is key to the future
  - Particularly as DER penetration increases
- Technologies unlock market potential
  - In use today: smart meters, smart thermostats, real-time meters for C&I
- Can help enable value stacking (customer can use DR in multiple ways under multiple programs)

Initial MPSC Staff reaction:

Where practicable, support the use of enabling technologies. DR providers should fully utilize the technology they currently have available and make the case for new technology as it develops. Agree that automation and new tech enable DR value stacking, but this additional value should be measured against any new costs the customer incurs.

Solution: Ensure LMR availability is properly accounted for in MISO Markets Communication System

- This was a key finding of MISO and utilities over the past year.
- Rule changes have been made and gaps in knowledge have been filled that led to a disconnect between expected availability (on paper in MCS) and actual availability

Initial MPSC Staff reaction:

Agree. Availability in the MCS should match actual availability, to avoid LMR underperformance and penalties.

Solution: Test the resources (more discussion in March)

- All panelists preferred simulation to a real power test
  - There is evidence that proper training and simulations are effective and can result in 100% compliance with DR events
- Keep the customer in mind when considering a real power test

    - If test if required, customer should be incentives to do so
        - If want physical evidence, should compensate customer for that added level of assurance
        - Test is an inconvenience to customer
        - 1 hour of testing means several hours of preparation and customer losses
- Other testing options
    - Test part of registered MWs?
    - Provide detailed simulation + evidence of ability to interrupt in lieu of real power test?
    - Compensate for real power test?

Initial MPSC Staff reaction:

Testing (whether real power or simulation) should be encouraged, however, DR providers must balance the added assurance of a real power test with the burden to the customer. The weight of this burden likely varies across customer types. Detailed simulation and drilling may produce the same results as a real power interruption. However, these must be reproductible under event conditions.

Staff is interested in exploring the other testing options outlined above and looks forward to discussing this further in March- especially in light of DR testing discussion at MISO.

Gas interaction

- Electric-gas coordination is key, particularly for large C&I customers
    - Sometimes an electric DR event means increasing gas demand (especially in winter)
    - Confusion also stems from having separate electric/gas providers
        - Two different sets of communications that may not align

Initial MPSC Staff reaction:

While the focus of this group is electric DR, Staff recognizes the importance of this issue and may address gas-electric coordination and gas DR elsewhere.

Solution: Remove perverse incentives

- Customers should not have an incentive to increase load just before an event
    - Increased load means increased load available to curtail, but this could worsen emergency conditions or make emergencies occur earlier than expected
    - Balancing whether a customer must reduce to a firm load level or by a prearranged interruptible load amount could alleviate the perverse incentive.

Initial MPSC Staff reaction:

Agree. This is closely tied to how the load reduction is measured, which is determined when the DR is registered with the utility and the RTO. Good topic for discussion on March 17th - retail/wholesale alignment meeting.

Solution: More economic interruptions may prevent future emergency interruption

- Giving customers more opportunity for economic curtailment just before an expected emergency event could delay, diminish, or negate the emergency.
    - Capacity bidding or demand buyback programs could allow utilities to solicit interruption offers from customers not already on interruptible rates.

Initial MPSC Staff reaction:

Multiple DR options provide the grid with more flexibility as well as allow customers to choose the program/programs that best fits their needs. This ties into the value stacking discussion, where we must take care to track how customers are registered, so that double counting does not occur.

Solution: Formalize notification procedure in tariff

- Standardizing communication with customers and notification of emergency or economic events could help the process run smoothly
- Notification standard should still allow utilities flexibility to notify customers most effectively
    - Must allow for customer preferences on the means of notification
- Customer confirmation of receipt of notification may set better expectations for interruption

Initial MPSC Staff reaction:

Agree. Standardization will help avoid confusion and maintain consistency across different utility notifications.