

# A PRACTICAL GUIDE TO DEMAND RESPONSE FOR INDUSTRIALS IN DEREGULATED MARKETS

A presentation by **Xtend Energy** to ELCON  
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What are the barriers to getting into demand response programs with ISOs and how do we get past them?

# DESIGN BARRIERS

## *Barrier -*

- The programs are too hard to understand.
  - Unclear value proposition. It's a consulting project just to get to the core value. The rules are written in ISO-speak and rarely synopsised.
    - ERCOT's Balancing Up Load program still wasn't clear after "Load Response for Dummies," intensive analysis and two one-on-one meetings.
  - Implementation guidelines are poorly documented.
    - ISO-NE's Forward Reserve Market is open to loads and can more than offset ICAP charges. No loads are yet participating because there is no road map through the many implementation hurdles—including up to 13 months pre-notification of intent.

## *Solutions -*

- Listen to vendors. Then go with them to the ISO.
- Require a turnkey contract for implementation and service.

# DESIGN BARRIERS

## ■ *Barrier -*

- Programs are needlessly demanding.
  - They are written by people who understand generation well and loads less.
    - ISO-NE Forward Reserve Market requires a 2-hour test curtailment “because that’s what generators have to do.”
    - Every ISO’s Web-based system requires demand-response bids / schedules with elements that apply only to generators.

## ■ *Solutions -*

- Make your point early and often to the ISO.
- Work with vendors who have good ISO relationships.

# EQUIPMENT

## ■ *Barrier -*

- Equipment requirements are poorly stated and poorly understood.
  - Lack of specification for metering/telemetry equipment makes it almost impossible to figure out for yourself.
    - Difficulty obtaining a spec for PJM's Synchronized Reserve metering data transfer.
  - More DR projects get delayed or derailed because nobody knows what to order or how to install it.
    - ERCOT LaaR requires real-time metering so a pulse output won't suffice.
    - PJM Synchronized Reserve requires 1-minute metering data. At one industrial a \$5k metering solution has stood in the way of \$330k revenue over the last 6 months.

## *Solutions -*

- Rely on somebody who has done it before, or (perhaps) on a trusted vendor who has done something like it for you.
- Just throw money at it if it will pay out quickly.
- Require a turnkey service including equipment, installation and communications at fixed cost, not just entry into the program.

# DECISION-MAKING

- *Barrier -*
  - When it's hard to understand the program, who can you believe?
  
- *Solutions -*
  - Talk to vendors, but ask for references and talk to them early in the process.
    - How much do you make from the program?
    - How much time do you spend on it?
    - If you could do it again, would you do it yourself or outsource it?
    - How much would you pay to outsource it?
    - How much do you understand the program yourself and how much do you rely on your vendor's understanding?
  - Go and talk to the ISO. Vendors can arrange the meeting.

# DECISION-MAKING

## ■ *Barrier -*

- If the programs are hard for you to understand, how do you get buy-in from executive management?

## ■ *Solution -*

- To convince upper management, focus on the Big Three:
  1. How much money will we make in this program?
  2. How often will we have to curtail and for how long?
  3. What if we miss a curtailment?

QUESTIONS?