

Demand Response Work Group

October 1, 2008 Summary Notes

Administrative Items

1. Agenda – accepted
2. Summary Notes – September 3rd Meeting - comments
 - a. Remove “sections 5 & 6” of EUA
 - b. Problem statement discussion was more comprehensive and conclusive than what was captured and reflected in the notes?
 - c. Is the intent to convey a solution to the DR problem?
 - d. Look at DR programs as a mirror opposite of conscription services for supply
 - e. Clarify Jeff Bell (Pembina) comment on value of ‘Clean Resource’ -clarification – DR is a “clean resource” with added value (environmental benefit) therefore should be compensated for it
 - f. Advised to use FERC Assessments on Demand Response with caution as each different from Alberta.
Provide the title of the FERC assessments
 - i. FERC Assessment of Demand Response & Advanced Metering (2006) – Docket # AD-06-2-000
 - ii. FERC Assessment of Demand Response & Advanced Metering (2007) Staff Report
3. Work Group Size/Composition is challenging – review once problem, objectives, work and scope are established – natural attrition should happen

AESO “As-Is” - Current Need/Problem & Products (Jerry Mossing/Paul Barry)

1. Price Responsive Load in Energy Market
 - a. Energy Market versus Reliability – currently more concerned/focused on out of market vs. market solutions
 - b. Visibility of Load Bids?
2. Wind fast ramp
 - a. Fast ramps down occur about 10 times per year (e.g. Loss of 500 MW within an hour), which is less frequent than coal plant trips.
 - b. DR could help with these fast ramps.
 - i. Why not use Contingency Reserves? – Not allowed (WECC) - loss of fuel can not be used for contingencies. If we use them for variable generation then they are not there for a trip.
 - ii. Alberta is directed to comply with Industry Standards to the extent possible/reasonable leaving room for variance. Could we not implement rules aligned with others but designed to meet our needs? Needs consideration.
 - iii. Could create “Wind CR”, identical but separate product.

3. Load Response Rate - within 10 minutes, 1 hr, or both. Could also do time ahead because of T-2.
4. Transmission and other market/operating issues could impact the effectiveness of any solution – need to monitor and ensure solutions align.
5. Ancillary Services

Load should be able to participate in spinning reserves and earn a better premium than the supplemental which is the only AS product that they can currently participate in. Would this increase overall participation?

- a. Past experience suggests the change would not be substantive (not 100s of MWs).
- b. Participation if load has the qualifications to meet the demands of spinning would we be obligated to let them in that market?
 - i. Currently nobody has come forward to qualify.
 - ii. Load would need to be responsive to a frequency governor (~ 3s response). If load can meet the requirements they could participate
- c. Wind Variability needs solutions that load can offer.
 - i. Wind following with existing product?
 - ii. The MOF contemplates the possible need for a different AS product such as load/supply following product to manage increasing/future variability on the system.
 - iii. Could contract load and generation to help manage supply variability where load which primarily would contribute resolving down ramps.
 - iv. Design products and procurement that is more load friendly?

6. Who is enticed to DR?

People with electricity price sensitivity, i.e. those who may be struggling and DR can be a significant economic benefit

- a. Education will be key, need to communicate what it means to be tripped (i.e. in a VLCP, ILRAS, reliability DR program)
- b. Paul noted that there is the need for a bigger spectrum of providers. A lot of those that provide are banking on never providing.
 - i. Compensation may be inadequate – there's always a \$ - it may be > than the price cap.
 - ii. Load may be looking for term contracts
 - iii. Expression of Interest (EOI) for ILRAS and our experience
Single service combining (ILRAS-LSS) to entice loads to participate little response from load = lack of ILRAS may reduce imports

General Discussion -Comments

1. FEOC and Reliability are complementary. The project must develop and use market solutions first and to the extent they are insufficient then out of market – reliability – solutions need to be available to ensure system reliability.
 - a. Competition first - conscription last

- b. Market and out of market need to be developed in parallel (to extent possible)
 - c. Reduce barriers to participation:
2. Competitive market solutions
 - a. must remove barriers to ensure fair opportunity to participate
 - b. Make sure that loads can participate in future developments
 3. Compensation
 - a. Ontario - market based DR is paid more which attracts providers from non-market DR from operation
 - b. Who pays, who earns and how much?
 - c. How to value the DR services?
 - d. Loads may not want to participate in a fledgling market
 4. Current capability
 - a. What will operations and the market needs/uses?
 - b. Deployment – can we deploy DR with Existing rules and procedures?
 - c. Can get some reliability quickly
 - d. Quantification/Evaluation is needed - demand response types
 - i. What are we targeting?
 - ii. Who is capable?
 5. Future - considerations
 - a. Success at retail levels in other jurisdictions. Metering issue in AB (In Ontario had direct load control on AC units)
 - b. Aggregators – need to understand how aggregators play in DR development and implementation? Will/should not impact on consumer choice.
 - c. Determining load/generation roles within market, = >comparable rules - generators and load must meet the same (sufficiently similar) standards.
 - d. How will we implement what we come up with?

Terms of Reference Review

1. Are we trying to stop getting to OPP801 through DR, or what load does in 801?
2. FEOC
 - a. Put first in the guiding principles
 - b. “Must support a reliable electric system” vs. “Doesn’t jeopardize reliability.”
 - c. A properly functioning market should meet reliability
 - d. “must permit open competition and reduce barriers to entry
 - e. Market mechanisms should result in a reliable system
 - f. AESO reliability risks are more urgent, but need both reliability and market programs
 - g. We need to understand the load demographic in its current state.
3. Discussion re: confidentiality=> Some people are subject to FOIP, that is an implication on the confidentiality
4. Next Steps
 - a. meeting in about 1 month
 - b. contemplate how to break up the project into manageable components.