AESO Working Session on Mothball Outages

September 23, 2016

Agenda

- Introductions
- Purpose of Working Sessions
- Background
  - Review of Principles
  - Process Overview
- Considerations for Discussion
- Next Steps

Purpose of the Working Session

- To gather input from stakeholders on whether mothball outages are an appropriate mechanism in Alberta's market design framework.
- To facilitate industry dialogue on the issue to assist the AESO in making an informed decision.

Background

- ISO Rule 306.7 *Mothball Outage Reporting* and the definition of *mothball outage*
  - Effective June 7, 2016
- Prior Stakeholder Engagement
  - Session on July 25, 2016
  - Sought input to established a process to explore whether mothball outages should be implemented as permanent feature in the Alberta market design (phase 1) and if implemented what would be required (phase 2)
  - Communicated principles: fairness, efficiency, openly competitive/transparency, reliability (details attached in Appendix)

Background (continued)

- The AESO sought written comments from stakeholders on August 23, 2016 which were received on September 16, 2016.
  - Comments were posted on the AESO website.
- The AESO scheduled two three-hour sessions focusing on capturing relevant considerations
  - Dialogue to be facilitated by the AESO
  - AESO to capture major discussion points
  - The AESO may post meeting summaries, as appropriate
- Further written comment from stakeholders upon closing of the working sessions

Considerations for Discussion

- The AESO is proposing that stakeholder comments, in combination with further considerations by the AESO, can be grouped into these categories:
- Phase 1
  1. The Impact of Mothball Outages on the Price Signal (Price Fidelity)
  2. Is mothballing a barrier to entry?
  3. Economic vs Physical Withholding
  4. Alternatives to Mothballing
- Phase 2 (deferred until a determination regarding phase 1 has been made)
  1. Transparency of unavailability of generation
  2. Cost recovery/compensation for reliability-related ISO directives to generating units

Consideration: Impact of Mothball Outages on the Price Signal (Price Fidelity)

- Key Questions
  - What is the impact of mothball outages on the effectiveness of the price signal to convey meaningful and accurate information about supply/demand conditions in the Alberta wholesale power market?
  - Do mothball outages differ from other types of unavailability in potentially distorting the price signal?
  - Can potential distortions to the price signal be mitigated? If so, how?
- Next steps
  - determine whether there are qualitative/quantitative impacts of mothball outages on the price signal

Consideration: Is mothballing a barrier to entry?

- Key Questions:
  - Are there trade-offs between market certainty and stability vs. economic and operational flexibility?
  - Does allowing for or disallowing mothball outages present a barrier to entry for investment in generating assets in Alberta?
    - Can this be mitigated? If so, how?

Consideration : Economic vs Physical Withholding

- Key Questions
  - Economic vs. physical withholding?
  - Mothballing vs. physical withholding?
- Further Discussion
  - Legislation, Regulation, and ISO Rules pertaining to mothballing
  - Applicability of DoE Recommendations (2005)

Consideration: Alternatives to Mothballing

- Key Questions
  - If no mothballing, then what?
  - What is the relationship between retirements, outages, and other restatements to AC? Do the differences warrant different treatment?
  - Hypothetically, how do the principles apply to a retirement and subsequent return of a generating unit?
- Further Discussion
  - Nature of the unavailability
  - Typical timeframes of unavailability

Next Steps

- Working Session #2
  - Feedback on the structure of the working session?
- Final written comment from stakeholders on the issue
- AESO to determine further steps
  - Depending on the outcome as to whether mothball outages will be implemented as a permanent feature in the Alberta market design framework

Further Questions?

- Please contact Will Chow:
  - Telephone: 403 539 2786
  - Email: william.chow@aeso.ca

Appendix

Principles – **Fairness**

- Fairness applied to all stakeholders
  - For incumbent participants and potential new entrants into the Alberta wholesale power market
  - Applied to all market participants
- Limiting undue market uncertainty
  - The market should have accurate information about future supply conditions in the market
- Barrier to entry
  - Does the uncertainty about the possible return of mothball capacity deter new investment in generation?
- Undue burden on generators during times of high supply cushion

Principles – **Economic Efficiency**

- Economic Efficiency
  - Maintaining the fidelity of the price signal in the long and short term
  - Enabling long-term economically efficient outcomes that are fair to both generator and load participants
  - Enabling rational and predictable business decision for market participants based on economic fundamentals

Principles – **Openly Competitive/Transparent**

- Transparency of outage activity
  - Appropriate notification to market participants regarding unavailability of generating capability
  - Appropriate reporting of unavailability of generating capability
- Mothball-specific reporting
  - What details would be appropriate?

Principles – **Reliability**

- Supply adequacy
  - Assessment that the AESO performs to determine whether action is required to ensure supply adequacy
    - Short Term adequacy measures
    - Long Term adequacy measures
- Directives to generating units
  - Long lead time assets
  - Generating units on planned outage
  - Generating units on mothball outages
- Minimum return times for units on mothball outage
  - Identifying assets that could assist in meeting supply adequacy issues