Eligibility: Session 3 Summary

Capacity Market Working Group

Date: 7/4/2017 **Time:** 9:00 – 12:00 **Location:** AESO Boardroom **Prepared by:** Jordan Ludwig

Attendees: (Note Regrets)

S.No	Invited / Attended	Company Name	Attendance Status
1	Colette Chekerda	Alberta Direct Connect	Present
2	Chris Joy	ENMAX	Present – Late
3	Dan Chapman	NRStor on behalf of Energy Storage Canada - Alberta Advocacy Council	Present
4	Danny O'Hearn	PowerEx Corp	Regrets Clark Lind (Proxy) – Present
5	Edmond de Palezieux	Depal Consulting on behalf of Devon Canada	Present
6	Grant Berry	Capital Power	Present
7	Janene Taylor	TransCanada Energy Ltd	Present
8	Kelly Cantwell	Emera	Present
9	Kevin Dawson	Alberta Electric System Operator	Present
10	Leonard Olien	Solas Energy Consulting on behalf of CanWEA	Present
11	Matt Davis	ATCO Electricity Global Business Unit	Present
12	Megan Gill	The Office of the Utilities Consumer Advocate	Present
13	Sarah Griffiths	EnerNOC	Present
14	Surendra Singh	Alberta Newsprint Company	Present
15	Jordan Ludwig	Stack'd Consulting (Facilitator)	Present

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Agenda

- Action items from previous meeting
- Discussion of materials related to use of Unforced Capacity (UCAP) or Installed Capacity (ICAP) calculations
- Discussion of materials related to minimum resource size for capacity market participation
- Session Wrap-Up
    - Confirm action items, decision items, and next steps with WG
    - Assignment of work
    - Confirmation of next session topic items and review schedule

Key Recommendations/Decisions

Discussion: Should we use Unforced Capacity (UCAP) MW or Installed Capacity (ICAP) MW to represent capacity when determining capacity values?

- Alternatives explored:
    1. Unforced Capacity (UCAP)
    2. Installed Capacity (ICAP)
- Workgroup unanimously supports the capacity market using a UCAP calculation, subject to the detailed calculation of UCAP and AESO's ability to implement a UCAP model
- To validate this technical design element and begin detailed design of a UCAP calculation, the following next steps were agreed upon (also included in action items)
    - AESO to review and provide its existing data to the WIG to assess if the current data can be used for calculating UCAP or if additional data is required to confidently calculate UCAP; and,
    - WIG to review how PJM, NY, and MISO describe and calculate UCAP as it relates to non-variable, variable, and load side resources.
        - It was noted that the Great Britain jurisdiction can be added to the review if the WIG requires additional information / perspectives

Discussion: What is a minimum resource size threshold to participate in the Capacity Market?

- Alternatives explored:
    - 2 MW
    - 5 MW
    - 150 KW (New alternative, added during WIG session)
- Workgroup largely believed that the minimum threshold should be lower than 2 MW and proposed an additional alternative be evaluated
    - 150 KW was selected to align with the provinces definition of micro-generation today

- A few WIG members were supportive of the 2 MW or 5 MW options based on simplicity of implementation, the ability of smaller resources to aggregate, and the ability to assess lowering the threshold in future auctions
- Additional considerations discussed included:
    - Aggregation will have an impact on the discussion for minimum threshold
    - Lowering the minimum threshold is expected to increase administration for the AESO to validate and manage the capacity market
    - There are other technical requirements that may impact a resource's decision to participate in the capacity market, however many workgroup members believed that the resource should have the autonomy to make the decision for themselves (as opposed to limiting smaller generation as ineligible to participate in the capacity market)
    - Some WIG members believed reducing the minimum threshold could be introduced after the initial implementation of the capacity market (i.e. it may not need to be a day 1 requirement), while others believed it should be in the initial implementation of the capacity market
- To further evaluate the alternatives, the following next steps were agreed upon (also included in action items)
    - Evaluate the technical requirements a resource would need to have to participate in the capacity market
    - Determine the cost / benefit of reducing the threshold to 150 KW (based on a forward looking assessment), specifically, what is the additional cost to manage additional resources?
    - Discuss the implications of aggregation on the minimum threshold for eligibility
    - Evaluate existing rules that may need to change as a result of lowering minimum threshold
- Interdependencies identified (not exhaustive):
    - Would reducing the minimum threshold to 150 KW change a 'must offer' to a 'may offer' and what are the implications of a 'may offer' on the capacity market? (Market Mechanics)
    - Does the Energy and AS market need to have the same minimum threshold? (Energy and AS)
    - Does reducing the minimum threshold have any impact to existing rules in the Energy and AS market? (Energy and AS)

#	Action Items / Next Steps	Action by	Due date
1	Perform a jurisdictional review to determine how UCAP is calculated today in PJM, ISO-NE, and MISO • Non-variable resources – Danny O'Hearn and Grant • Variable resources – Leonard and Matt • Load-side resources – Sarah	Danny O'Hearn, Grant, Leonard, Matt, Sarah	8/15 for verbal progress update 9/5 materials distributed for discussion at 9/12 meeting
2	Review and provide existing data (if possible) to the WIG to assess if AESO's current data can be used for calculating UCAP or if additional data is required to confidently calculate UCAP	Kevin	9/5
3	Assign homework to WIG to further assess minimum threshold alternatives including (1) technical requirements for a resource to participate; (2) incremental administrative cost vs. incremental benefits; (3) aggregation; and, (4) impact to existing rules	Kevin and Janene	8/31