Date:Thursday, May 9, 2019Location:BP Centre, 240 4th Ave SW, Calgary

Time: 9:00am to 11:45am

Discussion Materials

Prior to the session, the following discussion materials were provided by email to TDAG members:

- Meeting agenda
- Draft TDAG Meeting Notes April 15, 2019
- Presentations: Capacity Cost Allocation Analysis (CCAA) WG Update
- Targeted capacity cost allocation proposal and CCAA WG response

Attendees

| Representative | Company or Organization | Present? | Alternate | Present? | | |
|------------------------------|----------------------------------|--------------------|-------------------------|----------------|--|--|
| | Demand rate payer representation | | | | | |
| | Residential, farm | and commercial of | consumers | | | |
| Richard Stout | UCA | Teleconference | Megan Gill | No | | |
| Mark McGillivray | ENMAX | No | David Lenz | Yes | | |
| Raj Retnanandan | CCA | Yes | Dustin Madsen | No | | |
| Dan Levson | AFREA | Yes | Dave Butler | No | | |
| | Indus | trial Consumers | | | | |
| Vittoria Bellissimo | IPCAA | Yes | Richard Penn | No | | |
| Grant Pellegrin | Cenovus | Yes | Horst Klinkenborg | No | | |
| | Dem | and Response | | | | |
| Colette Chekerda | ADC | Yes | Christian Lenci | No | | |
| Surendra Singh | Alberta News Print | Yes | Christian Lenci | No | | |
| Combined Load and Generation | | | | | | |
| Dale Hildebrand | Dual Use Customers | No | Myles Fox | No | | |
| Kris Aksomitis | Cogeneration Working Group | No | Travis Tuchscherer No | | | |
| | Distributi | ion Facility Owner | ſS | | | |
| Janene Taylor | ENMAX Corporation | Yes | Tony Martino Teleconfer | | | |
| Leland Jernberg | FortisAlberta | Yes | Gerald Zurek | | | |
| | Repres | entatives-at-large | | - | | |
| Ed de Palezieux | Devon Energy | Yes | Rick Cowburn Yes | | | |
| Bryan Krawchyshyn | TransCanada Pipelines | Yes | Mark Thompson | No | | |
| | Other i | interested parties | | | | |
| | Transmiss | sion Facility Owne | | | | |
| Hao Liu | AltaLink | Yes | Rob Senko | Teleconference | | |
| | Generators (includes renewables) | | | | | |
| Colin Robb | Capital Power | No | Akira Yamamoto Yes | | | |
| Energy Storage | | | | | | |
| Patricia Phillips | Energy Storage Canada | No | Steven Oldale | No | | |

Page 1

Alberta Electric System Operator

♀ Calgary Place, 2500, 330-5th Avenue SW Calgary, AB T2P 0L4

C Phone: 403-539-2450 | Fax: 403-539-2949

Public



| Representative | Company or Organization | Present? | Alternate | Present? |
|----------------------|---|--------------------|---------------|----------|
| | Repres | sentative-at-large | | |
| Tory Whiteside | Distributed Generation Working Group | Yes | Leonard Olien | No |
| AESO | | | | |
| Doyle Sullivan | AESO | Yes | | |
| LaRhonda Papworth | AESO | Yes | | |
| John Martin | AESO | Yes | | |
| Trushal Umrania | AESO | Yes | | |
| Facilitator | | | | |
| Matt Gray | AESO | Yes | | |
| Karla Reesor | Moving Forward | Yes | | |

Guests: None

Agenda

| Time | # min | Agenda Items | Presenter |
|---------------------|--------|--|-------------------|
| 9:00 am – 9:30 am | 15 min | Introduction Welcome Session overview Review and approval of meeting notes from April 15 session Action items Schedule update and next TDAG session | Karla Reesor |
| 9:30 am – 10:00 am | 30 min | Information item: Capacity Cost Allocation AnalysisWG UpdateChair presentation | John Martin |
| 10:00 am – 10:15 am | 15 min | Information item: Transmission Tariff WG UpdateChair presentation | LaRhonda Papworth |
| 10:15 am – 10:30 am | 15 min | Break | |
| 10:30 am – 11:00 am | 30 min | Information item:Update on Implementation | Doyle Sullivan |
| 11:20 am – 11:40 am | 20 min | Member roundtable on process | Karla Reesor |
| 11:40 am – 11:45 am | 10 min | Review of conclusions, action items and next steps | Karla Reesor |
| | | Session adjourned | |



Meeting Notes

| Time | Item |
|---------|--|
| 9:00 am | Introductions and overview of session Meeting notes from April 15, 2019 were approved with no revisions |
| | Action Item 2 from April 15 – Vittoria Bellissimo indicated that the preference from IPCAA members is to true-up deferral accounts monthly to keep the deferral amounts lower; it was acknowledged there would be a need to balance the cost to the AESO to do the true up more frequently with the benefits of keeping the deferral amounts lower |
| | Schedule Update – Trushal Umrania outlined the key milestones leading up to the AESO's application filing at the end of June. Key dates for the TDAG include: |
| | May 31 – materials (summary of main components of application including a rate sheet and draft Terms and Conditions) will be provided to TDAG |
| | June 5 – TDAG discussion to clarify and share initial feedback on application materials |
| | June 12 – Written comments from TDAG to AESO |
| | TDAG members requested that a copy of the AESO comments matrix be provided with the May 31 materials so that participants have more time to complete it |
| | A request was made to share the model used by the CCAA WG with the May 31 materials; AESO will share what they can on May 31 and remaining information will be provided with the application filing |
| | Comments received will be posted on the AESO website and included in the AESO consultation record |
| | Capacity Cost Allocation Analysis WG Update John Martin (Chair) provided an overview of the status of the WG deliverables. |
| | Discussion highlights: |
| | WG is reviewing time blocks and questions from the April 15 TDAG meeting |
| | WG appreciated and reviewed a proposal submitted by CCA for a "Targeted Capacity Cost Allocation"; the WG considers that the dynamic price signal would not be compliant with the Capacity Market Regulation's requirement for one rate for each time block and therefore does not support the proposal |
| | AESO cannot see a scenario where scarcity pricing would not be in conflict with the current regulation |
| | AESO will continue to discuss TDAG comments and concerns with DOE after each TDAG meeting |
| | AESO's position is that "corresponding to" is different from "equal to" and that adjustments to the weights must maintain a reasonable relationship or correlation with expected unserved energy; TDAG participants expressed alternate views |
| | WG is continuing examination of "light-weight" weekend time block; still supporting four time blocks and looking at the boundaries in more detail; considering the distribution of unserved energy within the time blocks |
| | A question was raised on whether shortfall would be a better indication of needs in those hours, rather than unserved energy; shortfall or tight supply is usually historical data and AESO has done some comparison between unserved energy and shortfalls; the challenge is to reconcile historical and forecast data; tight supply hours may be part of information filed; the AESO noted that unserved energy and shortfall are generally seeking to capture |



| | the second se |
|--------|--|
| | the same concepts |
| • | Any changes to resource adequacy model (RAM) from AESO review (in Technical Conference report) or AUC direction will be assessed by the AESO as to whether the distribution of unserved energy would be materially impacted; if so, the AESO would evaluate options to re-examine time blocks and weights at that time |
| • | WG is continuing to discuss criteria for assessing the cost allocation rate as described on slide 5 of the presentation; #1 principle is to align with Capacity Market Regulation and the WG relied on the AESO assessment of whether this criteria is satisfied; Bonbright principles were assessed as #2-#6; the WG did not reach consensus on whether the criteria of Appropriate price signals and Fairness, equity and minimization of inter-customer subsidies were satisfied |
| • | WG will finalize review of time blocks and weights; will also consider aggregate impact of prices from capacity market cost allocation, energy, and transmission tariff to the extent possible |
| • | There was discussion on whether cost benefit analysis could be a way to approach the evaluation of alternative approaches; to conduct a cost benefit analysis asumptions would need to be made on parameters, timing, etc; evaluation of the costs/benefits will happen after the tariff is in place; however, some form of cost benefit analysis will likely be filed with the application; inter-customer subsidies would be reviewed in a cost-benefit analysis; key factor could be to determine if different prices cause any class of consumers to be worse off; may need to be done with actual data, not on a forecast basis |
| • | The AESO noted that it will not be possible to implement a rate change where no one will be worse off, but can seek to "minimize inter-customer subsidies" consistent with principle #4; cost benefit analysis may be qualitative rather than quantitative; scenarios may help to understand a qualitative cost benefit analysis |
| • | TDAG members were asked to send any further comments on cost benefit analysis approaches by email to <u>tariffdesign@aeso.ca</u> |
| 3. Ti | ransmission Tariff WG Update |
| LaRho | onda Papworth (Chair) provided an update regarding work completed: |
| Discu | ssion highlights: |
| • | WG has received a lot of data and will be reviewing it; next meeting is on May 15 |
| • | Workshop was held in April to learn more about how system upgrades are assessed |
| • | Want to send out RFI soon to hire consultant who will look at how other industries have addressed challenges that AESO is facing now |
| • | WG does not know yet what will be ready to share at June TDAG meeting |
| • | Participants acknowledged the effectiveness of the process that is being followed to incorporate views of all parties |
| 4. U | pdate on Implementation |
| Doyle | Sullivan provided an update on the implementation schedule. |
| Discus | ssion highlights: |
| • | AESO had a meeting with all the DFOs; shared information on work of TDAG and heard questions and concerns from DFO perspective |
| • | Questionnaire will be going out to all DFOs about timing and system changes |
| • | DFOs have to design and then implement the billing systems |
| • | Impacts on DFOs are dependent on the individual systems in each DFO |
| • | AUC plans to defer consultation Rules 4 and 21 until after AESO changes are identified; |



| 11:45am | 5. Meeting wrap up Karla Reesor reviewed the Action Items and the meeting adjourned |
|---------|--|
| | AESO wants to establish a new Working Group to support design and implementation of new capacity cost rates for DFOs; WG would include broader representation of DFOs (DFOs who are not currently on TDAG), retailers, consumers, industrials and REAs; AUC would also be included |
| | DFOs will be asking AUC to move ahead sooner so that DFOs know what will be required DFOs typically wait until rates are approved before making system changes; DFOs may need some direction or pre-approval to allow recovery of costs of system changes prior to rate approval and they will discuss options with AUC |

Report on past Action Items

1

| # | AG Action Items | Action by | Due Date | Status | |
|---------------------------------------|--|--------------------------------|-------------------|---|--|
| - Sess | - Session 8, March 6, 2019 | | | | |
| Action Item 1 from S-6 (Jan) | Work with DFO reps to set scope for review of schedule implications | Trushal Umrania (AESO) | Feb 7 | Deferred to DFO Working Group [NTD: See Item 3 from S-10 below] | |
| Action Item 2 from S-7 (Feb) | TT WG (Hao Liu AML and Grant Pellegrin, Cenovus) will meet with Dan Levson (AFREA) to discuss aspects of data collection | Hao Liu, Grant Pellegrin | When available | Complete | |
| Action Item 1 from S-9 (Apr) | Determine whether four blocks are manageable for DFO implementation | Janene Taylor | May 9 | Deferred to DFO Working Group | |
| Action Item 2 from S-9 (Apr) | Test magnitude of estimated deferral cost (5% or less) and quarterly rate adjustment (true-up) schedule with IPCAA members | Vittoria Bellissimo | May 9 | Complete | |
| Action Item 3 from S-9 (Apr) | Follow up with Ed de Palezieux regarding comment about the AESO and generator outages | Matt Gray | May 9 | Complete | |
| Action Item 4 from S-9 (Apr) | Develop proposal for AUC meeting regarding implementation and expectations for AUC approval of DFO tariffs as they relate to the new ISO tariff; present outline to TDAG | Doyle | May 9 | Deferred to DFO Working Group | |



Action Items assigned this session

| # | AG Action Items | Action by | Due Date | Status | |
|------------------|--|--|----------|---|--|
| Sessior | Session 10 – May 9, 2019 | | | | |
| Action Item 1 | Share high level summaries of proposed studies with TDAG (TT WG) | LaRhonda Papworth Dan | June 30 | | |
| Action Item 2 | Provide or confirm names of representatives for new DFO Working Group: REAs DFOs (including Municipalities) Consumers Industrials Retailers | Levson Leland Jernberg Janene Taylor Rick Cowburn Vittoria Bellissimo Mark McGillivray | May 16 | Send proposed representative for each sector to <u>tariffdesign@aeso.ca</u> | |
| Action Item 3 | Prepare scope for new DFO Working Group. Share scope and membership at TDAG meeting on June 5 if possible. | Trushal Umrania | May 31 | Work with AESO, DFO reps and others as appropriate | |
| | | | | | |

Report on Decision Items

| Session (S# + date) | (#) | AG Decision Items |
|---------------------|-----------------|---|
| 2018 | | |
| August 17 | | Advisory Group established |
| S1- August 23 | Decision Item 1 | Advisory Group approved Terms of Reference with changes |
| S2 – September 6 | Decision Item 2 | Advisory Group approved work plans with changes |
| | Decision Item 3 | Data Requirements Working Group struck |
| S3 – October 4 | Decision Item 4 | Capacity Cost Allocation Analysis Working Group struck |
| S4 – November 8 | Decision Item 5 | Cost Causation Working Group work struck |
| S5 – December 5 | Decision Item 6 | Terms and Conditions Working Group struck |
| | Decision Item 7 | Data Requirements Working Group concluded |
| | Decision Item 8 | Transmission Tariff Design Working Group struck |



| Session (S# + date) | (#) | AG Decision Items |
|-----------------------|------------------|--|
| S7 – February 7, 2019 | Decision Item 9 | Approved plan for studies and data collection proposed by Tariff Design Working Group |
| S-9 - April 15, 2019 | Decision Item 10 | CCAA WG recommendation of four time blocks accepted by TDAG |
| S-9 April 15, 2019 | Decision Item 11 | Chair duties for TTWG assumed by LaRhonda Papworth |
| S-10 May 9, 2019 | Decision Item 12 | DFO Rate Design and Implementation Working Group struck |