Stakeholder Comment Matrix – May 28, 2020

Participant-Related Costs for DFOs (Substation Fraction) and DFO Cost Flow-Through Technical Session (2B)

Period of Comment:	May 28, 2020	through June 11, 2020	**Contact:** [redacted]
Comments From:	Lionstooth Energy		**Phone:**
Date:	2020/06/11		**Email:** [redacted]

Instructions:

1. Please fill out the section above as indicated.
2. Please respond to the questions below and provide your specific comments.
3. **Please submit one completed evaluation per organization.**
4. Email your completed comment matrix to tariffdesign@aeso.ca by **June 11, 2020**.

The AESO is seeking comments from Stakeholders with regard to the following matters:

	Questions	Stakeholder Comments
1.	Please comment on the Technical Session 2B facilitated by the AESO on May 28, 2020. Was the session valuable? Was there something we could have done to make the session more helpful? Please advise and be as specific as possible.	Lionstooth Energy (Lionstooth) would like to highlight 3 important areas where immediate and further discussion is required: 1. **Interim Relief:** Pursuing immediate interim relief ceasing the use of the substation fraction methodology and recalling the existing CCDs, with confirmation that interconnection costs for DCGs will be allocated at a single point in time and future unfettered risk will not feature in the permanent solution; 2. **Understanding of Impacts:** A common understanding of the impacts resulting from each proposal to various stakeholder groups must be completed prior to any proposals being filed with the AUC; and, 3. **Multiple Proposals:** Recognition that multiple proposals will be submitted by the AESO to the Commission, and equal time must be allocated to each proposal to engage with stakeholders on these concepts. We believe these 3 areas are significant and influential both for the remainder of the Technical Sessions as well as the subsequent AUC Proceedings. For this reason, we

		ask the AESO to address these 3 areas as part of Session 3 to establish alignment on the short-term path forward to return investor certainty. **Interim Relief** Time is of the essence and continued steps toward resolution are required to return investor certainty. An application to the AUC requesting interim relief would correct the use of the substation fraction methodology, resolving the most significant short-term issue, alleviating the pressure on obtaining an expedited decision for the entire process all at once. This request for interim relief is feasible as all stakeholders agree that the use of the substation fraction methodology is not appropriate and should be replaced, interconnection costs for DCGs should be allocated and due at a single point in time, and DCGs should not be exposed to unfettered future connection cost risks. We are of the view that relief could be sought based on these areas of aligned alone. We believe that the content of the interim relief request to the AUC can be achieved as part of Session 3. Lionstooth is strongly of the view that any application or approval of interim relief should not be contingent on acceptance of any specific alternative proposal, as this would greatly bias the remaining process and prevent fulsome discussion to ensure there are no unintended consequences. This approach should allow for the request for interim relief to proceed without delay following Session 3. **Understanding of Impacts to Stakeholder Groups** The AESO's proposal to the Commission in Proceeding 25101[1] and 25102[2] outlines the objectives of the technical sessions, including objective (iii) "a common understanding of the financial impacts … to different stakeholder groups, including DCG, TCG, DFOs, and ratepayers." To date, there has only been limited discussion of the impacts of the AESO's "incremental plus" proposal on stakeholders. Further, comments from agencies representing load during Session 2B highlight the importance of tracing the impacts of higher interconnection costs for generators through to end-use customers of the electricity market. We do not believe that any proposal, "incremental plus" or "incremental only", can be submitted to the AUC without these impacts evaluated, discussed, and generally

[1] Proceeding 25101 – CGWG R&V of Decision 22942, Exhibit X0013 (16 Dec 2019).
[2] Proceeding 25101 – Fortis R&V of Decision 22942, Exhibit X0008 (16 Dec 2019).

		understood, in order to ensure the implications of these proposals are recognized by all stakeholders. We propose that a path forward is discussed in Session 3 and that Session 4 be dedicated to these efforts for all concepts proposed. **Recognition of Multiple Proposals** The AUC's ruling approving these Technical Sessions specifically directs the AESO "to file any proposals or joint proposal as a separate application."[3] Session 2B focused almost entirely on the AESO's current thinking and their "incremental plus" proposal which materially differs from "incremental only" proposals put forth by other proponents. Session 2B clearly demonstrated there remain diverging views. To be clear, we have not reached consensus and multiple proposals are anticipated to be filed. Given the AUC's determination that these Technical Sessions culminate in joint or multiple proposals being developed, Lionstooth believes it is in the best interest for both concepts to be given equal consideration in future Technical Sessions. We believe a portion of Session 3 needs to outline how the AESO intends to allow discussion of other proposals and the process by which the AESO will gather supplementary information from other proponents for submission to the AUC. **Further Comments on Session 2B** We have provided a response to the questions below to assist the AESO with the development of their "incremental plus" proposal. This has focused on outlining some outstanding questions based on the AESO's current thinking. Having said this, there really is not sufficient information at this time to provide truly meaningful feedback and to be clear, **we do not support an "incremental plus" proposal**.
2.	The following five questions are seeking comments on the Technical Session 2B discussion regarding the outstanding design details identified on Slide 27. Please comment if (1) your organization does have or does not have agreement in principle and (2) any additional clarity or consideration to provide on the **following outstanding**	We do agree in principle with this design detail. The following areas require additional clarity and consideration prior to any proposals being submitted to the Commission: • What is proposed practice when multiple customers are served by the DFO at a single point? For example, direct connect customer plus DCGs and loads all connecting through one POD.

[3] Exhibit 25101-X0037 & Exhibit 25102-X0031 (15 Jan 2020).

	design details: • Substation fraction = 1 for DFOs	• Are there scenarios where a DCG does not trigger incremental plus connection costs? • What is the impact of this design detail on different stakeholder groups, including DCG, TCG, DFOs, and ratepayers? Specifically does this approach impact the Delivered Cost of Electricity (DCE)?
3.	Please comment if (1) your organization does have or does not have agreement in principle and (2) any additional clarity or consideration to provide on the **following outstanding design details:** • Determining a $/MW charge for DCG	We do <u>not</u> have agreement with this design detail. The following areas require additional clarity and consideration prior to any proposals being submitted to the Commission: • What is the AESO's position with respect to radial lines? • What costs is the AESO proposing to include? • How does the AESO propose to breakout costs directly attributable to load (i.e. increased investment for increased contingency / reliability relative to what a generator would install themselves)? • How does the AESO propose to control against double counting? • How does the AESO envision developing a "balance to reflect optimization of the existing Dx and Tx system"? (AESO Session 2B materials, slide 22). • Is the AESO proposing a postage-stamp, location-based, or tiered charge? • Has the AESO evaluated if an incremental plus proposal could be tied to GUOC? • How will this charge provide a locational signal? • Has the AESO considered an upper limit (not unsimilar to the maximum value applied to GUOC)? • What is the impact of this design detail on different stakeholder groups, including DCG, TCG, DFOs, and ratepayers? • Has the AESO considered the materiality / magnitude of the charge? What if the DCG contribution was greater than the DFO contribution? • What are the impacts to DCG developments as a result of pursing parity with TCG, in terms of magnitude of connection costs?

		• Since load ultimately pays, through their wires rates or an uptick in their energy charges, has the AESO evaluated the impact of the incremental plus proposal on the DCE?
4.	Please comment if (1) your organization does have or does not have agreement in principle and (2) any additional clarity or consideration to provide on the **following outstanding design details:** • Determining the applicability of the DCG charge	We do not have agreement with this design detail. The following areas require additional clarity and consideration prior to any proposals being submitted to the Commission: • Is the AESO open to alternatives, other than the use of Rate STS values? • Does the AESO differentiate between capability and usage? Does the AESO believe incremental plus costs should include both capability and usage? Or just usage? • How does the AESO intend to calculate usage, given that Rate STS values are not reflective of usage / energy flows? • Is the AESO going to undertake an engineering study / studies to understand how each cost component relates to DCGs and reverse power flows? • How would hourly demand profiles versus hourly supply profiles, that may not be correlated, be accounted for (i.e. residential load profile that peaks in AM / PM versus solar DCG profile that peaks mid-day)? • Would the AESO consider a calculation point on the high side of the transformer? • Assuming a DCG makes an interconnection contribution to infrastructure within a POD, what does the AESO propose would happen if another market participant were to come along and also utilize that infrastructure? Would the DCG be issued a refund? • DCGs, especially dispatchable DCGs, provide value to the local Dx system and the larger Tx system. Does the AESO recognize this value? How does both the proposed incremental plus charge and the calculation point reflect this value? • What is the impact of this design detail on different stakeholder groups, including DCG, TCG, DFOs, and ratepayers?

5.	Please comment if (1) your organization does have or does not have agreement in principle and (2) any additional clarity or consideration to provide on the **following outstanding design details:** • Determining the administration of the DCG charge	We do not have agreement with this design detail. The following areas require additional clarity and consideration prior to any proposals being submitted to the Commission: • We understand this is an ISO Tariff provision, who administers the charge? • How would the cash flow between DCG, ISO / TFO / DFO, and loads? • Would generator contributions be returned to the initial contributor? Does this impact TFO / DFO / direct customers / loads differently? Do funds flow to loads or shareholders? • How would the incremental plus charge change over time? What is the frequency of change? Session 2B materials suggest annual, did the AESO consider changes coinciding with ISO Tariff filings to allow for regular design / rate evaluations? • Has the AESO considered the administrative burden of this design detail? Any conclusion to date? • Is the AESO proposing a tradeoff between accuracy and simplicity? How would this tradeoff impact different stakeholder groups? Implementation timing? • What is the impact of this design detail on different stakeholder groups, including DCG, TCG, DFOs, and ratepayers?
6.	Please comment if (1) your organization does have or does not have agreement in principle and (2) any additional clarity or consideration to provide on the **following outstanding design details:** • Looking towards implementation	We do not have agreement with this design detail. As outlined above, we have suggested the following areas require additional clarity and consideration as part of Session 3: • Given the support expressed to proceed with an interim relief application, executing this concept should take priority and be discussed in more detail as part of Session 3. • When does the AESO intend to evaluate the impact of the "incremental plus" proposal and other proposals on different stakeholder groups? We assert that this analysis and understanding is required before an application can be made to the AUC.

		• How does the AESO intend to gather information from other proponents for the AESO's submission, which is to be inclusive of any proposals or joint proposal as a separate application to the AUC? To be clear, we have not reached consensus and multiple proposals are anticipated to be filed by the AESO to the Commission under a subsequent proceeding specific to this issue. This differs from the Session 2B materials which suggest the AESO will proceed with a change to the provisions of the ISO Tariff (slide 25).
7.	Additional comments	As we progress through these Technical Sessions, the disparity between DCG and TCG is coming to the forefront. It is our understanding that the AESO's Principle 2 looks for parity in Tx interconnection costs between DCG and TCG. By focusing on this one specific area, the AESO is oversimplifying the need for parity between DCG and TCG and failing to recognize the bigger picture, where DCGs face disparity across a number of fronts. This includes: • **Magnitude of Connection Costs**: By their very nature (i.e. smaller installed capacity) DCGs have a limited ability to take on incremental capital costs. An incremental plus charge of as much as $2 million can make a project uneconomic. Seeking parity in terms of the magnitude of connection costs between DCG and TCG will discriminate against technologies connecting at lower voltages and become a barrier to entry. In addition, DCGs are already paying interconnections costs to connect to the AIES, directly to the DFO. This seems to be lost in the discussion. • **All generators benefit:** Both DCG and TCG benefit from their connection to the AIES, including both the Tx and Dx system, beyond what is captured in their costs to connect. TCGs pay their incremental costs and GUOC, but make no contribution to Dx system charges, even though TCGs benefit from this system that delivers energy to the majority of end-use customers. DCGs are now facing the potential of an "incremental plus" cost to connect with no corresponding "incremental plus" cost approach being applied to TCGs. • **Constrained Wires:** TCGs are afforded unconstrained access to the AIES. Meanwhile, DCGs must accommodate Dx wires constraints and DFO controlled outages of their operations (this issue was also raised in capacity market discussions as DCGs were not going to be afforded the same relief as TCGs for wires related outages). DCG developers review a wide range of issues when considering connecting to the Dx system, including resource

		availability, stakeholders, economics, and financing, to name a few, all while acknowledging the constrained nature of their connection. True parity would suggest DCGs have unconstrained access to the Dx system, however, DCGs are aware this is not possible and are not advocating for this. Instead they are willing to take this on as a risk, even though this means DCGs are not on a level playing field with TCGs. • **Size Constraints:** The AESO posed a question in the Session 2B presentation around limiting DCGs to a maximum capacity. This would be significant intervention in the deregulated generation market, that would only apply to DCGs, and one that would never be considered for TCGs. Stakeholders in Session 2B reiterated that DCG capacities are naturally constrained by the local Dx system. We understand that some DCG projects have attempted to connect much higher capacities than can be accommodated by the local system. The current process, where DCGs pay incremental DFO connection costs naturally limits these clearly foolish projects from connecting to the Dx system. To constrain DCGs capacities would be a significant disparity between DCGs and TCGs and would further create a problem that is already resolved by physical limitations and market forces. • **Wires O&M Charges:** Here is another area where there is glaring disparity between DCG and TCG. DCGs pay for estimated Dx system O&M costs, regardless of if incremental O&M is actually caused by the presence of the DCG. It is our understanding, there are no O&M wires costs attributed to TCG for either TFO or DFO owned assets. Further, in the ATCO territory, these costs are a function of Incremental Interconnection Cost. It is unknown the impact of an incremental plus proposal on DCG wires O&M charges, providing further impetus for the need for a clear understanding of the impact of all the proposals on stakeholders. Lionstooth continues to have concerns with Principle 2 as parity between DCG and TCG does not exist on multiple fronts and applying this principle to interconnection costs unduly burdens DCGs, presenting a real and significant barrier to entry for generation connecting at a lower voltage.

Thank you for your input. Please email your comments to: tariffdesign@aeso.ca.