Stakeholder Comment Matrix – March 10, 2020 - extended

Participant-Related Costs for DFOs (Substation Fraction) and DFO Cost Flow-Through Technical Session (1)

Period of Comment:	March 10, 2020	through	March 31, 2020	**Contact:**	[redacted]
Comments From:	**Lionstooth Energy**			**Phone:**	
Date:	March 19, 2020			**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. Email your completed comment matrix to tariffdesign@aeso.ca by **March 31, 2020**.

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

	Questions	Stakeholder Comments
1.	Please comment on the Techncial Session 1 facilitated by the AESO on Feb. 27, 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.	The session was valuable in the sense that a number of key issues from all sides were raised, and it was a good starting point for future discussion. The session also highlighted that there are a number of impacted stakeholders, including generators, wires owners, and loads, awaiting the outcome of this decision. In terms of making the session more helpul, Lionstooth offers the following: • The mediator did a very good job of managing the discussion, and should be commended for their efforts. • Session 1 and the "Summary of Level-Setting" document provided an introduction to substation fraction and cost flow through, but stopped at the Market Participant (MP) level (i.e. the DFO) and did not continue to how costs flow to other stakeholder groups, specifically DCG and ratepayers. By stopping at the MP (DFO) level, we have not yet explored the impacts of cost flow through to end-use customers. This issue arose as a result of changes in stakeholder behaviour on the distribution system, therefore it is important in all discussions on this topic to carry the thought process through to the "end of the line." • A discussion of this manner requires clear definitions or understanding of key terms, and how they are applied at the Transmission (Tx) and Distribution (Dx)

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		level. For example, the term "Market Participant" could mean either a Load (direct connect or otherwise), TFO, DFO, TCG, Dual-Use Customer, or a DCG. ○ Our understanding is that Market Participant, in the context of Session 1 and its accompanying materials, means the entity that holds the System Access Service contract (i.e. DTS or STS contract) with the AESO. ○ Several times during the AESO's initial presentation, the term "Market Participant" was replaced with the term "You" (ie "You are responsible for costs.") In that context, our understanding is that the "You" would have been the DFO. ○ Again, it is important to carry the thought process through to the end-user / end-payer to gain a common understanding of costs, allocation, flow through and their resulting impacts. Below our comment matrix response, Lionstooth has summarized our initial list of important definitions and key terms that are relevant to these technical sessions. • Definitions & Key Terms: As stated above, there are key definitions that are necessary to understand the proposed principles. Lionstooth has attached several that we feel are important, with the definitions pulled from the AESO's *Consolidated Authoritative Document Glossary*. • Acronyms: A number of new market participants are represented in this engagement, and we felt it may be helpful to have a reference of the various acronyms that are used.
2.	Please comment on the **Technical Session 1 Summary Feb. 27 2020**. Is there information you felt was covered during the session that has not been represented in the summary? If yes, please advise and be as specific as possible.	The technical summary appears to capture most of the information covered during the session. One point of clarity would be around the statement "varied positions on the necessity for DCG to share in the appropriate costs of the Tx system."[1] DCG pays for their cost of interconnection, as outlined by the AESO in Figure 2, of the "Summary of Level-settting Information" document. In our view, there is a fundamental difference in

[1] Technical Session 1 Summary, page 5, item #5.

	Questions	Stakeholder Comments
		opinion as to whether it is appropriate to allocate costs to DCG that are currently attributed to load, under the policy that "load pays for the transmission system." The Technial Sesssion Summary perhaps lacks some comment on the next steps discussed during the session, which included the potential for smaller, working-style groups, meeting more frequently, to be used to advance further technical / joint proposal discussions.
3.	Please comment on the additional level-setting information provided in **Summary of Level-setting Information** document. Do you have additional clarifying questions that need to be answered to support your understanding? If yes, please be as specific as possible.	Lionstooth offers a point of clarity to the following comment from Page 9 of the Summary of Level-setting information, "adding a Rate STS contract … would reduce the substation fraction from 1.0 which decreases demand related costs." We agree that when a Rate STS contract is added, under the current approach, the substation fraction changes and influences contribution (i.e. demand related costs). What remains constant is the original impetus for those wires facilities, which was to serve demand. The same amount of Rate DTS could be served at that POD. In fact, the addition of DCG could actually increase the amount of demand that is served on this distribution system, without further investment by load.
4.	Please comment on the revised high-level principles provided in the **Summary of Level-setting Information** document. Do you have additional clarifying questions that need to be answered to support your understanding? If yes, please be as specific as possible. Do you have additional principles that you feel have not been represented by these high-level principles? If yes, please be as specific as possible and provide the gaps/challenges you are trying to address with the additional principles.	Lionstooth does not have any additional clarifying questions that need to be answered to support our understanding. We do have additional details regarding policy and principles that we feel have not been represented. These details are presented below, following this comment matrix.
5.	Additional comments	Lionstooth recognizes and appreciates that there are a lot of regulatory proceedings, consultations, and engagements ongoing and strongly believe that resolution of this issue is required to enable continued investment in the Alberta electricity market.

	Questions	Stakeholder Comments
		We also recognize that individuals are working under different conditions and are open to an interactive webinar-based approach.

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

Lionstooth Energy Attachment 1. Definitions & Key Terms

The following definitions are primarily from the *Consolidated Authoritative Document Glossary,*[2] with the exception of the definition of a substation, which is taken from the *Hydro and Electric Energy Act.*[3]

Market Participant	(i) any person that supplies, generates, transmits, distributes, trades, exchanges, purchases or sells electricity, electric energy, electricity services or ancillary services; or (ii) any broker, brokerage or forward exchange that trades or facilitates the trading of electricity, electric energy, electricity services or ancillary services.
Point of Supply (POS)	The point at which electricity is transferred to transmission facilities from facilities owned by a market participant receiving system access service under the ISO tariff, including a generating unit, an aggregated generating facility or an electric distribution system.
Point of Delivery (POD)	The point at which electricity is transferred from transmission facilities to facilities owned by a market participant receiving system access service under the ISO tariff, including an electric distribution system.
Transmission Facility	An arrangement of conductors and transformation equipment that transmits electricity from the high voltage terminal of the generation transformer to the low voltage terminal of the step down transformer operating phase to phase at a nominal high voltage level of more than 25 000 volts to a nominal low voltage level of 25 000 volts or less, and includes (i) transmission lines energized in excess of 25 000 volts, (ii) insulating and supporting structures, (iii) substations, transformers and switchgear, (iv) operational, telecommunication and control devices, (v) all property of any kind used for the purpose of, or in connection with, the operation of the transmission facility, including all equipment in a substation used to transmit electric energy from (A) the low voltage terminal, to (B) electric distribution system lines that exit the substation and are energized at 25 000 volts or less, and (vi) connections with electric systems in jurisdictions bordering Alberta, but does not include a generating unit or an electric distribution system
Substation	A part of a transmission line that is not a transmission circuit and includes equipment for transforming, compensating, switching, rectifying or inverting of electric energy flowing to, over or from the transmission line;
Substation Fraction	The share of a substation's capacity attributable to a market participant under Rate DTS or Rate STS, calculated by dividing the contract capacity of the individual system access service by the sum of all contract capacities of all system access services provided at the same substation under Rate DTS and Rate STS.

[2] AESO Consolidated Authoritative Document Glossary, Dec 1 2019, https://www.aeso.ca/assets/Uploads/Consolidated-Authoritative-Document-Glossary-December-1-2019-.pdf

[3] Alberta Hydro and Electric Energy Act, Section 1(1)(n), Dec 5, 2019. http://www.qp.alberta.ca/documents/Acts/H16.pdf

In addition to the above, the following are commonly used key terms and acronyms used that may be unfamiliar to new entrants, and are summarized here to support collaboration and level-setting. Lionstooth suggests that a more exhaustive list is prepared by the AESO as a living document throughout this process.

AESO/ISO	Alberta Electric System Operator/ Independent System Operator	The manager/operator of the provincial power grid. The Alberta *Electric Utilities Act* mandated the creation of an Independent System Operator. The AESO is that Independent System Operator.
AIES	Alberta Interconnected Electric System	"The Grid". This is a term that encompasses load, generation, transmission, imports and exports. This is primarily viewed as the transmission grid, meaning that the inputs and outputs are at the provincial boundaries (import/export) and at transmission substations (generation and load).
AMP	Adjusted Metering Practice	The updated practice of metering load and generation at the electric distribution feeder interface with the transmission substation, as included in the 2018 ISO tariff application.
CCD	Construction Contribution Decision	The determination by the AESO of how much up-front capital must be contributed by a Market Participant applying for System Access Service (SAS), either DTS or STS.
DCG/ DG/ DER	Distribution-Connected Generator Distributed Generation Distributed Energy Resources	A generator connected to the electric distribution system (25kV or lower). Generally interchangeable terms, although DER is most often associated with renewables like rooftop solar. DCG is the more common term used in AESO and AUC processes. DG is the more common industry term.
DFO	Distribution Facility Operator	The owner/operator of the electric distribution system. Can include ATCO Electric, FortisAlberta, Enmax, Epcor, etc.
DOE	Alberta Department of Energy	The energy ministry of the Alberta government.
DTS	Demand Transmission Service	The contract with the AESO to take power off of the transmission grid. This is a contract between the AESO and a Market Participant.
GUOC	Generating Unit Owners Contribution	An upfront fee paid by a Market Participant applying for Supply Transmission Service (STS).
TCG	Transmission-Connected Generator	A generator connected to the electric transmission system (>25 kV).
TDP	Transmission Development Policy	A 2003 policy issued by the Alberta Department of Energy, post-deregulation governing development of the transmission system.
TFO	Transmission Facility Operator	The owner/operator of the electric transmission system. Either ATCO Electric, or AltaLink.
TReg	Transmisison Regulation	The 2004 regulation issued by the Alberta Government, based on the TDP.
SAS/ SASR	System Access Service/ System Access Service Request	SAS is all forms of service provided by the AESO to customers, including both DTS & STS. A SASR is a Request from a Market Participant for System Access Service.
STS	Supply Transmission Service	The contract with the AESO to put power onto the transmission grid. This is a contract between the AESO, and a Market Participant.

Lionstooth Energy Attachment 2. Policy and Principles

Lionstooth feels it is important to highlight and review some underlying principles and government policy that impact this process. In this regard, Lionstooth is primarily relying on both the 2003 Transmission Development Policy (TDP)[4] issued by the Alberta Department of Energy (DOE) and the principles of tariff design put forth by the AESO, starting in 2005, as adapted from James Bonbright's *Principles of Public Utility Rates* (Bonbright). In the Alberta electricity market, the DOE sets policy which is then implemented by the Alberta Utilities Commission (AUC). Along the way, stakeholders, including the AESO, often agree to principles that form a set of common understandings of policy, which are then put forth to the AUC for consideration.

Policy 1 – Load Pays

The TDP clearly states that "payment for transmission is fundamentally a cost most appropriately borne by the loads that are served by the transmission system." This policy statement overrides any concept of generation paying for an "appropriate share of the costs." The reasoning behind this policy statement is that regulated utilities have a lower rate of return expectation than generators. So rolling capital cost for transmission and distribution infrastructure into the regulated utility tariffs, as opposed to having generators recover it through their returns in the energy-only market, results in a lower delivered price of electricity to the load.

Policy 2 – Locational Signals

While requiring load customers to pay for transmission, an additional policy statement from TDP is to provide "a location-based signal related to generator proximity to load centres." The further away from load that a generator is, the more of this cost the generator should incur. Conversely, if a generator is located near "load centres," the generator should pay less, or not at all.

An equally important component of this policy statement is that "economic signals and prices from the wholesale electricity market should not be adjusted or unduly distorted with transmission costs." This means that the magnitude of cost that a generator pays for the above locational signals should not materially impact how much revenue in needs to recover from the energy market. This follows the same reasoning as in Policy 1, that adherence to these policy statements result in a lower delivered price of electricity for consumers.

A third component of this same policy statement is that "transmission should not be a barrier to generation development." We interpret this to mean that both the physical availability of capacity, as well as the magnitude of costs expected to be borne by generators, should not be a barrier to development.

Recognizing the above policies, we turn to the principles of tariff design often used and referenced in our market.

Principle 1 – Recovery of Revenue Requirement

The first of these "Bonbright" principles is "recovery of the total revenue requirement." The meaning of this principle is that 100% of the required revenue of the regulated utilities, including operating costs as well as return on capital, must be recovered from the tariffs. Tariffs need to be designed so that recovery of the revenue requirement of the utilities is not at risk.

As a result, if there is a requirement for capital contributions from a regulated utility due to implementing the policies above, the costs must be recovered through that utilitiy's tariffs.

Principle 2 – Cost Causation

The second and third principles from Bonbright are:

- "provision of appropriate price singals that reflect all costs and benefits", and;
- "Fairness, objectivity and equity that avoids undue discrimination and minimizes inter-customer subsidies".

[4] https://open.alberta.ca/dataset/0db52c69-eed1-4f4a-997c-a47d57cc9788/resource/7238f12e-2a43-41dc-856e-c623a9fc57a3/download/3103222-2003-transmission-development-policy.pdf

These principles were adopted by the AESO to mean that rates will “recover costs in the manner in which they are caused,” or “rates based on cost causation.”

In implementing the principle of cost causation above, tariff design and the cost of interconnection needs to consider the cost, or avoidance of cost, resulting from a particular action. It should be noted, however, that implementing this principle cannot override the the policies highlighted above.

Lionstooth offers the following in addition to the principles outlined by the AESO in the Session 1 materials and Summary of Level-setting Information document.

AESO Proposed Principle 1:
Lionstooth is concerned with the use of “parity” in this principle, in that parity between TCG and DCG as it relates to costs of transmission facilities could imply an equal magnitude of costs should be borne bt DCGs. Applying parity in this manner would unduly burden DCG.

While the Alberta electricity market is built on the foundation of a fair, efficient, and openly competition, Lionstooth cautions that “fair” does not necessarily mean equal or imply parity in terms of the need to pay equivalent capital contributions.

AESO Proposed Principle 2
Our comments on the overridng policy statements above, impact, in our view, the intent of Principle 2 proposed by the AESO, especially as it relates to whether it is appropriate to allocate costs to DCG that are currently attributed to load, under the principle that “load pays for the transmission system.”

AESO Proposed Principle 3 & 4:
Lionstooth agrees with these principles, noting that they are aligned with the policy statements above and the tariff design principles often used in our market.

Finally, Lionstooth would support the inclusion of a fifth principle, reflecting the importance of sending strong signals to the investment community that Alberta is open for business.