Stakeholder Proposal Evaluation – May 4, 2020

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

Period of Comment:	May 4, 2020 through May 20, 2020	**Contact:**	[redacted]
Comments From:	DCG Consortium The DCG Consortium is comprised of the following members: BluEarth Renewables Inc, Elemental Energy Renewables Inc, Innogy Renewables Canada Inc., Irricana Power Generation, and Siemens Energy Canada Limited. This submission represents the consensus view of the group and is submitted on behalf of the group by Power Advisory LLC.	**Phone:**	[redacted]
		Email:	[redacted]
Date:	2020/05/20		

Document purpose

The purpose of this document is to provide a structured and consistent guide to workshop participants to evaluate each of the proposals.

Instructions

1. Please fill out the section above as indicated.
2. Please complete an evaluation on each of the proposals using the tables below (Tables 2-7). Please provide your reason(s) as to why you think the proposal does/does not meet each of the evaluation criteria.
3. Once you have completed an evaluation on each of the proposals, please choose your preferred proposal with an explanation as to why in Table 1: Overall evaluation.
4. **Please submit one completed evaluation per organization.**
5. Email your completed evaluation to tariffdesign@aeso.ca by **May 20, 2020**.

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Table 1: Overall evaluation

Questions	Stakeholder Evaluation
1. Which proposal did you prefer? Please explain why.	Given the constraints described on slides 5 and 6, the DCG Consortium prefers its own proposal.
2. What are the challenges or unresolved questions with your preferred proposal?	The current methodology used by the AESO to determine which costs are system driven and which costs are participant driven has issues that the DCG Consortium has chosen to ignore for the purposes of this proposal. In the event that the DCG Consortium proposal is accepted, this will not be the concern of generators and we will have no need to intervene in any subsequent regulatory process on this topic; however, it is odd that so much of the system is considered to be participant driven, only to be added to the rate base of a DFO and effectively systemized at a different level.
3. What aspects from the other proposals would you like to see applied to your preferred proposal?	
4. Additional comments	The DCG Consortium notes that the current cost allocation practice limits new DCG development in Alberta and results in unbounded liabilities for existing DCG. This practice needs to be resolved as soon as possible to allow for certainty so that investment in Alberta DCG can continue. Accordingly, the DCG Consortium is committed to participating in this consultation to come to a mutually agreeable solution that is amenable to the AESO and other stakeholders, if possible, and which can progress through an expedited process before the Commission. To this end, we support a joint proposal. Resolving the outstanding issues regarding investor certainty are key to this discussion. In the long-term, the DCG Consortium is of the view that costs of shared facilities should not be allocated to DCGs. Rather, DCG's should only be required to pay 100% of their incremental connection costs . The DCG Consortium has not proposed this option at this time because it does not align with the AESO's interpretation and exercise of discretion pursuant to the Transmission Regulation or the Commission's views expressed in Decision 22942-D02-2019. Following the resolution of this process, the DCG Consortium is hopeful that the Transmission Regulation can be reopened and that discussions with the provincial government can continue on this topic.

Table 2: Evaluation of Proposal: Canadian Solar Solutions Inc.

Questions	Stakeholder Evaluation
1. Please rate your support of this proposal on a 1-10 basis, with 10 being completely supportive and 1 being not at all supportive. Please provide your rationale.	
2. Is the proposal an unbiased solution and evenly weighted in its analysis?	
3. Is the proposal feasible?	
4. Which stakeholders are best served by this proposal? Why?	
5. Which stakeholders are least served by this proposal? Why?	
6. Do the objectives/principles outlined in the proposal seem fair and reasonable?	
7. Does the proposal align with the consolidated principles (see Appendix A) presented in Technical Session 1 as well as the additional principle of “Ease of understanding and implementation (simplicity)”? This additional principle was added based on stakeholder feedback.If not, are you supportive of the principles that are used in the development of the proposal?	
8. What are the unresolved questions or challenges you would want to see answered in this proposal?	
9. Additional comments	Canadian Solar’s proposal is lower cost to DCGs than the proposal of the DCG Consortium. However, the DCG Consortium is concerned that this proposal may not align with the AESO’s interpretation and exercise of discretion pursuant to the Transmission Regulation and Decision 22942-D02-2019 and, accordingly, that it would result in greatly delayed resolution to a pressing issue.

Table 3: Evaluation of Proposal: DCG Consortium

Questions	Stakeholder Evaluation
1. Please rate your support of this proposal on a 1-10 basis, with 10 being completely supportive and 1 being not at all supportive. Please provide your rationale.	10 The DCG Consortium is fully supportive of its own proposal given the constraints noted on slides 5 and 6. If these constraints are changed in the future, the DCG Consortium would consider advocating for a different outcome at that time.
2. Is the proposal an unbiased solution and evenly weighted in its analysis?	Yes.
3. Is the proposal feasible?	Yes.
4. Which stakeholders are best served by this proposal? Why?	See slide 47 for the impact of the proposal on stakeholders.
5. Which stakeholders are least served by this proposal? Why?	See slide 47 for the impact of the proposal on stakeholders.
6. Do the objectives/principles outlined in the proposal seem fair and reasonable?	This proposal accepts and complies with the AESO's five principles.
7. Does the proposal align with the consolidated principles (see Appendix A) presented in Technical Session 1 as well as the additional principle of "Ease of understanding and implementation (simplicity)"? This additional principle was added based on stakeholder feedback. If not, are you supportive of the principles that are used in the development of the proposal?	Yes. Please see slides 10-16 and slide 46.
8. What are the unresolved questions or challenges you would want to see answered in this proposal?	The DCG Consortium submits that its proposal has addressed all questions and has best solved the issues within the constraints identified on slides 5 and 6 of its proposal.

Questions	Stakeholder Evaluation
9. Additional comments	In Session 2A, LaRhonda Papworth made a comment about sending incentives not to oversize DCGs relative to the load on a substation. Our proposal achieves this goal. The DCG will be charged a $/MW fee on every MW that flows power past the transformer. Accordingly, there is an incentive to size in a manner than nets off existing load and an incentive to site on substations with more load available to be offset. The shared facility fee is a cost that will be paid for by DCGs and not by TCGs. Accordingly, if a generator is looking to size large in order to achieve economies of scale, then it will become more effective to connect as a TCG. Where a generator has decided to size smaller and connect as a DCG, it will be incented to minimize its contribution towards shared facilities costs by siting on substations with more load available to be offset. It also should be noted that this incentive is the same as the incentive sent by DCG credits, such as Option M.

Table 4: Evaluation of Proposal: FortisAlberta Inc.

Questions	Stakeholder Evaluation
1. Please rate your support of this proposal on a 1-10 basis, with 10 being completely supportive and 1 being not at all supportive. Please provide your rationale.	See the below response to 9.
2. Is the proposal an unbiased solution and evenly weighted in its analysis?	See the below response to 9.
3. Is the proposal feasible?	See the below response to 9.
4. Which stakeholders are best served by this proposal? Why?	See the below response to 9.
5. Which stakeholders are least served by this proposal? Why?	See the below response to 9.
6. Do the objectives/principles outlined in the proposal seem fair and reasonable?	See the below response to 9.

Questions	Stakeholder Evaluation
7. Does the proposal align with the consolidated principles (see Appendix A) presented in Technical Session 1 as well as the additional principle of “Ease of understanding and implementation (simplicity)”? This additional principle was added based on stakeholder feedback. If not, are you supportive of the principles that are used in the development of the proposal?	See the below response to 9.
8. What are the unresolved questions or challenges you would want to see answered in this proposal?	Fortis does not comment on the transition from the existing substation fractioning methodology to the newly selected methodology. Rather, they state that the AESO will need to determine and propose transitional provisions for any CCDs that it has previously issued to DFOs/DCG using it current substation fraction approach. This transition period and how to manage currently issued and suspended CCDs is a significant issue that needs to be resolved. The DCG Consortium has proposed a transition mechanism on slide 40 of its presentation. Fortis indicated during the Q&A period that it supports the DCG Consortium’s transition mechanism.
9. Additional comments	At a high level, Fortis’ proposal is consistent with the proposal of the DCG Consortium. There are three main points of difference: 1. The inclusion of low voltage breakers in the cost calculation; 2. The inclusion of costs beyond materials and labor; and 3. The use of a utilization factor and capacity factor.

Questions	Stakeholder Evaluation
	Regarding the components to be included, the DCG Consortium explained on slide 27 of its proposal why the low voltage breakers should not be included in the cost calculation. Specifically, it noted: • The number of breakers at a station is determined by the distribution network and existing load customers. Accordingly, the DCG should not be required to contribute towards the costs of the additional feeders. • In many cases, a DCG will pay incremental connection costs associated with a new low voltage breaker or the upgrade of an existing low voltage breaker. In these cases, paying a contribution towards the shared facilities costs associated with these would be double counting. The DCG Consortium also supports Fortis' view that the supply line costs should not be allocated to DCGs. The DCG Consortium is opposed to Fortis' proposal that all costs (including protection and controls, SCADA, engineering, technical studies, etc.) should be included in the calculation of its ASIC (or contribution towards the shared facility costs). This is outlined on slide 26 of the DCG Consortium proposal. The DCG Consortium notes that many of these costs will be duplicative of costs that a DCG will face as part of its incremental connection costs (for example, a DCG will need to pay for its own technical studies and SCADA). Accordingly, it proposes only to pay for materials and installation costs of the core components. The DCG Consortium also notes that costs, as proposed by Fortis will inhibit DCG development. The DCG Consortium supports the use of maximum reverse power flow as a component in determining an allocation of shared facility costs to a DCG; however, the DCG Consortium is concerned that the analysis proposed by Fortis will not appropriately account for alignment between a DCG energy production profile and load consumption profile at the shared facility. Fortis describes the calculation of maximum reverse power flow as the difference between maximum allowable export capability of the DCG and the minimum load flows. If a DCG energy profile generally aligns with the load consumption profile maximum energy production will not occur with minimum load flows. The DCG Consortium notes that this calculation would be more accurate if the data was properly overlaid with time using an 8,760-hour annual load and generation profile. If this is not possible, then the next best alternative would include limit minimum load calculations to hours when maximum export capability expectations are reasonable. For example, solar generation has minimal or no production expectations during morning and afternoon; therefore, it is not appropriate to compare minimum load from those hours to maximum export capability. It is our understanding that Fortis currently uses a time frame of 9am to 3pm for solar facilities in the development of STS, however, the DCG Consortium would want this type of methodology clearly laid out if something similar were used for this purpose.

Questions	Stakeholder Evaluation
	The DCG Consortium supports the concept of determining shared costs based on hourly forward and reverse flow patterns (i.e., the percentage of time that the DCG is delivering energy through shared facilities compared to the percentage of time that load customers are consuming from the shared facilities). In its proposal Fortis attempts to calculate the reverse and forward flows using customer consumption load factors and the utilization factor for a DCG. The utilization factor relies on an annual capacity factor of a DCG, which causes the same issues as those identified in the previous comment. The use of annual capacity factors for a technology type does not include any attributes of the hourly energy production profile which will show variations across seasons and time of day. The utilization factor calculation should include some adjustments for production profile and consumption profile alignment. It should also be noted that Fortis' proposal to use a utilization factor and capacity factor approach will lessen investor certainty by increasing the differences in shared facilities costs (or the ASIC, as labeled by Fortis) across projects. The DCG Consortium proposal is much simpler, not involving a complicated case by case calculation, that is both easier to understand and predict and easier to implement.

Table 5: Evaluation of Proposal: Lionstooth Energy

Questions	Stakeholder Evaluation
1. Please rate your support of this proposal on a 1-10 basis, with 10 being completely supportive and 1 being not at all supportive. Please provide your rationale.	
2. Is the proposal an unbiased solution and evenly weighted in its analysis?	
3. Is the proposal feasible?	
4. Which stakeholders are best served by this proposal? Why?	
5. Which stakeholders are least served by this proposal? Why?	

Questions	Stakeholder Evaluation
6. Do the objectives/principles outlined in the proposal seem fair and reasonable?	
7. Does the proposal align with the consolidated principles (see Appendix A) presented in Technical Session 1 as well as the additional principle of “Ease of understanding and implementation (simplicity)”? This additional principle was added based on stakeholder feedback. If not, are you supportive of the principles that are used in the development of the proposal?	
8. What are the unresolved questions or challenges you would want to see answered in this proposal?	
9. Additional comments	Lionstooth Energy’s proposal is lower cost to DCGs than the proposal of the DCG Consortium. However, the DCG Consortium is concerned that this proposal may not align with the AESO’s interpretation and exercise of discretion pursuant to the Transmission Regulation and Decision 22942-D02-2019 and, accordingly, that it would result in greatly delayed resolution to a pressing issue.

Table 6: Evaluation of Proposal: Solarkrafte

Questions	Stakeholder Evaluation
1. Please rate your support of this proposal on a 1-10 basis, with 10 being completely supportive and 1 being not at all supportive. Please provide your rationale.	
2. Is the proposal an unbiased solution and evenly weighted in its analysis?	
3. Is the proposal feasible?	
4. Which stakeholders are best served by this proposal? Why?	
5. Which stakeholders are least served by this proposal? Why?	
6. Do the objectives/principles outlined in the proposal seem fair and reasonable?	
7. Does the proposal align with the consolidated principles (see Appendix A) presented in Technical Session 1 as well as the additional principle of “Ease of understanding and implementation (simplicity)”? This additional principle was added based on stakeholder feedback. If not, are you supportive of the principles that are used in the development of the proposal?	
8. What are the unresolved questions or challenges you would want to see answered in this proposal?	

9. Additional comments	The Solar Krafte proposal suggests that the AESO use the discretion it has under subsection 10 of section 8 of the tariff to determine costs to be system-related in certain circumstances where a strict application of the provisions might suggest those costs be classified as participant-related whenever it assesses CCDs. The DCG Consortium is greatly concerned by this approach as it does not provide any of the investor certainty that is required. Under this proposal, a strict reading of the tariff would suggest that costs will continue to be allocated to Rate STS through CCDs and DCGs would need to rely on the AESO continuing to exercise its discretion in an appropriate manner moving forward. This is inadequate for both developer certainty and for financing purposes. In response to a question in Session 2A, Jeff Thachuk noted agreement with this concern and suggested that some language be added to the tariff to use this discretion, but no longer make it discretionary. The DCG Consortium agrees with this verbal comment and notes that a solution cannot involve the exercise of discretion on a case by case basis. If a proposal is accepted where DCGs are only required to pay incremental connection costs and are not required to make any contributions towards the costs of shared facilities, then it is important that this be enshrined in the tariff language so that all parties have certainty that this is how their projects will be treated going forward. Overall, Solar Krafte's proposal is lower cost to DCGs than the proposal of the DCG Consortium. However, the DCG Consortium is concerned that this proposal may not align with the AESO's interpretation and exercise of discretion pursuant to the Transmission Regulation and Decision 22942-D02-2019 and, accordingly, that it would result in greatly delayed resolution to a pressing issue.

Table 7: Evaluation of Proposal: URICA

Questions	Stakeholder Evaluation
1. Please rate your support of this proposal on a 1-10 basis, with 10 being completely supportive and 1 being not at all supportive. Please provide your rationale.	See the below response to 9.
2. Is the proposal an unbiased solution and evenly weighted in its analysis?	See the below response to 9.
3. Is the proposal feasible?	See the below response to 9.
4. Which stakeholders are best served by this proposal? Why?	See the below response to 9.
5. Which stakeholders are least served by this proposal? Why?	See the below response to 9.
6. Do the objectives/principles outlined in the proposal seem fair and reasonable?	See the below response to 9.
7. Does the proposal align with the consolidated principles (see Appendix A) presented in Technical Session 1 as well as the additional principle of “Ease of understanding and implementation (simplicity)”? This additional principle was added based on stakeholder feedback. If not, are you supportive of the principles that are used in the development of the proposal?	See the below response to 9.
8. What are the unresolved questions or challenges you would want to see answered in this proposal?	See the below response to 9.

9. Additional comments	At a high level, URICA's proposal is consistent with the proposal of the DCG Consortium. There are two main points of difference: 1. The use of STS contract capacity to determine the MWs to which the tariff charge is applied; and 2. The inclusion of all breakers in the cost calculation. The DCG Consortium proposes that the use of STS contract capacities is inadequate for determination of the contribution towards the costs of shared facilities. The DCG Consortium proposal is to contribute only towards the costs of major substation components, specifically the transformer and the high voltage breaker. As a result, only power that flows through that equipment should be charged for its usage. In contrast, the STS contract capacity is now calculated at the feeder, per the AESO's adjusted metering practice and would, accordingly, result in a number of MWs that is higher than the actual expected power flows onto the transformer and high voltage breaker. (For details of this proposal, please see slide 32.) In the event that the costs of the low voltage breaker are allocated to DCGs in addition to the costs of the high voltage breaker and the costs of the transformer, then the DCG Consortium suggests that two calculations should be done, similar to the methodology in Fortis' proposal, i.e. the STS contract capacity could be used for the allocation of low voltage breaker costs, but a separate number, totalized at the transformer, should be used to allocation costs of the transformer and high voltage breaker. Regarding the components to be included, the DCG Consortium explained on slide 27 of its proposal why the low voltage breakers should not be included in the cost calculation. Specifically, it noted: • The number of breakers at a station is determined by the distribution network and existing load customers. Accordingly, the DCG should not be required to contribute towards the costs of the additional feeders. • In many cases, a DCG will pay incremental connection costs associated with a new low voltage breaker or the upgrade of an existing low voltage breaker. In these cases, paying a contribution towards the shared facilities costs associated with these would be double counting

Appendix A

Principle	Description
Overarching	Tariff design and implementation facilities a fair, efficient and openly competitive market (FEOC) • Fosters competition and encourages new market entry • Efficiency • Avoidance of undue discrimination • Fairness
Principle 1	Parity between transmission interconnection costs calculation for transmission connected customers and distribution connected customers while enabling effective price signals to ensure to optimal use of existing distribution and transmission facilities • Fairness • Effective price signals
Principle 2	Market participants should be responsible for an appropriate share of the costs of transmission facilities that are required to provide them with access to the transmission system (may include paying a contribution towards facilities paid for by other customers and refund to the customer that paid) • Fairness • Cost Causation
Principle 3	DCG participants should have cost certainty when making their final investment decision (FID) • Certainty of future costs • Stability
Principle 4	DFOs should be provided with reasonable certainty re: cost treatment/recovery • Certainty of future costs • Stability
Principle 5 (added)	Ease of understanding and implementation • Simplicity • Stability