

# Meeting Notes

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DERs Connection Review (EB-2019-0207)  
Working Group Meeting

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**Meeting Date:** September 28, 2021

**Time:** 9:30am –11:30am

**Location:** Ontario Energy Board  
ZOOM

Attendees:

<b>Name</b>	<b>Organisation</b>
Bob Bralectic	Alectra
Nicholas Gall	CANSIA
Marc Brouillette	CME
Paul Luukkonen	Customized Energy Solutions Ltd. (CES)
Ian Jarvis	Demand Renewables
Tatjana Dinic	Electrical Safety Authority (ESA)
Kathryn Farmer	Electricity Distributors Association (EDA)
Marty Tzolov	Elenchus Research Associates (For PWU)
Kent Elson	Elson Advocacy (On behalf of Environmental Defence) (ED)
Thomas Ladanyi (Tom)	Energy Probe (EP)
Justin Wahid Rangooni	Energy Storage Canada
Robert Barkely	Great Circle Solar
Ryan Boudreau	Hydro One Networks Inc. (HONI)
Mohab Elnashar	Independent Electricity System Operator (IESO)

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Greg Sheil	London Hydro (London)
Utilia Amaral	Marketstep
Brian Pelkey	Ministry of Energy, Northern Development and Mines (MoE)
Mark Thompson	Ministry of Energy, Northern Development and Mines (MoE)
William Coutts	Ministry of Energy, Northern Development and Mines (MoE)
Roy Hrab	Ontario Energy Association
Brad Kyte	Ontario Power Generation
Steve Pepper	Ontario Society of Professional Engineers
Matt Sachs	Peak Power
Richard Carlson	Pollution Probe
Richard Laszlo	QUEST Canada
Nishant Gehani	Rodan Energy Solutions (Rodan)
Hani Taki	Toronto Hydro-Electric System Ltd. (Toronto Hydro)
Ryan Holder Catherine Ethier Natasha Gocool	Ontario Energy Board.

*These notes summarize the information provided during the working group meeting and key points of the issues presented in the published materials.*

## **Meeting Agenda**

### **1. Introduction:**

- Welcomed participants and provided general instructions on how to participate in the meeting.
- Participants introduced themselves and their affiliations.
- OEB staff provided a brief review of the scope and focus of this initiative.
- The purpose of the meeting was defined as follows:
  - To provide as status update on the Risk Framework
  - To discuss the Top 3 priority selections and the subgroup mandate for Tranche 3
  - To discuss the connection of EVs to the grid
- There were no new agenda items added for discussion.

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## 2. Risk Framework Update

- The lead of the small group working on the Risk Framework provided a status update and outline the next steps for discussion.
- The Working Group (WG) members were reminded that the main objective of the Risk Framework, is a tool that signals early cost and indicated any complexity of connection, that is defined by size.
- It was noted that continued development of the Risk Framework is a high priority item for this consultation.
- The next step in finalizing the Risk Framework will include the following: the small subgroup will focus on identifying the risk categories and then will align them with the technical requirements.
- Toronto Hydro staff has also joined the small group to help with finalizing the Risk Framework.
- The small group members also intend to work on mapping out the feeders during their next meeting and using the feeders as the foundation of the risk scores that will be associated with the risk categories.
- The small group members anticipate that Hydro One (HONI) will support their efforts in creating a sandbox CIA data set. The data set would be generic in figuring out the CIA results and will help to identify the diversity of different DER types that they have applied on the connection system.
- It was mentioned that the purpose of the data set from HONI will serve as a proof of concept which other LDC's will be able to use, when adopting the Risk Framework.
- A member enquired about Toronto Hydro's system uniqueness and how it will impact the Risk Framework.
  - A member from Toronto Hydro indicated the system is unique because of their Underground Residential Distribution (URD) system. There are multiple layers of switching or multiple loop configuration. It can be complicated to operate and deal with issues when they come up including outages and DERs. As well, the system has a Dual Radio System, found in the midtown and downtown Toronto areas that have 2 feeders going into a loop configuration for multiple customers. There is also a secondary one in London, Ontario.
  - A member pointed out the grid between Alectra and HONI is quite different compared to any of the other types of distribution configuration and has unique characters, equipment, level of fault currents and the system is operated differently which needs to be taken into account for the Risk Framework development.
- Members suggested that the framework attributes need to be consistent with built in flexibility allowing to deal with exceptions as they arise.
- Another member suggested an alternative would be to create a mechanism where each LDC can have their own variances for individual feeders or connection for an area and the Risk Framework can create an exemption for a technically challenged feeder.
- OEB Staff commented that it was a good idea. However, there will be attributes that are defined on the feeder, that will capture the uniqueness, similar to a DER used case, variances will be captured and LDC's can apply those factors and the risk matrix will

provide an output to the relative risks.

- A member highlighted the possible use of artificial intelligence as a tool to formalize the Risk Framework.
- It was noted that as the data is developed, machine learning and artificial intelligence can be used to refine the risks, and this will provide the enhanced consistency and clarity that everyone is looking for.
- A member enquired, if the proof of concept along with reviewing and finalizing the size categories will be conducted during Tranche 3 or is it anticipated that this would flow into Tranche 4?
- It was proposed that Tranche 4 will be dedicated to finalizing the Risk Framework and if needed.

**Action Item:** The small subgroup members to move forward with finalizing Risk Framework and provide an update at the next subgroup meeting.

- **Key Discussion Outcome:** The Working Group members identified the Risk Framework as a high priority item for Tranche 3 discussions. A member of the small subgroup (Nishant Gehani) provided an update on the status of the Risk Framework. The small subgroup expects to define the risk categories and feeder groups and with Hydro One's assistance, by creating a Sandbox CIA data set that LDC's can use. This will help with securing the proof of concept. Members were mindful of the uniqueness of Toronto Hydro's distribution system and were in favour of including their system uniqueness into the Risk Framework, to ensure it captures all input information used in the Risk Framework to provide consistency across Ontario.

### 3. Tranche 3: Proposed Topics

- As an action item from the last meeting, OEB Staff circulated a list of proposed topics for discussion in Tranche 3 and requested the WG members to select their top 3 priorities and submit a rationale for each chosen priority.

#### Technical SG Topic: Risk Framework

- It was noted that continued development of the Risk Framework continues to be a high priority as selected by the working group members.
- Members were supportive of the idea to move forward with the development of the Risk Framework. It was noted that the risk framework will address connection issues relative to electric vehicles as the framework is a flexible tool.

#### Technical SG Topic: EVs as use case

- WG members sighted a strong interest in electrification of vehicles (EV's) charging as it relates to bi-directional chargers.
- Members were reminded, during subgroup discussions on EV's, they will need to remember the scope of this initiative, definition of DERs and to be mindful of how EV's fits into DERs.
- A proposal was made that discussions on EV's may begin with a combined subgroup meeting, in which aspects of EV charging will be discussed.

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- Member were reminded, the DERs Connection Review will not be focusing on rates and EV rate classes, as it is out of scope and can be moved into the parking lot for future determination of where it should reside.
- During the discussion was also noted that one direction EVs are not classified as DERs

### **Process SG Topic: Application Fee, Consistency and Cost Estimates**

- In review of the priorities, Application Fee's, Consistency and Cost Estimates was identified as a Tranche 3 priority for discussion.
- In regards to the Cost Estimates priority, OEB Staff determined that consistency and predictability is an issue that can be broken into two separate topics:
  - Cost estimates to include the variance in +- 50%; and
  - 2. The need for transparency of cost estimates.
    - As the subgroup members discuss improving the cost estimates, stability will be addressed to align the cost estimates.
- A member suggested discussions on cost estimate should include discussions on related benefits from cost estimates because costs end up resulting in benefits locally to the system and becomes a net greater than costs, which reduces constraints for electricity.
- Another member stated the discussion on cost estimates should relate to the cost of interconnection and the accuracy of Class C costs.
- In regards to the Application Fee priority which was raised in Tranche 1, OEB staff determined this was a response from LDC's who were concerned about cyclic surges in applications and the suggestion of application fees, was based on speculative type behavior due to DER installations. As a result of cyclical surge in applications, members suggested implementing a nominal fee to deal with the surge of applications and felt it the nominal fee would serve as a tool to deter application surges.
- Through the discussions on these priorities, members were in agreeance that application fees and consistency and predictability should be removed from the list of priorities for discussion in Tranche 3, as it is seen as a low priority.
  - One member indicated Tranche 3 discussion on consistency and predictability can entail discussions on the application process, specifically the start and stop timing of the CIA applications because delays in CIA application processing often occurs.

### **Process SG Topic: Benchmark Performance Reporting**

- In review of Benchmark Performance Reporting priority, it was noted that this topic was seen as a low priority at last meeting. However, some members identified this topic on the list of discussion topics for Tranche 3.
- One member indicated that this initiative will flow into a Tranche 4 and stated that this priority can be discussed at that that time.
- OEB Staff noted the OEB currently has ongoing initiatives that are dealing with benchmark performance reporting and those issues can be discussed in those forums.

**Action Item:** No action at this time

**Key Discussion Outcome:** In review of the Tranche 3 priorities chosen by the Working Group members, members identified the Risk Framework and Cost Estimates as the high priority items for discussion. Members agreed to remove Application Fees and Consistency and Predictability, as they felt it was not high priority item. However, one member requested the subgroups discuss the start and stop timing of CIA Applications process times, as application delays continue to rise. In review of Benchmark Performance Reporting, OEB noted there are current OEB initiatives that can deal with any issues the members have and members agreed this is a low priority item that can be discussed in Tranche 4. Finally, in regard to EV's, OEB staff noted that discussions on this priority will begin with a combined subgroup meeting. It was noted that any one direction EV is not identified as a DER and an EV rate class is out of scope for discussions in this initiative.

#### 4. Electrical Vehicle Discussion:

- As an action item from the last meeting, a presentation on Electrical Vehicle Discussion was delivered to the Working Group members by Environmental Defense (ED) representative
- The presentation on the Electrical Vehicle Discussion was circulated to the Working Group Members, by Kent Elson on September 28, 2021.
- In review of the presentation material, it was noted that
  - One-Directional chargers of <10kW are not classified as DERs,
  - For Bi-Direction chargers of =<10kW, it would involve a micro connection process that entails a 15-60 day application processing timeline
    - A member noted it would entail 60 days processing time from the transmission side
  - For Bi-Directional chargers of ->10kw, a small, medium or large connection process would be applicable
- A member from ESA noted that bi-directional chargers are not currently offered for EV's to the grid because manufacturers have not currently identified the EV feeding options to the grid.
- It was noted that businesses and residential use of EV's, would either require load shifting, time of use, and/or GA and would be applicable to a large connection request.
- As well, a member noted the discharge capacity will include a six times peak demand and indicated this can result in a huge potential for lowering system costs thru load sharing.
- A member from the ESA stated the requirements by ESA, indicates any proponent that needs to obtain an EV equipment, would need to submit a request to the ESA. As well, a proponent would need to notify the ESA, if the customer intends on installing a bi-directional charger that is >10kW, in any location and a plan review will be required, as per Section 86 of the [Ontario Electrical Safety code](#).
- OEB staff noted that certain aspects of the EV discussion may fall in the FEI Initiative and EV Bi-Directional charging will be discussed within the Risk Framework discussions.

**Action Item:** No action at this time

**Key Discussion Outcome:** In review of the presentation on Electrical Vehicles (EV's), it was noted that one-directional chargers are not considered DERs and depending on the size of bi-directional EV chargers, they are consistent with the micro, small, medium and large connection process. Noted by the ESA, proponents intending on installing an EV charger will

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need to follow the requirements and the process within the Ontario Electrical Safety Code and will be required to submit to the LDC a plan for review. Discussions on EV's will take place during subsequent subgroup meetings before being branched out into the appropriate subgroup may need further discussion.

## 5. Subgroup Mandate:

- The Working Group members reviewed subgroups mandate for Tranche 3 discussions.
- OEB Staff noted, in review of the cost estimates, the Process SG will look at transparent cost's estimates done by 3<sup>rd</sup> parties to ensure transparency and consistency. It has been highlighted that some LDC's are outsourcing the CIA to a 3<sup>rd</sup> party company.
- A member requested examples of when an LDC has outsourced the CIA to be conducted by a 3<sup>rd</sup> party, as this member was not familiar with this situation.
- Benchmark performance reporting was included in the Process SG priority items OEB staff requested members to highlight the aspects of the benchmark performance reporting that stakeholders are seeing as inconsistent.
- It is noted the discussions on Dispute Resolution Process is currently on hold for future discussions and will possibly take place in Tranche 4.

### Working Group Report:

- OEB Staff reminded the Working Group members that WG agreed to capture discussions within the Working Group Report.
- Members were reminded that the document is available on the MS Teams SharePoint file and encourage the members to continue update the report.

**Action Item:** OEB Staff to resend the Working Group members and Subgroup Members the MS Teams SharePoint link to the Working Group Report.

## 6. Next Steps and Action Items:

- The next Working Group Meeting will be held the week of October 25, 2021.

### Action Items:

1. Benchmark Performance Reporting- Working Group members to submit items for consideration
2. Working Group Report: OEB Staff to resend the link for access to the SharePoint report
3. Dispute Resolution Process: Kent Elson (ED) to report back on Dispute Resolution for the next process subgroup meeting

**Next Working Group Meeting: October 25, 2021**