Distributed Energy Resources (DER) Connections Review

Working Group

EB-2019-0207

December 4, 2019

Meeting Purpose

- Review high level issues & stakeholder comments
- Confirm DER Connections Review Scope and Priorities
- Working Group - Organization & Subgroups
- Agree on Definitions
- Next Steps

Overview

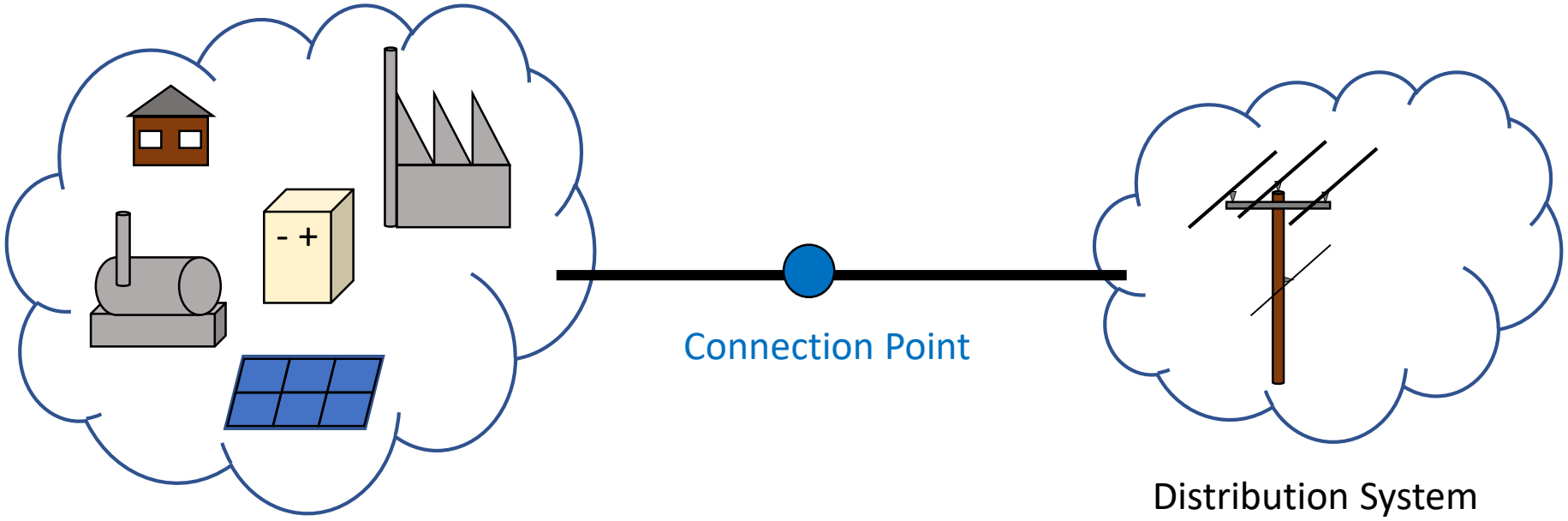
- On August 13, 2019, the OEB issued a letter commencing an initiative to review its requirements in regard to the connection of electrical generation and storage distributed energy resources (DERs) to a distribution system by a licensed electricity distributor (DER Connections Review).
- The purpose of this initiative is to identify any barriers to the connection of DERs, and where appropriate, standardize and improve the connection process.
- The letter identified high level issues for the review and invited stakeholders to provide written comments on:
  - The issues
  - How to approach addressing them
  - Proposed solutions
- Stakeholder comments overall are supportive of the initiative

High Level issues – What we heard

- ***Customers*** want clear and consistent connection rules and requirements
- ***DER Providers*** *and* ***LDCs*** *have raised questions about terminology* and regulatory rules in respect to DERs: There is a need for standardization and clarity of definitions
- ***Consumer Groups and LDCs*** *are concerned with cost responsibility:* The need for clear rules regarding cost responsibility for connection of DERs to ensure fairness to DER customers and all other customers of the distributor.
- ***Existing LDC Working Groups*** *and* ***DER Providers*** *are seeking solutions that will reduce connection timelines:* More detailed and comprehensive timelines for the connection process helps ensure the timelines are well understood
- ***LDC Groups*** *and* ***DER Providers*** *are seeking clarity and consistency about technical requirements:* Appropriate standardization of connection technical requirements

**Coordination with the other initiatives (i.e. OEB, IESO, industry)*

Scope:



- Based on what we heard, we are proposing to move forward with a working group which will focus on the connection point of a DER to a distribution system.

Scope (Cont'd)

Scope:

- Consider issues identified by stakeholders;
  - Definitions: DER, Non-Injecting DER, Injecting DER, etc.
  - Connection Process, Timing and related Cost Issues
  - Technical Requirements and related Cost Issues

Outputs:

- Recommend solutions for streamlining, consistency and clarity

Out of Scope:

- Possible new services for DERs and Value of DERS are addressed by Responding to DER's (ie value, benefits), Utility Remuneration Initiatives
- **Note:** Issues within the customer's premises which are downstream of the meter or demarcation point and those which are upstream in the distributor's system will not be considered unless it affects the connection point.

Proposed Approach

- Feedback from stakeholder comments supported using a working group (WG) approach to develop solutions
- Stakeholders with technical expertise and experience expressed an interest in participating in the WG
- Input from existing Industry WGs will be considered.
- Staff suggests forming two subject specific sub-groups

Form subgroups (discussion)

Proposed Subgroups:

A. Review of Connection Process, Timing and related Cost Issues

- Review current processes and timeframes to identify and make recommendations to improve the connection process.
- This will include making recommendations for new or different processes possibly based on size or technology.

B. Review of Technical Requirements and related Cost Issues

- Make recommendations for standardization of technical requirements for connections possibly through reference to outside standards or developing requirements.

**Review will look for opportunities to streamline and standardize where appropriate*

Form subgroups (Cont'd)

- OEB staff will be available for logistics and facilitation of subgroup meetings if required
- Request volunteers for Subgroup membership
- Volunteers with related subject matter expertize in connections and technical requirements
- Nominations with names and summary of qualifications to be emailed Catherine.Ethier@oeb.ca by December 11, 2019
- OEB will confirm subgroup composition by December 16, 2019

DER Connections Review - WG

Focus, Purpose & Scope

Focus Area

Review DSC Connection requirements for DERs

Purpose of the WG

Provide recommendations to the OEB that will result in clearer and more consistent rules with respect to process, timeframes, costs and technical requirements for connecting DERS where appropriate, and improve the overall connection process.

WG Scope

The working group will focus on the connection point between the customer and the distributor's system.

This will include the metering point, whether before or after the interface.

Note: Issues within the customer's premises or downstream in the distributor's system will not be considered.

Policy Issue

DER connection process, cost, technical requirements, and connection timeframes vary greatly across the Distributors. The lack of a regulatory definition for DERs and lack of clarity where and how the regulatory framework applies to address some DER connections is causing lack of standardization and misinterpretations.

Organization

Membership

Consumer Groups, Utilities, Industry Associations, Other Service Providers, Public Interest Groups

Governance

- OEB staff will facilitate meeting preparation and post materials
- Working Group will review subgroups proposed solutions and develop recommendations for staff consideration
- Subgroups:

A. Review of Connection Process, Timing and related Cost Issues

- *Review current processes and timeframes to identify and make recommendations where clarity in definitions or responsibilities could reduce timing.*
- *This will include making recommendations for new or different process based on size or technology.*
- *The cost issues relate to various actions within the process (i.e. who does what, who pays for what)*
- *Make any other recommendations to improve the process*

B. Review of Technical Requirements and related Cost Issues

- *Make recommendations for standardization of technical requirements for connections through reference to outside standards or developing requirements.*
- *The cost issues relate to various actions within the process (i.e. who does what, who pays for what)*

Deliverables

1. Working Group

- Meeting Notes
- Definitions
- Feedback on proposed solutions and recommendations to staff based on groups experience and expertise and the input from the subgroups

2. Subgroups

Information and views based on expertise and experience

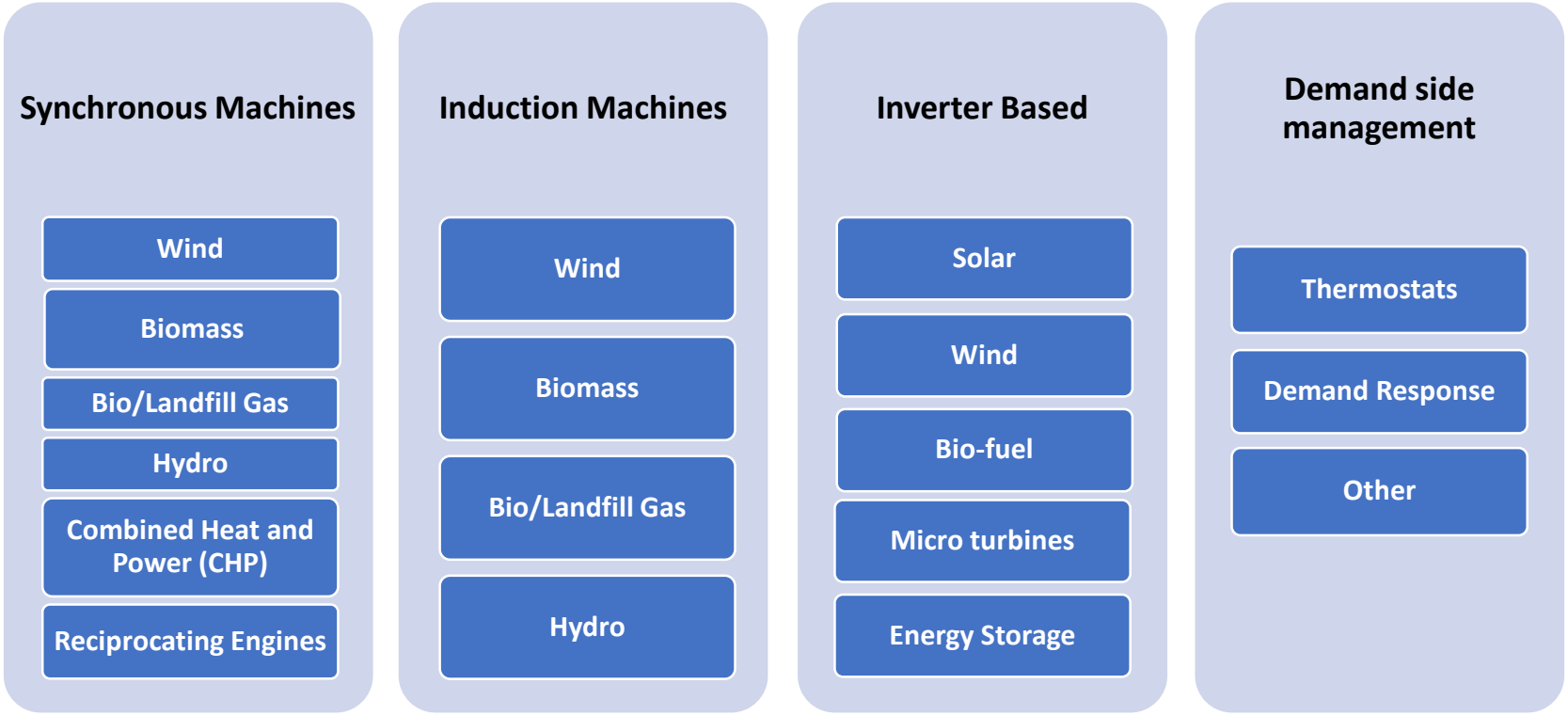
- *Paper*
- *Technical specification*
- *Presentation (ppt) deck with recommendations*

Definitions

Discussion

Introduction – DER Definition Example

Distributed Energy Resources (DERs) are electricity-producing resources or controllable loads that are connected to a local distribution system or connected to a host facility within the local distribution system - (IESO).



http://www.ieso.ca/en/Learn/Ontario-Power-System/A-Smarter-Grid/Distributed-Energy-Resources

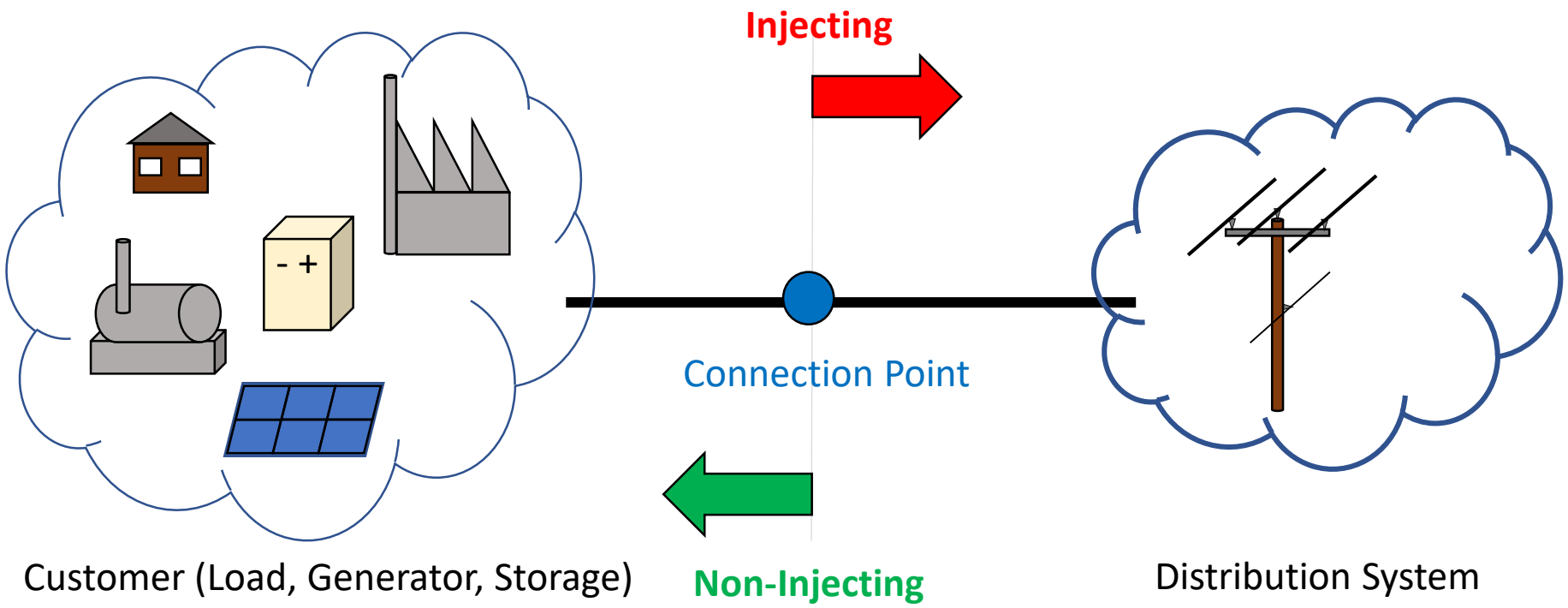
A New Connection Paradigm

- For the purpose of discussion, staff proposes that there are two types of connections to the distribution system:

  - **Non-injecting:** Power flow through the connection is strictly from the distributors system (i.e. from the grid) to the customer's premises (e.g.. connection is considered to supply a load).

  - **Injecting**: Power flow through the connection is from the customer's premises to the distributors system (i.e. to the grid) where the injection to the system is typically intentional (e.g. connection is considered to support a generator).

A New Connection Paradigm



Electrical Demarcation Point

- From the DSC:
  - “Operational demarcation point” means the physical location at which a distributor’s responsibility for operational control of distribution equipment including connection assets ends at the customer;”
  - “Ownership demarcation point” means the physical location at which a distributor’s ownership of distribution equipment including connection assets ends at the customer;”
  - “Point of supply”, with respect to an embedded generation facility, means the connection point where electricity produced by the generation facility is injected into the distribution system;”

Next Steps

Timeline of Working Group Meetings:

- Proposed Working Group Meeting Dates:

  i. First Meeting: December 4, 2019
  ii. Second Meeting: in 2 weeks (December 17, 2019)
  iii. Third Meeting: End of January
  iv. Fourth Meeting: End of February
  v. Meeting as Required (TBD)

Next Meeting:

- Member takeaways for next meeting
  - Confirm subgroup membership and your organizations representative for the subgroup by December 11.
  - Provide thoughts on a prioritized list of issues for subgroup to consider
  - Identify by next meeting any additional definitions for consideration for this review
  - Agenda for next meeting;
    - Discuss any remaining definition issues
    - Identify subgroup issues and plan for meetings

Thank You