



# **Report of the Framework for Energy Innovation Working Group EB-2021-0118**

September 2<sup>nd</sup>, 2022

## Introduction

Peak Power welcomes this additional opportunity to participate in the OEB's consultations on distributed energy resources ("DERs").

Peak Power Inc. ("Peak Power") is a Toronto-based clean technology that enables batteries, buildings, and electric vehicles ("EVs") into grid resources. We employ over 60 professionals and experts, and have operations across North America in Ontario, New York, and California. Peak Power has extensive experience in maximizing the potential of DERs through several world leading projects across multiple asset categories.

- **EVs:** The "Peak Drive" vehicle-to-building ("V2B") project is one of the world's first demonstrations to dispatch EVs during peak hours in a commercial building setting. The project consists of 21 electric vehicles in two commercial buildings downtown Toronto, where EVs are participating in demand charge management and demand response. We are also actively working with the IESO to determine how aggregated EVs can better serve the wholesale system.
- **Buildings:** Our Westchester "Virtual Power Plant" ("VPP") in partnership with Kruger Energy, is one of the first and largest VPPs in New York State, turning four distinct buildings into a grid service provider, providing demand-side and front of the meter services.
- **Batteries:** In Kearny Mesa, California, and in partnership with Mitsubishi's subsidiary Diamond Generation Corp, Peak Power was the first to operate an energy storage asset under FERC Order No. 841 – a "through-the-meter" asset that could participate in both behind-the-meter and wholesale revenue streams, including frequency response and resource adequacy.
- **Multi-Asset VPPs:** A multi-asset "swarm" response in Ontario of 8 grid-interactive buildings in the downtown and midtown core of Toronto, including 2 energy storage assets, and 8 bi-directional EVs responding to a demand response event. On January 21st, 2020, we were the first in the world to demonstrate this, and since then, we have had over 400 successful dispatches of batteries, buildings, and EVs collectively.

First and foremost, Peak Power appreciates the efforts of OEB staff and all the members of the FEIWG in advancing the discussions with respect to further DER integration into the system. We are pleased to provide the below comments on the question areas put forward by the OEB.

Regards,



Mike Skirzynski  
Sr. Director, Strategy and Corporate Development  
Peak Power Inc.

## Responses to Key Comment and Question Areas

### General

1. *What is the relative priority of issues and next steps identified by the FEIWG?*

**Peak Power Response:** We believe that the relative priority of the issues identified by the FEIWG should be as follows:

1. An appropriate BCA framework to evaluate DER solutions should be the near-term focus. To act as a catalyst for DER adoption, the OEB should send a clear signal to distributors that DER-based solutions are actively being treated on equal footing to traditional wires options. The BCA should leave no doubt that if appropriately evaluated, DER solutions stand a reasonable possibility of being approved in the rate cases of distributors. Furthermore, this will provide certainty to the private sectors that DER solutions have regulatory backing in Ontario.
2. Proper incentives to distributors to facilitate the adoption of DER solutions would be the logical next step. This would also send a clear market signal to the private sector that DER adoption is actively being encouraged in Ontario's regulatory climate. Historically, investors have been hesitant to deploy capital towards DER solutions in Ontario post-FIT, as the regulatory climate has been volatile.
3. Finally, ensuring distribution planning appropriately considers DER adoption should still be a priority, but this is also a catch-22. DER forecasts can dramatically change based on the outcomes of #1 and #2 described above. We believe that the OEB should first create a definitive stance and strategy on DER adoption, and only then will there be an ability to develop appropriate DER forecasts for distribution planning.

### Developing a Benefit Cost Analysis ("BCA") Framework

2. *What is the appropriate scope of a BCA framework? In other words, should a narrow or broad set of benefits and cost be considered with respect to deployment of DERs as alternatives to traditional solutions to meet electricity distribution system needs.*

**Peak Power Response:** Peak Power believes that a broad set of benefits be considered with respect to the deployment of DERs, in addition to a base set of benefit where appropriate. As a frame of reference, the OEB should consider how the United States is identifying areas of interest that are incentivized for DER deployment. Some examples of these include:

1. **Designated Energy Communities**<sup>1</sup>: Communities that were previously economically driven by fossil fuel extraction and are now grappling with the transition to zero carbon technologies. Applicable to Ontario could potentially be communities that have been impacted by the offshoring of manufacturing or production.
2. **Low-Income and Marginalized Communities**<sup>2</sup>: These communities stand to greatly benefit from the economic development and resiliency that is provided by DERs, and a

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<sup>1</sup> Interagency Working Group on Coal & power Plant Communities and Economic Revitalization. <https://energycommunities.gov/>

<sup>2</sup> Climate and Economic Justice Screening Tool. <https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5>

similar framework could be explored for Ontario's Remote Communities to assess the benefits of DERs.

We would also urge the working group to not consider environmental and financial impacts as mutually exclusive. There are multiple ongoing consultations, such as the Ontario Emissions Performance Standard ("EPS")<sup>3</sup> and the Federal Clean Electricity Regulations ("CER")<sup>4</sup> that are increasingly linking financial incentives to environmental performance. Consideration should be made as to the impacts of these regulations on the financial aspects of Benefit Cost Analysis.

## Developing and Implementing Utility Incentives

### 3. *How might the OEB remove disincentives for utilities to adopt DER solutions?*

**Peak Power Response:** Peak Power believes that distributors need to be sent clear signals from the OEB that Non-Wire Alternative ("NWA") solutions will be evaluated on level grounds as traditional capital solutions. There should be no uncertainty around DER based solutions being approved, provided appropriate justification. Currently, utilities are disincentivized to consider NWA approached outside of limited-scope innovation projects (such as the York Region NWA Pilot and the Toronto Hydro DR Pilot). Established remuneration mechanisms do not provide utilities with any financial benefit to choosing lower-cost solutions that reduce infrastructure requirements. Changing utility remuneration models to incentivize least-cost planning is a necessary step to align utilities with the long-term goals of the OEB, the Provincial Government, and reducing overall ratepayer costs.

Peak Power also believes that the OEB should consider permitting hybrid ownership structures for utilities, where there is joint ownership of an asset between a utility and one or more private players. This type of arrangement may only be applicable in specific cases, such as when a distribution transformer is suffering from performance or power factor issues due to unique customer loads.

### 4. *Is providing incentives to distributors to facilitate adoption of DER solutions (i.e., non-wires alternatives) appropriate? Under what circumstances?*

**Peak Power Response:** Providing incentives to distributors to adopt DER solutions would be appropriate. Based on the options laid out, we believe that performance-based scorecard would be optimal under current OEB regulatory frameworks, as this is the nearest to the performance-based remunerations scheme of Ofgem's RIIO-2 Framework<sup>5</sup>. In the long-run, we believe that a Totex system such as RIIO-2 would be ideal for ensuring that Ontario distributors are acting with the best interests of customers in mind.

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<sup>3</sup> Emissions Performance Standards (EPS) program regulatory amendments for the 2023-2030 period. <https://ero.ontario.ca/notice/019-5769>

<sup>4</sup> Clean Electricity Regulations. <https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/clean-electricity-regulation.html>

<sup>5</sup> Network Price Controls 2021-2028 (RIIO-2). <https://www.ofgem.gov.uk/energy-policy-and-regulation/policy-and-regulatory-programmes/network-price-controls-2021-2028-riio-2>

5. *If incentives are appropriate, how should the OEB select/develop the form of incentive that should be available?*
  - a. *Are there options the incentive subgroup did not identify that should be considered?*

**Peak Power Response:** As previously mentioned, the subgroup and more broadly the OEB should more deeply evaluate how a Totex framework might be implemented to encourage the adoption of DERs and marketplaces (i.e., NWAs) that unlock their full benefit potential.

## Ensuring Distribution Planning is Informed by DER Adoption

6. *What should the OEB consider when setting expectations to ensure distributors appropriately consider DER adoption when planning and operating their systems (e.g., industry guidance, additional filing requirements for distribution system plans, new requirements for reporting and sharing information)?*

**Peak Power Response:** Peak Power believes the OEB, and the working group should consider two key points:

1. Peak Power believes that the process for setting and communicating interconnection fees to DER developers is flawed. The current approach follows a philosophy whereby the last person to install a DER in a territory then triggers and upgrade requirement. This DER developer is then required to pay for the full upgrade, even if many other DERs have been installed as low to no-cost in the same area. The timing of the process also leads to uncertainty of costs, as interconnection costs of up to \$500,000 may be unknown at the time of creating contracts with end users. This fundamental uncertainty will typically lead to the end user getting a worse deal, or having the project cancelled. Peak Power believes that the OEB should consider an approach where a nominal fee is charged to all developers that connect to the grid, regardless of the need or cost for upgrades. This rate could be variable based on the size of DER being connected and could be designed to be “revenue-neutral” such that the total cost paid for all connections could be equal to the amount required for upgrades under the current scenario. Peak Power believes that this modified approach would be fairer for all developers, would provide certainty to financiers, and would lead to better deals for end users of energy.
2. Peak Power cautions the OEB that EV projections in Ontario currently represent an overly conservative scenario. EV adoption is projected to rapidly increase globally, and Ontario will be no exception. This need to be a strong consideration in DER adoption scenarios as EVs will soon reach a tipping point for mass adoption regardless of incentives or policy drivers.