

# Memorandum

To: Stakeholder Advisory Committee

From: Kim Warren, Vice President Market & System Operations and COO

Date: August 17, 2016

**Subject: IESO Business Update – Grid/LDC Coordination Initiative**

With higher penetrations of distributed energy resources within the distribution system and an evolving distribution sector there is an increased need to understand the impact of changes and new technologies on the operation of the bulk power system. In its role as the system operator, the IESO is looking to enhance reliability and efficiency through the coordination of IESO and LDC-controlled resources to better understand the impacts that new technologies have on the operation on the bulk power system; the information that needs to be shared between the LDC and the IESO; and the reliability services and benefits that could be provided by solutions in the future.

[PowerStream's POWER.HOUSE project](#), which deployed the POWER.HOUSE solution in 20 homes, was initiated by PowerStream to study the feasibility of distributed energy resources as an alternative to the traditional wires solution for delivering electricity to the customers.

Initiatives such as this could have broader impacts on grid interoperability as adoption of these emerging technologies and business models increase across the sector. These impacts can be in the form of offsetting system demand, deferring, reducing or removing the need for wires solutions and the ability to provide or augment certain reliability services which have been traditionally provided at the bulk power system level. Based on the initial outcomes and data gathered from this project, PowerStream will examine the feasibility for increased adoption of its POWER.HOUSE solution.

Due to the complementary nature of the POWER.HOUSE initiative with the IESO's interests in examining new solutions, the IESO has begun to work with PowerStream to look for opportunities that will:

- Enhance reliability and efficiency through coordination of IESO and LDC-Controlled resources
- Establish a framework for data sharing between the IESO and LDCs; and
- Explore the feasibility for further growth in this initiative.

This initiative, which is expected to be completed in August 2017, is the initial step to understanding the interoperability needs of the grid and distribution sector and will help inform the information and services needed to effectively operate the bulk power and distribution systems as penetration of distributed energy resources, such as the POWER.HOUSE solution increases. The IESO will continue to explore similar activities with other LDC's over the coming months/years.

As part of the Grid/LDC Coordination Initiative, we intend to develop a communication plan that will help build awareness of and interest in the initiative with LDCs, other electricity sector agencies, government and sector partners. The plan will also outline the objectives for the initiative and highlight the work streams and phases that will lead to the release of a final report. Equally important, the communication plan will provide transparency about the initiative and also ensure that all interested parties have access to the project's final outcomes.