

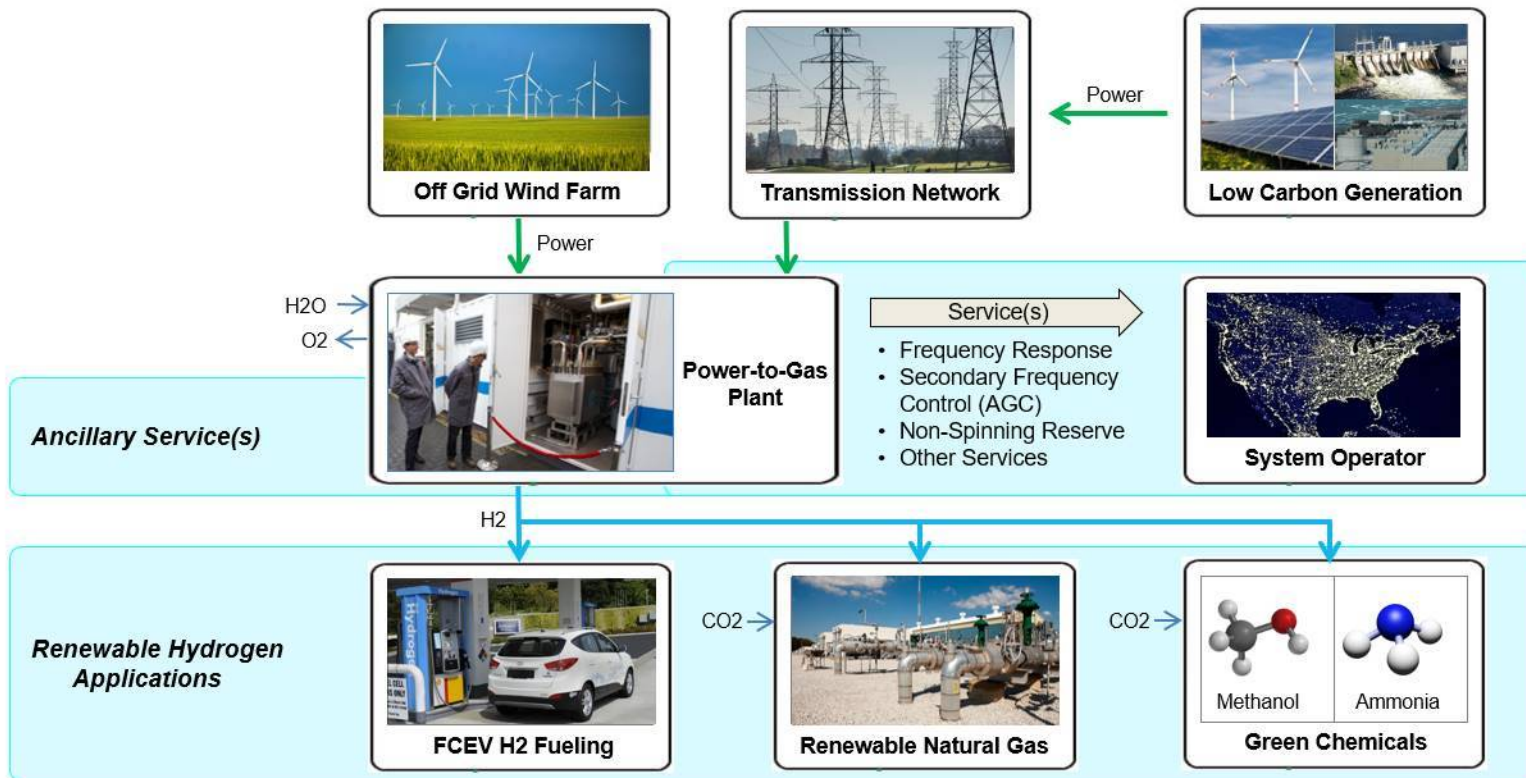
## **IESO Engagement**

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**From:** Rob Harvey  
**Sent:** May 04, 2018 4:32 PM  
**To:** IESO Engagement  
**Subject:** Feedback on IESO's Power-to-Gas Request for Expression of Interest

The Power-to-Gas Request for Expression of Interest (RFEI) under development by the IESO is an important initiative for Ontario because P2G provides unique pathways to transform sources of low carbon generation into hydrogen for transport fuel, or renewable natural gas, or green chemical feedstock, and at the same time, provide ancillary services to support IESO's operation of the grid. In a nutshell, Power-to-Gas = Renewable Hydrogen + Ancillary Services. There are many possible business models with different combinations of generation, ancillary service(s) and renewable hydrogen applications as shown in the schematic below. This RFEI is well designed to gain a deep understanding of alternative Power-to-Gas concept and projects that are under development by proponents as well as the project benefits and implications of existing market and regulatory structures to realize the full potential value of P2G projects.

# Power-to-Gas



Here are a few suggested edits for the text of the draft REFI:

- Use '**Power-to-Gas**' instead of power-to-gas throughout
- In Section 1.0, For the purposes of this REFI, **Power-to-Gas** (or P2G) refers to the process of converting electrical energy to hydrogen and **providing ancillary services**.
- In Section 1.1, The electrolyzers involved in P2G can also act as a flexible load, varying electricity consumption in response to electricity prices or for the provision of services that are of value to the operation of the electricity system (**frequency response, secondary frequency control, non-spinning reserve, demand response, regulation, reactive support and voltage control**).
- Pg. 11 Value Streams, Examples of value streams include **ancillary** services to the electricity grid.

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