

IRPA Pilots

April 2022

Pilots Objectives

- As per the IRP Decision “The pilots are seen as an effective approach to understand and evaluate how IRP can be implemented to avoid, delay or reduce facility projects” and “Enbridge Gas is encouraged to use the IRP pilot projects as a testing ground for an enhanced DCF+ test...”
- Through discussions with the IRP TWG, pilot’s objective is to improve understanding of how to design, deploy and evaluate IRPAs that cost effectively delay or avoid the need for future infrastructure spending

IRPAs

- The following IRPAs will be considered either alone or in combination for pilot projects:
 - Demand-side IRPAs
 - Enhanced Targeted Energy Efficiency (ETEE)
 - Demand Response
 - Supply-side IRPAs
 - Compressed Natural Gas (CNG)/Liquified Natural Gas (LNG)
 - Supply-side deliveries
 - Renewable Natural Gas (RNG)

General Pilot Criteria

Selected pilot projects must meet the following general criteria:

- Pass the IRP Binary Screening
- Be tied to an existing system need and identified in EGI's 10-year Asset Management Plan
- Demand reduction required is technically achievable with IRPAs
- Have the potential for transferrable learnings and good data collection
- Act as a proof-of-concept project with good potential for scalability
- One long-term project (2027+) and one near-term project (within the next 3 years) where demand + supply IRPAs are implemented
- Although cost effectiveness will be an important criteria to achieve, there is the potential that the alternative may not be the most cost-effective solution when compared to the baseline facility solution

Pilot #1: ETEE + Supply-side IRP

- **Pilot Description:** Implement an Enhanced Targeted Energy Efficiency (ETEE) program for a near-term need (within the next 3 years) and use a supply-side solution to bridge timing gap
- **Objective:** Understand how ETEE measures impact peak hour demands and understand how to design, deploy and evaluate an ETEE program. In addition, develop a cost recovery & incentive mechanism for ETEE and O&M based supply-side IRPAs
- **Criteria:**
 - Single Sourced, if possible
 - System need area has a balanced customer mix (i.e. a few large contract customers aren't dominating the demand)
 - Supply-side IRPAs for bridging in the short-term are logistically feasible in meeting capacity shortfalls in the short-term

Note: Pilot would need to be equipped with Automated Meter Reading (AMR)

- AMR will help assess ETEE measure's impact on peak hour consumption for different customer types
- Installed on targeted strategic locations and on a statistically significant portion of the population for the different customer types
- AMR would be implemented as Phase 1 of the pilot to develop a baseline demand profile

Pilot #2: Compressed Natural Gas (CNG)/Liquified Natural Gas (LNG)



- **Pilot Description:** Implement CNG/LNG as a peak-shaving measure for constrained networks in the short-term until a longer-term solution is determined and deployed
- **Objective:** Develop operational experience with CNG/LNG as a short-term peak-shaving IRPA and develop a cost recovery & incentive mechanism
- **Criteria:**
 - CNG/LNG implementation is logistically feasible in meeting short-term peak shaving needs
 - Volumes Required
 - Refueling location
 - Injection location

Pilot #3: Demand Response

- **Pilot Description:** Implement a Demand Response (DR) program focused on general service customers' heating loads; identify a system with a long-term need (2027+)
- **Objective:** Understand how Demand Response measures impact peak hour demands for general service residential/commercial customers and understand how to design, deploy and evaluate a Demand Response program. In addition, develop a cost recovery and incentive mechanism.
- **Criteria:**
 - Single Sourced, if possible
 - System need area is made up of primarily residential & commercial general service demand

Note: Pilot would need to be equipped with Automated Meter Reading (AMR)

- AMR will help assess DR measure impacts on peak hour consumption for different customer types
- Installed on targeted strategic locations and on a statistically significant portion of the population for the different customer types
- AMR would be implemented as Phase 1 of the pilot to develop a baseline demand profile

Pilot #4: Demand Response V2

- **Pilot Description:** Implement a Demand Response program focused on contract customers for a long-term need (2027+)
- **Objective:** Understand how to design, deploy and evaluate a Demand Response program focused on increasing Interruptible Rate uptake of existing contract customers and develop a cost recovery & incentive mechanism
- **Criteria:**
 - Single Sourced, if possible
 - System need area is made up of primarily contract customers equipped with EGI metering telemetry

Note: EGI will need time to stakeholder with contract customers to gauge interest

Next Steps

- At May/June TWG, EGI will bring forward about 6-10 projects meeting the criteria and will provide the following project details:
 - Brief project description
 - Year needed
 - Cap Ex for baseline facility infrastructure
 - Peak demand reduction needed to eliminate project
 - Customer mix