OhmConnect

Save Energy. Get Paid.

Improved Small Customer Enrollment

2024 Candidate Project

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Background

- OhmConnect's no cost software rewards residential customers for saving energy
  - Notifies customers of demand response events
  - Enables automated load control of customer enrolled smart devices
  - ~18k customers enrolled in NY programs
- How OhmConnect participates in NYISO
  - Special Case Resource
    - Demand Side Resource
      - Load is capable of being interrupted at the direction of the NYISO
  - Small Customer Aggregation

Average coincident loads vary by season

Residential customers often have >1kW in the summer and <1kW in winter

1kW

SCA

SCR
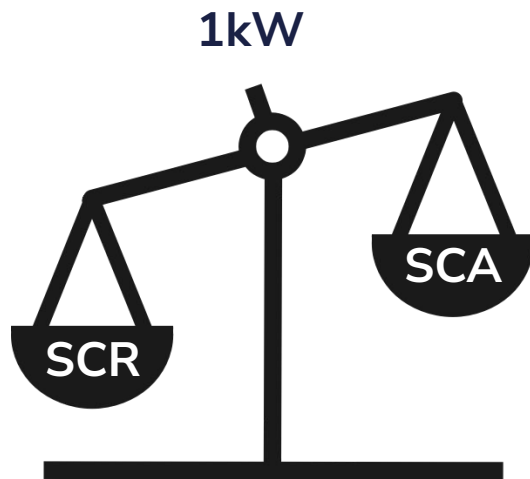
- Demand Response Information System only accepts whole numbers for subscribed loads
  - One kW minimum value

- Customers with ACL greater than or equal to 1 kW can enroll in SCR
  - Less than 1kW must enroll in Small Customer Aggregation

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SCAs present program and administrative challenges

Small Customer Aggregation (SCA) Program was designed for customers without facility-wide interval metering to participate in all NYISO Demand Response Programs, it is only used because of the 1kW limitation.

- Once a customer is enrolled into a SCR, they cannot become part of a SCA
    - Only customers with loads below 1kW can be included in an SCA
- Once a customer is in a SCA they cannot become a SCR
    - Unless they sit out for 18 months (~2,800 SCA enrollees as of 4/2024)
- Burdensome manual administration for both aggregators and the NYISO
    - Restrictive data integrity and precision requirements
    - Does not account for user churn
    - No easily accessible and accurate database or API to provide aggregators with the information necessary from the Transmission Owner to register a premise in NYISO programs, in particular the zone and active status of the customer
- No other program alternatives available

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Project Objective and Possible Solutions

Develop a long term solution to facilitate automated small customer enrollment in load flexibility programs that provides the NYISO with the desired level of visibility of demand response resources.

- Modification of DRIS coding to accept subscribed loads with decimal values in tenths

- Modify SCA rules to allow subscribed loads greater than 1kW

- Development of an automated SCA

- DER-like model for small resources

- Proxy demand resource program

The project deliverable for 2025 will be Market Design Complete (MDC).

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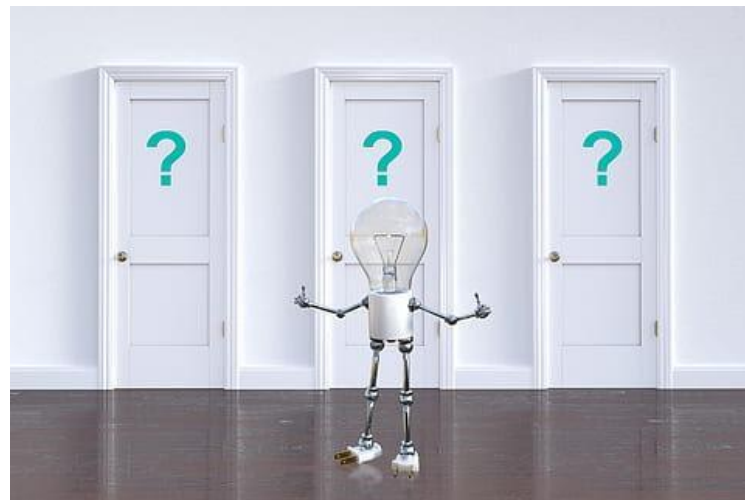
Project Justification

The proposed project would ensure that customers straddling the 1kW threshold are able to participate and receive compensation for their load reductions year-round. The development of streamlined processes to accommodate **tens of thousands** of small customers providing **load flexibility** would facilitate **additional resources** to participate in the wholesale market while reducing administrative burden for aggregators and the NYISO, supporting a **reliable** and **resilient** grid while helping the state achieve its **clean energy goals**.

Image Credit: NYSERDA
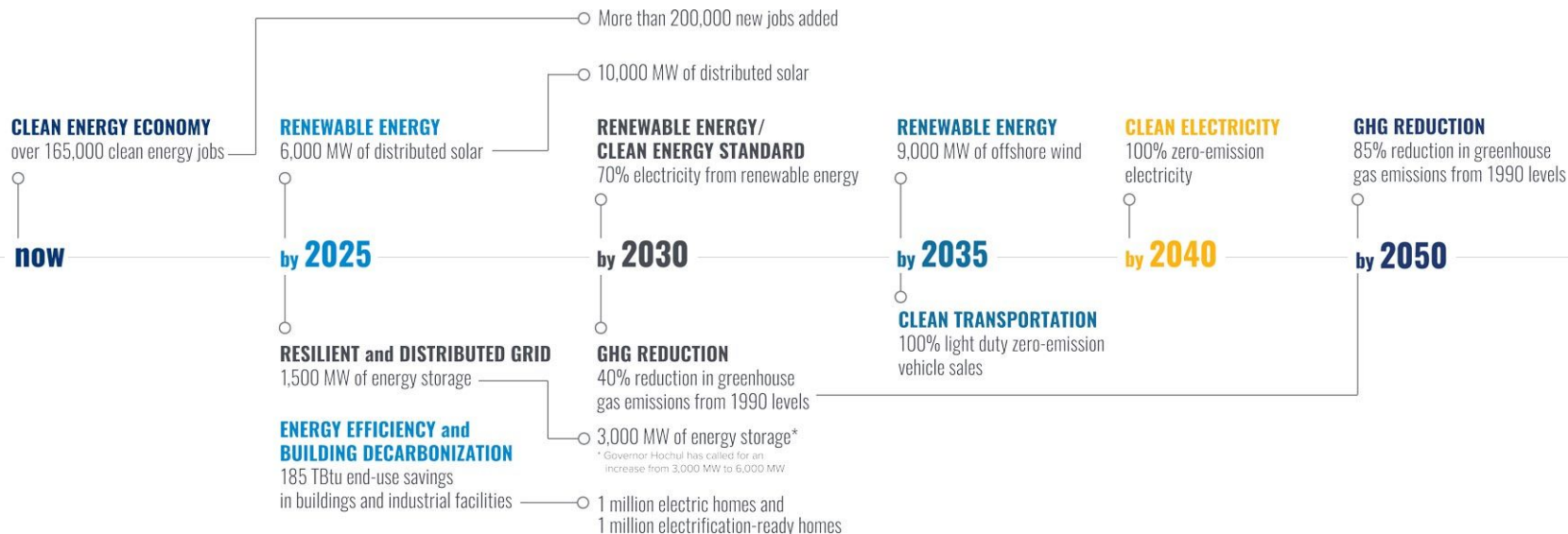
Questions?

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