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Presented by



Residential Connected Technologies for DR and Dynamic Rate

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BTM Battery for Load Management Study

The study will evaluate:

- Determine how best to leverage battery storage technologies for TOU, DR, RTP, load following, and load shaping
- Reliable load reduction: ability to deliver the amount of load reduction that is promised
- Meaningful load reduction: identify when and how DERs can provide value to the grid in DR programs
- Speed of response: measuring the speed of distributed battery storage response
- How to remove significant barriers for battery storage aggregators and their customers to use DER technologies when participating in DR programs

Residential Battery as Virtual Power Plant (VPP) Study

The study will evaluate:

- The ex post load impacts using residential battery data and premise data
- The impacts using the end-use battery data compare with impacts at the household level
- The event calls lead to changes in consumption at the household level
- The performance when consecutive events were called
- The full export (to the home and to the grid) capability
- The pros and cons of settlement of load impacts at the device (battery) level vs. premise meter level
- The customer experience when participating in this type of study

Develop a residential ADR incentive for EV Charging Controls

The study will evaluate:

- EV charging controls and assess their DR impact in a field test
- The average DR potential for identified residential EVs in PG&E territory
- The load management groups of PG&E EV owners based on their EV's, TOU rates, and charging habits
- The existing DR incentives available through PG&E programs (e.g., Smart Rate, DRAM and CBP) to inform how the residential ADR program fits into the DR landscape and how ADR incentives for EV ADR controls should apply to these different DR programs
- The potential ADR incentive designs and amounts for residential EV charging control technologies

Voice automation technology for load management study

The study will evaluate:

Residential voice assistant technology (such as Amazon Alexa) to educate residential customers

- on energy usage
- Dynamic rates
- Notification of utility event

Below is list of sample questions that are supported by the Energy Expert skill:

- What's my bill?
- What's my energy usage?
- What is my current rate?
- What other rates are available?
- What's a good time for to run appliances?
- When are prices the lowest?

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For more information, contact Albert at akc6@pge.com.

The studies reports will be posted at ETCC website in 2022.

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