

Permanent Load Shifting Evaluation of a Refrigeration Battery

1. Overview

The project will demonstrate the Refrigeration Battery's ability to maintain the desired temperature set-points of a supermarket's medium temperature refrigeration systems without running the central compressors or condensers for up to eight (8) hours at a time. By turning off medium temperature refrigeration compressors and condensers during on-peak hours, as defined by SDG&E's AL-TOU rate schedule, the Refrigeration Battery is expected to reduce the facility's monthly peak demand by up to 75 kW. If successful it would achieve a decrease in monthly peak demand of up to 25%.

2. Collaboration

The progress and results have been shared with other CA IOUs ET-DR Leads as well as with various interested attendees at the Internal Technology Transfer meetings. This project has attracted some national media attention and strong interest from Electric Power Research Institute (EPRI) who is aiming to build on SDG&E's initial research in this space.

3. Status

The final report is currently undergoing final review.

4. Next Steps

The final report is being finalized and is expected to be completed in Q4 2021. The final report will be published to the Emerging Technologies Coordinating Council (ETCC) website for public review and reference.