EPIC/PICG Equity/Disadvantaged Communities

SCE-E3-P13 Smart City Demo

Prajwal Gautam
Mack W. Knobbe

October 15, 2020

Energy for What's Ahead℠

SOUTHERN CALIFORNIA EDISON®

Smart City Demo

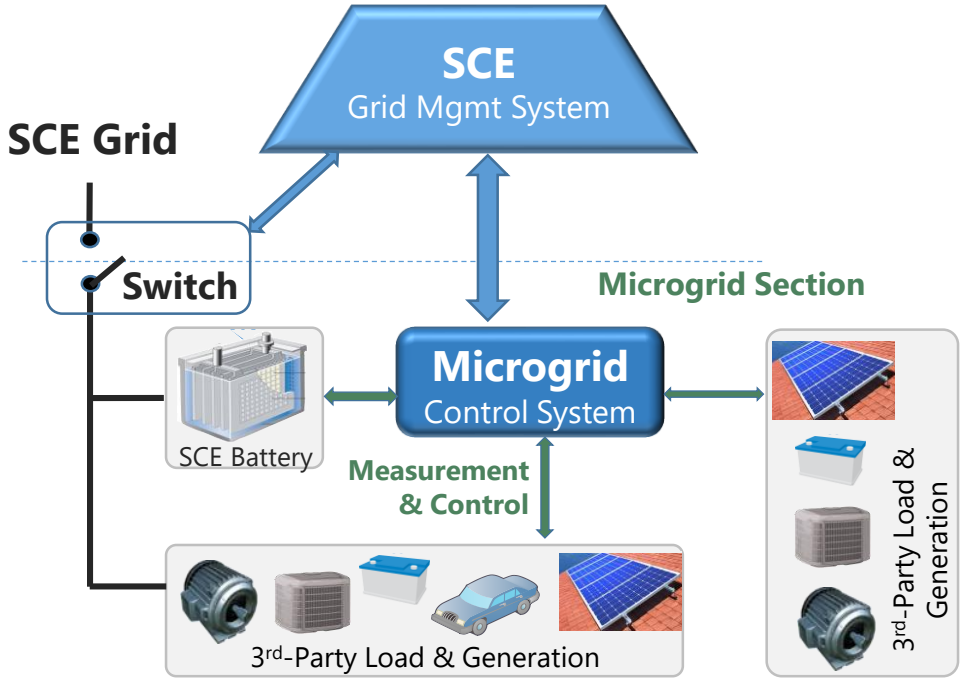
SCE-E3-P13, an EPIC 3 Project

Project Overview

Cities need **adaptable smart energy solutions** to optimize usage, reduce emissions, and improve outage resiliency

Demonstrate cybersecurity compliant front of the meter (FTM) microgrid to enhance resiliency, support recovery from planned and unplanned outages, and reduce emissions

Utilize SCE energy storage and microgrid controls to enhance the value of third-party Distributed Energy Resources (DER) integration



Value Delivered

- Grid Resiliency & Outage Recovery
- Enhanced Customer Satisfaction & Choice
- Improved Grid/DER Coordination
- Advanced SCE-Owned Energy Storage Capabilities

Smart City Demo

SCE-E3-P13, an EPIC 3 Project

Technical Concepts

- Implement SCE Front-of–the Meter cybersecurity compliant microgrid with local agency
- Optimized coordination of third-party DERs with SCE-owned storage and microgrid controls
- Operate the microgrid during planned and unplanned outage conditions

Execution Approach

Location Selection Process

- Generated potential customer list with SCE Local Public Affairs and Business Customer Division
- Refined list based on existing DERs, planned resiliency investments, and sufficient space
- Prioritized based on disadvantaged community status, access/functional needs, essential facilities

Communications & Current Status

- Project team reviewed candidate facilities and held a conference call with local agency stakeholders. After review of a project brief, the local agency expressed interest in proceeding with detailed planning, which is still in progress.
- Expect agreement with local agency Q1 2021
- During project execution, the project team plans will educate community stakeholders on technical concepts, key challenges, and project benefits.

Smart City Demo

SCE-E3-P13, an EPIC 3 Project

Key Challenges

Site Selection: Limited technical/spatial flexibility limits available sites that meet project objectives

Configuration Scenarios: Flexibility required to plan multiple sites/configurations

Local DER Penetration: Existing DER requirements for control also limit project options

DER Control: Stakeholder engagement, hardware/firmware upgrade, cyber-secured architecture

Aesthetics: Municipal stakeholders need to visualize completed installation

Visualization: Clear concept renderings needed for non-technical audiences and stakeholders

Community Resources: Municipal resources are scarce, limiting co-investment potential

Co-Investment: Partner with other SCE projects and local agencies is necessary

Lessons Learned