

Demand Side Management (DSM) Portfolio Optimization Study

Seattle City Light (SCL)

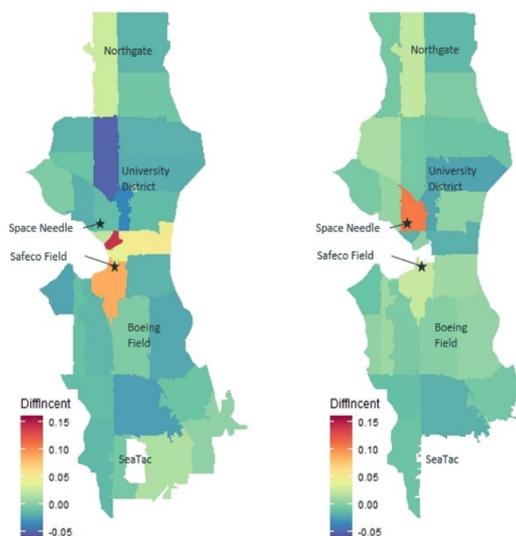
Challenge: Seattle City Light’s (SCL) successful portfolio of conservation initiatives continue to operate in an environment of evolving economics, environmental policy, technological enhancements, health and safety mandates, and social equity goals. Accordingly, an optimal incentive framework for the breadth of conservation program offerings that serve SCL’s diverse consumer base must be, first and foremost, adaptable to this changing environment and the organization’s resource acquisition needs. In 2021, SCL contracted with Evergreen Consulting and Tierra to design and develop an incentive framework meeting these requirements, while also providing guidelines for SCL to dynamically optimize conservation incentives going forward.

Project Highlights:

- Established an adaptable and optimizable incentive-setting framework for SCL’s conservation portfolio.
- Developed an interactive model and “dashboard” to characterize the relationship between incentive-setting guidelines and organizational Key Performance Indicators (KPIs). The model supports SCL’s ongoing optimization of conservation incentives, while providing sensitivity analyses and outcome-oriented analyses on KPIs.
- Identified future incentive-setting considerations as they relate to regional electrification initiatives and WA’s broader carbon policy and planning initiatives.

Approach: A thorough review of current program incentive methodologies, along with comparisons to industry peers and best practices, provided a strong foundational understanding that supported the characterization of the existing relationships between core incentive-setting guidelines and organizational Key Performance Indicators (KPIs), including cost-effectiveness, social equity, etc. Ongoing discussions with SCL’s Leadership Team, stakeholder working groups, etc. facilitated the identification of other factors (e.g., broader statewide carbon policies and planning initiatives, accurately valuing the impact of electrification, etc.) capable of influencing SCL’s conservation program

Modeling the Distribution of SCL Program-Level Incentives to Program Customer Base



incentives, along with the development of optimized incentive-setting guidelines reflective of the organization’s evolving environment and resource acquisition needs. These optimization guidelines were incorporated into an interactive model and “dashboard” to visually characterize interactive relationships between optimization guidelines, incentive mechanisms / values, and an expanded suite organizational KPIs. The model supports SCL’s ongoing optimization of conservation incentives, while providing sensitivity- and outcome-oriented analyses on key output variables.

Outcome: Tierra and Evergreen Consulting successfully collaborated with SCL to co-develop the foundation of a new, optimized incentive-setting framework that is responsive to ongoing changes in organizational needs and priorities. The next stage will involve pursuing the implementation of key recommendations developed through this project, and in collaboration with SCL’s leadership team, updating use-case scenarios, calibrating model outputs, and ensuring the dashboard provides accurate / consistent reporting on KPIs.

Contact

Mike Yim, Principal
Mike.Yim@TierraRC.com
 Direct | 408-209-3296