EVALUATION OF THE CALIFORNIA SOLAR INITIATIVE MULTIFAMILY AFFORDABLE SOLAR HOUSING (MASH) PROGRAM



BACKGROUND

DNV evaluated the CSI MASH program for the entire duration of the program, from 2008 through 2021. The program sought to reduce energy costs and make carbon-free solar energy more accessible to low-income residents in Pacific Gas & Electric Company (PG&E), Southern California Edison (SCE), and San Diego Gas & Electric (SDG&E) service territories.





APPROACH AND OBJECTIVES

DNV performed this evaluation to determine whether MASH achieved its program goals and also to assess program benefits to customers, the environment, and the electrical system. In addition, DNV performed an assessment of program costs, workforce training outcomes, and program metrics.

PROGRAM BENEFITS

- Installed solar generation over the life of the program: over 65 MW
- First-year energy production: 57.4 GWh
- Benefits vary from year to year and depend on customer rates and other characteristics. On average:
 - First year dollars paid: \$286 less, a 45% reduction per customer
 - First year electricity use from all sources: 246 kWh more per customer, a 5% increase
 - First year electricity use from the grid: 2,669 kWh less, a 43% reduction per customer
- Combined CO₂ savings from 2011 to 2022: 175,680 MT
- Avoided PM2.5 (fine particulate matter) from 2011 to 2022: 10,373 MT
- Hours of solar sector training provided: 17,799

PROJECTS COMPLETED AND CUSTOMERS SERVED

636 projects completed

14,228 multifamily households served 1/3 projects installed in DACs

2,128 mobile home

households served

16,356 total households served

2,177 common areas served

STUDY SPONSOR California Public Utilities Commission Energy Division Study Manager, Sarah Lerhaupt Sarah.Lerhaupt@cpuc.ca.gov



STUDY CONDUCTED BY

DNV - Energy Director - Customer Decision Sciences, Gomathi Sadhasivan gomathi.sadhasivan@dnv.com Project Manager, Megan Ovaska megan.ovaska@dnv.com