KAISER PERMANENTE.

Solar Powered Health Care Facilities – 15 Megawatts by 2012

Environmental and Human Health Impact: 15 Megawatts (MW) of solar-generated energy will eliminate the release of 15,890 metric tons of CO₂ emissions. Business Impact: Potential savings of \$7.2 million over 20 years.

<u>Challenge</u>

Kaiser Permanente recognizes the impact of greenhouse gas emissions on public health. Energy generation is a major source of greenhouse gas emissions and many regulatory entities are acting to limit these emissions. The health care industry is one of the largest consumers of energy in the U.S. As an organization dedicated to improving the health of the communities it serves, it's imperative for Kaiser Permanente to take a proactive role in reducing its contributions to climate change, and increasing resilience to the effects of climate change by reducing demand and obtaining new on-site and off-site supplies of renewable and clean energy into its energy portfolio.

Aim/Goal

- Develop a sustainable energy strategy that aligns with the Kaiser Permanente Total Health Environment (THE) strategy while effectively managing energy costs.
- Select a reliable and financially sound photovoltaic cell (solar) vendor to be responsible for equipment installation, maintenance and long-term operation to ensure site logistical needs and sustainable energy targets are met.
- Work with third parties to take advantage of available federal and state tax credits and incentive programs and to retain Renewable Energy Credits (RECs).

<u>Team</u>

Don King, Executive Director, National Facilities Services Eric Berzon, Assistant Treasurer & Executive Director of Finance Jeff Keyak, Senior Energy Consultant, National Facilities Services Matt Harrrison, Real Estate National Facilities Services Steven Doshay and Hong-Sze Yu, Senior Counsels Richard Trogman, Energy Officer, SCAL Region John Morgan-Voyce, Energy Officer, NCAL Region Emmanuel Lawrence, Sourcing Manager, Procurement & Supply Anna Drabek, SCAL Capital Projects Paul Tylar, NCAL Capital Projects

Actions Taken

 NFS identified Recurrent Energy as the vendor, with contracting assistance from Procurement & Supply, to install, maintain and operate PV cells on-site.

- ✓ NFS worked with Treasury and Legal to develop a financing and real estate structure that would maintain current or obtain lower energy costs, and provide savings by taking advantage of federal and state tax credits and net reduction of unit price on Power Purchase Agreement (PPA) through the California Solar Initiative incentives.
- ✓ The PPA will allow the implementation of 15MW of solar power at Kaiser Permanente facilities over 20 years and provide potential savings of \$7.2 million over that period.

<u>Results</u>

15 sites generating a total of 15 MWs of solar energy will eliminate **15,890** metric tons of CO_2 emissions equivalent to 3,038 cars off the road or 151 acres of forest preserved from deforestation per year.



Lessons Learned

- ✓ KP needs to develop a formal process to coordinate internal resources and work with third parties to take advantage of tax incentives and other benefits that may have a limited window of availability.
- \checkmark Demonstrated use of PPA as a contracting vehicle to purchase energy.

Next Steps

 Identify additional solutions (e.g. follow-on PPA, financial partner involvement) to meet Programwide renewable energy goal of 13.5 percent on-site renewable energy generation by 2020.