

# Pala Fire Station Solar Project



Pala Band  
of Mission  
Indians



Pala Fire  
Department



Pala  
Environmental  
Department

# The Pala Reservation

- ▶ Located in San Diego County, California
- ▶ Approximately 13,000 acres
- ▶ Over 1,000 tribal members
- ▶ Home to approximately 1,350



# The Pala Reservation

- ▶ Over 800 houses and buildings
  - ▶ New houses all have PV solar
- ▶ Main energy users:
  - ▶ Pala Casino Resort & Spa
  - ▶ Pala Fire Station
  - ▶ Pala Administration complex



Long-term goal: Photovoltaic (PV) Solar on all buildings

# Pala Fire Station

- Built in 2008
- Two-story administration building
- Sleeping quarters
- Six bay garages
- Training classroom/  
Emergency Operations Center
- Four-story live fire training tower
- Total of 23,000 square feet



# Pala Fire Station

- ▶ Solar demonstration project installed in 2009 using ARRA funding



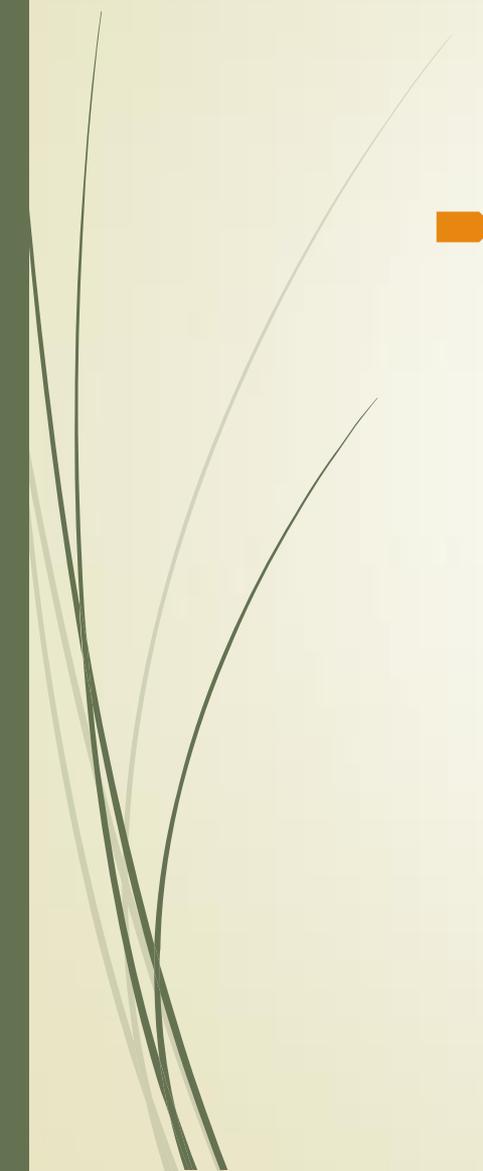


# Pala Fire Station Solar Project

- ▶ Install 94.8 kW DC photovoltaic solar panels
- ▶ Current use:
  - ▶ 152,831 kWh of electricity from the grid
  - ▶ 3,444 gallons of propane
  - ▶ Overall energy use of 1,951,814 kBtu
- ▶ Proposed PV system will produce an estimated 145,896 kWh annually
  - ▶ 95.5% energy displacement of current electricity use from the grid
  - ▶ 80.0% percent displacement of the facility's overall energy use



# Pala Fire Station Solar Project

- ▶ This project will reduce the dependence of the Pala Fire Station on grid-supplied electricity by 95.5%, thus reducing fossil fuel consumption and CO<sub>2</sub>e emissions and furthering the Pala Band's long-term goal of transitioning fully to renewable energy sources.
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# Pala Fire Station Solar Project

- ▶ Project Timeline:
  - ▶ Develop engineering specifications (Summer 2015)
  - ▶ Purchase equipment (Summer 2015)
  - ▶ Panel installation (Fall 2015)
  - ▶ Electrical inspection (Fall 2015)
  - ▶ Activate panels (Fall 2015)
  - ▶ Monitor and report (ongoing)
  - ▶ Report at 14th Annual Tribal Energy Program Review in 2016

