



LA JOLLA BAND
OF LUISEÑO INDIANS

A Sovereign
Indian Nation

DOE Indian Energy Program

La Jolla Band of Luiseño Indians
Trading Post Solar and BESS

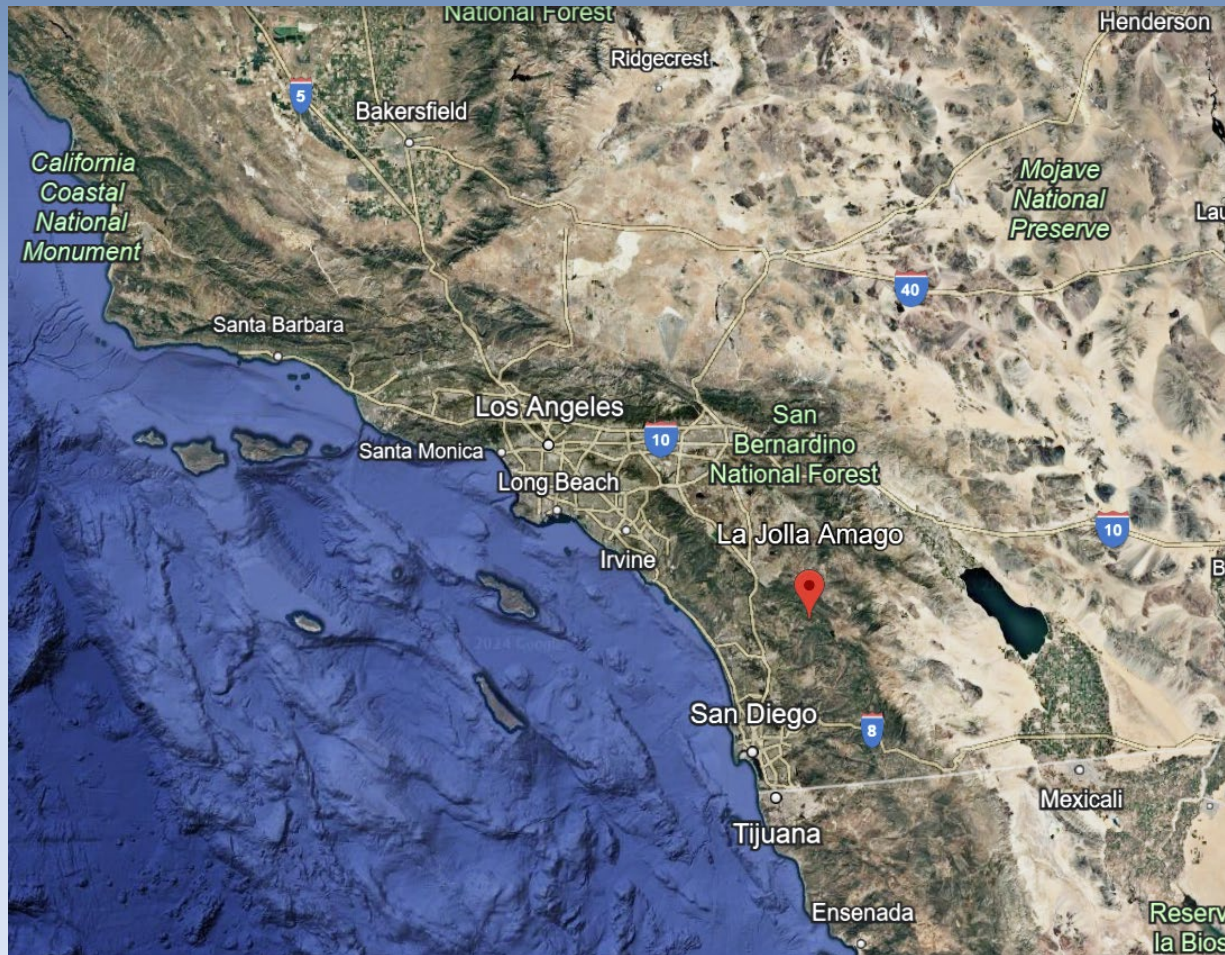


Project Overview

- Project Recipient
 - La Jolla Band of Luiseño Indians
- Project Title
 - La Jolla Tribal Government Renewable Energy Development Project
- Project Timeframe
 - October 1, 2023 – December 30, 2025
- Award
 - DE-IE00000158
- DOE Project Officer and
 - Josh Gregory and Nathan Ballenger



La Jolla Location



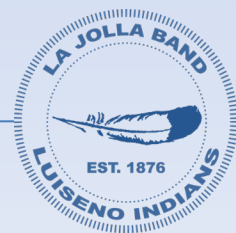
Payomkawichum Demographics

- 8,882 acres
- Elevation 900-5,200 ft.
- 715 enrolled members
- ~650 residents
- 223 homes
- 73 residential PV
- 24 residential BESS
- 2 commercial PV
- South flank of Mt. Palomar along San Luis Rey River
- 5 community areas
- La Jolla Campground, Zip Zoom Zipline, Waterpark, Trading Post gas station and C-store, Hwy 76 Grill



Project Overview

- 110.16 kW-DC of solar PV energy and 132 kWh energy capacity battery storage
- Installed PV system with BESS is anticipated to produce over 164,562 kWh annually.
- Annual savings of over \$43,000
- Estimated savings over \$1,366,000 over 25-year system lifetime



Initial Layout



Layout Rev 1



Layout Rev 2



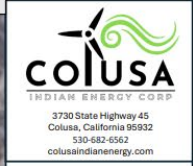
Revised Layout



204 (2) 506 of 17 PER
 PARKING STRUCTURE
 37' x 154'
 ARRAY TILT: 5°
 ARRAY AZIMUTH: 180°

SYSTEM INFORMATION:
110.18kW DC
ESTIMATED ANNUAL PRODUCTION: 164,562kWh
GEO LOCATION: 33.276802°, -116.8536707°
PV MODULES: (204) LONGI Green Energy Technology Co., Ltd LRS-72HBD-540M BIFACIAL
INVERTERS: (2) Yaskawa Solectria Solar PVI-50TL-480

PROPERTY OF
 Colusa Indian Energy
 ALL DESIGN PARAMETERS MUST BE
 CONFIRMED AND ADJUSTED TO MEET SITE
 SPECIFIC CONDITIONS OF USE. INSTALLING
 DEALER HAS SOLE RESPONSIBILITY FOR THE
 CORRECT SELECTION AND INSTALLATION OF
 ALL EQUIPMENT AND MATERIALS TO MEET
 ANY POWER PRODUCTION COMMITMENTS
 AND ALL LOCAL/NATIONAL CODE AND SAFETY
 REQUIREMENTS.



PROJECT INFORMATION
NAME: La Jolla Reservation
ADDRESS: 22003 CA-76
CITY: Pauma Valley, CA 92061
COUNTY: San Diego County
PHONE: 135-290-04-00

CLIENT SIGNATURE AND DATE:

REVISION SCHEDULE		
No.	Date	Description
1.0	initial	Rev 1.0

SHEET TITLE
 ARRAY LAYOUT
 SHEET NUMBER
 PV-00

1 inch
 Scale to Confirm 11"x17" Plot



Project Status

Original Concept



Revised Concept



Project Change Benefits

- Switched from multiple ground mount arrays to carport structure
- Reduction in total project footprint
- Added covered parking area
- Reduced required trenching
- Avoided septic leech field
- Eliminated need for cultural monitoring

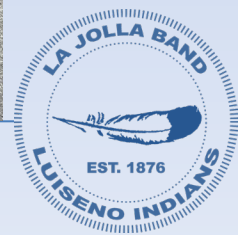


Project Updates

- Changed from two contractors to single contractor who will install both the solar PV and BESS systems
- Increased costs but increased benefits
- GRID Alternatives TSAF and GAP funding
- Currently in the revised design phase



Project Location

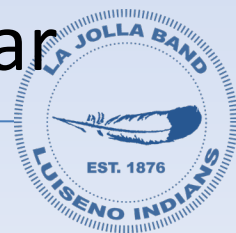


Project Location



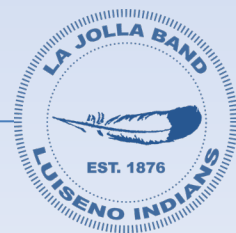
Related Work

- Residential Solar PV and BESS Installations
- La Jolla Climate Risk & Vulnerability Assessment and Adaptation Planning
- DOE Grid Resiliency Project
- EPA IRA CPRG Planning Grant
- Tribal Home Electrification and Appliance Rebates Program
- GRID Alternatives TSAF Elders Building Solar



Future Plans

- Community-Scale Renewable Energy/Microgrid
- DOE IE TA Strategic Energy Plan Development
- EPA IRA CPRG Implementation Project
 - EV fleet conversion and EV charging
 - Microgrids
 - Residential PV & BESS
 - Residential heat pump water heaters
 - Residential HVAC mini-split systems
 - Green building code implementation



COMMENTS & QUESTIONS

Rob Roy

Director, Environmental Protection Office

La Jolla Band of Luiseño Indians

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<https://lajollaindians.org>

