
OJO ENCINO SHAANDIIN
SOLAR PROJECT

Recipient Organization: **Ojo Encino Chapter House—Navajo Nation**

Project Title: **Ojo Encino Shaandiin Solar Project**

Covering Period: May 1, 2024, to December 31, 2027
Date of Report: October 30, 2024

Award Number: **DE-IE0000181**

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Partners: University of Utah

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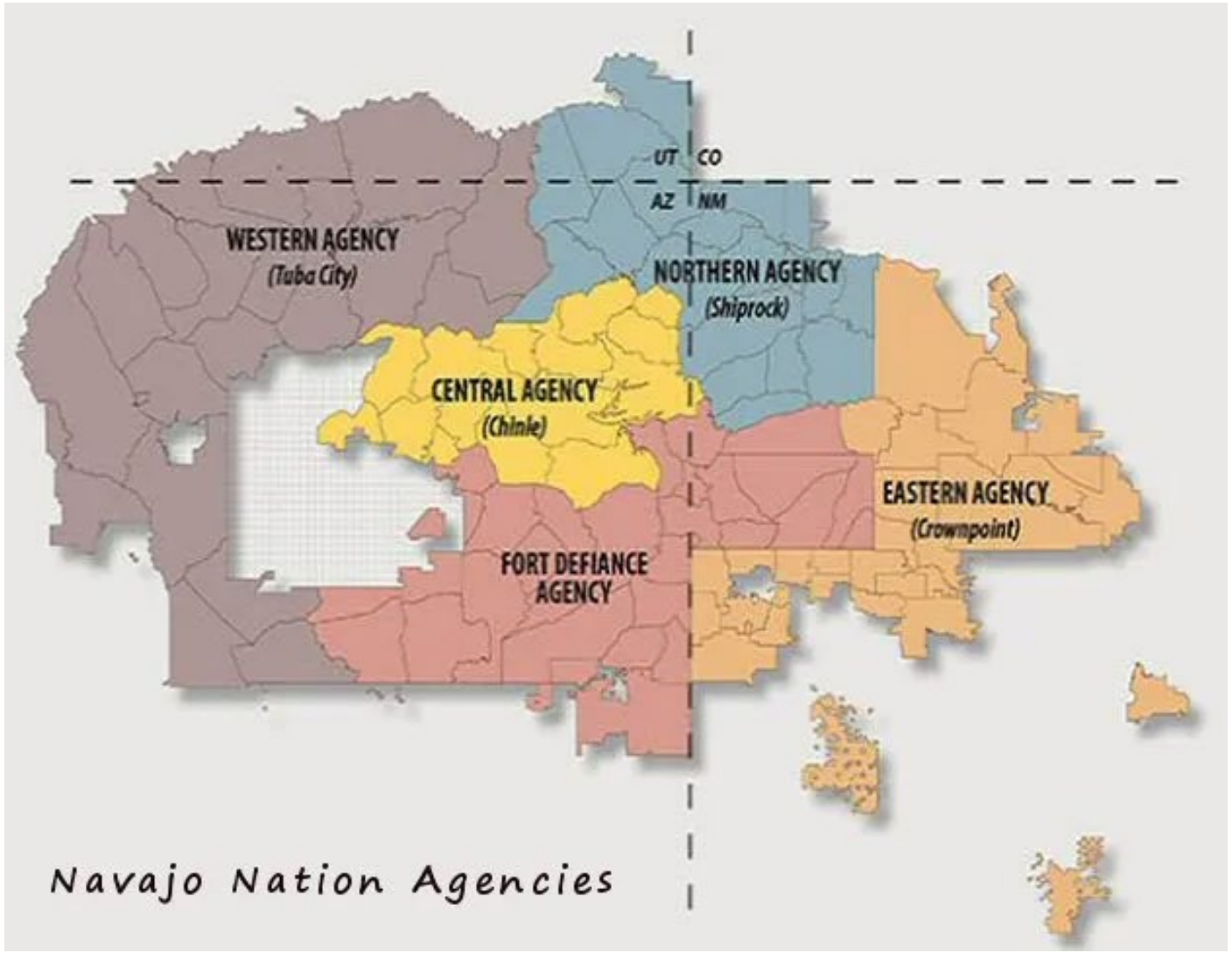
Ojo Encino Chapter House

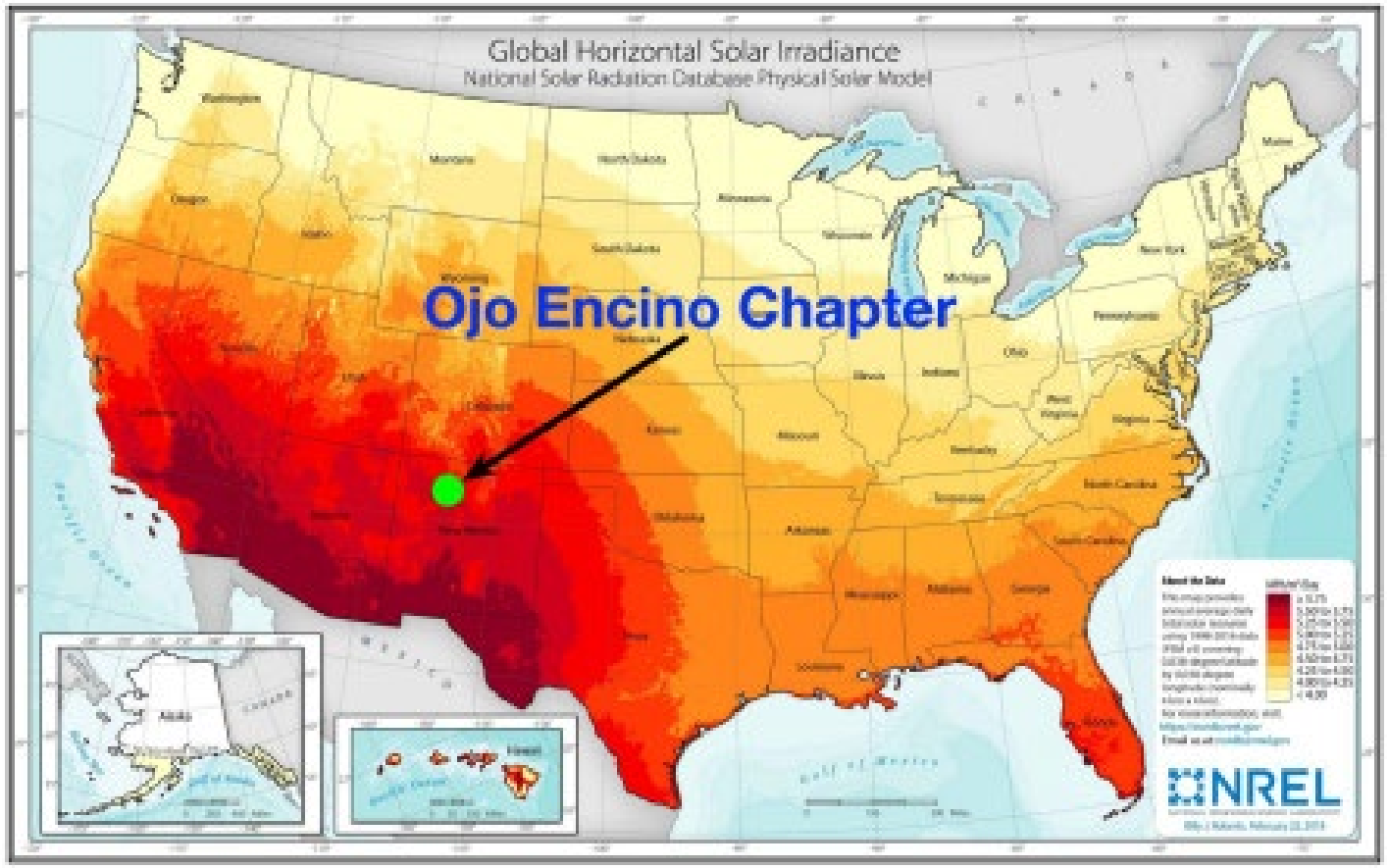
Ojo Encino was established in 1951, and is located in the Eastern Agency of the Navajo Nation in Northwest New Mexico. It is called tse'chizhi' bito' in Navajo, meaning "oak springs." It was recognized and certified as a chapter of the Navajo Nation in June 1957, and received Local Governance Act (LGA) certification in 2012. The total area under the jurisdiction of the chapter is 0.7 sq. miles. It has 410 residents, 97% of whom are Native Americans.

Project overview

The Ojo Encino Chapter House will install 50 residential, grid-tied solar PV systems. The system sizes will be approximately 5kW-DC each which will offset approximately 75-95% of the residents' electric utility bills. In the initial design of this system, the solar panels will be ground mounted, with 30 degrees of tilt on each site. Enphase microinverters will be used to offset the 75%-95% of the residents' energy use. The installed system will generate about 8,467-9,276 kWh electricity annually. The project is estimated to offset approximately 1,974-2,162 kg CO2 emissions. Furthermore, each grid-tied solar PV system will provide approximately $24,750 in cumulative lifetime savings over a 25-year period. The 50 systems will be interconnected through Jemez Mountain Electric Cooperative (JMEC)–the local electric utility–and net metered through the current JMEC net metering policies.

Project Location




Global Horizontal Solar Irradiance
National Solar Radiation Database Physical Solar Model
Ojo Encino Chapter
NREL

Project Objectives

i) Transition to clean energy

ii) Financial savings

iii) Capacity building

iv) Strengthening partnership

v) Self Governance

Relevant background information

- Over 30 previous installations
- Local hires
- Proof of concept and community buy-in
- Training and Maintenance

Progress to-date and Project Status

- Signed DOE contract
- Hired Project Manager, Accountant and Field Officer
- Contacted Jemez Mountain Electric Cooperative to establish project scope and interconnection procedures and timelines
- Contacted solar PV vendors
- Contacted qualified electrician
- Drafted client application and required paperwork
- Completed single line diagram template for solar PV designs
- Signed up for VIPERS
- Community meeting for project launch on November 08-09, 2024.
- University of Utah team to attend project launch and do fieldwork at some of the first 10 homesites to be serviced.
- Begin collecting applications and conducting site visits.

Project Status

- Submit first invoicing for wages, per diem, mileage and paperwork costs to Ojo Encino Chapter and DOE.
- Complete 10 complete single line diagrams and submit completed interconnection applications to JMEC.
- Send out 3 equipment requests for proposals to vendors and get price quotes on first equipment orders.
- Order equipment
- Post construction crew positions and hire
- Purchase tools and equipment for installation crew

Lessons learned

- Communication with all stakeholders
- Timelines
- Weather
- Future maintenance

Process

- Application
- Contact information, proof of income, Homesite lease, signatures, access to a year's worth of bills
- Site visit, possible electrical upgrades
- Interconnection application to JMEC with design—Design team, JMEC, approximately 60 days for approval
- Installation Contract
- Construction—approximately 3-4 days
- Certificate of completion to JMEC—60 days
- Install the meter and turn the system on
- Sign utility letter in one year

Thank you!