

COMMUNITY WATER PUMP AND TREATMENT FACILITY PV SOLAR POWER PROJECT

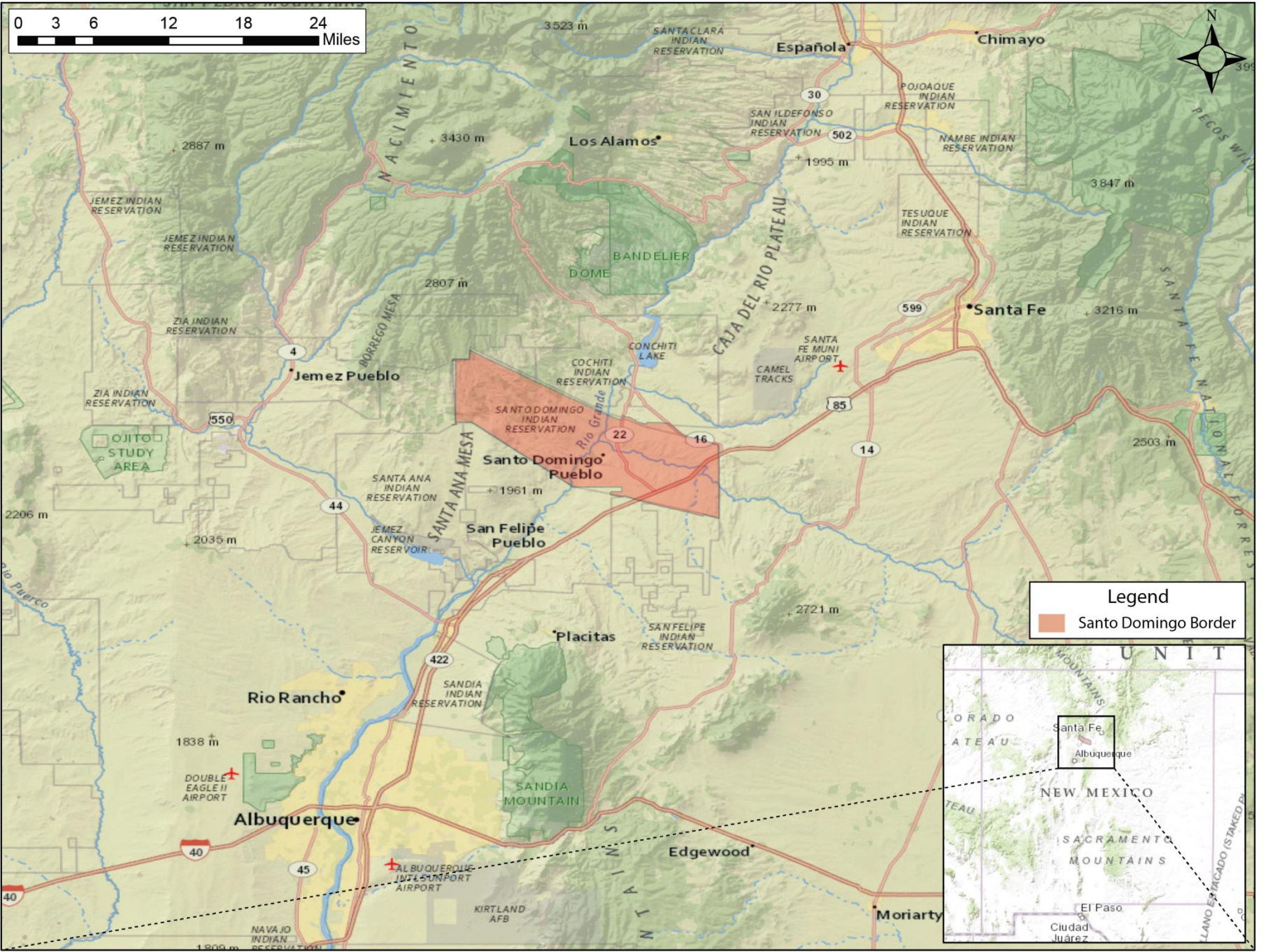


U.S. DOE EERE Tribal Energy Program
2015 Tribal Energy Program Review
May 2015 - Denver, Colorado

SANTO DOMINGO PUEBLO



- ▣ Pueblo located along Rio Grande River, between Santa Fe and Albuquerque, NM
- ▣ Home to ~ 5,000 residents
- ▣ Conservative tribe that holds closely to customs and cultural values
- ▣ Increasing governmental capacity and pursuing economic opportunities



Legend
[Orange Box] Santo Domingo Border



TRIBE'S SOLAR RESOURCES



- ▣ More than 800 acres of tribal Trust lands rich with solar energy potential and ready access to regional energy markets
- ▣ Major power lines on and adjacent to the Tribe's lands
- ▣ Insolation
 - Average: 6.33 kWh/m²/day
 - Averages 250 days of sunshine a year

TRIBE'S ENERGY OBJECTIVES

Energy Security

Economic
Development

Environmental
Stewardship

- ▣ Next step in Tribe's energy vision
 - Tribe's 1st renewable energy project
 - Model for tribe and neighboring tribes

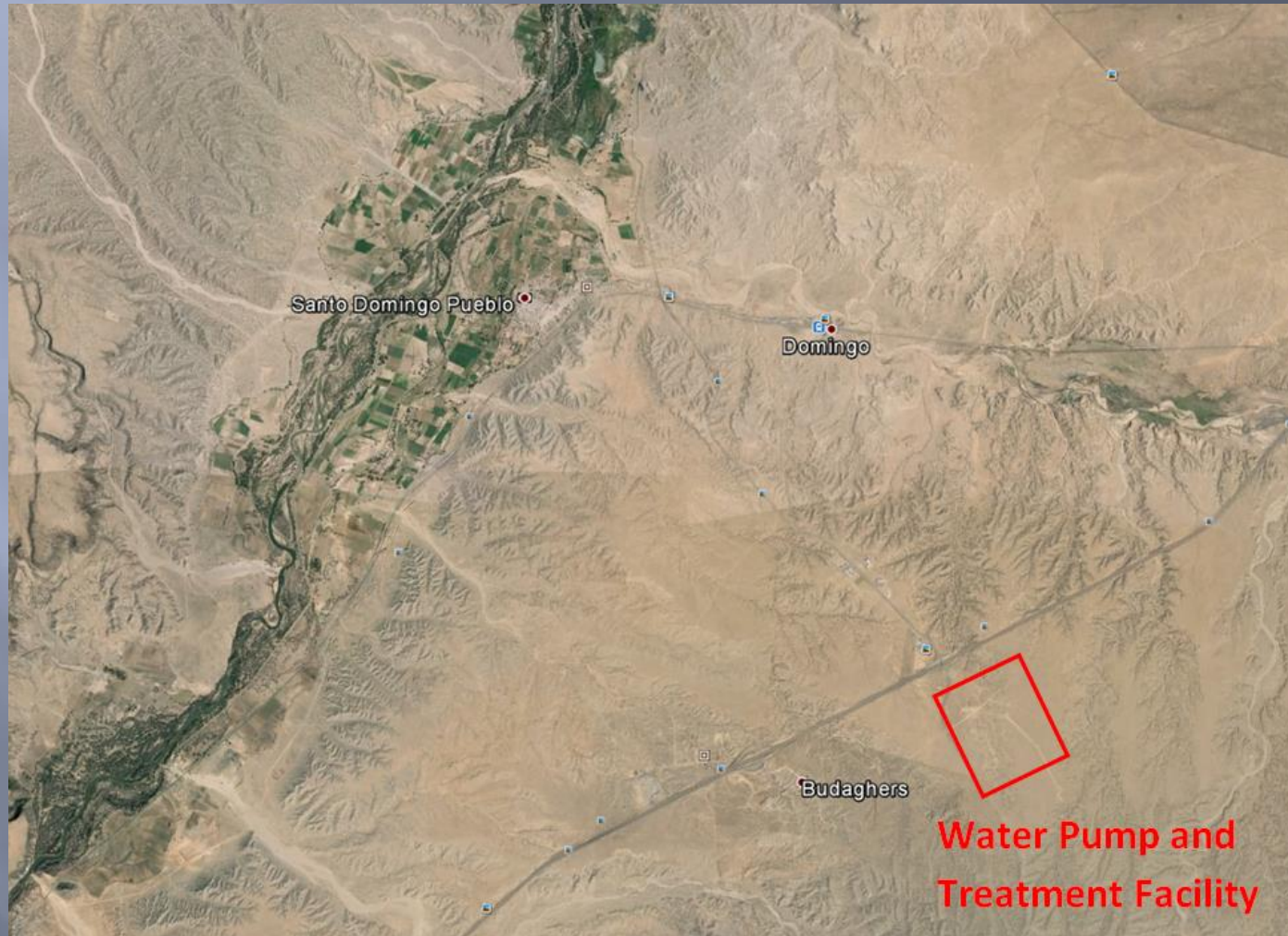
- ▣ Future Goals
 - Supply renewable power to all tribal buildings and residences
 - Commercial scale development of renewables
 - Expand Tribal Utility to supply electricity

CURRENT PROJECT



- ▣ 115 kW DC Photovoltaic System
- ▣ Ground mounted
- ▣ \$420,000 Estimated Total Project Cost
- ▣ ~ 0.5 acres in size
- ▣ 2 year project
 - Year 1 = installation
 - Year 2 = verification
- ▣ Produce ~ 200,000 kWh/year

PROJECT LOCATION



SITE DETAILS



- ▣ Water Pump and Treatment Facility
 - Sole provider of water to Pueblo and its 5,000 residents
 - 1 pump house, 2 water pumps, and 1 water tower
 - Operates year round
 - Remote location with grid connection
 - No shade or other development in area

PROJECT BENEFITS

- ▣ Annual energy offset:
 - ~ 80%
- ▣ Annual cost savings:
 - ~ 35%
- ▣ Reduce CO₂ emissions by 2.4 million lbs/year
- ▣ Tribal jobs and training



PROJECT FINANCIALS



- ▣ Funding
 - 50% grant from DOE
 - 50% match by Tribe
- ▣ Incentive Programs
 - RECS:
 - ▣ \$0.045/kWh
 - ▣ 8 year contract with PNM
 - Net-metering
- ▣ Estimated pay-off within 6 years

PROJECT STATUS

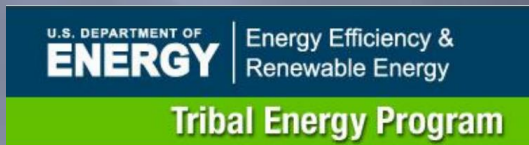
Design

Installation

Verification

- ▣ March 2015:
 - Project Selected for Award under DOE Deployment Grant
- ▣ April 2015:
 - NEPA Review complete
- ▣ **Next step:**
 - Select design and installation firm

PROJECT TEAM



- Owner/Operator:
 - Santo Domingo Pueblo
- Technical Consultant:
 - Environment International Ltd.
- Review and Oversight:
 - U.S. Department of Energy EERE Tribal Energy Program
- Design & Implementation
 - TBD

THANK YOU
TO THE
U.S. DOE EERE TRIBAL ENERGY PROGRAM

- Without EERE matching funding, this project would not be possible.
- The project offers significant economic benefits to the tribe and substantial environmental benefits.

CONTACT



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