

US Department of Energy - Office of Indian  
Energy

Program Review - November 17, 2022

# Pala Community Microgrids Project

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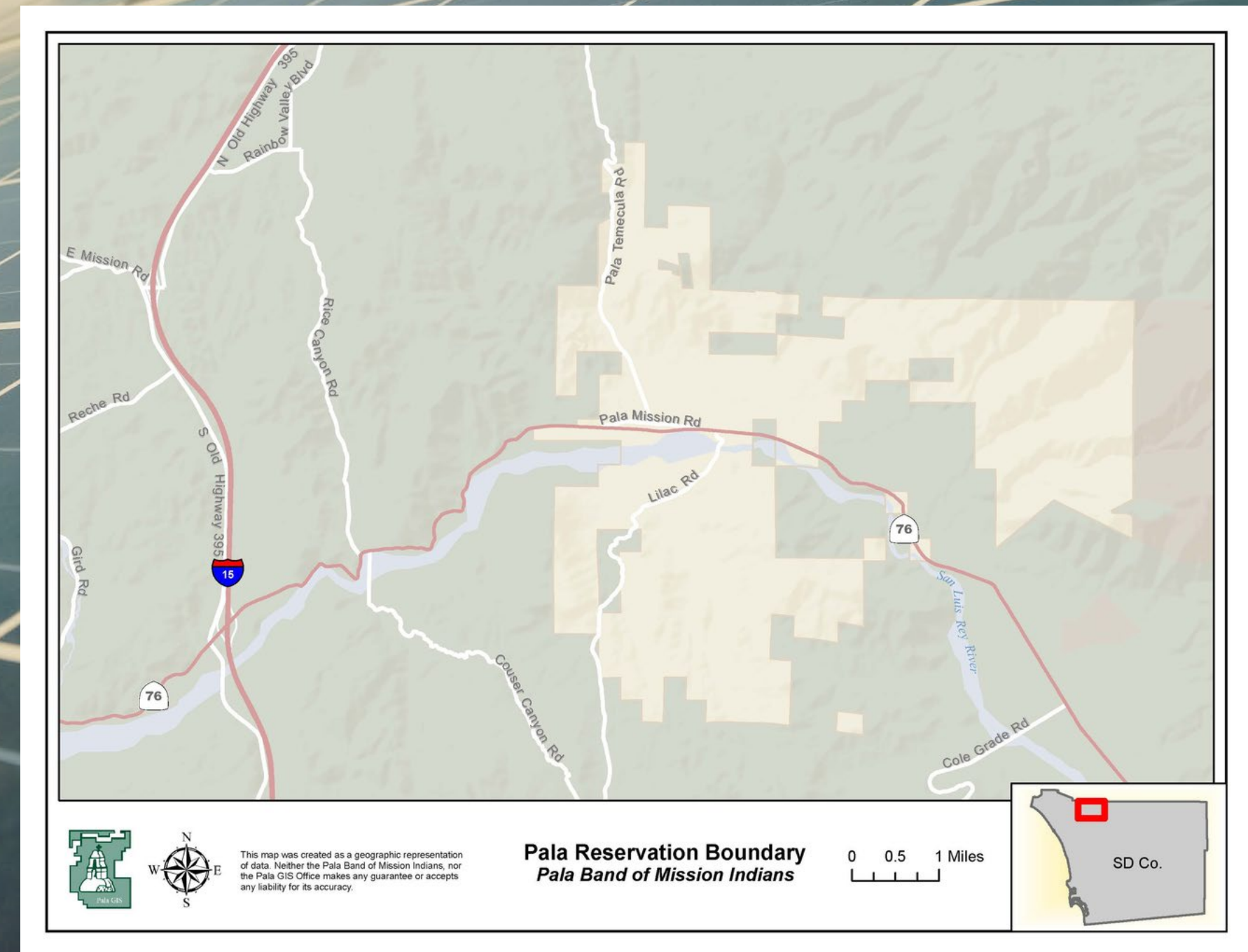


Indians



# Pala Community Microgrids Project

Pala Band of Mission Indians  
San Diego County,  
California  
~ 13,000 acres  
~ 1,000 residents





# Pala Community Microgrids Project

## Pala Reservation History





# Pala Community Microgrids Project

Pala  
Today





# Pala Community Microgrids Project

## Past Activities

Pala Fire Department Solar Project

Pala Energy Options Analysis

Solar Feasibility Report



*Fig. 4-A: Summary of Recommendations for Six Assessed Options*

#	Option	Recommendations
1	Tribal Facility Solar Electricity	<ul style="list-style-type: none"> <li>Pursue development of the Tribal Administration Solar Complex project, ensuring systems are designed and developed to enable integration into resilient energy microgrid system.</li> <li>Design systems for location behind the energy meters of served loads, with interconnection systems capable of supporting safe islanding functionality for microgrid operations.</li> <li><i>NOTE:</i> Option 1 is somewhat duplicative of Option 2. The assessment team recommends prioritizing Option 2 because it produces more benefits for the Tribe.</li> </ul>
2	Tribal Facility Solar+Storage System	<ul style="list-style-type: none"> <li>Pursue development of the Tribal Facility Solar+ Storage System project.</li> <li>Ensure design locates systems behind the energy meters of served loads, with interconnection systems capable of supporting safe islanding functionality.</li> </ul>
3	Utility-Scale Solar	<ul style="list-style-type: none"> <li>Defer further action on the Canyon Solar Field proposal unless and until such time as the landowner brings a more concrete proposal with verifiable resolutions to all key issues affecting the project's practical viability.</li> </ul>
4	Optimized SDG&E Rate Plans	<ul style="list-style-type: none"> <li>Request rate plan adjustment from SDG&amp;E – at least for the 15 meters that analysis shows would save 3% or more with a new rate plan.</li> <li>Apply new rate plan assumptions to future project assessments to ensure cost-benefit analyses use updated estimates of utility costs.</li> </ul>
5	Direct Access Electricity Supply	<ul style="list-style-type: none"> <li>Re-consider in 2021 submitting an application to enter into the lottery for the next Direct Access enrollment period.</li> <li>Update the assessment of potential savings through Direct Energy based on estimated costs under proposed new rate schedules assessed for Option 4.</li> <li>Seek clarification on how committing to Direct Access electricity supplies might affect the Tribe's future options, especially for developing onsite resources to serve facility loads.</li> </ul>
6	Tribal Utility or Utility Authority Formation	<ul style="list-style-type: none"> <li>Initiate Tribal Utility Strategy process to establish objectives, costs, and development strategy for prospective formation of tribal utility or utility authority.</li> <li>If Tribe decides to proceed with Tribal Utility Strategy, request BIA funding for the project through the Tribal Energy Development Capacity program.</li> <li>Defer entering any service-line agreement with SDG&amp;E pending outcome of Tribal Utility Strategy process.</li> <li>Timing of the process TBD by PED.</li> </ul>



# Pala Community Microgrids Project

## Project Objectives

- Solar power for integrated autonomous energy systems
- Resilient operations at eight (8) tribal facilities
- Protection of the health, safety, and welfare of the Pala Band of Mission Indians
- Displacement of 102% of Pala's electricity consumption at the eight facilities
- Savings of nearly \$6.4 million in net energy costs
- Displacement of 933,553 pounds of carbon dioxide (CO<sub>2</sub>) over 25 years
- Support the Pala's efforts to increase energy independence and self-reliance
- Increase utilization of Tribally owned renewable energy resources
- Displace imported fossil fuels

# Pala Community Microgrids Project

## Participants

- Pala Band of Mission Indians
  - Pala Environmental Department
- Prosper Sustainably
- Microgrid Institute
- Our Energy
- Swell Energy
- San Diego Gas & Electric

## Participants

- Pala Administration Complex
  - Pala Fitness Center
  - Rez Radio
- Pala Tribal Law Enforcement
- Pala Utilities
- Tribal Services
- Pala Fire Department
- Pala Youth Center
- Wastewater Treatment Plant







# Pala Community Microgrids Project

## Status:

- Engineering drawings nearly completed
- Working with local utility (SDG&E) on upgraded transformers
- Ground-truthing each site to match with plans
- Reservations made for batteries
- Solar panels to be purchased next year
- Weekly update meetings



# Pala Community Microgrids Project

Thank you!

Questions?

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