



RINCON BAND OF LUISEÑO INDIANS

2019 OFFICE OF INDIAN ENERGY PROGRAM REVIEW





THE RINCON RESERVATION

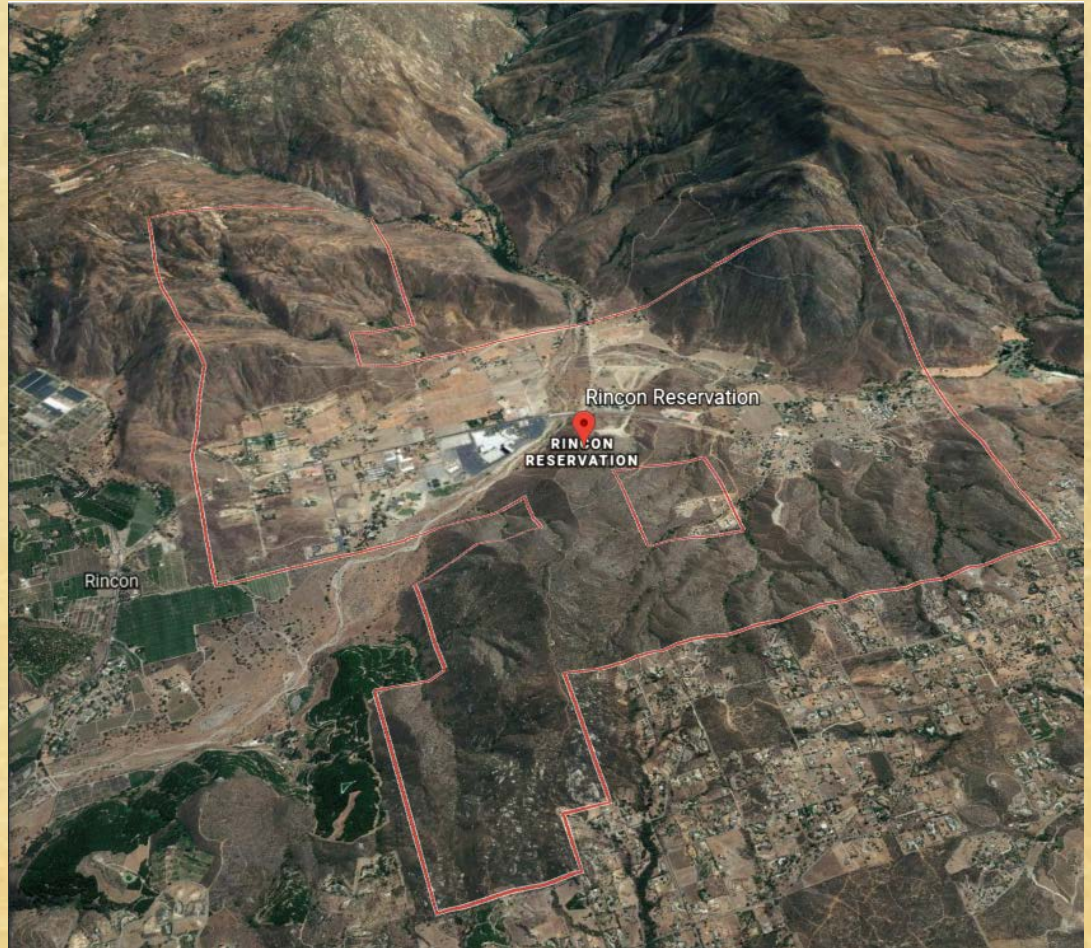
- ◆ The Rincon Reservation was established in 1875 and is located in southern California. The Reservation encompasses approximately 5,000 acres of land within the San Luis Rey River Watershed.
- ◆ The Reservation is considered a rural area of unincorporated, north central San Diego County and includes a broad range of wildlife species and vegetation communities.





TERRITORIAL SOVEREIGNTY

- ◆ Approximately 1,800 residents and a few small businesses are scattered throughout the Reservation, as well as Harrah's Resort Southern California which includes a 1,065 room, two 21-story hotel towers, an events center, and a gaming casino with 8 associated restaurants, a spa, and parking for patrons.
- ◆ The historic and current land uses surrounding the Reservation include agricultural, residential, and gaming, along with a small amount of light industrial.





RINCON TRIBAL GOVERNMENT



- Governing Body
 - Tribal Council
- Governmental Committees
 - Elected or appointed
- Governmental Departments
 - Tribal Administration
 - Attorney General
 - Finance
 - Human Resources
 - Economic Development
 - Environmental
- General Services
 - Public Safety
 - Fire Department
 - Cultural Resources
 - Communications
 - Recreation Education
 - Information Technology



RINCON TRIBAL COUNCIL SNAPSHOT

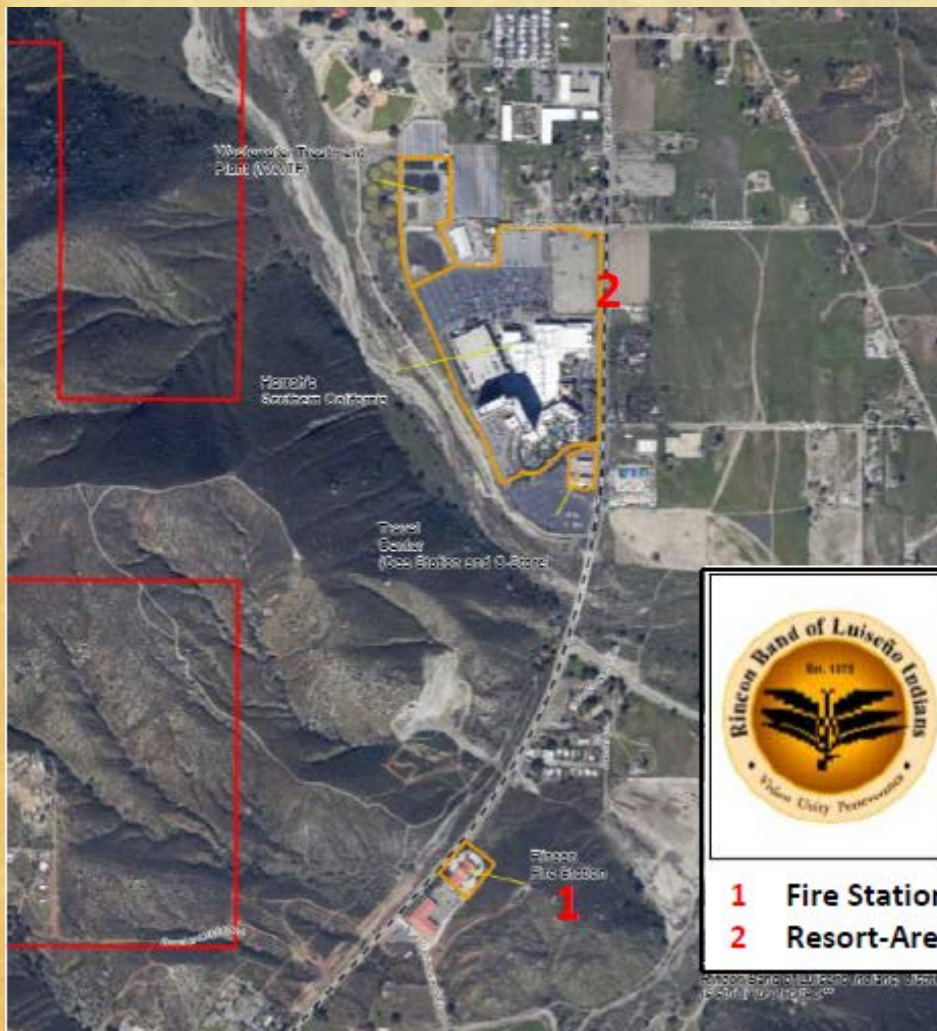
The Rincon Band acts through a five-person democratically elected Tribal Council vested with broad legislative, adjudicatory and executive powers -- no separation of powers required for tribal governments.

Each Council member serves 2-year, staggered terms – only officers are Chairman and Vice Chair.









BUILDING RESILIENCY - RINCON MICROGRIDS PROJECT




- ◆ The Rincon Solar Microgrids Project will assure resilient and sustainable energy supplies for several facilities and services essential to the health, safety, and welfare of the Rincon Band, while reducing lifetime costs of energy and outages, and creating infrastructure and systems to support tribal sovereignty and self-sufficiency.



Legend

-  Target Building
-  Valley Center Rd.
-  Reservation Boundary

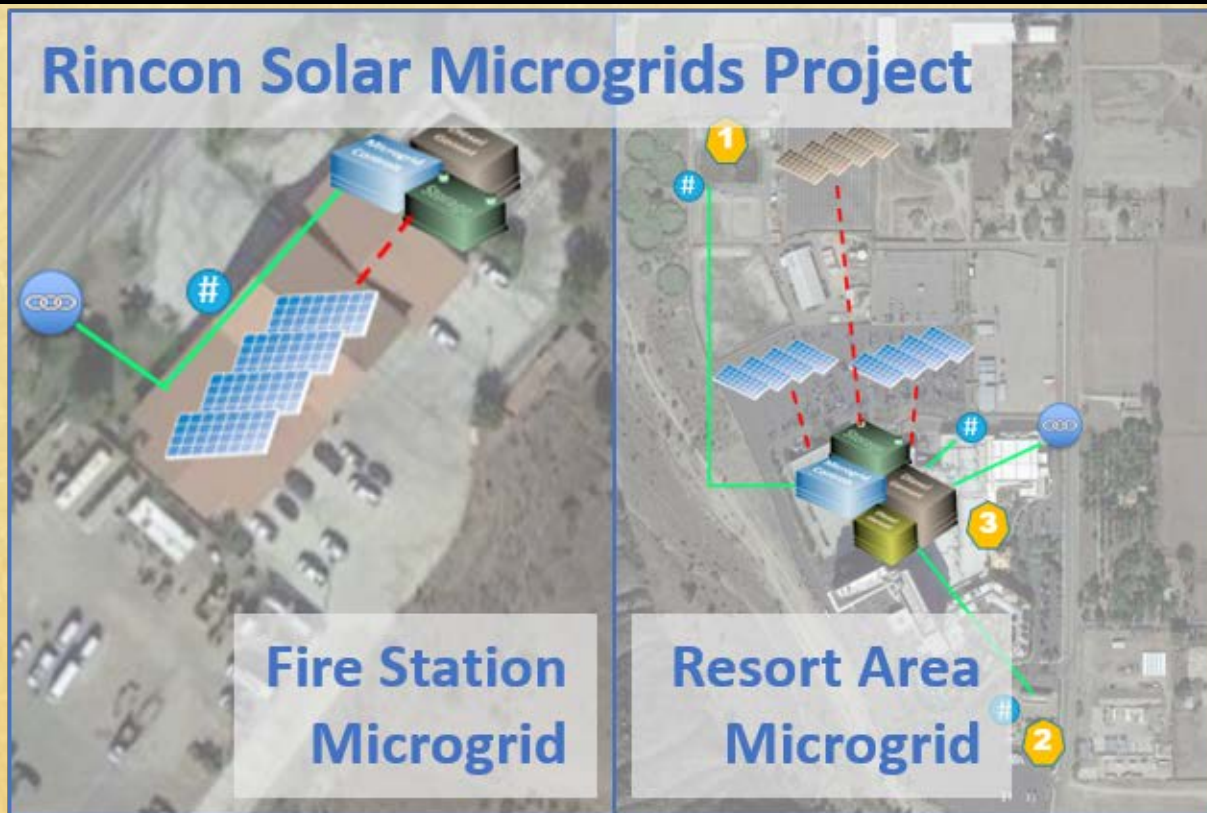
1:11,500 Scale
1 inch = 858 feet



1 Fire Station Microgrid
2 Resort-Area Microgrid



TWO SEPARATE COMMUNITY-SCALE SYSTEMS



- ♦ The scope of the Microgrids project includes the installation of two separate, sustainable energy systems, centrally located on the Rincon Reservation, each capable of autonomous operation for vital services.
- ♦ This community-scale project will provide resilient energy for a large portion of the Rincon community's essential facilities and services, including fire protection, emergency management, public sheltering, fuel supplies, and water pumping and wastewater treatment plant whose operability during emergencies is essential for the entire Reservation.



RESILIENCY FOR ESSENTIAL FACILITIES AND SERVICES

- ♦ At both the Fire Station and Resort Area Microgrid sites, the completed systems will integrate existing generation resources together with additional new generation capacity (rooftop- and carport-mounted photovoltaics and diesel), battery energy storage system, and microgrid controls and energy management technologies.





3,100 kW of Solar Photovoltaic Capacity
2,450 kW of Energy Storage Capacity
2,920 kW of Diesel-Fueled Standby Generation
\$500,000 In Annual Savings; \$9.2M Saved in 25 Years

- ◆ The two microgrids will integrate approximately 3,100 kW of solar photovoltaic capacity (2,100 kW of new generation and 1,000 kW of existing capacity) together with 2,450 kW of new battery energy storage capacity and 2,920 kW of diesel-fueled standby generation (2,420 kW existing and 500 kW new) to maintain resilient energy service and displace grid-delivered power.
- ◆ The systems are expected to save nearly \$500,000 annually, and more than \$9.2 million over 25 years; create employment totaling approximately fifty full-time equivalent employees during peak construction and two full-time equivalent full-time employees during long-term operations; and training for eight people in microgrid operations and management, and hands-on training of additional eight people during the installation of solar PV and microgrid systems.

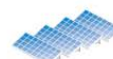
System	Resource Type and Capacity	Essential Services
Fire Station Microgrid	PV 100 kW DC (new) Diesel 420 kW (existing) BESS 50 kW/50 kWh	Fire protection, rescue, and 911 emergency dispatch
Resort Area Microgrid	Carport PV 2,000 kW DC (new) Ground PV 1,000 kW (existing) Diesel 2,000 kW (existing) Diesel 500 kW (new) BESS 2,400 kW/600 kWh (new)	Emergency public shelter, emergency operations center (EOC), and emergency response and evacuation staging areas; waste water treatment plant (WWTP); food, essentials, and fuel for emergency vehicles and standby generators at water pumping stations etc.



Resort Area Microgrid (Harrah's, Travel Plaza & Wastewater Plant)



Harrah's Resort Microgrid



Solar PV System



Battery Energy Storage System



Microgrid and BMS Controls



Diesel Generator

*Grey icons are existing components to be integrated into microgrid system

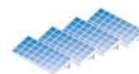
- ♦ Solar PV Systems
 - ♦ Existing solar PV system (1,000 kW)
 - ♦ New solar PV system (2,000 kW)
- ♦ Diesel Backup Generators
 - ♦ Existing diesel generators (2,000 kW)
 - ♦ New diesel generators at Resort Area (500 kW)
- ♦ Battery Energy Storage System (BESS)
 - ♦ BESS (2,400 kW/600 kWh)
- ♦ Microgrid and Building Energy Management Controls



Fire Station Microgrid



Fire Station Microgrid



Solar PV System



Battery Energy Storage System



Microgrid and BMS Controls



Diesel Generator

*Grey icons are existing components to be integrated into microgrid system

- Solar PV System - New solar PV system (107.7 kW)
- Diesel Backup Generator - Existing diesel generators (420 kW)
- Battery Energy Storage System (50 kW/50 kWh)
- Microgrid and Building Energy Management Controls



Project Participants

PROJECT TEAM/ENERGY COMMITTEE:

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Questions or Comments?

