

#### Graton Economic Development Authority Renewable Energy Efficiency Network Project (G.R.E.E.N.)

#### 2021 DOE/OIE Annual Program Review Nov. 16, 2021

R.T. Browning – Technical Contact

Federated Indians of Graton Rancheria

## **Tribal Background**

- Coast Miwok & Southern Pomo peoples – North of SF, CA
- Tribal Restoration (Dec. 2000)
- Serving 1400+ tribal citizens
- Tribal Governance & Economic Development (GEDA)
- <u>www.gratonrancheria.com</u>





# **G.R.E.E.N. Project Overview**

#### DOE 2017 Grant Award

- Install 1.5 Mw PV System (with project redesign estimated for 2.4 Mw)
- \$1,958,857 federal award
- \$1,608,906 Tribal match
- Project end date 9/30/2022



# **Project Location**

Sonoma Co. California – Tribal Reservation 250+ acres

Graton Economic Development Authority – *Project Lead* 

Regional Focus – Clean Energy

Project Supports Tribal Values: Social Justice & Environmental Stewardship



#### **G.R.E.E.N. Project Outcomes**



- PROJECT GOALS
  - GOAL 1 Model Tribal Environmental Stewardship
  - GOAL 2 Create a Sustainable, Renewable Energy Resource for the Tribe
  - GOAL 3 Establish Tribal Energy Independence and Energy Choice
  - GOAL 4 Provide Tribal Citizen Education in the Energy Sector
  - **GOAL 5 Encourage Information Sharing** (Intertribal, Multi-Agency and with Project Partners)

# G.R.E.E.N. Solar Project Specifics



- 2016 Tribal Renewable Energy Systems Analysis
- 140,000 sq. ft. rooftop atop Tribal Business Enterprise (Opened 2013)
- 2<sup>nd</sup> Tribal Alternate Energy Project (2015) EV stations





# **Graton Solar Project Objectives**

- Project Design 4 Tasks
  - Task 1 Project Reporting
  - Task 2 RFP > Vendor Contract
  - Task 3 Installation and Performance Monitoring
  - Task 4 Community Education



# Project Challenges (2018 - 2020)



Identified Issues

**Design & Installation Increased backup power supply issue identified** (2018)

- Requested project extension from 2019 to 2022
- Added Generator capacity design & timeline developed (2019)
- Additional backup power costs approved by Tribal Council
- Rebid project increased power generation output (from 1.5 1.75Mw)
- Task 3 vendor selected with COVID 19 safeguards (2020)
- Change in technical consultants (2021)

## **Project Updates 2021**

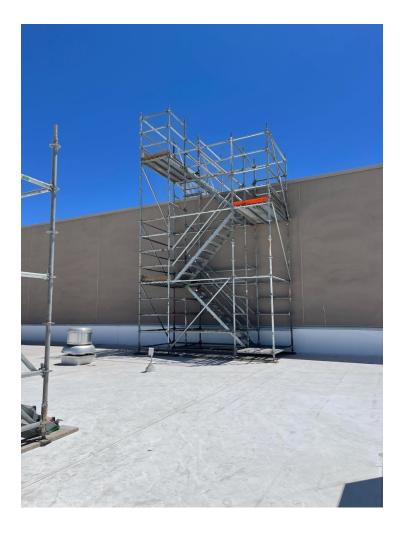
#### **Remedies in Process**

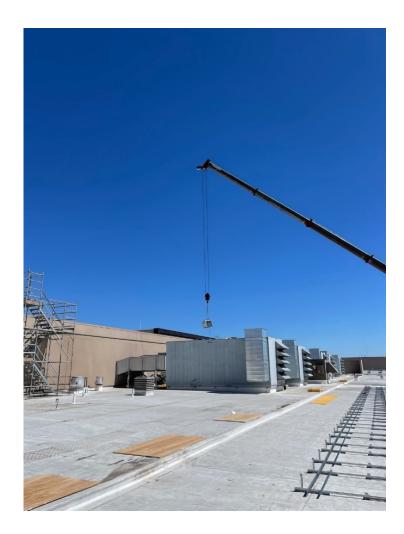
Task 3 (Jan. 2021) Reduced cost share federal funding to 45.10% Power module delivery delay due to world-wide **COVID 19 impacts** Additional backup power system installed Interconnection Agreement in Place Substantial completion by Dec. 2021





#### **Rooftop Project Site Access**





#### **Project Elements Installed**







#### **Project Components on Site**







## **Project Support Components**

#### **Equipment Pad**

#### XFMR







## **Project Partners & Outreach**

#### Coordination & Outreach

- Graton Economic Development Authority (GEDA)
- Graton Resort & Casino
- Project Consultants/Vendors
  - Kenwood Energy
  - Borrego Solar Systems

#### Community Education Task 4

• Begins Spring 2022



#### **Follow Up - Questions**

• Project Contacts

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