

1. Project Summary

The selected contractor will deliver a comprehensive feasibility study evaluating the potential for installing photovoltaic (PV) and battery energy storage systems (BESS) on the Pit River Tribe's XL Ranch and Burney trust lands in California. The aim is to enhance energy resilience and create revenue opportunities for the Tribe. The study should include a preliminary site assessment to determine the feasibility of PV and BESS installations and evaluate the cost-benefit ratio. The project is designed to generate revenue for tribal operations, create quality jobs, and foster economic growth. Additionally, it aligns with federal objectives and supports California's Renewable Portfolio Standard (RPS), potentially reducing the utility's need for power corridor upgrades and serving as a model for other tribes.

This scope of work includes:

- Assessing the technical and economic viability of developing photovoltaic (PV) and battery energy storage systems (BESS) on tribal lands.
- Identifying optimal sites and creating detailed plans to enhance the Tribe's capacity to secure further funding.
- Laying the groundwork for creating long-term quality jobs, boosting local employment.
- Providing a replicable model for other tribes to maximize federal funding opportunities and promote renewable energy adoption.
- Contributing to the Tribe's revenue stream, supporting various operations and benefit plans, and improving community infrastructure.

2. Project Background

The Pit River Tribal Council aims to improve energy resilience, safeguard food sovereignty, and develop renewable resources to benefit the tribal community while preserving cultural landscapes and resources. The Tribe faces challenges due to climate change, including severe storms, wildfires, and outdated transmission infrastructure, leading to unreliable and costly power with limited provider options. Prolonged outages pose significant risks and disrupt access to essential services. The BIA-EMDP grant program supports the Tribe's initiative to install a microgrid providing backup power to essential buildings, integrating renewable energy into community development, and creating safety hubs for emergencies.

3. Benefits to the Tribe, State, and Federal Initiatives

3.1 Benefits to the Pit River Tribe

- **Revenue Generation:** PV development will provide a sustainable revenue stream to support tribal operations and community development, enhancing infrastructure, healthcare, education, and critical services.
- **Job Creation:** The project will create long-term, quality jobs, including technical, administrative, and managerial positions, offering stable employment for tribal members.
- **Economic Growth:** Owning and operating PV facilities will contribute to the Tribe's economic self-sufficiency and strategic decision-making capacity.

3.2 Support for Federal Objectives and California's Renewable Portfolio Standard (RPS)

- **Federal and State Alignment:** The feasibility study will support federal objectives and California's RPS by developing solar and battery systems to reduce electricity costs, achieve energy independence, and contribute to reducing carbon emissions. The project will enhance economic self-sufficiency and environmental stewardship.
- **Maximizing Federal Funding:** The Tribe aims to reduce reliance on federal funds and aid other tribes by creating a model for utilizing federal funding for self-sufficiency, supported by a PV and BESS development handbook.
- **Sovereign Control:** Operating PV installations will grant the Tribe control over its resources, ensuring reinvestment into the community and stabilization of energy costs.
- **Infrastructure Development:** The PV project will drive infrastructure improvements in XL Ranch and other areas, enhancing emergency services, roads, lighting, and housing.
- **RPS Compliance:** The project will help meet California's renewable energy targets, contributing to the state's goals for 60% renewable energy by 2030 and 100% carbon-free energy by 2045.
- **Replicable Model:** The project will serve as a model for other tribes, aiding them in navigating regulatory requirements and securing funding for similar initiatives.

4. Project Site Location

The PV and BESS systems will be developed at the XL Ranch Reservation and Burney Tribal lands. These locations were chosen to maximize solar energy capture and storage potential, ensuring optimal efficiency and return on investment.

5. RFP Schedule

The Pit River Tribe will strive to adhere to the following schedule but reserves the right to revise it based on the Tribal Nation's business needs.

Milestone	Date
RFQ Issuance	22-Aug-24
Deadline for Respondent's Questions	30-Aug-24, 5:00 p.m. (Pacific Time)
Tribal Nation Responses to Submitted Questions	06 -Sept 24, 5:00 p.m. (Central Time)
Respondent Qualification Submittals Due	06-Sept -24, 3:00 p.m. (Pacific Time)
Decision on Selected Contractor	21-Sept -24

6. Scope of Work

This feasibility study encompasses both technical and economic assessments, requiring a clear framework and detailed approach for each step.

6.1 Technical Assessment

The study should support the Tribe's energy transition initiatives through the development, ownership, and operation of PV and BESS systems. Key aspects include:

- **Site Assessment:** Evaluate solar irradiance, temperature variations, and weather patterns. Assess the installation area for solar panels and BESS and identify potential shading issues.
- **Generation Assessment:** Measure solar irradiance levels, review historical weather data, and assess seasonal changes.
- **Technology Selection:** Evaluate various solar panel technologies, battery types, inverters, and mounting systems.
- **System Design and Sizing:** Analyze energy requirements and installation area, and develop a high-level layout.
- **Grid Connection and Electrical Integration:** Evaluate grid infrastructure and identify connection points. Determine necessary upgrades.
- **Regulatory and Permitting Considerations:** Identify required permits, approvals, and relevant regulations.
- **Environmental and Social Impact:** Assess environmental effects and prepare a permitting matrix. Develop a Stakeholder Engagement Plan and conduct public meetings.
- **Risk Assessment:** Identify potential issues and propose risk management strategies.

Technical Criteria:

- System operation in grid-connected and island modes
- Automatic grid separation and synchronization
- Sizing calculations accounting for degradation and local conditions
- Provision of power to critical facilities during emergencies

6.2 Economic Assessment

The economic analysis will provide a comprehensive report detailing:

- **Cost Breakdown:** Equipment, installation, maintenance, and other expenses.
- **Financial Analysis:** Capital and operational costs, financial incentives, tax credits, payback period, ROI, and LCOE.
- **Feasibility Analysis:** Cost-benefit analysis and overall project feasibility.
- **Local Consumption and Costs:** Per capita electricity consumption and capacity cost per kW.
- **CO2 Emissions:** Estimate CO2 emissions for compliance with environmental standards.
- **Job Creation and Expenses:** Estimate annual jobs created and total expenses.

- **Project Timeline:** Estimated completion timeline from inception to commissioning.

7. Other Requirements

The vendor must propose a timeline for completing the feasibility study and milestones for progress monitoring, along with payment terms aligned with these milestones.

8. Evaluation Criteria

Technical Evaluation will be based on the following criteria:

Evaluation Criteria No.	Criteria	Points
1	Understanding of Pit River’s problem statement and technical approach to the Scope of Work (SOW).	25
2	Experience in developing high-quality studies with microgrid modeling and using relevant tools/software.	25
3	Demonstrable experience in implementing similar projects.	25
4	Experience with dedicated staff working on relevant high-quality studies.	25
Total		100