

Habematolel Pomo of Upper Lake – Climate Pollution Reduction Grant Application – Budget Narrative

Introduction

The Habematolel Pomo of Upper Lake, a federally recognized Tribe, has embarked on a visionary project to construct and operate two Renewable Thermal Processing (RTP-20) units in one Maine and one in Washington. This initiative is a cornerstone of the Tribe's Climate Pollution Reduction Grant application, aimed at significantly reducing greenhouse gas (GHG) emissions through sustainable biofuel production. This narrative outlines the budgetary commitments and financial strategies integral to realizing these GHG reduction measures, adhering to the EPA's "Interim General Budget Development Guidance for Applicants and Recipients of EPA Financial Assistance."

Our associated Budget Calculation spreadsheet attached as part of the application covers the direct uses of the funding requested to construct two RTP-20 units along with the implementation of GHG reduction efforts on Tribal land. The following budget detail breaks down the individual budget categories necessary in the construction of two RTP-20 units (the Maine Project, and the Washington Project) along with the implementation of onsite emission reduction programs.

A full budget, from all capital sources, is available upon request.

Measure 1: Biofuel Development (Total: \$57,888,837)

Personnel and Staffing Costs (Total: \$1,305,905)

[All Salaries include a 3% cost of living increase per year]

Key to the project's success is the expertise and dedication of its personnel. The project's staffing strategy involves roles crucial to its execution, including a Chief Development Officer and a Vice President of Finance, each contributing significantly over a three-year period.

Fringe Benefits (Total: \$301,363)

Funds have been allocated to supply fringe benefits to the personnel supporting the Tribe in its development of the Maine Project and the Washington Project. The Tribe has allocated 30% of Personnel costs to be directed towards health insurance, 401(k) and other standard benefits.

Travel (Total: \$53,100)

Project personnel will be required to travel to both the Maine and Washington development to support not only onsite development efforts but also community engagement efforts.

Equipment (Total: \$25,651,481)

The implementation of the RTP-20 units, pivotal to the Tribe's renewable biofuel production facilities, necessitates two essential pieces of equipment, each critical to the biofuel production process. At the heart of this innovative project is the RTP (Rapid Thermal Processing) unit, or reactor, which serves as the technological cornerstone. This sophisticated apparatus efficiently processes biomass slash, transforming it into fast pyrolysis bio-oil, also known within the scope of this initiative as Renewable Fuel Oil (RFO). The process harnesses the RTP unit's advanced capabilities to create a sustainable and clean energy source from otherwise underutilized biomass.

Complementing the RTP unit is the second indispensable component: a biomass processor and drying unit. This equipment is tasked with preparing the biomass feedstock for conversion, ensuring it meets the specific requirements for efficient and effective processing. Sourced from the surrounding areas, the feedstock undergoes meticulous preparation, involving processing and drying to achieve the optimal condition for combustion within the RTP reactor. Together, these two key pieces of equipment form an integrated system, converting sustainable feedstock into valuable biofuel.

Contractual (Total: \$18,103,301)

For the successful construction of the RTP-20 facilities in Maine and Washington, beyond the critical equipment procurement, a series of contractual obligations and requirements must be meticulously managed and fulfilled. These requirements are vital to ensuring that each project progresses smoothly from concept to operational status, encompassing a wide range of professional services and operational tasks. Key among these are:

- **Feedstock Contracting and Testing:** This encompasses the identification, acquisition, and rigorous testing of suitable feedstock necessary for the biofuel production process. Ensuring a consistent and quality supply of biomass is critical for the uninterrupted operation of the RTP units. Contractual agreements with local suppliers will secure a sustainable source of feedstock, while testing guarantees its compatibility with the RTP-20.
- **Legal and Administrative Fees:** The complexity of constructing and operating biofuel production facilities necessitates a comprehensive legal and administrative framework. This includes the drafting and negotiation of contracts, securing of permits, and management of regulatory compliance. Legal expertise will guide the Tribe through the regulatory landscape, ensuring adherence to all relevant environmental and construction codes, while administrative support facilitates the seamless coordination of project milestones.
- **Engineering, Procurement, and Construction (EPC) Contracts:** The execution of EPC contracts is essential for the detailed planning, design, procurement of balance of plant materials, and construction of the facilities. These contracts outline the scope, budget, timelines, and quality standards for the project, entrusting experienced contractors with the responsibility to bring the project to fruition within the stipulated parameters. The EPC approach streamlines project delivery by integrating all necessary services under a single contractual umbrella, optimizing efficiency and reducing the risk of delays.

- **Site Work and Balance of Plant Material Procurement and Fabrication:** Beyond the core RTP and biomass processing units, the construction of the facilities requires extensive site preparation work, including land clearing, grading, and the installation of infrastructure such as access roads and utilities. Additionally, the procurement and fabrication of balance of plant materials—those components necessary to support the main production process, such as storage tanks, piping, and control systems—are crucial for a fully functional facility. These elements ensure the biofuel production process is supported by a robust infrastructure, capable of sustaining long-term, efficient operations.

Together, these contractual requirements underpin the successful construction and eventual operation of the RTP-20 facilities in Maine and Washington. By addressing these needs with precision and foresight, the Tribe is poised to establish biofuel production operations that not only exemplify environmental responsibility but also stand as a testament to sustainable innovation and economic development.

Other (Total: \$12,775,049)

In addition to the primary construction and operational requirements of the RTP-20 units in Maine and Washington, the budget also accounts for critical ancillary expenses that ensure the project's resilience and operational readiness. These include contingencies for potential change orders during construction and the comprehensive costs associated with commissioning and startup activities for both facilities.

Contingency for Potential Change Orders

Construction projects of this scale and complexity often encounter unforeseen challenges and changes that necessitate adjustments to the initial plans. To accommodate such eventualities without jeopardizing the project timeline or budget, a contingency fund is allocated specifically for potential change orders. This proactive financial planning allows for flexibility in addressing issues such as modifications in design, unforeseen site conditions, or changes in regulatory requirements. By anticipating and setting aside resources for these potential adjustments, the project ensures that it can adapt to changes while maintaining financial integrity and project momentum.

Commissioning and Startup Costs

The transition from construction completion to operational status is a critical phase that involves extensive testing, adjustments, and verification processes to ensure that the facilities operate as designed. Commissioning is a meticulous process that entails testing each component and system within the RTP-20 units to verify their functionality and safety. This phase is crucial for identifying and rectifying any issues before the facilities become fully operational, ensuring that the biofuel production process is efficient, reliable, and compliant with all regulatory standards.

Following commissioning, the startup phase initiates the actual operation of the facilities, gradually bringing them up to full production capacity. This phase includes the training of operational staff, the finalization of operational protocols, and the establishment of maintenance routines. Costs associated

with these activities encompass both the technical and human resource aspects required to transition the project from construction to full operational status efficiently.

By allocating funds for contingencies and the comprehensive commissioning and startup processes, the project underscores its commitment to quality, safety, and operational excellence.

Measure 2: Onsite Emission Reduction Programs (Total: \$1,250,000)

Other (Total: \$1,250,000)

Amidst the ambitious endeavor to establish renewable biofuel production facilities, the Tribe is also actively pursuing additional measures to mitigate greenhouse gas (GHG) emissions across Tribal lands. These measures are integral to the Tribe's comprehensive strategy for environmental stewardship and sustainable development, underscoring a commitment to reducing its carbon footprint through practical, impactful actions. Here's an in-depth look at these additional key measures:

Fleet Emission Reduction Program

Understanding the significant impact of transportation on GHG emissions, the Tribe is initiating a robust Fleet Emission Reduction Program. This program is centered on transitioning the Tribal vehicle fleet from conventional gasoline-powered models to electric and hybrid vehicles. This shift not only reduces emissions but also aligns with the Tribe's vision for a sustainable future. To support this transition, the installation of electric vehicle (EV) charging stations across Tribal lands is a priority, ensuring that infrastructure does not lag behind vehicle technology. This initiative represents a tangible step towards reducing the Tribe's carbon footprint while setting a precedent for sustainable transportation practices within the community.

Solid Waste Management and Reduction

Recognizing the environmental consequences of improper waste management, the Tribe is dedicated to enhancing its Solid Waste Management and Reduction strategies. This initiative focuses on expanding recycling and composting facilities, making it easier and more efficient for community members to divert waste from landfills. Coupled with targeted community education programs on waste reduction practices, the Tribe aims to cultivate a culture of sustainability and responsibility. By reducing the volume of solid waste and increasing recycling and composting rates, this measure significantly lessens the environmental impact of waste, contributing to the overall goal of GHG emission reduction.

Energy Management Solutions

To address the energy consumption and emissions associated with buildings on Tribal lands, the Tribe is implementing Energy Management Solutions. This multifaceted approach includes retrofitting existing buildings with energy-efficient technologies such as LED lighting, advanced HVAC systems, and improved insulation. Furthermore, the integration of renewable energy sources, such as solar panels, into Tribal buildings not only reduces reliance on fossil fuels but also decreases energy costs over time. These

energy management efforts are designed to significantly lower GHG emissions while enhancing the sustainability and resilience of Tribal infrastructure.

By complementing the biofuel production initiative with these additional GHG reduction measures, the Tribe demonstrates a holistic approach to environmental sustainability. Each program, from fleet emission reduction and solid waste management to energy-efficient building retrofits, contributes to a comprehensive strategy that addresses various sources of emissions. Collectively, these efforts underscore the Tribe's dedication to safeguarding the environment for future generations, embodying a commitment to sustainable development, and responsible stewardship of Tribal lands.

Other Considerations

GHG Reduction Measures and Environmental Impact

In line with the Tribe's holistic approach to GHG reduction, the project encompasses a wide range of measures beyond the construction of the RTP-20 units. These include technology for carbon capture and storage, renewable energy investments to power the facilities, and initiatives aimed at minimizing the carbon footprint of the Tribe's broader operations.

Evaluation, Metrics-Tracking, and Reporting

Integral to the project's accountability is a robust framework for evaluating its impact on GHG reductions, tracking performance metrics, and reporting outcomes to stakeholders and regulatory bodies. This commitment to transparency and accountability is critical to the project's success and its contribution to global GHG reduction efforts.

Financial Strategy and EPA Grant Utilization

The Tribe requests EPA grant funding in the range of \$30-\$60 million, recognizing that this will not cover the entire cost of constructing the RTP-20 units. This grant is crucial for bridging the initial equity gap, with the total equity requirement for each unit estimated at \$25-\$35 million. The strategic use of project-level debt, supported by revenue from biofuel operations, will cover the remainder of the capital expenditure, demonstrating a sustainable financial model for the project.

Leveraging Project Level Debt

The addition of project-level debt financing is a testament to the Tribe's comprehensive planning and commitment to fiscal responsibility. This approach ensures the project's long-term viability and its capacity to contribute to the Tribe's environmental goals.

Comprehensive Budget Overview

This detailed budget narrative reflects the extensive planning and investment required to bring the RTP-20 units to fruition. It encompasses the entire scope of the project, from initial site development to long-term GHG reduction measures, and illustrates the Tribe's commitment to leveraging EPA grant funding within a broader financial strategy.

Conclusion

The Habematolel Pomo of Upper Lake's application for the Climate Pollution Reduction Grant represents a pivotal step towards realizing a significant reduction in GHG emissions through innovative biofuel production. By integrating EPA grant funding with a thoughtful mix of equity and debt financing, the Tribe sets a precedent for sustainable development and environmental stewardship. This project not only aligns with the Tribe's cultural values but also contributes to the global effort to combat climate change, promising a greener future for generations to come.