The Tulalip Tribes of Washington

REQUEST FOR PROPOSALS

BETTY TAYLOR SOLAR + STORAGE

DESIGN FOR SOLAR AND BATTERY STORAGE & MICROGRID INTEGRATION

October 20, 2025

TULALIP TRIBES OF WASHINGTON

6406 Marine Drive, Tulalip, WA 98271

Key Project Milestones

Milestone	Date
RFP Announced	Oct. 20, 2025
Deadline for Questions	Nov. 7, 2025
Proposals Due	Nov. 20, 2025
Award Announcement	Nov. 24, 2025
Estimated Contract Approval	Dec. 15, 2025
Substantial Completion Target	May 1, 2026

Detailed Project Description: The Tulalip Tribes will select a CONSULTANT to design a solar PV and battery storage system for the Betty Taylor Learning Academy and integrate this system with the Gathering Hall microgrid, which is expected to be completed in Q3 2026. The functional intent of the microgrid system is to support the entire building during a 3-day outage in early January, when minimal solar gain/energy production is modeled. A 2024 feasibility study included in the RFP as **Exhibit A** gives more details and analysis.

The basis of this design solicitation seeks support for:

- **Solar PV:** Final design support for a 240kW-DC rooftop solar array, mounted on existing standing seam metal roof, southeast facing.
- **Battery Energy Storage System**: Coupled storage capacity with a minimum of 500kW-1320kWh storage potential that is integrated with the Tulalip Gathering Hall microgrid project, which will be completed in the fall of 2026.
- **1500kW Diesel Generator**: Resilience support through planned interconnection with an existing 1500kW diesel generator to support the building in prolonged outages.

Tulalip Tribes Project Manager:

Steve Hinton, Conservation Scientist, The Tulalip Tribes of WA
6406 Marine Drive, Tulalip, WA 98271
shinton@tulaliptribes-nsn.gov
360-743-1727

CONSULTANT Qualification Requirements:

i. Licensed Electrical Engineer in the State of Washington. Provide license number.
ii. CONSULTANT shall have staff assigned to this project with active NABCEP certifications
iii. Insured — $1,000,000 per occurrence, $2,000,000 aggregate. Note: there is required insurance language naming the Tulalip Tribes as co-insured

Proposal Requirements:

- Only firms that have submitted a proposal by the deadline on the milestones table will be considered responsive bidders.

- This project is funded in part through a Washington State Department of Commerce Grant Program. Compliance with grant requirements is required and is detailed in **Exhibit B** of this solicitation.

- A Design proposal that includes evaluating existing facilities, field verification, documentation, and design for a Solar plus Battery Storage & Microgrid Integration with the Tulalip Tribe Gathering Hall project.

The CONSULTANT will be responsible for evaluating and documenting the facilities, electrical systems, and capacity in a formal Design document, subject to Owner review.

- Coordination with Snohomish PUD for electrical requirements or service changes. Any costs incurred for work handled by PUD will be considered part of the project costs.

- The CONSULTANT must document existing conditions. The Tribes will endeavor to provide as much information as possible about the existing electrical systems, but the available information ***is limited and not guaranteed to be accurate. The Selected CONSULTANT is expected to fully evaluate the existing electrical systems and verify all necessary components, capacities, and capabilities of the facilities.***

- The system design must include interfaces that the Tribes' maintenance staff can use.

Contract Structure

The successful CONSULTANT acknowledges and agrees that the specifications, terms, conditions, and contract provided in this RFP as **Exhibit C** will govern the contract awarded, unless the proposer explicitly states alternative terms or conditions, either in whole or by reference, that they wish the Owner to consider. Any alternate terms or conditions will be regarded as variances and may result in the rejection of the proposal if deemed material. **Any such alternate terms or conditions must be attached to the proposal for review by the TRIBES.**

Refer to the included contract and exhibits for additional information and project requirements.

2. SCHEDULE

See the Project Milestone Schedule on the RFP Cover sheet. The awarded CONSULTANT shall work with the TRIBES Project Manager to develop a mutually acceptable work schedule for completion of each and all of the CONSULTANT'S responsibilities under this contract during the term; provided that all work to be performed hereunder shall be completed by no later than June 30th, 2026.

3. SITE VISIT

Site visits must be requested in writing and coordinated with the RFP Point of Contact and Tulalip Tribes.

4. CONSULTANT REQUIREMENTS

The following services are requested from the CONSULTANT to complete the project scope.

The design will include all required low and medium-voltage switchgear and interconnecting feeder cables to facilitate the configuration of the Betty Taylor Learning Center with the Gathering Hall, forming a single looped distribution system for operation as a microgrid. The switchgear controls design, hardware, software, and interconnection of fiber optic cables to complete the microgrid system will be included.

The CONSULTANT will complete the distribution engineering phase through the following tasks:

System Design and Risk Assessment

Design and Risk Assessment Services shall be based on the preliminary design work included in this RFP as Exhibit A and will consist of;

- Sizing and evaluation report:
  - Review initial battery, PV array sizing, and building load analysis
  - Review current designs for the Gathering Hall and Learning Academy, including integration of standby diesel generator systems into the microgrid
  - Develop microgrid topology with input from Snohomish PUD
  - Review options for initial microgrid test load
  - Determine any building load shed requirements based on system sizing options
  - Electrical Single-line diagram - Must include all information about major system components specifications and ratings, conductor size and type, conduit size, ratings of combiner boxes and series OCPD's, and ratings of facility electrical panel interconnection point.
  - Recommendations for the final system topology and sizing, including wire sizing calculations, with ampacities of conductors determined using NEC tables. Voltage drops for PV source, output, and inverter output circuits shall be determined by hand calculations and limited to manufacturer recommendations or tolerances.

- Develop electrical, mechanical, civil, and structural drawings and outline specifications
- Prepare a conceptual electrical system model of the microgrid system to determine any over-duty scenarios of existing or new downstream electrical equipment
- Prepare conceptual installation phasing plan
- Update project cost estimate
- Attend scheduled meetings with the TRIBES & Snohomish PUD
- Incorporate review meeting comments

Design Documents for Equipment and Control System Purchase

Equipment pre-purchase Design Services shall be based on the results of the Preliminary Design and Risk Assessment of the Arlington Microgrid Project, and develop the design in the following areas:

- Develop electrical, mechanical, civil, architectural, and structural details and procurement specifications to the 60%, 90% and 100% level of detail for:
  - Battery Energy Storage System-CONSULTANT will be responsible for generating the BESS Container design and inverter methodology.
  - PV Fixed Array
  - Microgrid Control System
  - Medium-voltage Distribution Switchgear

- Update the conceptual electrical system model of the microgrid system
  - Load Flow
  - Short Circuit
  - Conceptual Coordination

- Update installation phasing plan
- Update project cost estimate
- Prepare Issue for Bid construction specifications
- Attend prebid meeting with the TRIBES
- Assist with bid evaluation

- Attend bid award/review meeting with the TRIBES

5. SUBMITTAL REQUIREMENTS

The following scoring matrix will be used to evaluate the proposals received. The proposal is to be organized to align with the categories below, and only information specific to the project will be reviewed.

Section	Description	Page Limit	Evaluation Points
1.	Cover Letter	1	0
2.	Qualifications/expertise of the proposed Consultant team: • Experience in design, procurement, and installation of Microgrid projects. • Tribal work experience. • Joint working experience of the proposed consultant team, if applicable	4	20
3.	Qualifications of proposed staff: • Experience with Microgrid systems • Tribal work experience. • Identification of proposed staff with an organizational chart identifying lines of authority and communication.	4	10
4.	NAOB status and/or utilization of NAOB's for the project: • NAOB status of the proposing team. • Efforts to include NAOB or Tulalip Tribal businesses in the project.	1	10
5.	Proposed project approach: • Structure of the Consultants' project management team and interface with the TRIBES. • Conformance with the requirements of the RFP, • Schedule, provide a general schedule of design, time frames for TRIBES approval of design, and the proposed system. (A detailed schedule will be required of the awarded team)	3	20
6.	Proposer's needs from the Tulalip Tribes (Identify portions of the scope to be performed by others, including expectations for Tribal Staff. Include a discussion of required subcontractors. Less 3rd party support will result in a higher score.)	1	20
7.	A cost proposal based upon the Scope of Work items and certified by signature as being valid for at least 90 days is required: • Provide a T&M cost estimate. Include schedules detailing all personnel billing rates and other anticipated costs for additional services if needed.	5	20

Proposals must be submitted electronically via email to the RFP Point of Contact listed in the introduction, no later than the **date shown on the milestone schedule.**

The receiving computer's clock will determine the official time. **Hard copy proposals andfaxed submissions will not be accepted**.

If the file size exceeds 15 MB, please get in touch with the project manager for alternative submission options. Itis the proposer's responsibility to ensure that the electronic submission is received by the deadline.

For questions about the electronic submittal process, contact the RFP Point of Contact.

6. INTERVIEW

After reviewing the submissions, the selection committee may elect to conduct interviews with a short list of proposers.

7. FINAL SELECTION

The Tulalip Tribes of Washington will select the proposer that best meets their needs and the specified criteria, based on the evaluation of submitted proposals and, if necessary, interviews. The final selection must be approved by, and is at the sole discretion of, the Tulalip Tribes' Board of Directors. The Tribes reserve the right to choose any responsive and responsible proposer at their discretion.

8. ADDITIONAL SERVICES

The Tulalip Tribes reserves the right to request additional services from the selected consultant. **Fees and rates for extra services are to be included in the fee section of the proposal.**

9. EXHIBITS

The following exhibits are incorporated in the RFP

A. – Feasibility report for Betty Taylor Learning Academy Solar + Battery Storage
B. – Washington State Department of Commerce Grant Program Award Document
C. – Standard Tulalip Tribes Independent Contractor Agreement

CASCADIA
RENEWABLES

Betty J Taylor Early Learning Academy Solar Plus Storage Feasibility Study

7607 Totem Beach Road, Tulalip, WA 98271

Parcel #30042200300700 and #30042200300900

Prepared by Cascadia Renwables

(info@cascadiarenewables.com)

About Cascadia Renewables

Cascadia Renewables is a technical consultant based in Washington (WA) state, specializing in designing and deploying solar and storage assets. We leverage our combined decades of industry experience to support public and private entities as they pursue their clean energy goals. Our team has led regional clean energy policy initiatives focused on equality, transparency, and affordability.

Authors

- Markus Virta – *Managing Partner*
- Callum McSherry – *Managing Partner*
- Joshua Miller – *Sr PV/ESS Design & Project Manager*
- Dana Hickenbottom – *Sr PV/ESS Design & Project Manager*
- Rose Kirby – *Information Designer*

Acknowledgments

Community Stakeholders and Representatives:

- Rochelle Lubbers – *Chief Executive Officer* – Tulalip Tribes
- Angel Cortez – *Emergency Manager* – Tulalip Tribes
- Steve Hinton – *Conservation Scientist* – Tulalip Tribes
- Ben Lubbers – *Associate Planner II* – Tulalip Tribes
- David Sherman – *Acting Fire Marshall* – Tulalip Tribes
- Suzanne Oversvee – *Senior Program Manager, New Energy Initiatives* – Snohomish County PUD
- Alex Chorey – *Principal Engineer, Energy Storage and Emerging Technology* – Snohomish County PUD
- Jon Erickson – *Senior Project Manager* – Power Engineers

Department of Commerce:

- Nora Hawkins – *Senior Energy Policy Specialist*
- Jennifer Grove – *Solar Programs Managing Director*
- Larry Mattson – *Renewable Energy Section Supervisor*
- Jill Eikenhorst – *Solar Programs Supervisor*
- Paul Larsen – *Solar Plus Storage for Resilient Communities Program Manager*
- Aidan Garrity – *Solar Program Manager*
- David Hecker – *Solar Program Manager*
- Sean Mertens – *Solar Program Manager*
- Eli King – *Energy Emergency Management Director*
- Deb Whitmer – *Energy Resilience and Mitigation Program Manager*
- Kate Pedersen – *Energy Resilience Specialist*

Clean Energy Group:

- Todd Olinsky-Paul

Table of Contents

Letter From the Field

Dear Steve Hinton,

We are pleased to present this feasibility study for the Betty J Taylor Early Learning Academy located at 7607 Totem Beach Road, Tulalip, WA 98271. This study evaluated the potential of implementing a solar and storage solution for the site as part of the WA State Department of Commerce's *Solar Plus Storage for Resilient Communities* grant program.

The purpose of this report is to convey a clear, detailed, and accurate impression of the benefits and challenges of leveraging a solar plus storage system to enhance community resilience, which takes into account geographical, infrastructural, economic, environmental, and social context. This report is the culmination of an extensive design project, the goals of which include:

- Understanding community needs
- Assessing trends in energy usage and conditions of the site
- Determining the optimal system size and architecture
- Assessing the benefits, challenges, and risks of proceeding with the proposed system
- Identifying next steps

We intend this document to be meaningful for people with various levels of technical knowledge—from interested members of the community to seasoned solar installers. To that end, we have framed our information at multiple levels of detail:

1. A high level summary of our findings and recommended design *(found on page 6)*
2. A detailed walk-through of our recommendations and justifications *(from page 7–39)*
3. A set of technical specifications for installers *(from page 40–41)*
4. An appendix of calculations and ancillary documents for cross referencing, as well as the findings and photos from our original site visit *(found in separate PDFs)*

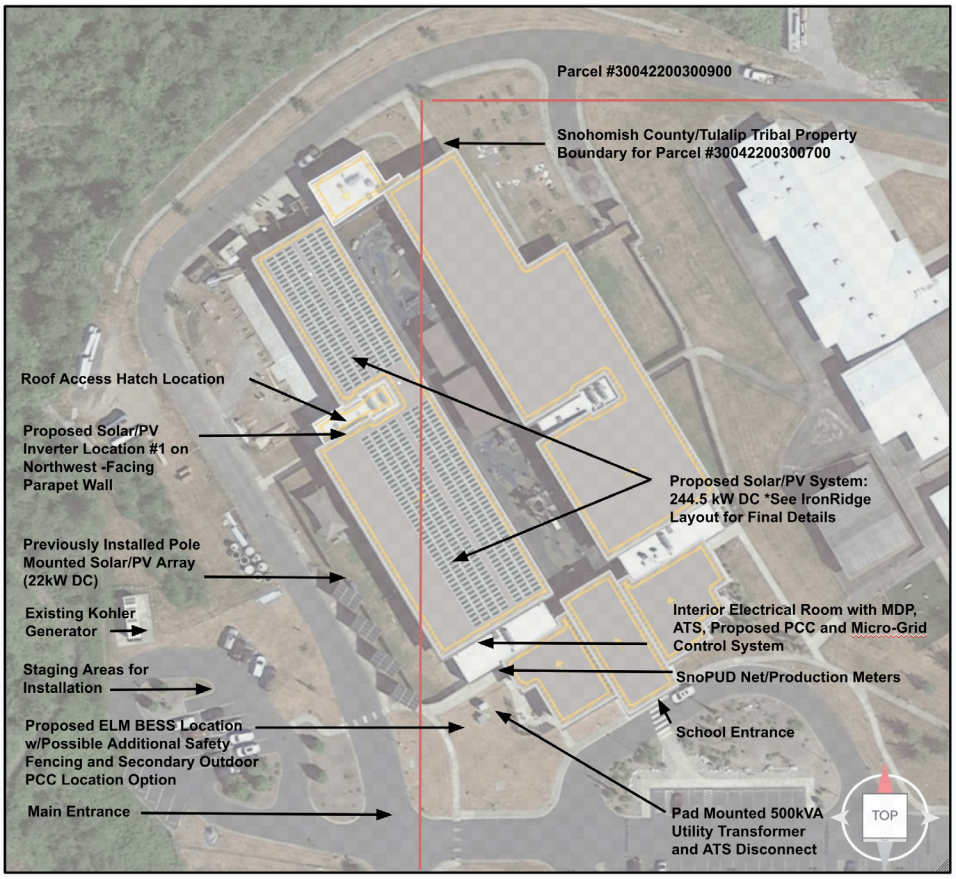
To determine the feasibility of a solar plus storage system, it is necessary to specify equipment, equipment locations, system design, and hourly labor/services estimates. Note that this feasibility study is conceptual and not intended for construction purposes. It supports stakeholder decision-making, fundraising efforts, and future designs but should not be used as final construction drawings. To determine the final product specifications, equipment locations, system design, and hourly cost/estimates, Cascadia Renewables recommends a thorough 3+ bid RFP process.

Please direct yourself to any sections appropriate and relevant to your needs. If you have questions about this report, please contact us at info@cascadiarenewables.com.

Sincerely,

Cascadia Renewables

Design Abstract



Executive Summary

The *Solar Plus Storage for Resilient Communities* grant aims to assist local and state governments, tribal nations, and non-profit organizations in Washington state. The grant supports the planning and installation of solar plus storage systems at facilities that promote community resiliency. Through this grant, Cascadia Renewables is providing the following feasibility study of a solar plus storage system to enhance resiliency at the site as defined by the site's representatives.

The conceptual design is intended to support the facility's use as critical center for feeding and sheltering students and faculty during a prolonged grid outage or natural disaster. Our initial site visit confirmed the building has a new low-tilt, unobstructed standing seam metal roof. Betty J Taylor Early Learning Academy can accommodate the largest rooftop PV system of any site in the designated resiliency hub on the Tulalip reservation. The electrical infrastructure allows a solar plus storage system to be integrated with the existing backup generator.

Based upon these findings, our feasibility study proposes a 494 PV panel, 244.5 kW DC solar system with 1540kWh of battery storage, estimated to have a total installed cost of $2,452,379. Cascadia Renewables' budget estimate includes the installation of all required infrastructure for the interconnection of the new roof-mounted conceptual 244.5 kW DC PV system, which is to be combined with the 48 PV panel, 22 kW DC system already installed on-site when the Academy was constructed, for a total system size of 266.5 kW DC. In addition to supporting the stated resiliency goals, the grid-interconnected PV system would provide the site with an estimated 220,441 kWh of annual energy production, resulting in estimated annual energy bill savings of $18,330.

Recommendations and Process

Introduction to the Site

The Betty J Taylor Early Learning Academy opened in 2015 after a decade of planning. It provides unique, year-round, no-cost educational schooling for children from birth to 5 years old. The newly constructed Academy allows the tribe to combine all of their birth-to-five programs into a single location, offering services to both the local tribal members and non-tribal members with children throughout the Marysville School District. With the tribe's Early Childhood Education and Assistance Program, Early Head Start (EHS), Montessori School, and Child Care Center in a single location, the tribe can focus on early learning strategies and offer Lushootseed immersion classes to benefit the future academic success of the community while "empowering children and families to become successful life-long learners and responsible citizens within a culturally diverse community."

With a capacity to house 112 birth to 3-year-old children in 14 classrooms, 180 preschool children in 10 classrooms, and a varying number of children and families taking advantage of the daily Extended Child Care services, the Betty J Taylor Early Learning Academy would become a critical center for feeding and sheltering students and faculty if a prolonged grid outage or natural disaster cut off access to the surrounding communities of Marysville and Everett where many of the parents work.

Stakeholder Engagement and Project Goals

The engagement process included stakeholders from multiple departments within the tribal government and local utility representing the community's needs from various perspectives. Key stakeholders and representatives included:

- Rochelle Lubbers – *Chief Executive Officer* – Tulalip Tribes
- Angel Cortez – *Emergency Manager* – Tulalip Tribes
- Steve Hinton – *Conservation Scientist* – Tulalip Tribes
- Ben Lubbers – *Associate Planner II* – Tulalip Tribes
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- Jon Erickson – *Senior Project Manager* – Power Engineers

Differing needs of stakeholders were voiced through the following interactions, summarized below.

Engagement Activities and Objectives:

April 28, 2023: Cascadia Renewables' staff discussed potential microgrid projects in SnoPUD territory with Suzanne Oversvee and Alex Chorey after presenting their interpretation of Snohomish County Emergency Management plan.

May 10, 2023: Tulalip tribes, in coordination with SnoPUD, submitted a technical assistance request to the Department of Commerce.

May 24, 2023: Cascadia Renewables and the Department of Commerce discussed the TA application and identified the best contact at Tulalip Tribes and SnoPUD for future correspondence.

June 2, 2023: The Department of Commerce awarded TA to Tulalip Tribes. An initial phone call took place between Cascadia Renewables and the Tulalip Tribes. The objective was to discuss the parameters of the *Solar Plus Storage for Resilient Communities* grant program and the next steps for completing a feasibility study.

June 5, 2023: Cascadia Renewables developed initial designs before conducting the on-site assessment to determine the potential locations for solar arrays throughout the multiple sites. The purpose was to streamline the on-site visit and make the best use of Tulalip Tribes staff members' time.

June 7, 2023: Cascadia Renewables conducted an extensive on-site evaluation with the assistance of site representative Steve Hinton and two tribal support staff members. The assessment included a review of the Administration Building, Betty J Taylor Early Learning Center, Tulalip Bay Fire Department, Tulalip Marina store, Senior Center, and the Tulalip Health Clinic.

June 13, 2023: The Cascadia Renewables design team spoke with Ben Lubbers at the Tulalip permitting office to determine the structural, fire, and electrical permitting process on tribal lands.

June 14, 2023: A follow-up discussion was conducted with the acting fire marshall, David Sherman, to determine the fire setbacks and additional fire permitting that would be enforced/required on each project.

August-October 2023: Cascadia Renewables and Steve Hinton were in contact mulitple times as he tried to gather the requested electrical usage data, structural and electrical plan sets.

September 12, 2023: Cascadia Renewables met with Jon Erickson, Senior Project Manager for Power Engineers, at the RE+ solar industry trade show in Las Vegas to discuss their work with the Tulalip Tribe to design an initial infrastructure of a multi-node micro-grid at the Gathering Hall and Administration Building. The two teams discussed leveraging and incorporating Cascadia Renewables' conceptual designs with the Power Engineer's study.

December 7, 2023: Cascadia Renewables gave an online presentation to Steve Hinton and Tulalip support staff regarding the feasibility work performed and the remaining steps to complete the feasibility studies. During the presentation, the teams discussed construction hurdles, such as roof loading issues at the Administration Building, the Fire Department's ownership status, connectivity of the Marina generator, and the standing seam metal roof of the Health Clinic.

December 13, 2023: Cascadia Renewables conducted an on-site presentation at the Tulalip Administration Building conference room to provide an open forum to all relevant Tribal staff with an update on the feasibility work Cascadia Renewables has done in the context of the *Solar Plus Storage for Resilient Communities* program for all six sites. There was a detailed discussion about the structural design of the administration building, what the Tribe should expect with each report, and how to interpret the information. This meeting included the Tulalip Tribe Chief Executive Officer, Rochelle Lubbers, Emergency Manager, Angel Cortez, and multiple members of the Tribe's senior leadership, support staff, and emergency personnel. Tulalip staff discussed recent long-term power outages, how the existing generators did/did not operate during this outage, and how emergency staff responded. These details provided invaluable context for the Cascadia Renewables team to complete the microgrid system optimization. As part of the final report, stakeholders requested alternative designs for the Health Clinic, a high-level overview of ground-mounted designs that could offer viable alternatives to rooftop installations.

December 18, 2023: The Cascadia Renewables team met with Steve Hinton to discuss and finalize the remaining decisions required to complete the final reports.

Project Requirements and Goals

Through conversations with stakeholders from the Tulalip Tribe, we determined that the purpose of this feasibility study is to evaluate the extent to which a solar plus storage system on the Betty J Taylor Early Learning Academy could meet several objectives, including:

1. Allowing for continued operations of the entire school to provide for the ability to shelter and feed the Academy's students and other community members (if necessary) until the emergency has ended (possibly multiple days), or until the students can be picked up by their parents at the end of the school day.

2. Operating as a node within a future multi-node microgrid that uses the existing generator infrastructure with new PV and BESS capacity for future resiliency and disaster preparation.

2. Reducing generator runtime during an emergency to maximize limited fuel resources and extend the generator life.

3. Maximizing the Academy's PV production to provide the maximum resiliency support and battery charging capabilities of the BESS system and the future multi-node microgrid once implemented while remaining under the PUD's "Small Generator" capacity for ease of permitting and a quicker project turnaround time for installation.

4. Adding redundancy to the current emergency management plan that relies solely on individually sited generator backup systems throughout the tribal properties that have not provided consistent power in past multi-day outages.

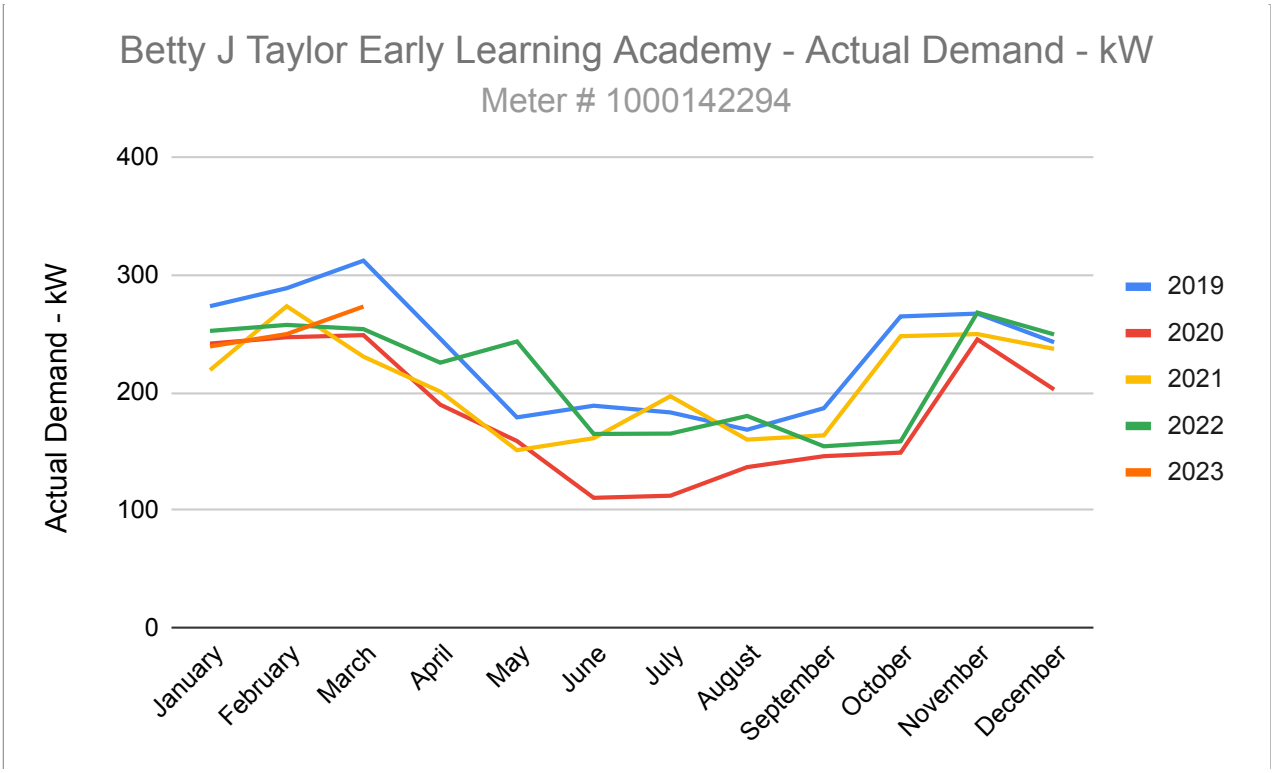
5. Offsetting annual energy costs using on-site PV production and demand shaving using the BESS.

Preliminary Electrical Usage Analysis

The Cascadia Renewable design team begins each feasibility study with a full review of the client's:

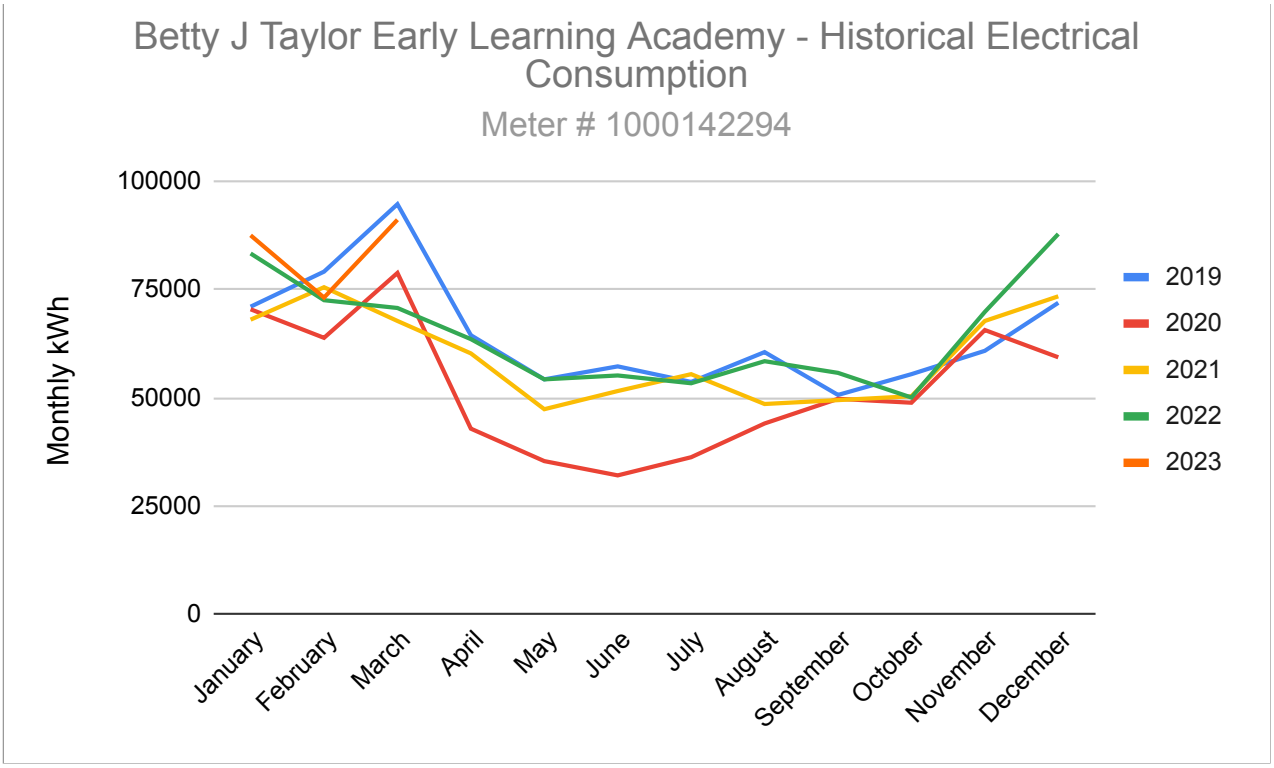
- Annual electrical usage data at each site to determine general project scale
- Peak demand profiles as expressed by either available 15 minute utility interval data or National Renewable Energy Laboratory (NREL) load profiles based on monthly consumption data to determine the required peak output of the Battery Energy Storage System (BESS)
- Historical power outages on the customer's local utility grid (when available) to inform the required periods of autonomy for the BESS

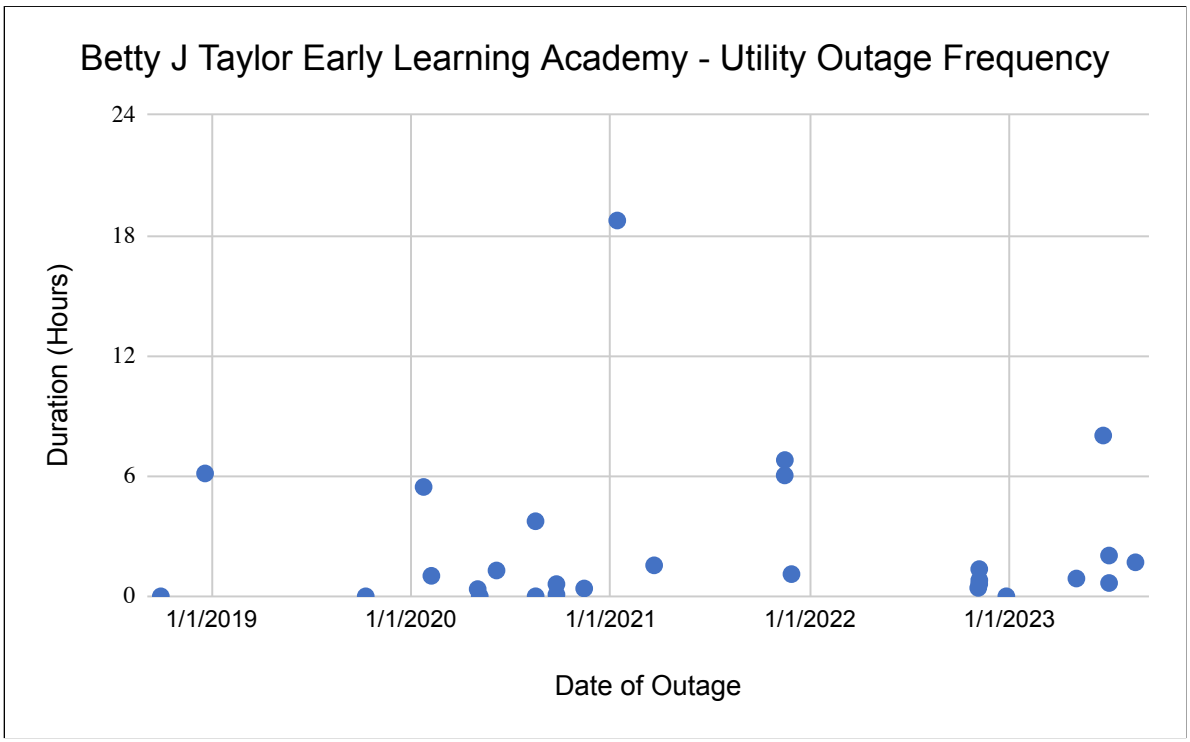
The preliminary electrical usage analysis determines the optimal solar plus storage system size to maximize the client's resiliency and electricity bill savings. We consider this electrical analysis in tandem with information collected on site to verify installability and inform conceptual designs.



Our analysis reviewed the electrical consumption data of the Betty J Early Learning Academy's single Snohomish PUD meter #1000142294 from 2019 to 2023. Cascadia Renewables had access to monthly energy usage and demand data, with no 15-minute interval data available through the site's PowerTrend Analytics Software.

The Learning Center used an average of 723,525 kWh annually. Energy consumption fluctuated from a monthly peak of 94,800 kWh in March 2019 to a historic low of 32,100 kWh in June 2020. Peak demand fluctuated from a monthly high of 312.3 kW in March 2019 to a low of 110.7 kW in June 2020, which is an outlier, most likely due to the COVID-19 pandemic. Energy usage, in general, dipped during the 2020 pandemic but is trending back to pre-pandemic levels. Average consumption and demand for the building are lower during the summer and increase in the fall, winter, and spring months; this usage pattern is typical for a school and reflects increased building usage during the school year.





According to Snohomish PUD's historical power outage data, Betty J Taylor Early Learning Academy experienced 28 outages between September 2018 and August 2023. While the longest outage lasted 18 hours, SnoPUD resolved 82% of the outages within 5 hours. The median time to resolve an outage was 57 minutes, while the mean time to resolve an outage was 2 hours.

Comprehensive Site Visit

Following the preliminary electrical analysis and an initial review of the available building plans and satellite imagery, members of the Cascadia Renewables' design team assessed the real-world conditions through a comprehensive site visit on 6/7/2023. This evaluation covered several aspects, including structures, roof condition, shading, electrical infrastructure, equipment locations, existing utilities, and accessibility for construction.

The building was constructed in 2015 to meet the latest structural and seismic codes. A review of the as-built building plans shows that the Academy exceeds the required structural loading characteristics for both wind and snow, with sufficient additional capacity to support a 2.6 psf rooftop PV system.

The unshaded standing seam metal roof is in excellent condition with no shading from surrounding buildings or trees. The new metal roof has a 25+ year warranty and allows seam-specific mounting clamps to be used, avoiding roof penetrations.

The building's electrical infrastructure is substantially sized, with a 2500 Amp, 208V Main Switchboard, and an on-site generator. A solar plus storage system that can provide backup power to the entire building will require an upgraded externally mounted point of common coupling (PCC). The PCC may be mounted outdoors with the BESS and ATS near the front entrance to the Academy.

The BESS can be located adjacent to the transformer and ATS in the grassy area near the Academy entrance or across the parking lot adjacent to the on-site generator. Utility locates will be required before any trenching or concrete work, and a soil/geotech report may be required in these two locations.

This site is convenient for both installation and service personnel. The solar installation has single-story roof access, and both system options have plenty of space surrounding the facility for staging the installation. Further site details are available in the Site Visit Photos in the Addendum.

Based on the on-site conditions, our conceptual design includes a standard roof-mounted PV system on the primary northeast-facing roof and a BESS adjacent to the transformer and outdoor ATS. Our design proposes that these systems be inter-connected into the main electrical switchboard to power the Early Learning Academy.

Photovoltaic (PV) System Design

The conceptual design assumes 494 Q-Cell G10 495 W PV modules installed on the northeast-facing, standing seam metal roof with non-penetrating IronRidge roof mounting hardware, connecting to the three SolarEdge SE50KUS and two SE17.3KUS inverters. All equipment choices are considered typical.

This results in a 244.5kW DC system, which, combined with the existing 22kW DC system, results in 266.5kW DC of total generating capacity on site. The 184.6kW AC output of the conceptual design would be combined with the existing 15kW AC output, resulting in a combined 199.6kW AC output, falling below the current 200kW BPA small generator threshold. We expect the 244.5kW DC conceptual system to produce 220,441 kWh of energy annually based on the latest LIDAR solar shading analysis/mapping software tools (Cascadia Renewables has included solar pathfinder measurements in the appendix for performance verification). Per the preliminary electrical analysis, this is enough to offset 27.96% of the facility's annual kWh consumption. The PV capacity exceeds 100kW AC, so this system will not be eligible for Net Metering through Snohomish PUD's solar program. It will instead be permitted under the PUD's Small Renewables Program. If the Tulalip Tribes pursue the larger 735.08kW option in the future, additional agreements will need to be put in place with the PUD and the BPA to allow for interconnection into the utility grid under a power purchase agreement.

The Early Learning Academy has no south-facing roofs, so our conceptual PV roof layout needed to use the primary northeast-facing roof; the low pitch of this roof minimizes production losses due to the sub-optimal orientation. We considered employing south-facing tilt-up mounting brackets in our design to improve

production. However, the necessary inter-row spacing would significantly reduce the system's energy density and add additional wind and snow loading to the roof beyond its designed load capacity. Panel locations meet all local commercial fire setback and service walkway requirements.

The PV inverters could be installed on the northwest-facing parapet roofs adjacent to the roof access hatches to ease maintenance and minimize DC wire runs. This placement would also keep the inverters in the shade to maximize their production during the peak summer heat.

The conceptual PV system is estimated to exert a maximum roof load of 2.6 pounds per square foot (psf). A third-party structural engineer reviewed the structural design and as-built roof plans and approved the roof to support this load. You may refer to the attached Engineering Documentation for more information. A final structural review will be required during the final design and permitting of the system.

PV SYSTEM DETAILS

GENERAL INFORMATION

Facility: Betty J Taylor Elementary
Address: 7607 Totem Beach Rd Tulalip WA 98271

SOLAR PV SYSTEM RATING

Power Rating: 244,530 W-DC
Power Rating: 223,418 W-AC-CEC

SOLAR PV EQUIPMENT DESCRIPTION

Solar Panels: (494) Hanwha Q-Cells Q CELLS Q.PEAK DUO XL G10 495W
Inverters: (3) SolarEdge Technologies SE50 KUS

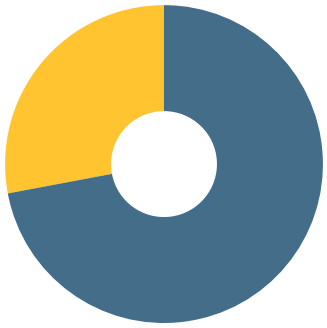
SOLAR PV EQUIPMENT TYPICAL LIFESPAN

Solar Panels: Greater than 30 Years
Inverters: 20 Years

Solar PV System Cost and Incentives	
Solar PV System Cost	$582,621
Direct Pay ITC	-$233,048
Grant Amount	-$349,572
Net Solar PV System Cost	**$0**

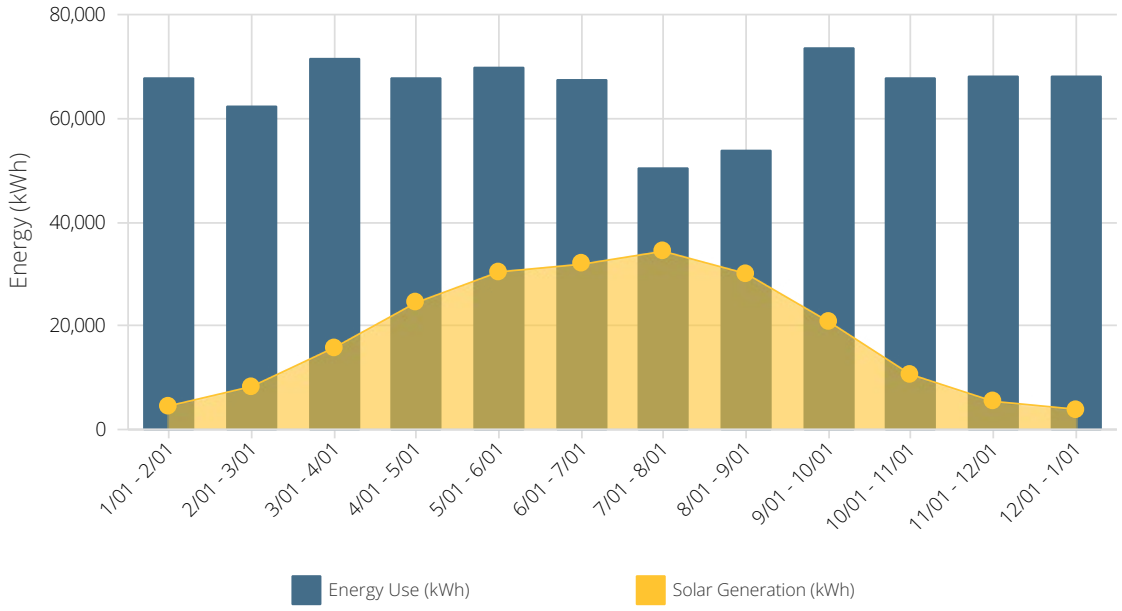
ENERGY CONSUMPTION MIX

Annual Energy Use: 788,406 kWh



Utility 567,965 kWh (72.04%)
Solar PV 220,441 kWh (27.96%)

MONTHLY ENERGY USE VS SOLAR GENERATION



Minimum PV System Equipment Recommendations:

The conceptual system has been designed assuming specific named products made by specific manufacturers. These choices are based on the current market, and the named equipment may not be the best choice for the project or may not be available at the time of hypothetical construction. When evaluating bids, we recommend considering the following criteria to be the acceptable minimums.

PV Modules:

Warranty: Minimum of 12 years for the product, extending to 25 years, covering parts and labor.

Performance Guarantee: A linear performance warranty that guarantees at least 86% of nominal power rating after 25 years.

Manufacturing Standards: Modules should be Tier 1 qualified, preferably assembled in the USA.

Cell Type: Monocrystalline cells.

Frame and Weight: Anodized aluminum frame with an average system weight not exceeding 2.6 pounds per square foot (psf).

Certifications: Compliance with UL 1703/UL 61730; PID Resistance (IEC 62804); Salt Mist (IEC 61730) when PV system is within 2 kilometers of shoreline; and Fire Classification matching that of the existing roof.

PV Inverters:

Efficiency and Warranty: Minimum efficiency of 96%, with a 10-year limited warranty, extendable up to 5-15 years.

Compliance and Compatibility: Must comply with IEEE 1547/UL1741 standards; suitable for output voltages of 120/240V Single-Phase, 120/208V 3-Phase, or 277/480V 3-Phase as dictated by the BESS design and existing electrical infrastructure; FCC Part 15 Class A; SunSpec Modbus Compliant.

Safety Features: UL1699B; NEC 2020 Rapid Shutdown Compliant; Ground Fault Detection and Interruption, AC and DC Surge Protection

PV Monitoring:

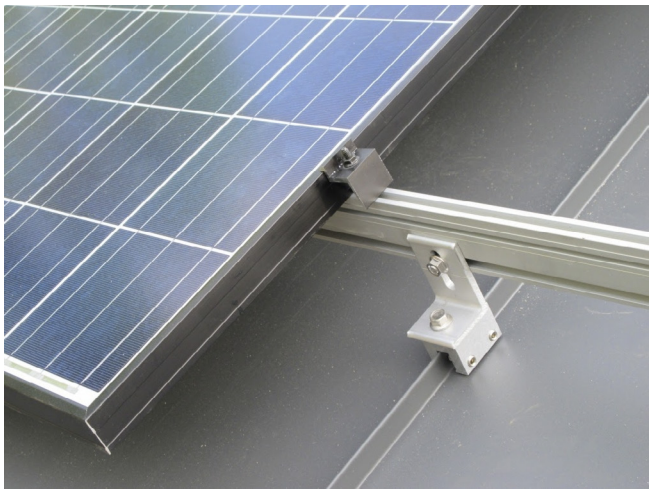
Monitoring Level: Module-level monitoring.

Connectivity: Connection options should include hard-wired Ethernet, Wi-Fi, or a cellular connection.

User Interface: A web-based portal accessible to customers, displaying real-time and historical data on PV power, energy production, system alerts, and module status.

Mounting System:

Warranty and Design: A minimum of a 25-year manufacturer warranty. The mounting system design should be suitable for the specific roof type and capable of withstanding local wind, seismic, and snow loading requirements.



Compatibility with Roof Material: For standing seam metal roofs, use non-penetrating clamps. For composition shingles, fully flashed mounting feet are recommended, including the usage of butyl tape and/or polyurethane caulking. For membrane roofs, consider an engineered ballasted solution with necessary seismic anchors or vertical stanchions with heat-welded membrane flashing. The mounting system must comply with UL2703 and local building codes, as well asmaintain the roof's warranty and fire classification.

Battery Energy Storage System (BESS) Design

The conceptual design is based on a 500 kW/1,540 kWh BESS, consisting of lithium iron phosphate (LFP/LiFePO4) cells, a grid-forming inverter, a microgrid controller, and an isolation transformer. This solution (excluding the isolation transformer) is intended to be containerized and pad-mounted on the south side of the building, adjacent to the utility transformer and ATS disconnect.

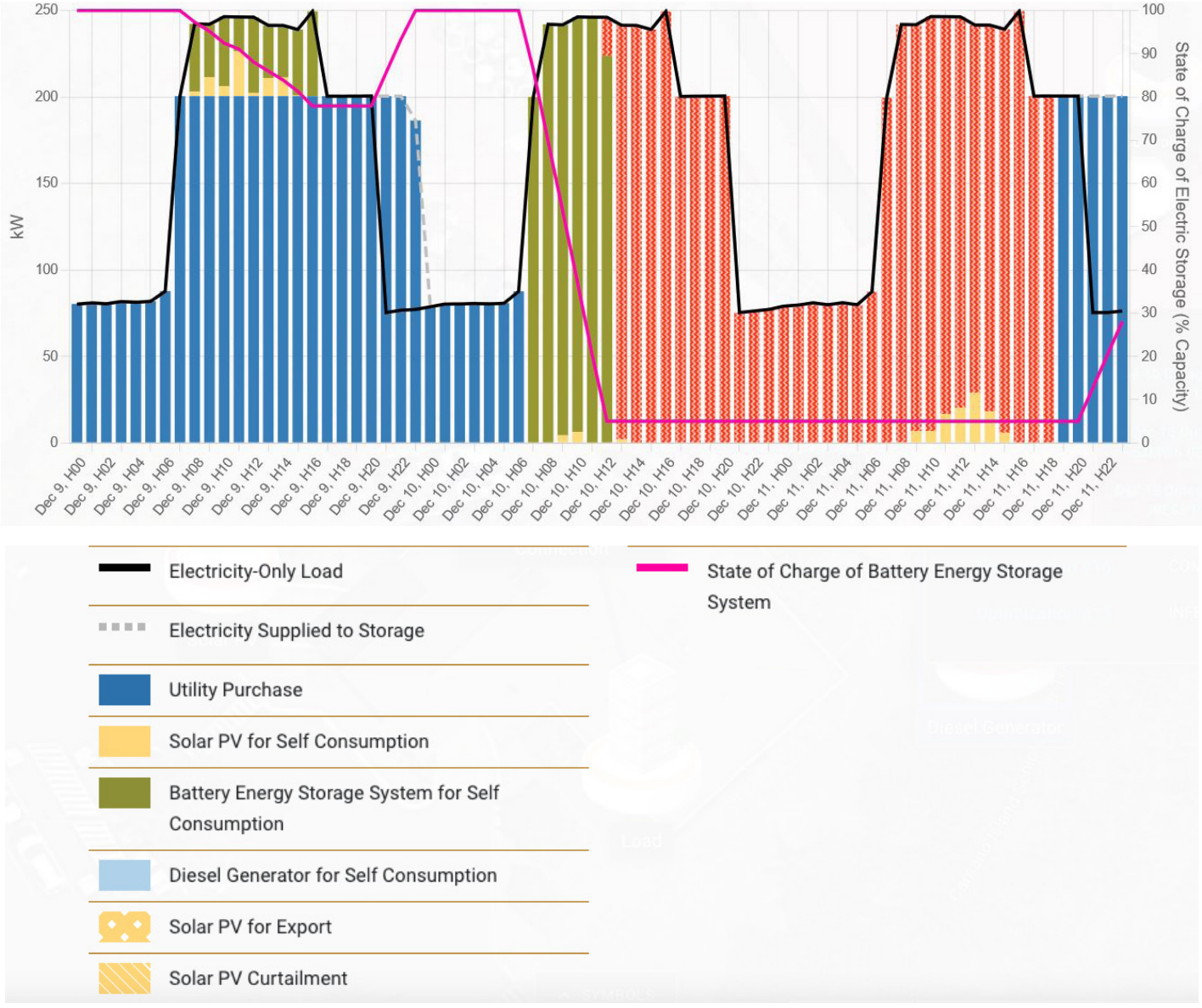
The BESS stored capacity was initially optimized utilizing a max fit PV system size of 735KW DC for the building. The resulting BESS size was then used in our optimization modeling with a smaller PV system size of 200kW AC to remain under the current Bonneville Power Administration's 'Small Generator' threshold. If this Small Generator threshold is increased in the future, the PV system may be expanded to increase generating capacity without incurring additional grid balancing fees from BPA. Cascadia Renewables discussed and agreed upon this phased approach with Tribal stakeholders.

The BESS alone can sustain 100% of the building's historical demand for approximately 5.75 hours in December, resulting in 13.75 hours of autonomy in June during periods of high building demand. These periods of autonomy exceed the duration of 93% of past outages, which were resolved within 6 hours. Adding redundancy to the existing backup systems allows the building to operate during typical outages if the generator fails, meeting one of the stated project goals. Cascadia Renewables estimates that by utilizing the BESS and 200kW PV system with the 1.5 MW Kohler Generator, daily generator run times could be reduced to approximately 11 hours per day in December and an average of 4 hours per day in June. During days of high solar production and low energy demand in the summer, the building could operate for 24+ hours utilizing only the BESS. Reducing daily generator runtime significantly increases the potential period of autonomy for the site during an extended outage by reducing the rate of fuel consumption along with wear and tear on the generator. Generators are generally not intended to run for extended periods. By utilizing the BESS, both the generator and BESS can function under their most efficient operating parameters while providing several days or weeks of resilience. Our modeling shows that the generator rarely reaches maximum capacity when the BESS and generator work in tandem. Extra generator capacity could be used for dispatch for a more extensive future multi-node microgrid system, a broader aspiration of the Tulalip Tribes.

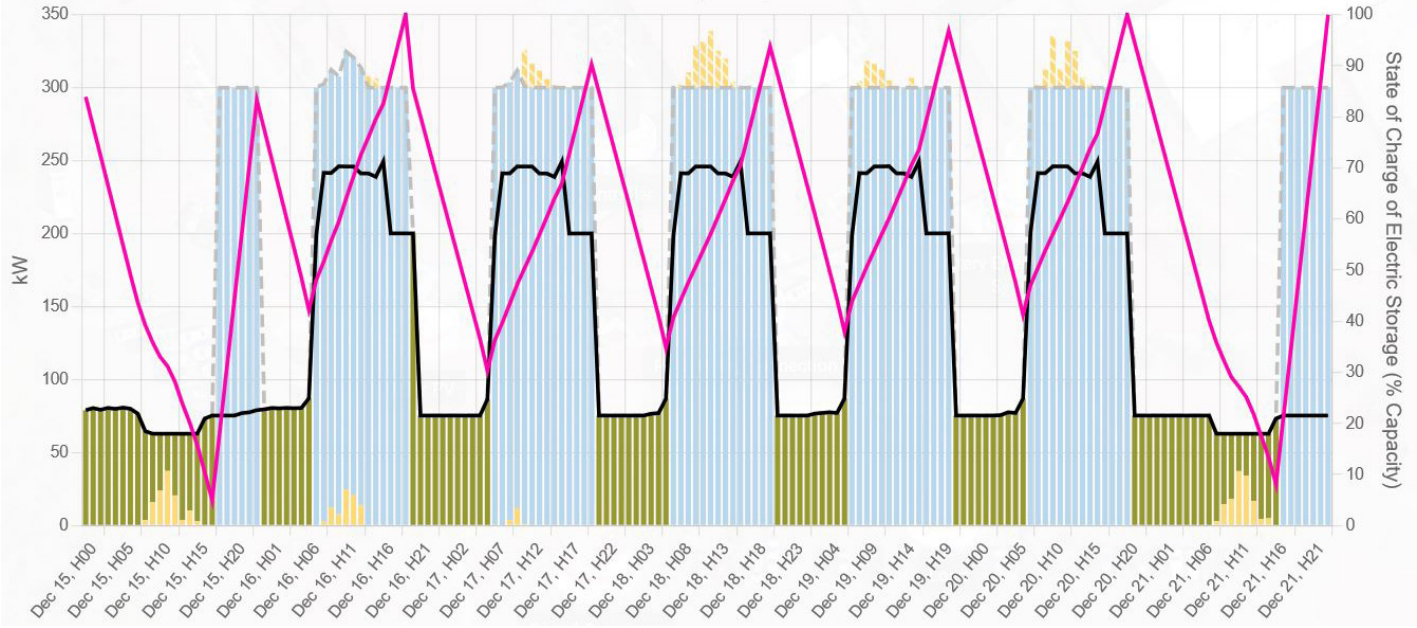
Cascadia Renewables found some discrepancies related to the generator capacity when optimizing the BESS operation with the existing backup generator. The electrical plans call out an 800 kW generator but the Power Engineer's report notes a generator capacity of 1.5 MW. When we inquired about this discrepancy we were instructed to model our system using the larger 1.5 MW generator. Our models show that the generator rarely runs at full capacity so there should be minimal impact to the system performance should the generator have a rated capacity of 800 kW.

For our analysis, Cascadia Renewables had access to monthly energy consumption and demand data from 2019. We based the system design on the most current demand data, reflecting a return to normal building usage post-pandemic (April 2022 to March 2023). Without 15-minute interval data available, we used the NREL load profile of a 'Primary School' to generate a daily load profile for the building. This modeling resulted in our software overestimating building energy consumption by 25%. The consequent increase in BESS size will provide an operational buffer should the energy needs of the building increase or additional community needs arise during an outage.

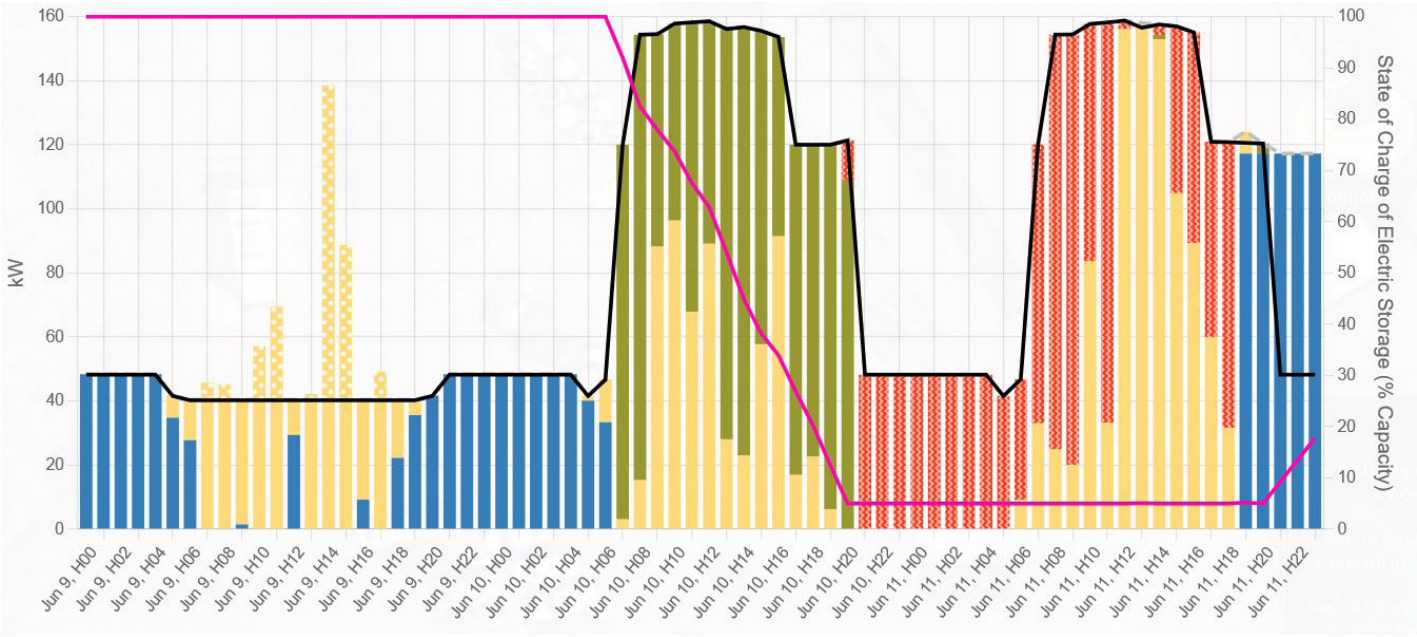
December Outage Scenario Electricity Dispatch – No Generator



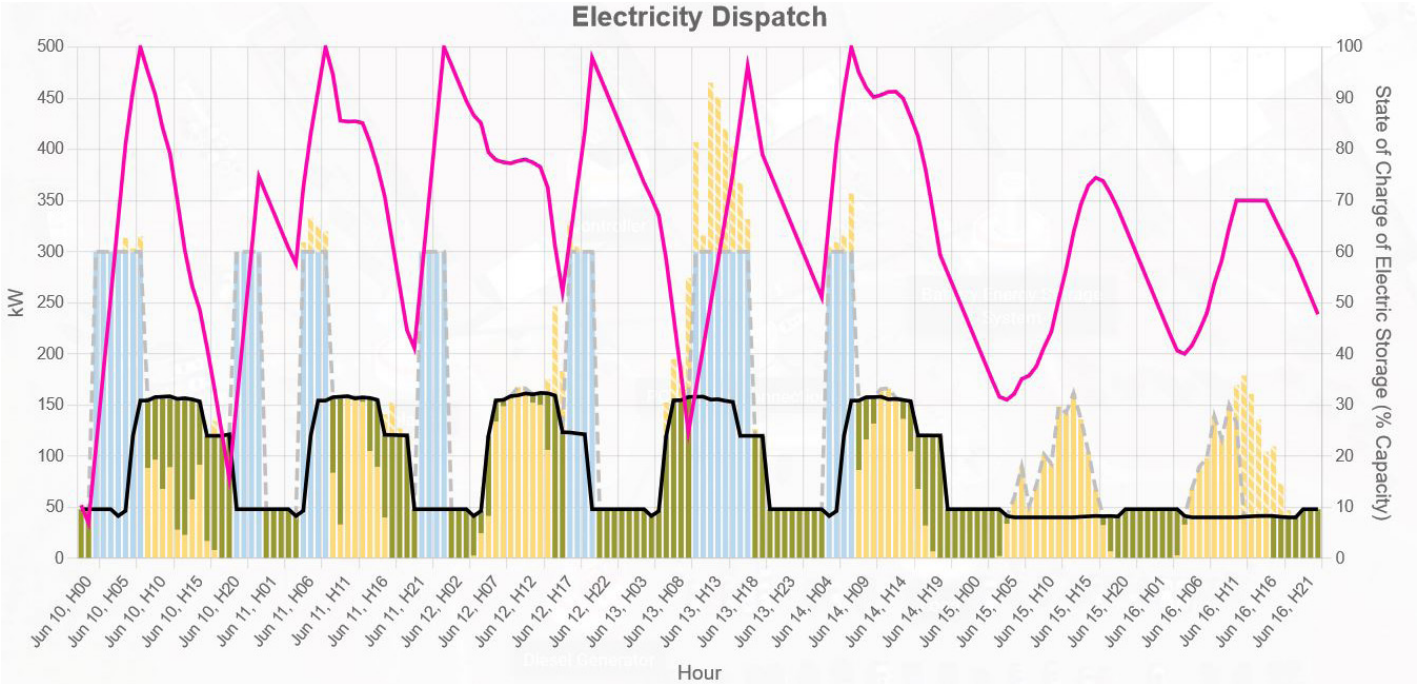
December Outage Scenario Electricity Dispatch – Generator



June Outage Scenario Electricity Dispatch – No Generator



June Outage Scenario Electricity Dispatch – Generator



Minimum BESS Equipment Recommendations:

As in the case of PV equipment, the BESS equipment named in this report may not be the ideal choice at the time of construction. When sourcing a BESS, we recommend that it have the following minimum specifications.

General Specifications:

Warranty: Minimum 10-year manufacturer's warranty.

Standards Compliance: Must comply with UL 9540 and UL 9540A for safety. Must adhere to NFPA 855 standards for installation and safety.

Battery Chemistry: Lithium Iron Phosphate (LFP/LiFePO4) is preferred for its stability, safety, and longevity.

Compatibility: Should be compatible with a range of third-party inverters and microgrid control systems. Should include generator compatibility and black start capability.

Enclosure Rating: Minimum NEMA 3R rating for outdoor installations to ensure protection against weather elements.

Fire Suppression: Active chemical fire suppression and exterior ventilation is recommended for all indoor and outdoor installations.

Country of Origin: Must meet any specific country of origin requirements as per the funding source's guidelines.

Microgrid Controller:

Functionality: Highly recommended to include a microgrid controller for advanced management capabilities.

Integration: Should offer interoperability with third-party Virtual Power Plant (VPP) providers.

Features: Capable of real-time monitoring, demand response, load management, and predictive analytics.

User Interface: Intuitive, user-friendly interface for system management and data visualization.

Additional Technical Specifications:

Energy Capacity and Power Output: Specified based on the project's energy storage needs, considering peak demand shaving, load leveling, and backup power requirements.

Efficiency and Performance: High round-trip efficiency and low degradation rate over the system's operational life.

Safety Features: Advanced Battery Management System (BMS) for monitoring cell voltage, temperature, state of charge, and overall system health. Overcharge, deep discharge, overcurrent, and short-circuit protection.

Scalability: Ability to scale up the system with additional energy storage modules or integrate with existing renewable energy systems.

Installation Flexibility: Suitable for various installation environments, including ground mount, rooftop, or integrated within existing infrastructure.

Maintenance: Low maintenance requirements, with remote monitoring and diagnostics capabilities.

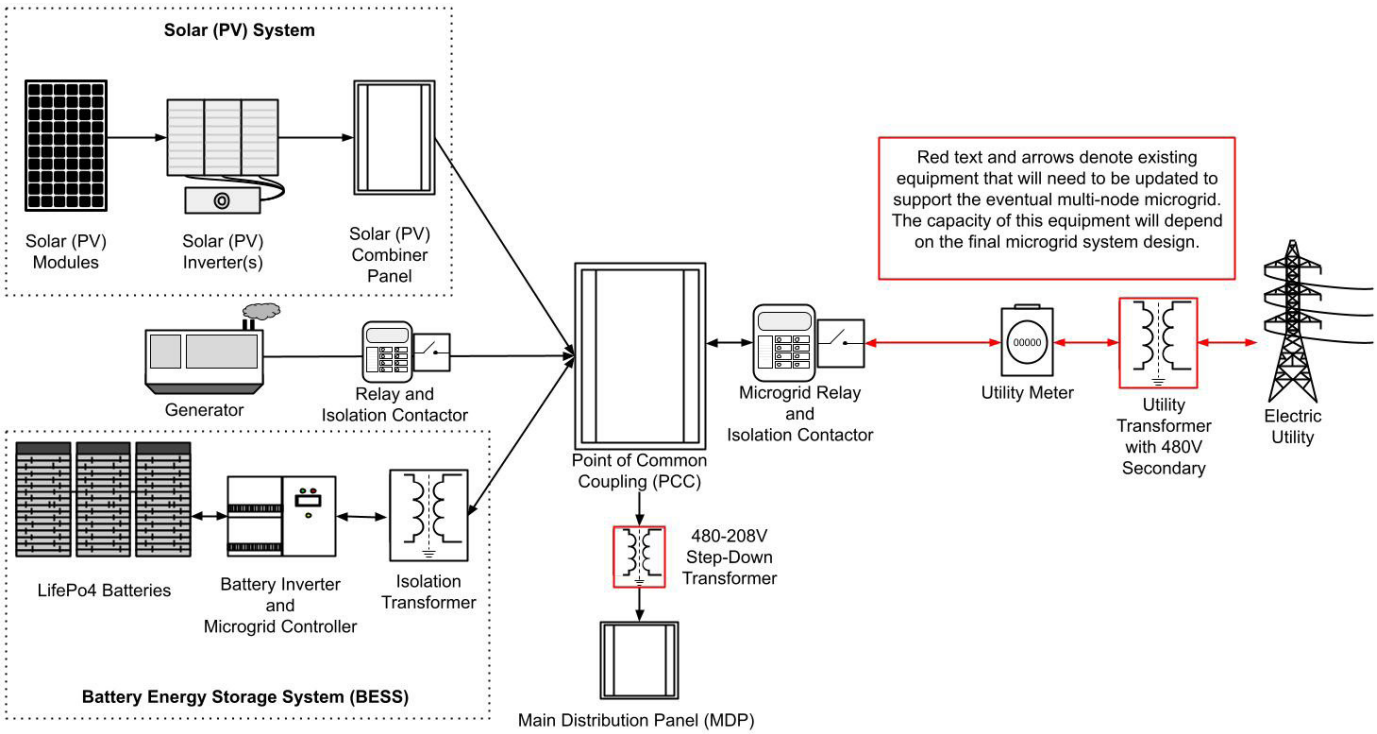
Interconnection

The Betty J Taylor Early Learning Academy power supply consists of a 2500 A, 208/120 volt incoming service fed from a 500 kVA utility transformer. Due to capacity constraints, the existing main distribution panel (MDP) cannot be utilized as the point of common coupling (PCC). A new 5000 A containerized PCC with an SEL relay and a grid contactor or motorized breaker must be installed on the line side of the main distribution panel. The PV, BESS, generator, and incoming utility service would all be interconnected into the new PCC, supplying power to the entire facility. The 5000 A-rated PCC is sized to accommodate a larger 750 kW PV array should a system expansion be desired. If no PV array expansion is anticipated, a 4000 A-rate PCC could be used.

This conceptual design utilizes a PCC with a 480/277 voltage rating and assumes that the 1.5 MW Kohler Generator can produce power at this same voltage. Given the large capacity of the distributed energy resources (DERs) on site. This design would require the following upgrades:

- A new utility transformer to deliver 480/277 voltage to the PCC.
- Larger conductors between the point of service and the PCC to accommodate increased back-flow amperage from the DERs into the multi-node microgrid.
- A new 480 to 208 volt step-down transformer between the PCC and the building's MDP.
- Should the generator only produce power at 208/120 volts, or is the smaller 800 kW capacity listed on the electrical plans, the interconnection plan must be updated. We recommend that the voltage rating of the PCC matches that of the generator.

The interconnection is a crucial element that affects the project's feasibility, budget, and timeline. Cascadia Renewables recommends that an electrical engineer verify the final system design before implementation.



Financial and Logistical Analysis

Hurdles Presented by Existing Conditions

Below are construction challenges and setbacks that could arise while implementing this conceptual design and potential mitigation strategies for them. Overcoming certain hurdles may create additional expenses, while other hurdles necessitate further validation of the final design prior to incurring significant costs.

Limited available usage data from Snohomish PUD/Power Trend Analytics

Due to the type of Snohomish PUD utility metering on site, 15-minute interval usage data was unavailable for the Early Learning Academy, and Cascadia Renewables used NREL load profiles for sizing the BESS.

Mitigation Strategy 1: Conduct a multi-month meter study for the Early Learning Academy to determine the Standby and Emergency ATS loads.

Mitigation Strategy 2: Conduct a follow-up load analysis with on-site staff to better determine usage patterns of all connected loads with the panels powered by the current ATS systems.

Existing photovoltaic system

When the facility was constructed, a 22kW DC, 15kW AC pole-mounted PV system was installed along the entrance driveway, which must be considered in the PV design/installation.

Mitigation Strategy 1: Snohomish PUD approval will require a detailed one-line and interconnection application. When integrating and combining the existing arrays into the new solar plus storage system, the chosen installer must verify that the pre-existing system meets all current interconnection requirements.

Mitigation Strategy 2: The contractor will need to verify that the combined output of the existing system and the new PV system stays below the 200kW AC threshold for interconnection under the Small Renewables Program with Snohomish PUD with limited additional requirements from the BPA

System cost and potential funding limitations and delays

Financial complexities could potentially arise from the nascent stage of both the *Solar Plus Storage for Resilient Communities* track 2 grant as well as the Inflation Reduction Act's direct pay (elective pay) provision of the Investment Tax Credit (ITC). This provision, which has yet to be successfully exercised in the United States as of this writing, could lead to delays in ITC reimbursement. Such delays may necessitate gap funding or self-financing to cover the Department of Commerce Grant match component.

Mitigation Strategy 1: Seek detailed information regarding the timelines for fund disbursement from the Department of Commerce. This clarity will aid in financial planning and preparation for the project, ensuring readiness to manage any funding gaps that may arise.

Mitigation Strategy 2: Engage a Certified Public Accountant (CPA) to gain professional guidance regarding the implications of the Inflation Reduction Act's elective pay provision. This may include insights into the timing of reimbursement, eligibility criteria,

and how these factors interplay with the financial planning for the conceptual solar and storage project.

The future 735.08 kW option exceeds standard net metering requirements

Standard Snohomish PUD net metering requirements for interconnection do not allow PV systems to exceed 100kW AC. The conceptual 735.08 kW option will require additional approvals and power purchase agreements from Snohomish PUD and the Bonneville Power Authority (BPA), which acts as the Balancing Area Authority.

Mitigation Strategy 1: The future contractor must engage both Snohomish PUD's commercial team and the BPA early int he process to ensure the system design and interconnection strategy meet the additional requirements that this project will entail.

Mitigation Strategy 2: The project owner/operator must submit a separate interconnection request and enter into a Balancing Authority Area Services Agreement (BASSA). BPA will evaluate whether additional deposits or technical studies must be performed and whether additional technical requirements, metering, integration services, agreements, and/or fees apply.

System Budget

This feasibility study proposes installing a new 244.5 kW DC, 184.6 kW AC solar system with 500kW/1540kWh of battery storage at the Betty J Taylor Early Learning Academy. The estimated cost for installation is $2,452,379. It could range from a low of $2,194,605 to a high of $3,099,849, as shown in the itemized budget tables below. We recommend considering a contingency allowance when budgeting for this project to account for potential uncertainties.

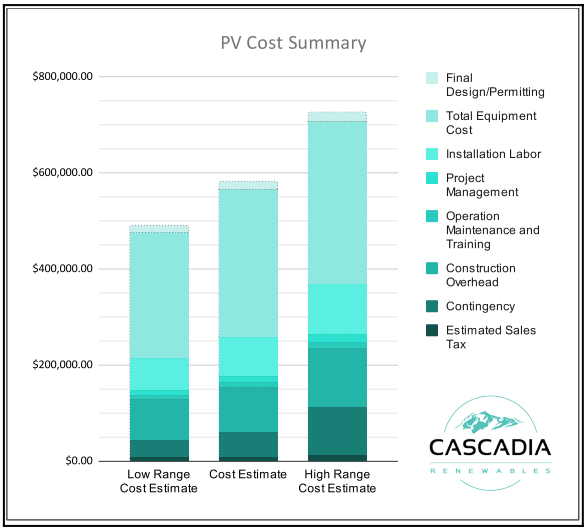
Cascadia Renewables included current Davis Bacon prevailing wage rates, contractor direct pricing, permitting, and consulting/engineering fees to determine the conceptual system pricing. The labor rates and equipment pricing used in the provided budgetary information are relevant to and compliant with local, regional, and federal grant programs to give the applicant access to an array of funding opportunities.

The estimated installation cost excludes any required architectural or structural improvements, Department of Archeology and Historic Preservation (DAHP) permit, the internal organizational cost of procurement, and administration. This cost estimate also excludes future story-telling and community engagement efforts. We advise applicants to consider these budget items separately and designate suitable resources for each.

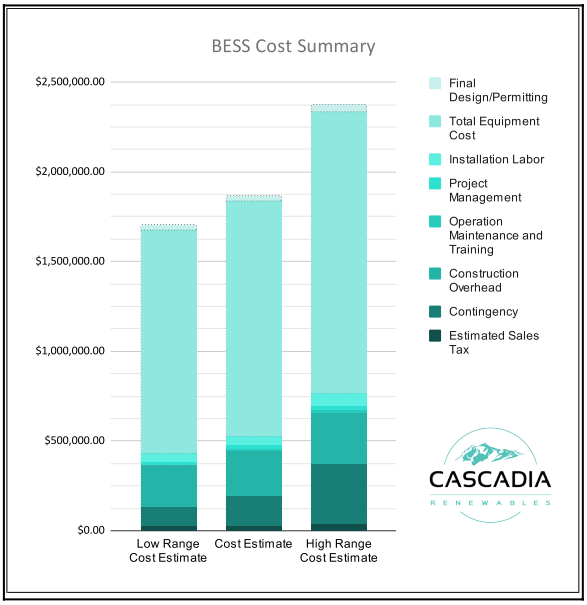
The cost estimate provided is based on market conditions, availability of labor, and equipment costs at the time of writing. Since it is a well-established and competitive market, there is limited opportunity to reduce these costs further. The projected increase in the demand for BESS projects over the coming years may outpace the current supply. This may inflate equipment costs in the short term, which we reflect in our estimated budget.

Final pricing may vary based on the chosen installation partner, final engineered solution, on-site soil, and geotech studies, which are not available within the scope of this feasibility study. We recommend establishing a comprehensive 3+ bid RFP process that encourages contractor participation, value engineering, and competitive pricing. We recommend periodic system price updates during the project development and construction.

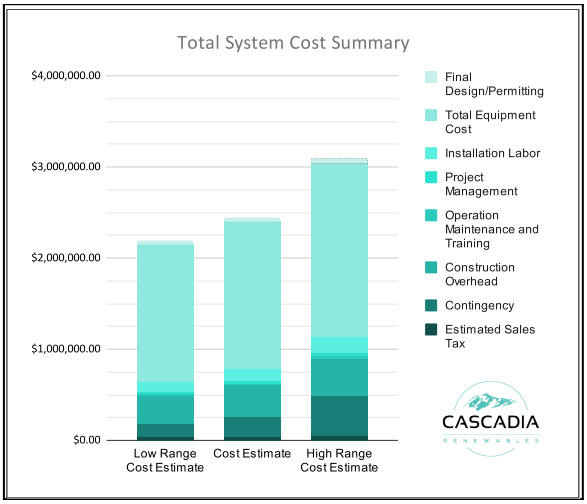
Please note that the estimates provided in this feasibility study are subject to significant price volatility due to the long timeline between the feasibility study, grant application, RFP solicitation, grant award, and construction. The high and low estimates do not indicate current market conditions; instead, they highlight the potential risks and benefits associated with a dynamic RFP process or delayed construction.



PV - COST SUMMARY			
Total Costs	**Low Range Cost Estimate**	**Cost Estimate**	**High Range Cost Estimate**
Final Design/Permitting	$14,450.00	**$17,000.00**	$19,550.00
Total Equipment Cost	$260,780.00	**$306,800.00**	$337,480.00
Installation Labor	$67,830.00	**$79,800.00**	$103,740.00
Project Management	$10,560.00	**$13,200.00**	$15,840.00
Community Outreach	TBD by Applicant	**TBD By Applicant**	TBD by Applicant
Operation Maintenance and Training	$8,500.00	**$10,000.00**	$14,000.00
Construction Overhead	$84,330.00	**$93,700.00**	$121,810.00
Contingency	$36,470.00	**$52,100.00**	$101,595.00
Estimated Sales Tax	$8,451.10	**$10,020.50**	$12,495.26
Total PV System Cost Estimate	**$491,371.10**	**$582,620.50**	**$726,510.26**
Cost/Watt ($/w)	**$2.01**	**$2.38**	**$2.97**



BESS - COST SUMMARY			
Total Costs	**Low Range Cost Estimate**	**Cost Estimate**	**High Range Cost Estimate**
Final Design/Permitting	$27,200.00	**$32,000.00**	$36,800.00
Total Equipment Cost	$1,244,025.00	**$1,309,500.00**	$1,571,400.00
Installation Labor	$43,740.00	**$48,600.00**	$63,180.00
Project Management	$17,820.00	**$19,800.00**	$24,750.00
Community Outreach	TBD By Applicant	**TBD By Applicant**	TBD By Applicant
Operation Maintenance and Training	$7,000.00	**$10,000.00**	$14,000.00
Construction Overhead	$225,540.00	**$250,600.00**	$288,190.00
Contingency	$108,615.00	**$167,100.00**	$334,200.00
Estimated Sales Tax	$29,293.95	**$32,158.00**	$40,819.10
Total BESS System Cost Estimate	**$1,703,233.95**	**$1,869,758.00**	**$2,373,339.10**
Cost/Kilowatt Hour ($/kWh)	**$1,106.00**	**$1,214.13**	**$1,541.13**



Total System - COST SUMMARY			
Total Costs	**Low Range Cost Estimate**	**Cost Estimate**	**High Range Cost Estimate**
Final Design/Permitting	$41,650.00	**$49,000.00**	$56,350.00
Total Equipment Cost	$1,504,805.00	**$1,616,300.00**	$1,908,880.00
Installation Labor	$111,570.00	**$128,400.00**	$166,920.00
Project Management	$28,380.00	**$33,000.00**	$40,590.00
Community Outreach	TBD By Applicant	**TBD By Applicant**	TBD By Applicant
Operation Maintenance and Training	$15,500.00	**$20,000.00**	$28,000.00
Construction Overhead	$309,870.00	**$344,300.00**	$410,000.00
Contingency	$145,085.00	**$219,200.00**	$435,795.00
Estimated Sales Tax	$37,745.05	**$42,178.50**	$53,314.36
Total System Cost Estimate	**$2,194,605.05**	**$2,452,378.50**	**$3,099,849.36**

Economic Impact

Cascadia Renewables has evaluated the long-term economic effect of installing the proposed system. This benefit is calculated by weighing the upfront cost of installation ($2,452,379) against the financial incentives and savings on energy bills. The model accounts for an energy cost escalation rate of 3%, a discount rate of 5%, a BESS degradation rate of 5%, and the 0.56% PV degradation rate of the proposed 494 panels. The annual energy bill savings is estimated at $18,330 for year one, and increases over the term of installation due to energy cost escalation.

The cost of installing the system is more than the internal funding that Tulalip Tribes can provide. Therefore, Tulalip Tribes may seek grant funds to cover at least $1,471,427. The elective pay (direct pay) provision of the Inflation Reduction Act (IRA) totals $980,951, which could reduce the necessary grant funds. This provision may be used as matching funds for grants that require them. However, since these funds are reimbursable, a bridge loan or alternative financing method may be necessary as a stopgap measure.

The predicted annual maintenance cost for the system is approximately $1,223, which is lower than the yearly bill savings of roughly $18,330. For more financial information, please refer to the appendix, which includes a complete report with anticipated IRR, ROI, payback period, and net present value.

The report also includes the annual and monthly savings expected by both the PV and BESS conceptual designs. We have also modeled the academy's existing electric bills and how we anticipate they will change after implementing the conceptual system design. The bulk of the savings from this conceptual design comes from energy savings rather than demand savings. We suggest the customer consider both the benefits of demand savings and resiliency and the costs of maintaining and operating the conceptual battery system.

The financial analysis table illustrating returns on investment can be found on the following page.

Assumptions and Key Financial Metrics

IRR - Term	8.8%	Net Present Value	$184,695	Payback Period	1.0 Years
ROI	25.1%	PV Degradation Rate	0.66%	Discount Rate	5.0%
Energy Cost Escalation Rate	3.0%	Federal Income Tax Rate	0.0%	State Income Tax Rate	0.0%
Total Project Costs	$2,452,379				

Years	Project Costs	O&M / Equipment Replacement	Direct Pay ITC	Grant Amount	Electric Bill Savings	PV Generation (kWh)	State Tax Effect	Federal Tax Effect	Total Cash Flow	Cumulative Cash Flow
Upfront	-$2,452,379	-	-	-	-	-	-	-	-$2,452,379	-$2,452,379
1	-	-$1,223	$980,951	$1,471,427	$18,330	220,440	-	-	$2,469,486	$17,108
2	-	-$1,259	-	-	$18,633	218,985	-	-	$17,374	$34,482
3	-	-$1,297	-	-	$18,938	217,531	-	-	$17,641	$52,123
4	-	-$1,336	-	-	$19,244	216,076	-	-	$17,908	$70,031
5	-	-$1,376	-	-	$19,552	214,621	-	-	$18,176	$88,207
6	-	-$1,417	-	-	$19,861	213,166	-	-	$18,443	$106,651
7	-	-$1,460	-	-	$20,170	211,711	-	-	$18,710	$125,361
8	-	-$1,504	-	-	$20,481	210,256	-	-	$18,977	$144,338
9	-	-$1,549	-	-	$20,791	208,801	-	-	$19,243	$163,581
10	-	-$1,595	-	-	$21,102	207,346	-	-	$19,507	$183,088
11	-	-$1,643	-	-	$21,413	205,891	-	-	$19,770	$202,858
12	-	-$1,692	-	-	$21,724	204,436	-	-	$20,032	$222,890
13	-	-$1,743	-	-	$22,034	202,981	-	-	$20,291	$243,181
14	-	-$1,796	-	-	$22,343	201,527	-	-	$20,548	$263,728
15	-	-$1,849	-	-	$22,651	200,072	-	-	$20,802	$284,530
16	-	-$1,905	-	-	$21,892	198,617	-	-	$19,987	$304,517
17	-	-$1,962	-	-	$22,383	197,162	-	-	$20,421	$324,938
18	-	-$2,021	-	-	$22,885	195,707	-	-	$20,864	$345,802
19	-	-$2,081	-	-	$23,396	194,252	-	-	$21,315	$367,117
20	-	-$2,144	-	-	$23,917	192,797	-	-	$21,774	$388,890
21	-	-$21,638	-	-	$24,449	191,342	-	-	$2,811	$391,701
22	-	-$2,274	-	-	$24,991	189,887	-	-	$22,717	$414,418
23	-	-$2,343	-	-	$25,544	188,432	-	-	$23,201	$437,619
24	-	-$2,413	-	-	$26,107	186,978	-	-	$23,694	$461,313
25	-	-$2,485	-	-	$26,681	185,523	-	-	$24,195	$485,508
26	-	-$2,560	-	-	$27,266	184,068	-	-	$24,706	$510,214
27	-	-$2,637	-	-	$27,862	182,613	-	-	$25,225	$535,439
28	-	-$2,716	-	-	$28,469	181,158	-	-	$25,753	$561,192
29	-	-$2,797	-	-	$29,087	179,703	-	-	$26,290	$587,482
30	-	-$2,881	-	-	$29,718	178,248	-	-	$26,836	$614,318
Totals:	-$2,452,379	-$77,598	$980,951	$1,471,427	$691,916	5,980,326	-	-	$614,318	-

Community Benefit

The conceptual design of the solar plus storage system meets the primary project goals of developing an individual microgrid node at the Betty J Taylor Early Learning Academy that will allow for continued operations of the entire school to provide for the ability to shelter and feed the Academy's students and other community members (if necessary) until the emergency has ended (possibly multiple days), or until the students can be picked up by their parents at the end of the school day. The system would allow for reduced generator runtimes and associated maintenance/service costs, increased generator lifespan, and extended operations while maximizing existing generator fuel sources. Cascadia Renewables optimized the PV system to maximum BESS charging and periods of autonomy for the Academy individually; Cascadia Renewables would need to conduct additional optimization to assess the role of this system as part of a future multi-node microgrid, which was outside the scope of this feasibility study. Optimizing the system for resiliency may impact the financial benefit to the community due to the system falling outside of the Net Metering limits as defined by Snohomish PUD, while staying under the PUD's "Small Generator" capacity for ease of permitting and a quicker project turnaround time for installation.

Although the substantial savings from the PV system should be sufficient to cover general maintenance associated with the BESS and PV groundmount, they will not be enough to justify replacement costs of the BESS at the end of its life. The Academy will likely require additional future grant funding to cover replacement costs of the BESS. Installing net metered solar without storage may be a better economic option initially, as it doesn't carry the same maintenance and replacement costs, but it would not meet the project goals of increased site resiliency.

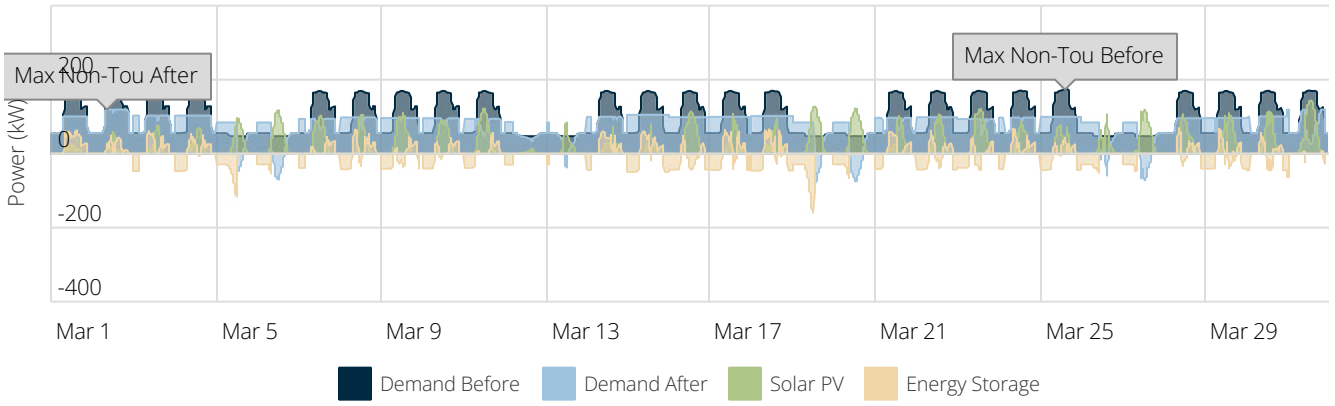
Finally, if the Tulalip Tribe hires local electrical or solar contractors to install the project, the conceptual design could provide a valuable opportunity for workforce development. The Tulalip Tribe could consider local or tribal commercial electricians for ongoing service and maintenance work, aspects of the roof mount installation, and other installation services, provided they demonstrate the required experience and licenses.

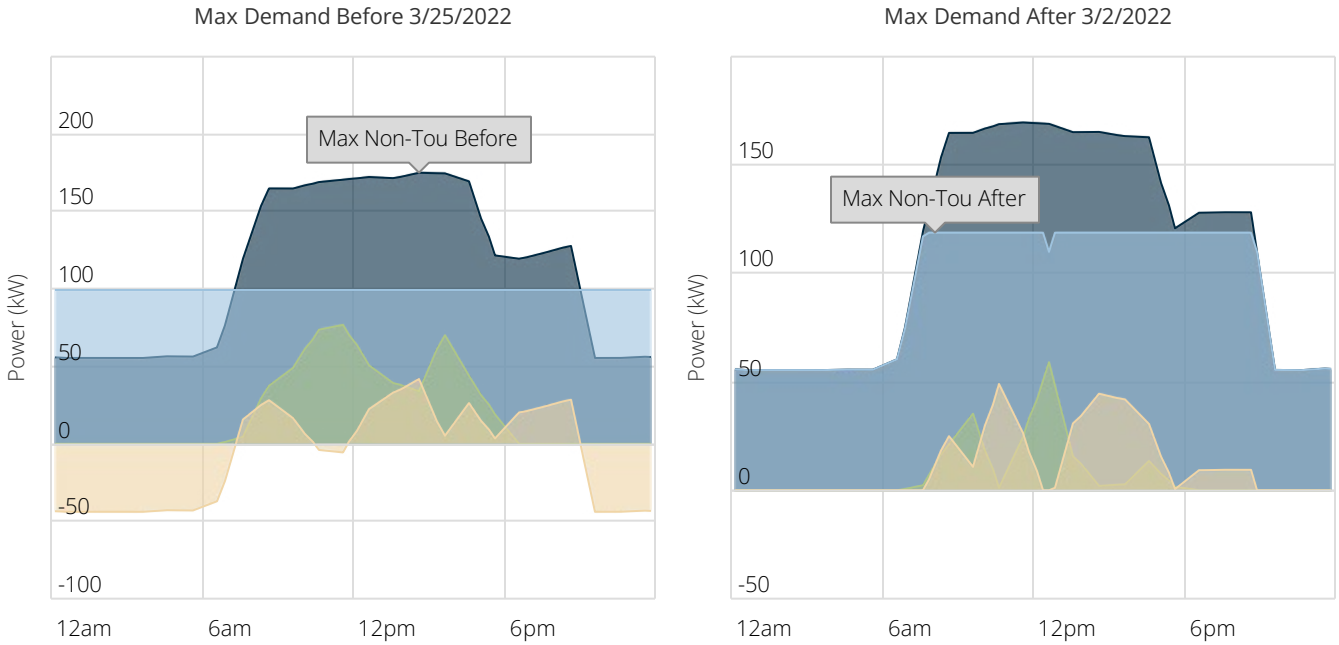
Grid Benefit

Washington State is in the process of transitioning to a more responsive and dynamic energy grid. This transition is facilitated by integrating emerging technologies such as demand response/management, time-of-use (TOU), and time-varying rate (TVR) schedules. The goal of the updated grid is to balance energy supply and demand in a cost-effective and resilient way, leveraging technologies like microgrid controls.

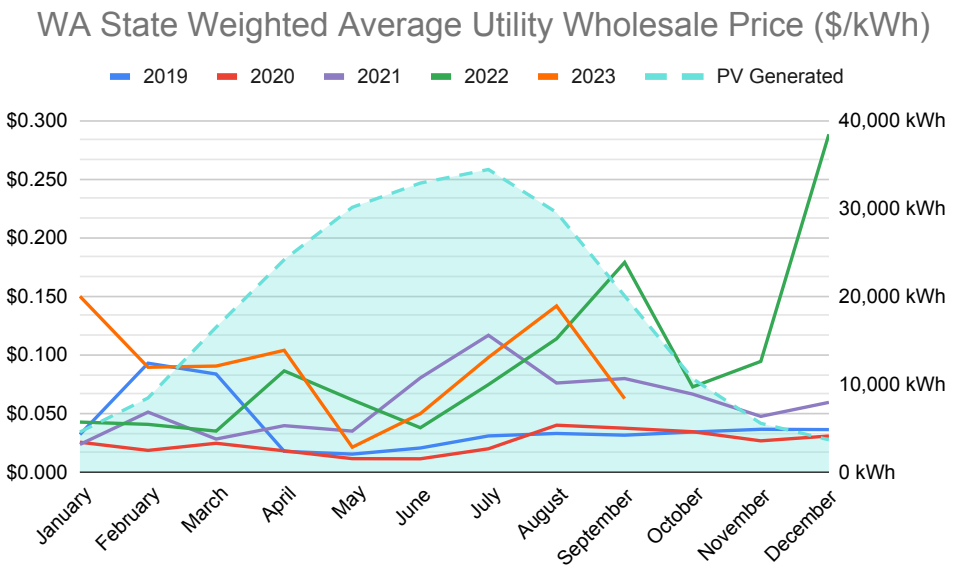
Washington State's energy sector is experiencing a growing demand for dispatchable electricity, driven by the increasing popularity of electric vehicles and electrified buildings. However, the region faces significant challenges due to diminishing snowpacks in the North Cascades. As hydroelectric power has traditionally played a vital role in this region, the impact of climate change has important implications for the area's energy resilience portfolio.

A PV system can support the grid by offsetting on-site electrical demand while occasionally exporting unused energy, thereby reducing transmission/distribution congestion. A BESS can benefit the grid by reducing peak demand on site while acting as a dispatchable resource where appropriate utility programs are in place. This section examines the demand reduction, exported energy, and potential for grid balancing services afforded by this conceptual design.

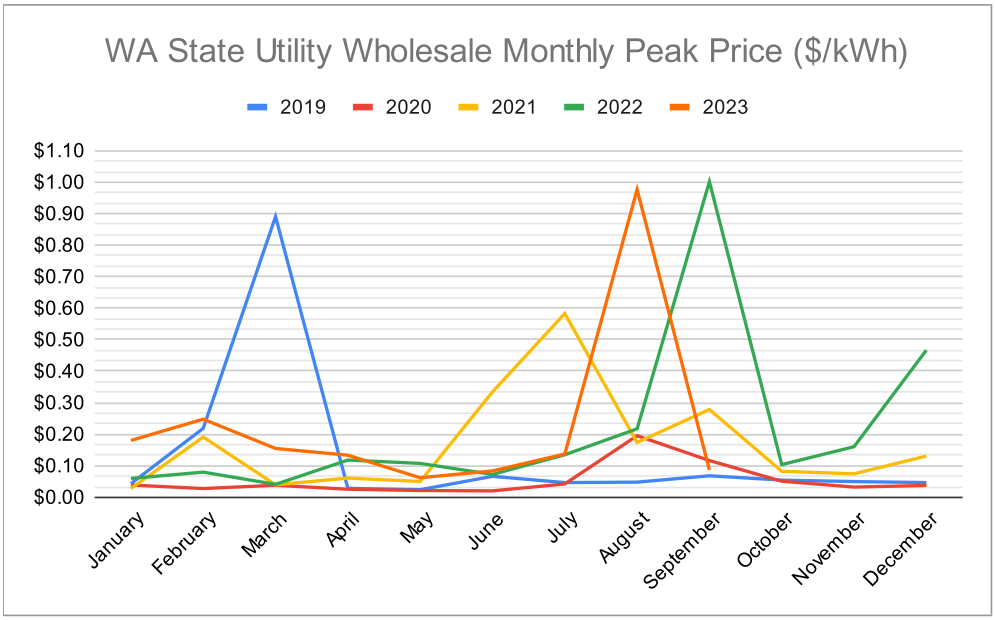




The dispatch charts above model how the conceptual solar plus storage system can be used to reduce peak demand on site. Each chart represents the demands and estimated productions of a different day. The left chart shows the day with the highest demand (in dark blue) in the given month, and how it could be have been reduced (to the curve in turquoise) using the proposed system. The chart on the right illustrates the same reduction in demand for the day of the given month with the highest post-reduction demand (turquoise). By flattening the demand curve of the facility, the burden on the local grid is reduced. Charts for all 12 months are included in the appendix for this study.



The graph above displays the average weighted price of wholesale electricity at the Mid-C trading hub over the last five years mapped against the projected exported energy from the conceptual PV system. For this section, we assumed that higher costs at the Mid-C trading hub indicate an increased demand for energy dispatched throughout the region. However, we recognize that Mid-C pricing is a complicated indicator. Further analysis would be required to describe the true value of solar & storage for the regional transmission and distribution system. Under current NEM 1.0, exported energy is credited to the customer at retail rates, which are increasingly exceeded by Mid-C pricing.

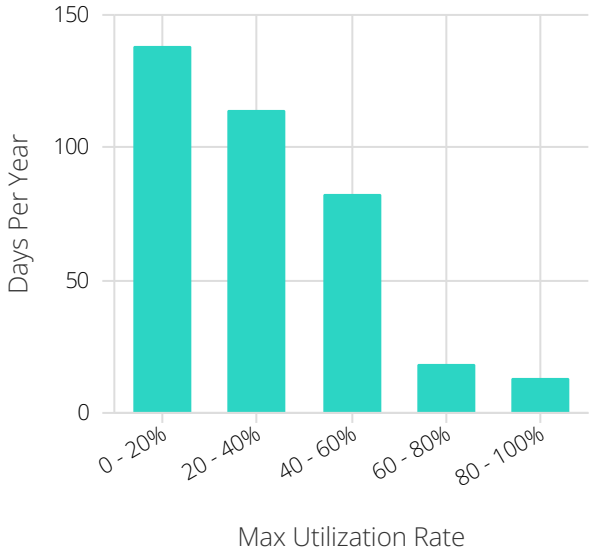


The graph above shows the peak price of wholesale energy at the Mid-C transmission node over time. Peak prices represent the highest cost of electricity during specific periods, usually corresponding with high demand. Through appropriate utility programs the BESS could be leveraged to help address peak grid demand and peak Mid-C pricing, which significantly exceeds the weighted average.

ESS SYSTEM RATINGS

Energy Capacity: 1,540.0 kWh
Power Rating: 500.0 kW

ENERGY STORAGE ANNUAL UTILIZATION



Knowing the trends in peak prices is crucial for optimizing energy dispatch from flexible resources like the PV system and BESS. During periods of high prices, a well-optimized system can dispatch stored or generated energy, contributing to grid stability and economic efficiency. The bar chart above shows how many days each quintile of the BESS is used for on-site demand management through the year.

Whenever less than 100% of the BESS is used, the grid can theoretically utilize the remaining capacity to marginalize high wholesale costs. This contextualizes the opportunity for the remaining BESS capacity to be utilized by the serving utility for similar peak demand reduction on a grid scale.

Through on-site demand reduction, exported energy and as a dispatchable resource, solar plus storage systems can provide a significant benefit to the grid as WA undergoes an energy transition and prepares for a warmer, electrified future.

Implementation

Permitting and Utility Agreements

If this project proceeds to installation, it will be the responsibility of the installer to verify the relevant authorities having jurisdiction (AHJs) and ensure all necessary permits and agreements are in place. As it pertains to this conceptual design, Cascadia Renewables has identified the following AHJs and has documented our interactions to date.

Snohomish PUD - Solar/PV Permit and Interconnection:

The conceptual PV system falls outside the standard interconnection rules for Net Metering of systems of 100kW AC or less per customer meter or interconnection. A SnoPUD “Interconnection Application & Small Renewables Application” under Section 6-1 for systems between 100kW and 2MW AC, with the associated documentation, would be required. Once the “Approval to Construct” is received, the installation may proceed following all PUD solar installation requirements listed in “Section 6, General Interconnection” of the PUD’s “Electrical Service Requirements.”

Tulalip Tribes Planning Department - Building Permits:

The Tulalip Tribe’s Planning Department, located at 6406 Marine Drive NW in Tulalip, has jurisdiction over the commercial structural/building permits for the PV system, and the BESS concrete pad installation (if required). A soils/geotech report may be necessary for the installation of the BESS depending on the weight and final installation location. All permits will fall under a standard “Commercial Building Permit Application” with building permit costs based upon the “Title 7 Permit Fee” schedule. The permit will require structural engineering, environmental review, and a civil review.

Tulalip Building Department - Fire Permits/Review:

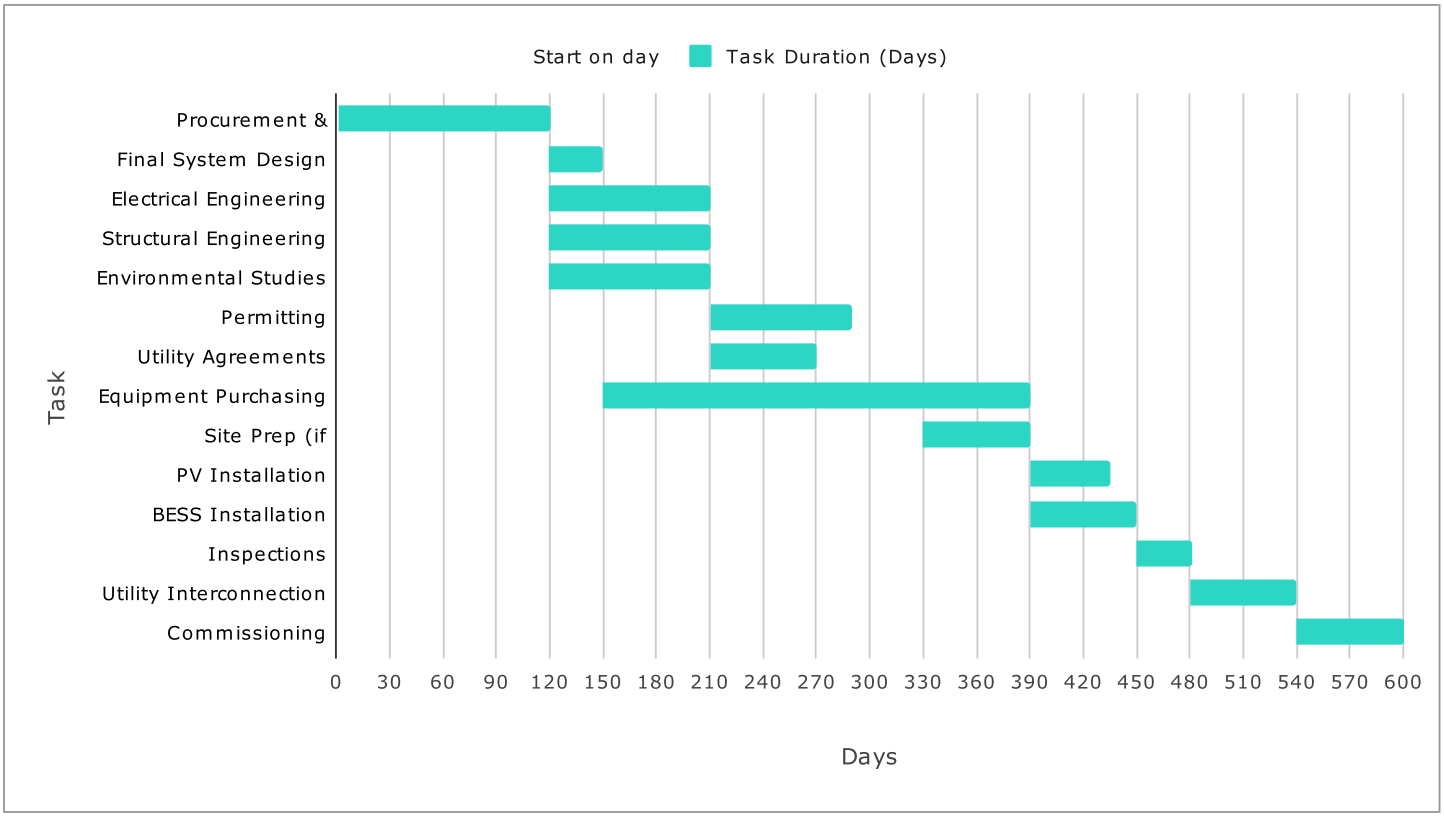
A design fire review from the Tulalip Fire Marshall may be required for the PV system rooftop layout, access, spacing and shutoffs, as part of the building permit approval process. The BESS design may be reviewed for shutdown operations, fire suppression and safe perimeter designations. Final permitting guidelines are not in place due to no precedent with installing commercial BESS systems on Tulalip Tribal Lands. An initial review was completed by acting Fire Marshall, David Sherman, and it was determined that the “Exception: Where it is determined by the fire code official that the roof configuration is similar to that of a Group R-3 (residential and mult-family) occupancy, the residential access and ventilation requirements in Sections 605.11.1.2.1 through 605.11.1.2.5 shall be permitted to be used” will be applied on commercial projects on the Tulalip Marina/Senior Center/Fire Department/Health Clinic.

L&I - Electrical Permits:

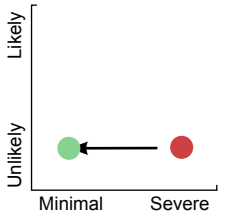
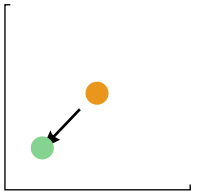
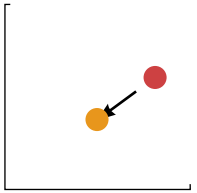
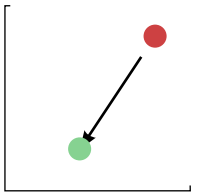
The conceptual PV system and BESS design require electrical permitting from the Washington Department of Labor & Industries to verify that they meet all current WAC and NEC code reviews. Code revisions may occur in the NEC and WAC and must be verified during the final system design. In L&I jurisdiction, rules require electrical plan review for all new or altered electrical projects in educational, institutional, or health care occupancies defined in WAC 296-46B-900(1) when not excluded by WAC 296-46B-900(3)(a). Before beginning electrical work on a project requiring plan review, there must be a set of reviewed and approved plans on the job site.

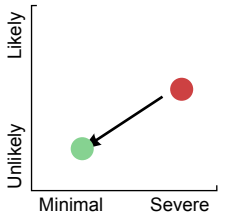
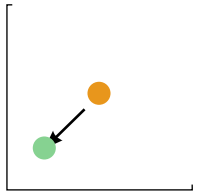
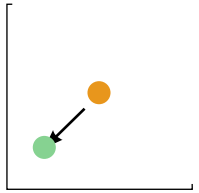
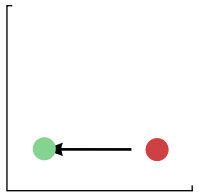
Schedule

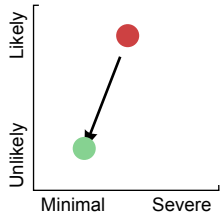
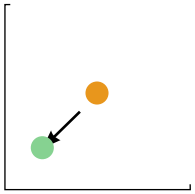
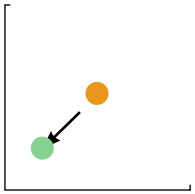
Given the current lead times for large Battery Energy Storage Systems (BESS) and other electrical equipment, combined with anticipated timelines for permitting, final utility interconnection, qualified solar/battery contractor availability, and general installation scheduling, we anticipate that the overall project timeline will be 20 months from the time of contract signing to system activation onto the electrical grid.



Project Risks

Risk	Impact	Mitigation	Risk Beore and After Mitigation
Incomplete or inaccessible online utility grid hosting/outage data	Potential for larger projects to be sized beyond the grid hosting capacity, triggering very expensive grid upgrades and potentially rendering the project infeasible.	Ensure that large scale projects (500kW+) do not proceed to final design, engineering, financing or procurement prior to confirmation from the utility that project falls within grid hosting capacity. In some instances this may require a grid study at the expense of the client.	
Construction projects often encounter unforeseen challenges, including site-specific conditions, environmental constraints, and permitting issues.	Delays in project timelines, increased costs, potential legal disputes, and strained relationships with stakeholders.	Regular site assessments, proactive stakeholder engagement, and a robust project management approach can help identify and address potential hurdles early. Engage in thorough due diligence before finalizing a contractor to ensure they are sufficiently qualified and experienced to take on a complex solar plus storage project. Ensure that contracts have clear clauses regarding delays, with penalties or incentives for timely completion.	
Geopolitical events can impact supply chains, project financing, and overall project feasibility.	Disruption in material or equipment delivery, increased costs, potential project cancellation, or delays due to financing issues.	Diversifying supply chains, monitoring global events closely, and having contingency plans in place can help navigate these challenges. Consider insurance or hedging options that protect against geopolitical risks.	
The industry can experience shortages in critical equipment due to high demand or manufacturing constraints.	Project delays, the potential need for equipment substitutions leading to design modifications, and increased costs.	Seek contractors with established relationships with multiple suppliers, who maintain a strategic inventory and who monitor industry trends to anticipate shortages. Consider contracts allowing equipment substitution or alternative solutions in case of shortages.	

Risk	Impact	Mitigation	Risk Beore and After Mitigation
The availability and cost of skilled labor can fluctuate based on market conditions.	Delays in project timelines, potential compromise in work quality, and increased labor costs.	Consider prioritizing contractors with a strong track record of workforce management and training or with established partnerships with local training institutions. Ensure contracts have provisions for labor continuity and quality assurance. Consider the timeline of construction and allowance for longer construction periods or delaying construction until more workforce development for the large scale solar plus storage industry has occurred.	
Detailed engineering and site-specific surveys may reveal conditions or requirements that impact cost and timeline.	Potential redesign requirements, increased costs, and project delays.	Engage experienced engineering firms, conduct thorough preliminary surveys, and allocate resources for potential additional studies. Consider engaging independent third-party reviewers for critical project milestones. Allocate a portion of the budget for potential additional studies or modifications.	
Prices for materials, equipment, and services can be subject to market volatility.	Unpredictable project costs, potential financial strain, and challenges in budgeting and forecasting.	Negotiate fixed-price or capped-price contracts where possible. Maintain a contingency budget for unexpected price fluctuations and ensure transparency in cost adjustments.	
Serving utility unable to quickly process applications above 100kW AC NEM interconnection threshold due to resource constraint and historically extended interconnection queues.	Project timelines may significantly extend.	Record issues in report and inform detailed design. Liaise with the connection provider to understand issues and resolve where possible. Record the need to postpone detailed design tender until interconnection issues are resolved. Consider system sizes that fall under the 100kW NEM 1.0 threshold for WA state.	

Risk	Impact	Mitigation	Risk Beore and After Mitigation
Remote site assessment doesn't accurately represent on site shading conditions, available roof space or condition of existing structures and roofing material.	Initial system designs are incorrectly sized, energy modeling is inaccurate and/or project is infeasible due to the existing conditions on site.	A full site visit and detailed report is necessary to determine on-site conditions, shading and dimensions.	
Point of PV interconnection lacks sufficient capacity to accommodate PV backfeed.	Potential for costly/time consuming electrical upgrades that derail project budget and timeline.	Engage an electrical engineer to verify all proposed point of interconnection prior to final system design and bid solicitation.	
Roofing material and/or structure is near to the end of life or is otherwise inadequate for PV mounting.	Project is either unable to move forward or involves costly structural/roofing retrofits.	Engage a structural engineer and/or architect to assess roof and structural integrity prior to design finalization in order to identify issues and recommend suitable roof areas for PV installation.	

Summary of Feasibility and Recommendations

Achieving the project goals with a solar plus storage system equipped with a microgrid controller is technically feasible, though further study is required. Given the scope of the project and the eventual goal of a multi-node microgrid, the results of this study should be incorporated into multi-node optimizations to determine how the various DERs under consideration will interact with each other. The *Solar Plus Storage for Resilient Communities* grant would be an appropriate funding mechanism for a portion of this project but is unlikely to be a sufficient funding mechanism by itself. Additional federal and state grants may be considered in tandem.

We recommend the stakeholders consider the following next steps for this project:

- Resolve discrepencies in the reported capacity and output voltage of the on-site generator and adjust the interconnection plan as needed.
- Begin discussions with Snohomish PUD and representatives from BPA to better understand the process and anticipated export rates for PV generation when exceeding 200kW AC installed capacity - this will inform whether it is preferrable to pursue the conceptual ~200kW AC system or the larger 500kW AC system representing the maximum installable PV capacity on site.
- Conduct a meter study to collect a more granular view of the facility's load profile.
- Run multi-node microgrid optimizations to better understand the interaction of DERs distributed across the proposed Tulalip Resiliency Hub and finalize system sizing.
- Confirm the ancipated cost of conducter and transformer upgrades before pursuing multi-node microgrid functionality.

If you have any questions or would like assistance pursuing this project further, please contact us at info@cascadiarenewables.com.

Site and System Specifications

General Site Information

Client Organization	Tulalip Tribe
Site Address	7607 Totem Beach Road, Tulalip, WA 98271
Parcel Number	Parcel #30042200300700 and #30042200300900
Organization Contact	Steve Hinton
Organization Contact Phone Number	360-743-1727 (Cell)
Organization Contact Email	shinton@tulaliptribes-nsn.gov

PV/BESS Design Recommendations

PV System Size	244.5 kW DC, 184.6 kW AC
Final Solar Module	Q-Cell G10 495 W
Roof Pitch, Type, and Age	60° facing roof: 4.5° pitch, Standing Seam Metal, 8 Years
Roof Loading Capacity	30.0 psf
Additional Available Roof Loading	5.0 psf
Estimated PV System Roof Loading	2.6 psf
BESS System Size	500kW/1540kWh
Estimated Period of Autonomy	December (9hrs) / June (16hrs)
PV Racking System	IronRidge XR100 Racking System
PV System Cost Estimate	$582,620.50
BESS System Cost Estimate	$1,869,758.00
Estimated Total System Cost	$2,452,378.50

Utility Information

Service Electric Utility	Snohomish PUD
Electric Utility Meter Number	1000142294
Electric Utility Tariff Structure	SCHED-20
Electric Utility Hosting Capacity	Unavailable
Estimated Annual Electric Consumption	775,500 kWh
Estimated Maximum Peak Demand	312 kW

Site Electrical Infrastructure

Main Transformer Rating, Voltage, and Phase	500 kVA, 7200-120/208V, 3 Phase
Main Service Bus Capacity	2500 Amps @ 208V
Main OCPD Rating	2500 Amps
Main Distribution Center Type	Switchboard
Generator	1500 kW Kohler w/1800 Gal Fuel Storage

Permitting/AHJ Information

Anticipated Engineering and Permitting Requirements	Tulalip Tribes Planning Department - Building Permits Tulalip Building Department - Fire Permits/Review L&I - Electrical Permits
Utility Interconnection Study	A grid study and full project review/approval will be required by Snohomish PUD and the BPA for interconnection of a system over the 100kW AC Net Metering threshold
Electrical AHJ	Washington Department of Labor & Industries (L&I)
Structural AHJ	Tulalip Tribes Planning Department

Washington State Department of Commerce

Tribal Funding Agreement
Pertaining to
Memorandum of Understanding No. 1
with

The Tulalip Tribes

through

Clean Energy Community Grants

For

Betty J Taylor Learning Academy Solar Plus Storage

Start date: 6/1/2025

Table of Contents

Agreement Number: 25-9221A-036

Face Sheet
Washington State Department of Commerce
Energy Division
Energy Programs in Communities
Clean Energy Community Grants

1. Tribal Government	2. Tribal MOU Information
The Tulalip Tribes 6406 Marine Drive Tulalip, WA 98271 United States	MOU #06 Veronica Iukes, Self-Governance/Grants Manager Michelle Gladstone-Wade, Director Office of Tribal Relations

3. Tribal Representative for this Agreement	4. Commerce Representative for this Agreement	
Steve Hinton Conservation Scientist 360-743-1727 shinton@tulaliptribes-nsn.gov	Noah Martin Program Manager 360-725-3064 Noah.martin@commerce.wa.gov	1011 Plum St. SE Olympia, WA 98504 Energy Division Clean Energy Fund

5. Agreement Amount	6. Funding Source	7. Start Date	8. End Date
$2,350,000	**State:** ☒ **Other:** ☐ **N/A:** ☐	6/1/2025	6/30/2027

9. Award Method	NOFO/RFX #	Proviso #
Direct: ☒ **Competitive:** ☐	CECG	40000606

10. Tax ID #	11. SWV #	12. UBI #	13. UEI #
91-0557816	SWV0012216-00	600-639-416	ELUVLMGA6RD1

14. Agreement Purpose

Installation of a 244.5-kW DC PV array plus 500kW/1540 kWh BESS on the roof of the Betty J Taylor Learning Center Academy at 7607 Totem Beach Road, Tulalip. These systems will provide power to support critical needs for the community in the event of a power outage.

COMMERCE, defined as the Department of Commerce, and the Tribe, as defined above, acknowledge and accept the terms of this Funding Agreement and attachments, executed on the date below to start as of the date and year above. The rights and obligations of both Parties are governed by this Funding Agreement, the MOU identified above, and the following documents incorporated by reference: Attachment "A" – Scope of Work, Attachment "B" – Budget, Attachment "C" – Reporting, Attachment "D" – Proviso, <etc.>

FOR TRIBE	FOR COMMERCE
DocuSigned by: Veronica Iukes Veronica Iukes, Grants & Self-Governance Manager 6/30/2025 | 11:18 AM PDT Date	Signed by: Jennifer Grove Jennifer Grove, Assistant Director Energy Division 6/30/2025 | 4:44 PM PDT Date

APPROVED AS TO FORM ONLY
Signature on file.

RECITALS

WHEREAS pursuant to their respective authorities, the Parties established the Memorandum of Understanding identified above

WHEREAS the Memorandum of Understanding establishes the general terms which govern the Parties' government-to-government relationship and all agreements made thereunder.

WHEREAS Commerce established the competitive process identified on the Face Sheet to award funding for specific services.

WHEREAS the Tribe provided a timely response to such competition and was selected for award.

WHEREAS the Parties now desire to enter into this Funding Agreement.

AGREEMENT

Now therefore, the Parties agree as follows:

1. AGREEMENT MANAGEMENT

The Representative for each of the Parties, as identified on the Face Sheet, shall be responsible for and shall be the contact person for all communications and billings regarding the performance of this Funding Agreement. Each Representative shall make reasonable efforts to communicate management activities to their respective MOU Manager.

2. COMPENSATION AND EXPENSES

Commerce shall pay an amount not to exceed $2,350,000 for the performance of all things necessary for or incidental to the performance of work as set forth in the Scope of Work. The Tribe's compensation for services rendered shall be in accordance with the Scope of Work and Budget.

The Tribe shall receive reimbursement for travel and other expenses as identified below or as authorized in advance by Commerce as reimbursable. The maximum amount to be paid to the Tribe for authorized expenses shall not exceed $0, which amount is included in the Agreement total above. Such expenses may include airfare (economy or coach class only), other transportation expenses, and lodging and subsistence necessary during periods of required travel. The Tribe shall receive compensation for travel expenses at the state travel reimbursement rate in effect on the date of travel.

3. BILLING PROCEDURES AND PAYMENT

Commerce will pay the Tribe upon acceptance of properly completed invoices, which shall be submitted to the Representative for Commerce not more often than monthly nor less than quarterly.

The invoices shall describe and document, to Commerce's satisfaction, a description of the work performed, the progress of the project, and fees. The invoice shall include the Funding Agreement reference number 25-9221A-036. If expenses are invoiced, provide a detailed breakdown of each type. A receipt must accompany any single expense in the amount of $50.00 or more in order to receive reimbursement.

Commerce will make reasonable efforts to process all properly completed invoices as quickly as practicable. Payment shall be considered timely if made by Commerce within thirty (30) calendar days after receipt of properly invoices.

Commerce may, in its sole discretion, terminate this Funding Agreement or withhold payments claimed by the Tribe for services rendered if the Tribe fails to satisfactorily comply with any term or condition of this Funding Agreement.

No payments in advance or in anticipation of services or supplies to be provided under this Funding Agreement shall be made by Commerce.

Duplication of Billed Costs

The Tribe shall not bill Commerce for services performed under this Funding Agreement, and Commerce shall not pay, if the Tribe is entitled to payment or has been or will be paid by any other source, including grants, for that service.

Disallowed Costs

The Tribe is responsible for any audit exceptions or disallowed costs incurred by its own organization or that of its subcontractors.

Commerce may, in its sole discretion, withhold ten percent (10%) from each payment until acceptance by Commerce of the final report, deliverable, or completion of the project.

4. SUBCONTRACTING

The Tribe may subcontract work contemplated under this Funding Agreement if it provides prior written notice to Commerce.

The Tribe shall maintain written procedures related to subcontracting, as well as copies of all Subcontracts and records related to Subcontracts. For cause, Commerce in writing may: (a) require the Tribe to amend its subcontracting procedures as they relate to this Funding Agreement; (b) prohibit the Tribe from subcontracting with a particular person or entity; or (c) require the Tribe to rescind or amend a Subcontract.

Every Subcontract shall bind the Subcontractor to follow all applicable terms of this Funding Agreement. The Tribe is responsible to Commerce if the Subcontractor fails to comply with any applicable term or

condition of this Funding Agreement. The Tribe shall appropriately monitor the activities of the Subcontractor to assure fiscal conditions of this Funding Agreement. In no event shall the existence of a Subcontract operate to release or reduce the liability of the Tribe to Commerce for any breach in the performance of the Tribe's duties.

Every Subcontract shall include a term that Commerce and the State are not liable for claims or damages arising from a Subcontractor's performance of the Subcontract.

5. SUBCONTRACTOR DATA COLLECTION

If subcontracting occurs, the Tribe will submit reports, in a form and format to be provided by Commerce and at intervals as agreed by the Parties, regarding work under this Funding Agreement performed by Subcontractors and the portion of funds expended for work performed by Subcontractors, including but not necessarily limited to minority-owned, woman-owned, veteran-owned, and small business Subcontractors. "Subcontractors" shall mean Subcontractors of any tier.

6. INSURANCE

The Tribe shall provide insurance coverage as set out in this section. The intent of the required insurance is to protect Commerce and State should there be any claims, suits, actions, costs, damages or expenses arising from any loss, or negligent or intentional act or omission of the Tribe or Subcontractor, or agents of either, while performing under the terms of this Funding Agreement.

The insurance required shall be issued by an insurance company authorized to do business in Washington. Except for Professional Liability or Errors and Omissions Insurance, the insurance shall name Washington, its agents, officers, and employees as additional insureds under the insurance policy. All policies shall be primary to any other valid and collectable insurance. The Tribe shall instruct the insurers to give Commerce thirty (30) calendar days' advance notice of any insurance cancellation, non-renewal or modification.

The Tribe shall submit to Commerce within fifteen (15) calendar days of the Funding Agreement start date a certificate of insurance which outlines the coverage and limits defined in this insurance section. If a written request is made, then the Tribe shall also submit renewal certificates not less than thirty (30) calendar days prior to expiration of each policy required under this section.

The Tribe shall provide, at Commerce's request, copies of insurance instruments or certifications from the insurance issuing agency. The copies or certifications shall show the insurance coverage, the designated beneficiary, who is covered, the amounts, the period of coverage, and that Commerce will be provided at least thirty (30) days' written notice of cancellation.
The Tribe shall provide insurance coverage that shall be maintained in full force and effect during the term of this Agreement, as follows:

Commercial General Liability Insurance Policy. Provide a Commercial General Liability Insurance Policy, including contractual liability, written on an occurrence basis, in adequate quantity to protect against legal liability arising out of Agreement activity but no less than $1,000,000 per occurrence. Additionally, the Tribe is responsible for ensuring that any Subcontractors provide adequate insurance coverage for the activities arising out of subcontracts.

Cyber Liability Insurance. The Tribe shall maintain Cyber Liability Insurance. The Tribe shall maintain minimum limits of no less than $1,000,000 per occurrence to cover all activities by the Tribe and licensed staff employed or under contract to the Tribe. Washington, its agents, officers, and employees need not be named as additional insureds under this policy.

Automobile Liability. In the event that performance pursuant to this Agreement involves the use of vehicles, owned or operated by the Tribe or its Subcontractor, automobile liability insurance shall be required. The minimum limit for automobile liability is $1,000,000 per occurrence, using a Combined Single Limit for bodily injury and property damage.

Professional Liability, Errors and Omissions Insurance. The Tribe shall maintain Professional Liability or Errors and Omissions Insurance. The Tribe shall maintain minimum limits of no less than $1,000,000 per occurrence to cover all activities by the Tribe and licensed staff employed or under contract to the Tribe. Washington, its agents, officers, and employees need not be named as additional insureds under this policy.

Fidelity Insurance. Every officer, director, employee, or agent who is authorized to act on behalf of the Tribe for the purpose of receiving or depositing funds into program accounts or issuing financial documents, checks, or other instruments of payment for program costs shall be insured to provide protection against loss:

A. The amount of fidelity coverage secured pursuant to this Agreement shall be $100,000 or the highest of planned reimbursement for the Agreement period, whichever is lowest. Fidelity insurance secured pursuant to this paragraph shall name Commerce as beneficiary.

B. Subcontractors that receive $10,000 or more per year in funding through this Agreement shall secure fidelity insurance as noted above. Fidelity insurance secured by Subcontractors pursuant to this paragraph shall name the Tribe as beneficiary.

7. SAVINGS

In the event funding relied upon for this Funding Agreement is withdrawn, reduced, or limited in any way after the effective date of this Funding Agreement and prior to normal completion, Commerce may terminate under the "Termination for Convenience" clause, without the ten (10) business day notice requirement. In lieu of termination, this Funding Agreement may be modified as provided herein to reflect the new funding limitations and conditions.

8. FRAUD AND OTHER LOSS REPORTING

The Tribe shall report in writing all known or suspected fraud or other loss of any funds or other property furnished under this Funding Agreement immediately or as soon as practicable to the Commerce Representative identified on the Face Sheet.

9. INTEGRATED AGREEMENT AND MODIFICATION

This Funding Agreement and Memorandum of Understanding constitute the entire agreement and understanding of the Parties with respect to the subject matter and supersede all prior negotiations and representations. In the event of any conflict between this Funding Agreement and the Memorandum of

Understanding or any earlier amendment, this Funding Agreement shall control and govern. This Funding Agreement may not be modified except in writing signed by the Parties.

10. ORDER OF PRECEDENCE

In the event of an inconsistency in this Funding Agreement, the inconsistency shall be resolved by giving precedence in the following order:

- Applicable tribal, state, and federal laws and regulations
- Attachment D – Proviso
- Funding Agreement Terms and Conditions
- Attachment A – Scope of Work
- Attachment B – Budget
- Memorandum of Understanding as identified above
- Grantee's application to the CECG Program

Attachment A: Scope of Work

Project Name: Betty J Taylor Learning Academy Solar Plus Storage
Site Address: 7607 Totem Beach Road, Tulalip, WA 98271 Parcel #30042200300700 and #30042200300900
Serving electric utility: Snohomish PUD

System Size:

Solar array size (kW DC): 244.5-kW	Battery energy storage system power rating (kw): 500-kW
Solar array size (kW AC): 184.6-kW	Battery energy storage system energy capacity (kWh): 1540 kWh

Mounting Type:

☐ Ground	☒ Roof	☐ Canopy

Major Components: List major equipment to be installed across all project sites.

Quantity	Make and Model	Equipment
494	Q-Cell G10 495-W	Solar modules
3	SolarEdge SE50KUS	Inverters
2	SolarEdge SE17.3KUS	Inverters
207	SolarEdge P1101	Module level power electronics
1	ELM MG500 – 1540kWh	Battery Package
	IronRidge	Racking

Permits Required

☒ Electrical	☒ Building	☐ Land use
☐ SEPA	☐ NEPA	☒ Other (please specify): Fire Permit

Project Summary:

The Betty J Taylor Learning Center Academy Solar Plus Storage Project will purchase and install a 244.5-kW DC, 184.6-kW AC PV array plus 500kW/1540 kWh BESS on the southwest-facing, standing seam metal roof of the Betty J Taylor Learning Center Academy at 7607 Totem Beach Road, Tulalip. These systems will provide power to support critical needs for the community in the event of a power outage.

The system will be designed with PV modules warrantied for a minimum of 25 years, inverters warrantied for a minimum of 10 years, and batteries warrantied for a minimum of 5 years. The project owner will maintain the system and train personnel to maintain and effectively operate the system in the event of an outage during the equipment's lifetime, in accordance with the operations and maintenance (O&M) manuals and warranty requirements of the equipment installed. If described in the original funding application, facilities will remain open to the Tulalip Tribal community during outages for the life of the equipment. Exceptions to these conditions may be granted by Commerce in writing on a case-by-case basis. If the system is enrolled in a demand response, grid services, or similar program with a utility or other third party, the system must maintain resilience functions as described in the original funding application and Commerce must approve any related program agreements in writing.

System will be installed with non-penetrating IronRidge roof mounting hardware, connecting to the three SolarEdge SE50KUS and two SE17.3KUS inverters. Installed system capacity will be 244.5kW DC system will be combined with the existing 22kW DC system for a total of 266.5kW-DC generating capacity on site. The 184.6-kW AC output of the design would be combined with the existing 15kW AC output, resulting in a combined 199.6kW AC output, falling below the current 200kW BPA small generator threshold. The system is expected to produce 220,441 kWh of energy in the first year. Per the preliminary electrical analysis, this is enough to offset 27.96% of the facility's annual kWh consumption.

The BESS will sustain 100% of the building's historical demand for approximately 5.75 hours in December, resulting in 13.75 hours of autonomy in June during periods of high building demand. The 200kW AC PV system will be integrated with the existing 1.5 MW Kohler Generator, reducing daily generator run times to approximately 11 hours per day in December and an average of 4 hours per day in June.

The PV capacity exceeds 100-kW AC, so this system will not be eligible for Net Metering through Snohomish PUD's solar program. Instead, it will be permitted under the PUD's Small Renewables Program.

Overall project timeline is expected to be 20 months from the time of contract signing to system activation onto the electrical grid. Project Implementation would begin with assigning a project manager within the Tulalip Public Works Department and developing a design-build solicitation to begin the procurement and contracting process. Once a contractor has been selected and is under contract, the final system design will be completed within two months. at which point equipment procurement would begin. Electrical, structural, and environmental studies would proceed concurrently with the final design, with a targeted completion 120 days after contract initiation. After these respective engineering and environmental tasks have been completed, project permitting and agreements will commence with a target completion date no later than one year after project initiation. Under this schedule, we expect the installation of PV, BESS, and electrical equipment in the spring of 2026.

The scope of work includes:

A: Project Development, Design, and Contracting

Grantee will be responsible for selecting subcontractors, project development and design work to ensure the project is ready for construction, including the following key deliverables:

- Electrical diagram for the system
- Space requirements/measurements
- Structural engineering (if required due to flat roof construction, high wind load, etc.)
- Electrical load analysis
- Environmental assessment
- DAHP processes
- Safety plan and/or contingencies for traffic control
- Community engagement, outreach, and education as described in the application

B: Procurement

Grantee will procure all equipment, warranties, and data necessary to complete the project, including:

- All equipment to complete the project. Equipment must be compliant with IEEE Standard 1547, UL 1741, and the interconnection agreement unless Commerce grants an exception in writing
- A warranty certificate from the contractor
- Equipment data sheets – compliance with the following is required unless Commerce grants an exception in writing:

Permitting and Utility Agreements

The solar system and BESS will meet all applicable industry standards and codes including, but not limited to:

- UL 1741

- International Building Code
- International Fire Code
- National Electric Code

When this project proceeds to installation, the installer will verify the relevant authorities having jurisdiction (AHJs) and ensure all necessary permits and agreements are in place:

Snohomish PUD - Solar/PV Permit and Interconnection:
The conceptual PV system falls outside the standard interconnection rules for Net Metering of systems of 100kW AC or less per customer meter or interconnection. A SnoPUD "Interconnection Application & Small Renewables Application" under Section 6-1 for systems between 100kW and 2MW AC, with the associated documentation, would be required. Once the "Approval to Construct" is received, the installation may proceed following all PUD solar installation requirements listed in "Section 6, General Interconnection" of the PUD's "Electrical Service Requirements."

C: Equipment Delivery, Installation, and Construction

- Secure Permits necessary to complete the project:

Tulalip Tribes Planning Department - Building Permits:
The Tulalip Tribe's Planning Department, located at 6406 Marine Drive NW in Tulalip, has jurisdiction over the commercial structural/building permits for the PV system, and the BESS concrete pad installation (if required). A soil/geotech report may be necessary for the installation of the BESS, depending on the weight and final installation location. All permits will fall under a standard "Commercial Building Permit Application" with building permit costs based upon the "Title 7 Permit Fee" schedule.

The permit will require structural engineering, an environmental review, and a civil review.

Tulalip Building Department - Fire Permits/Review:
As part of the building permit approval process, a design fire review from the Tulalip Fire Marshall may be required for the PV system rooftop layout, access, spacing, and shutoffs. The BESS design may be reviewed for shutdown operations, fire suppression and safe perimeter designations. Final permitting guidelines are not in place due to no precedent with installing commercial BESS systems on Tulalip Tribal Lands. An initial review was completed by acting Fire Marshall David Sherman, and it was determined that the "Exception: Where the fire code official determines that the roof configuration is similar to that of a Group R-3 (residential and mult-family) occupancy, the residential access and ventilation requirements in Sections 605.11.1.2.1 through 605.11.1.2.5 shall be permitted to be used" will be applied on commercial projects on the Tulalip Marina/Senior Center/Fire Department/ Health Clinic.

L&I - Electrical Permits:
The conceptual PV system and BESS design require electrical permitting from the Washington Department of Labor & Industries to verify that they meet all current WAC and NEC code reviews. Code revisions may occur in the NEC and WAC and must be verified during the final system design. In L&I jurisdiction, rules require electrical plan review for all new or altered electrical projects in educational, institutional, or health care occupancies defined in WAC 296-46B-900(1) when not excluded by WAC 296-46B-900(3)(a). Before beginning electrical work on a project requiring plan review, there must be a set of reviewed and approved plans on the job site.

- Complete site preparation and restoration activities related to mounting type as required to complete the project, including staging of equipment, trenching, roof preparation, concrete pads, fencing, and gravel or other surfacing as needed for safety, code requirements, access, or to prevent vandalism of the equipment. Other site work other than restoring the disturbed areas to pre-construction conditions is not included in this scope.

- Provide and install electrical gear and feeders required to connect the solar system and BESS to existing electrical service, including critical loads panels, transformer upgrades, and other necessary electrical changes identified in the original funding application.
- Supply and install a solar array including the equipment listed above
- Supply and install BESS including equipment listed above
- Install all equipment necessary to enable the solar system and BESS to safely operate independently of the electric grid in an outage
- Any electrical and control system integration with existing PV and Kohler generator. Purchase and installation of generators other than the solar generator described above are not included in this scope
- Procure and set up monitoring software
- Pass inspections and pay associated fees
- Any changes to the equipment listed above must be approved by Commerce in writing

D: Systems Integration and Commissioning

- Pass inspections by all relevant regulators
- Commission solar PV system and verify all system components are properly designed, installed, and optimized
- Test the fully functional system and confirm whole system operation follows design intent as described in the application
- Test control system that allows the system to operate independently of the grid in an outage
- Receive operations and maintenance (O&M) manual and complete training from subcontractor on equipment and controls

E: Analytics and Monitoring

- Collect a minimum of nine months of information on the performance of the system and its impact on clean energy production and community resilience
- Report measurement and verification results
- Communicate the project narrative with a Fact Sheet based on the Commerce-provided template and at least one other mode of story-telling
- Tax credit records or confirmation a tax credit was not utilized

Attachment B: Budget

All funding is subject to continued legislative authorization and re-appropriation where applicable.

Milestone	Deliverable	Deliverable Description	Expected Completion Date	Percent of Grant	Applicant Match	Amount of Grant
A: Project Development, Design and Contracting			9/1/2025	5%	$0.00	$117,500
	Project schedule (Gantt required if battery size is more than 1,000 kWh or grant amount is over $1,400,000)	Up-to-date project schedule (Gantt chart format required based on size) showing the interdependencies between design, procurement, delivery, installation and commissioning activities.				
	Contracting	Subcontract for each subcontractor				
	Design	Electrical diagram, structural analysis (if installing on flat roof), solar resource analysis, load analysis (if being utilized for backup power)				
B: Procurement			1/1/2026	60%	$0.00	$1,410,000
	Procure major equipment and services needed for installation	Copy of paid equipment invoice(s)				
	Warranty Certificate	Certification of equipment warranty				
	Apply for utility interconnection	Copy of interconnection application to serving utility.				
C: Equipment Delivery, Installation and Construction			6/30/2026	30%	$0.00	$705,000
	Secure permits	Copies of all permits required by local AHJs.				
	All major equipment and materials delivered to site	Bill of Materials (BOM) showing delivery of all major equipment from scope of work to project site.				
	All equipment installed	Photos showing all major equipment from scope of work installed.				
	Inspections by AHJs passed	Letter, document or email from AHJ reporting passed inspections.				
D: Systems Integration and Commissioning			9/1/2026	4%	$0.00	$94,000
	Permission to operate and go live	Document, letter, or email from utility confirming system is ready to operate. Energize system.				
	Operations and Maintenance (O&M) manual and owner training	Subcontractor-provided O&M manual for system and document, letter, or email confirming subcontractor provided operation and maintenance training to system owner.				

Attachment B

	Full functional system testing	System Acceptance Test (SAT) report describing results of tested outage scenarios. Tests must confirm that whole system operation follows design intent and meets community building's requirements.				
E: Analytics and Monitoring			6/30/2027	1%	$0.00	$23,500
	Provide resilience and performance data to analytics team	Collect nine months of information on performance of system and impact on community resilience				
	Resilience report	Summary of information demonstrating value, use, and impact of solar plus storage system over performance period.				
	Tax Credit Records	Tax credit records or confirmation a tax credit was not utilized				
	Story telling	Complete Commerce-provided Fact Sheet and at least one other mode of project narrative communication.				
			Totals:	**100%**	**$0.00**	**$2,350,000.00**

TOTAL AWARD VALUE:	**$ 2,350,000.00**
TOTAL MATCH/LEVERAGED $:	**$ -**

Attachment C: Reporting

The Tribe or Nation must provide quarterly written reports and/or host a regular quarterly video and/or phone call with COMMERCE for project update purposes. Phone contact should cover current status of the project and any barriers that are potentially affecting the project schedule.

The Tribe or Nation shall provide a quarterly report to COMMERCE, no later than 15 days after the end of each quarter. The report form will be provided by Commerce. The report should describe the project activity that occurred during the quarter, including but not limited to:

- A narrative summarizing project activities, risks and issues mitigated, and lessons learned;
- The project milestones met to date and anticipated in the subsequent quarter (such as through a project Gantt Chart schedule provided quarterly in Microsoft Project format showing actual progress to date along with the baseline schedule developed at project kickoff etc.); and,
- Any additional metrics required from the capital budget proviso, legislature, governor's office, or COMMERCE.
- Quarterly updated invoice projection sheet for grant expenditures. Commerce will provide the invoice projection sheet;

A final report and fact sheet will be submitted to Commerce. Commerce will provide the fact sheet template and may request the fact sheet be updated as conditions warrant.

Quarterly Reports Submission Deadlines

Quarter 1	April 15
Quarter 2	July 15
Quarter 3	October 15
Quarter 4	January 15

Attachment D: Proviso

Year of Enacted Capital Budget

2023-2025 CAPITAL BUDGET
ENGROSSED SUBSTITUTE SENATE BILL 5949 Chapter 375, Laws of 2024
Passed Legislature - 2024 Regular Session

Clean Energy Community Grants - $42,388,000
NEW SECTION. Sec. 1017. A new section is added to 2023 c 474

Clean Energy Community Grants (40000606)

The appropriation in this section is subject to the following conditions and limitations:

Grants
(1)(a) $42,388,000 of the appropriation in this section is provided solely for the department to administer noncompetitive grants to nonprofit organizations, local governments, federally recognized tribal governments and tribal entities, state agencies, housing authorities, ports, transit agencies, research organizations, and eligible third-party administrators for planning, design, and implementation of capital projects and clean energy technologies that reduce greenhouse gas emissions in vulnerable, overburdened, and tribal communities identified by the department. The department must prioritize grants providing meaningful benefit to vulnerable populations in overburdened communities as defined under RCW 70A.02.010.

(b) Eligible uses of grant funds include, but are not limited to, planning for sustainable communities and predesign work, energy efficiency improvements, renewable energy generation, increasing the supply of affordable, energy efficient housing, developing resilient and sustainable infrastructure systems, zero-emission, active mobility, and micromobility transportation infrastructure, education and engagement, and workforce development.

Washington State Department of Commerce

FUND OBLIGATION, DE-OBLIGATION, CONTRACT APPROVAL ROUTING SLIP

ENERGY DIVISION | ENERGY PROGRAMS IN COMMUNITIES

FOR COMMERCE USE ONLY

REVIEWED BY	I VERIFY THAT:	INITIALS
PROGRAM MANAGER *Commerce Specialist 3*	• Any and all changes made are within my delegated authority and responsibilities • DocuSign or Amendment form has been added to CMS and both match (include dollar amount and start/end dates) • Fund source reviewed and contract amount approved • If applicable, formula fund allocation spreadsheet emailed to appropriate staff, included with obligation memo • *If routing a Fund Obligation Memo*, draft memo reviewed and approved by leadership prior to routing final memo in DocuSign for AD approval • *If routing Contracts*, associated Fund Obligation Memo approved prior to routing contract or amendment.	Initial MM
TEAM SUPERVISOR *Commerce Specialist 5*	• Any and all changes made are within my delegated authority and responsibilities • Fund source, contract terms, scope of work reviewed and approved	DS HB
BUDGET STAFF	• Any and all changes made are within my delegated authority and responsibilities • Reviewed allotment authority and coding • Appropriate award paperwork in place, if applicable • Reviewed contract/amendment entry in CMS	DS DN
SECTION SUPERVISOR *WMS 2*	• Any and all changes made are within my delegated authority and responsibilities • Contract terms, scope of work reviewed and approved	Initial JW
MANAGING DIRECTOR *Alternate: Assistant Managing Director on behalf of MD*	• Any and all changes made are within my delegated authority and responsibilities • Final review before appointing authority signature	DS SM
ASSISTANT DIRECTOR **cc: Admin Assistant** *Alternate: Deputy Assistant Director on behalf of AD*	• Contract, amendment, or memo approved and signed by Appointing Authority	Signed on attached document

Certificate Of Completion

Envelope Id: 0C87BDB6-1EE3-45D6-8D4E-DA1516266284
Status: Completed
Subject: DocuSign: Contract #25-9221A-036 Tulalip Tribes Betty J Taylor Learning Academy (CECG R1)
Division:
Energy
Program: CEF
ContractNumber: 25-9221A-036
DocumentType: Contract
Source Envelope:
Document Pages: 17
Signatures: 2
Certificate Pages: 6
Initials: 5
AutoNav: Enabled
EnvelopeId Stamping: Enabled
Time Zone: (UTC-08:00) Pacific Time (US & Canada)

Envelope Originator:
Jane Lunbeck
1011 Plum Street SE
MS 42525
Olympia, WA 98504-2525
jane.lunbeck@commerce.wa.gov
IP Address: 198.239.10.219

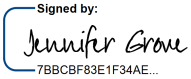
Record Tracking

Status: Original
6/24/2025 11:48:44 AM
Holder: Jane Lunbeck
jane.lunbeck@commerce.wa.gov
Location: DocuSign

Security Appliance Status: Connected
Pool: StateLocal

Storage Appliance Status: Connected
Pool: Washington State Department of Commerce
Location: Docusign

Signer Events	Signature	Timestamp
Noah Martin Noah.Martin@commerce.wa.gov Security Level: Email, Account Authentication (None), Login with SSO	 Signature Adoption: Pre-selected Style Using IP Address: 198.239.10.252	Sent: 6/24/2025 12:24:04 PM Viewed: 6/24/2025 1:27:20 PM Signed: 6/24/2025 1:27:48 PM
Electronic Record and Signature Disclosure: Not Offered via Docusign		
Hans Berg hans.berg@commerce.wa.gov Security Level: Email, Account Authentication (None), Login with SSO	 Signature Adoption: Pre-selected Style Using IP Address: 147.55.134.84	Sent: 6/24/2025 1:27:49 PM Viewed: 6/26/2025 9:22:47 AM Signed: 6/26/2025 9:23:37 AM
Electronic Record and Signature Disclosure: Not Offered via Docusign		
Dan Nguyen dan.nguyen@commerce.wa.gov Budget Analyst Signing Group: COM Energy Budget Office Security Level: Email, Account Authentication (None)	 Signature Adoption: Pre-selected Style Using IP Address: 147.55.149.189	Sent: 6/26/2025 9:23:38 AM Viewed: 6/27/2025 9:12:07 AM Signed: 6/30/2025 10:34:19 AM
Electronic Record and Signature Disclosure: Not Offered via Docusign		

Signer Events	Signature	Timestamp
Jacqueline West jacqueline.west@commerce.wa.gov Security Level: Email, Account Authentication (None), Login with SSO	Initial  Signature Adoption: Pre-selected Style Using IP Address: 198.239.10.231	Sent: 6/30/2025 10:34:21 AM Viewed: 6/30/2025 10:40:39 AM Signed: 6/30/2025 10:41:31 AM
Electronic Record and Signature Disclosure: Not Offered via Docusign		
Veronica Iukes viukes@tulaliptribes-nsn.gov Grants&Self-Gov.Manager Tulalip Tribes of Washington Security Level: Email, Account Authentication (None)	DocuSigned by:  82B3383CEF58495... Signature Adoption: Pre-selected Style Using IP Address: 208.71.163.202	Sent: 6/30/2025 10:48:41 AM Viewed: 6/30/2025 10:50:21 AM Signed: 6/30/2025 11:18:13 AM
Electronic Record and Signature Disclosure: Accepted: 7/20/2022 12:39:05 PM ID: 32ec9545-1662-414f-8a62-aa923f118044		
Stephanie Molloy stephanie.molloy@commerce.wa.gov Asst Managing Director, EPIC Security Level: Email, Account Authentication (None)	DS  Signature Adoption: Pre-selected Style Using IP Address: 147.55.149.148	Sent: 6/30/2025 11:18:15 AM Viewed: 6/30/2025 1:49:49 PM Signed: 6/30/2025 1:51:12 PM
Electronic Record and Signature Disclosure: Not Offered via Docusign		
Jennifer Grove jennifer.grove@commerce.wa.gov Assistant Director, Energy Security Level: Email, Account Authentication (None)	Signed by:  7BBCBF83E1F34AE... Signature Adoption: Pre-selected Style Using IP Address: 147.55.134.38	Sent: 6/30/2025 1:51:13 PM Viewed: 6/30/2025 4:44:09 PM Signed: 6/30/2025 4:44:18 PM
Electronic Record and Signature Disclosure: Not Offered via Docusign		

In Person Signer Events	Signature	Timestamp

Editor Delivery Events	Status	Timestamp

Agent Delivery Events	Status	Timestamp

Intermediary Delivery Events	Status	Timestamp

Certified Delivery Events	Status	Timestamp
Steve Hinton shinton@tulaliptribes-nsn.gov Security Level: Email, Account Authentication (None)	VIEWED Using IP Address: 208.71.163.202	Sent: 6/30/2025 10:41:33 AM Viewed: 6/30/2025 10:48:40 AM
Electronic Record and Signature Disclosure: Accepted: 6/30/2025 10:48:40 AM ID: 9fa3b119-e87e-42a1-ad73-69ad13716226		

Carbon Copy Events	Status	Timestamp

Carbon Copy Events	Status	Timestamp
Danielle Saguil danielle.saguil@commerce.wa.gov Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Not Offered via Docusign	COPIED	Sent: 6/30/2025 4:44:20 PM
Michele Lefebvre michele.lefebvre@commerce.wa.gov Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Not Offered via Docusign	COPIED	Sent: 6/30/2025 4:44:21 PM

Witness Events	Signature	Timestamp

Notary Events	Signature	Timestamp

Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	6/24/2025 12:24:04 PM
Certified Delivered	Security Checked	6/30/2025 4:44:09 PM
Signing Complete	Security Checked	6/30/2025 4:44:18 PM
Completed	Security Checked	6/30/2025 4:44:21 PM

Payment Events	Status	Timestamps

Electronic Record and Signature Disclosure

ELECTRONIC RECORD AND SIGNATURE DISCLOSURE

From time to time, Washington State Department of Commerce (we, us or Company) may be required by law to provide to you certain written notices or disclosures. Described below are the terms and conditions for providing to you such notices and disclosures electronically through the DocuSign system. Please read the information below carefully and thoroughly, and if you can access this information electronically to your satisfaction and agree to this Electronic Record and Signature Disclosure (ERSD), please confirm your agreement by selecting the check-box next to 'I agree to use electronic records and signatures' before clicking 'CONTINUE' within the DocuSign system.

Getting paper copies

At any time, you may request from us a paper copy of any record provided or made available electronically to you by us. You will have the ability to download and print documents we send to you through the DocuSign system during and immediately after the signing session and, if you elect to create a DocuSign account, you may access the documents for a limited period of time (usually 30 days) after such documents are first sent to you. After such time, if you wish for us to send you paper copies of any such documents from our office to you, you will be charged a $0.15 per-page fee. You may request delivery of such paper copies from us by following the procedure described below.

Withdrawing your consent

If you decide to receive notices and disclosures from us electronically, you may at any time change your mind and tell us that thereafter you want to receive required notices and disclosures only in paper format. How you must inform us of your decision to receive future notices and disclosure in paper format and withdraw your consent to receive notices and disclosures electronically is described below.

Consequences of changing your mind

If you elect to receive required notices and disclosures only in paper format, it will slow the speed at which we can complete certain steps in transactions with you and delivering services to you because we will need first to send the required notices or disclosures to you in paper format, and then wait until we receive back from you your acknowledgment of your receipt of such paper notices or disclosures. Further, you will no longer be able to use the DocuSign system to receive required notices and consents electronically from us or to sign electronically documents from us.

All notices and disclosures will be sent to you electronically

Unless you tell us otherwise in accordance with the procedures described herein, we will provide electronically to you through the DocuSign system all required notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you during the course of our relationship with you. To reduce the chance of you inadvertently not receiving any notice or disclosure, we prefer to provide all of the required notices and disclosures to you by the same method and to the same address that you have given us. Thus, you can receive all the disclosures and notices electronically or in paper format through the paper mail delivery system. If you do not agree with this process, please let us know as described below. Please also see the paragraph immediately above that describes the consequences of your electing not to receive delivery of the notices and disclosures electronically from us.

How to contact Washington State Department of Commerce:

You may contact us to let us know of your changes as to how we may contact you electronically, to request paper copies of certain information from us, and to withdraw your prior consent to receive notices and disclosures electronically as follows:
To contact us by email send messages to: docusign@commerce.wa.gov

To advise Washington State Department of Commerce of your new email address

To let us know of a change in your email address where we should send notices and disclosures electronically to you, you must send an email message to us at docusign@commerce.wa.gov and in the body of such request you must state: your previous email address, your new email address. We do not require any other information from you to change your email address.

If you created a DocuSign account, you may update it with your new email address through your account preferences.

To request paper copies from Washington State Department of Commerce

To request delivery from us of paper copies of the notices and disclosures previously provided by us to you electronically, you must send us an email to docusign@commerce.wa.gov and in the body of such request you must state your email address, full name, mailing address, and telephone number. We will bill you for any fees at that time, if any.

To withdraw your consent with Washington State Department of Commerce

To inform us that you no longer wish to receive future notices and disclosures in electronic format you may:

i. decline to sign a document from within your signing session, and on the subsequent page, select the check-box indicating you wish to withdraw your consent, or you may;

ii. send us an email to docusign@commerce.wa.gov and in the body of such request you must state your email, full name, mailing address, and telephone number. We do not need any other information from you to withdraw consent.. The consequences of your withdrawing consent for online documents will be that transactions may take a longer time to process..

Required hardware and software

The minimum system requirements for using the DocuSign system may change over time. The current system requirements are found here: https://support.docusign.com/guides/signer-guide-signing-system-requirements.

Acknowledging your access and consent to receive and sign documents electronically

To confirm to us that you can access this information electronically, which will be similar to other electronic notices and disclosures that we will provide to you, please confirm that you have read this ERSD, and (i) that you are able to print on paper or electronically save this ERSD for your future reference and access; or (ii) that you are able to email this ERSD to an email address where you will be able to print on paper or save it for your future reference and access. Further, if you consent to receiving notices and disclosures exclusively in electronic format as described herein, then select the check-box next to 'I agree to use electronic records and signatures' before clicking 'CONTINUE' within the DocuSign system.

By selecting the check-box next to 'I agree to use electronic records and signatures', you confirm that:

- You can access and read this Electronic Record and Signature Disclosure; and
- You can print on paper this Electronic Record and Signature Disclosure, or save or send this Electronic Record and Disclosure to a location where you can print it, for future reference and access; and
- Until or unless you notify Washington State Department of Commerce as described above, you consent to receive exclusively through electronic means all notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you by Washington State Department of Commerce during the course of your relationship with Washington State Department of Commerce.

TULALIP TRIBES INDEPENDENT CONTRACTOR AGREEMENT

This Independent Contractor Agreement ("the Agreement") is effective on _____, by and between the Tulalip Tribes ("Tulalip") 6406 Marine Drive, Tulalip, WA 98271, and the undersigned Independent Contractor, _____, ("Contractor"), whose address is _____,

1. PURPOSE. The purpose of this Agreement is for the Contractor to provide services to design _____ construction of a microgrid system with integrated solar and battery storage components to support Tulalip's community energy resiliency goals.

2. TERM OF SERVICES. This Agreement shall commence upon its effective date and shall terminate on _____, provided the parties have the power of early termination, as provided below. Holding over beyond the term shall not renew this Agreement. Payments made or work completed after the term of this Agreement shall not cause this Agreement to be renewed. Any modification or renewal of this Agreement shall be in writing and may occur at the absolute discretion of the parties.

3**. SUPERVISION/CONTRACT OFFICER**. Contractor will work independently under the direction of the Director of the Treaty Rights and Government Affairs Department or his designee.

4. SCOPE OF WORK. The Scope of work for this project is detailed in Exhibits _____.

5. **CONFIDENTIALITY.** Contractor agrees to maintain the confidentiality of any and all data, information, records, forms, documents, and/or any other proprietary or confidential information provided by Tulalip or acquired by Contractor in the performance of Contractor's services. Contractor further agrees to promptly return to Tulalip any and all such data, information, records/forms/documents, or other proprietary/confidential information that comes into his/her possession by this Agreement upon written request by a duly authorized agent of Tulalip.

6. RELATIONSHIP OF PARTIES. Contractor is an independent contractor of Tulalip. Nothing in this Agreement shall be construed as creating an employer-employee relationship, as a guarantee of future employment or engagement, or as a limitation upon Tulalip's discretion to terminate this Agreement at any time without cause. Contractor further agrees to be responsible for all of Contractor's federal, state, and local taxes, withholding, social security, insurance, and any other fees or other payments applicable and required to be paid to any government to be paid by

Contractor as a result of payments to Contractor under this Agreement. In the event that the Internal Revenue Service should determine that the Contractor is, according to I.R.S. guidelines, an employee subject to withholding and social security contributions, Contractor shall acknowledge, as the Contractor acknowledged herein, that all payments to the Contractors are gross payments, and the Contractor is responsible for all taxes and social security payments and any other required fees as stated above.

7. PRODUCT/SERVICE. Contractor agrees it has no expressed or implied authority to obligate Tulalip for any product or service, except as authorized by a duly authorized agent of Tulalip. All work and work product performed by Contract under this Agreement shall be the property of the Tribes. Publication of project results in peer-reviewed scientific publications may be negotiated with and is at the sole discretion of Tulalip.

8. TRAINING MATERIALS. Tulalip may use training materials provided by the Contractor as long as credit is given to the Contractor.

9. INVOICING AND PAYMENT. Contractor will invoice Tulalip on a monthly basis. Every invoice shall contain a detailed accounting for all services and fees charged. Payment on an invoice shall be due to the Contractor within 30 days of delivery of the invoice. Contractor shall not be entitled to reimbursement for expenses incurred in providing services under this Agreement. Total compensation to Contractor shall not exceed _____, including travel or any training/seminars/conferences, under this Agreement.

10. OTHER COMPENSATION: Travel arrangements and travel-related expenses will be submitted to the Contract Officer for approval. Tulalip will directly arrange all travel and travel-related expenses. Training/seminars/conferences deemed necessary by the Contract Officer to complete services associated with the work plan shall be directly arranged and paid for by Tulalip.

11. TERMINATION. This Agreement may be terminated on ten days' written notice by either party. The termination provisions of the Tulalip Government Employee Handbook do not apply to the Contractor. Upon termination, Contractor shall be entitled to receive payment for all work completed before the date of termination, upon proper invoicing and authorization by the Contract Officer.

12. TULALIP DRUG AND ALCOHOL POLICY. Contractor shall abide by the Tulalip Tribes' Drug and Alcohol policy. This requirement does not alter the termination provisions in paragraph 11.

13. INDEMNITY. Contractor agrees to indemnify, defend, and hold Tulalip and its successors, officers, directors, agents and employees harmless from any and all actions, causes of actions, claims, demands, costs, liabilities, expenses and damages (including attorney's fees) arising out of or in connection with any breach of this Agreement by Contractor or any work provided by Contractor.

14. MISCELLANEOUS.

A. ASSIGNABILITY. This Agreement may not be assigned by either party without the prior written approval of non-assigning party.

B. GOVERNING LAW. This Agreement has been made and shall be governed, interpreted and construed under and in accordance with the laws of the Tulalip Tribes. Any disputes arising under

this Agreement shall be decided in the Tulalip Tribal Court. This section shall not be interpreted as a waiver of the Tribes' sovereign immunity.

C. SOVEREIGN IMMUNITY. Nothing in this Agreement shall be interpreted as a waiver of the Tribes' sovereign immunity.

D. ENTIRE AGREEMENT. This Agreement supersedes all prior discussions, agreements, and understandings between Contractor and Tulalip regarding the subject matter hereof and constitutes the entire agreement of Contractor and Tulalip. This Agreement may be amended, modified, or supplemented only by a written instrument executed by the parties.

TULALIP TRIBES OF WASHINGTON

_____ Date: _____

Rochelle Lubbers, CEO

INDEPENDENT CONTRACTOR

_____ Date: _____

EXHIBIT A
OWNER'S REPRESENTATIVE SCOPE OF SERVICES

Säzän will support the Tulalip Tribes by representing their interests, developing a request for proposal (RFP), assisting during the bidding and contracting process, and providing technical expertise as an Owner's Representative throughout the Washington Department of Commerce-funded microgrid construction project until construction is complete, the system is operational, and all grant reporting requirements are satisfied.

Säzän will:

Task 1: Project Management/Coordination

- Facilitate a Kickoff meeting with stakeholders and (6) PM support meetings.
- Develop a Project Management Plan, including Project Management Software to manage project scope and budget
- Develop a Request for Information

Task 2: RFP Development and Bid Procurement

- Review site reports and system locations and prepare the Scope of Work background for the RFP.
- Assess the proposed design for alignment with Tribal goals and objectives and make revisions as needed.
- Draft the solicitation for Tulalip Tribe approval.
- Finalize the RFP and assist with bidder outreach through accredited contractor forums.
- Facilitate a one-hour pre-proposal meeting following the issuance of the RFP.
- Conduct a pre-bid site walkthrough.
- Compile contractor questions and coordinate responses with Tulalip.
- Prepare a summary of bids from responsive contractors, including comparable project costs, equipment, and performance.
- Participate in six working sessions throughout the construction timeline with Tulalip Tribe staff and the contractor.

Task 3: Owner's Representative Services and Commissioning Services

- Review the commerce contract to optimize the scope, deliverables, and reimbursement schedule.
- Conduct a Submittal Review for contractor submissions.
- Perform Electrical PE Review of the design.
- Create a Commissioning Plan.
- Facilitate regular 30-minute coordination meetings throughout construction.
- Conduct three (3) Site Observations (with an accompanying report).
- Observe Equipment Start-Up.
- Verify the installation of system components.

- Confirm Functional Performance Testing.
- Follow up on any issues identified during installation.
- Prepare a Commissioning Report with all documentation included.

Task 4: Performance Verification and Grant Reporting

- Assist with Quarterly/Annual Progress Reports for grant reporting.
- Perform O&M Review, project closeout, and verify as-built document delivery.
- Operations and Maintenance Plan development.
- 12-Month Performance Verification report.
- 12-Month inspection and operation verification.

Exhibit B: Fee Structure

Säzän Group will administer the project in accordance with Tulalip Tribes' procurement and contracting standards, including providing a Not-to-Exceed (NTE) budget with hourly rates for approved staff. The following 2025 rate sheet highlights general roles that will support the project, depending on the agreed-upon scope of work. Approved expenses will be billed at cost plus 10%, with invoices submitted monthly based on work performed, including progress reporting documentation throughout the project.

ROLE	HOURLY RATE
Principal	$330
Electrical Engineer	$195
Project Manager	$200
Project Coordinator	$135
Commissioning Technician	$130