

## **SEQUIM SUBSTATION MICROGRID DESIGN REQUEST FOR QUALIFICATIONS NO. 240316**

The Public Utility District #1 of Clallam County (the District) is requesting the submittal of Statements of Qualifications from a Licensed Professional Engineer experienced in battery and solar microgrid design to develop all necessary plans, analysis reports, permits, construction specification and bid documents that incorporate solar PV, EV chargers, and a communications hut, and provide engineering services during construction as needed.

### **Project Background and Purpose**

The Sequim Substation Microgrid Design project is supported with funding from Washington's Climate Commitment Act (CCA). The CCA supports Washington's climate action efforts by putting cap-and-invest dollars to work reducing climate pollution, creating jobs, and improving public health. Information about the CCA is available at [www.climate.wa.gov](http://www.climate.wa.gov). This funding acknowledgement was provided by the State of Washington and is being transmitted by the District as a State requirement for grant eligibility. Grants, and any individual payment thereto, are funded by the Climate Commitment Act. RCW 42.17A.555 prohibits using public agency resources to support or oppose ballot measures. This acknowledgement, including the provision of any funds made available through the State program, should not be interpreted as the District's support or opposition to any measure relating to the Climate Commitment Act.

The microgrid will increase community resilience by providing reliable power to a communications hut that supports internet for the remote Olympic Peninsula region including multiple federally recognized tribes, 911 operations, local hospitals, local schools, City of Sequim, emergency management, as well as, Clallam PUD's own SCADA system. This critical infrastructure uses a backup LPG generator during outages.

The project site is located in rural Washington, along the coast, in an area that is highly likely to be affected by an earthquake in the Cascadia Subduction Zone. Local jurisdictions and emergency management departments are actively planning and coordinating efforts to strengthen local infrastructure to prepare for this threat. The proposed microgrid will add resilience to the North Olympic Peninsula's broadband network by increasing the amount of time the communication hut located on the site has backup power. Extended back-up power will be achieved through the integration of a solar based microgrid with an existing propane powered backup generator. With the existing propane backup generator, the site can stay running for approximately three days before it needs refueling. With the added microgrid, we can extend backup operation from several days to several weeks.

The proposed project will also benefit all North Olympic Peninsula residents by strengthening disaster preparedness and recovery. Western Washington is subject to the Cascadia Subduction Zone Earthquake. In the next 50 years, Oregon State University researchers predict a one in three chance of a magnitude 8.0 earthquake and a one in ten chance a magnitude 9.0 earthquake, both causing widespread devastation. Because the Olympic Peninsula is fed from a radial transmission line supplied by BPA, our communities could be without power for a prolonged, undetermined amount of time. The proposed microgrid design can establish a microgrid without power from the main grid.

The Sequim Substation Microgrid will be the first solar and battery supported microgrid project in Clallam County. In addition to the resiliency benefits that we intend to achieve, the project will also allow us to look at the potential benefits of peak shaving and demand response efforts necessary to prepare Clallam PUD's distribution system for a greenhouse gas free electrical grid.

### **Scope of Services**

The consultant must provide design services to develop a microgrid that incorporates existing solar PV, EV chargers, and our communications hut. The communication hut that will be powered by the proposed microgrid installation supports the fiber optic broadband backbone network operated by the District, which serves 7 internet providers operating on the North Olympic Peninsula. The project site is an existing decommissioned substation in Sequim located at 150 North Govan Avenue, Sequim, WA 98382, with a 31.4KW solar PV system.

The design work will include a bill of materials, all needed equipment, and services to complete the fully functional microgrid, as well as bid documents, plans, and specifications the District will use for the construction of the microgrid.

The design will also need to include plans for a 200 kWh lithium-ion battery, a battery building with the latest fire mitigation techniques applied, and microgrid controller capable of islanding, demand response, economic dispatch, and peak shaving.

### **Goals**

- Create microgrid design that implements design requirements to serve the communications hut during major outages and longer duration outages related to a Cascadia earthquake event or other natural disaster.
- Create bidding document for release for construction.

### **Design Requirements**

- Wiring diagrams (for batteries, low voltage switchgear, microgrid controller etc.).
- Bill of materials
- Structure to house battery and microgrid interface.
- NFPA fire safety design for battery system.
- Microgrid functionality including communication protocol, demand response, energy resource optimization, voltage support, self-sustained operation, etc.
- Integration of EV chargers with a separate disconnect.
- Low voltage switchgear.
- Integration of existing LPG generator.
- Integration with Clallam PUD's SCADA system.
- Monitoring and recording equipment.
- Develop methodology, define data requirements, perform financial evaluation, model microgrid assets, layout control strategy, and assist in control system development.
- Include spare capacity for future generation/storage/load increase
- Assume backup propane is only to be used if battery/solar PV/grid is not available
- Preference towards Lithium-ion battery energy storage system, but will consider other highly feasible energy storage systems.

The following exhibits are attached for more information

- Exhibit A: Existing Site Layout
- Exhibit B: Existing Equipment Detail
- Exhibit C: Solar PV Sequim Sub 2023 Daily kWh
- Exhibit D: Comms Hut Load
- Exhibit E: Comms Hut Historical Outages

### **Estimated Schedule**

- 10/15/24 Advertise Request for Qualification
- 10/28/24 Last day for questions
- 11/1/24 Statement of Qualifications Due
- 11/4-11/8/24 RFQ Review & Interviews (as needed)
- 11/14/24 Selection
- 11/14-11/26/24 Proposal Contract Negotiation
- 11/26 -12/9/24 Notice of Award, Contract Execution, and Notice to Proceed
- 01/23/25 Scope Completion

### **Statement of Qualifications Submittal and Evaluation**

The District assigns the following number of points to each section of the Statement of Qualifications as follows:

- 1.) Experience (40 points):** Experience should be demonstrated by brief descriptions of at least 3 relevant projects, which were completed within the last 10 years, and the staff who worked on them and will be assigned a significant role on this project. Please provide a reference for each project.
- 2.) Project Approach (50 points):** Your approach is to consist of a work plan for completing the specific tasks of interest listed in the District's solicitation. The plan must include an annotated work breakdown structure and a schedule (Gantt chart). Also, list staff members who will be making significant contributions to this project, identify their labor category, project role, and cross-reference a project(s) listed above in Section 1 – Experience, on which they worked.
- 3.) Client Service (10 points):** Identify quantifiable measures of project success and how they will be monitored and communicated throughout the life of the project.

### **Review and Selection**

The District will make a selection based on its review, interviews (as needed), and scoring of Statements of Qualifications submitted. The criteria will include qualifications, project understanding, experience, level of effort, project approach/schedule and the ability to meet the needs and interests of the District.

Following evaluation of the submitted Statements of Qualifications, the District will enter into cost negotiations with the top-ranked firm.

## **Submittal Requirements**

The Statements of Qualifications must be submitted by November 1, 2024 by 2 p.m., PDT:

All submittals must be delivered in .pdf file format by E-Mail to:

[cyoung@clallampud.net](mailto:cyoung@clallampud.net)

[contracts@clallampud.net](mailto:contracts@clallampud.net)

Statement of Qualifications shall be a maximum of twenty-five (25) pages, excluding cover, cover letter, table of contents, and resumes of the project team. One page is equivalent to one side of an 8.5x11 sheet of paper. Pages are to be letter size (8.5x11), and/or an 11x17 folded page containing a table and/or chart counting as one page. Font shall not be less than 11 point.

Submittals must be in the official name of the firm and are at the consultant's own cost. All submittals become property of the District. The District will not be liable for any costs incurred by consultants for the preparation and presentation of proposals submitted in response to this RFP.

Any questions regarding this project should be directed to Colin Young at [cyoung@clallampud.net](mailto:cyoung@clallampud.net) or 360-565-3250. All questions will be answered accordingly with blind copy to all interested parties. No questions will be answered or clarifications given after October 28, 2024, 2 p.m., Pacific Time.

## **Rights Reserved**

The District reserves the right to amend terms of the "Request for Qualifications" (RFQ), to circulate various addenda, or to withdraw the RFQ at any time, regardless of how much time and effort consultants have spent on their responses.

## **Contract for Professional Services**

Following evaluation of the submitted Statements of Qualifications, the District will enter into cost negotiations with the top-ranked firm. The District's Agreement for Professional Services (Contract) will serve as the contractual agreement between the District and the Consultant. A copy of the Contract template is attached as **Exhibit F**.

All plans, specifications, reports, and other design documents prepared by the Consultant under the contract are considered instruments of services, which shall be deemed the property of the District. The Consultant's working documents including, but not limited to CADD files, word documents and Excel files shall be made available to the District in accordance with Section 5.1 of the Contract.