Jamestown S'Klallam Tribe Power System Resilience Enhancement Project

Team Name: Community Engagement Testbed

Bosong Li³

Team Member: Daniel T. Schwartz¹

Director of the Clean Energy Institute **Boeing-Sutter Professor of Chemical Engineering** Robert Knapp² **Environmental Planning Manager** Senior Staff Scientist Michael Pomfret³ **Managing Director**

1. University of Washington 2. Jamestown S'Klallam Tribe 3. Washington Clean Energy Testbeds - CEI - UW

The Jamestown S'Klallam Tribe (JST) is one of three S'Klallam bands, "S'Klallam" being a Salish term for "The Strong People." The JST is located on Washington State's Olympic Peninsula. They possess a rich social and religious culture based on the abundant natural resources of the Northwest Coast.

Proposed Solutions Energy-related Challenges • The Tribe's electrical energy supply depends solely on an external public PUD, not under the tribal ownership. Under a PUD disturbance, the JST's energy supply will be under severe challenge.

• The tribal land features rugged mountains, steep slopes, and rain forests. The JST can Microgrid design with suffer from prolonged power outages due to climate-driven events.

• The Tribe adopted a climate neutral plan in 2023. Living on climate sensitive lands provides the Tribe a sense of urgency to mitigate their carbon footprint and add energy resiliency through new clean energy resources the Tribe controls.

 All the energy solutions proposed must respect and honor the Tribe's cultural value and prioritize the preservation of the Tribe's thriving ecosystem.

- The energy system has weaknesses. Seven Cedars Resort and Casino, the largest tribal enterprise, experiences recurrent gaming machine failures from power quality issues.
- Modern gaming machines are increasingly stressing the Casino's electrical system. The building's aging infrastructure, along with modifications and expansions over the decades, further complicates the adjustments needed to improve power quality.

University of Washington Jamestown S'Klallam Tribe



CLEAN ENERGY INSTITUTE UNIVERSITY of WASHINGTON



Fig. 1 Reviewing one-line drawing to identify panel

Resilience Hub:



Fig. 2 Group posing in hall of legends

AMERCIAN-MADE SOLVE IT PRIZE | U.S. DEPARTMENT OF ENERGY