STATEMENT OF PROJECT OBJECTIVES (SOPO)

A. OBJECTIVES

The primary objective of Project PEER is to reduce impact of extreme weather events, particularly wildfires, on the grid that serves 100% disadvantaged communities in areas with the highest risk of wildfires. The project focuses on deploying innovative asset hardening solutions using critical fire-resistant and fire prevention technologies to effectively reduce or eliminate ignition risks caused by overhead utility assets in the area, and significantly improving resiliency of the electrical system. Additionally, Yurok tribal reliability concerns will be addressed by upgrading substation assets and adding advanced microprocessor relays. The comprehensive, community-focused system hardening will improve resilience to extreme weather events by (i) demonstrating a five-minute improvement in System Average Interruption Duration Index (SAIDI), (ii) reducing 50% outages per mile per year, (iii) effectively eliminating ignition risks from overhead distribution lines in the area, (iv) ceasing flood-related outages impacting the Yurok tribal community, and (v) introducing over 400 pre-apprentice graduates into the workforce.

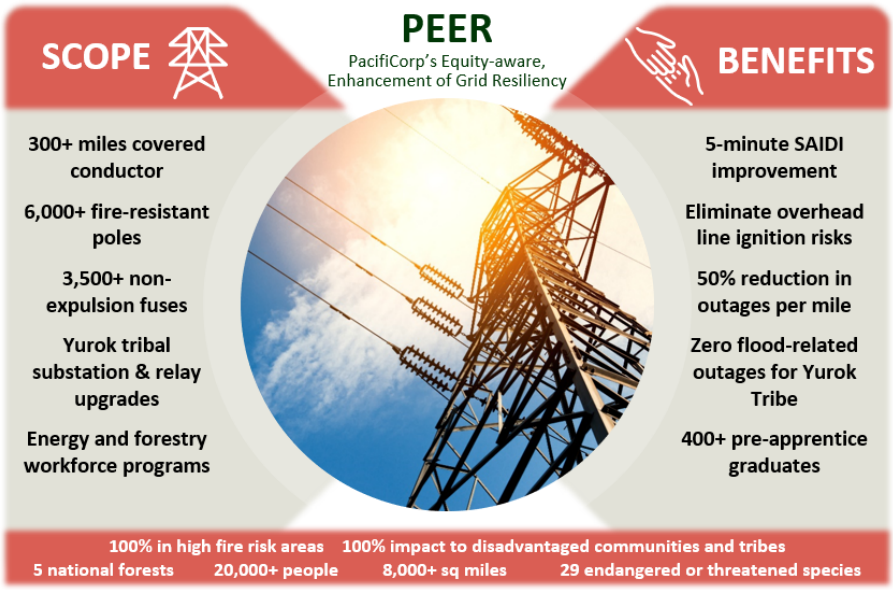

Figure 1: Project PEER Scope and Impact Overview

B. SCOPE OF WORK

As illustrated in Figure 1, Project PEER will include installation of approximately 300 miles of covered conductor supported by roughly 6,000 fire-resistant poles and 3,500 non-expulsion fuse replacements and advanced microprocessor relays with advanced communications at multiple distribution sites. Project PEER also includes elevating a substation serving the Yurok Tribe and installing advanced microprocessor relays on the 69-kilovolt transmission system connected to Yurok substation.

DOE funding would enable implementation of these resiliency initiatives. Work across the four budget periods, corresponding to the years 2024-2027, breaks down in simple terms as follows. **Budget Period 1** is generally dedicated to Yurok substation upgrades, implementing the first 100 miles of system hardening and ODIN integration. **Budget Period 2** is generally focused on implementing the subsequent 100 miles of asset-hardening infrastructure. **Budget Period 3** is

generally aimed at completing the asset-hardening and system automation projects of all the scoped circuits and substations. **Budget Period 4** is focused on reporting the project's effectiveness, best practices and lessons learned, and engaging with communities to quantify impact of the project.

C. TASKS TO BE PERFORMED

Task 1.0: Project Management and Planning

Subtask 1.1: Project Management Plan (PMP)

Within 30 days of award, the Recipient shall submit a PMP to the designated Federal Project Officer (FPO). The Recipient shall not proceed beyond Task 1.0 until the PMP has been accepted by the FPO.

The PMP shall be revised and resubmitted as often as necessary, during the course of the project, to capture any major/significant changes to the planned approach, budget, key personnel, major resources, etc.

The Recipient shall manage and direct the project in accordance with the accepted PMP to meet all technical, schedule and budget objectives and requirements. The Recipient will coordinate activities to effectively accomplish the work. The Recipient will ensure that project plans, results, and decisions are appropriately documented, and that project reporting and briefing requirements are satisfied.

Subtask 1.2: National Environmental Policy Act (NEPA) Compliance

As required, the Recipient shall provide the documentation necessary for NEPA compliance.

Subtask 1.3: Cybersecurity Plan (CSP)

The CSP shall be revised and resubmitted as often as necessary, during the course of the project, to capture any major/significant changes.

Subtask 1.4: Continuation Briefing(s)

The Recipient will brief DOE on roughly an annual basis to explain the plans, progress and results of the technical effort. The briefing shall also describe performance relative to project success criteria, milestones, and the Go/No-Go Decision point that are documented in the PMP.

BUDGET PERIOD 1

Task 2.0: Engineering Scoping

Subtask 2.1: Scope ~100 miles for covered conductor – Work with contractors to identify circuit segments that will be replaced with covered conductor and fire-resistant poles. Segments will be approximately 100 miles. A map showing all impacted line segments will be produced.

Subtask 2.2: Scope non-expulsion fuse replacements – Identify locations of non-expulsion fuses to be installed on circuit segments that are being scoped for covered conductor installation under subtask 2.1. Indicate location and quantity of non-expulsion fuses on a map.

Subtask 2.3: Scope microprocessor relay installation – Identify Yurok substation relay requirements and evaluate relays at all circuit segments that are being scoped for covered conductor installation under subtask 2.1. Where applicable, include other relays that require upgrades to the scope. Indicate location and quantity of scoped relay installations on a map.

Task 3.0: Permitting and Procurement

Subtask 3.1: Receive permits and materials for covered conductor installation – Verify with permitting consultants that the scoped activities in the identified locations have proper permits. Initiate procurement of covered conductors for scoped projects.

Subtask 3.2: Receive permits and materials for non-expulsion fuse installation – Verify with permitting consultants that the scoped activities in the identified locations have proper permits. Initiate procurement of non-expulsion fuses for scoped projects.
Subtask 3.3: Receive permits and materials for microprocessor relay installation – Verify with permitting consultants that scoped activities in the identified locations have proper permits. Initiate procurement of relays for scoped projects.
Subtask 3.4: Receive permits and materials for Yurok substation upgrade – Verify with permitting consultants that scoped activities in the identified locations have proper permits. Receive necessary construction equipment to complete upgrades.
Task 4.0: Engineering and Design
Subtask 4.1: Design covered conductor installation – Work with contractors to develop/deliver the required engineering documents used to install covered conductors and fire-resistant poles.
Subtask 4.2: Design non-expulsion fuse installation – Work with contractors to develop and deliver the required engineering documents used to install non-expulsion fuses.
Subtask 4.3: Design microprocessor relay installation – Develop the required engineering documents used to install microprocessor relays at the location(s) scoped in subtask 2.3.
Subtask 4.4: Design Yurok substation upgrades – Develop construction and engineering design required to complete all Yurok substation upgrades. Deliver relevant documents to contractors.
Task 5.0: Installation and Testing
Subtask 5.1: Integrate Outage Data Initiative Nationwide (ODIN) with Outage Management System (OMS) – Ensure that PacifiCorp outage management systems report to ODIN system.
Subtask 5.2: Install ~100 miles of covered conductor – Work with contractors to ensure that covered conductor is installed, and poles are replaced in the circuit segments scoped in subtask 2.1. Receive documentation and redlines certifying successful completion.
Subtask 5.3: Install non-expulsion fuses – Work with contractors to ensure expulsion fuses are replaced with non-expulsion fuses in the circuit segments scoped in subtask 2.2. Receive documentation certifying successful completion.
Subtask 5.4: Install microprocessor relays – Install microprocessor relay(s) scoped in subtask 2.3. Receive documentation certifying successful completion from internal/external personnel.
Subtask 5.5: Install and commission Yurok substation upgrades – Install all Yurok substation upgrades that were detailed in engineering design. The substation will be operating 10-15 feet above ground with enhanced protection and control equipment. Receive documentation certifying successful completion from internal and external personnel.

BUDGET PERIOD 2
Task 6.0: Engineering Scoping
Subtask 6.1: Scope next ~100 miles for covered conductor – Work with contractors to identify the circuit segments that will be replaced with covered conductor and fire-resistant poles. These segments are expected to be approximately 100 miles. A map showing all impacted line segments will be produced.
Subtask 6.2: Scope non-expulsion fuse replacements – Identify locations of non-expulsion fuses to be installed on circuit segments that are being scoped for covered conductor installation under subtask 6.1. Indicate location and quantity of non-expulsion fuses on a map.
Task 7.0: Permitting and Procurement

Subtask 7.1: Receive permits and materials for covered conductor installation – Verify the scoped activities have proper permits and initiate procurement for scoped projects.
Subtask 7.2: Receive permits and materials for non-expulsion fuse installation – Verify the scoped activities have proper permits and initiate procurement for scoped projects.
Task 8.0: Engineering and Design
Subtask 8.1: Design covered conductor installation – Work with contractors to develop/deliver the required engineering documents used to install covered conductors and fire-resistant poles.
Subtask 8.2: Design non-expulsion fuse installation – Work with contractors to develop and deliver the required engineering documents used to install non-expulsion fuses.
Task 9.0: Installation and Testing
Subtask 9.1: Install ~100 miles of covered conductor – Work with contractors to ensure that covered conductor is installed, and poles are replaced in the circuit segments scoped in subtask 6.1. Receive documentation and redlines certifying successful completion.
Subtask 9.2: Install non-expulsion fuses – Work with contractors to ensure that expulsion fuses are replaced with non-expulsion fuses in the circuit segments scoped in subtask 6.2. Receive documentation certifying successful completion.

BUDGET PERIOD 3
Task 10.0: Engineering Scoping
Subtask 10.1: Scope final ~100 miles for covered conductor – Work with contractors to identify circuit segments to be replaced with covered conductor and fire-resistant poles. Segments will be approximately 100 miles. A map of all impacted line segments will be produced.
Subtask 10.2: Scope non-expulsion fuse replacements – Identify locations of non-expulsion fuses to be installed on circuit segments that are being scoped for covered conductor installation under subtask 10.1. Indicate location and quantity of non-expulsion fuses on a map.
Task 11.0: Permitting and Procurement
Subtask 11.1: Receive permits and materials for covered conductor installation – Verify the scoped activities have proper permits and initiate procurement for scoped projects.
Subtask 11.2: Receive permits and materials for non-expulsion fuse installation – Verify the scoped activities have proper permits and initiate procurement for scoped projects.
Task 12.0: Engineering and Design
Subtask 12.1: Design covered conductor installation – Work with contractors to develop/ deliver required engineering documents to install covered conductors and fire-resistant poles.
Subtask 12.2: Design non-expulsion fuse installation – Work with contractors to develop and deliver the required engineering documents used to install non-expulsion fuses.
Task 13.0: Installation and Testing
Subtask 13.1: Install ~100 miles of covered conductor – Work with contractors to ensure that covered conductor is installed, and poles are replaced in the circuit segments scoped in subtask 10.1. Receive documentation and redlines certifying successful completion.
Subtask 13.2: Install non-expulsion fuses – Work with contractors to ensure that expulsion fuses are replaced with non-expulsion fuses in the circuit segments scoped in subtask 10.2. Receive documentation certifying successful completion.

BUDGET PERIOD BUDGET PERIOD 4
Task 14.0: Reporting

Subtask 14.1: Report on lessons learned and initial performance – Evaluate overall performance of the asset hardened circuits and report on lessons learned.

D. DELIVERABLES

Subtask 1.1 – Project Management Plan
Subtask 1.3 – Cybersecurity Plan
Subtask 1.4 – Pre-Continuation Briefing Document(s)
Subtask 2.1 – Map illustrating the first 100 miles of covered conductor planned
Subtask 5.1 – Report providing an overview of ODIN integration effort and lessons learned
Subtask 5.2 – Documentation detailing covered conductor completion and lessons learned
Subtask 5.3 – Documentation detailing non-expulsion fuse completion and lessons learned
Subtask 5.4 – Completed testing and commissioning forms for Yurok substation upgrades
Subtask 6.1 – Map illustrating the subsequent 100 miles of covered conductor installation
Subtask 9.1 – Documentation detailing covered conductor completion and lessons learned
Subtask 9.2 – Documentation detailing non-expulsion fuse completion and lessons learned
Subtask 10.1 – Map illustrating the final 100 miles of covered conductor planned
Subtask 13.1 – Documentation detailing covered conductor completion and lessons learned
Subtask 13.2 – Documentation detailing non-expulsion fuse completion and lessons learned
Subtask 14.1 – Final report on overall project that includes lessons learned, technology effectiveness, impact assessment and best practices

In addition to the deliverables listed above, the Recipient shall submit all periodic, topical, final, and other reports in accordance with the Federal Assistance Reporting Checklist and accompanying instructions.

E. *BRIEFINGS/TECHNICAL PRESENTATIONS*

The Recipient shall prepare, and present periodic briefings, technical presentations and demonstrations as requested by the Federal Project Officer, which may be held at a DOE or the Recipient's facility, other mutually agreeable location, or via webinar. Such meetings may include all or a combination of the following:

Kickoff Briefing *– Not more than 30 days after submission of the PMP, the Recipient shall prepare and present a project summary briefing as part of a Project Kickoff Meeting.*

Pre-Continuation Briefing *– Not less than 90 days before the planned start of a budget period, the Recipient shall brief the DOE on the results to date, and their plans for the subsequent periods of work. The DOE will consider the information from this briefing, as well as the content of deliverables submitted to date, prior to authorizing continuing the project.*

Final Project Briefing *– Not less than 30 days before the end of the project, the Recipient shall prepare and present a Final Project Briefing on the results and accomplishments of the entire project.*

Other Briefings *– The Recipient shall prepare and present technical, financial, and/or administrative briefings as requested by the DOE. Additionally, the DOE may require Recipients to make technical presentations at national and/or industry conferences.*