

Senior Power System Engineer
ESP Activity

Position Title: Consultant, Senior Power System Engineer

Location: ESP Activity Philippine Office

Overview

Energy Secure Philippines (ESP) is a multi-year program funded by the US Department of State. It aims to assist the Government of the Philippines (GPH) in promoting a more competitive power sector through investment mobilization, deployment of modern energy technologies, and support in policy reforms and regulation. Implemented by RTI International, ESP's overall goal is to enhance energy security and reliability in the Philippines. It focuses on advancing inclusive economic growth and resilient development through increased private investment, promoting advanced technology deployment, and boosting the energy sector's resiliency.

On January 20, 2025, the US Government issued Executive Order 14169 designed to revisit and realign the country's foreign assistance. Viewed through this lens, the America First policy frames U.S aid primarily as a tool to advance direct American interests and emphasizes strict alignment of assistance with U.S. national security, economic, and strategic priorities; a preference for measurable returns that make America safer, stronger, or more prosperous. Under this approach, foreign assistance is scrutinized for cost-effectiveness and political alignment, often favoring trade, investment, private-sector solutions, and cost-sharing, while reducing or restructuring programs seen as inefficient, dependency-creating, or insufficiently tied to U.S. interests.

Scope of Work

Contractor will support ESP's Chief of Party and selected key personnel in advancing activities that build on the partnership between the US government and the Philippine Department of Energy in enhancing grid energy resilience through the deployment of Mobile Energy Systems (MES). These are rapidly deployable, power platforms designed to bridge critical energy gaps during disasters. Beyond immediate disaster response, these deployments highlight the strategic value of distributed and mobile energy solutions as a key pillar of national resilience, complementing grid modernization efforts while reducing exposure to geopolitical risks. In addition, Contractor will also oversee the implementation of microgrid projects in all sites governed under the Enhanced Defense Cooperation Agreement (EDCA) and other partner local government units.

Key Responsibilities

Contractor's key responsibilities are as follows

- Lead the conceptualization of a deployment plan for 10 units of mobile energy systems.
- Provide technical advice for the assessment of intended locations of 10 units of MES across identified sites.
- Support the team in the inspection of selected sites, which inform site assessment reports.

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- Lead the review and recommend improvement/s, if any, of technical specifications and integration of pre-selected designs for the next-generation MES units.
- Work on power systems engineering for deployment of resilient energy systems for critical regions with focus on micro-grids.
- Oversee the implementation of microgrids in community energy security solutions, providing technical advice to ensure procurement of mobile power systems to government partners and adjacent civilian communities.
- Lead the analysis of grid capacity and management for the deployment of microgrids (mobile energy systems that integrate solar, battery storage, and hybrid backup generation).

Key Deliverables

1. **Site assessment report for 10 units of MES.** Determination of logistical challenges, capacity requirements and thematic maps for easy reference.
2. **Conceptual Design Report (CDR): Mobile Energy System.** Configuration of the mobile energy system. Evaluation of the physical footprint and ruggedization measures recommendations.
3. **Draft deployment plan for the 10 units of MES.** Framework for assembly, delivery, testing and commissioning.
4. **Site Verification & Critical Loads Report.** Confirmation of the electrical ratings for EDCA equipment (radars, servers) and community facilities (clinics, water pumps).. Assessment of the proposed microgrid location, including cable run lengths and terrain obstacles.
5. **Conceptual Design Report: Interconnection Feasibility and Readiness.** Analysis of internal facility readiness for interconnection. And preliminary identification of possible upgrades needed for integration.

Level of Effort:

Anticipated level of effort is up to 80 days for the period of performance. The Contractor is expected to be flexible and sustain collaboration with ESP Activity during this time.

Period of Performance:

June 01 to January 31, 2027

Minimum Required Education & Experience

- Master's degree in electrical engineering and 10 years work experience or bachelor's degree in electrical engineering and 15 years work experience (or other related major experience, including experience in electrical power generating equipment and control systems).
- Extensive experience in utility partnerships (e.g., Meralco, CEPALCO) and leading major infrastructure projects like Advanced Distribution Management System implementation an advantage.

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Application Deadline

All applications are due by Friday, May 15, 2026, at 5:00 PM Eastern Daylight Time. Please submit your application to dchingcuanco@energysecure.ph.