

The Resilient Energy Platform

Developed through the USAID-NREL Partnership, the Resilient Energy Platform is a website that provides expertly curated resources, training materials, data, tools, and direct technical assistance in planning resilient, sustainable, and secure power systems.

About

The provision of reliable, secure, and affordable electricity is essential to promote economic growth and development. The power system is at risk from an array of natural, technological, and human-caused threats, which can cause everything from power interruption to chronic undersupply of electricity. It is critical for policymakers, planners, and system operators to safeguard their power systems from these threats by proactively planning for future needs and investing in resilient power systems. The Resilient Energy Platform enables decision

What is Power Sector Resilience?

The ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions to the power sector through adaptable and holistic planning and technical solutions (Hotchkiss et al. 2018).



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makers to assess power sector vulnerabilities, identify resilience solutions, and make informed decisions to enhance power sector resilience at all scales (including local, regional, and national scales).

Power sector vulnerabilities—weaknesses within infrastructure, systems, or operations—are susceptible to natural, technological, and human-caused threats. Some impacts from these threats include:

- Power outages resulting from physical infrastructure damage
- Water, food, and fuel supply shortages
- Changes in energy demand
- Negative financial and economic implications.

These disruptions can adversely affect critical services and facilities, such as hospital services, water treatment, and communications networks, as well as key economic sectors. For this reason, it's vital to understand and plan for threats to the power system and their associated impacts.

The Resilient Energy Platform helps countries to address these vulnerabilities by providing strategic resources and direct country support to enable planning and deployment of resilient energy systems. This includes expertly curated reference material, training materials, data, tools, and direct technical assistance in planning resilient, sustainable, and secure power systems. Ultimately, these resources facilitate informed decision making for resilient energy systems that can thrive under changing conditions and withstand, respond to, and recover rapidly from the impacts of threats.

Lao PDR Power Sector Vulnerability Assessment and Resilience Action Plan

The Lao PDR Ministry of Energy and Mines used the Power Sector Resilience Planning Process to engage local stakeholders and assess the power sector of the Lao People's Democratic Republic (PDR) vulnerability to natural,

Power Sector Resilience Planning

A Power Sector Resilience Planning Process Guidebook is available on the Resilient Energy Platform website at: <https://resilient-energy.org/>. This guidebook can be used by policymakers, power sector investors, planners, system operators, and other energy-sector stakeholders as a stand-alone resource or shared with participants at stakeholder workshops to facilitate discussions and complete key steps of a power sector resilience planning process.

The guidebook is organized into chapters that guide readers through the resilience planning process as shown below. Each chapter focuses on a specific topic and presents the basic concepts, a brief planning guide, and activities to support planning. These resources facilitate the step-by-step power sector resilience planning process and enables readers to:



technological, and human-caused threats, and to develop a resilience action plan to address the highest-risk vulnerabilities. This participatory approach:

- Emphasizes the unique context of the power sector in Lao PDR
- Relies on extensive stakeholder engagement
- Involves detailed review of the latest scientific research to support a vulnerability assessment
- Draws on international best practices and expert input to develop resilience strategies and implementation action plan for the Lao PDR.



Stakeholders Attending the Final Forum on the Vulnerability Assessment and Resilience Action Plan for the Lao PDR Power Sector held in Vientiane, May 27, 2019

References

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