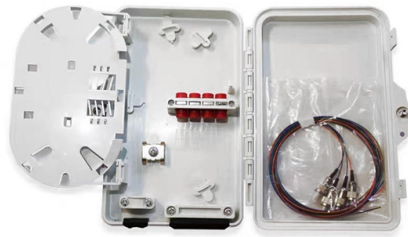


# New Solution for Hybrid Energy Systems in Laos



## Overview

The study, led by Sakhone Sisomboune and published in 'Chemical Engineering Transactions', dives into the potential of hybrid floating photovoltaic (FPV) systems combined with hydropower generation at key sites like the Nam Ngum 1 and Huay Lamphan Gnai dams. The Lao People's Democratic Republic (Lao PDR) is rich in hydropower resources. Thus, it has two. In recent weeks, state utility Électricité du Laos Generation Public Company (EDL-Gen) has inked a partnership to develop floating solar systems, Attapeu province has approved a new 5-megawatt (MW) solar project backed by South Korean investors, and major wind and solar developments have advanced. In a determined push to secure energy stability, Laos is intensifying efforts to expand its electricity infrastructure through ambitious hydropower and solar projects. Electricite du Laos (EDL), the state-owned power corporation, has unveiled plans to launch new energy initiatives and upgrade the. In a country where agriculture is the backbone of the economy, the latest research sheds light on an innovative approach to energy production that could significantly benefit the farming sector in Laos., 2024, Potential Analysis of Hybrid Floating Solar Photovoltaic Systems with Hydropower Electricity Generation in Lao PDR, Chemical Engineering Transactions, 113, 151-156. In 2023 the country population is 7.

## Article Content

Apr 06, 2026

"Small Wind and Hybrid Systems: Opportunities and Challenges"

The new policy approaches, programs, delivery mechanism and business mechanisms suggested for accelerating sustainable energy / renewable energy development in Lao PDR are based on the gap

Dec 28, 2025

Four Policy Briefs for LAO PDR

Lao PDR's energy system is undergoing a transformative transition, as revealed by four brand new Policy Briefs, developed by the OSeMOSYS core group of modellers in Lao PDR.

Dec 05, 2025

Optimizing hybrid energy systems for remote communities in Asia's

In least-developed countries (LDCs), electricity shortages are the primary barrier to economic and social growth. Some remote areas in LDC rely on diesel-based systems. However,

Nov 08, 2025

Techno-economic optimization of hybrid renewable systems for

Abstract This study is focusing on the techno-economic optimization of hybrid renewable energy systems and the energy.

Feb 13, 2026

Management of Hybrid Hydropower and Floating Solar Systems at

The integration of a hybrid hydro-floating solar power (HPP-FPV) system is covered in this study with the goal of improving energy management and producing more electricity.

Sep 13, 2025

Renewable Energy Development Strategy in Lao PDR

Investments in renewable energy projects in Lao PDR, whether on biofuels production, grid-connected or isolated systems, off-grid projects, and individual systems, are entitled to investment incentives

May 06, 2026

Potential of renewable energy technologies for rural electrification in ...

Biomass energy contributes up to 15 % of rural energy use in Indonesia and Thailand, while small hydropower accounts for 20 % of rural generation in Laos and Vietnam.  
Hybrid

Feb 16, 2026

Laos Powers Ahead with Hydropower and Solar Projects for Energy ...

In a determined push to secure energy stability, Laos is intensifying efforts to expand its electricity infrastructure through ambitious hydropower and solar projects.

Jun 20, 2026

Renewable Electricity and Energy Transition in Lao PDR

Ultimately, the existing and planned hydropower fleet places Lao PDR in a unique position to rapidly adopt renewable hydrogen and ammonia as a new and dynamic industry geared to emerging global

Nov 19, 2025

Laos Innovates with Hybrid Floating Solar to Boost Agriculture and

In a country where agriculture is the backbone of the economy, the latest research sheds light on an innovative approach to energy production that could significantly benefit the farming

Jun 14, 2026

Techno-Economic Analysis of Hybrid Renewable Energy

The challenge of providing reliable electricity during power interruptions, especially in rural and remote regions, has prompted the

Feb 12, 2026

A review of hybrid renewable energy systems: Solar and wind

The review comprehensively examines hybrid renewable energy systems that combine solar and wind energy technologies, focusing on their current challenges, opportunities, and policy

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A Clear Path to Net Zero: Transforming Lao PDR's Energy Sector for

The Stockholm Environment Institute has released a new roadmap guiding Lao PDR's energy sector toward net zero emissions, emphasizing clean energy investment and sustainable policies to combat

Sep 16, 2025

Hybrid renewable energy systems for rural electrification in developing ...

This study presents a comprehensive review of state-of-the-art energy systems and spatially explicit modelling approaches aimed at identifying approaches suitable for planning hybrid

Nov 25, 2025

Laos Powers Ahead with Hydropower and Solar Projects for Energy ...

A Forward-Looking Energy Vision EDL's leadership, under Akhomdeth Vongxay, appears confident that the combination of new power projects, grid modernization, and improved

Jul 25, 2025

Challenges, Opportunities, and Recommendations for a Just

Supporting REDD Implementation in Laos Through the Design of a REDD-compliant Benefit Distribution System. Rapid Study supported by a small grant from by the Swedish Environmental Secretariat for

Mar 25, 2026

Hybrid power systems for off-grid locations: A ...

Also, the running cost is comparatively higher and grossly uneconomical. Evidently, the use of a hybrid power system presents some outstanding advantages over power systems based

Oct 28, 2025

Effectiveness of the Hybrid System Combining Hydropower and

This study examined the effectiveness of a hybrid system consisting of hybrid hydropower and FSPV in the Lao PDR. During the dry season, the electricity supply from hydropower plants is inadequate due

Dec 28, 2025

Hybrid Renewable Energy Systems for Off-Grid

Hybrid Renewable Energy Systems (HRESs) are a practical solution for providing reliable, low-carbon electricity to off-grid and remote communities.

Nov 01, 2025

Optimizing hybrid energy systems for remote communities in Asia's

Certainly, remote regions in least-developed countries (LDCs) in Asia, including Cambodia, Laos, Myanmar, and Bangladesh, are not supplied with reliable and clean electrical

Sep 25, 2025

### Potential Analysis of Hybrid Floating Solar Photovoltaic Systems with ...

With a maximum potential of 18 GW of hydropower, Laos aims to provide the nation and the region with sustainable and clean energy. This research aims to investigate the possibilities of

Jan 13, 2026

### Laos-Australia Sustainable Energy Partnership

The Laos-Australia Sustainable profitable energy sector in Laos. This will advance Laos' National Socio-Economic Development Plan, moving towards a Green Economy and supporting Laos' ambitions to

Oct 14, 2025

### Potential Analysis of Hybrid Floating Solar Photovoltaic Systems with ...

This research aims to investigate the possibilities of floating photovoltaic (FPV) systems in Laos, particularly at the Nam Ngum 1 (NNG1) and Huay Lamphan Gnai (HLG) dams.

Feb 25, 2026

### Integrating 100% renewable energy into electricity systems: A net-zero ...

As of 2023 most of primary energy comes from Hydropower (83%), followed by coal (15.4%). Hydropower is a significant resource in Laos changing the supply landscape which previously

Jul 30, 2025

### Plugging into green growth: Towards e-mobility and renewable energy ...

To fill this research gap, this paper presents a study of how the barriers to, and enablers for, e-mobility and renewable energy integration in Lao PDR and the wider Southeast Asian region

Dec 17, 2025

### overview of the existing and future state of the art advancement of ...

This review offers an overview of existing advances in PV-solar and wind-based hybrid energy systems while exploring potential future developments. Further, this review also provides an

Mar 17, 2026

### Hybrid Renewable Energy Systems—A Review of

The growing need for sustainable energy solutions has propelled the development of Hybrid Renewable Energy Systems (HRESs), which integrate

Jan 24, 2026

Laos races to expand renewables as net zero ambitions

These developments come as Laos pursues a more diversified power system. Under the government's National Power Development Strategy for

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