

## EAST ASIA AND PACIFIC REGION – LAO PDR

### Power Grid Improvement Project

#### BACKGROUND

The percentage of the Lao population with access to electricity increased from 15 percent in the mid-1990s to close to 90 percent in 2014. While increasing electrification has been a major success, the power grid is facing new challenges related to the rapid growth in demand for electricity. Over recent years, demand has grown by an average of 13 percent every year.

The main challenges are inefficient transmission and distribution networks – on average, 13 percent of the supply is lost during distribution – and the lack of a nationally connected power transmission grid. In parts of Laos, such as large urban areas where demand can outstrip supply, electricity supply can be unreliable during peak periods.

#### PROJECT DEVELOPMENT OBJECTIVE

To help improve efficiency and reliability of power distribution in the selected load areas served by Electricité du Laos (EDL).

Specifically, this project will work with EDL in a single district - Xaythany district, which lies about 10 kilometers north of Vientiane city center. Xaythany suffered a distribution loss of around 24 percent in 2014. Experience gained from improving the electricity distribution network in this district will be used to scale up improvements to other areas in the future.

#### ACTIVITIES

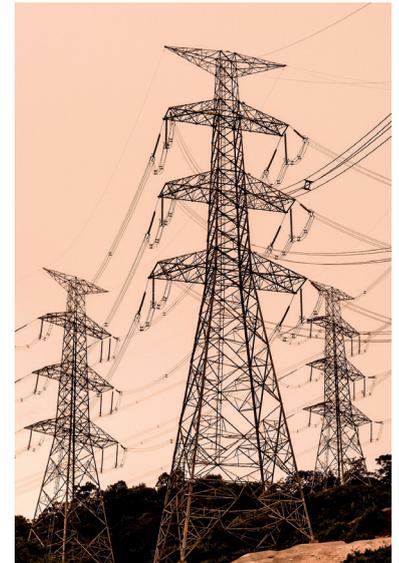
**Component 1** (USD 19 million): *Smart metering, distribution improvement and distribution loss reduction.* This component introduces Advanced Metering Infrastructure technology and digital meters in the project area. Distribution automation and infrastructure improvements will further reduce distribution losses and help improve reliability.

**Component 2** (USD 6 million): *Electric utility information system.* There are three subcomponents:

- Supply and installation of optical fiber communication links to support advanced metering and distribution automation;
- Extension of EDL's Geographic Information System to support power distribution operation and maintenance
- Supply and installation of an updated corporate financial management information system.

**Component 3** (USD 5 million): *Institutional capacity building, for EDL, consultancy, training and project implementation support.*

**Component 4** (USD 0 million): *Contingent emergency response.* This allows a rapid reallocation of project funds from other components to provide emergency recovery and reconstruction support in the event of an adverse natural disaster.



## PROJECT BENEFICIARIES AND BENEFITS

The direct beneficiaries of the project are the approximately **46,000 residential and 1,100 non-residential customers** in Xaythany district. They will benefit from:

- Reduced occurrence and duration of power supply disruptions
- Better quality of power supply (e.g. more stable voltage and frequency)
- Improvement in billing and increased bill payment options.

Indirect beneficiaries include **all EDL customers**, who will benefit from reduced distribution losses, improved quality of supply and improved institutional performance.

## FINANCING AND IMPLEMENTATION ARRANGEMENTS

World Bank / International Development Association credit: **USD 30 million.**

- Implementation period: September 2015 to March 2020 (4.5 years).
- Implementing agency: Electricité du Laos (EDL)

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