

# Chapter 2

## Structure of Energy Statistics Regulations

Ministry of Energy and Mines, Lao PDR

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## Chapter 2

# Structure of Energy Statistics Regulation

### 1. Introduction

The Ministry of Energy and Mines (MEM)–Lao PDR has been working to improve energy policies to achieve its power sector strategy and energy efficiency and conservation goals. It also promotes other policies to ensure that a stable and affordable supply of primary energy – such as coal, oil, and electricity – could be achieved for sustainable economic development. As the country’s GDP per capita has been increasing due to stable economic growth, its energy consumption is also expected to grow, putting pressure on appropriate and effective energy policies for now and the future.

The MEM also recognises that the country’s current energy data and statistics remain delicate, requiring strengthening regulations, procedures, analytical tools, and systematic data collection from concerned agencies and ministries. The MEM also believes that improving energy data and statistics will serve Lao PDR’s policy purpose and improve regional energy cooperation amongst member countries of the Association of Southeast Asian Nations (ASEAN) and other regional and international bodies that require data for policy and analyses. Examples of these are the ASEAN Centre for Energy and the International Energy Agency (IEA)

To facilitate regular collection of energy data on coal, oil, electricity, and renewables from various institutions, ministries, and agencies, the Lao PDR needs an ‘energy statistics regulation’. This will define the legal and organisational bases for agencies to provide the MEM with energy supply-side data as mandated for regular energy data processing and analysis to meet energy policy objectives. In this case, the law or regulation will instruct the MEM as the responsible ministry to collect energy data from concerned institutions, ministries, and agencies. Data owners are obliged to provide data to the MEM on time.

### 2. Review of the Legal Framework for Supporting Energy Data Statistics

Lao Statistics Law no. 03/NA, dated 30 June 2010 and updated in 2017, provides the legal framework on all matters relating to the collection, processing, compilation, analysis, publication, and dissemination of statistical data for the whole Lao PDR. Currently, per said law, the assigned Lao Statistics Bureau (LSB) would work with relevant line agencies, ministries, provinces, and all district administrators of the Lao PDR on four types of statistics: (i) economic statistics, (ii) social statistics, (iii) environment and natural resources statistics, and (iv) security and stability statistics.

Article 18 of the Lao Statistics Law mentions the authority to decide on statistical survey and survey authorisation. The article provides that the Prime Minister approve the statistics census upon the Ministry of Planning and Investment’s request. After that, this minister approves the national sample survey request from the LSB after consulting with line ministries, ministry-equivalent agencies, or concerned sectors. The minister or agency head and governors of provinces and the capital city

approve the subnational sample survey in their sector and province, upon the request of their respective sectors through LSB's certification and technical approval.

Article 19 of the Lao Statistics Law mentions the executing agencies for each type of survey – census and national sample surveys and other specific surveys defined in the Strategic Development of National Statistical System – which the LSB executes in each period. However, the statistics centres based at line ministries, ministry-equivalent agencies, provinces, municipalities, districts, and subdistricts execute sample surveys and specific surveys and/or case studies for their respective sectors and local needs through the certification and technical approval by the LSB. Further, the economic units from concerned ministries can carry out sample surveys or case studies to produce data for their need, but these are not official statistics. Also, international organisations and non-government organisations can carry out statistical surveys. Still, approval from line ministries, ministry-equivalent agencies, or local authorities is required, as defined in Article 18 of the Lao Statistical Law.

However, only economic statistics and environmental and natural resources statistics are relevant to energy data and statistics amongst the four statistical data types. Article 10 on socio statistics refers to data reflecting activities related to population, ethnicity, education, public health, labour, social welfare, information and culture, administrative unit registration, poverty, gender, social security, housing, sports and recreation, social organisation, accident, crime, and other social concerns. Article 11 on environment and natural resources statistics refers to data reflecting environment and natural resources activities. Specifically, these refer to the country's geography, mine, hydrology, topology, disaster, pollution, wastage and waste management to balance environment, natural resources, human and human development, and other statistics relating to environment and natural resources.

Therefore, the Lao Statistical Law provides ample room for line ministries to collect the needed data and information to serve the ministries' purpose. However, the lack of data coordination and data centre in each ministry and agency leads to inconsistent data and data gap at various levels. Thus, improving data collection and empowering data and statistical centres in each ministry and agency are critically important.

### **3. Purpose of Energy Statistics Regulation**

Currently, the flow of data is done on an ad-hoc basis to meet data analysis needs. Thus, MEM Lao PDR will need regular data flow from related ministries and agencies that own the supply data, such as coal production, oil, electricity, and renewables. This is to enable MEM to regularly update the data, publish the energy balance tables, and support energy policy analysis for near-term planning. Thus, energy data and statistics aim to:

- Provide a lead role in developing and maintaining comprehensive national and sectoral statistics for energy production, transformation, and end-use data.
- Produce data to advice policymakers and inform investment decisions.
- Share data as a vital input to meeting regional and international reporting obligations.

The responsible energy data and statistics unit within MEM will:

- Collect, process, and publish energy statistics to support policy analysis.
- Conduct statistical and economic analyses of the energy services sectors and sustainable energy options.
- Contribute to the development and promulgation of appropriate sustainability indicators.
- Provide timely and reliable statistics essential to monitor the energy situation.

The MEM will need to strengthen its Lao Energy Data and Statistics Unit's capacity and implementation. The energy statistics regulation will be required to be the legal basis to facilitate this core function's implementation, and get all ministries and agencies involved to comply with the regular data-sharing obligation to the MEM.

The following key elements of energy data collection from energy market players are necessary and mandatory:

- 1) The MEM should designate market players of coal, oil, electricity, and biomass for mandatory data collection and acquisition. The designated market players must register with the Ministry of Industry and Handicrafts for compulsory data sharing.
- 2) Data collection and acquisition from designated market players should follow the frequency of data availability – daily, weekly, monthly, and yearly. As the first step in data collection and acquisition, annual data should first be collected.
- 3) The period of data collection is suggested to follow the fiscal year. For instance, if Lao PDR's fiscal year is January to December, data collection from April to May is appropriate.
- 4) The dissemination of the collected energy data and publications needs to be released on the website after the data is validated and analysed.
- 5) The MEM must produce national energy statistics (energy balance tables) based on collected energy data. The MEM needs to analyse the data and disseminate the results within 2 months after it has collected energy data.

#### **4. Energy Data Collection and Penalty**

Energy data collection covers both supply and demand. However, this data collection regulation will focus only on supply-side data to regularly update energy balance tables for energy analysis and planning. However, despite data collection and acquisition are working well in MEM, further data collection from the demand side will be needed to understand the energy consumption behaviour of the residential, commercial, and industry sectors. Then, the MEM can craft the right energy policy for energy efficiency and saving. The supply-side data collection will cover coal, oil, electricity, and renewables.

The data collection format for coal, oil, electricity, and renewables is provided in Chapters 3, 4, 5, and 6. The MEM must ensure that these data are useful for the ministry and all concerned stakeholders, and all data owners should share data regularly. In this regard, the MEM should regularly publish energy data information and energy analysis by supply and demand and share it with stakeholders. The MEM should also regularly hold meetings to update the stakeholders and design more detailed data collection as data becomes available in involved ministries and agencies.

The Prime Minister should sign the energy statistics regulation so that inter-ministries and agencies that own the data will provide data on time. The MEM should identify companies, agencies, and ministries that own supply-side energy data and ask them to supply data to the MEM on time. The MEM should hold technical meetings to clarify the data collection form to ensure data providers from line agencies understand it. The regulation will need to provide enforcement and penalty for agencies that fail to comply with this regulation.

## **5. Proposed Actions and Collaboration for Data Collection and Acquisition**

Worth exploring are the experiences of the Asia-Pacific Economic Cooperation (APEC) economies in energy data collection, analyses, and dissemination. In some APEC countries, such as Japan, Indonesia, Thailand, and the United States, their energy ministry collects energy data. In others, such as Canada, China, and Russia, the National Statistical Office performs such task.

The Lao Statistical Law provides the legal framework for the MEM to set up sectoral statistical units to collect, compile, analyse, publish, and publicly disseminate data and information such as 'energy statistics and mineral resources statistics' in coordination with the LSB. However, the current statistical unit within the MEM needs support to make it a full functioning unit soon. The Lao Energy Data and Statistics Unit in the Department of Planning and Cooperation (DPC) needs to be empowered with effective coordination, policy, and institutional support, including the following:

- **Institutional and data collection coordination**

- Collaborate with the LSB as it has a well-established structure of administrative data collection from line agencies. The first step is to hold an official meeting with the LSB to see how energy data statistics can be collected from line agencies. It is essential to clearly define the types of energy data to be collected. The next step is to have a well-designed energy data collection format for discussion with the LSB and relevant agencies, such as the Ministry of Public Works and Transport, Ministry of Industry and Commerce, Ministry of Finance, Lao State Fuel Company, Électricité du Laos, etc.
- The DPC has designated staff for the statistics centre. Thus, empowering this existing unit to collect data regularly and get data suppliers to comply is necessary. The DPC will need to work with the LSB to acquire data from all involved stakeholders, including state-owned petroleum import companies and other agencies and sectors using intensive energy.
- The DPC may work with the Department of Energy, Policy and Planning. The DPC may also work with departments within the MEM to collect data, particularly the Department of Mineral Management, Institute of Renewable Energy Promotion, Department of Geology and Mines, etc.

- **Technical capacity building and budgets**

- There are capacity constraints in processing, analysing, and publishing the data after it is collected. Therefore, capacity building is needed to train the staff to handle the energy data and statistics.

- The DPC may continue to request ERIA's support to strengthen further the design of petroleum product specifications and downstream the legal framework, regulation, policy, and procedures.
  - The DPC may continue to seek ERIA's technical advice and lead a regular technical high-level working group on energy statistics.
  - The Energy Statistical Unit should have clear financial support and budget for its daily core functions – surveys, data collection and coordination, and capacity building.
  - Maintain staff, update knowledge, and improve analytical skills. The Energy Statistical Unit may aim for a series of publications (monthly, quarterly, and yearly statistics). The unit may also seek to produce the Lao energy outlook and other energy-specific papers to support policy formulation.
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- **Lao energy data and statistics unit or centre**
    - The DPC may act as the energy data centre by linking all concerned stakeholders to share, collect, and update data.
    - Equip the DPC, as an energy data centre, with hardware and software (computer, software, staff).