# **PERU**

## **ENERGY EFFICIENCY GOALS**

### 1. GOVERNMENT POLICY ON ENERGY EFFICIENCY

In November 2010, the National Energy Policy was approved. It contains nine objectives with their respective policy guidelines. Some of the key objectives are:

- To have a diversified energy matrix, with an emphasis on energy efficiency and renewable energy.
- To improve efficiency in the production chain and use of energy.
- To develop an energy sector with minimum environmental impact and low carbon emissions within a framework of sustainable development.

In 2000, the government passed the Law for the Promotion of the Efficient Use of Energy. Consistent with this legislation, in 2007, the Supreme Decree (DS) No. 053–2007–EM, regulation of the law of the efficient use of the energy was issued. The Peruvian Government then created significant initiatives to support energy efficiency. These included DS–No. 034–2008–EM of 19 June 2008 (Energy Saving Measures in Public Services), and RM No. 038–2009–MEM/DM of 21 January 2009 (Energy Consumption Indicators and their Monitoring Methodology). The DS–No. 034–2008–EM was replaced by the DS–No. 04–2016 of February 2016, through which, the Peruvian Government promoted energy-saving measures in the public sector, such as replacing less-efficient incandescent lamps with compact fluorescent lamps and acquiring equipment with energy efficiency labels. Through DS 09-2017 of April 2017, the Technical Regulation on the Energy efficiency labelling for energy equipment was approved.

## 2. ENERGY EFFICIENCY STRATEGY

To meet the objectives set out in the National Energy Policy, the following strategies on energy efficiency were developed:

- Define the energy matrix based on integrated planning of resource development and establish mechanisms for its implementation.
- Incorporate energy efficiency as part of the energy matrix.
- Form a culture of efficient use of energy through the transfer of information, dissemination and education.
- Achieve specific quantifiable targets for energy efficiency as part of national energy policy.
- Achieve high levels of energy efficiency compatible with international standards and foster certification bodies.

- Involve companies of the energy sector and users in energy efficiency programmes through incentive mechanisms and incentives.
- Achieve automation of supply and demand management through intelligent technological systems
- To create an energy efficiency centre as a decentralised entity dependent on the sector, responsible for promoting the efficient use of energy.

#### **FUNDING**

No information.

#### LINKS

National Energy Policy: http://www2.osinerg.gob.pe/MarcoLegal/docrev/DS-064-2010-EM-CONCORDADO.pdf

## 3. ENERGY EFFICIENCY ACTION PLAN

In 2009, the Ministry of Energy and Mines presented the Benchmark Plan for Efficient Use of Energy from 2009 to 2018. This plan outlined various projects that would be implemented in the industry through 2018 with potential energy savings of 15% compared to a scenario without energy efficiency measures. This plan calls for the replacement of lighting systems, boilers and engines, as well as implementation of a labelling scheme for computers. To date, the implementation plans have been delayed due to a shortage of audit firms and a lack of incentives.

#### **FUNDING**

From 2009 to 2010, a programme to replace 1.5 million incandescent lamps with saving lamps was carried out with fiscal funding. In order to reduce energy consumption and greenhouse gas emissions, the following projects have been conducted and supported by the United Nations:

- With support from the United Nations for Development (UNDP), between 2013 and 2017, the Energy
  Efficiency Standardisation and Labelling Project has been developed. One of the results was the
  elaboration and approval of the Technical Regulation of Labelling.
- Since 2013, with the support of the United Nations Environment Programme (UNEP), the Transformation of the Lighting Market project is being developed.
- Since 2016, a project has been undertaken to design Nationally Appropriate Mitigation Actions (NAMA) in end use of energy and renewable energy, for the connected system and isolated systems.

## LINKS

Energy efficiency under the Ministry of Energy and Mines: <a href="http://www.minem.gob.pe/">http://www.minem.gob.pe/</a> <a href="sector.php?idSector=12">sector.php?idSector=12</a>

## 4. ENERGY EFFICIENCY, INTENSITY OR EMISSIONS REDUCTION TARGETS

Peru has made a commitment to COP 21 to reduce its emissions by 2030 (Intended Nationally Determined Contributions), through a series of measures, including energy efficiency measures.

#### **LINKS**

http://www.minam.gob.pe/wp-content/uploads/2015/12/Informe-T%C3%A9cnico-Final-CM- -R-S-129-2015-PCM Secretar%C3%A9cnica-18-09-2015-vf.pdf

## 5. SECTORAL ENERGY EFFICIENCY TARGETS

Not applicable.

#### 6. LEAD ENERGY EFFICIENCY INSTITUTIONS

The General Directorate of Energy Efficiency (DGEE), under the Ministry of Energy and Mines.

### INSTITUTIONAL SETTINGS AND RESPONSIBILITIES

In 2010, the Peruvian Government created the DGEE as a part of the Ministry of Energy and Mines. The mission of the DGEE is to identify, develop, promote, implement and spread the technologies, process, renewable energies and patterns of consumption to improve the efficiency and energy sustainability in the economy.

The main goals of the DGEE are:

- To reduce energy intensity by promoting the best use of energy, use of renewable resources, energy savings and generating a culture of energy efficiency without affecting social welfare; and
- To make compatible the use of energy with environment preservation.

#### STAFF AND BUDGET

The agency has about 13 professionals – 5 dedicated to energy efficiency and renewable energy promotion, 6 dedicated to energy planning and others for administrative issues. The budget of the agency is approximately US\$1.1 million.

#### **BUDGET USE**

The budget provides remuneration of management personnel, consultants to carry out studies to design energy efficiency programmes or determine the inventory of renewable energies, conducting educational and demonstrative campaigns on energy efficiency, and training, among others.

## LINKS

Energy efficiency under the Ministry of Energy and Mines: <a href="http://www.minem.gob.pe/">http://www.minem.gob.pe/</a> sector.php?idSector=12

### 7. OTHER ENERGY EFFICIENCY AGENCIES

Measures of eco-efficiency developed by the Ministry of the Environment, directed to the entities of the public sector.

The Ministry of Housing, Construction and Sanitation has approved the technical code for sustainable construction.

#### **LINKS**

Summary of the technical code:

http://msi.gob.pe/portal/wp-content/uploads/2016/06/2016.11.4.-C%C3%B3digo-T%C3%A9cnico-de-Construcciones-sostenibles.pdf

Official publication of technical code:

http://www3.vivienda.gob.pe/dnc/archivos/Estudios Normalizacion/Normalizacion/normas/DS%20015-2015-VIVIENDA.pdf

### 8. ENERGY EFFICIENCY INFORMATION DISSEMINATION

- The website of the Ministry of Energy and Mines.
- Campaigns of diffusion using demonstrative equipment in schools, fairs, public squares, etc.
- Campaign of diffusion denominated "The tunnel of the energy", by radio and television.

#### **LINKS**

Energy efficiency under the Ministry of Energy and Mines: <a href="http://www.minem.gob.pe/">http://www.minem.gob.pe/</a> <a href="sector.php?idSector=12">sector.php?idSector=12</a>

News release on campaign: http://www.minem.gob.pe/ detallenoticia.php?idSector=12&idTitular=7895

"The tunnel of the energy" campaign: <a href="https://www.youtube.com/watch?v=LYqV7U1YHDw">https://www.youtube.com/watch?v=LYqV7U1YHDw</a>

## 9. ENERGY EFFICIENCY AWARENESS RAISING

Awareness raising programmes overlap with the information dissemination efforts outlined above.

## 10.GOVERNMENT SUPPORTED ENERGY EFFICIENCY TRAINING

No information.

## 11. PRIVATELY OPERATED TRAINING

No information.

## 12. GOVERNMENT SUPPORTED RESEARCH & DEVELOPMENT

No information.

## ENERGY EFFICIENCY MEASURES

#### 13. COLLECTION AND MONITORING OF ENERGY EFFICIENCY OUTCOMES

The General Directorate of Energy Efficiency is in charge of establishing the indicators of energy consumption.

Information is collected annually for the compilation of the National Energy Balance. From 2013 to 2015, a survey was carried out which underpinned the first National Balance of Useful Energy report, realised in January 2017. So far, two studies of energy consumption habits have been carried out, a study of the residential sector in 2008 and a study of the production and services sector in 2012.

#### LEGAL POWER

The legal basis for collecting statistical information is Supreme Decree No. 043-2001-PCM, which approves the Regulation of Organisation and Functions of the National Institute of Statistics and Informatics, establishing the power to obtain information from public and private entities.

#### LINKS

National Balance of Useful Energy:

http://www.minem.gob.pe/publicacion.php?idSector=12&idPublicacion=540

Supreme Decree No. 043-2001-PCM: <a href="ftp://ftp2.minsa.gob.pe/descargas/ogei/SINADEF/DS-043-2001-PCM.pdf">ftp://ftp2.minsa.gob.pe/descargas/ogei/SINADEF/DS-043-2001-PCM.pdf</a>

### 14. EVALUATION OF ENERGY EFFICIENCY PROGRESS OR POTENTIAL

No information.

## 15. SELF-EVALUATION OF ENERGY EFFICIENCY PROGRAMMES

No information.

### 16. CROSS-SECTOR ENERGY EFFICIENCY INITIATIVES

## Nationally Appropriate Mitigation Actions on End Use Energy and Renewable Energy.

#### **OBJECTIVE**

The project will contribute to the achievement of the objectives established through the planned and determined contributions at the national level (INDC) communicated to the United Nations Framework Convention on Climate Change.

The expected direct reduction of CO2 emissions from the project would be approximately 962,000 tonnes of CO2 equivalent, and indirect emissions around 1,600,000 tonnes of CO2 in 10 years.

#### **OUTLINE**

The project is financed by the Global Energy Find (GEF) for US\$ 4.5 million and is co-financed by Peruvian agencies for US\$ 32 million.

## Components:

- Baseline Greenhouse Gas Emissions Business-as-usual scenario.
- Mitigation options for the energy generation and end use.
- Implementation of NAMAs in selected sub-sectors.
- MRV system and national registry of mitigation measures in the energy generation and end use sector.

#### LINKS

Under construction.

## 17. INDUSTRY ENERGY EFFICIENCY INITIATIVES

No information.

### 18. TRANSPORT ENERGY EFFICIENCY INITIATIVES

No information.

### 19. BUILDING ENERGY EFFICIENCY INITIATIVES

## **Energy Efficiency Labelling**

#### **OBJECTIVE**

The Energy Efficiency Label will provide information on the energy consumption of energy equipment so that users can make a better decision at the time of purchase. Reducing energy consumption will prevent the construction of thermal power plants and reduce CO2 emissions, enhancing energy security and environmental sustainability. It also seeks to promote business competitiveness, and upgrade energy equipment to the most efficient technologies, such as LED lamps.

#### **OUTLINE**

Regulatory framework is provided by the Law No. 27345, Law of Promotion of the Efficient use of the Energy and the National Energy Policy of Long Term (2010-2040). Labelling is required for the following items:

- Electric engines
- Washing and drying machines
- Boilers
- Water heaters
- Lamps

- Air Conditioners
- Refrigerators

### LINKS

http://etiquetaenergetica.minem.gob.pe/

### 20. ENERGY EFFICIENCY COOPERATION

### COOPERATION AGREEMENTS WITH OTHER ECONOMIES OR ORGANISATIONS

There is an agreement between the Ministry of Energy and Mines of Peru and Korea Energy Management Corporation (KEMKO). The objective is to promote energy efficiency by undertaking related programmes and or projects. The scope of this agreement includes technology transfer and technical efficiency, system supervision and programmes, projects or activities monitoring to be created within the scope of the framework agreement, financing and/or investment mechanism for energy efficiency projects, energy audits for productive sectors and others.

### BILATERAL, REGIONAL OR MULTILATERAL COOPERATION AGREEMENTS

Peru is one of the economies of Asia-Pacific Economic Cooperation.

**LINKS** 

Not available.

## 21. OTHER ENERGY EFFICIENCY EFFORTS

No information.