

# VIET NAM

## ENERGY EFFICIENCY GOALS

### 1. GOVERNMENT POLICY ON ENERGY EFFICIENCY

The first decree on energy efficiency and conservation was issued in 2003. In June 2010, the Law on Economical and Efficient Use of Energy (No. 50/2010/QH12) was promulgated to promote economical and efficient use of energy, and states the rights, obligations and responsibilities of organizations, households and individuals in economical and efficient use of energy. The Law covers all areas of the economy, including industry, construction and public lighting, transport, agriculture, service and households, across state-funded investment projects and agencies.

A summary of five-year implementation results in 2015 showed that the Law has enabled up to 85% of the population the accessibility to energy saving knowledge and awareness, energy saving at 6% (equivalent to 11.88 Mtoe) and at least 10,000 products are qualified with energy labels. However, due to several unimproved challenges, the legal frameworks are being proposed to be amended.

### 2. ENERGY EFFICIENCY STRATEGY

The Government released the Decree No. 21 in 2011 to detail the 2010 Law. This Decree provides statistical work on energy use; identification of major energy users; economical and efficient use of energy in state budget-funded agencies and units; energy labelling of energy-consuming devices and equipment; measures to promote economical and efficient use of energy; and examination and inspection of economical and efficient use of energy.

Besides, Decree No. 134 in 2013 is a supporting document regulating penalties in energy efficiency and conservation. It defines acts of violation, form, rate of fine, remedial measures, procedures and authority to sanction administrative violation in the field of electricity, safety of hydroelectric dam, thrifty and effective use of administrative that are not crimes.

#### FUNDING

Not applicable.

#### LINKS

Decree No. 21:

[http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class\\_id=1&mode=detail&document\\_id=99634](http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=1&mode=detail&document_id=99634)

Decree No. 134:

[http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class\\_id=1&mode=detail&document\\_id=170275](http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=1&mode=detail&document_id=170275)

### 3. ENERGY EFFICIENCY ACTION PLAN

In 2005, the Ministry of Industry and Trade (MOIT) released the National Strategic Programme on Energy Savings and Effective Use (Vietnam National Energy Efficiency Programme, (VNEEP)) for 2006–2015. The programme aims to remove barriers and create breakthrough changes in improving end-use efficiency. The areas of are Industrial manufacturing; large energy-consuming buildings; transportation; services, household; popularization of energy saving, high performance equipment and facility. The programme expects to achieve the goal of total energy saving in the whole economy and in large energy consuming individual sectors, bring social and economic benefits; contribute to reduced investment in energy supply system development, ensure energy security, environmental protection; rational exploitation of energy resources, and sustainability for socio-economic development.

The VNEEP is the first-ever long-term comprehensive plan to institute measures for improving energy efficiency and conservation in all sectors of the economy in Vietnam. By end 2015, roughly 20 legal documents related to energy efficiency have been issued. The third phase (2016-2020) is under proposal (updated: June 2017).

#### FUNDING

Total funding of the programme is 930 billion VND (phase 2), from

- Central budget funding: 350 billion VND, consisting of:
  - Development investment funding: 80 billion VND;
  - Operation funding: 270 billion VND.
- Local budget funding: 300 billion VND
- Capital funding from international organizations and foreign countries: 180 billion;
- Others: 100 billion.

Besides, Joint Circular No. 45/2014/TTLT-BCT-BTC-BKHDT gives guidance on management and use of the state budget for implementation of the national target programme on energy saving and efficiency for the period 2012 -2015.

#### LINKS

The approval of VNEEP, the newest version Decision No. 1427:

[http://www.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?mode=detail&document\\_id=163946](http://www.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?mode=detail&document_id=163946)

Programme's website:

<http://vneec.gov.vn/> or <http://tietkiemnangluong.com.vn/>

Joint Circular No. 45/2014

[http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class\\_id=1&mode=detail&document\\_id=178494](http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=1&mode=detail&document_id=178494)

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

Under VNEEP, an energy savings goal of 3%–5% of the total energy demand (compared to business-as-usual (BAU)) during 2006–2010 and 5%–8%, equivalent to 11 million TOE to 17 million TOE in the period 2012-2015. In reality the percentage of saving is up to 6% after five years. New target for 2016-2020 is now under proposal. (Decision No. 1427)

##### LINKS

[http://www.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?mode=detail&document\\_id=163946](http://www.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?mode=detail&document_id=163946)

#### 5. SECTORAL ENERGY EFFICIENCY TARGETS

1) Extensive use of high-performance equipment to replace low-performance equipment; and remove obsolete equipment and technology. Application of advanced technical standards and norms in order to improve energy efficiency in production and business activities of enterprises; achieve at least 10% of reduction in energy intensity over 2011 levels in energy-intensive industries of which:

- Steel: Reduce the average energy consumption for the production of 01 ton of steel components from 179 kgoe in 2011 to 160 kgoe in 2015;
- Cement industry: Reduce the average energy consumption for the production of 01 ton of cement from 97 kgoe in 2011 to 87 kgoe in 2015;
- Textile and apparel industry: Reduce the average energy consumption for the production of 01 ton of fibre in 2011 was 773 kgoe to 695 kgoe in 2015.

2) Implementation of mandatory management in compliance with Vietnamese Construction Standards "Energy efficiency construction buildings" from 2012, for 100% of new or renovated buildings within the scope of the Standards. Deployment of energy saving technology solutions in public lighting, application of high-performance lighting, energy saving for 100% of the new public lighting;

3) Development of transportation system to meet the transport demand with increasingly high quality, save fuel and reduce environmental pollution. Reinforce the application of new technologies, renewable energy to replace traditional fuels in transportation. Strive to have public transport in 2015 meeting 10 - 15% of travel demand in large urban areas.

##### LINKS

[http://www.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?mode=detail&document\\_id=163946](http://www.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?mode=detail&document_id=163946)

#### 6. LEAD ENERGY EFFICIENCY INSTITUTIONS

Energy Efficiency Office (EECO)

##### INSTITUTIONAL SETTINGS AND RESPONSIBILITIES

Under the General Directorate of Energy of the Ministry of Industry and Trade (MOIT), the EECO was established in 2006 and designated as the driving agency for energy efficiency at governmental level. The office is responsible for coordinating and implementing projects and activities for energy efficiency and conservation,

including communications and awareness raising. EECO is in collaboration with a number of specialized institutions (such as the Institute of Energy, energy conservation centres (ECCs) and technical universities) and social organizations (such as the Vietnam Women Union, Vietnam Union of Science and Technology Association) in Vietnam, in order to develop systems in central and local governments to carry out the work of VNEEP.

Since its establishment, the EECO has completed preparatory tasks, including the formulation of action plans and detailed programmes required to launch and implement the VNEEP in cooperation with other governmental organizations.

At the level of implementing agencies, the following main agencies have been carrying out energy efficiency related programmes:

- People's Committee of Provinces and Cities (under central management).
  - Develop local policies on energy conservation and effective uses.
  - Coordinate the implementation of projects in local areas.
- Energy Efficiency Centres in large cities such as Hanoi, Tien Giang, HCM City, Phu tho, Dongthap, Haiphong, and Danang.
- Institute of Energy (IE).
- Vietnam Standards and Quality Institute (VSQI)—STAMEQ (MOST).
- Electricity of Vietnam (EVN).
- Other agencies under different ministries.

#### STAFF AND BUDGET

The Steering Committee of VNEEP, includes 12 representatives from various ministries and chaired by the Minister of MOIT. The Director of the Department of Science, Technology and Energy Efficiency in GDE reports about its activities.

#### BUDGET USE

Daily budget is not available.

#### LINKS

Website of Vietnam National Energy Efficiency Programme:

<http://vneec.gov.vn/> or <http://tietkiemnangluong.com.vn/>

Environmental and Social Management Framework under the Vietnam National Energy Efficiency Programme:

<http://documents.worldbank.org/curated/en/958671468135015942/pdf/SFG1550-EA-P151086-ESMF-Box393258B-PUBLIC-Disclosed-11-23-2015.pdf>

## 7. OTHER ENERGY EFFICIENCY AGENCIES

Other related ministries, such as the Ministry of Science and Technology, the Ministry of Construction, the Ministry of Transport, the General Statistics Office, the People's Committee (at the provincial level), etc., are responsible for coordinating with the MOIT in implementing the state management of energy efficiency and conservation in the provinces and sectors. In addition to the leadership of MOIT, the Steering Committee of VNEEP comprises representatives from:

- Ministry of Information and Communications
- Ministry of Planning and Investment
- Ministry of Finance
- Ministry of Transport
- Ministry of Education and Training
- Ministry of Construction
- Ministry of Environment and Natural Resources
- Viet Nam Union of Science Technology Associations

Other than Ministries, the Vietnam Energy Conservation and Energy Efficiency Association (VECEA) was established in 2011 under a decision of Ministry of Home Affairs. The association involves all individuals and organizations that do any management, research, training, manufacturing, service concerning energy efficiency and conservation with a common goal of disseminating knowledge and discussing about related issues. Quite a few English translation of legal documents can be found on its website.

### LINKS

VECEA: <http://beta.vecea.vn/>

## 8. ENERGY EFFICIENCY INFORMATION DISSEMINATION

VNEEP and EVN are active website-based channels for dissemination of energy saving campaigns. There are also a number of other websites containing information energy efficiency improvement from the EEC HCM Centre, the EE Hanoi Centre, etc. Information on energy efficiency improvement is also reported in the five-year summary of the programme implementation. All television channels have programmes with energy saving content.

One of the most prominent activity that gains attention of the public is Earth Hour Vietnam. Vietnam joined the WWF campaign Earth Hour since 2009 and the campaign gained economy-wide popularity since 2013. It is initiated by MOIT and sponsored by various parties, including EVN. All cities and provinces are encouraged to turn off electrical devices for an hour or more in the evening (usually on one chosen day in March). 2017 Earth Hour campaign in Vietnam was with the message "Lights off to turn on the future" while 2016 was "Small Action, Big Impact". It is reported to save 451.000 kWh in 2016 after the campaign.

## LINKS

EVN: <http://www.evn.com.vn/c3/pages-c/An-toan-Tiet-kiem-dien-6-18.aspx> or

<http://tietkiemnangluong.vn/c3/pages-c/EVN-voi-cong-dong-111-135.aspx>

VNEEP: <http://vneec.gov.vn/> or <http://tietkiemnangluong.com.vn/>

Earth Hour: <http://giotraidat.vn/> or <http://earthhour.vn/>

## 9. ENERGY EFFICIENCY AWARENESS RAISING

Under Decision No. 1427, Project 1 is named “Strengthening education, information dissemination, community mobilization, awareness raising, promoting the use of energy efficiency and conservation, environmental protection”. The Project consists of three components:

- Dissemination and awareness raising on energy efficiency and conservation to the people.
- Embed energy efficiency and conservation in the national education system.
- Create a pilot model of large-scale alternative energy forms and energy saving model family.

Estimated budget is up to 220 billion VND.

## LINKS

<http://tietkiemnangluong.vn/d6/news/Tang-cuong-giao-duc-van-dong-cong-dong-su-dung-nang-luong-tiet-kiem-va-hieu-qua-123-119-2205.aspx>

## 10. GOVERNMENT SUPPORTED ENERGY EFFICIENCY TRAINING

Apart from Project 1 under Decision No. 1427 which the Ministry of Education and Training is responsible for, there is no economy-wide movement or course/degree available.

However, a wide range of different training courses, workshops, the publishing of technical documents for energy efficiency knowledge, and assessments addressing all six components are being developed and implemented under the VNEEP. These include training courses on energy auditing, publishing a guidebook on energy efficiency, and capacity building for EEC centres. Most of these activities are scheduled to be completed in the first phase of the programme (2006-2011).

Training courses have also been developed under the VNEEP for the construction and design of energy-efficient buildings, enhancing capacity for facility management on the energy efficiency of local industry department leaders, and energy managers.

## LINKS

<http://tietkiemnangluong.com.vn/tin-tuc/hoat-dong-chuong-trinh/t7858/giao-duc-su-dung-nang-luong-tiet-kiem-va-hieu-qua-trong-truong-hoc.html>

## 11. PRIVATELY OPERATED TRAINING

No information.

## 12. GOVERNMENT SUPPORTED RESEARCH & DEVELOPMENT

Vietnam has no specific policy for the support of energy efficiency R&D. However, some measures of the VNEEP encourage R&D in this area. Decision No. 1427 points out five solutions for implementing VNEEP:

- Selectively invest in strengthening capacity for energy design consultancy, testing, audit organizations.
- Integrate the research content of energy efficiency and conservation with State science and technology programme for the period 2011 – 2015.
- Investment in training and capacity building for managers, particularly for local authorities and designated energy using businesses on energy efficiency and conservation.
- Investment in communication, information, advocacy, education and community awareness raising of energy saving.
- Programme Steering Committee to cooperate with other ministries, in proposing topics for developing new technology for energy saving products, developing policies energy efficiency and conservation through annual science and technology funding of the ministries.

The importance of R&D in energy efficiency improvement was also spelled out earlier in the Decision No. 1855/QD-TTg on Vietnam's national energy development strategy to 2020, with a 2050-vision; and Decree on Energy Conservation and Energy Efficiency (102/2003/ND-CP).

However, to date, there are no specific actions developed in accordance with the measures stipulated in the above documents.

### LINKS

Not available.

## ENERGY EFFICIENCY MEASURES

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

While EECO is in charge of energy efficiency, some sector-based information are managed by other ministries, for example, details of building constructions are collected by Ministry of Construction and some technical data are analysed by Institute of Energy.

### LEGAL POWER

Not available.

## LINKS

Not available.

## 14. EVALUATION OF ENERGY EFFICIENCY PROGRESS OR POTENTIAL

Every five years, an economy-wide workshop on energy efficiency is conducted to summarize the activities, in line with VNEEP scheme and energy efficiency law. The latest workshops were carried out in 2015 (for VNEEP) and 2016 (for the Law).

## LINKS

Five year summary of Law implementation:

<http://tietkiemnangluong.com.vn/trang-chu-video.html?VideoId=25978>

<https://www.most.gov.vn/vn/tin-tuc/9307/hoi-nghi-tong-ket-5-nam-trien-khai-luat-su-dung-nang-luong-tiet-kiem-va-hieu-qua.aspx>

Five year summary of VNEEP implementation (in each region: Northern 18.11, Central 31.7, Southern 30.10):

<http://nangluongsachvietnam.vn/d6/news/Hoi-nghi-5-nam-trien-khai-chuong-trinh-MTQG-ve-su-dung-nang-luong-TKHQ-giai-doan-2011-2015-tai-khu-vuc-mien-Nam-6-18-129.aspx>

[https://www.cpc.vn/home/TTuc\\_Detail.aspx?pm=ttuc&sj=TK&id=15133](https://www.cpc.vn/home/TTuc_Detail.aspx?pm=ttuc&sj=TK&id=15133)

<http://www.baoxaydung.com.vn/news/vn/xa-hoi/nhi-n-la-i-5-nam-trien-khai-chuong-trinh-su-dung-nang-luong-tiet-kiem-hieu-qua.html>

## 15. SELF-EVALUATION OF ENERGY EFFICIENCY PROGRAMMES

As described above.

## 16. CROSS-SECTOR ENERGY EFFICIENCY INITIATIVES

### **Energy labelling**

#### OBJECTIVE

Energy labelling is a MEPS and a mandatory process to a list of equipment and appliances since 2013.

#### OUTLINE

The 2013 scheme put refrigerators, fans, washing machines, rice cookers, TVs, lighting equipment: CFLs, TFLs, electronic ballasts, air conditioner, three-phase electric motors and transformers on the mandatory list.

In 2017, more devices and equipment subject to energy labelling, including LED lights, water heaters with reserve, laptops, and passenger cars of more than 7 seats to 9 seats, motorcycles, and mopeds. Compulsory energy labelling shall be conducted from 2020 for LED lights, water heaters with reserve, laptops, motorcycles, mopeds and from 2018 for passenger cars of more than 7 seats to 9 seats. Road map for application of the MEPS to LED lights, water heaters with reserve, laptops shall be prescribed later by the Prime Minister.



## LINKS

MEPS: <http://nhannangluong.com/home>

## 17. INDUSTRY ENERGY EFFICIENCY INITIATIVES

**Energy saving equipment [Under Decision No. 1427]**

## OBJECTIVE

Extensive use of high-performance equipment to replace low-performance equipment; and remove obsolete equipment and technology. Application of advanced technical standards and norms in order to improve energy efficiency in production and business activities of enterprises; achieve at least 10% of reduction in energy intensity over 2011 levels in energy-intensive industries of which:

- Steel: Reduce the average energy consumption for the production of 01 ton of steel components from 179 kgoe in 2011 to 160 kgoe in 2015;
- Cement industry: Reduce the average energy consumption for the production of 01 ton of cement from 97 kgoe in 2011 to 87 kgoe in 2015;
- Textile and apparel industry: Reduce the average energy consumption for the production of 01 ton of fibre in 2011 was 773 kgoe to 695 kgoe in 2015.

## OUTLINE

Under Decision No. 1427, Project 2 is named "Development and dissemination of high-performance, energy-saving equipment, gradual phase out of low-performance equipment". Project consists of four components:

- Develop energy performance standards and implement mandatory energy labelling programme.
- Provide technical assistance to manufacturers, assembly factories, importers, retailers of high-performance products and to testing laboratories of energy performance in the economy.
- Support businesses in the application of standards, technical norms, improve performance for better energy efficiency and conservation.
- Develop energy management standards and model in energy using facilities.

## LINKS

[http://www.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?mode=detail&document\\_id=163946](http://www.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?mode=detail&document_id=163946)

**Circular on solutions for economical and efficient use of energy in industries, No. 02/2014/TT-BCT (apart from No. 1427)**

## OBJECTIVE

This Circular mostly applies to industrial producers prescribed in Article 9 Clause 1 of the Law (Decision No. 50/2010/QH12) and regulates:

- Economical and efficient use of energy in general industrial processes.
- Management and solutions for economical and efficient use of energy in chemical industry

## OUTLINE

The Circular has detailed regulations on general processes, including the economical and efficient use of energy in combustion processes, heat supply and cooling system, conditioning system and hot water supply, electrical engines and compressed air system. It also regulates the use of heat waste from system of combustion, heat supply and heat transfer, power lost protection, lighting technology and management in plants and offices of enterprises. Besides, the Circular has specific articles for regulating levels of energy consumption and expected improvement in industries, especially in chemical industry. Detailed numbers can be found in the Appendix of the Circular.

## LINKS

[http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class\\_id=1&mode=detail&document\\_id=172384](http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=1&mode=detail&document_id=172384)

## Clean production and Energy Efficiency Project

### OBJECTIVE

The project was approved by MOIT and the World Bank in 2011 and sponsored by GEF. It is to strengthen the capacity of the Government of Vietnam and other key stakeholders for the effective delivery of the national energy efficiency programme in key industrial sectors (such as chemical, beverages, paper, plastic, textile, ceramics and ESCO), thereby improving energy efficiency and reducing associated greenhouse gas emissions. Project's duration is five years: 2011-2016.

### OUTLINE

Three components were designed:

- Component 1: Energy Efficiency Action Plans for Key Industrial Sectors. This component involves a two-stage approach composed of the following elements:
  - Formulation of energy efficiency strategy and action plan for energy-intensive and high-growth industry sectors, charting the course for setting long-term goals, and outlining specific strategies for achieving industrial energy efficiency
  - Demonstration of voluntary agreements with pilots in at least five enterprises, including support to government's introduction of policy incentives and mechanisms, and dissemination of programme results for wider stakeholders for scale-up programme.
- Component 2: Development of Energy Service Providers. This component will focus on expanded capacity building of energy service providers, key market players, and many stakeholders as one mechanism to deliver increased energy savings in the energy efficiency market.
- Component 3: Capacity Building for Programme Management, and Monitoring and Evaluation. This component will support capacity building of the MOIT staff through provision of expert assistance and

training activities in implementation, and monitoring and evaluation (M&E) of various energy efficiency projects, programmes, and policies.

#### LINKS

<http://cpee.vn/>

### **Energy Efficiency for Industrial Enterprises (VEEIE) for Vietnam**

#### OBJECTIVE

The World Bank's Board of Executive Directors in April 2017 supported the government of Vietnam with a loan of USD 102 million for industrial enterprises to adopt energy-efficiency technologies and practices. Under this five-year project, industrial enterprises can access a new line of credit to fund their purchases of energy-efficiency and production-optimization technologies, thus reducing energy consumption and production costs and increasing their overall competitiveness in the domestic and international markets. The project is related to Decision No. 563/QĐ-TTg.

#### OUTLINE

The objective of VEEIE is to improve energy efficiency in Vietnam's industrial sector. The project has two components:

- Energy Efficiency Investment Lending component consists of an Energy Efficiency lending programme. An Operational Manual (OM) was developed, which outlines selection criteria for sub borrowers and subprojects, appraisal procedures, roles and responsibilities of the Participating Financial Institutions (PFIs) and the government, the PFIs' internal institutional arrangement for project implementation, technical evaluation, environmental and social assessment, procurement, and financial management frameworks that are consistent with the Bank and the Vietnamese government rules and procedures. During project implementation, the PFIs will be responsible for identifying, appraising and financing subprojects that meet the criteria in the OM and will bear all associated risks.
- Project Implementation Support component will provide technical assistance and capacity building support to MOIT on project monitoring and supervision, including audits of project activities and safeguards implementation.

#### LINKS

<http://projects.worldbank.org/P151086?lang=en>

## 18. TRANSPORT ENERGY EFFICIENCY INITIATIVES

### **Promoting energy efficiency in the transport sector [Under Decision No. 1427]**

#### OBJECTIVE

Development of transportation system to meet the transport demand with increasingly high quality, save fuel and reduce environmental pollution. Reinforce the application of new technologies, renewable energy to replace traditional fuels in transportation. Strive to have public transport in 2015 meeting the 10 - 15% of travel demand in large urban areas

## OUTLINE

Under Decision No. 1427, Project 4 is named, "To promote energy efficiency in the transportation sector". Project consists of three components:

- Energy saving in the planning and construction of transportation infrastructure
- Improve energy efficiency in organizations and exploit the transportation system
- Application of new technology, renewable energy in transport.

## LINKS

Not available.

### **Legal document: Circular 64/2011/TT-BGTVT**

## OBJECTIVE

Ministry of Transport provides measures for economical and efficient use of energy in transport in general.

## OUTLINE

Ministry of Transport provides measures for improving economical and efficient use of energy in transport activities as well as regulations in planning, construction and upgrading of transport works. For example, organizations and individuals engaging in transportation business must apply the norm of fuel consumption level for 1000 transportation production units (T.Km; Hk.Km) and execute management and technical measures to reduce such level in their units. For developing transportation project, the content of economical and efficient use of energy must be brought into project selection criteria and priority shall be given to options which shorten transport distance, raising advantage coefficient of load and distance. No specific levels/limits are given in this Circular.

## LINKS

Circular 64/2011/TT-BGTVT:

[http://moj.gov.vn/vbpg/lists/vn%20bn%20php%20lut/view\\_detail.aspx?itemid=27426](http://moj.gov.vn/vbpg/lists/vn%20bn%20php%20lut/view_detail.aspx?itemid=27426)

## 19. BUILDING ENERGY EFFICIENCY INITIATIVES

### **Energy saving and efficiency in buildings [Under Decision No. 1427]**

## OBJECTIVE

Implementation of mandatory management in compliance with Vietnamese Construction Standards "Energy efficiency construction buildings" from 2012, for 100% of new or renovated buildings within the scope of the Standards. Deployment of energy saving technology solutions in public lighting, application of high-performance lighting, energy saving for 100% of the new public lighting.

## OUTLINE

Under Decision No. 1427, Project 3 is named "Energy saving and efficiency in buildings". Project consists of three components:

- Strengthen energy saving standards in new constructions and renovation for large buildings.
- Apply energy saving solutions, technology, equipment, materials; organize contests for green energy saving building, energy saving.
- Energy efficiency in public lighting.

The Ministry of Construction is the lead agency for this project, with estimated budget up to 135 billion VND.

#### LINKS

Ministry of Construction: <http://tietkiemnangluong.vn/d6/news/Su-dung-nang-luong-tiet-kiem-va-hieu-qua-trong-cac-toa-nha-123-119-2410.aspx>

### **Vietnam Energy Efficiency Building Codes in QCVN 09:2013/BXD**

#### OBJECTIVE

This National Technical on Energy Efficiency Buildings provides mandatory technical standards to achieve energy efficiency in the design and construction/retrofit of civil buildings (e.g., office buildings, hotels, hospitals, schools, commercial buildings, service buildings, and apartments buildings) with a gross floor area of 2,500 m<sup>2</sup> or larger.

#### OUTLINE

The project released in 2013 was led by the Ministry of Construction, in collaboration with the International Finance Corporation, United States Agency for International Development and Danish Energy Agency. The final building codes include 60 pages of technical standards replace its previous version named 09:2005. The standards apply for:

- The building envelope, except envelopes of non-air conditioned storage space or warehouses;
- Equipment and systems in the building, including:
  - Interior lighting
  - Ventilation and air conditioning
  - Water heating
  - Energy management equipment, and
  - Elevators and escalators.

#### LINKS

Paper on building code: <http://www.ibst.vn/DATA/nhyen/QCVN%2009%202013%20BXD.pdf>

## 20. ENERGY EFFICIENCY COOPERATION

### COOPERATION AGREEMENTS WITH OTHER ECONOMIES OR ORGANISATIONS

The Vietnamese Government cooperates with other economies through:

- Promotion of Energy Efficiency in ASEAN Economies (PROMECS Programmes, funded by Japan);
- Promotion of Energy Efficiency in Small and Medium Enterprises (PECSME Programme, in cooperation with UNDP)

### BILATERAL, REGIONAL OR MULTILATERAL COOPERATION AGREEMENTS

Other programmes and initiatives include:

- Vietnam Clean Production and Energy Efficiency Project (CPEE), with World Bank/GEF;
- Barrier Removal to the Cost-Effective Development and Implementation of Energy Efficiency Standards and Labelling (BRESL), with UNDP/GEF;
- Low Carbon Energy Efficiency (LCEE) Programme, with Danish Government;

Viet Nam has been receiving donations from ADB, Danida, EC, Finland, JICA, KfW, SDC, UNDP/GEF, UNIDO/GEF, World Bank, IFC on energy efficiency projects including:

- Supporting implementation of the Energy Efficiency programme (ADB).
- Load management and demand-side management (Agence Francaise de Development (AFD)).
- Technical training and certification programme for energy efficiency (Danish International Development Agency (DANIDA)).
- Study on National Energy Efficiency Master Plan (Japan International Cooperation Agency (JICA)).
- Demand-Side Management and Energy Efficiency Project (The World Bank Group).
- The UNDP's Vietnam Energy Efficient Public Lighting (VEEPL).

### LINKS

Not available.

## 21. OTHER ENERGY EFFICIENCY EFFORTS

No recent activity.