

# CHINESE TAIPEI

## ENERGY EFFICIENCY GOALS

### 1. GOVERNMENT POLICY ON ENERGY EFFICIENCY

The goal is to improve energy efficiency by more than 2% per annum (compared to 2005 levels) in order to achieve a 20% energy intensity reduction by 2015. The target extends to 50% by 2025 with the support of further technological breakthroughs and administrative measures. Bureau of Energy, Ministry of Economic Affairs is the responsible agency in overseeing and implementing energy efficiency measures by utilising Energy Management Law (EML), which is designed to govern the energy efficiency of energy-consuming devices. Under the Intended Nationally Determined Contribution (INDC), Chinese Taipei will implement an economy-wide target, through domestic abatement effort to reduce its greenhouse gas emissions (214 MtCO<sub>2</sub>-e) by 50% from the business-as-usual level (428 MtCO<sub>2</sub>-e) by 2030.

### 2. ENERGY EFFICIENCY STRATEGY

- Energy Management Law (EML): designed to govern the energy efficiency of energy-consuming devices. Under this law, energy efficiency is expected to improve by 2% every year for the next eight years starting from 2008; improve appliance energy efficiency 10% to 70% by 2015.
- Minimum Energy Performance Standard (MEPS) and EE Rating Labelling for Appliances and Lighting; Fuel Efficiency Standards for Automobiles.
- Energy Conservation Labelling Programme

#### FUNDING

Government funding.

#### LINKS

Energy efficiency policy: [http://www.moea.gov.tw/AD/Ad04/content/ContentDetail.aspx?menu\\_id=4618](http://www.moea.gov.tw/AD/Ad04/content/ContentDetail.aspx?menu_id=4618)

### 3. ENERGY EFFICIENCY ACTION PLAN

No information.

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

The goal is to improve energy efficiency by more than 2% per annum (compared to 2005 levels) in order to achieve a 20% energy intensity reduction by 2015. The target extends to 50% by 2025 with the support of further technological breakthroughs and administrative measures. Chinese Taipei will implement an economy-wide target, through domestic abatement effort to reduce its greenhouse gas emissions (214 MtCO<sub>2</sub>eq) by 50% from the business-as-usual level (428 MtCO<sub>2</sub>eq) by 2030.

## LINKS

Target for energy intensity reduction:

[http://www.moea.gov.tw/AD/Ad04/content/ContentDetail.aspx?menu\\_id=4621](http://www.moea.gov.tw/AD/Ad04/content/ContentDetail.aspx?menu_id=4621)

Chinese Taipei's submitted INDC:

[http://enews.epa.gov.tw/enews/enews\\_ftp/104/1117/174044/Submission%20by%20Republic%20of%20China%20\(Taiwan\)Intended%20Nationally%20Determined%20Contribution.pdf](http://enews.epa.gov.tw/enews/enews_ftp/104/1117/174044/Submission%20by%20Republic%20of%20China%20(Taiwan)Intended%20Nationally%20Determined%20Contribution.pdf)

## 5. SECTORAL ENERGY EFFICIENCY TARGETS

All targets are using year 2008 as base year.

- Industry - Reform the industrial sector towards a high value-added, low energy-intensive structure so that its carbon intensity could decrease by more than 30% by 2025.
- Transport - Raise the standard fuel efficiency for private vehicles (measured in terms of passenger kilometres per litre) incrementally to 25% by 2015.
- Residential and commercial - Raise appliance efficiency standards by 10% to 70% in 2011. Further increase the efficiency standards in 2015 to promote high-efficiency products.
- Government - Reduce the energy use of governmental agencies and schools by 7% in 2015.

## LINKS

Energy saving and carbon reduction action plan:

[http://web3.moeaboe.gov.tw/ECW/main/content/wHandMenuFile.ashx?file\\_id=800](http://web3.moeaboe.gov.tw/ECW/main/content/wHandMenuFile.ashx?file_id=800)

## 6. LEAD ENERGY EFFICIENCY INSTITUTIONS

Bureau of Energy, Ministry of Economic Affairs.

### INSTITUTIONAL SETTINGS AND RESPONSIBILITIES

- Draw up drafts of policies and laws.
- Plan and predict the energy supply and demand.
- Examine and approve energy development, distribution, and sales.
- Monitor energy prices.
- Build an energy database.
- Energy savings promotion and dissemination, energy technology R&D.

### STAFF AND BUDGET

Approximately 140 employees.

## BUDGET USE

Not applicable.

## LINKS

Bureau of Energy, Ministry of Economic Affairs: <http://www.moeaboe.gov.tw>

## 7. OTHER ENERGY EFFICIENCY AGENCIES

No information.

## 8. ENERGY EFFICIENCY INFORMATION DISSEMINATION

There are two awareness-raising programmes:

- Research and Promotion of the Energy Conservation Labelling and Energy Efficiency Labels; and
- Energy Conservation Environment Establishment, Achievements Appraised, and Technology Promotion.

## LINKS

Efficiency Standards and Benchmarks:

[http://web3.moeaboe.gov.tw/ecw/english/content/Content.aspx?menu\\_id=1535](http://web3.moeaboe.gov.tw/ecw/english/content/Content.aspx?menu_id=1535)

Energy Conservation Labelling: <http://www.energylabel.org.tw/>

## 9. ENERGY EFFICIENCY AWARENESS RAISING

Media dissemination programmes evaluate potential audiences. Meanwhile, an economy-wide telephone survey is conducted to assess public awareness.

## 10. GOVERNMENT SUPPORTED ENERGY EFFICIENCY TRAINING

There is a government programme to train energy auditors and managers for manufacturing firms and the commercial sector.

## LINKS

[http://web3.moeaboe.gov.tw/ecw/populace/content/SubMenu.aspx?menu\\_id=104](http://web3.moeaboe.gov.tw/ecw/populace/content/SubMenu.aspx?menu_id=104)

## 11. PRIVATELY OPERATED TRAINING

Not applicable.

## 12. GOVERNMENT SUPPORTED RESEARCH & DEVELOPMENT

The Chinese Taipei government's Energy Conservation Technology Mid-Term Project is administered by the Bureau of Energy, Ministry of Economic Affairs. The project is applicable to the transport, residential, commercial, and government sectors (excluding agriculture).

The aim of the project is to develop and advance Chinese Taipei's R&D capabilities and intellectual property in various energy technologies, including LED lighting, photovoltaic, hydrogen power, air conditioning, refrigeration, electric motors, energy information, and communication technology. The government allocates an annual budget of approximately US\$ 33 million to this project, of which 59% is used for energy-related research and design.

#### LINKS

Bureau of Energy, Ministry of Economic Affairs 2015 Annual Report:

[https://www.moeaboe.gov.tw/ecw/populace/content/wHandMenuFile.ashx?file\\_id=21](https://www.moeaboe.gov.tw/ecw/populace/content/wHandMenuFile.ashx?file_id=21)

## ENERGY EFFICIENCY MEASURES

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

Bureau of Energy, Ministry of Economic Affairs.

#### LEGAL POWER

Under the Energy Administration Act, the Energy Management Law (EML) is designed to govern the energy efficiency of energy-consuming devices.

#### LINKS

Bureau of Energy, Ministry of Economic Affairs: <http://www.moeaboe.gov.tw>

Energy Administration Act: <http://law.moj.gov.tw/Eng/LawClass/LawAll.aspx?PCode=J0130002>

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

- Measure the sales of energy-efficient appliances on a monthly basis.
- Monitor the progress of energy efficiency standard revisions on a quarterly basis.
- Monitor the results of voluntary energy-saving agreements on a quarterly basis.

#### LINKS

Bureau of Energy, Ministry of Economic Affairs: <http://www.moeaboe.gov.tw>

### 15. SELF-EVALUATION OF ENERGY EFFICIENCY PROGRAMMES

Not applicable.

### 16. CROSS-SECTOR ENERGY EFFICIENCY INITIATIVES

#### **Master Plan on Energy Conservation and GHG Emission Reduction**

#### OBJECTIVE

Reduce CO<sub>2</sub> emissions by applying cleaner energy and energy conservation measures.

## OUTLINE

The Master Plan includes ten major benchmarking programmes and thirty-five benchmarking plans that include all aspects of energy conservation and carbon reduction in Chinese Taipei. The ten benchmarking programmes are:

- Sound legal framework
- Low carbon energy system
- Low carbon community & society
- Low carbon industry
- Green transportation
- Green agriculture & building
- Energy saving and emission reduction technology
- Low carbon public construction
- Energy saving and emission reduction education
- Public education

## LINKS

Master Plan on Energy Conservation and GHG Emission Reduction:

[http://www.moeaboe.gov.tw/ECW/english/content/Content.aspx?menu\\_id=1527](http://www.moeaboe.gov.tw/ECW/english/content/Content.aspx?menu_id=1527)

## Free Energy Audit

### OBJECTIVE

The Free Energy Audit scheme began in 2010 to assist business owners in improving their energy efficiency and to increase energy efficiency by 30% by 2025 in the industrial and commercial sectors.

### OUTLINE

As detailed in link below.

## LINKS

Free Energy Audit: <http://www.ecct.org.tw/> and [https://www.go-moea.tw/news\\_info.asp?id=223](https://www.go-moea.tw/news_info.asp?id=223)

## 17. INDUSTRY ENERGY EFFICIENCY INITIATIVES

### **Master Plan on Energy Conservation and GHG Emission Reduction – Build Low Carbon Industrial Structure**

#### OBJECTIVE

Gradually advance the industry towards "low carbon", increase value-add per unit of carbon emissions, reduce intensity of carbon emissions' per unit of output, and strengthen the development of green energy industry. Promote industrial energy conservation & carbon reduction. Conduct environmental impact assessment of energy-intensive industrial policy. Promote Sunrise programme of green energy industry. Promote agricultural energy conservation & carbon reduction.

#### OUTLINE

- Reform the industrial sector towards a high value-added and low energy intensive structure, so that its carbon intensity could reduce more than 30% by 2025.
- Allocate emission quotas and reduction duty to push the industry towards an energy-conserving and emission-reducing production and sales model.
- Assist small and medium-sized enterprises to improve emission reduction capacity. Establish incentive measures and administrative schemes to encourage the application of clean production technology.
- Promote green energy industry, including energy conserving industries and renewable energy industries, to move towards a clean energy economy.

#### LINKS

Master Plan on Energy Conservation and GHG Emission Reduction:

[http://www.moeaboe.gov.tw/ECW/english/content/Content.aspx?menu\\_id=1527](http://www.moeaboe.gov.tw/ECW/english/content/Content.aspx?menu_id=1527)

Framework of Chinese Taipei Sustainable Energy Policy:

[http://web3.moeaboe.gov.tw/ecw/english/content/Content.aspx?menu\\_id=1524](http://web3.moeaboe.gov.tw/ecw/english/content/Content.aspx?menu_id=1524)

## 18. TRANSPORT ENERGY EFFICIENCY INITIATIVES

### **Master Plan on Energy Conservation and GHG Emission Reduction – Build Green Transport Network**

#### OBJECTIVE

Reduce carbon emissions from the transport sector, build convenient and intelligent transport systems, promote the use of low-carbon fuel, and relieve the use and growth in cars and motorcycles. Establish green, seamless highway transportation systems. Expand construction of convenient public rail transport network. Establish intelligent road service. Create transportation environment based on people-oriented green transport. Promote efficiency and standards of private vehicles and new cars.

## OUTLINE

- Provide a convenient mass transportation system to reduce the usage of private vehicles.
- Construct an intelligent transportation system to provide instant traffic information and enhance traffic management capacity.
- Build a user-oriented and green-oriented municipal transportation environment.
- Raise the fuel efficiency standard for private vehicles by 25% in 2015.

## LINKS

Master Plan on Energy Conservation and GHG Emission Reduction:

[http://www.moeaboe.gov.tw/ECW/english/content/Content.aspx?menu\\_id=1527](http://www.moeaboe.gov.tw/ECW/english/content/Content.aspx?menu_id=1527)

Framework of Chinese Taipei's Sustainable Energy Policy:

[http://web3.moeaboe.gov.tw/ecw/english/content/Content.aspx?menu\\_id=1524](http://web3.moeaboe.gov.tw/ecw/english/content/Content.aspx?menu_id=1524)

## 19. BUILDING ENERGY EFFICIENCY INITIATIVES

### **Framework of Chinese Taipei's Sustainable Energy Policy-Residential and Commercial Sector**

#### OBJECTIVE

Promote energy conservation in the residential and commercial sector.

#### OUTLINE

- Improve urban planning, as well as promote forestation in urban areas to create a low carbon city.
- Promote low carbon and energy conserving green architecture through energy conserving design of building facades and air-conditioning system.
- Raise appliance efficiency standards by 10% to 70% in 2011. Further raise the efficiency standards in 2015 to promote high efficiency products.
- Promote energy conserving lighting solutions. Replace conventional lighting devices with high efficiency products.

## LINKS

Framework of Sustainable Energy Policy:

[http://web3.moeaboe.gov.tw/ecw/english/content/Content.aspx?menu\\_id=1524](http://web3.moeaboe.gov.tw/ecw/english/content/Content.aspx?menu_id=1524)

## 20. ENERGY EFFICIENCY COOPERATION

### COOPERATION AGREEMENTS WITH OTHER ECONOMIES OR ORGANISATIONS

Chinese Taipei is an affiliate partner of the Collaborative Labelling and Appliance Standards Programme (CLASP) based in the U.S. state of California to promote energy-efficient products by developing and updating the standards and labelling programme.

### BILATERAL, REGIONAL OR MULTILATERAL COOPERATION AGREEMENTS

The Chinese Taipei Government participates in APEC Energy Working Group projects that are related to energy efficiency and conservation.

### LINKS

APEC Expert Group on Energy Efficiency and Conservation: <http://www.egeec.apec.org/>

## 21. OTHER ENERGY EFFICIENCY EFFORTS

Not applicable.