#### 1. Legal framework for improvement of energy efficiency and conservation

(1) Law

A. Energy Conservation Act 2001 (Enforcement in March 2002)

#### (2) Regulatory Measures

#### 1) Regulatory Measures based on the law

#### 2) Other regulatory measures

- A. IIPEC : Indian Industry Programme for Energy Conservation
- B. Standard and labeling program
- C. Professional Certification and Accreditation of Energy Managers and Energy Auditors

#### (3) National plan for promoting energy efficiency and conservation

- A. 11th Five Year Plan (2007-2012) (Energy Conservation Policy)
- B. Integrated Energy Policy (August 2006)

#### 2. Financial measures taken by the government

#### (1) Tax scheme

- A. Financial Assistance by MNRE
- B. Income Tax Act : Preferential Depreciation of Energy Efficiency Equipment

#### (2) Low-interest loan

A. Financial Supporting System for EE Promotion prepared by IREDA

#### (3) Subsidies and budgetary measures

#### 3. Energy prices

Energy prices are basically controlled by government and usually subsidized.

# 4. Others (those efforts that are made by various foreign countries, international organizations, local governments, private sectors, etc., and that have effects to promote energy conservation in one's own country)

- A. IGEN: Indo German Energy Programme
- B. Switzerland (SDC)/ India (TERI) energy efficiency improvement in small scale industries program
- C. Energy Conservation Support Project by ADB/WB/GEF
- D. Japan's energy conservation support
- ·NEDO's model projects for efficient use of energy
- $\cdot$  Training programs in Japan on energy efficiency and conservation (2006 ~ )
- · Dispatch of energy conservation experts (2007 ~ )

# 1. Legal framework for improvement of energy efficiency and conservation (1) Law

#### A. Energy Conservation Act 2001 (Enforcement in March 2002)

#### 1. Name of measure

Energy Conservation Act 2001 (Enforcement in March 2002)

#### 2. Purpose of measure

An Act to provide for efficient use of energy and its conservation and for matters connected therewith or incidental thereto.

- (a) Establishment of the BEE (Bureau of Energy Efficiency) in the Ministry of Power. BEE's mission would be to promote energy conservation in all sectors of economy.
- (b) Clarification of the authority of management of central government, BEE, and state governments, respectively.
- (c) Designation of energy intensive industries (Aluminum/Fertilizers/Iron and Steel/Cement/Pulp and paper/ Chlor Alkali/Sugar/Textile/Chemicals/Railways/Port Trust/Transport Sector (industries and services)/ Petrochemicals, Gas Crackers, Naphtha Crackers and Petroleum Refineries/Thermal Power Stations, hydel power stations, electricity transmission companies and distribution companies/Commercial buildings or establishments).

Several obligations (submission of annual report/implementation of energy diagnosis/Possession of certified energy managers and auditors) on the consumers with a connected load of 500 kW or more or contract demand of 600 KVA or more in the above designated industries.

- (d) Establishment of Energy Conservation Fund by State Government.
- (e) Penalty (April 2007-). If any person fails to comply with the provisions, he shall be liable to a penalty which shall not exceed ten thousand rupees for each such failures. Below are the examples of the provisions: Prohibition of manufacture or sale or purchase or import of equipment or appliance not conforming to energy consumption standards/Display of label /Implementation of energy audit/Designation of energy manager/ Submit of report/Compliance with energy consumption norms and standards/Compliance with energy conservation building codes for efficient use of energy and its conservation.

#### 3. Target sector (transport, building, manufacturing, etc.)

4 Major Economic Sectors (Industries, Transportation, Agriculture, Livelihood)

#### 4. Funds and budget for the measure

#### 5. Method for measuring the effect of the measure (energy consumption reduction, energy cost reduction, etc.)

#### 6. Results of measures

#### 7. Future tasks

#### 8. Others

9. For further details about measures, please contact:

- 1. Legal framework for improvement of energy efficiency and conservation
- (2) Regulatory measures
- 2) Other regulatory measures

#### A. IIPEC : Indian Industry Programme for Energy Conservation

#### 1. Name of measure

IIPEC : Indian Industry Programme for Energy Conservation (Started in 2004)

#### 2. Purpose of measure

To promote both mandatory and voluntary efforts for achieving the energy efficiency potential in the industrial sector.

#### 3. Target sector (transport, building, manufacturing, etc.)

Cement, Pulp and Paper, Textile, Fertilizer, Chlor-Alkali and Aluminum Industry sectors. Conduct of energy audit among the notified designated consumers (Cement, Pulp and Paper and Textile) by accredited energy auditors.

#### 4. Funds and budget for the measure

Rs. 620 million (BEE-Rs. 2 million, Technical Cooperation-Rs. 6 million, Others-Rs. 612 million)

#### 5. Method for measuring the effect of the measure (energy consumption reduction, energy cost reduction, etc.)

6. Results of measures

#### 7. Future tasks

#### 8. Others

9. For further details about measures, please contact:

- 1. Legal framework for improvement of energy efficiency and conservation
- (2) Regulatory measures
- 2) Other regulatory measures

#### B. Standard and labeling program

#### 1. Name of measure

Standard and labeling program (Started in 2003(voluntary), also in May 2006(mandatory))

#### 2. Purpose of measure

#### 3. Target sector (transport, building, manufacturing, etc.)

- (2003 ~ voluntary) 8 equipment and appliances (Refrigerators, Air-conditioners, Geysers, Motors, Agricultural Pump Sets, Electric Light Sources, Industrial Fans and Blowers, and Air Compressors)
- (May 2006 ~ mandatory)Five-level Labelling
  6 equipment and appliances (Frost-Free (No-Frost) Refrigerators, Tubular Fluorescent Lamps, Direct Cool Refrigerator, General Purpose Electric Motors, Air-conditioners, Ceiling Fans)

#### 4. Funds and budget for the measure

Rs. 78 million (BEE-Rs. 2 million, Technical Cooperation-Rs. 20 million, Others-Rs. 56 million)

#### 5. Method for measuring the effect of the measure (energy consumption reduction, energy cost reduction, etc.)

#### 6. Results of measures

#### 7. Future tasks

#### 8. Others

9. For further details about measures, please contact:

- 1. Legal framework for improvement of energy efficiency and conservation
- (2) Regulatory measures
- 2) Other regulatory measures

#### C. Professional Certification and Accreditation of Energy Managers and Energy Auditors

1. Name of measure

Professional Certification and Accreditation of Energy Managers and Energy Auditors (Started in 2004)

2. Purpose of measure

Certification of Energy Managers and Energy Auditors under Energy Conservation Act 2001.

3. Target sector (transport, building, manufacturing, etc.)

#### 4. Funds and budget for the measure

Rs. 6 million (BEE-Rs. 1 million, Technical Cooperation-Rs. 5 million)

- 5. Method for measuring the effect of the measure (energy consumption reduction, energy cost reduction, etc.)
- 6. Results of measures
- 7. Future tasks

#### 8. Others

9. For further details about measures, please contact:

- 1. Legal framework for improvement of energy efficiency and conservation (3) National plan for promoting energy efficiency and conservation
- A. 11th Five Year Plan (2007-2012) (Energy Conservation Policy)
- 1. Name of measure 11th Five Year Plan (2007-2012) (Energy Conservation Policy) (Started in 2007 and will end in 2012)
- 2. Purpose of measure
- 3. Target sector (transport, building, manufacturing, etc.)
- 4. Funds and budget for the measure
- 5. Method for measuring the effect of the measure (energy consumption reduction, energy cost reduction, etc.)
- 6. Results of measures
- 7. Future tasks
- 8. Others
- 9. For further details about measures, please contact: PLANNING COMMISSION Government of India. Yojana Bhavan, Sansad Marg, New Delhi - 110001 e-mail: plancom@nic.in

- 1. Legal framework for improvement of energy efficiency and conservation
- (3) National plan for promoting energy efficiency and conservation

#### B. Integrated Energy Policy (August 2006)

#### 1. Name of measure

Integrated Energy Policy (Started in August 2006)

#### 2. Purpose of measure

Policies based on detailed analysis of energy challenges India is facing and development of energy scenario to 2031. The outlines of the policies are below:

- a) Reducing energy requirements through energy efficiency and conservation;
- b) Augmenting energy resources and supply;
- c) Rationalization of fuel prices to mimic free market prices that promote efficient fuel choice and substitution;
- d) Promoting coal imports;
- e) Accelerating power sector reforms;
- f) Cutting cost of power generation;
- g) Encouraging renewables and local solutions;
- h) Enhancing energy security;
- i) Promoting and focusing energy R&D;
- j) Promoting household energy security, gender equity and empowerment through targeted entitlements for the poor;
- k) Creating an enabling environment and regulatory oversight for competitive efficiency.

#### 3. Target sector (transport, building, manufacturing, etc.)

#### 4. Funds and budget for the measure

5. Method for measuring the effect of the measure (energy consumption reduction, energy cost reduction, etc.)

#### 6. Results of measures

7. Future tasks

#### 8. Others

9. For further details about measures, please contact: PLANNING COMMISSION Government of India. Yojana Bhavan, Sansad Marg, New Delhi - 110001 e-mail: plancom@nic.in

- 2. Financial measures taken by the government
- (1) Tax scheme

#### A. Financial Assistance by MNRE

#### 1. Name of measure

Financial Assistance by MNRE (Started in 1992)

#### 2. Purpose of measure

- To disseminate and promote renewable energy as an alternative energy to oil
- 100% depreciation in the first year of the investment and income tax cat related to generated electric power selling.
- · Tax exemption for machine or equipment imported for the purpose of the research and development.
- Tariff preference for import of plant or equipment for commercial purpose.
- · Sales tax exemption for renewable energy by state government.
- Grant for purchase or installation of equipment using various renewable energy such as solar geothermal system, solar system (50%), solar based power generating project (50 ~ 67%), biogas plant, solar cooker.

#### 3. Target sector (transport, building, manufacturing, etc.)

- · Renewable energy, such as wind energy, solar energy, hydro energy, biomass hydrogen battery
- Hybrid system

#### 4. Funds and budget for the measure

#### 5. Method for measuring the effect of the measure (energy consumption reduction, energy cost reduction, etc.)

#### 6. Result of the measure

#### 7. Future tasks

#### 8. Others

#### 9. Contact

Ministry of New and Renewable Energy (MNRE) Block-14, CGO Complex, Lodhi Road,New Delhi-110 003, India. Telephone: 91-11-24361298,24360707 Fax: 91-11-24361830

- 2. Financial measures taken by the government
- (1) Tax scheme

#### B. Income Tax Act : Preferential Depreciation of Energy Efficiency Equipment

#### 1. Name of measure

Income Tax Act : Preferential Depreciation of Energy Efficiency Equipment

#### 2. Purpose of measure

Accelerated depreciation for energy saving devices. Initially, 100% depreciation was available but the rate was reduced to 80% at the law amendment in 2002.

#### 3. Target sector (transport, building, manufacturing, etc.)

7categories, 42 equipment and appliances in total.

- A. Specialized boilers and furnaces
- B. Instrumentation and monitoring system for monitoring energy flows
- C. Waste heat recovery equipment
- D. Co-generation systems
- E. Electrical equipment
- F. Burners
- G. Other Equipment

#### 4. Funds and budget for the measure

#### 5. Method for measuring the effect of the measure (energy consumption reduction, energy cost reduction, etc.)

#### 6. Results of measures

#### 7. Future tasks

#### 8. Others

#### 9. For further details about measures, please contact:

Income Tax Department Department of Revenue, Ministry of Finance, Government of India A R A Center, E-2, Jhandewalan Extn. New Delhi- 110055 e-mail: webmaster@incometaxindia.gov.in

#### 2. Financial measures taken by the government

(2) Low-interest loan

#### A. Financial Supporting System for EE Promotion prepared by IREDA

#### 1. Name of measure

Financial Supporting System for EE Promotion prepared by IREDA

#### 2. Purpose of measure

Development and commercialization of renewable energy and promotion of energy efficiency and conservation. Equipment Financing Scheme Project Financing Scheme Financing for loaners Financing for ESCO

#### 3. Target sector (transport, building, manufacturing, etc.)

#### 4. Funds and budget for the measure

Equity capital or loan procurement of IREDA. Credit line from World Bank, ADB and others, financial assistance from GEF, bilateral assistance from Switzerland, etc.

#### 5. Method for measuring the effect of the measure (energy consumption reduction, energy cost reduction, etc.)

#### 6. Results of measures

#### 7. Future tasks

#### 8. Others

#### 9. For further details about measures, please contact:

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