

## APPENDIX:

# Energy Efficiency and Conservation Rules, Initial Draft 22 October 2012

Government of the People's Republic of Bangladesh  
Ministry of Power, Energy and Mineral Resources

### Notification

Dhaka, \_\_\_\_\_ (Bangladesh month & year)/ \_\_\_\_\_ (English month & year)

S.R.O. No \*\*\* - In exercise of the powers conferred by section 25 of the Sustainable and Renewable Energy Development Authority (SREDA) Act, for smooth functioning and operating of the SREDA, the Government is pleased to make the following Rules:-

#### 1. Short title.

- (i) These Rules will be known as the Energy Efficiency and Conservation Rules, 2013.
- (ii) It will be made effective after publication in the govt. gazette.

#### 2. Definitions

- (i) If there is nothing in repugnant to its content and context, in these Rules—
  - (a) “Act” means Sustainable and Renewable Energy Development Authority Act, 2012;
  - (b) “Authority” means Sustainable and Renewable Energy Development Authority established under the Act;
  - (c) “Energy” means renewable energy & non renewable primary energy and the secondary energy forms converted from those;
  - (d) “Renewable energy” means wood, rice husk, bagasse, hydro power, briquette, solar power, wind energy, wave energy including energy available from all renewable source and all other energy available from organic, waste, and any energy which the Government may, from time to time, declare as Renewable Energy;
  - (e) “Non-renewable Energy” means energy from fossil fuel sources including natural gas, coal, oil; and nuclear and geo-thermal energy;
  - (f) “Secondary Energy” means energy that has been converted from its initial form, either renewable or non-renewable energy, into another energy form, such as gasoline or electricity for distribution and use;
  - (g) “Energy Resources” means all sorts of primary and secondary energy imported or produced domestically, and proved domestic energy reserves, including natural gas, petroleum products, coal, electricity, bio-gas, solar power, wind energy, hydro-power, atomic energy etc;

- (h) “Fuel” means energy resources that are in combustible form;
- (i) “Energy Conservation” means reduction in energy consumption by any deliberate action, including improved technology, fuel switching, maintenance and operation of existing technology and other change in behaviour of end users.
- (j) “Ministry” means the Ministry of Power, Energy and Mineral Resources, unless otherwise specified;
- (k) “Chairman” means the head of the Sustainable and Renewable Energy Development Authority;
- (l) “Energy Auditor” means a person who is qualified to carry out energy audits in industrial factories, large buildings, and other energy using facilities, subject to the qualification requirements developed and published by the Authority;
- (m) “Building” means any residential, commercial, or other installation or integral part of any installation where there is 50kW or more connected electric load;
- (n) “Commercial Building” means any building designated as commercial use by municipal authorities;
- (o) “Users” means those who use any form of energy for residential, commercial, industrial, agricultural, transportation purposes, and any other purposes;
- (p) “Energy Audit” means the verification of ways of use of energy by the machinery/ equipment and process of any user, its analyses & monitoring including recommendation of implementation measures, cost-benefit analysis of recommended measures, and an action plan to reduce energy consumption on identified proven energy efficient technologies;
- (q) “Code” means government of Bangladesh approved National Building Code;
- (r) “Energy Use Standard” means a specified level of use of energy either in absolute terms or relative to the level of output or performance for a specific process, machinery, equipment etc;
- (s) “Energy Manager” means an individual who meet the qualifications specified by the Authority for energy managers and has been assigned to work full time in monitoring, reducing, reporting and otherwise managing energy use of designated large consumers;
- (t) “Notification” means notification published in Bangladesh Gazette;
- (u) “Prescribed” means whatever is required or directed under these Rules;
- (v) “Establishment” means any establishment described under these Rules;
- (w) “Rules” means rules formulated under the Act;
- (x) “Regulations” means regulations made under the Act;
- (y) “Compulsory” means made compulsory according to the rules and regulations of the Act;
- (z) “SCHEDULE” means a list incorporated into these Rules, for example, of industries, establishment and other installations identified as potential large energy consuming establishments;
- (aa) “Consumer” means any individual/establishment who has received connections of electricity, gas or any other energy supply, or otherwise is an end user of energy;
- (bb) “Designated Large Energy Consumer” means any establishment who is deemed by the Authority to fall under the criteria as stipulated in SCHEDULE B of these Rules and are included in the list published by the Authority;

- (cc) “Small and Medium-Sized Enterprises (SMEs)” means any enterprise defined as SME under the circular issued by the Bangladesh Bank, as per National Policy Order 2010;
- (dd) “Electricity Act” means Electricity Act, 1910 (IX of 1910), or any revised Electricity Act enacted afterwards;
- (ee) The definitions or terminologies which are not described under this law will bear the meaning as described under the Electricity Act, the Energy Regulatory Commission Act of 2003, the Sustainable and Renewable Energy Development Authority Act of 2012, and the Bangladesh National Building Code.

### **3. Institutional Arrangements**

- (i) SREDA shall have authority over all forms of solid, liquid, gaseous and electric energy. The Authority will serve as the nodal institution for identification, promotion, facilitation and overall coordination of all national renewable energy and energy conservation programmes, including those discussed in these Rules. The Authority will serve as the operational authority for programmes and measures described under these Rules except where otherwise specified, and shall serve as coordinating organization for all government programmes associated with energy conservation.
- (ii) Several other organizations shall have key responsibilities in support of the Authority and in specific energy conservation programme areas including those specified below:
  - (a) The Bangladesh Standards and Testing Institute (BSTI) shall co-operate with the Authority in establishing testing facilities and procedures for energy using equipment and appliances as designated by these Rules, and subsequently amended by The Authority for setting minimum energy performance standards (MEPS) and energy efficiency labelling.
  - (b) If required to ensure proper implementation and monitoring of the energy star labelling programme, the Authority may take necessary steps to establish accredited laboratory facilities in the country to test the energy using equipment and appliances as designated by these Rules, and subsequently amended by The Authority.
  - (c) The Boiler Directorate of the Ministry of Industry shall cooperate with The Authority to determine the feasibility of incorporation energy efficiency performance standards into existing programmes of on-site boiler inspection.
- (iii) The Authority shall coordinate with appropriate government and non-governmental organizations to establish and encourage programmes and policies that promote conservation in each relevant sector, subsector or area of the economy, and to track and report results of these activities. The coordination efforts will include, but not be limited to the following organizations:
  - (a) The Power Division, and Energy and Mineral Resources Divisions of the Ministry of Power, Energy and Mineral Resources (MPEMR);

- (b) Ministries of Planning, Industry, Communications, Environment and Forests, Housing and Public Works, Agriculture, Finance, Commerce, Education, Information and others;
  - (c) Power, Energy and Water Utilities;
  - (d) Chambers of Commerce and Industry, donors and development organizations, NGOs, and others.
- (iv) These Rules are applicable to energy conservation on the demand side.

#### **4. Residential and Commercial Buildings**

##### **4.1 Standards and Labelling of Equipment and Appliances**

- (i) The Authority may, to promote the efficient use of energy, develop and recommend to the Ministry, procedures and regulations for implementation of minimum energy performance standards and energy efficiency labelling for equipment and appliances, in accordance with the order of priority and enforcement phase stipulated in SCHEDULE A. The Authority may revise the SCHEDULE A as necessary to promote energy efficient appliances and equipment in the most effective manner.
- (ii) The Authority shall develop testing procedures in consultation with the Bangladesh Standards and Testing Institute (BSTI), and co-operate with the BSTI to test equipment and appliances that are candidates for minimum standards of labelling. Test procedures approved by BSTI will be used to measure energy and other performance attributes required wherever possible. BSTI, in cooperation with the Authority, may perform reference testing of the relevant products, certifications of testing facilities that participate in standards and labelling programmes, and other relevant activities.
- (iii) The Authority shall consult with the Ministry of Industry, National Consumer Rights Protection Department (DNCRP) of the Ministry of Commerce, manufacturers and importers of equipment, electricity and gas distribution companies and other stakeholders in development of standards and labelling requirements.
- (iv) The Authority may carry out consumer surveys, data collection and other research needed to support development of effective standards and labelling programmes, including label design, design of promotion campaigns and incentives to promote purchase of labelled efficient product.
- (v) The energy efficiency labelling of equipment and appliances will initially be on a voluntary basis, before gradually shifting to a mandatory system. The Authority shall provide the framework and timeline of equipment and appliance labelling.
- (vi) **After consultation with stakeholders, publication of drafts and obtaining public comments, the Authority may develop and recommend following energy efficiency**

- labelling requirements and specifications for equipment and appliances in accordance with SCHEDULE A, to the Ministry:
- (a) Procedures for testing to document achievement of label specifications;
  - (b) Format and characteristics of the labels;
  - (c) Levels of energy performance required for labelling as energy efficient or for specified levels of energy performance, such as one star, two stars, etc, as appropriate; and
  - (d) Date upon which the label regulations will become effective.
- (vii) After consultation with stakeholders, publication of drafts and obtaining public comments, the Authority will recommend following minimum energy performance standards for products in accordance with SCHEDULE A, to the Ministry:
- (a) Procedures for testing for compliance with standard;
  - (b) Level of energy performance that must be achieved; and
  - (c) Date upon which the standard will become effective for all products manufactured, assembled, imported and sold in the country.
- (viii) The Authority shall disclose, on annual basis, the list of non-compliant appliances and its manufactures that are found to be violating the labelling standards and requirements.
- (ix) The Authority may develop and Implement promotion programmes as necessary to educate the public on energy efficiency standards and labelling and to encourage the purchase of energy efficient labelled products.

#### **4.2 Energy Conservation in Buildings**

- (i) Energy conservation in buildings can include the following types of measures:
  - (a) Design to maximize use of natural light and ventilation, and to naturally control solar heat gain;
  - (b) Use of energy efficient construction materials, including insulation and construction processes to ensure the air tightness of building envelopes;
  - (c) Installation and use of energy efficient machinery, equipment, and systems providing the following function in and outside the building:
    - i Air-conditioning, ventilation and temperature control;
    - ii Lighting and illumination for decoration, advertisement guidance, indication signage and other purposes;
    - iii Heat and cold energy supply;
    - iv Water supply and sewerage;
    - v Vertical and horizontal movement of people and goods;
    - vi Information communication;
    - vii Operation controlling for machinery and equipment;
    - viii Local power generation;
    - ix Other functions as prescribed in the Bangladesh National Building Code (BNBC).
  - (d) Other measures for energy conservation as prescribed.

- (ii) The Authority shall set a threshold for buildings to be regulated under this Rule, based on total floor space of the building, in consultation with the Ministry of Housing and Public Works.
- (iii) The Authority shall co-operate with the Ministry of Housing and Public Works to incorporate energy performance requirements that are cost-effective on a life cycle basis, into the Bangladesh National Building Code (BNBC). The Code may include mandatory requirements for minimum energy performance and materials standards to eliminate use of materials, practices and equipment that are wasteful of energy.
- (iv) The Authority shall co-operate with the Ministry of Housing and Public Works to implement other policies, regulations and programmes as appropriate to promote energy conservation in construction of new buildings.
- (v) The Authority may recommend policies and regulations, and implement programmes to require or encourage energy efficient design, construction and outfitting of new buildings. This may include:
  - (a) National Energy Conservation Building Guidelines-prescribing measures for efficient use of energy in a new building and new building complex. These may include general measures applicable to all buildings, and a variety of recommended measures that may be appropriate and economically beneficial depending on the specific conditions of the individual building and location. These guidelines may include specification of:
    - i. Building design, including attention to passive solar design-using building orientation, daylight, passive cooling, ventilation, shade, etc., to reduce the need for energy in the building;
    - ii. Energy efficient building materials, insulation, construction methods, and other measures to achieve energy conservation in the building envelope-walls, roof, windows, etc.
    - iii. Energy performance of equipment, including lighting equipment, air conditioning and ventilation, water heating, solar panels, and pre-cooling of air used in air conditioning.
  - (b) Establishing a voluntary certification mechanism to incentivize the development of “Green Buildings”, of which the basic concept is the buildings that have a positive environmental impact and encourage sustainable construction practices, allowing efficiency and conservation of energy, water and building materials and to promote resource efficiency.
  - (c) The Authority may recommend to the Ministry of Power, Energy and Mineral Resources, the Ministry of Housing and Public Works, and other key decision makers, measures to be incorporated into the BNBC and other regulations of energy consumption.
- (vi) The Authority may recommend policies and regulations, and implement programmes to require or encourage energy efficient operation of existing buildings, retrofit of energy efficient technology and other measures to reduce energy consumption in existing buildings. This may include the following:
  - (a) The Authority shall develop criteria and list buildings as a designated large energy consumer for the purposes of these Rules. The criteria shall include the

electricity demand and other energy use. The criteria may also take into consideration the amount of investment required for switching over to energy efficient equipment and capacity of the building owners to invest in it and availability of the energy efficient machinery and equipment required by the buildings.

- (b) Designated large energy consuming establishments shall be subject to requirements and procedures specified in section 5 of these Rules.
- (c) The Authority may recommend to the Ministry of Housing and Public Works, and the Ministry of Power, Energy and Mineral Resources, minimum energy efficiency norms and standards for performances of specific building types, systems and technologies in operation of existing building.

#### **4.3 Energy Conservation in Small and Medium Enterprises (SMEs)**

- (i) Small and medium-sized enterprises (SMEs) to be regulated under these Rules are defined under the circular issued by the Bangladesh Bank, as per the National Industrial Policy Order 2010.
- (ii) Enterprises that fall under Chapter 5. of these Rules will not fall under the requirement stipulated in this section.
- (iii) Energy conservation measures to be taken by the Authority exclusively for the SMEs include the followings:
  - (a) Providing public fund(s) in the form of loan and / or grant for SMEs to invest in their energy conservation measures;
  - (b) Extending technical assistance and consultation services for identifying and implementing energy conservation measures;
  - (c) Undertaking energy conservation training programmes for the SME entrepreneurs, and;
  - (d) Other measures that are deemed to be necessary by the Authority.

### **5. Industry and Service**

#### **5.1 Designated Large Energy Consumers**

<Designation>

- (i) The Authority shall develop and set criteria for identifying and designating “large energy consumers” for the purposes of applying these Rules. The criteria shall be based on energy consumption at the establishments. Depending on specific conditions and capabilities that may vary with the types of the establishments, the criteria may be set individually for specific categories of industries and facility types.
- (ii) The Authority shall recommend to the Government to declare certain establishments as Designated Large Energy Consumers and incorporate that into

SCHEDULE B of these Rules. The Authority will formulate regulation, policies and programmes to ensure energy conservation in the establishments.

- (iii) The Authority shall create, maintain and update a list of Designated Large Energy Consumers. The list shall be accessible to the public through website and any other means of communication as required.

<General Reporting Obligations>

- (iv) The Authority may require any energy consuming establishments, including those designated as “large energy consuming establishments” to report energy use and other relevant data as prescribed.
- (v) The Authority may publish conditions and requirements for such reporting of energy consumptions and other relevant data, including procedures, formats and content of the reporting and means to identify and handle confidential business information.

<Energy Audit & Reporting Requirements>

- (vi) Designated Large Energy Consumers shall be required to conduct an energy audit of the facilities on annual basis. The results of the audit, including planned energy conservation measures and targets based on the audit shall be reported to the Authority as the “annual energy report”. Criteria, by level of energy consumption and in phased manner, of applicability of the obligation to conduct the energy audit, are as specified in SCHEDULE C.
- (vii) The Authority shall publish conditions and requirements for the conduct of energy audits and reporting , including procedures for conducting annual energy audits, content and format of audit reports to be provided to the Authority, and means of identifying and handling of confidential business information.
  - (a) Basic data requirement for the annual energy reporting is as specified in SCHEDULE D.
  - (b) Procedures and requirements for annual energy will be stipulated in **Regulations under** the Act.

<Energy Audit & Reporting: Energy Managers>

- (viii) To ensure energy conservation measures, Designated Large Energy Consumers will appoint a full-time energy manager to keep account of energy conservation by the establishment, and suggest energy efficiency improvement measures.
- (ix) The Authority shall publish requirements for qualifications and guidelines describing the detailed duties of energy managers and other relevant procedures and information;

<Energy Audit & Reporting: Mandate to meet the targets>



- (x) Designated Large Energy Consumers shall be bound to meet the energy conservation measures and targets submitted to the Authority with the energy audit report. The requirement will initially be on a voluntary basis, and gradually be made mandatory. The Authority shall provide the framework and timeline for this transition.
- (xi) The Authority may issue guidance, enforcement mechanism, and may provide advisory to the establishments to support the establishments to attain their energy conservation targets.

<Energy Audit & Reporting: Benchmarking>

- (xii) The Authority may develop and set certain criteria that are set based on assessment of the energy utilisation conditions in each of the industries:
  - (a) Benchmark targets for energy reduction per industry, as stipulated in SCHEDULE E;
  - (b) Minimum energy efficiency norms or standards, such as energy units per unit of output, for specific industrial processes and major technologies such as furnaces, industrial boilers, chillers and brick kilns.
  - (c) Specific technology requirements, such as waste heat recovery or cogeneration for boilers and chillers over a certain size and in certain industries.

<Energy Audit & Reporting: Enforcement Measure>

- (xiii) The Authority may disclose a list of non-compliant establishments which will be renewed on annual basis.

## 5.2 Training/Certification of Auditors, Energy Managers and Energy Service Companies

<Accreditation of Energy Auditor>

- (i) The Authority shall establish a system of accrediting Energy Auditors and set specific requirements for qualifications for accredited Energy Auditors. Procedures by means of application, examinations and registration will be stipulated in **Regulations under** the Act.
- (ii) The Authority shall prepare, disclose and maintain a list of Accredited Energy Auditors. The list shall be disclosed on the Authority's website, accessible to public, and revised on regular basis as stipulated by the Authority.

<Accreditation of ESCO: Energy Service Company>

- (iii) **The Authority shall establish a system of accrediting Energy Service Companies (ESCOs) and set specific requirements for qualifications for accredited Energy Service Companies.**
- (iv) **For this purpose, the Authority shall develop and provide:**

- (a) Certification standards and programmes for ESCOs, and training programmes to build capacity of candidate firms and professional staff, as stipulated in **Regulations under the Act**;
- (b) A list of energy service contractors accredited as qualified to perform energy audits, design and implement new energy conservation investment projects as well as energy conservation retrofit projects;
- (c) Information and training for experts, Accredited Energy Auditors in ESCOs and other stakeholders on up to date and appropriate technologies for efficient energy use and conservation.

<Certification of Energy Managers for Large Energy Consuming Establishments>

- (v) The Authority shall arrange a system for certifying Energy Managers for **Designated Large Energy Consumers** and set specific requirements for qualifications for such Energy Managers. The certification system will be prescribed in **Regulations under the Act**.
- (vi) For this purpose, the Authority shall develop and implement:
  - (a) Certification exams for energy managers;
  - (b) Certification standards and programmes for Certified Energy Managers;
  - (c) Training programmes to develop the capacity of Certified Energy Managers and candidate Energy Managers;

## 6. Public Sector

**Note:**

Specific Public Sector measures should be considered after a survey of activities in governmental administration has been conducted.

### 6.1 Energy Conservation in Government Operations

- (i) Government facilities and operations include office buildings, schools, hospitals, military facilities, government provided or managed housing, vehicle fleets, roads, bridges, airports and other infrastructure constructed or managed by government also includes all levels of regional, municipal and village government as well as semi-government, autonomous and state-owned companies.
- (ii) The Authority may, in the interest of energy conservation, consult with senior officials in the Planning Commission, Ministries of Power, Energy and Mineral Resources; Finance; Housing and Public Work; Defence, Industry, and others to assist in developing and implementing energy conservation in government procurement, construction and operations.
- (iii) Every Ministry and government organization shall identify and implement energy conservation programmes including:
  - (a) Procurement of energy efficient products, including products labelled as energy efficient under section 4 of these Rules;

- (b) high performance sustainable building design and construction for new buildings and other facilities;
  - (c) energy conservation in operations of existing buildings, and other facilities, including low cost energy savings from improved facility management and maintenance;
  - (d) investments in retrofit of efficient technology in existing facilities where cost-effective on a life cycle;
  - (e) energy conservation in operation of non-building systems that use large amounts of energy such as street lighting, transportation of personnel and goods by government organizations on roads, railways, waterways, air and others.
- (iv) Each Government Ministry or organization shall identify a focal point for energy management within the organization and for facilitating interaction with the Authority, and other organization in implementing energy conservation programmes. Each focal point shall be reductions achieved each year to the Authority.
- (v) To provide support for government energy conservation, the Authority may:
- (a) Publish information on energy efficient products recommended for government procurement, energy efficient design features for new buildings, good practices for energy management and retrofit.
  - (b) Cooperate with responsible officials across government to develop plans and targets for energy conservation programmes and procedures.
  - (c) develop technical materials, and implement training and other programmes to enhance capacity for, and facilitate selection of efficient products
  - (d) Recommend to the Ministry regulations for Government procurement, construction and management of facilities, and other aspects of energy conservation in government operations.

## 6.2 Energy Information, Reporting and Policy Development

**Note:**

SREDA administration should first concentrate on the operation of measures in residential, commercial, industry and service sectors.

SREDA's reporting duties should be considered after the development of capacity to collect and manage data through accumulation of know-how and experiences.

- (i) The Authority shall within one year of passage of these Rules, and after consultation with a full range of government and nongovernmental partners and stakeholders, develop and recommend to the Ministry a comprehensive National Energy Conservation Master Plan. Once approved and issued by the Government, this will supplement and guide implementation of the provision of these Rules. The policies based on the Master Plan will include quantitative targets for energy conservation nationally and by sector. The Authority shall review this policy regularly and recommend revisions to the Ministry when necessary.

- (ii) The Authority shall be responsible for coordinating compilation, maintenance, analysis and reporting of detailed data on energy consumption, energy losses, including supply side losses, audit reports, conservation opportunities and implementation of conservation measures at the national, sector and, where possible, individual facility level. This data shall be maintained in a user accessible information system, available to the public except for confidential business information. Consistent with the vision of “Digital Bangladesh” the information system will give attention to mechanisms for electronic reporting via internet or other means by entities required to report or voluntarily submitting energy conservation related data and information.
- (iii) Sources of inputs to the information system may include;
  - (a) Data and reports required from designated large energy consuming entities as prescribed in accordance with these Rules;
  - (b) Data and information related to energy production, use and losses, energy using equipment, investments, operation and maintenance costs related to energy consumption, and other relevant data available from other Government Agencies, such as the Bangladesh Bureau of Statistics, the Bangladesh Energy Regulatory Commission, the Ministries of Industry, Transportation, Defence, Environment and Forests, and others;
  - (c) Data and other information provided by private firms, business organizations, NGOs, academics, international organization on a voluntary basis;
  - (d) Results of consumer surveys and other research supported by the Authority and other organizations to obtain data on energy consumption, consumer behaviour, factors affecting product choice and other consumer decisions; and other factors affecting energy consumption in householders, businesses, factories and other facilities.
- (iv) The Authority shall cooperate with other public departments, power sector utilities, non-governmental organizations or associations and others prepare energy conservation action plans for all major energy consuming sectors of the economy, and to track implementation of these plans and resulting energy consumption.
- (v) The Authority shall be responsible each year for drafting and recommending to the Ministry an Annual Report on Energy Conservation in Bangladesh. This will include summaries of data on energy consumption and conservation activities in each sector of the economy. Much of this information will be provided by other Ministries or organizations for sectors that are not the primary responsibility of the Authority. This will be combined with data, information and analysis carried out in the Authority’s ongoing activities. The report shall include:
  - (a) A review of energy consumption trends, conservation plans and targets at the national and sector level, and evaluation of progress toward these targets;
  - (b) A review of status of implementation of Government and programmes, including evaluation and recommendations for change in policies and programmes;
  - (c) Status of major energy conservation programmes implemented by the Authority including accomplishments and evaluation of progress and results of these programmes;

- (d) A financial accounting for the year including a summary of financing activities carried out by the Authority under these Rules;

## 7. Sector-wide Measures

### 7.1 Public Awareness, Promotion and Programmes

**Note:**

Specific stipulation should be considered after the start of sectoral measures.

- (i) The Authority may, to support national energy conservation, carry out programmes to;
  - (a) Encourage and promote energy conservation, including capacity development and public awareness;
  - (b) Promote energy conservation education and research, including by:
    - i Providing grants to non-governmental organization engaged in energy conservation education and promotion of energy conservation;
    - ii Preparation of educational curriculum on efficient use of energy and its conservation for primary, secondary and **higher secondary** educational institutions, boards, universities or autonomous bodies and coordinate with them for inclusion of such curriculum in their syllabus;
- (ii) The Authority may issue guidelines specifying good practices in:
  - (a) Industrial energy conservation, including generally applicable technologies and practices, and guidelines for specific industrial processes or sub-sectors;
  - (b) Energy efficient building design and construction;
  - (c) Facility energy management;
  - (d) Energy conservation in government operations;
  - (e) Energy conservation in the use of fuels in traditional technologies;
  - (f) Energy conservation in the domestic sector, and;
  - (g) Other energy conservation practices and technologies.

**Note:**

Efficiency in rice parboiling will come under renewable energy administration rather than energy conservation.

- (iii) The Authority may implement training and other capacity building programmes to support implementation of conservation measures in key energy using sectors; and
- (iv) The Authority may, in consultation with the Ministry and other stakeholders, develop and implement recognition and incentive programmes to promote voluntary implementation of energy conservation by individuals and other organizations

## 8. Power to make Regulations by Section 26 of the Act

- (i) In exercise of the power conferred to by section 25 of the Act, the Authority, with prior approval of the Government, can promulgate regulations as deemed necessary for proper implementation of energy conservation programmes.
- (ii) The Authority may modify the SCHEDULES to these Rules as necessary to facilitate effective energy conservation programmes.

**9. Promulgation of the Rules**

- (i) After promulgation of these Rules, the Government will publish an English version of these Rules in the official gazette, which will be treated as an authentic English Text of these Rules. In case of discrepancy in interpretation, the interpretation of the Bangla version will be deemed valid.

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## SCHEDULE A

## List of Equipment and Appliances Applicable to Energy Efficiency Labelling Obligations

## Phase 1

1. Room air conditioners
2. Refrigerators, freezers
3. 3 phase induction motors
4. Compact Fluorescent Lamps (CFLs)
5. Electrical fans
6. Gas cook stoves

## Phase 2

7. All types of water pumps over 2 horsepower
8. Electric water heaters
9. Microwave ovens
10. Television sets
11. Clothes irons
12. Rice cookers
13. Blenders/mixers
14. Washing machine

## Phase 3

15. Other appliances to be determined

	2014	2015	2016	2017	2018	2019
Phase 1 Components	Voluntary	Voluntary	Compulsory	Compulsory	Compulsory	Compulsory
Phase 2 Components			Voluntary	Voluntary	Compulsory	Compulsory
Phase 3 Components					Voluntary	Voluntary

## Note:

- Voluntary Phase: Star labelling will be introduced.
- Compulsory Phase: Only the equipment and appliances with certain star labelling will be allowed to be sold.

## SCHEDULE B

Criteria for designating large energy consuming establishments by category

No.	Category	Criteria for designated large energy consuming establishments
01	Chemical fertilizer factories	ALL
02	Paper and pulp industries	
03	Jute & jute processing industries	Annual consumption of electricity of over 10,000 kWh
04	Textile industries	
05	Garments industries	
04	Cement factories and clinker grinding factories	ALL
05	Iron and steel (electric furnaces)	ALL
06	Iron and steel (rerolling mills)	Consecutive annual production of **** tons or more for the recent three years
07	Sugar factories	ALL
08	Food processing industries	
09	Chemical and pharmaceutical industries	
10	Glass industries	
11	Ceramic industries	
12	[Brick fields]	NONE
13	Transport terminals (including seaports, airport, stations)	
14	Multi-storeyed residential apartments	
15	Commercial and institution buildings (including office buildings, hotels, shopping malls, hospitals, educational facilities)	
16	Cold Storage	
17	Ice making plants	
18	Lime and salt industries	
19	Frozen food industries	
20	Plastic processing industries	
21	Leather industries	
22	Rice mills	Annual production of *** tons
23	Wood processing industries	
99	Other Industries and installations as published by government notifications	



Data required per industry for setting threshold levels include, but are not limited to:

- 1) Energy consumption (total and breakdown by fuel source);
- 2) Production amount
- 3) Number of employee;
- 4) Financial results (Earnings from Operation, Net earnings).

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## SCHEDULE C

Energy Audit Requirements for designated large energy consuming establishments by category:

No.	Category	Commencement of voluntary auditing	Commencement of compulsory auditing
01	Chemical fertilizer factories	2014	2016
02	Paper and pulp industries	2014	2016
03	Jute & Jute processing industries	2014	-
04	Textile industries	2014	2020
05	Garments industries	2014	2020
04	Cement factories and clinker grinding factories	2014	2016
05	Iron and steel (electric furnaces)	2014	2020
06	Iron and steel (rerolling mills)	2014	2020
07	Sugar factories	-	-
08	Food processing industries	2014	2016
09	Chemical and pharmaceutical industries	2014	2020
10	Glass industries	-	-
11	Ceramic industries	-	-
12	[Brick fields]	-	-
13	Transport terminals (including seaports, airport, stations)	2014	2016
14	Multi-storeyed residential apartments	2016	-
15	Commercial and institution buildings (including office buildings, hotels, shopping malls, hospitals, educational facilities)	2016	-
16	Cold Storage	2016	-
17	Ice making plants	2016	-
18	Lime and salt industries	2016	-
19	Frozen food industries	2016	-
20	Plastic processing industries	2016	-
21	Leather industries	-	-
22	Rice mills	2014	-
23	Wood processing	2014	-
99	Other Industries and installations as published by government notifications		

SCHEDULE D

Annual Energy reporting format and contents of required to be submitted by designated large energy consuming establishments.

1. Annual energy report should contain at least the following data for all facilities within the establishments:
  - i. Total energy consumption (by source of energy, i.e., fuel, heat, electricity)
  - ii. Energy efficiency and productivity levels (relative to output)
  - iii. Energy reduction history (chronological)
  - iv. Activity data
  - v. Designated energy manager and her/his activities
  - vi. Energy conservation measures conducted during the reporting period
  - vii. Annual energy conservation plan (including measures and target(s))
  - viii. Medium term energy conservation plan (including measures and target(s))
  
2. Annual and medium-long-term plan of energy conservation measures to be implemented:

Type of plan	Target setting	Obligation	Non-compliance
Annual energy conservation plan and targets	12 month from the submission of the annual energy report containing the short term energy conservation measures		To be deemed non-compliant if the targets were not met for two consecutive years.
Medium term energy conservation plan and targets	Up to 36 months from the submission of the annual energy report containing the medium term energy conservation measures. The plan may be reviewed and revised on rolling basis.		To be deemed non-compliant either if the target is not met or if downward revisions of the target were to be made for more than three times during the planned term period.

## SCHEDULE E

## Benchmarks and minimum efficiency requirements

No.	Equipment / Facility	Benchmark efficiency	Minimum required energy efficiency standard
01	[Brick kilns]		
02	Furnaces		
03	Industrial boilers		
04	Industrial and commercial chillers		
05	Electrical motors over 10 hp		
06			
07			
08			
09			
10			
11			

Enforcement year by notification from the Government