

# ENERGY MANAGEMENT

## (Regulation of the Minister of Energy and Mineral Resource of R.I. Number 14 Year 2012, dated May 29, 2012)

WITH THE BLESSING OF THE ONE AND ONLY GOD

THE MINISTER OF ENERGY AND

MINERAL RESOURCE

OF THE REPUBLIC OF INDONESIA,

Considering:

To implement the provisions in Article 13 paragraph (5), Article 19 paragraph (3), Article 21 paragraph (2), and Article 27 of Government Regulation Number 70 Year 2009 concerning Energy Preservation, it is necessary to stipulate Regulation of the Minister of Energy and Mineral Resource on Energy Management;

In view of:

1. Law Number 30 Year 2007 (BN No. 7566 pgs. 2B-8B) concerning Energy (Statute Book the Republic of Indonesia Year 2007 Number 96, Supplement to Statute Book of the Republic of Indonesia Number 4746);
2. Government Regulation Number 70 Year 2009 concerning Energy Preservation (Statute Book the Republic of Indonesia Year 2009 Number 171, Supplement to Statute Book of the Republic of Indonesia Number 5083);

3. Presidential Decree Number 59/P Year 2011, dated October 18, 2011;

4. Regulation of the Minister of Energy and Mineral Resource Number 18 Year 2010 concerning Organization and Work Procedure of the Ministry of Energy and Mineral Resource (Statute Book of the Republic of Indonesia Year 2010 Number 552);

**D E C I D E S:**

To stipulate:

**REGULATION OF THE MINISTER OF ENERGY AND  
MINERAL RESOURCE ON ENERGY MANAGEMENT.**

**CHAPTER I**

**GENERAL PROVISION**

**Article 1**

What is meant in this Regulation of the Minister by:

1. Energy Preservation shall be systematic, planned and integrated efforts for preservation of domestic energy resource and improving efficiency in its utilization.

2. Energy Management shall be integrated activities to control energy consumption in order to achieve effective and efficient utilization of energy for maximum output through structured and economic technical action to minimize energy utilization including energy to process production and minimize consumption of basic material and supporting material.
3. User of Energy Resource shall be individual person, business entity, permanent business entity, government institution, and non-government institution, using energy resource.
4. User of Energy shall be individual person, business entity, permanent business entity, government institution, and non-government institution, utilizing energy to produce products and/or services.
5. Specific Energy Consumption shall be energy used to produce one (1) unit of products or output.
6. Energy Manager shall be any person appointed to exercise Energy Management.
7. Energy Audit shall be evaluation process on energy utilization and identification of potential energy saving and recommendation for improved efficiency to user of energy resource and user of energy in the context of Energy Preservation.
8. Recommendation on Non-Investment shall be recommendation on the result of audit on energy not requiring cost in its implementation.
9. Recommendation on Low Investment shall be recommendation on the result of energy audit with criteria of potential energy saving 10% (ten percent) and/or refund of investment less than two (2) years.
10. Recommendation on Medium Investment shall be recommendation on the result of energy audit with criteria of potential energy saving between 10% (ten percent) and 20% (twenty percent) and/or time for investment refund in two (2) to four (4) years.
11. Recommendation High Investment shall be recommendation on the result of energy audit with criteria of potential energy saving exceeding 20% (twenty percent) and/or time for investment refund more than four (4) years.
12. Minister shall be minister carrying out administration affairs on energy and mineral resource.
13. Director General shall be director general on duty and responsible for new energy, renewable energy, and Energy Preservation.

Article 2

- (1) Authority of the Minister covers implementation of Energy Management within Energy Resource User and Energy User for provision of energy or utilization of energy which permits are stipulated by the Government or joint operation contract yang management is in the hands of the Government.
- (2) The Government referred to in paragraph (1) shall mean the ministers granting permits for energy supply or energy utilization exercising management of joint operation contract on natural resources.
- (3) Authority of the Governor covers implementation of Energy Management on User of Energy Resource and User of Energy supplying energy or utilizing energy which permit is stipulated by the Governor.
- (4) Authority of the Regent/Mayor covers implementation of Energy Management on User of Energy Resource and User of Energy supplying energy or utilizing energy which permit is stipulated by the Regent/Mayor.

CHAPTER II

IMPLEMENTATION OF ENERGY MANAGEMENT

Part One

General

Article 3

User of Energy Resource and User of Energy using Energy Resource and/or Energy above or equivalent to 6.000 (six thousand) equivalent ton oil per year shall be obliged to exercise Energy Management.

Article 4

User of Energy Resource and User of Energy using Energy Resource and/or Energy less than 6.000 (six thousand) equivalent ton oil per year, shall be obliged to exercise Energy Management and/or exercise saving energy.

Part Two

Energy Management

Article 5

Energy Management referred to in Article 3 and Article 4 shall be exercised by:

- a. appointing Energy Manager;
- b. preparing Energy Preservation program;
- c. carrying out Energy Audit periodically;
- d. implementing the recommendation on the result of energy audit; and
- e. reporting implementation of Energy Management each year to the Minister, Governor, or Regent/Mayor based on their respective authority.

Part Three

Energy Manager

Article 6

- (1) The User of Energy Resource and User of Energy

referred to in Article 3 are obliged to establish Energy Management Team.

- (2) The Energy Management Team referred to in paragraph (1) shall be chaired by Energy Manager.
- (3) The Energy Manager referred to in paragraph (2) shall be assigned the duty to:
  - a. initiate planning on Energy Preservation covering among other things, stipulating the target and program of Energy Preservation, preparation of procedure for Energy Preservation operation and implementation of Energy Audit;
  - b. to carry out Energy Preservation covering among other things, preparation of Energy Preservation program, implementation of recommendation on the result of Energy Audit, and improvement of consciousness and motivation in saving energy of the employees;
  - c. exercise monitoring and evaluation covering measuring, recording, preparing report and providing proposal for repair and improvement action in the implementation of Energy Preservation program.
- (4) Energy Manager is obliged to hold certificate of competence based on the provisions in the statutory regulation.

Part Four

Energy Preservation Program

Article 7

- (1) Energy Preservation Program referred to in Article 5 letter b covers:
  - a. short-term program, such as repair of operation procedure, maintenance and installation of simple controlling instruments;
  - b. medium-term program, such as improvement of instrument efficiency and fuel switching;
  - c. improvement of consciousness and technical knowledge on Energy Preservation to the employees/operators continuously.
- (2) Energy Preservation Program referred to in paragraph (1) shall at least contain information cited below:
  - a. program to be implemented;
  - b. target and achievement;
  - c. type and consumption of energy;
  - d. use of save energy equipment;
  - e. measures for Energy Preservation; and
  - f. total volume of products produced or services provided.

Part Five

Energy Audit

Article 8

- (1) Energy Audit referred to in Article 5 letter c shall

be conducted periodically on at least on the use of utilizing instrument on prime energy at least once in three (3) years.

(2) Energy Audit referred to in paragraph (1) shall be conducted by Energy Internal Auditor and/or Accredited Institution..

(3) The Auditor referred to in paragraph (2) shall be obliged to hold Certificate of Competence based on the provisions in the statutory regulation.

Article 9

In the event that no energy internal auditor that holds Certificate of Competence or Accredited Auditor is yet available, Energy Audit must be conducted by a Team duly established by the Director General.

Part Six

Recommendation on Energy Audit

Article 10

Implementation of recommendation on the result of energy audit referred to in Article 5 letter d, shall be conducted with the provisions below:

- a. Recommendation on Non-Investment must be applied for at least one (1) year;
- b. Recommendation on Low Investment must be applied for at least less than two (2) years;
- c. Recommendation on Medium Investment and Recommendation on High Investment must be

applied for at least five (5) years.

Part Seven

Report on Implementation of Energy Management

Article 11

(1) Annual Report on implementation of Energy Management referred to in Article 5 letter e must be submitted to the Minister c.q. the Director General, the Governor, the Regent/Mayor based on their respective authority.

(2) The Annual Report on implementation of Energy Management submitted to the Governor and Regent/Mayor referred to in paragraph (1) must be copied to the Director General.

(3) The Report on implementation of Energy Management referred to in paragraph (1) must be submitted in the month of January up to the March 31st in the following year and must contain the information on:

- a. organization of Energy Management and Energy Manager appointed;
- b. Energy Preservation program;
- c. implementation of periodical energy audit; and
- d. implementation of recommendation on the result of energy audit.

(4) The Report on the implementation of Energy Management referred to in paragraph (3) for the first time must be submitted in the month of January

2013 for report for the period effective as of the date this Regulation of the Minister takes effect up to the month of December 2012.

- (5) Procedure for reporting implementation of Energy Management shall be implemented by using the format as specified in the Attachment that constitutes inseparable part of this Regulation of the Minister.

### CHAPTER III

#### IMPLEMENTATION OF SAVE ENERGY

##### Article 12

Save energy by the User of Energy Resource and Energy User referred to in Article 4 shall be implemented by means of:

- a. air system;
- b. lighting system;
- c. supporting instruments;
- d. production process; and/or
- e. prime energy utilization instruments.

##### Article 13

(1) Energy saving using air system as referred to in Article 12 letter a shall be exercised by means of the following:

- a. for State-owned Building Construction and BUMN, BUMD, and BHMN Building Construction, if using AC shall be exercised by:
  1. using save energy AC (high-tech inverter) with power adjusted with the room size;

2. using refrigerant of hydrocarbon type;
3. placing AC compressor unit at the location that is exposed to sun ray;
4. putting off the AC if the room is not used;
5. installing room thermometer in order to monitor the room temperature;
6. controlling the temperature and relative moisture according to Indonesia National Standard (SNI), namely:
  - a) work room with temperate ranging from 24oC to 27oC with relative moisture ranging from 55% (fifty-five percent) to 65% (sixty-five percent);
  - b) transit room (lobby, corridor) with temperature ranging from 27oC to 30oC with relative moisture ranging from 50% (fifty percent) to 70% (seventy percent).
7. operating central AC:
  - a) 30 (thirty) minutes before working hours put on the AC fan unit, and one hour thereafter put on the AC compressor;
  - b) 30 (thirty) minutes before the end of working hours put off the AC compressor unit, and put off the AC fan when the working hours is over;
8. ensuring that no air from outside is entering into an airconditioned room that may reduce the cooling system;

9. conducting maintenance periodically based to the factory manual;
  - b. using certain type of glass that may reduce the heat from the sun entering into the room but not reducing natural light;
  - c. reducing air temperature at or around the building by growing plants and/or building water pool.

(2) Saving energy by lighting system referred to in Article 12 letter b shall be exercised by:

- a. using energy save lamp according to its allotment;
- b. reducing use of ornament lamps (assesoris);
- c. using electronic ballast elektronik in TL lamp (neon);
- d. controlling maximum electric power for lighting (including ballast rugi-rugi) according to Indonesia National Standard (SNI) for:
  1. receptionist room with 13 Watt/m<sup>2</sup> with lighting level at the lowest 300 lux;
  2. working room with 12 Watt/m<sup>2</sup> with lighting level at the lowest 350 lux;
  3. meeting room, filing room with active 12 Watt/m<sup>2</sup> with lighting at the lowest 300 lux;
  4. filing warehouse with 6 Watt/m<sup>2</sup> with lighting level at the lowest 150 lux;
  5. emergency stairway space with 4 Watt/

m<sup>2</sup> with lighting level at the lowest 150 lux;

6. parking space with 4 Watt/m<sup>2</sup> with lighting level at the lowest 100 lux;
  - e. using reflecting lamp housing (armatur) that has high light reflection;
  - f. controlling the switch based on area group, so as to justify with room utilization;
  - g. using automatic switch with time controller (timer) and/or lighting sensor (photocell) for garden lamps, corridor, and verandah;
  - h. putting off the room lighting in Building Construction if the room is not in use;
  - i. utilizing natural lighting (sun) during the day and open the curtain sufficiently so that the sun rays suffice for operating work activities;
  - j. cleaning the lamp and lamp housing (armatur) from dirt and ash so it will not prevent lamp lighting.

(3) Energy saving in supporting instruments referred to in Article 12 letter c shall be exercised by:

- a. stopping operation of the lift at every two (2) floors;
- b. using speed controlling device and movement sensor at the escalator;
- c. putting oof the computer when leaving the work room more than 30 (thirty) minutes;
- d. putting off the printer if not in use and put it on only right before starting to print;

- e. using photofocopy machine supported by standby mode with low electric power consumption;
- f. operating audio-video equipment as needed;
- g. putting on water heater and dispenser a few minutes before use and putting it off after use;
- h. increasing electric power network source by installing bank capacity.
- i. endeavoring to conduct energy diversification such as solar and wind energy.

(4) Save energy in producing process referred to in Article 12 letter d shall be conducted by:

- a. modifying more efficient producing process technology;
- b. optimizing the system of producing.

(5) Saving energy in utilization of prime energy referred to in Article 12 letter e shall be conducted by:

- a. load optimization shall be among other things, by installing inverter especially on machinery using electric engines that operate with dynamic load and substantial capacity;
- b. controlling the ratio between air and oil fuel so as to obtain efficient combustion;
- c. utilizing compustion gsa such as by co-generation or combined heat system and power (CHP);
- d. reducing heat losses such as by sufficient and

optimized isolation in the equipment;

- e. conducting fuel switching such as utilization of natural gas as fuel replacing High Speed Diesel (HSD);
- f. conducting periodical maintenance of equipment.

#### CHAPTER IV

#### MANAGEMENT AND SUPERVISION

#### Article 14

(1) The Minister c.q. Director General, Govenor, or Regent/Mayor based on their respective authority shall exercise management and supervision on the implementation of Energy Management and save energy.

(2) In exercising the supervision referred to in paragraph (1), the Director General on behalf of the Minister, the Governor, or Regent/Mayor based on their respective authority shall establish Supervisory Team for Energy Management.

(3) With respect to Governor or Regent/Mayor since no Supervisory Team for Energy Management may be referred to in paragraph (2) may be established yet, supervision shall be exercised by the Supervisory Team for Energy Management duly established by the Director General on behalf of the Minister. .

(4) The Supervisory Team for Energy Management



referred to in paragraph (3) shall report the result of supervision on Energy Management to the Director General with copy to the Governor or Regent/Mayor.

CHAPTER V

INCENTIVE AND DISINCENTIVE

Part One

Incentive

Article 15

(1) The user of Energy Resource and Energy User referred to in Article 3 and Article 4 that succeeds to implement Energy Preservation by means of Energy Management during a certain period shall be granted incentive by the Minister, Governor, Regent/Mayor according to their respective authority.

(2) The incentive referred to in paragraph (1) shall be granted to User of Energy Resource and Energy User conducting Energy Management for consecutive three (3) years that may reduce Specific Energy Consumption of at least 2% (two percent) per Year.

(3) The grant of incentive referred to in paragraph (1) and paragraph (2) in the form of Energy Audit in partnership pattern financed by the Government and/or as recommended to obtain priority in energy supply.

(4) To obtain incentive the User of Energy Resource and User of Energy are obliged to submit application to the Minister or Director General, the Governor, or the Regent/Mayor based on their respective authority.

(5) Based on the application referred to in paragraph (4) the Minister, the Governor, or Regent/Mayor based on their respective authority shall evaluate and decide, approve or reject the application for incentive.

(6) The Governor or Regent/Mayor according to their respective authority prior to making decision to grant incentive must be obliged to obtain consideration of the Director General.

Part Two

Disincentive

Article 16

(1) The User of Energy Resource and User of Energy referred to in Article 3 that fails to conduct Energy Preservation by means of Energy Management are subject to disincentive by the Minister, Governor or Regent/Mayor according to their respective authority.

(2) The disincentive referred to in paragraph (1) shall be in the form of:

- a. written reminder;
- b. announcement in the mass media;

- c. fine; and/or
- d. reduced energy supply.
- (3) The written reminder referred to in paragraph (2) letter a shall be imposed on User of Energy Resource and User of Energy if it fails to:
- a. appoint Energy Manager;
  - b. prepare Energy Preservation program;
  - c. conduct periodical Audit Energy;
  - d. make recommendation on the result of Audit Energy; or
  - e. report implementation of Energy Management within the period referred to in Article 11 paragraph (3) or paragraph (4).
- (4) The written reminder referred to in paragraph (2) letter a will be issued three (3) times each with a term of one (1) month.
- (5) If the User of Energy Resource and User of Energy being given three (3) written reminders as referred in paragraph (4) shall not conduct Energy Preservation through Energy Management, the Minister, Governor, or Regent/Mayor based on their respective authority shall announce the name of the User of Energy Resource and User of Energy concerned in the mass media.
- (6) If in one (1) month after the name of User of Energy Resource and User of Energy shall be announced in the mass media as referred to in (5) still fails to
- conduct Energy Preservation by means of Energy Management, the party concerned is subject to penalty.
- (7) The penalty referred to in paragraph (6) shall be charged two (2) times on the result of energy sumptuous use caused.
- (8) The result of energy sumptuous use referred to in paragraph (7), will be calculated based on 5% (five percent) of the energy cost used by the User of Energy Resource and User of Energy in one (1) year reporting period.
- (9) The output of penalty referred to in paragraph (8) must be deposited to the State Treasury / Regional Treasury in accordance with the provisions in the statutory regulation.
- (10) Within one (1) month after imposition of penalty the User of Energy Resource and User of Energy fail to make such payment, the Minister, the Governor, or the Regent/Mayor according to their respective authority shall decide to reduce energy supply to the party concerned.
- (11) The reduction of energy supply referred to in paragraph (10) is determined at maximum 5% (five percent) of the contract capacity concerned by providing energy for one (1) month supply and is renewable.

(12) The Governor or Regent/Mayor in determining reduction of energy supply referred to in paragraph (11) is obliged to obtain approval of the Minister.

(13) The reduction of energy supply referred to in paragraph (12) shall not eliminate the obligatory payment of penalty by the User of Energy Resource and User of Energy.

CHAPTER VI  
CLOSING PROVISION

Article 17

This Regulation of the Minister comes to force on the date it is enacted.

For public cognizance, this Regulation of the Minister shall be announced by placing it in the State Gazette of the Republic of Indonesia.

Stipulated in Jakarta

Dated May 29, 2012

MINISTER OF ENERGY AND MINERAL RESOURCE  
OF THE REPUBLIC OF INDONESIA,

sgd.

JERO WACIK

Enacted in Jakarta

Dated May 30, 2012

MINISTER OF LAW AND HUMAN RIGHTS  
OF THE REPUBLIC OF INDONESIA,

sgd.

AMIR SYAMSUDIN

STATE GAZETTE OF THE REPUBLIC OF INDONESIA  
YEAR 2012 NUMBER 557

Note from Editor:

Due to technical reason no Attachment is provided herein.

( MA )