

**TWENTIETH CONGRESS OF THE
REPUBLIC OF THE PHILIPPINES**
First Regular Session



Senate
Office of the Secretary

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SENATE
S.B. No. 1083

RECEIVED BY: 

Introduced by Senator WIN GATCHALIAN

**AN ACT REDUCING THE RECOVERABLE SYSTEM LOSS RATE AND FOR
OTHER PURPOSES**

EXPLANATORY NOTE

System loss is the difference between the electric energy delivered to the distribution system and the energy delivered to the end-users and other entities connected to the system. Although it is energy that end-users do not consume, they are made to pay for it through the system loss charge. However, this charge is dependent on the system loss cap determined by the Energy Regulatory Commission (ERC).

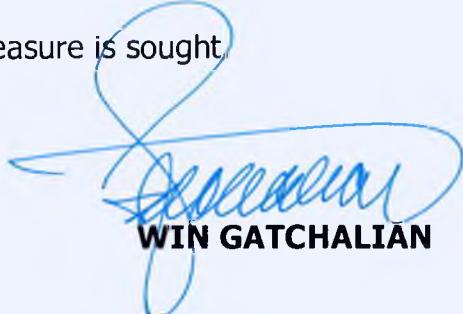
On April 23, 2018, the ERC issued ERC Resolution No. 10 Series of 2018¹ clarifying the *System Loss Calculation and Providing the Effectivity of the Rules for Setting the Distribution System Loss Cap*. The resolution set the maximum level of system loss that distribution utilities may recover from customers through the system loss charge known as the system loss caps. Under the resolution, the system loss cap for private distribution utilities (PDUs) is set at 6.5% for 2018 which will then be reduced to 6.25% in 2019, 6% in 2020 and 5.5% in 2021 and onwards. The same resolution states that for electric cooperatives (ECs), the system loss cap is 12% in 2018, a range of 11% to 12% in 2019, a range of 10% to 12% in 2020, a range of 9% to 12% in 2021 and a range of 8.25% to 12% from 2022 onwards.

¹ Entitled 'A Resolution Clarifying the System Loss Calculation and Providing the Effectivity of the Rules for Setting the Distribution System Loss Cap'.

These caps, determined seven years ago or in 2018, still regulate the system loss charges, to the detriment of consumers.

This measure requires the ERC to review, every three years, whether the system loss caps should be decreased and to devise a performance incentive scheme to encourage system loss reduction. Failure of the ERC to do so would subject it to penalty. Through this bill, it is hoped that distribution utilities will be incentivized to improve their operations resulting to a decrease in system losses and savings for the Filipino household.

Given the foregoing, the immediate passage of this measure is sought.



WIN GATCHALIAN



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SENATE

Senate Bill No. 1083

RECEIVED BY: _____

Introduced by Sen. Win Gatchalian

AN ACT
REDUCING THE RECOVERABLE SYSTEM LOSS RATE AND FOR OTHER
PURPOSES

Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

CHAPTER I

GENERAL PROVISIONS

Section 1. *Title.* - This Act shall be known as the "Recoverable System Loss Act."

Sec. 2. *Declaration of Policy.* - It is hereby declared the policy of the State to ensure the quality, reliability, security, and affordability of supply of electric power while taking into consideration the viability of all distribution utilities and the protection of rights of every consumer. Towards this end, the State shall ensure that the imposition of electricity charges to the public is justifiable, equitable, and reflects the true cost of electricity.

Sec. 3. *Definition of Terms* - For purposes of this Act, the following terms shall be defined as stated below: *Provided,* That other terms used in this Act but not defined herein shall be understood to mean the way they are defined in Republic Act No. 9136 or Electric Power Industry Reform Act of 2001 and its Implementing Rules and Regulations:

a) *Distribution Utility (DU)* refers to any electric cooperative, private distribution utility, government-owned or existing local government unit-

- owned utility, which has a franchise to operate a distribution system including those whose franchise covers economic zones;
- b) *Electric cooperative (EC)* refers to a distribution utility organized pursuant to Presidential Decree No. 269, as amended, or as otherwise provided in Republic Act No. 9136 otherwise known as the Electric Power Industry Reform Act of 2001;
- c) *Department of Energy (DOE)* refers to the government agency created pursuant to Republic Act No. 7638 otherwise known as the Department of Energy Act of 1992 whose expanded functions are provided in Republic Act No. 9136 otherwise known as the Electric Power Industry Reform Act of 2001;
- d) *Energy Regulatory Commission (ERC)* refers to the regulatory body created pursuant to Republic Act No. 9136 otherwise known as the Electric Power Industry Reform Act of 2001;
- e) *Energy input* refers to the energy, in kilowatt hour (kWh), delivered into the distribution system by the transmission system, embedded generating plants, other distribution systems, and user systems with generating facilities;
- f) *Energy output* refers to the energy, in kWh, delivered by the DU to its customers metering point, including energy for the DU's own use;
- g) *National Electrification Administration (NEA)* refers to government agency created under Presidential Decree No. 269, as amended by Republic Act No. 10531 or the National Electrification Administration Reform Act of 2013, and whose additional mandates are further set in Republic Act No. 9136 otherwise known as the Electric Power Industry Reform Act of 2001;
- h) *National Power Corporation (NPC)* refers to the government corporation created under Republic Act No. 9136 otherwise known as the Electric Power Industry Reform Act of 2001;
- i) *Non-Technical Losses* refer to the component of System Loss that is not related to the physical characteristics and functions of the electrical system, and is caused primarily by human action, whether intentional or not. Non-Technical Loss includes but shall not be limited to the energy lost due to

1 pilferage, tampering of meters, and erroneous meter reading. It shall be
2 calculated in accordance with Section 7 of this Act;

3 j) *Private Distribution Utility (PDU)* refers to a distribution utility organized as
4 a private corporation which has a franchise to operate a distribution system
5 including those whose franchise covers economic zones: *Provided, That* for
6 purposes of this Act, government-owned and local government owned
7 utilities as well as those operating within economic zones shall be classified
8 as PDUs;

9 k) *Small Power Utilities Group (SPUG)* refers to the functional unit of the NPC
10 created to pursue missionary electrification function;

11 l) *System Loss* refers to the difference between the electric energy delivered
12 to the distribution system (Energy Input) and the energy delivered to the
13 end- users and other entities connected to the system (Energy Output):
14 *Provided, That* it shall be calculated in accordance with Section 5 of this
15 Act;

16 m) *Technical Losses* refer to the component of System Loss that is inherent in
17 the physical delivery of electric energy. It includes conductor loss,
18 transformer core loss, and metering equipment. It shall be calculated in
19 accordance with Section 6 of this Act;

20
21 Sec. 4. *Recoverable System Loss Rate* – For purposes of recoverable Systems
22 Loss rate, the following System Loss caps are set:

23 a) For PDUs, a maximum of five percent (5.5%); and

24 b) For ECs, a maximum of ten percent (10.25%).

25 The ERC shall determine, every three (3) years, whether the caps shall be
26 reduced further on the basis of load density, sales mix, cost of service, delivery
27 voltage, and other technical considerations, as well as international benchmarks,
28 taking into account the viability of PDUs and ECs and the interest of the consumers:
29 *Provided, That* the ERC shall establish a timeframe for the compliance of all the DUs
30 with the System Loss rate caps: *Provided further, That* such timeframe for compliance

1 shall coincide with the next regulatory period of PDUs and ECs: *Provided finally*, That
2 for ECs operating in SPUG areas, such timeframe shall concur with their rate filing.

3
4 *Sec. 5. System Loss Calculation.* - For purposes of calculating the System Loss
5 as defined in this Act and for any regulation in relation thereto, the following formula
6 for System Loss shall be followed or as determined by the ERC:

7
8
$$\text{Total System Loss} = \Sigma \text{ Energy delivered by the Transmission System} + \Sigma \text{ Energy}$$

9
$$\text{delivered by the Embedded Generators} + \Sigma \text{ Energy delivered by other Distribution}$$

10
$$\text{Systems} + \Sigma \text{ Energy delivered by User Systems with Generating Units} - \Sigma \text{ Energy}$$

11
$$\text{delivered to the Users of the Distribution System} - \text{Distribution Utility Use}$$

12
13 *Sec. 6. Technical Loss Calculation* – The Technical Loss shall be calculated using
14 the following formula or as determined by the ERC:

15
16
$$\text{Technical Loss} = \text{Feeder Technical Loss} + (\text{Sub-transmission Line Loss} + \text{Substation}$$

17
$$\text{Technical Loss})$$

18
19 *Provided*, That the Technical Loss shall be calculated using the following
20 method or as determined by the ERC:

- 21 a) By conducting a power flow simulation to segregate the various components of
22 the Technical Loss using a reliable software application acceptable to the ERC;
23 and
24 b) By using the Coefficient and Network Parameters as well as the Sub-
25 transmission and Substation losses.

26
27 *Sec. 7. Non-Technical Loss Calculation.* - The Non-Technical Loss shall be
28 calculated using the following formula or as determined by the ERC:

29
30
$$\text{Non-Technical Loss} = \text{Total System Loss} - \text{Technical Loss}$$

31

1 Sec. 8. *Annual Review of System Loss Charges.* - DUs shall quarterly submit to
2 the ERC a sworn statement containing their segregated System Losses indicating their
3 Technical and Non-Technical Losses, and all documents pertinent to System Loss
4 Charges. The ERC shall annually review and strictly verify the System Loss Charges to
5 ensure that only allowable costs within the System Loss caps are recovered. Failure to
6 comply with this Section shall subject the DUs to administrative penalties, including
7 but not limited to suspension or revocation of licenses or permits to operate, to be
8 determined by the ERC.

9
10 Sec. 9. *Performance Incentive Scheme (PIS).* - The ERC shall devise a
11 Performance Incentive Scheme for DUs to encourage System Loss reduction in
12 furtherance of the objectives stated in this Act.

13
14 Sec. 10. *Individualized System Loss Cap.* - A DU, in exceptional circumstances,
15 may be allowed to use an individualized System Loss cap: *Provided*, That the details
16 and procedures on the individualized System Loss cap such as but not limited to rules
17 and guidelines to qualify for its use, the method for determination of the cap, and the
18 data requirements to be submitted shall be determined by the ERC: *Provided further*,
19 That in determining the reasonable level of an individualized System Loss cap, a cost
20 and benefit analysis must be provided and analyzed from the viewpoint of the
21 consumer: *Provided finally*, That the no individualized System Loss cap shall be higher
22 than the existing System Loss cap at the time of the effectivity of this Act.

23
24 Sec. 11. *Timeline on Individualized System Loss Cap.* - The ERC shall issue a
25 final decision on a DU's application for the use of an individualized System Loss cap
26 within one hundred and twenty calendar days (120) from submission of such
27 application: *Provided*, That failure of ERC to comply with the time stated herein shall
28 subject the persons concerned to the administrative penalties stated in Section 12 of
29 this Act.

30
31 Sec. 12. *Administrative Offenses and Penalties.* - The following acts shall be
32 considered administrative offenses:

1 a) Failure to discharge the responsibilities stated in Sections 4, 8, 9, 10, and 11
2 of this Act; and

3 b) Failure to comply with the mandated timeframes in Sections 4, 8, and 11 of
4 this Act.

5 Any person found guilty of the offenses mentioned above shall be penalized as follows:

6 a) First offense - Thirty days suspension without pay and mandatory attendance
7 in Values Orientation Program;

8 b) Second offense - Six (6) months suspension without pay; and

9 c) Third offense - Dismissal that shall carry with it perpetual disqualification from
10 holding public office, and forfeiture of retirement benefits.

11
12 Sec. 13. *Implementing Rules and Regulations.* - Within ninety (90) days from
13 the effectivity of this Act, the ERC, in coordination with the Department of Energy and
14 the National Electrification Administration and in consultation with stakeholders, shall
15 promulgate the necessary rules and regulations to implement the provisions of this
16 Act.

17
18 Sec. 14. *Separability Clause.* If any portion or provision of this Act is declared
19 unconstitutional, the remainder of this Act or any provisions not affected thereby shall
20 remain in force and effect.

21
22 Sec. 15. *Repealing Clause.* Any law, presidential decree or issuance, executive
23 order, letter of instruction, rule or regulation inconsistent with the provisions of this
24 Act is hereby repealed or modified accordingly.

25
26 Sec. 16. *Effectivity.* - This Act shall take effect fifteen (15) days following its
27 complete publication in the Official Gazette or a newspaper of general circulation.

28
29 *Approved,*