

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



2022 JUL 12 A11 :59

SENATE  
S.B. No. 385

RECEIVED BY

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**Introduced by Senator WIN GATCHALIAN**

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**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). ERC Resolution No. 10 Series of 2018<sup>1</sup> states that the system loss caps for private distribution utilities (PDUs) is 6.5% for 2018 which will then be reduced to 6.25% in 2019, 6% in 2020 and 5.5% in 2021. 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. However, it is important that the system loss caps are regularly reviewed for the benefit of the consumers.<sup>2</sup> For a Meralco customer, the average system loss is 5.85% and the average system loss charge is P0.3144 per kilowatt-hour for 2021<sup>3</sup>. Further, for an average 200-kilowatt hour (kWh) Meralco customer, the system loss charge comprises 3.82% of the electricity bill equivalent to Php 62.88 per month.

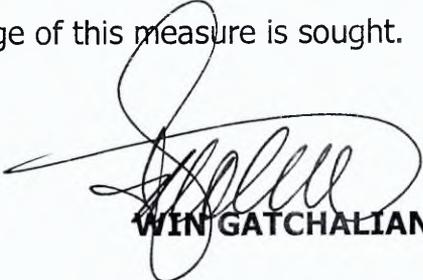
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<sup>1</sup> A Resolution Clarifying the System Loss Calculation and Providing the Effectivity of the Rules for Setting the Distribution System Loss Cap

<sup>2</sup> ERC(2022).

<sup>3</sup> MERALCO(2022).

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**

**NINETEENTH CONGRESS OF THE )  
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**SENATE**

**Senate Bill No. 385**

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**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 the 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-

- 1 owned utility, which has a franchise to operate a distribution system  
2 including those whose franchise covers economic zones;
- 3 b) *Electric cooperative (EC)* refers to a distribution utility organized pursuant  
4 to Presidential Decree No. 269, as amended, or as otherwise provided in  
5 Republic Act No. 9136 otherwise known as the Electric Power Industry  
6 Reform Act of 2001;
- 7 c) *Department of Energy (DOE)* refers to the government agency created  
8 pursuant to Republic Act No. 7638 otherwise known as the Department of  
9 Energy Act of 1992 whose expanded functions are provided in Republic Act  
10 No. 9136 otherwise known as the Electric Power Industry Reform Act of  
11 2001;
- 12 d) *Energy Regulatory Commission (ERC)* refers to the regulatory body created  
13 pursuant to Republic Act No. 9136 otherwise known as the Electric Power  
14 Industry Reform Act of 2001;
- 15 e) *Energy input* refers to the energy, in kilowatt hour (kWh), delivered into  
16 the distribution system by the transmission system, embedded generating  
17 plants, other distribution systems, and user systems with generating  
18 facilities;
- 19 f) *Energy output* refers to the energy, in kWh, delivered by the DU to its  
20 customers metering point, including energy for the DU's own use;
- 21 g) *National Electrification Administration ((EA)* refers to government agency  
22 created under Presidential Decree No. 269, as amended by Republic Act  
23 No. 10531 or the National Electrification Administration Reform Act of 2013,  
24 and whose additional mandates are further set in Republic Act No. 9136  
25 otherwise known as the Electric Power Industry Reform Act of 2001;
- 26 h) *National Power Corporation (NPC)* refers to the government corporation  
27 created under Republic Act No. 9136 otherwise known as the Electric Power  
28 Industry Reform Act of 2001;
- 29 i) *Non-Technical Losses* refer to the component of System Loss that is not  
30 related to the physical characteristics and functions of the electrical system,  
31 and is caused primarily by human action, whether intentional or not. Non-  
32 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%)<sup>1</sup>; and

24 b) For ECs, a maximum of ten percent (10.25%)<sup>2</sup>

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

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<sup>1</sup> This is the current system loss cap for PDUs

<sup>2</sup> This is the current system loss cap for ECs.

1 with the System Loss rate caps: *Provided further*, That such timeframe for compliance  
2 shall coincide with the next regulatory period of PDUs and ECs: *Provided finally*, That  
3 for ECs operating in SPUG areas, such timeframe shall concur with their rate filing.  
4

5 *Sec. 5. System Loss Calculation.* - - For purposes of calculating the System Loss  
6 as defined in this Act and for any regulation in relation thereto, the following formula  
7 for System Loss shall be followed or as determined by the ERC:  
8

9 
$$\text{Total System Loss} = \Sigma \text{ Energy delivered by the Transmission System} + \Sigma \text{ Energy}$$
  
10 
$$\text{delivered by the Embedded Generators} + \Sigma \text{ Energy delivered by other Distribution}$$
  
11 
$$\text{Systems} + \Sigma \text{ Energy delivered by User Systems with Generating Units} - \Sigma \text{ Energy}$$
  
12 
$$\text{delivered to the Users of the Distribution System} - \text{Distribution Utility Use}$$
  
13

14 *Sec. 6. Technical Loss Calculation* – The Technical Loss shall be calculated using  
15 the following formula or as determined by the ERC:  
16

17 
$$\text{Technical Loss} = \text{Feeder Technical Loss} + (\text{Sub-transmission Line Loss} + \text{Substation}$$
  
18 
$$\text{Technical Loss})$$

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

31 *Sec. 8. Annual Review of System Loss Charges.* - DUs shall quarterly submit to  
32 the ERC a sworn statement containing their segregated System Losses indicating their

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

7  
8 *Sec. 9. Performance Incentive Scheme (PIS).* - The ERC shall devise a  
9 Performance Incentive Scheme for DUs to encourage System Loss reduction in  
10 furtherance of the objectives stated in this Act.

11  
12 *Sec. 10. Individualized System Loss Cap.* - A DU, in exceptional circumstances,  
13 may be allowed to use an individualized System Loss cap: *Provided*, That the details  
14 and procedures on the individualized System Loss cap such as but not limited to rules  
15 and guidelines to qualify for its use, the method for determination of the cap, and the  
16 data requirements to be submitted shall be determined by the ERC: *Provided further*,  
17 That in determining the reasonable level of an individualized System Loss cap, a cost  
18 and benefit analysis must be provided and analyzed from the viewpoint of the  
19 consumer: *Provided finally*, That the no individualized System Loss cap shall be higher  
20 than the existing System Loss cap at the time of the effectivity of this Act.

21  
22 *Sec. 11. Timeline on Individualized System Loss Cap.* - The ERC shall issue a  
23 final decision on a DU's application for the use of an individualized System Loss cap  
24 within one hundred and twenty calendar days (120) from submission of such  
25 application: *Provided*, That failure of ERC to comply with the time stated herein shall  
26 subject the persons concerned to the administrative penalties stated in Section 12 of  
27 this Act.

28  
29 *Sec. 12. Administrative Offenses and Penalties.* - The following acts shall be  
30 considered administrative offenses:

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

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

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

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

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

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

9  
10           *Sec. 13. Implementing Rules and Regulations.* - Within ninety (90) days from  
11 the effectivity of this Act, the ERC, in coordination with the Department of Energy and  
12 the National Electrification Administration and in consultation with stakeholders, shall  
13 promulgate the necessary rules and regulations to implement the provisions of this  
14 Act.

15  
16           *Sec. 14. Separability Clause.* If any portion or provision of this Act is declared  
17 unconstitutional, the remainder of this Act or any provisions not affected thereby shall  
18 remain in force and effect.

19  
20           *Sec. 15. Repealing Clause.* Any law, presidential decree or issuance, executive  
21 order, letter of instruction, rule or regulation inconsistent with the provisions of this  
22 Act is hereby repealed or modified accordingly.

23  
24           *Sec. 16. Effectivity.* - This Act shall take effect fifteen (15) days following its  
25 complete publication in the Official Gazette or a newspaper of general circulation.

26  
27 *Approved,*