

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

23 MAY 15 P4 :10

SENATE  
S. No. 2193

RECEIVED BY: \_\_\_\_\_



---

Introduced by Senator MANUEL "LITO" M. LAPID

---

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

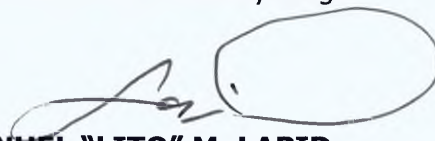
**EXPLANATORY NOTE**

System loss is the difference between the electric energy delivered to the distribution system (Energy Input) and the energy delivered to the end-users and other entities connected to the system (Energy Output). This entails that end-users are required to pay for the energy that they do not directly consume. The rate depends on the system loss cap set and determined by the Energy Regulatory Commission (ERC) based on load density, sales mix, cost of service, delivery voltage and other technical considerations.

In 2019, the average level of system loss of electric cooperatives was 10.16%. Despite the high rate, 15% of the total number of electric cooperatives exceeded the said allowable system loss cap. A few years later, the ERC decided to maintain the approved lower cap of 5.5% from 2022 onwards pending the completion of studies or reviews on the same.

Instead of shifting the burden or cost of system loss to end-consumers, distribution utilities should enhance their systems for the reduction of electricity losses and ensure that transmission grid designs do not contribute to such losses. With this measure, the ERC is mandated to encourage and promote a reduction in system losses through an incentive scheme or program for performance improvement for the benefit of the consumers or end-users. The ERC is also required to review and assess every three years whether there is a need to lower the system loss cap.

In view of the foregoing, the immediate passage of this bill is earnestly sought.

A handwritten signature in black ink, appearing to read 'Lito', followed by a large, empty oval shape.

**MANUEL "LITO" M. LAPID**

*Senator*

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

23 MAY 15 P4:10

SENATE

RECEIVED BY: \_\_\_\_\_

S. No. 2193

---

Introduced by Senator Manuel "Lito" M. Lapid

---

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

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

4 **SECTION 1.** *Title.* — This Act shall be known as the "Recovery System Loss Act."

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

10 As a nation, we recognize the critical role that energy supply and its affordability play  
11 in ensuring economic growth, environmental sustainability, and national security.

12 The State acknowledges that affordable energy is essential for economic growth and  
13 social equity. Therefore, the State will work to ensure that energy prices are reasonable and  
14 reflect the true cost of production and distribution, while also taking into account the impact  
15 on low-income households and vulnerable communities.

16 The State recognizes that a secure energy supply is critical for our national security  
17 and economic stability. Therefore, it will promote domestic energy production, reduce our  
18 reliance on foreign sources of energy, and strengthen energy infrastructure and resilience.

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

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

1 but shall not be limited to the energy lost due to pilferage, tampering of meters,  
2 and erroneous meter reading. It shall be calculated in accordance with Section 7  
3 of this Act;

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

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

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

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

19 **SECTION 4. Recoverable System Loss Rate.** — For purposes of recoverable Systems  
20 Loss rate, the following System Loss caps are set:

21 a) For PDUs, a maximum of five percent (5%); and

22 b) For ECs, a maximum of ten percent (10%)

23 The ERC shall determine, every three (3) years, whether the caps shall be  
24 reduced further on the basis of load density, sales mix, cost of service, delivery  
25 Voltage, and other technical considerations, as well as international benchmarks,  
26 taking into account the viability of PDUs and ECs and the interest of the consumers:  
27 *Provided*, That the ERC shall establish a timeframe for the compliance of all the DUs  
28 with the System Loss rate caps: *Provided further*, That such timeframe for compliance  
29 Shall coincide with the next regulatory period of PDUs and ECs: *Provided finally*, That  
30 for ECs operating in SPUG areas, such timeframe shall concur with their rate filing.

1           **SECTION 5. *System Loss Calculation.*** — For purposes of calculating the System Loss  
2 as defined in this Act and for any regulation in relation thereto, the following formula for  
3 System Loss shall be followed or as determined by the ERC.

4           *Total System Loss* =  $\Sigma$  Energy delivered by the Transmission System +  $\Sigma$  Energy delivered by  
5 the Embedded Generators +  $\Sigma$  Energy delivered by other Distribution Systems +  $\Sigma$  Energy  
6 delivered by User Systems with Generating Units -  $\Sigma$  Energy delivered to the Users of the  
7 Distribution System - Distribution Utility Use

8           **SECTION 6. *Technical Loss Calculation.*** — The Technical Loss shall be calculated using  
9 the following formula or as determined by the ERC:

10           *Technical Loss* = Feeder Technical Loss + (Sub-transmission Line Loss + Substation  
11 Technical Loss)

12           *Provided,* That the Technical Loss shall be calculated using the following method or  
13 as determined by the ERC:

- 14           a) By conducting a power flow simulation to segregate the various components of the  
15           Technical Loss using a reliable software application acceptable to the ERC; and  
16           b) By using the Coefficient and Network Parameters as well as the Sub-transmission and  
17           Substation losses.

18           **SECTION 7. *Non-Technical Loss Calculation.*** - The Non-Technical Loss shall be  
19 Calculated using the following formula or as determined by the ERC:

20           *Non-Technical Loss* = Total System Loss - Technical Loss

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

1           **SECTION 9. *Performance Incentive Scheme (PIS).*** - The ERC shall devise a  
2 Performance Incentive Scheme for DUs to encourage System Loss reduction in furtherance of  
3 the objectives stated in this Act.

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

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

18           **SECTION 12. *Administrative Offenses and Penalties.*** - The following acts shall be  
19 considered administrative offenses:

- 20           a) Failure to discharge the responsibilities stated in Sections 4, 8, 9, 10, and 11 of this  
21           Act; and  
22           b) Failure to comply with the mandated timeframes in Sections 4, 8, and 11 of this Act.

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

- 24           a) First offense - Thirty days suspension without pay and mandatory attendance in Values  
25           Orientation Program;  
26           b) Second Offense – Six (6) months suspension without pay; and  
27           c) Third Offense - Dismissal that shall carry with it perpetual disqualification from holding  
28           public office, and forfeiture of retirement benefits.

29           **SECTION 13. *Implementing Rules and Regulations.*** - Within ninety (90) days from  
30 the effectivity of this Act, the ERC, in coordination with the Department of Energy and the

1 National Electrification Administration and in consultation with stakeholders, shall promulgate  
2 the necessary rules and regulations to implement the provisions of this Act.

3 **SECTION 14. *Separability Clause.*** If any portion or provision of this Act is declared  
4 unconstitutional, the remainder of this Act or any provisions not affected thereby shall remain  
5 in force and effect.

6 **SECTION 15. *Repealing Clause.*** — All laws, decrees, executive orders, issuances,  
7 rules and regulations, or parts thereof not consistent with the provisions of this Act are hereby  
8 repealed or modified and/or superseded as case may be by this Act accordingly.

9 **SECTION 16. *Effectivity.*** — This Act shall take effect fifteen (15) days after its  
10 complete publication in the Official Gazette or in at least two (2) newspapers of general  
11 circulation, whichever comes earlier.

12 *Approved,*