ENERGY HUB FOR LATIN AMERICA AND THE CARIBBEAN

Electricity losses as a percentage of the total electricity supply.

Metadata for the database

April 2023

Energy Hub for Latin America and the Caribbean
https://hubenergia.org/en

Inter-American Development Bank
1300 New York Avenue, N.W.
Washington, D.C. 20577, USA

1 CONTACT

1.1 CONTACT ORGANIZATION

Energy HUB for Latin America and the Caribbean.

1.2 CONTACT ORGANIZATION UNIT

Inter-American Development Bank (INE/ENE). 1300 New York Avenue, N.W. Washington, D.C. 20577, USA.

1.3 CONTACT EMAIL ADDRESS

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2 METADATA UPDATE

2.1 METADATA LAST UPDATE

April 18, 2023.

3 TOTAL ELECTRICITY SUPPLY (GWH)

3.1 INDICATOR

Total electricity supply (GWh).

3.2 LONG DEFINITION

Total electricity supply refers to the total amount of electrical energy available in an electrical system during a given period.

3.3 SOURCE

Elaboration of the Energy Hub, with data from Olade SieLAC: https://sielac.olade.org/

Topic in OLADE: Supply and demand.

Olade database: Total supply-electricity GWh.

3.4 UNIT OF MEASURE

Gigawatt hours (GWh)

3.5 PERIODICITY

Annual. Data from 1970 to 2021.

3.6 GEOGRAPHIC COVERAGE

National and regional coverage.

Countries: Argentina, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad & Tobago, Uruguay, Venezuela.

Regions: Andean zone, Caribbean, Central America, Latin America and Caribbean, South America, Southern Cone, Southern Cone without Brazil.

3.7 STATISTICAL CONCEPT AND METHODOLOGY

The total supply of electricity corresponds to domestic electricity generation, plus electricity imports.

For more information visit: https://www.olade.org/publicaciones/manual-estadistica-energetica-2017/

3.8 Limitations and exceptions

Total electricity supply data varies in availability across years, countries, and regions.

3.9 General comments

Total electricity supply data serves as input for the Energy Hub, and electricity losses as a percentage of the total electricity supply.

3.10 Download source URL

https://sielac.olade.org/

3.11 Visualization and Dataset URL

https://hubenergia.org/en/indicators/electricity-losses-percentage-total-electricity-supply

4 Electricity losses (%)

4.1 Indicator

Electricity losses (%)

4.2 Long definition

Electricity losses (%) corresponds to the ratio of electricity losses from transmission and distribution systems divided to Total Electricity Supply. Includes technical and non-technical losses.

4.3 Source

Elaboration of the Energy Hub, with data from Olade SieLAC: https://sielac.olade.org/

Topic in OLADE: Indicators: Energy.

Olade database: Ratio loss of electricity / total electricity supply.

4.4 UNIT OF MEASURE

Percentage (%)

4.5 PERIODICITY

Annual. Data from 1970 to 2021.

4.6 GEOGRAPHIC COVERAGE

National and regional coverage.

Countries: Argentina, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad & Tobago, Uruguay, Venezuela.

Regions: Andean zone, Caribbean, Central America, Latin America and Caribbean, South America, Southern Cone, Southern Cone without Brazil.

4.7 STATISTICAL CONCEPT AND METHODOLOGY

It corresponds to the ratio of electricity losses to total supply.

$$Losses(\%) = \frac{Electricity\ losses(GWh)}{\text{Total electricity supply } (GWh)} x100$$

For more information visit: https://www.olade.org/publicaciones/manual-estadistica-energetica-2017/

4.8 LIMITATIONS AND EXCEPTIONS

The electricity losses data varies in availability across years, countries, and regions.

4.9 General comments

The electricity losses data serves as input for the Energy Hub, electricity losses as a percentage of the total electricity supply.

4.10 Download source URL

https://sielac.olade.org/

4.11 Visualization and Dataset URL

https://hubenergia.org/en/indicators/electricity-losses-percentage-total-electricity-supply

5 Electricity losses (GWh)

5.1 Indicator

Electricity losses (GWh).

5.2 Long definition

Electricity losses (GWH) corresponds to the electricity losses of the transmission and distribution systems in GWh.

5.3 Source

Elaboration of the Energy Hub, with data from Olade SieLAC: https://sielac.olade.org/

Topic in OLADE: Indicators: Series of supply and demand.

Olade database: Losses - Electricity GWh.

5.4 Unit of measure

Gigawatt hours (GWh).

5.5 PERIODICITY

Annual. Data from 1970 to 2021.

5.6 GEOGRAPHIC COVERAGE

National and regional coverage.

Countries: Argentina, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad & Tobago, Uruguay, Venezuela.

Regions: Andean zone, Caribbean, Central America, Latin America and Caribbean, South America, Southern Cone, Southern Cone without Brazil.

5.7 STATISTICAL CONCEPT AND METHODOLOGY

It is the amount of energy sources that are lost for different reasons, in their passage through the energy chain, from their origin to their final consumption.

5.7.1 Transmission losses:

Energy lost in transmission lines due to their electrical resistance.

5.7.2 Distribution losses:

They are mainly due to the resistance of electrical conductors, although there may also be other causes, so electrical distribution losses are divided into two types: technical losses and non-technical losses.

5.7.2.1 Technical losses

They are those losses that occur in the primary or secondary networks of the distribution system (resistive losses in the conductors), as well as in the transformers (losses in the core: Hysteresis and eddy currents). These types of losses are inevitable because no process is 100% efficient, but they can be reduced.

5.7.2.2 Non-technical losses

They are those losses that occur due to deficiencies caused both in the measurement and in billing or by theft of electrical energy (clandestine connections). These types of losses are avoidable, their reduction allows to improve the income of the electric companies.

For more information visit: https://www.olade.org/publicaciones/manual-estadistica-energetica-2017/

5.8 LIMITATIONS AND EXCEPTIONS

The electricity losses data varies in availability across years, countries, and regions.

5.9 GENERAL COMMENTS

The electricity losses data serves as input for the Energy Hub, electricity losses as a percentage of the total electricity supply.

5.10 DOWNLOAD SOURCE URL

https://sielac.olade.org/

5.11 VISUALIZATION AND DATASET URL

https://hubenergia.org/en/indicators/electricity-losses-percentage-total-electricity-supply