



ENERGY HUB FOR LATIN AMERICA AND THE CARIBBEAN

Power generation, Capacity, and consumption

Metadata for the database

February 2023

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

HUB-Energia@iadb.org

2 METADATA UPDATE

2.1 METADATA LAST UPDATE

February 13, 2023.

3 POWER GENERATION

3.1 INDICATOR

Electrical generation by source in Latin America and the Caribbean.

3.2 LONG DEFINITION

This indicator presents electricity generation in GWh by different types of sources in Latin America and the Caribbean over the years.



3.3 SOURCE

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

Topic on OLADE: Supply and demand

Olade Database: Electrical generation by source.

3.4 UNIT OF MEASURE

Gigawatt hours (GWh)

3.5 PERIODICITY

Annual. Data from 1991 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

3.7.1 Energy Source

Elements from which heat and/or electricity can be obtained.

3.7.2 Hydro

Energy contained in a water flow. When water is allowed to flow through a turbine that connects to a generator electric, the energy of the water is converted into electricity.



3.7.3 Geothermal

It is the energy stored under the earth's surface in the form of heat, which can be transmitted to the surface by a fluid that is in contact with the hot rock. Said fluid is made up of water in a liquid state, steam, or a mixture of both. This energy is used for the generation of electricity -first category of renewable energy- and in some cases heat residual of electricity generation is used for industrial processes (cogeneration).

3.7.4 Wind

The energy produced by the wind that can be used in a turbine-generator set.

3.7.5 Solar

The energy produced by the sun, it is used mainly for the generation of electricity in photovoltaic and solar thermal power plants. It can also be used directly in the final consumption sectors for water heating (through collectors solar) and grain drying.

3.7.6 Other renewable energy sources

This group includes other sources, not specified in the previous concepts, which can become representative of the development of new technologies, e.g., tidal power, fuel cells, etc.

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

3.8 LIMITATIONS AND EXCEPTIONS

Electricity generation data by source varies in availability across years, countries, and regions.

3.9 GENERAL COMMENTS

Electricity generation data by source serves as input for the Power generation, capacity, and consumptions Energy Hub visualization.

3.10 DOWNLOAD SOURCE URL

<https://sielac.olade.org/>



3.11 VISUALIZATION AND DATASET URL

<https://hubenergia.org/en/indicators/power-generation-capacity-and-consumption>

4 INSTALLED CAPACITY

4.1 INDICATOR

Installed capacity by source in Latin America and the Caribbean.

4.2 LONG DEFINITION

This indicator presents the installed capacity in MW by different types of sources in Latin America and the Caribbean over the years.

4.3 SOURCE

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

Topic on OLADE: Infrastructure.

Olade Database: Capacity installed by source.

4.4 UNIT OF MEASURE

Megawatt (MW).

4.5 PERIODICITY

Annual. Data from 1991 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

4.7.1 Fuente de Energía

Elements from which heat and/or electricity can be obtained.

4.7.2 Hydro

The energy contained in a water flow. When water is allowed to flow through a turbine that connects to a generator electric, the energy of the water is converted into electricity.

4.7.3 Geothermal

It is the energy stored under the earth's surface in the form of heat, which can be transmitted to the surface by a fluid that is in contact with the hot rock. Said fluid is made up of water in a liquid state, steam, or a mixture of both. This energy is used for the generation of electricity -first category of renewable energy- and in some cases heat residual of electricity generation is used for industrial processes (cogeneration).

4.7.4 Wind

The energy produced by the wind that can be used in a turbine-generator set.

4.7.5 Solar

The energy produced by the sun, is used mainly for the generation of electricity in photovoltaic and solar thermal power plants. It can also be used directly in the final consumption sectors for water heating (through collectors solar) and grain drying.



4.7.6 Other renewable energy sources

This group includes other sources, not specified in the previous concepts, which can become representative of the development of new technologies, e.g., tidal power, fuel cells, etc.

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

4.8 LIMITATIONS AND EXCEPTIONS

Capacity installed data by source varies in availability across years, countries, and regions.

4.9 GENERAL COMMENTS

Capacity installed data by source serves as input for the Power generation, capacity, and consumptions Energy Hub visualization.

4.10 DOWNLOAD SOURCE URL

<https://sielac.olade.org/>

4.11 VISUALIZATION AND DATASET URL

<https://hubenergia.org/en/indicators/power-generation-capacity-and-consumption>

5 ELECTRICITY CONSUMPTION

5.1 INDICATOR

Electricity consumption by sector in Latin America and the Caribbean.

5.2 LONG DEFINITION

This indicator presents the electricity consumption in GWh by different types of sources in Latin America and the Caribbean over the years.



5.3 SOURCE

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

Topic on OLADE: Supply and demand.

Olade Database: Electricity consumption.

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

5.7.1 Agriculture, fishing, and mining

It corresponds to the primary activities of the economy.

5.7.2 Commercial, services, public

Includes all activity of commercialization of goods and services, wholesale, and retail, private and public; however, they are excluded distribution services of energy sources such as electricity,



natural gas, LPG, and other fuels, for belonging to the sector energetic.

5.7.3 Construction and others

The construction sector includes, among others, the following activities: new buildings and remodeling of old buildings; new industrial establishments; Civil works, such as bridges, dams, tunnels, etc.; new roads and maintenance of the existing road system.

5.7.4 Industrial

The final consumption of this sector is made up of any energy source used in the processes carried out to transform raw materials into final products. Industries whose final products are energy sources are excluded since that would correspond to the energy sector.

5.7.5 Residential

Corresponds to urban and rural households in the country. Energy consumption in this sector is for end uses such as: lighting, cooking, water heating, refrigeration, air conditioning, heating, electromotive force, and electromagnetic waves.

5.7.6 Transport

Corresponds to the mobility of passengers and cargo in vehicles. The final consumption of the transport sector is the total amount of fuel required to move such vehicles. The modes of transport can be a) Road, b) Rail, c) Air, d) Fluvial and e) Maritime.

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

5.8 LIMITATIONS AND EXCEPTIONS

Electricity consumption data by source varies in availability across years, countries, and regions.

5.9 GENERAL COMMENTS

Electricity consumption data by sector serves as input for the Power generation, capacity, and consumptions Energy Hub visualization.



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