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Electricity Generation

Report in Latin America and the Caribbean

Energy joins us

This document was prepared under the direction of the

Latin American Energy Organization (OLADE)

February 2025: monthly electricity generation report in LAC

The electricity sector in Latin America and the Caribbean (LAC) continues to play a fundamental role in environmental sustainability and economic development in the region. The regional electricity matrix, with an outstanding participation of renewable sources, reflects the commitment of countries to a fair and sustainable energy transition.

In this context, monthly monitoring of electricity generation makes it possible to analyze in detail the dynamics of the electricity system, identify short-term trends and evaluate progress in energy security and decarbonization.

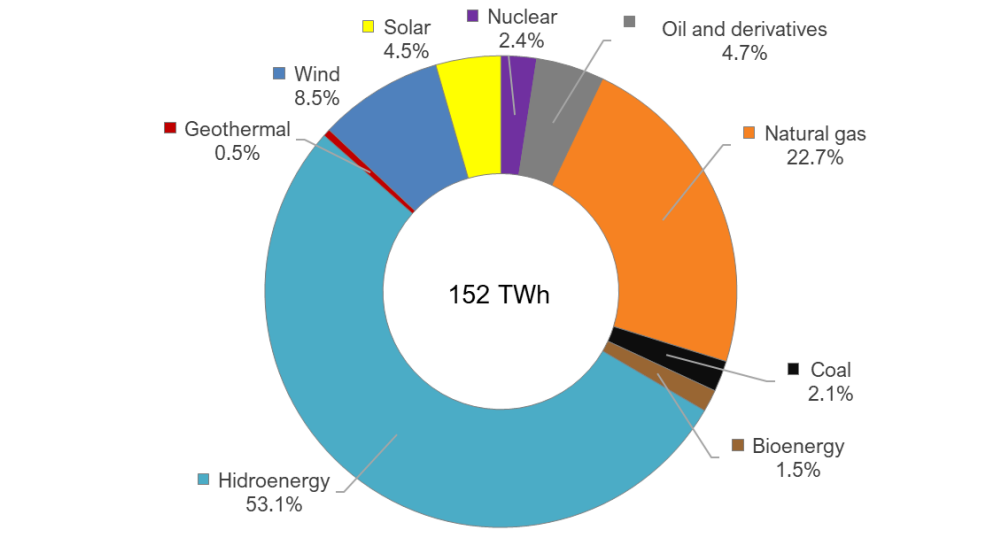
This monthly report, prepared by OLADE, offers a regional overview of the behavior of electricity generation in LAC, highlighting the participation of the different energy sources and their most relevant variations, as a key input for decision-making and energy planning.

1. Electricity Generation February 2025

In February 2025, total electricity generation in LAC reached 152 TWh. Of this total, 53.1% was produced from hydropower, followed by natural gas with 22.7%, wind (8.5%), oil and derivatives (4.7%), solar (4.5%), nuclear (2.4%), mineral coal (2.1%), bioenergy[1] (1.5%) and geothermal (0.5%). See Figure 1.

Figure 1

Electricity generation by source in LAC, February 2025 [2] (%)



Source: sieLAC – OLADE 2025

[1] Bioenergy includes biogas, biomass and biofuels.

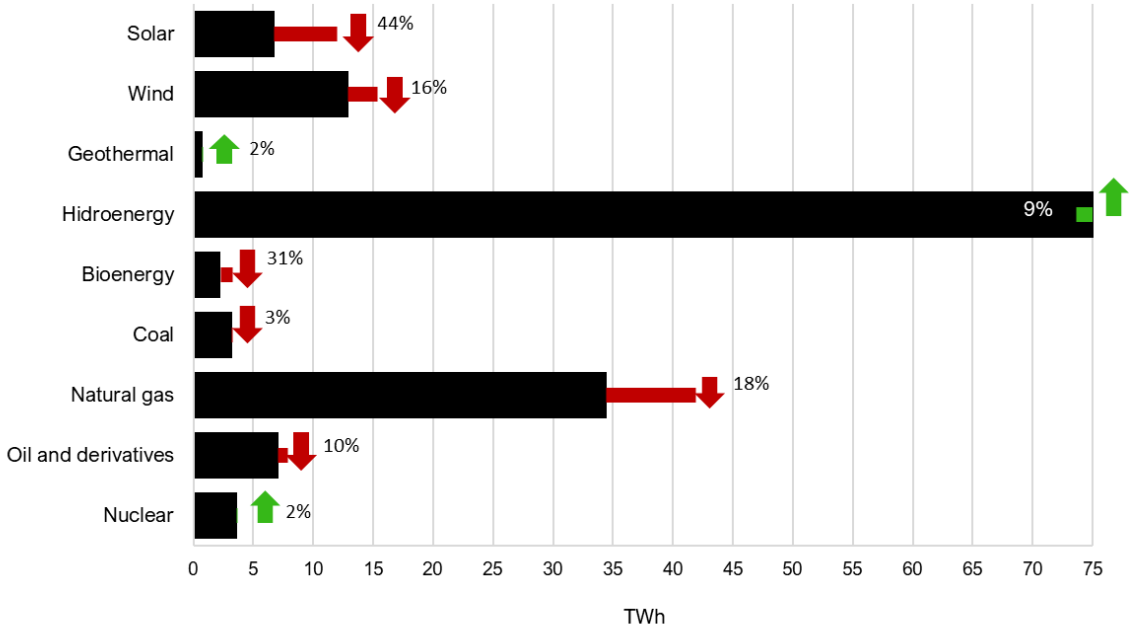
[2]The figures were prepared using data available from sieLAC – OLADE [https://sielac.olade.org/]

2. Monthly variation

Between January and February 2025, total electricity generation in LAC fell by 6%. The decrease was mainly due to the drop in solar generation, which fell by 44%, followed by bioenergy (31%), natural gas (18%), wind energy (16%), petroleum derivatives (10%) and mineral coal (3%). However, this decrease was partially offset by a 9% increase in hydroelectric generation and a 2% increase in both geothermal and nuclear power. See Figure 2.

Figure 2

Monthly variation of electricity generation by source in LAC, Jan 25/Feb 25



Source: sieLAC – OLADE 2025

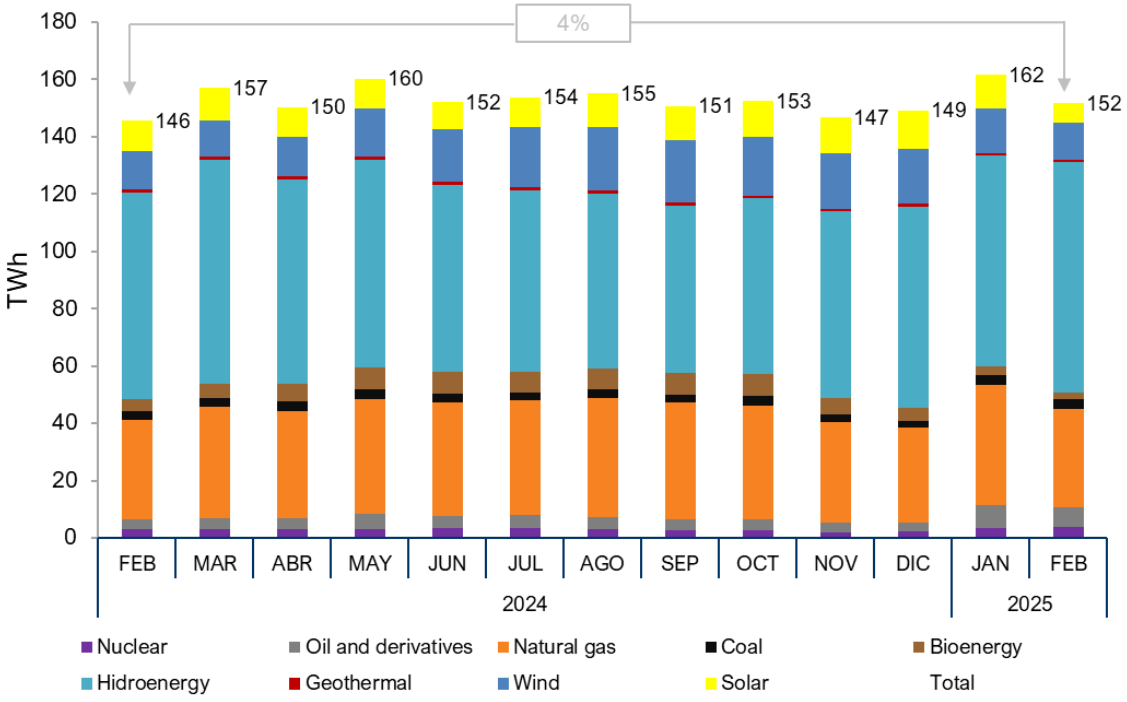
Monthly variation of electricity generation by source		
Source	Monthly variation jan 25/feb 25	
Nuclear	2%	↑
Hidroenergy	9%	↑
Geothermal	2%	↑
Oil and derivatives	-10%	↓
Natural gas	-18%	↓
Coal	-3%	↓
Bioenergy	-31%	↓
Wind	-16%	↓
Solar	-44%	↓

3. Inter-annual variation

During the annual period February 2024 - February 2025, electricity generation in LAC shows a slight increasing trend, with a year-on-year increase of 4%. The electricity matrix continues to be dominated by renewable sources, especially hydroelectric, while thermal sources continue to have considerable weight, especially natural gas. Non-conventional renewable energies, such as solar and wind, maintain a relevant and growing share, which ratifies the path towards a gradual energy transition in the region. See Figure 3.

Figure 3

Evolution of Electricity Generation by Source in LAC

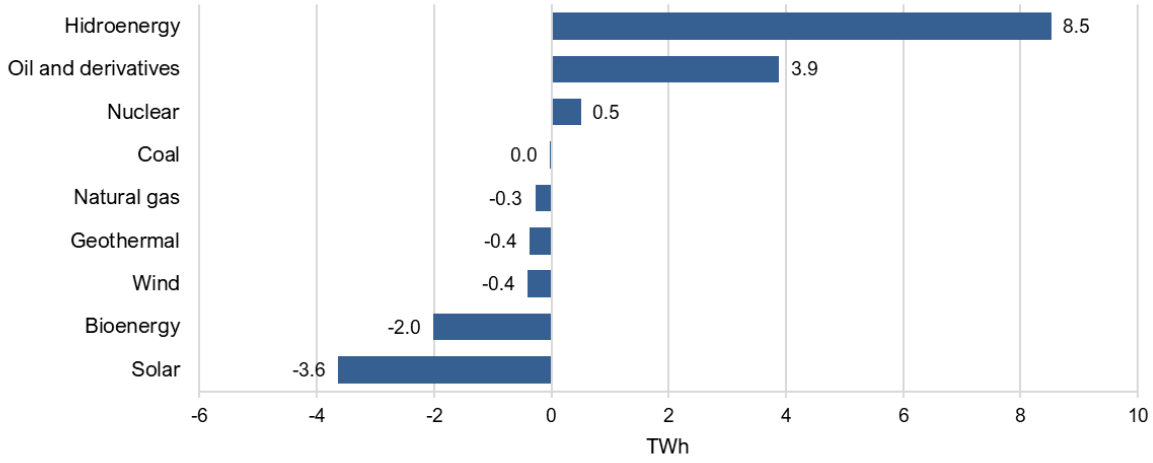


Source: sieLAC – OLADE 2025

The year-on-year variation in electricity generation showed an increase of 4% from 146 TWh to 152 TWh, which is equivalent to an additional 6 TWH. This is mainly explained by an increase in hydroelectric generation of 8.5 TWh, followed by petroleum derivatives of 3.9 TWh and, to a lesser extent, by nuclear of 0.5 TWh. See Figure 4.

Figure 4

Year-on-year variation of electricity generation by source in LAC, Feb 2024 / Feb 2025



Source: sieLAC – OLADE 2025

4. Renewability Index

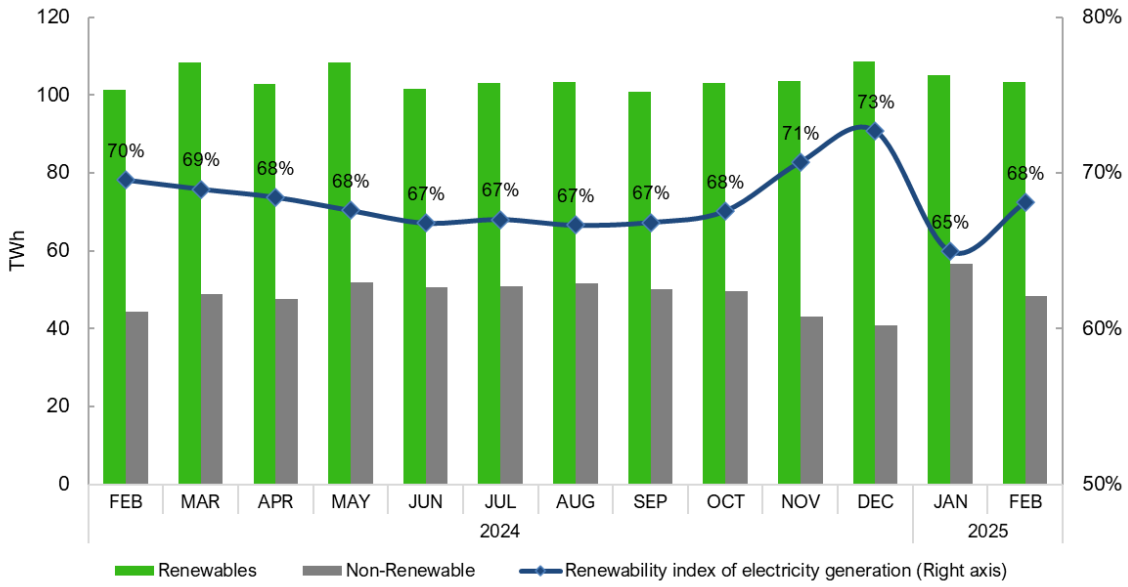
The Renewability Index shows the percentage of electricity generation from renewable sources relative to the total electricity generated each month. In LAC, during the period from February 2024 to February 2025, this indicator remained at high levels, ranging from 65% to 73%.

In February 2025, LAC achieved a 68% renewability rate, with seven countries surpassing 75% renewable generation.

Among them, Paraguay, Costa Rica, Brazil and Uruguay with renewability levels above 92%. Although hydropower generation increased in the same month, the Renewability Index remained below the level recorded in 2024. See Figure 5 and Figure 6.

Figure 5

Renewability index in electricity generation, LAC



Source: sieLAC – OLADE 2025

Figure 6

Map of the Renewability Index in electricity generation in LAC, February 2025

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