02

MAY 2025

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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)

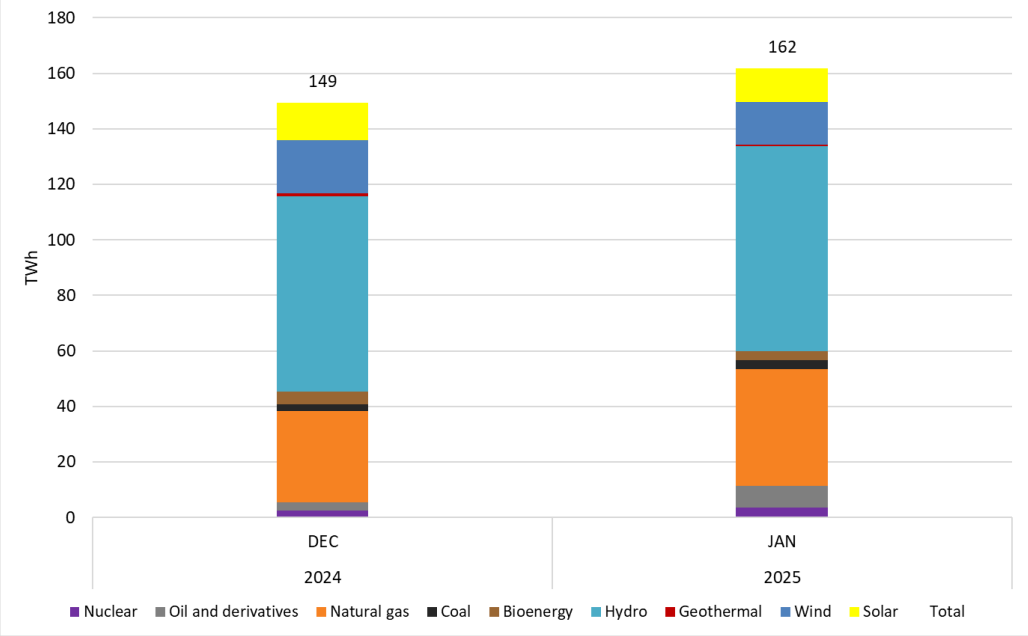
In January 2025, there was an increase in electricity generation based on natural gas

The electricity sector in Latin America and the Caribbean (LAC) plays a key role in sustainability and economic development in the region. With a generation matrix characterized by a high share of renewable sources, generation monitoring is essential to understand market developments, energy security and progress towards decarbonization.

Through this monthly report, OLADE offers an analysis of the behavior of electricity generation in LAC and the participation of different energy sources.

In January 2025, a total generation of 162 TWh was recorded, this represents a growth of 8% compared to December 2024, thanks to the contribution of wind and solar photovoltaic plants, the recovery of hydroelectric generation, as well as a greater share of natural gas in the electricity matrix. See Figure 1.

Figure 1. Electricity generation by source, LAC DEC. 2024 and JAN. 2025 [1] *(TWh)*

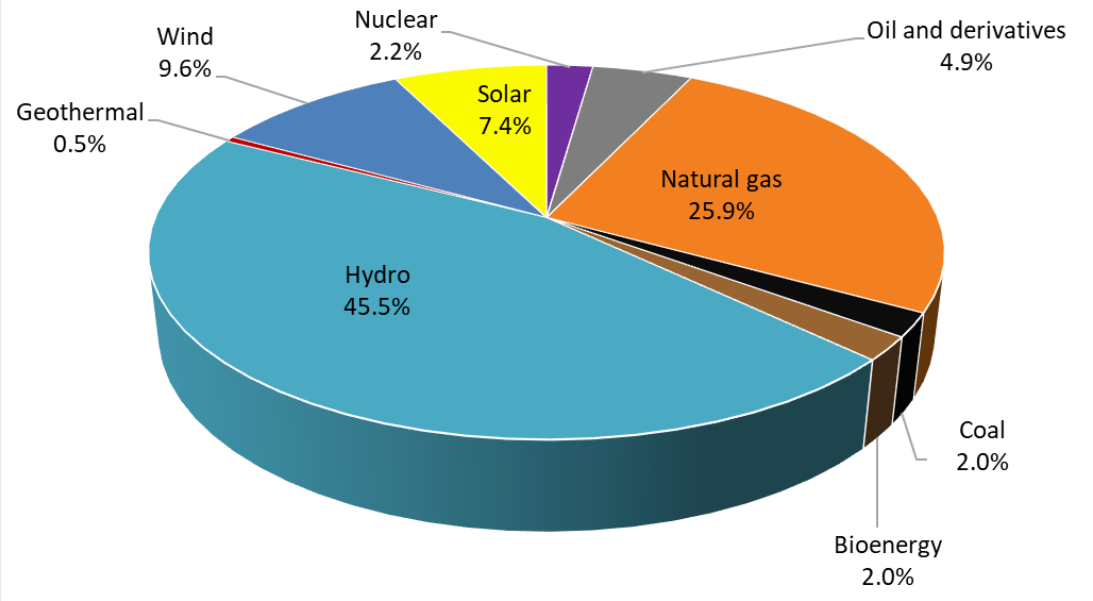


Hydropower remains the dominant source of electricity generation in the region (45.5%), followed by natural gas (25.9%), wind (9.6%), solar (7.4%), oil and its derivatives (4.9%),

[1] The figures were prepared using the information available on sieLAC - OLADE [https://sielac.olade.org/].

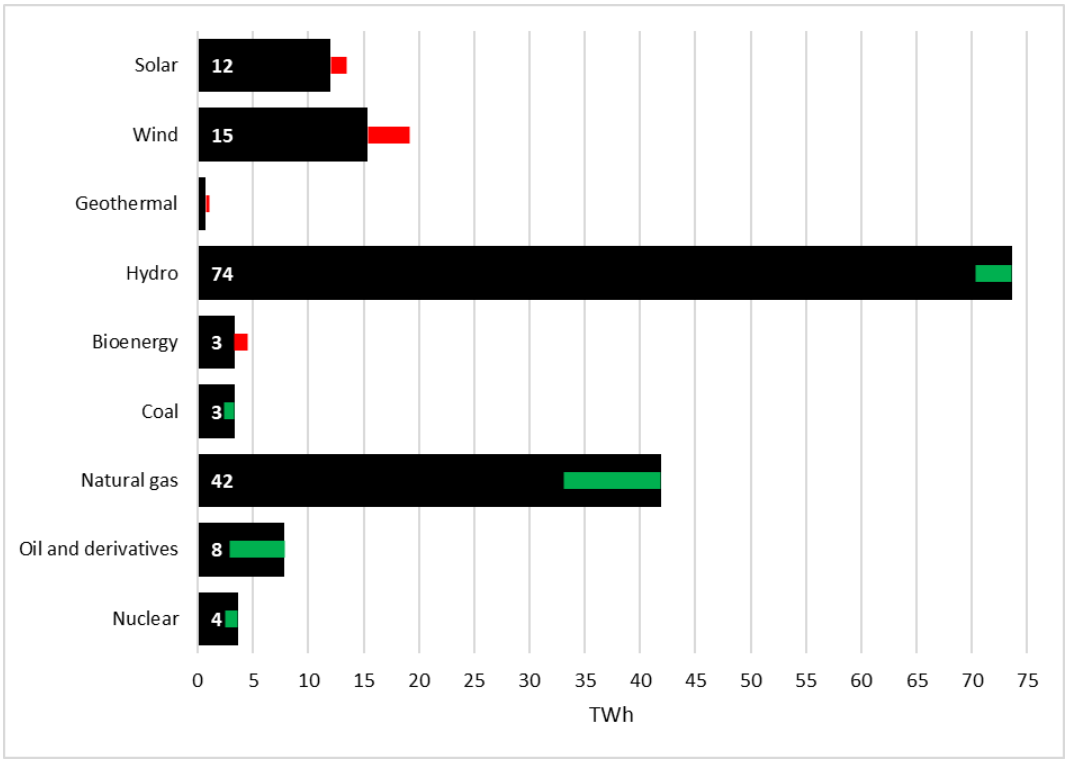
nuclear energy (2.2%), coal (2.0%), bioenergy[2] (2.0%), and geothermal energy (0.5%). See Figure 2.

Figure 2. Electricity generation by source, LAC JAN. 2025 (%)



The increase in nuclear power generation (47%), mineral coal (41%) and natural gas (27%) stands out. See Figure 3.

Figure 3: Monthly variation in electricity generation, LAC DEC. 2024 - JAN. 2025

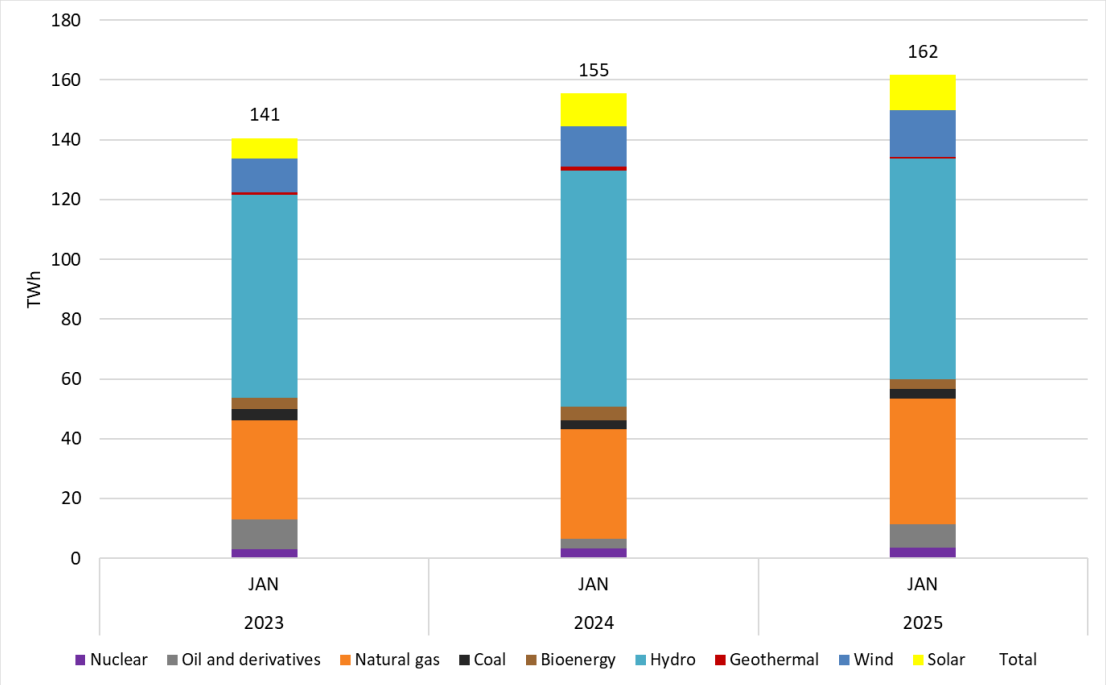


[2] Bioenergy includes biogas, biomass (mainly cane bagasse) and biofuels.

Variation in electricity generation by source		
	Monthly variation DEC 24/JAN 25	
Nuclear	47%	↑
Oil and derivatives	169%	↑
Natural gas	27%	↑
Coal	41%	↑
Bioenergy	-26%	↓
Hydro	5%	↑
Geothermal	-32%	↓
Wind	-20%	↓
Solar	-11%	↓
Total	8%	↑

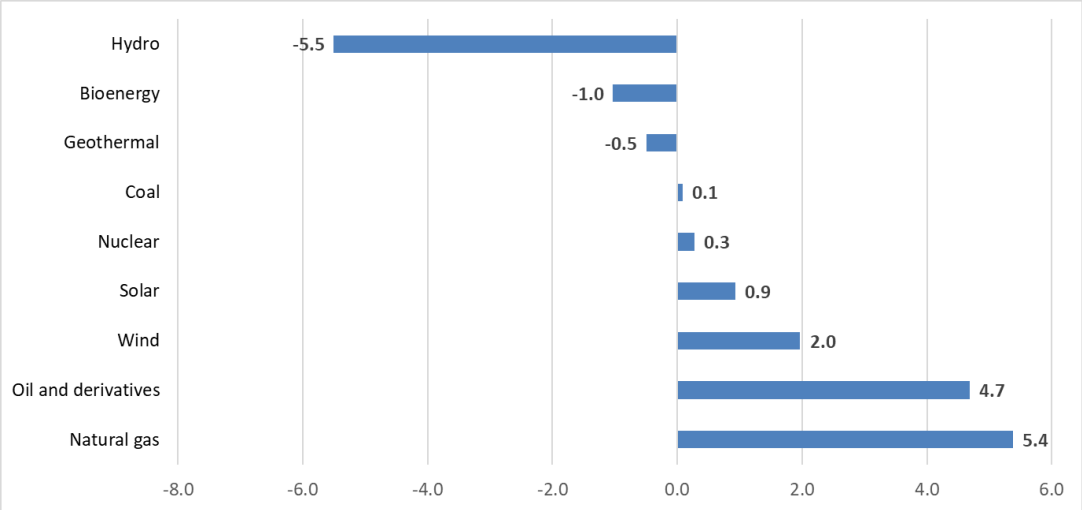
Hydropower is the most widely used source in the month of January, with an average share of 48% over the past three years. On the other hand, natural gas is consolidated as the second source for generation with an average share of 24% in the last three years. (See Figure 4).

Figure 4. Electricity generation by source, LAC for the months of January (TWh)



January 2025, compared to January 2024, recorded an increase of 7 TWh in electricity generation, largely due to higher generation from natural gas (5.4 TWh), oil and its derivatives (4.7 TWh), wind (2.0 TWh), and solar (0.9 TWh). This growth supplies the lowest generation with hydro at 5.5 TWh and bioenergy at 1 TWh. (See Figure 5).

Figure 5. Variation in electricity generation by source, LAC January 2025 v/s January 2024 (TWh)



The **Renewability Index** measures the proportion of electricity generated from renewable sources in relation to total generation. In LAC, this indicator reached 65% in January 2025, due to the 105 TWh generated by renewable sources in contrast to the 57 TWh generated by non-renewable sources. See Figure 6.

In the region, there are 9 countries that contributed significantly to this result, with renewability rates above 75%. See Figure 7.

Figure 6. Renewability index in electricity generation, LAC.

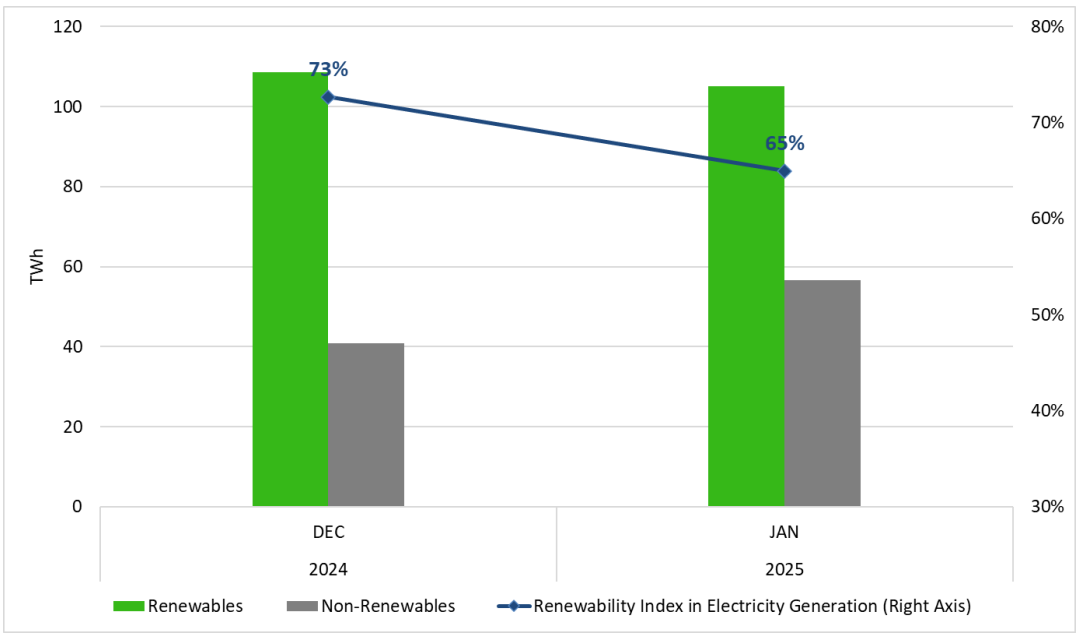


Figure 7: *Renewability Index map, LAC, Jan. 2025*

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