



## **Electricity Generation**

Report in Latin America and the Caribbean





# Monthly electricity generation report in LAC, May 2025

OLADE publishes the monthly electricity generation report for Latin America and the Caribbean (LAC) in order to monitor monthly and year-on-year variations, as well as the contributions of each energy source within the electricity generation mix.

In this context, considering the electricity sector as a key driver of economic, social, and environmental development, having monthly information on electricity generation is of strategic importance for the comprehensive monitoring and evaluation of the system, supporting informed decision-making in energy planning.

#### 1. Electricity Generation May 2025

In May 2025, LAC presented a total electricity generation of 169 TWh, where hydropower maintains hegemony over other sources with a 51.1% share, followed by natural gas with 21.8% and wind energy with 9.5%; which together represent 82.5% of the total. Bioenergy<sup>1</sup> experiences the greatest growth in participation from 2.4% in April to 3.1% in May, and the rest of the sources do not show major variations.

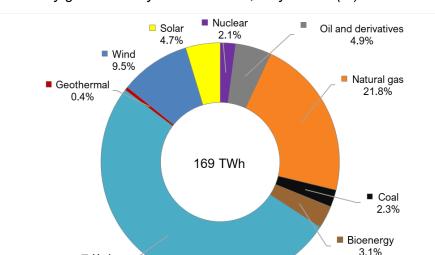


Figure 1. Electricity generation by source in LAC, May 2025 2 (%)

Source: sieLAC - OLADE 2025

Hydro 51.1%

<sup>&</sup>lt;sup>1</sup> Bioenergy, includes biogas, biomass and biofuels.

<sup>&</sup>lt;sup>2</sup>The figures were prepared using the information available on sieLAC - OLADE [https://sielac.olade.org/]



#### 2. Monthly variation

In May 2025, electricity generation in LAC shows a growth of 7%, equivalent to an additional 11 TWh compared to April 2025. In this month, with the exception of geothermal, which decreased by 1%, generation from all other sources increased. Hydropower (4%) and natural gas (9%) were the largest contributors in absolute terms, adding 3.7 TWh and 3.2 TWh, respectively. Proportionally, bioenergy (34%), coal (16%), and fossil fuels (11%) stood out (see Figure 2). This behavior reflects the recovery of renewable generation such as hydropower, wind, and bioenergy. However, it also indicates that, although to a lesser extent, there has been increased use of natural gas and fossil fuels.

Solar Wind Geothermal Hydro 4% Bioenergy 34% 16% Coal Natural gas 9% Oil and derivatives 11% Nuclear 5% 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 TWh

Figure 2. Monthly variation in electricity generation by source in LAC, Apr 25 / May 25

Variation in electricity generation by		
source		
Source	Monthly variation apr 25/ may 25	
Nuclear	5%	•
Hydro	4%	Ŷ
Geothermal	-1%	•
Oil and derivatives	11%	Ŷ
Natural gas	9%	Ŷ
Coal	16%	Ŷ
Bioenergy	34%	Ŷ
Wind	8%	Ŷ
Solar	6%	Ŷ
Total	7%	AR

Source: sieLAC - OLADE 2025



#### 3. Year-on-year variation

In May 2025, the total generation of LAC compared to May of the previous year shows a growth of 5%, which allows this period to establish itself as a new maximum in generation in the last twelve months, significantly exceeding the average of 156 TWh. Hydropower and natural gas are the most used sources for electricity generation, to such an extent that together they represent 73% of total generation. See Figure 3.

5% 180 169 165 162 160 158 155 154 152 153 152 160 151 149 140 120 100 80 60 40 20 0 AUG SEP OCT NOV DEC JUL JAN FEB MAR APR MAY 2024 2025 Nuclear ■ Oil and derivatives ■ Natural gas ■ Coal ■ Bioenergy Hydro Geothermal Wind Solar Total

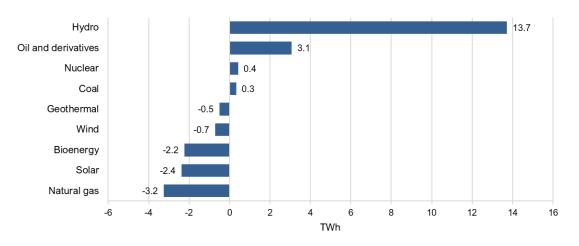
Figure 3. Evolution of Electricity Generation by Source in LAC (May 2024 – May 2025)

Source: sieLAC - OLADE 2025

According to the year-on-year variations of May 2025 compared to May 2024, hydropower stands out as the fastest-growing electricity generation source in LAC over the past 12 months, with an additional 13.7 TWh, reflecting favorable rainfall and hydraulic flow conditions. Oil and its derivatives also increased by 3.1 TWh, while nuclear energy and coal registered more modest growth. On the other hand, natural gas, solar energy, and bioenergy decreased their contribution to total generation, which was offset by hydropower. See Figure 4.



Figure 4. Year-on-year variation in electricity generation by source in LAC, May 2025 vs. May 2024



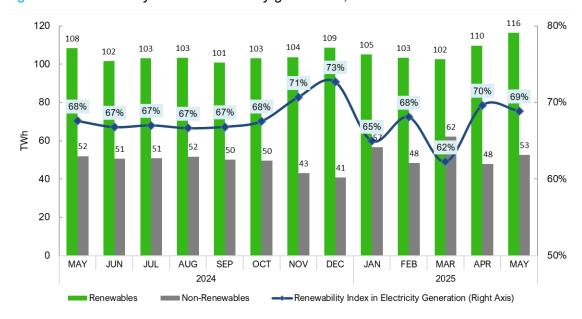
Source: sieLAC - OLADE 2025

#### 4. Renewability Index

Despite a recovery in hydroelectric generation, the increase in electricity generation with non-renewable sources, mainly with natural gas, marks the slight decrease in the renewability index in LAC, by around 1%; and a certain stability can be seen in the last two months; in contrast to the end of 2024 and the beginning of 2025, in which it was very variable. See Figure 5.

In this month of May, nine countries in the region surpassed the regional renewability index: Paraguay (100%), Costa Rica (100%), Uruguay (99%), Brazil (94%), Colombia (90%), Ecuador (89%), Venezuela (88%), Belize (77%), and Panama (72%). Of these countries, 8 exceeded 75% renewability, as shown in Figure 6.

Figure 5. Renewability index in electricity generation, LAC



Source: sieLAC - OLADE 2025



■ 1 - 25% ■ 25 - 50% ■ 50 - 75% ■ 75 -100%

Figure 6. Map of the Renewability Index in electricity generation in LAC, May 2025

Source: sieLAC - OLADE 2025

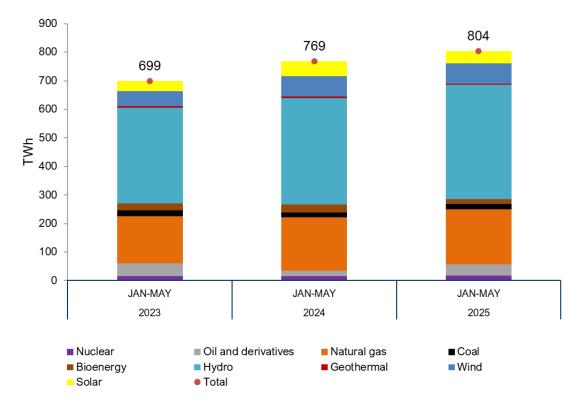
### 5. Comparison of accumulated generation in the first five months of the last three years.

Regarding accumulated generation for the first five months (Jan–May) of the last three years (2023, 2024, and 2025), an average annual growth of 7% is observed, with a cumulative growth of 15%. See Figure 7.

Regarding the share of each source in the cumulative power generation matrix for the first five months, only hydropower shows a steady upward trend, while oil and derivatives record the largest variation; the remaining sources show neither visible trends nor significant fluctuations. See figure 8.

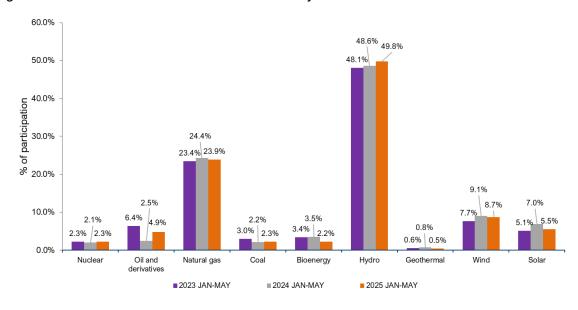


Figure 7. Evolution of the share by source in accumulated electricity generation for the first five months of the last 3 years.



Source: sieLAC - OLADE 2025

Figure 8. Evolution of the participation by source in the accumulated electricity generation of the first five months of the last 3 years



Source: sieLAC - OLADE 2025





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