

05

AUGUST 2025

olade

ORGANIZACIÓN  
LATINOAMERICANA  
DE ENERGÍA

LATIN AMERICAN  
ENERGY  
ORGANIZATION

ORGANIZAÇÃO  
LATINO-AMERICANA  
DE ENERGIA

ORGANISATION  
LATINO-AMERICAINE  
D'ÉNERGIE

# Electricity Generation

Report in Latin America and  
the Caribbean



# April 2025

## Renewability Index Increases in the Region

*Hydroelectricity and wind energy  
explain this increase*

Latin America and the Caribbean (LAC) continues to consolidate itself as the cleanest region on the planet, especially in terms of its electricity generation matrix, in which renewable energy sources have a wide predominance, which increases over the years.

The wide diversification of natural resources available in the region for electricity generation allows it to navigate, month by month, the various changing and often unpredictable conditions that shape production, such as demand, weather, and available generation capacity.

This monthly electricity generation report for the region, prepared by OLADE, enables the monitoring of monthly, seasonal, and interannual variations, both in total energy production and in the share of the different energy sources within that production.

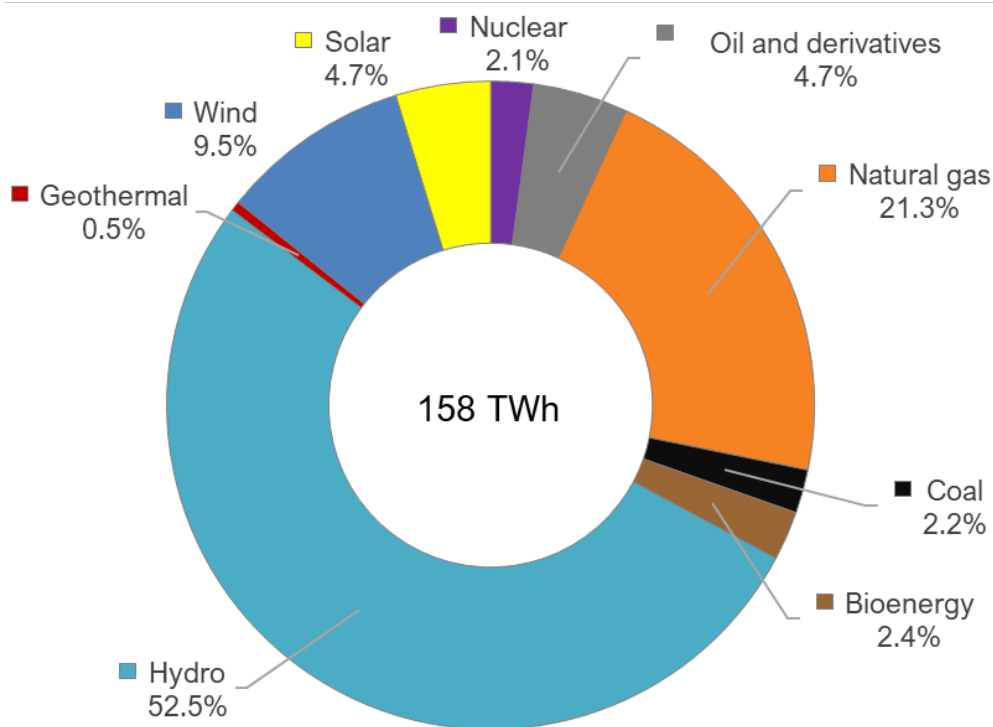
### 1. Electricity generation April 2025

In April 2025, total electricity generation in LAC reached 158 TWh. Hydropower, natural gas, and wind energy accounted for more than 80% of that total. It is worth noting that solar energy, although it reduced its share compared to March (from 6.3% to 4.7%), matched the share of oil and its derivatives (4.7%). Other sources such as bioenergy<sup>1</sup>, mineral coal and nuclear energy do not show significant variations in participation, compared to the previous month. See Figure 1.

---

<sup>1</sup> Bioenergy, includes biogas, solid biomass and liquid biofuels.

Figure 1. Electricity generation by source in LAC, April 2025 <sup>2</sup> (%)



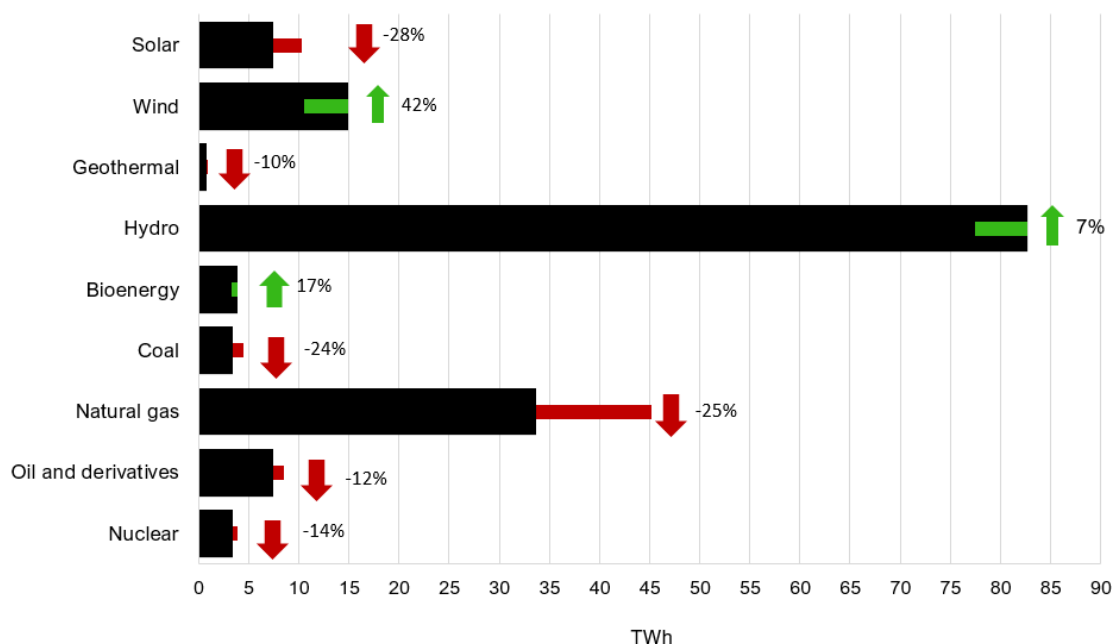
Source: sieLAC – OLADE 2025

## 2. Monthly variation

In April 2025, total electricity generation in LAC decreased by 4% compared to the previous month, while generation by source showed increases in hydropower (7%), wind energy (42%) and bioenergy (17%), with wind energy being the one that increased the most. Other renewable sources such as solar and geothermal suffered decreases, as did all non-renewable sources, see Figure 2. These monthly variations suggest that April 2025 experienced better precipitation, water flow, and wind speed conditions compared to March of the same year, but lower solar irradiation availability, or possibly changes in the installed generation capacity from these sources.

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

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



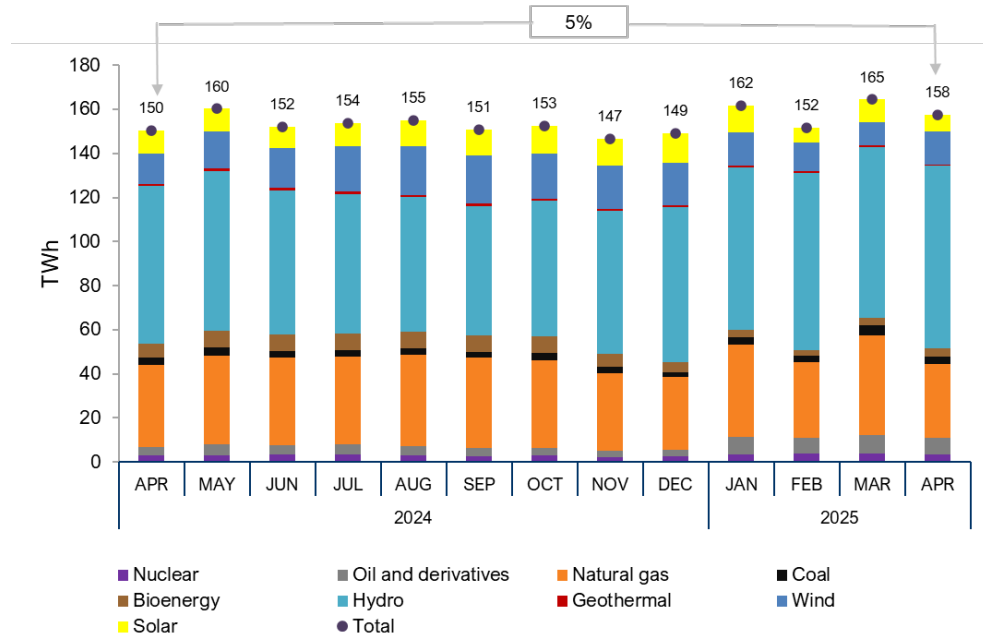
Variation in electricity generation by source		
Source	Monthly variation mar 25/apr 25	
Nuclear	-14%	↓
Hydro	7%	↑
Geothermal	-10%	↓
Oil and derivatives	-12%	↓
Natural gas	-25%	↓
Coal	-24%	↓
Bioenergy	17%	↑
Wind	42%	↑
Solar	-28%	↓
Total	-4%	↓

Source: sieLAC – OLADE 2025

### 3. Year-on-year variation

Total electricity generation in LAC in April, compared to April of the previous year, registered a year-on-year increase of 5%, although it remained close to the average of the last twelve months (154 TWh). Regarding the generation structure by source during this period, no significant changes are observed, with hydropower and natural gas continuing to hold a dominant share. See Figure 3.

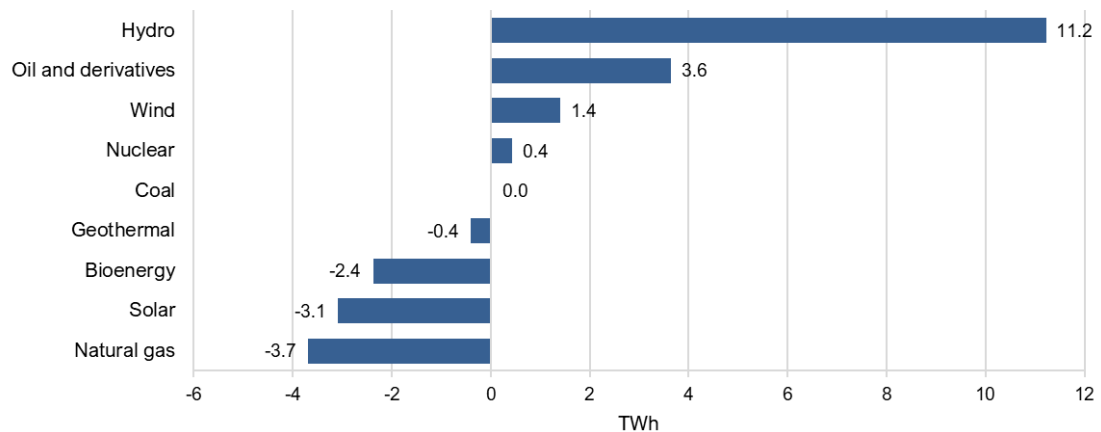
**Figure 3.** Evolution of electricity generation by source in LAC (Apr 2024 – Apr 2025)



Source: sieLAC – OLADE 2025

In the year-on-year variations of generation by source (Apr 2025 vs. Apr 2024), there is a very significant increase in hydroelectric generation, followed by increases in generation with oil and derivatives, wind and nuclear energy, while generation with mineral coal suffers no variation and with all other sources decreases. This indicates more favorable precipitation, hydraulic flow, and wind speed conditions in April 2025 compared to April 2024, although with lower solar irradiation than the same month of the previous year, or possibly variations in generation capacities between these two months. See Figure 4.

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



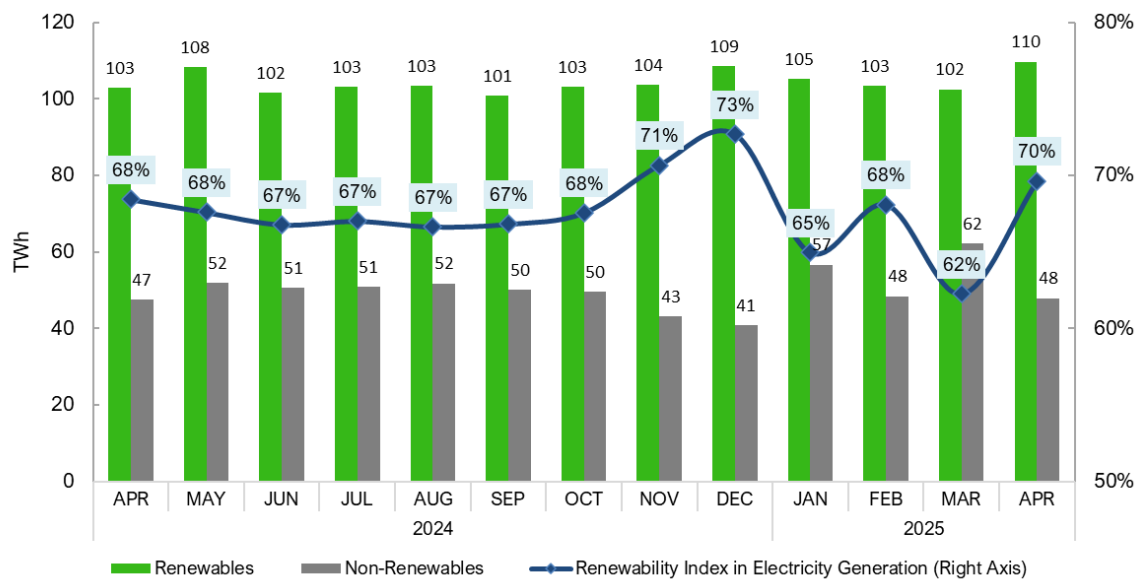
Source: sieLAC – OLADE 2025

## 4. Renewability Index

Mainly due to the significant recovery of hydropower generation in April 2025, the Renewability Index in LAC showed growth in both its monthly and year-on-year variations, reaching 70%, even surpassing the annual value of 69% recorded in 2024. See Figure 5.

In April, nine countries in the region surpassed the regional renewability index: Paraguay (100%), Uruguay (100%), Costa Rica (96%), Brazil (94%), Colombia (89%), Venezuela (87%), Ecuador (86%), Belize (77%), and Peru (73%). Of these countries, 8 exceeded 75% renewability, as shown in Figure 6.

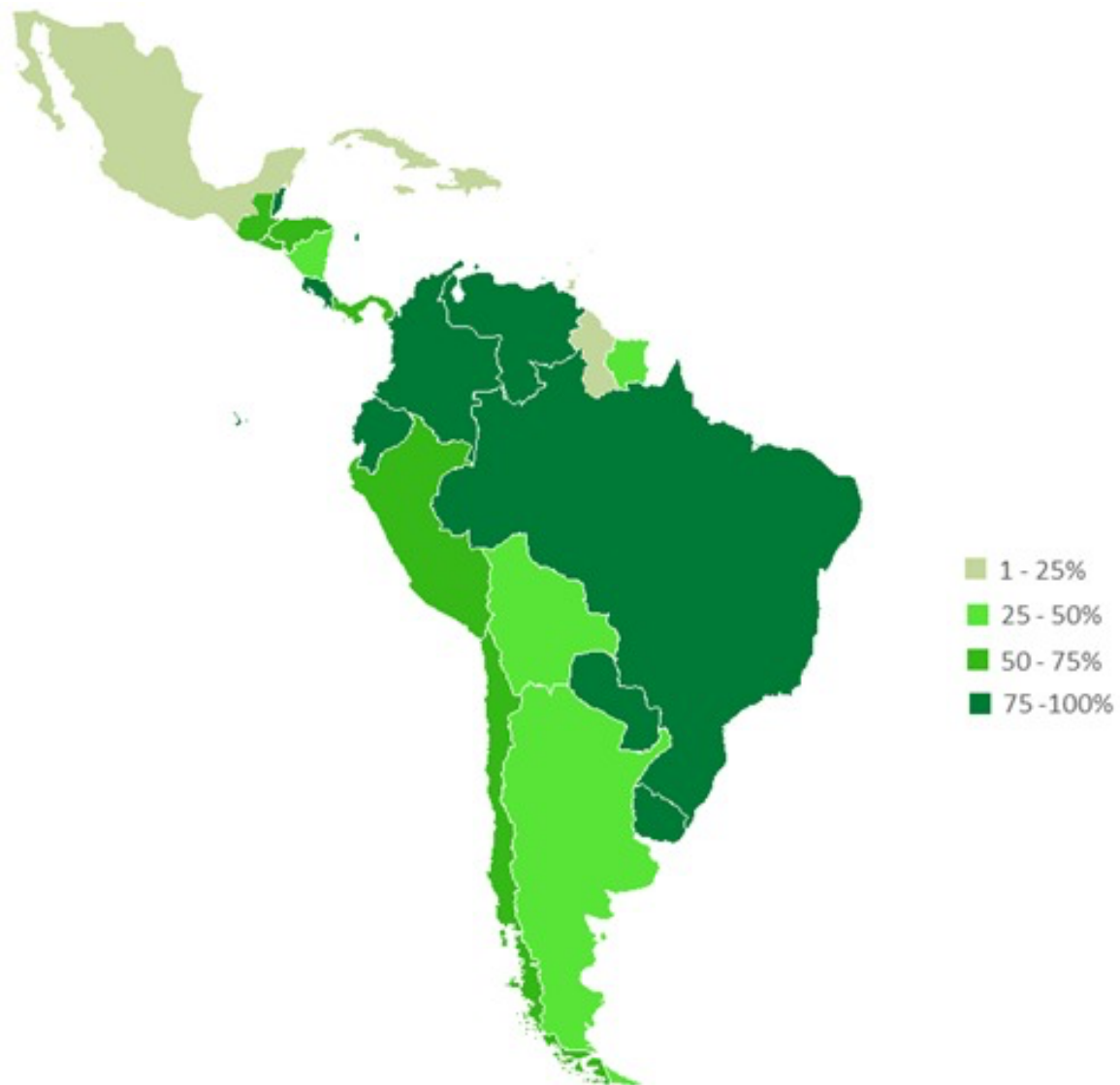
*Figure 5. Renewability index in electricity generation, LAC*



Source: sieLAC – OLADE 2025



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



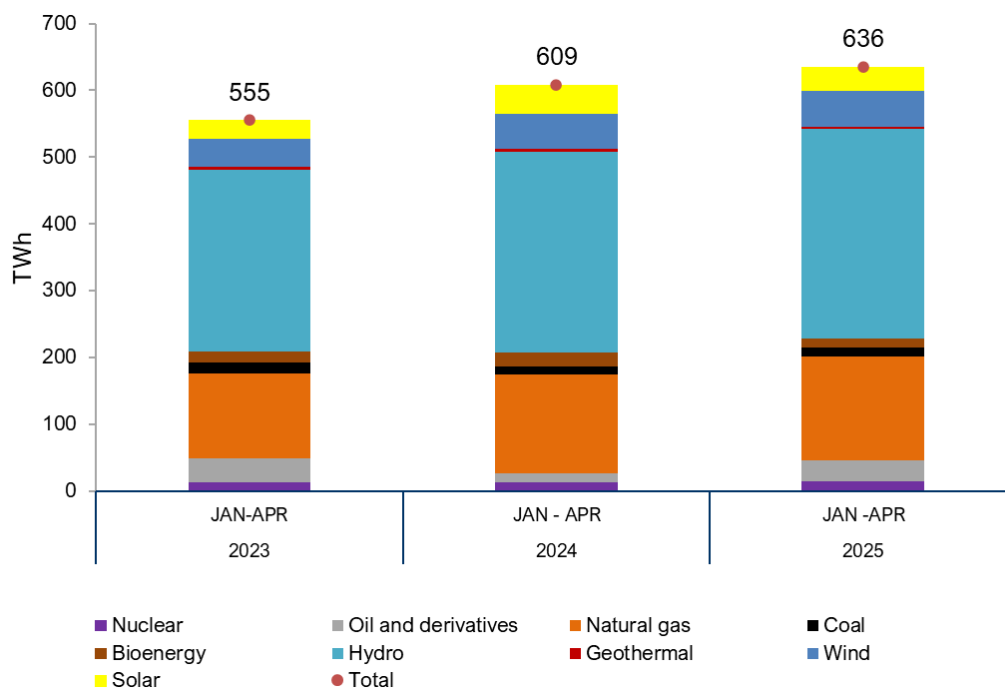
Source: sieLAC – OLADE 2025

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

Regarding accumulated generation for the first four months (Jan–Apr) of the last three years (2023, 2024, and 2025), an average annual growth of 7% is observed, with a cumulative growth of 14%. See Figure 7.

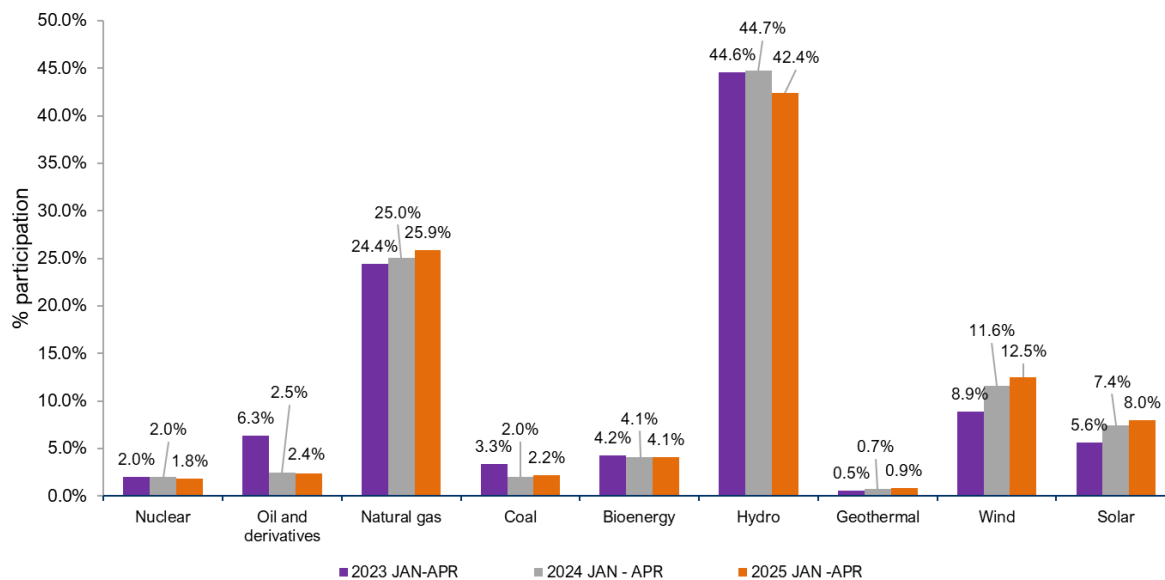
Regarding the share by source in the accumulated generation matrix for these four-month periods, increases are observed in natural gas, wind, and solar, while hydropower shows a slight decrease between the first four months of 2024 and the first four months of 2025. See figure 8.

**Figure 7.** Evolution of the share by source in accumulated electricity generation for the first four 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 four quarters of the last 3 years



Source: sieLAC – OLADE 2025





[www.olade.org](http://www.olade.org)