13

JANUARY 2026

olacde

Report

Monthly electricity generation report in LAC

Monthly electricity generation report in LAC, January 2026

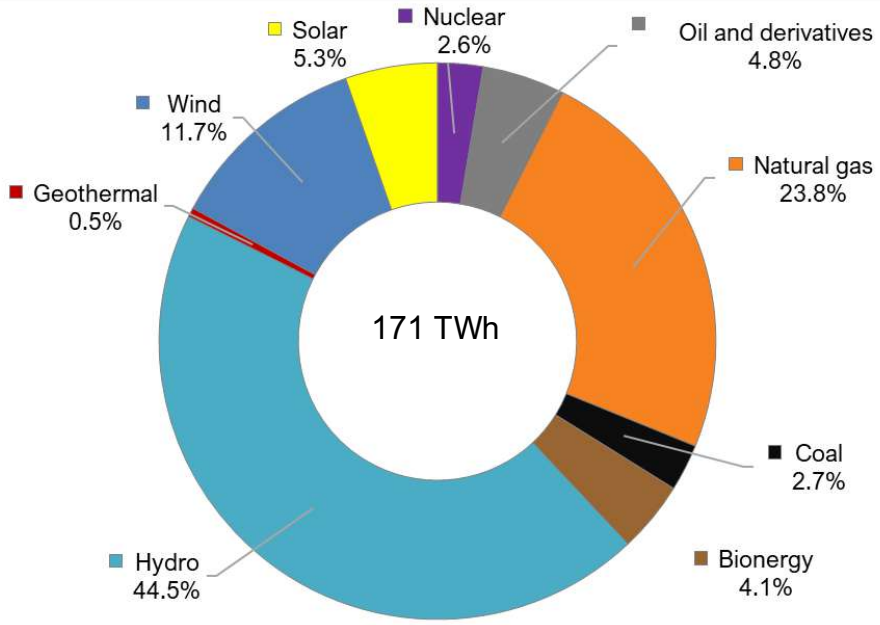
OLACDE publishes the monthly electricity generation report for Latin America and the Caribbean (LAC) to monitor monthly and year-on-year variations, as well as the contributions of each energy source in the electricity generation mix.

1. Electricity generation

In January of this year, LAC generated 171 TWh of electricity, maintaining hydroelectricity as the dominant technology not only in relative terms, but also in electricity delivered. This trend is driven by greater water availability and a reduction in the system's hydrological constraints, favoring lower marginal-cost dispatch and the partial displacement of thermal generation with higher variable costs.

Meanwhile, the fossil thermal segment continues to hold a significant share, accounting for 31.3% of total generation, led by natural gas, which has consolidated its role as a flexibility resource for load following and the provision of ancillary services (reserve and regulation), even in a context of greater hydroelectric contribution. At the same time, intermittent renewables—mainly wind and solar—reflect the variability associated with resource availability, highlighting the decline in geothermal and solar generation compared to the previous month, by 36% and 30% respectively. This reinforces the need for flexible capacity and dispatchable technologies to balance the power system.

Figure 1. Electricity generation by source in LAC, January 2026 (%) [1]



Source: sieLAC – OLACDE 2026

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

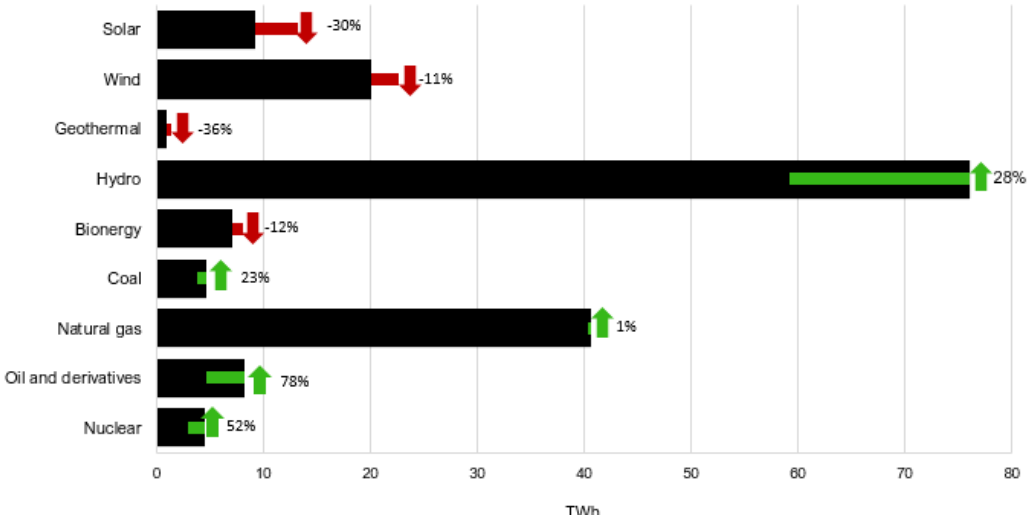
2. Monthly variation

The month-on-month variation in electricity generation in Latin America and the Caribbean (LAC) between January 2026 and the previous month **increased by 9.6%** and was driven by the performance of the technologies with the largest share in the generation mix, particularly hydropower. Although several non-conventional renewable sources recorded declines (geothermal -36%, solar -30%, and wind -11%), the increase in hydropower generation indicates that the system was more hydro-dependent in January compared to the previous month. In technical terms, this is mainly due to changes in water resource availability (hydrology/inflows, reservoir levels, and dispatch decisions based on intertemporal water optimization) and/or shifts in cost competitiveness relative to thermal generation. When more water is available, or when decisions are made to increase turbine output, hydropower displaces generation with higher variable costs, noticeably altering the monthly profile of the generation mix.

On the other hand, thermal sources show a more heterogeneous pattern, but with signs of operational stability in the technology contributing the largest volumes: natural gas shows virtually no variation (1%), which is consistent with its role as a load-following and backup technology, adjusting marginally to meet demand and compensate for renewable variability. In contrast, the percentage increases in oil and petroleum products (+78%), nuclear (+52%), and coal (+23%) may be attributed to specific events affecting the generation fleet, such as maintenance activities, outages, or fuel supply constraints.

Figure 2 shows that January 2026 was a month in which the greater hydroelectric contribution was the main driver of change in the system, while variability was concentrated in intermittent renewables (solar and wind) and adjustments in thermal technologies with a smaller relative share. From the perspective of the power system operator, this implies a generation mix potentially characterized by lower average marginal costs and lower emissions intensity if the increase in hydropower effectively displaced fossil-fuel generation, but also a greater need for reserve management and flexibility to absorb month-to-month fluctuations in solar and wind generation.

Figure 2. Monthly variation in electricity generation by source in LAC, Jan 2026 / Jan 2025



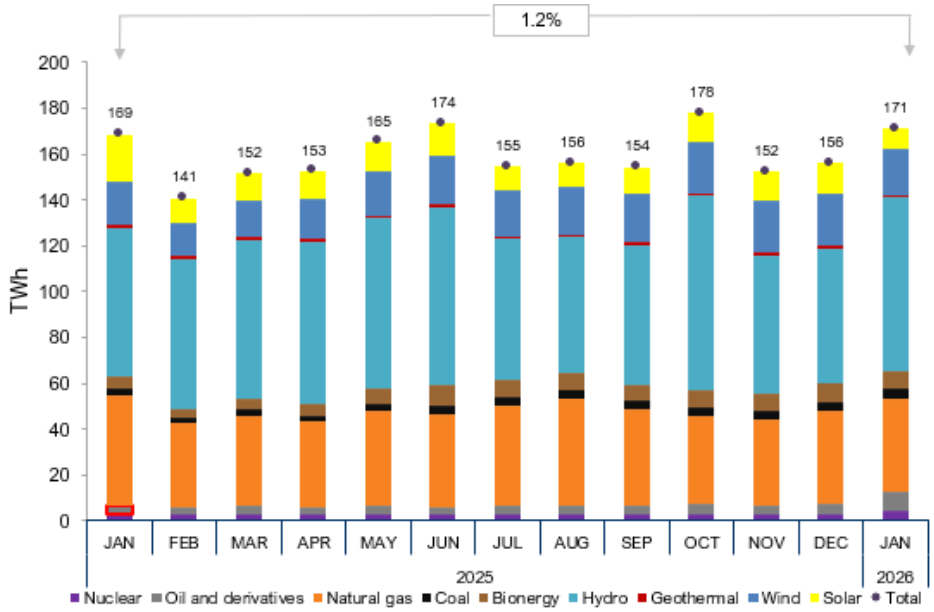
Source: sieLAC – OLACDE 2026

3. Year-on-year variation

Figure 3 shows a moderately stable evolution of electricity generation in LAC between January 2025 and January 2026, with monthly oscillations reflecting a seasonal pattern. Overall, production fluctuated within an approximate range between 141 TWh (February 2025) —the lowest level of the period—and 178 TWh (October 2025)—the highest—highlighting significant variations in dispatch patterns and/or in the availability of primary energy resources throughout the year. Following a relatively high starting point in January 2025 (169 TWh), a sharp decline is observed in February, followed by a gradual recovery through June 2025 (174 TWh), a period of somewhat lower levels between July and September (155, 156, and 154 TWh), and a marked rebound in October (178 TWh), followed by a normalization toward the end of the year (November: 152 TWh; December: 156 TWh). **January 2026 (171 TWh) stood slightly above January 2025, with a 1.2% increase, indicating marginal growth in the system's overall balance**.

From the perspective of the generation mix by source, hydropower remains the main component of the energy matrix throughout all months, acting as the "backbone" of the regional matrix, while thermal generation—particularly natural gas—emerges as the second most significant block, providing flexibility to meet demand variations and offset fluctuations in hydroelectric output. Fossil fuel sources based on oil and petroleum products, as well as coal, account for smaller shares of the total generation mix, generally associated with backup requirements or specific availability and cost conditions. At the same time, non-conventional renewables (mainly wind and solar) make a visible, though still secondary, contribution compared to hydropower and natural gas, complemented by smaller and relatively limited contributions from bioenergy and geothermal sources; nuclear power appears as a minor component. Overall, the variability of the monthly total is more associated with changes in the blocks of greater weight (hydro and natural gas) than with the sources of lower participation, which is consistent with a system where hydraulics predominates and flexible thermal balances the dispatch.

Figure 3. Evolution of Electricity Generation by Source in LAC (Jan 2025 – Jan 2026)

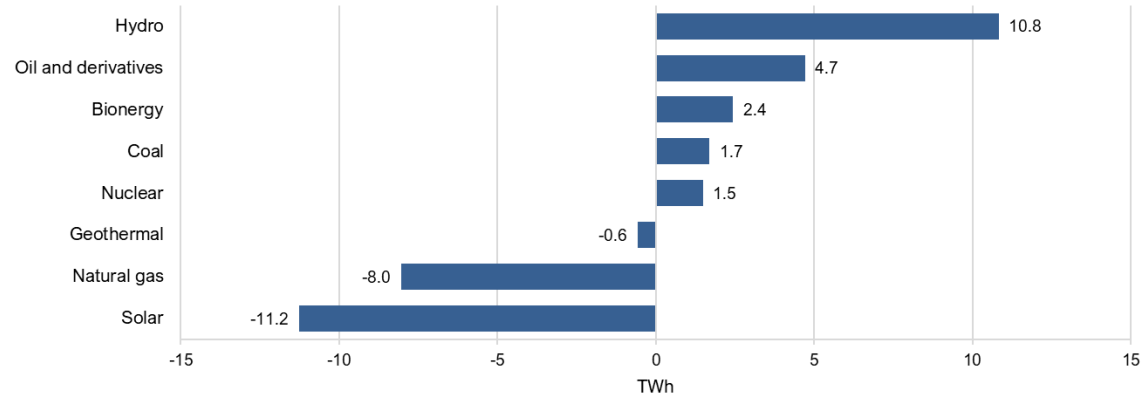


Source: sieLAC – OLACDE 2026

In January 2026, the year-on-year variation by source in Latin America and the Caribbean (LAC) reflects a reconfiguration of dispatch patterns: the increase in hydropower generation (+10.8 TWh) represents the main positive contribution, accompanied by smaller increases in oil and petroleum products (+4.7 TWh), bioenergy (+2.4 TWh), coal (+1.7 TWh), and nuclear power (+1.5 TWh). Conversely, significant declines are observed in solar (-11.2 TWh) and natural gas (-8.0 TWh), while geothermal generation recorded a marginal decrease (-0.6 TWh). Overall, considering all sources for generation, there is a slightly positive net balance of 1.3 TWh, the product of an almost complete compensation between the hydraulic increases and the reductions in solar and natural gas.

The year-on-year variation during the month was driven primarily by: a) greater availability and participation of renewable hydropower generation, which tends to displace thermal generation, and b) the high sensitivity of variable generation (solar) to operational and seasonal conditions, reflected in a significant contraction. The increase in oil and petroleum products, together with the slight rise in coal generation, points to specific balancing adjustments and/or local constraints, while the growth in nuclear generation is consistent with its role as a baseload source. Geothermal generation, meanwhile, recorded only limited variation, without altering its structural contribution to monthly electricity generation.

Figure 4. Year-on-year variation of electricity generation by source in LAC. 2026 vs. Jan. 2025



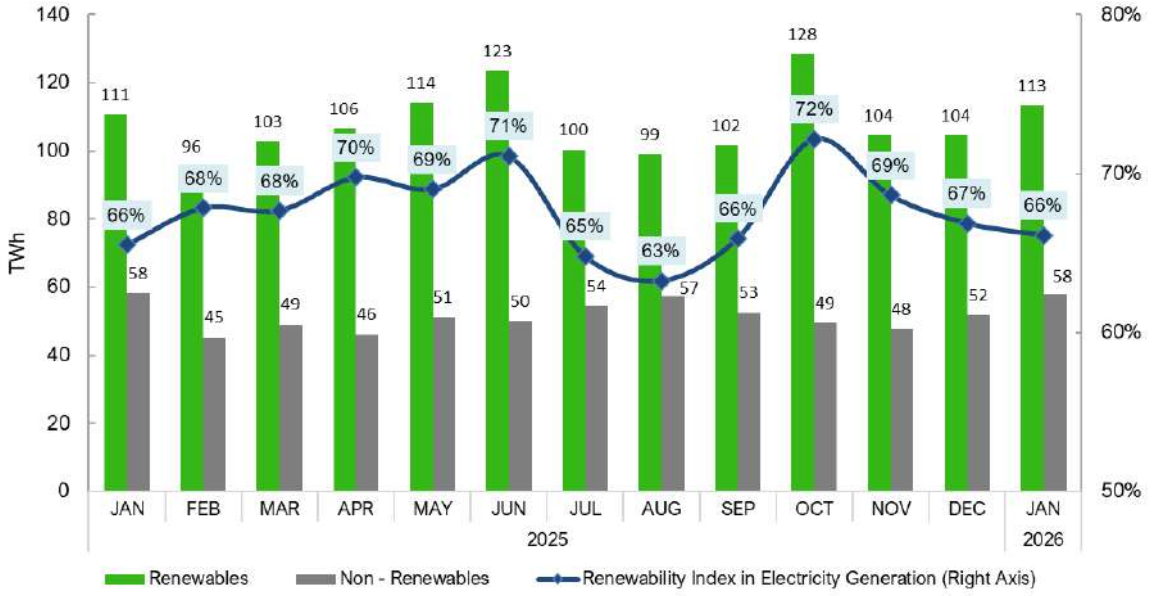
Source: sieLAC – OLACDE 2026

4. Renewability Index

Electricity generation in LAC maintained a **mostly renewable matrix in January, reaching 66%.**

Of the 27 member countries of OLACDE, 12 exceeded the regional index of 66% in January 2026, the most outstanding being Paraguay (100%), Costa Rica (97.8%), Uruguay (96.5%), Ecuador (91.6%), Belize (90.9%), Colombia (88.7%), Brazil (88.5%), and Venezuela (87.7%).

Figure 5. Renewability index in electricity generation, LAC



Source: sieLAC – OLACDE 2026

Figure 6. Map of the Renewability Index in electricity generation in LAC January 2026.

Source: sieLAC – OLACDE 2026

Olacde

@OLACDEORG

@olacde_org

Conexiones Energéticas - OLACDE

Organización Latinoamericana y Caribeña de Energía

Organización Latinoamericana y Caribeña de Energía

www.olacde.org