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# Report

## Monthly electricity generation report in LAC

December 2025



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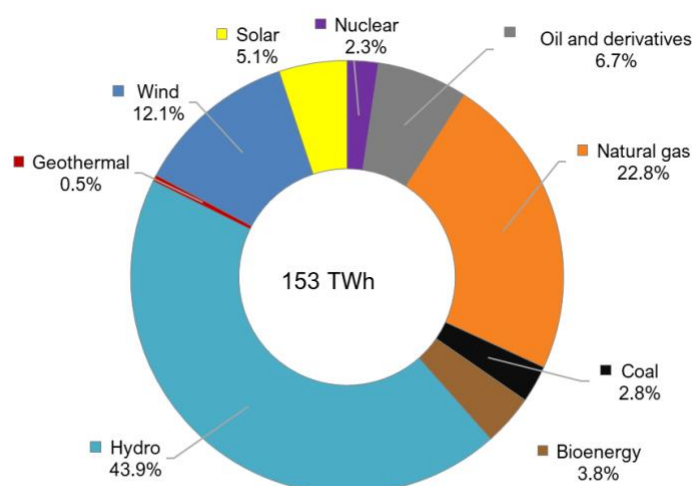
OLACDE publishes the monthly electricity generation report for Latin America and the Caribbean (LAC) to monitor monthly and year-on-year variations, as well as the contributions of each energy source in the electricity generation mix.

In this context, considering the electricity sector as a key driver of economic, social, and environmental development, having up-to-date information on monthly electricity generation is strategic for the comprehensive monitoring and evaluation of the electricity system. This report highlights the evolution of electricity generation until December 2025.

### 1. Electricity Generation December 2025

Electricity generation in Latin America and the Caribbean (LAC) in December 2025 reached 153 TWh, with a predominantly renewable energy mix, but with a significant contribution from thermal power. Hydropower (43.9%) leads due to the abundance of water resources and installed infrastructure, although its contribution is subject to hydrological variability. Natural gas (22.8%) acts as the main source of support due to its operational flexibility, especially in the face of falls in hydro or variable renewables. Wind (12.1%) and solar (5.1%) continue to expand, supported by public policies and cost reductions. Fossil fuels such as oil (6.7%) and coal (2.8%) maintain a complementary role, particularly in isolated systems or for energy security. Nuclear energy (2.3%) remains limited due to its relatively higher costs, while bioenergy (3.8%) and geothermal energy (0.5%) provide localized contributions based on resource availability.

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



Source: sieLAC – OLACDE 2026

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

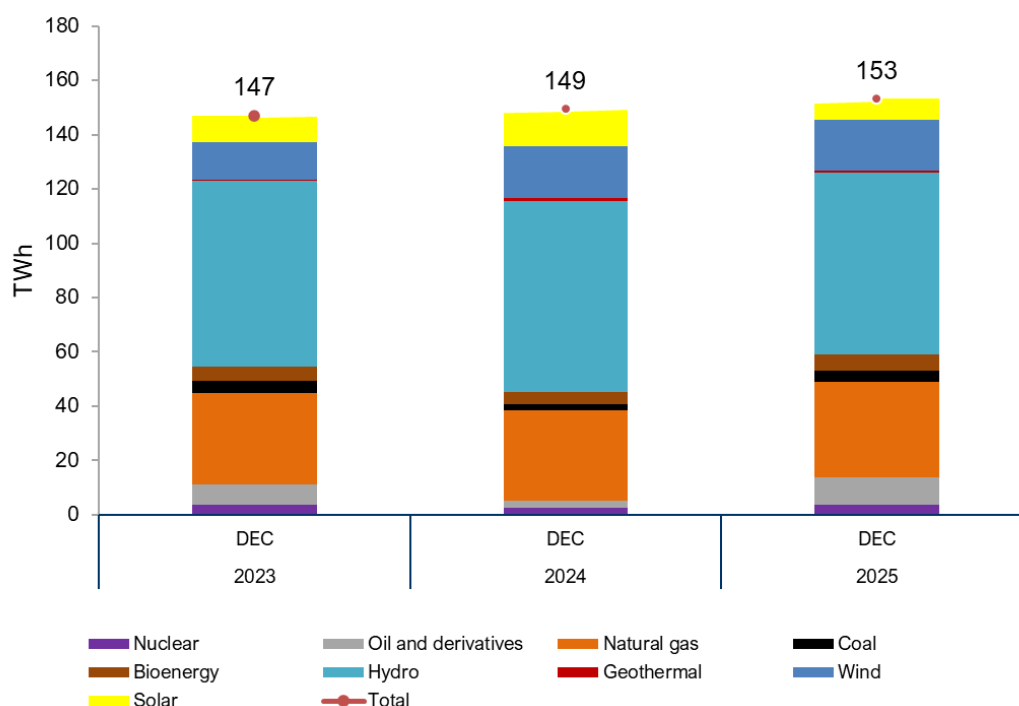
## 2. Composition of electricity generation in December of the last 3 years

Comparing the months of December over the last three years, electricity generation in LAC showed a trend of moderate growth, increasing from 147 TWh in 2023 to 149 TWh in 2024 and reaching 153 TWh in 2025, while maintaining a relatively stable generation mix structure. Hydropower remained the main source of generation, contributing close to half of the regional total, confirming its structural role, although it depends on hydrological conditions. Natural gas consolidated its position as the second-largest source, playing a key role as operational backup in response to renewable variability. At the same time, a sustained increase in non-conventional renewable energy sources can be observed, particularly wind and solar, whose combined share continues to expand, reflecting progress in the diversification of the energy mix and in decarbonization processes.

Meanwhile, thermal sources such as oil derivatives and coal show a declining trend and a relatively minor share. In many systems across the region, oil-based power plants operate as backup or peaking units; therefore, when the supply of lower variable-cost energy increases, their dispatch is automatically reduced.

Bioenergy has a marked seasonality, since it intensifies during the harvest season in sugar mills, when the availability of cane bagasse allows to increase electricity production based on this source, while geothermal and nuclear, as basic technologies, maintain stable, although limited contributions.

Figure 2. Comparison of Electricity Generation for December of Each Year



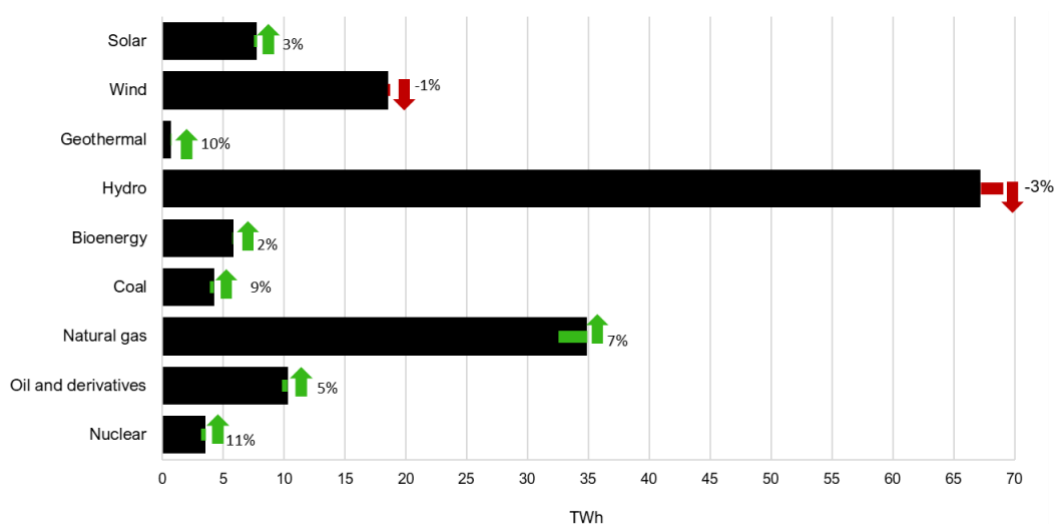
Source: sieLAC – OLACDE 2026

### 3. Monthly variation

Electricity generation in December 2025 increased by 1.3% compared to November of the same year. Hydropower remained the main source of generation, although it registered a drop of 3%, as did wind power, which decreased by 1%. This reduction was offset by a greater contribution from thermal generation, from mineral coal (+9%), natural gas (+7%) and oil and derivatives (+5%), which together have increased their share. At the same time, other sources showed a positive participation, such as nuclear (+11%), geothermal (+10%), bioenergy (+2%) and solar (+3%).

The rationale behind the increase in thermal generation is that, as renewable generation declines—particularly hydropower during dry periods—it becomes necessary to rely on thermal power plants due to their greater flexibility and lower dependence on climatic factors, in order to ensure the supply of electricity demand.

Figure 3. Monthly variation in electricity generation by source in LAC, Dec. 2025 / Dec. 2024

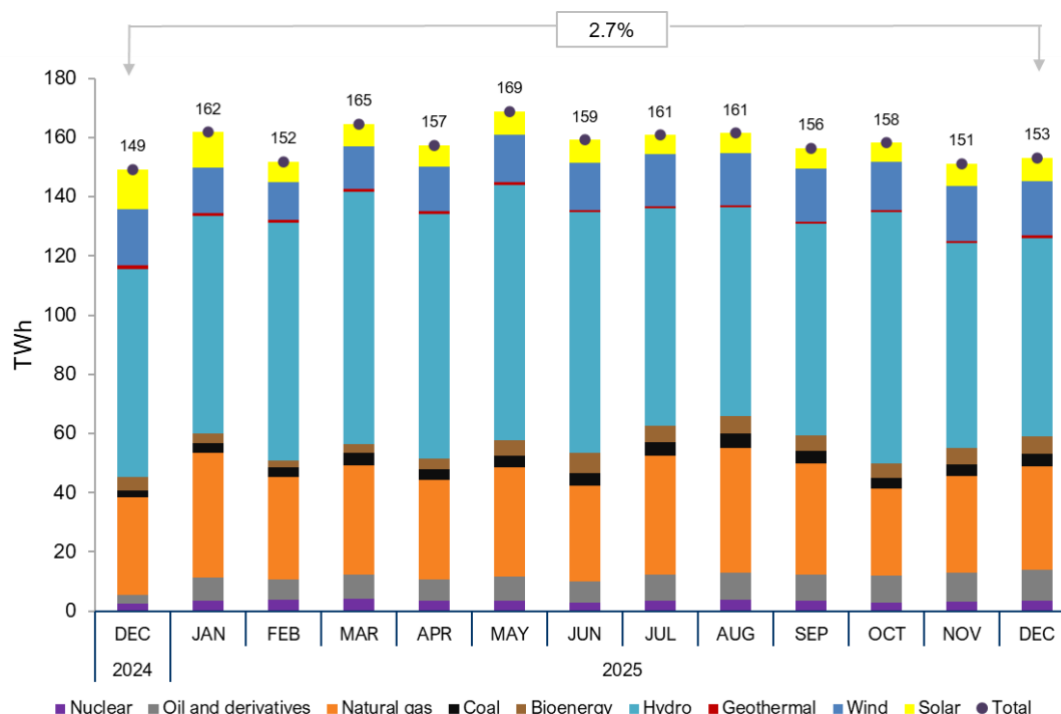


Source: sieLAC – OLACDE 2026

## 4. Year-on-year variation

Between December 2024 and December 2025, electricity generation in LAC registered a growth of 2.7%.

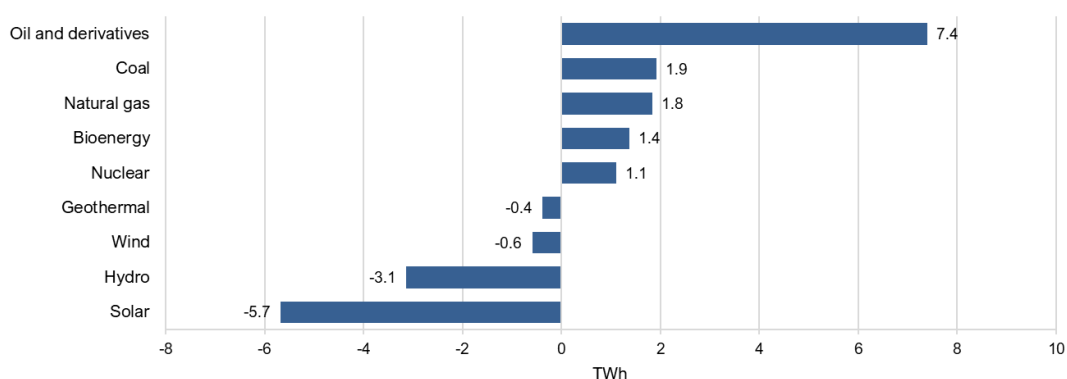
Figure 4. Evolution of electricity generation by source in LAC (Dec. 2024 - Dec. 2025)



Source: sieLAC – OLACDE 2026

The year-on-year variation in electricity generation by source in LAC shows a divergent behavior between technologies, characterized by an increase in thermal sources and a contraction in several renewables. Oil and derivatives recorded the largest increase (+7.4 TWh), followed by coal (+1.9 TWh) and natural gas (+1.8 TWh), reflecting a greater use of fossil generation to meet demand. Likewise, nuclear energy (+1.1 TWh) and bioenergy (+1.4 TWh) show moderate increases. Meanwhile, other renewable sources show a decline, with notable decreases in solar (-5.7 TWh) and hydropower (-3.1 TWh), along with smaller reductions in wind (-0.6 TWh) and geothermal (-0.4 TWh). Overall, this pattern suggests a greater reliance on thermal sources during the period analyzed, possibly associated with lower availability of renewable resources and the need to ensure security of electricity supply.

Figure 5. Year-on-year variation in electricity generation by source in LAC, December 2025. 2025 vs. Dec. 2024



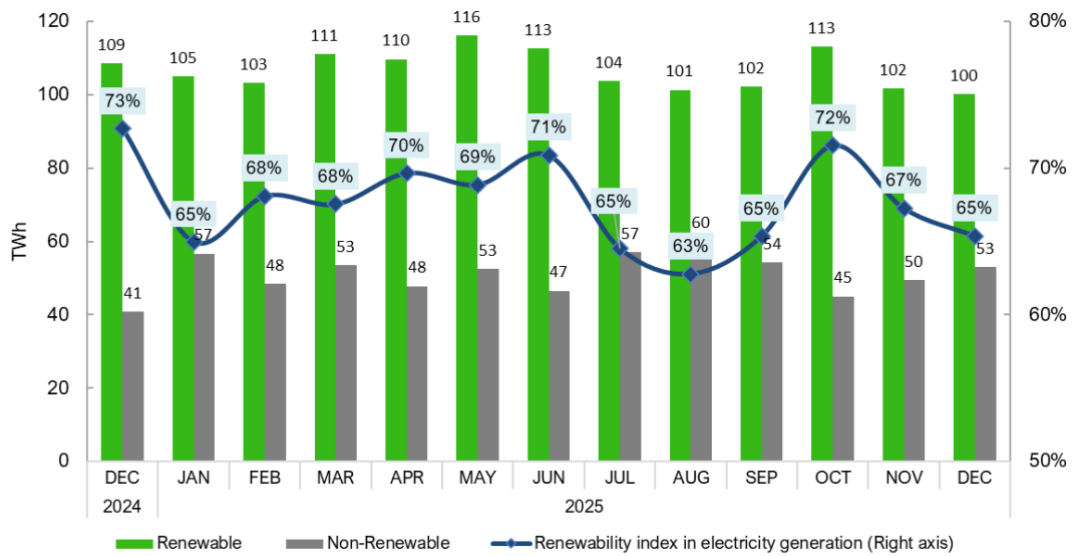
Source: sieLAC – OLACDE 2026

## 5. Renewability Index

Renewable generation in LAC remains predominant throughout the period, with values ranging between 100 and 116 TWh, peaking in May 2025 (116 TWh) and relatively high levels in June and October (113 TWh). On the other hand, non-renewable generation shows less variability, standing between 41 and 60 TWh, with a peak in August (60 TWh). Therefore, the renewability index shows a fluctuating behavior throughout the year. It begins at a high level in December 2024 (73%), decreases to its lowest point in August 2025 (63%), and subsequently recovers to reach a new peak in October (72%). Although renewables dominate the regional electricity mix, a higher share of non-renewable sources is observed in certain months, temporarily reducing the renewability index and reflecting the need for thermal backup in the system.

The high level of regional renewability during the analyzed period is strongly influenced by electricity systems with a high share of clean energy. Paraguay, Venezuela, Colombia, Costa Rica, and Ecuador stand out for their strong hydropower component, exceeding 70%, while Uruguay has a significant share of wind power. In this context, of the total of 27 OLACDE member countries, 12 exceeded the regional renewability index in December 2025 (65%), which shows significant heterogeneity in the region's electricity matrices.

Figure 6. Renewability Index in Electricity Generation, LAC dec 2024 - Dec. 2025



Source: sieLAC – OLACDE 2026

Figure 7. Map of the Renewability Index in electricity generation in LAC, December 2025





Source: sieLAC – OLACDE 2026



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