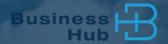


Clean Tech Industry



Latin American Market

Market Revenue 2023 (US\$M):\$1,197.3

CAGR (2024 - 2030): 25.2%

Latin America generated 53% of its electricity from renewable sources, significantly surpassing the world average of 22%, according to the International Energy Agency.

in 2019, foreign investment in clean energy across Latin America totaled approximately US \$12 billion, with US \$6.5 billion in wind energy and US \$5 billion in solar energy. However, in 2024, energy investment is set to reach a record high of US \$185 billion.

Key Facts



Bioenergy is a growing industry in the region and biofuels, in particular, can help meet both energy security and climate targets.

Many countries are also developing long-term green hydrogen strategies and implementing pilot projects. Almost half of the 33 LAC countries pledged to reach net zero emissions by 2050, including Brazil, Chile, Costa Rica, and Colombia.

Colombia

- Colombia committed to an Energy Transition process, aiming to boost renewable energy generation from 1% to over 12% by 2022. Since then the country's generation portfolio now exceeds 3,000 MW, representing more than 12% of its total energy matrix. Additionally, Colombia plans to reduce greenhouse gas emissions by 20% to 51% by 2030.
- In 2019, a renewable energy auction resulted in developers signing 15-year power purchase agreements (PPAs) for 1,365 MW of wind and solar capacity to be commissioned by 2022. These projects are part of Colombia's goal to reach 2.5 GW of solar, wind, and biomass energy by 2022, which has made the market more competitive and reliable.

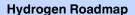
- Chile is set to retire all coal plants by 2040. · It is poised to become the second-largest battery market in
- the Americas. It currently has 85 energy storage projects.

Chile

- The country aims to achieve 100% zero-emission vehicle sales by 2035, including urban transport buses and taxis, and by 2045 for heavy-duty trucks and intercity buses.
- The Institute of Clean Technologies (ITL) was established in 2024. It aims to promote the creation of a new clean energy and green mining industry in the country, becoming the largest applied R&D investment in its history.

COP28 Investment Portfolio

5 strategic components and 14 investment projects presented, includes opportunities in sustainable tourism for local communities, as well as renewable energy projects such as wind, solar and green hydrogen development.



The implementation of a hydrogen roadmap will create opportunities for multiple suppliers of carbon capture, utilization, and storage (CCUS) technologies to produce blue hydrogen, as well as for hydrogen storage facilities, transportation technologies, and hydrogen-powered vehicles.

Offshore Wind Energy

Developers are seeking to invest in the construction of offshore wind energy generation projects, which presents numerous opportunities for foreign companies in both their development and operation.



Green Mining Leadership

To make Chile a world leader in green mining, suppling countries committed to combating climate change, through the production and export of competitive green minerals.



Sustainable Economy Enabler

To contribute to the development of electromobility and the competitive production of renewable energies worldwide, while also being a leader in technological development and knowledge sharing.



Integrated Mining Hypersector

To achieve a sustainable mining development model by intertwining the value chains of solar energy, hydrogen, water treatment, and lithium, creating an integrated and sustainable hypersector for both internal development and export products.

Peru



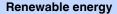
Argentina

- Out of its population of 34 million people, 48% of the population lack access to safe water. The Peruvian government released the Sanitation Sector Reform Law, mandating utilities to secure the water supply. This demonstrates that a significant amount of investment is required in clean water solutions.
- Al which is critical to clean tech growth is projected to reach US \$468.80 million in 2024 and is expected to show an annual growth rate (CAGR 2024-2030) of 28.47%, resulting in a market volume of US \$2,108.00 million by 2030. The Generative Al market in Peru, a subset of Al, is projected to grow by 46.47% (2024-2030).
- In September 2023, Empresa Electricidad SA signed an agreement with COFIDE to transition from large centralized power grids to smaller-scale, localized energy systems.

- Argentina has built 200 cleantech power generation projects with a capacity of 5.2 gigawatts. They have plans to increase the share of renewables in the energy matrix to 20% by 2025 and have secured a loan from the IDB for US \$1.1 billion for expanding infrastructure in the power network.
- Lithium could cover almost 20 percent of the global reserves (98 tonnes) in 2030, making the country a relevant player in the energy transition and advancing in electric vehicles. As of 2023, the most used renewable energy is wind energy, which represents 71%, followed by solar (17%), small hydroelectric (6%) and biomass.
- There are promising opportunities within the transportation sector for decarbonization strategies, alongside significant growth in the green hydrogen industry to address local needs effectively.

Green Hydrogen

Peru's Minister of Energy and Mines expects investments of approximately US \$12.5 billion for green hydrogen initiatives. Exportation is expected to begin in 2030.



Expected 81% renewable energy capacity by 2030, with 35% from solar and wind. 4 GW of solar and wind projects currently under development.

Electric Vehicles

Electrification of transportation is expected to make up 11% of public and private transport by 2030.



Green Hydrogen

There is potential to produce +8 million tons of green hydrogen per year. The government projects to reach US \$15 billion in hydrogen exports by year 2050.



Renewable energy

Renewable energies represented 11.8% of the country's installed capacity in 2022. There is also a mandatory target of 20% of the national electricity consumption by means of renewable energy by 2025.



Boosting SME's

A US \$200 million grant was allocated to finance more than 14,000 SME's and support them with climate risks and enhance their competitiveness in green markets.

Future Opportunities in Latin America:



The transport sector in the decarbonization strategy is key area of opportunity. Reforms in the efficiency of logistics activities together with the adoption of low carbon emissions technologies (such as biofuels, green hydrogen and electromobility) also demonstrate important potential.



Clean tech is essential for achieving sustainability goals as it facilitates the **restructuring of industries** such as construction, mining, agriculture, and energy production to reduce environmental impacts and enhance resource efficiency; this includes the integration of innovative solutions like Al and advanced water treatment technologies.



Leveraging this region's abundant renewable energy resources is pivotal in clean technology growth. Beyond traditional uses in refining and chemicals, the development of cost-competitive low-emissions hydrogen could drive emissions reductions across industries, such as iron production, thereby stimulating the regional economy and attracting foreign investment.