

HOW NEW TECHNOLOGIES  
ARE TRANSFORMING  
**ENERGY**  
IN LATIN AMERICA AND THE CARIBBEAN



Digital economy



Energy

## CONTEXT: THE DEVELOPMENT OF A STRATEGIC INDUSTRY IN THE REGION

Latin America and the Caribbean is a region that has a great diversity of both traditional and renewable energy matrices, with most countries having the necessary conditions, and being perceived globally as a potential source of renewables.

The energy industry is a strategic sector for countries, since achieving energy independence allows them major savings for public coffers, especially for those countries in the region that do not have hydrocarbon reserves. What is more, the industry acts as a main driver of growth and development, exerting a significant impact on job creation and GDP.

Renewable energies have grown steadily by around 70% over the last decade and, at the end of 2021, they accounted for more than 60% of the installed capacity for electricity generation in LAC.



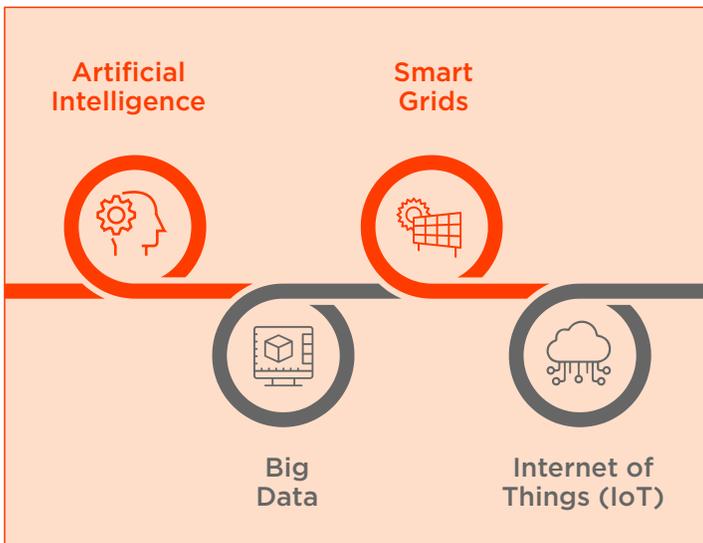
**"IDB Invest seeks to promote efforts that further the adoption of renewable energies, seeking to turn LAC into a renewable energy hub, leading the development of new clean technologies such as green hydrogen"**

## DIGITALIZATION IN THE ENERGY INDUSTRY



### TECHNOLOGIES CATALYZING THE ENERGY TRANSITION

These technologies are driving the energy transition, enabling the connection of energy matrices and achieving more efficient distribution. The democratization of sensor-generated data plays a key role and there is still a need to liberalize the energy market and establish long-term energy policies.



## The energy industry is in a crucial situation, where digitalization is key to driving significant transformation



### ENERGY EFFICIENCY AND OPTIMIZATION

The development of software solutions makes it possible to improve energy management, mainly in the industrial field.



**Plug-and-Play Solutions:** Enabled by new technologies, they can be deployed on traditional systems, making the entire value chain more efficient.

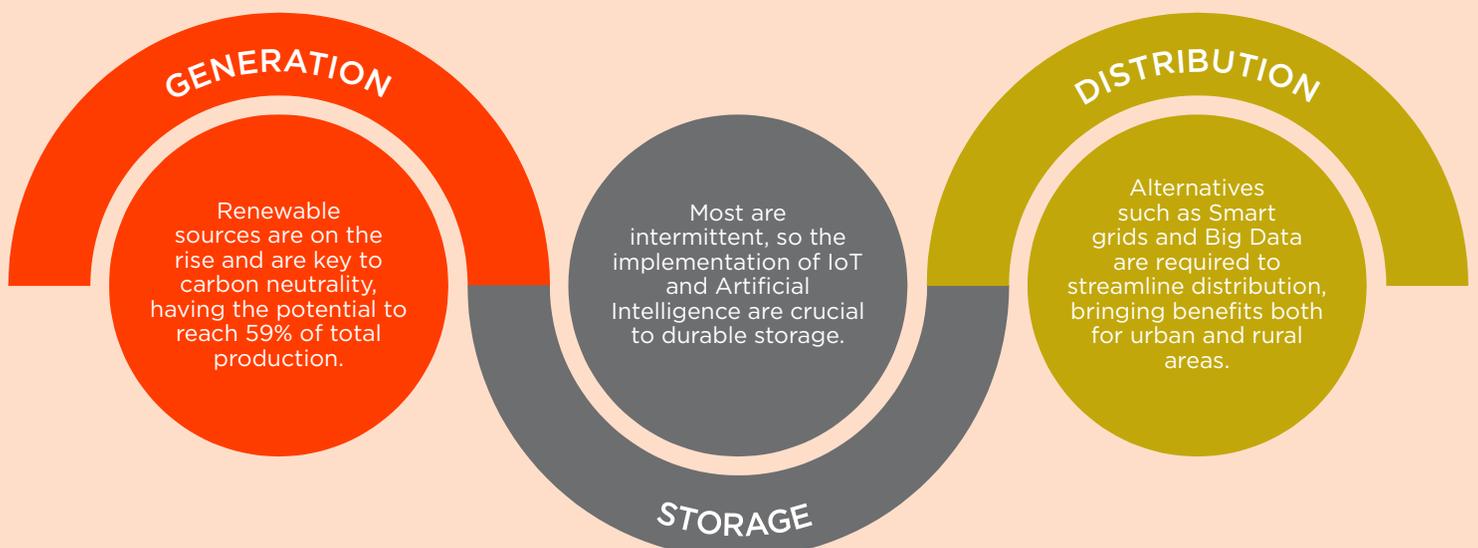


**Digital Electrical Meters:** They make it possible to capture energy consumption data in real time, improving energy distribution and generation.



### VALUE CHAIN DECARBONIZATION

The energy value chain is divided into three main stages and carbon neutrality is currently sought in each of these.

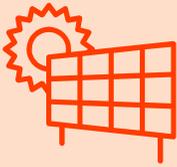


## BUSINESS MODELS STEMMING FROM DIGITALIZATION

The convergence of technology, government, and society is a breath of fresh air to a traditionally innovation-resilient sector, driving sustainable business models.

### SOLAR AS A SERVICE (SAAS)

SaaS models are revolutionizing access to final energy. It is a service where the end consumer, usually in the residential market, accesses a free installation under a subscription model where a monthly fee is paid for the use, maintenance, and generation of power.



### ALLIANCES BETWEEN START-UPS AND LARGE CORPORATIONS

There are two main forms of collaboration:

#### Capital investment



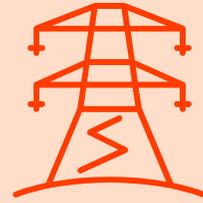
Large corporations invest in equity capital of start-ups through CVCs.

#### Venture client

Well-established companies are the main sales channel, reducing risks and preventing shareholder dilution.

## MICROGRIDS

This model allows communities and companies to generate, store, and distribute renewable energy in local areas, promoting energy decentralization and strengthening communities, especially in remote or less developed areas.



If you want to know more about how technologies are impacting energy in LAC, click the link to see the details of the report.

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