

Infrastructure and Energy in Latin America

Challenges and opportunities across the region



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Introduction

The global economic landscape is undergoing significant changes, which are influencing the future of industries. According to the World Bank, global growth is forecasted to be 2.4% in 2024, down from 2.6% in 2023. This, combined with global conflicts such as the war in Ukraine or Gaza, as well as crucial electoral moments in both Latin America and the United States where 7 presidents will be elected, reflects a geopolitical landscape that is shaping the trajectory of markets in the coming years.

In today's landscape, **Latin America is increasingly becoming a focal point in the global market, drawing attention for its resources and unique demographic makeup.** The region stands out with its sizable population of skilled young professionals and notable strides in infrastructure expansion. This combination positions Latin America as a highly promising investment destination, offering ample opportunities for growth and development¹.

Today, Brazil has infrastructure and energy megaprojects ranging from a free energy market to major railway construction to the use of solar energy. Meanwhile,

Mexico is benefiting from phenomena such as nearshoring and is rethinking its energy policy towards decarbonization; and Chile is positioning itself as one of the leaders of the region's great energy potential by exploring green hydrogen projects. These are just a few examples of what the region represents.

However, it is also known that Latin America faces various challenges such as corruption, lack of security, and its infrastructure investment gap. This underscores the importance of seeking both political and economic solutions to promote the development of this sector.

This e-book delves into key discussions taking place in Latin America's infrastructure and energy sectors. It also serves as an invitation to major market players and authorities in these sectors, from both Latin America and the United States, to attend the upcoming **Latam GRI Infra and Energy 2024** conference. This premier event offers a platform for networking and discussing project development within the region.

In this geopolitical landscape of what is now known as the "New World," Latin America must recognize its strategic role. Strengthening ties, fostering collaboration, and maintaining open communication to address the significant challenges in sectors like infrastructure and energy can pave the way for the development we all aspire to achieve.

[¹Emerging markets in the year ahead](#)



Infrastructure and Energy Landscape in Latin America - 2024 Insights

Latin America's infrastructure and energy sector is at a critical juncture. Despite holding significant potential for robust economic growth, the region contends with a myriad of challenges. This chapter explores the key insights shaping the sector in 2024, offering a comprehensive overview across five countries: Brazil, Chile, Colombia, Mexico, and Peru.



Energy in Brazil: A Look at Key Developments in 2024

Brazil's energy sector is poised for significant growth and transformation in 2024, with several key developments.

A GEOPOLITICAL POWERHOUSE FOR DECARBONIZATION

The spotlight at the Prospectors and Developers Association of Canada (PDAC) 2024 is shining brightly on Brazil's vast potential for strategic minerals crucial for the energy transition. This presents an opportunity for the country to become a major player in the global effort to decarbonize the economy and transform energy production.

ENERGY MARKET EMPOWER BUSINESS AND CUSTOMERS

The year 2024 marks a turning point for Brazilian businesses, particularly small and medium-sized enterprises (SMEs). The opening of the Free Energy Market allows them to directly negotiate energy prices with suppliers, bypassing bureaucratic hurdles and potentially securing more competitive rates. This move fosters a more dynamic energy market, where businesses can optimize their energy consumption and costs.

INFRASTRUCTURE INVESTMENTS TAKE CENTER STAGE

The Brazilian government's large-scale renewal of concessions for 21 energy distribution companies reflects a commitment to modernizing the nation's energy infrastructure. **This process, affecting over 55.5 million customers, signifies an investment exceeding R\$ 168 billion.** These upgrades are essential to ensure a robust and efficient grid capable of accommodating future energy demands and integrating renewable sources.

BUILDING A MORE RESILIENT ENERGY SYSTEM

Ensuring a reliable and flexible energy supply is paramount. Two key energy transmission line auctions scheduled for 2024 pave the way for significant infrastructure enhancements. **The first auction offers 69 projects, attracting investments of R\$ 18.2 billion.** A second auction in September will offer five additional lots, representing R\$ 4.06 billion in investments. These projects will strengthen the national grid and enhance its ability to integrate renewable energy sources effectively.

HYDROGEN: A FUEL FOR THE FUTURE

Brazil is taking a forward-thinking approach to the development of low-carbon hydrogen. The Brazilian Chamber of Deputies approved a bill regulating its production in November 2023, and its expected publication in 2024 signifies a commitment to exploring alternative energy sources. **This paves the way for hydrogen to play a significant role in Brazil's future energy mix.**

THE RISE OF ENERGY STORAGE

The energy storage market in Brazil is projected to experience staggering growth, with analysts anticipating a 12.8% annual increase until 2040. This reflects the growing need for flexibility within the energy grid as more renewable energy sources are integrated. This trend mirrors the global market, which is poised for a 30% annual increase in storage capacity by 2030. The declining cost of battery technology and the rising demand for energy storage from both developed and developing countries are key drivers of this global growth.

IN ADDITION TO THE ABOVE, HERE ARE SOME OTHER IMPORTANT POINTS TO CONSIDER:

- » Brazil is the world's 10th largest energy producer and consumer;
- » The country has a large and diverse energy mix, including hydropower, wind power, solar power, biomass, and oil and gas;
- » Brazil is committed to reducing its greenhouse gas emissions by 43% by 2030;
- » The country is investing heavily in renewable energy and energy efficiency.



Infrastructure in Brazil: Outlook for 2024

Brazil's infrastructure and energy sector is poised for a substantial transformation in 2024. With substantial government investment and increased private sector participation, the year holds the promise of exciting developments that will redefine the nation's landscape.

INVESTING IN THE FUTURE: A FOCUS ON INFRASTRUCTURE AND ENERGY

The 2024 budget reflects a strong commitment to infrastructure and energy, allocating R\$ 671.1 million, that represents a robust 28% of the total budget. This dedication extends beyond just funding, with plans to revitalize state-owned giants like Petrobras, Eletrobras, and Banco do Brasil, solidifying their roles in driving growth.



PUBLIC-PRIVATE PARTNERSHIP

The government's efforts are further amplified by the anticipated surge in private sector investment. Recognizing the immense potential, numerous private companies are gearing up to invest in infrastructure projects like toll roads, power plants, and telecommunication networks. **This public-private partnership model is expected to be a key driver of growth, leveraging both public resources and private sector expertise.**

HERE ARE SOME OF THE KEY PROJECTS THAT ARE EXPECTED TO BE COMPLETED IN 2024:

- » The completion of the Belo Monte hydroelectric dam;
- » The start of construction on the Angra 3 nuclear power plant;
- » The opening of the new São Paulo-Campinas high-speed rail line;
- » The expansion of the Rio de Janeiro metro system.



The confluence of government investment, private sector participation, and a focus on both traditional and sustainable energy solutions paints a promising picture for Brazil's infrastructure and energy sector in 2024.

Energy in Colombia: Innovations and Advancements in the Sector



Colombia's energy landscape is undergoing remarkable developments poised to revolutionize the country's power infrastructure. One notable initiative is the implementation of a robust plan for river transportation in the **La Esmeralda** reservoir, linking rural areas of Macanal municipality and its surroundings. Benefiting over 6,500 individuals, this project required a substantial **investment exceeding 20 billion pesos between 2020 and 2023.**

AES Colombia emerges as a key player in the nation's energy sector growth. Notably, the Jemeiwaa Ka'l project stands as Colombia's largest wind energy endeavor under construction, boasting a capacity exceeding 1,000 megawatts. Additionally, AES inaugurated the San Fernando solar park in Meta, the country's largest self-generation solar project, supplying power to Ecopetrol.

COLOMBIA IS EXPLORING OPPORTUNITIES

Colombia is finding opportunities to harness geothermal energy from volcanic regions and thermal springs. Legislative initiatives are also underway to streamline environmental licensing procedures for renewable energy projects, aiming to expedite the transition to cleaner energy sources.

Recent results from the Cargo Reliability Auction indicate a significant surge in solar and wind energy's share, expected to increase from 3% to 26% over the next three years. In La Loma, Cesar, the country's largest solar energy park covering 437 hectares and featuring over 400,000 solar panels, has been inaugurated by Enel Green Power.

Efforts towards renewable energy expansion are evident, with 17 licenses granted for renewable energy projects out of 56 applications received in the past year and a half. Collaborations with Denmark aim to bolster Colombia's energy sector and facilitate decarbonization efforts over the next three years.





EPM's announcement of 62% completion of the Tepuy Photovoltaic Solar Park signifies substantial progress in adding nearly 700 megawatts to Colombia's energy capacity. Furthermore, renewable energy projects such as Ecoparque Solar Providencia and Catalina Verde are bringing sustainable power solutions to Providencia and Santa Catalina.

A notable milestone was achieved on March 8 with the commercial operation of the Portón del **Sol solar plant in La Dorada**, Caldas. With a capacity of 102 megawatts, it becomes Colombia's first centrally dispatched solar plant in commercial operation, showcasing the country's commitment to renewable energy transition.

Infrastructure in Colombia: Transformative Initiatives

Despite encountering numerous challenges, **Bogotá is making significant strides in the construction of its metro system**, a monumental project crucial for the capital's development. Simultaneously, in Cundinamarca, progress is underway on the Regiotram de Occidente project, which aims to connect the municipalities of Facatativá, Madrid, Mosquera, and Funza with Bogotá, **benefiting around 130,000 daily commuters.**

In the Valle del Cauca region, a comprehensive Master Plan for infrastructure, transportation, and logistics is shaping up, including the coordination of the Commuter Train project with the municipalities of Cali, Yumbo, Palmira, and Jamundí. The plan also encompasses key initiatives such as the completion of the Buga-Buenaventura dual carriageway, the deepening of the Port Canal, the Mulaló-Loboguerrero road, and the concession of the airports in Cali and Buenaventura. Additionally, feasibility studies are being conducted for the Pacific Tourist Train project, with initial segments planned between Cali and Palmira.

COMPETITIVENESS AND IMPROVEMENTS

Under the leadership of the current administration in Valle del Cauca, **several infrastructure projects aim to enhance competitiveness and improve living standards.** Among these, the eagerly anticipated Pacific Train, connecting Bucaramanga with Barranquilla, holds significant promise for the region's development.

Other notable projects include the construction of a bridge on the **Malambo-Caracolí road**, the expansion of the **road connecting the Atlantic coast with Bolívar department** in the Bayunca area, and the enhancement of the port corridor in Barranquilla towards La Virgencita in Soledad municipality. These initiatives underscore Colombia's commitment to modernizing its infrastructure and fostering economic growth across the country.



Infrastructure in Chile: Maintaining Momentum in 2024 and Beyond

Chile has long been a leader in infrastructure development in Latin America. In 2023, there was a significant push towards infrastructure development in Chile. The government initiated a **US\$4.6 billion investment program**, launching tenders for 14 concession contracts. These projects included vital improvements to the country's transportation network, such as major highways like the **Antofagasta-Caldera Route 5, Temuco-Río Bueno Route 5, and Concepción North Access.**



While President Gabriel Boric's administration initially slowed down infrastructure tenders in March 2022, 2024 presents renewed focus on revitalizing the market. **A proposed US\$2.26 billion investment plan** aims to reinvigorate infrastructure development across the country. This strategy emphasizes collaboration between private and public entities, aiming to generate economic growth and job creation.

Looking ahead, Chile is well-positioned in 2024 to maintain its leadership role in infrastructure development. By fostering a transparent and efficient investment climate, the country can attract the expertise and resources required to bring these ambitious projects to life. With a continued focus on infrastructure development, Chile can ensure a more robust and well-connected future for its citizens and businesses.

CHALLENGES AND OPPORTUNITIES

Despite this ambitious agenda, the year was not without its hurdles. Inflation and delays in environmental approvals and land acquisitions posed challenges to project timelines. Nevertheless, **Chile's infrastructure pipeline remained robust, offering a compelling prospect for foreign investors and companies.** Engineering, construction, and service sectors all stood to gain from this wave of development, fostering economic growth and creating new employment opportunities.

CHILE'S PAN-AMERICAN ROUTE IMPROVEMENTS IN 2024:

- » **Route 5 Antofagasta - Iquique:** Expansion of the existing route between the two cities to a dual carriageway.
- » **Route 5 Caldera - Antofagasta:** Expansion, improvement, conservation, and operation of this section of Route 5.
- » **Valdivia Access:** Expansion and improvement of Route 202 and Route 206 to improve access to Valdivia (total length: 87.4 km).
- » **Second Concession Route 5 Río Bueno - Puerto Montt:** Improvement project for this 135 km section of Route 5.
- » **Second Concession Route 57 Santiago - Colina - Los Andes:** Expansion and improvement of Route 57 CH, connecting Santiago and Los Andes.



Energy in Chile: Remarkable Shift to Renewable

Chile's energy sector has undergone a remarkable transformation in the last years, solidifying its position as a global leader in the renewable energy revolution.



FROM FOSSIL FUELS TO CLEAN ENERGY

For decades, Chile's energy sector relied heavily on traditional sources like coal, gas, and hydropower. **However, 2023 witnessed a dramatic shift, with renewables surging to dominate the electricity mix at an impressive 63.3%.**

This rapid change wouldn't have been possible without proactive policy measures. Policymakers, recognizing the potential of Chile's abundant solar and wind resources, implemented policies that fostered the development of the renewable energy sector. The impact is undeniable: compared to 2016, when renewables accounted for just 33.1% of the electricity mix and power-sector emissions peaked, the landscape has been completely transformed.



WIND AND SOLAR TAKE CENTER STAGE

Today, wind and solar energy stand tall as the undisputed leaders in Chile's energy mix. Solar power, in particular, has reached a noteworthy milestone, contributing a staggering 20% of the country's annual electricity output. This achievement surpasses global averages and underscores Chile's commitment to harnessing the power of the sun.

A THRIVING RENEWABLE ENERGY SECTOR

Chile's rapid embrace of renewables has positioned the country as a highly attractive destination for investment in this ever-growing sector. The combination of abundant natural resources, favorable geographical conditions, and a supportive policy environment creates a compelling prospect for investors seeking to capitalize on the burgeoning demand for sustainable energy solutions.

GREEN HYDROGEN: FUELING THE FUTURE

Green hydrogen, a clean and sustainable energy carrier, is another key element in Chile's ecological transition. With its potential application in energy storage, transportation fuel, industrial processes, and power generation, green hydrogen holds immense promise. This innovative solution offers a viable pathway to decarbonize sectors like heavy industry, long-distance transportation, and heating, which are difficult to electrify directly. Additionally, its transportable nature makes green hydrogen a valuable tool for creating a more flexible and robust renewable energy market.

Energy in Mexico: A Look at Key Developments in 2024

Mexico's energy sector is on the verge of a significant transformation in 2024. Driven by a combination of factors, the country is poised for a surge in renewable energy production, cementing its position as a leader in the global clean energy transition.



A LAND ABUNDANT IN RENEWABLE POTENTIAL

Mexico boasts a natural advantage when it comes to renewable energy. **With an average annual solar radiation of 5.3 kWh per square meter, it ranks among the sunniest countries in the world**, making it ideal for solar power generation. Additionally, strong wind resources, particularly in the Oaxaca region, offer vast potential for wind farm development.

FUELING THE DEMAND FOR RENEWABLE ENERGY

Mexico's growing economy, with a projected GDP increase of 2.6% in 2024, translates to a rising demand for energy. By embracing renewables, Mexico can ensure a sustainable and secure energy future for its citizens and industries.



A NATIONAL COMMITMENT TO SUSTAINABILITY

Mexico's dedication to sustainability is evident in its policy framework. **The 2014 Energy Reform and the 2018 National Climate Change Law stand as testaments to the country's commitment to reducing its carbon footprint and fostering a cleaner energy mix.**

KEY DEVELOPMENTS IN 2024

The year 2024 promises to be a landmark year for Mexico's energy sector. Several key developments are expected to propel the growth of renewable energy:

- » **The National Solar Plan:** The completion of the first phase of this ambitious plan will add a significant 2 GW of new solar capacity to the grid.
- » **Winds of Change in Oaxaca:** Construction is set to begin on the first wind farm in the Oaxaca region, injecting an additional 500 MW of clean wind energy into the national grid.
- » **Expanding the Grid:** To accommodate the influx of renewable energy projects, the country plans to expand its transmission grid, ensuring efficient and reliable energy delivery across the nation.
- » **Policy Push for Renewables:** The implementation of new policies such as the National Energy Strategy and the National Climate Change Law will further incentivize the adoption of renewable energy sources.

Infrastructure in Mexico: Challenges and Opportunities in 2024

Mexico's infrastructure sector faces a critical juncture in 2024. Despite the nation's growing economy, infrastructure development encounters significant challenges.



LIMITED INVESTMENT AND ITS RIPPLE EFFECTS

Mexico's infrastructure suffers from a lack of investment, putting the country at a disadvantage. Compared to other countries in the region, **Mexico allocates less money to infrastructure projects**. This shortfall hampers Mexico's ability to seize economic opportunities, such as attracting new manufacturing jobs moving from the United States.

GOVERNMENT INITIATIVES AND PRIVATE SECTOR ENGAGEMENT

The current administration in Mexico has made infrastructure a central focus of its agenda. A number of major projects have been launched, including the **Mayan Train, the Felipe Ángeles Airport, the Isthmus Interoceanic Corridor and the Dos Bocas refinery**.



The Mexican government, however, is not standing idly by. Recognizing the challenges, it has taken steps to increase investment in infrastructure projects. This demonstrates a commitment to bridging the gap and creating a more attractive landscape for development. Furthermore, efforts are underway to streamline regulations and reduce corruption, aiming to foster a more transparent and predictable environment for investors.

Mexico's infrastructure challenges are undeniable, yet the **potential for fruitful public-private partnerships presents an exciting avenue for progress**. The journey ahead will require continued collaboration and a steadfast commitment to building a robust and sustainable infrastructure network for the future.

Infrastructure in Peru: Investments Fueling Growth in 2024

Peru's infrastructure sector is poised for significant progress in 2024. With a projected **investment of US\$800 million in transportation infrastructure**, the country is on track for its third consecutive year of growth in this crucial sector.



CONTINUED INVESTMENT IN TRANSPORTATION INFRASTRUCTURE

The transportation infrastructure sector is experiencing a sustained period of growth. In 2024, **investments are expected to reach US\$800 million, representing an 11% increase compared to 2023**. This upward trend reflects ongoing commitment to major projects like the expansion of the Lima Metro Line 2 and the Callao port, both of which are critical for enhancing urban mobility and facilitating international trade.

A MULTIFACETED DRIVE FOR GROWTH

Several key factors are contributing to the rise in infrastructure investment. Firstly, the Peruvian government is prioritizing infrastructure development as a cornerstone of economic growth. **This focus is reflected in their ambitious plan to award US\$8 billion in new transportation projects in 2024.** These projects encompass vital infrastructure upgrades such as the Peripheral Highway Ring, the New Port Terminal of San Juan de Marcona, and the Huancayo-Huancavelica Railway.

PUBLIC-PRIVATE PARTNERSHIPS

The private sector is also playing an increasingly important role in infrastructure development. **Projects like the Port of Chancay, a US\$3.5 billion private venture, exemplify this growing collaboration.** By leveraging private sector expertise and resources, Peru can accelerate infrastructure development and achieve its ambitious goals.

FAVORABLE CONDITIONS FOR CONSTRUCTION

The anticipated occurrence of a weak El Niño weather phenomenon presents an additional advantage. This weather pattern typically brings milder conditions, creating a more favorable environment for construction activity, particularly along the coast. This factor is expected to further expedite project completion and contribute to the overall growth of the infrastructure sector.



MAIN INFRASTRUCTURE PROJECTS IN PERU FOR 2024:

- » **Line 2 of the Lima Metro:** Expected investment to increase to around US\$400 million (or even higher) in 2024.
- » **North Pier of Callao Port:** Investment projected to exceed 2023 levels, with approximately US\$960 million remaining to be invested.
- » **Port of Chancay:** First stage construction targeting completion by the end of 2024, with an investment of nearly US\$1.3 billion.
- » **Peripheral Highway Beltway:** Public-private project with an investment of US\$2.38 billion. Awarding a concession is expected in April 2024, either to the original bidder or a new interested party.
- » **Chavimochic III Stage:** Government-to-Government project with Canada for agricultural development. Total investment estimated at US\$750 million (subject to final technical evaluation).

Energy in Peru: A Lucrative Landscape for Investors in 2024

The winds of change are sweeping through Peru's energy sector in 2024, heralding a period of significant expansion and offering lucrative opportunities for investors.



A SURGE IN RENEWABLE ENERGY

Peru's power generation capacity is set for a remarkable leap in 2024, with a projected increase of 542 MW. Notably, renewable energy projects are spearheading this growth, solidifying the country's commitment to a sustainable energy future. Leading the pack are Enel Green Power Peru's impressive expansion of the Wayra wind farm (177 MW) and the construction of the 115 MW Clemesí solar park. Additionally, Energía Renovable del Sur's noteworthy 136 MW San Juan wind plant further cements the growing viability and attractiveness of renewable energy solutions in Peru.

DIVERSIFYING THE ENERGY MIX

The investment landscape extends beyond just wind and solar power. **Corporación Minera del Perú is playing its part with the first phase of their 12.5 MW Centauro hydro project, showcasing the potential of hydropower in the energy mix.** Additionally, national oil company Petroperú's 102 MW Talara thermo facility demonstrates the continued role of traditional energy sources. This diversification presents a valuable advantage for investors, offering a range of project types to align with their individual risk tolerance and market outlook.

INVESTMENT NECESSITY FOR A SUSTAINABLE FUTURE

Peru's energy demand is anticipated to rise in tandem with its expanding generation capacity. **Forecasts predict a maximum demand of 8,083 MW in 2024, with further growth projected in 2025.** This surge underscores the critical need for continued investment in both power generation and transmission infrastructure. By meeting this demand through a diversified energy mix, Peru can ensure a secure and sustainable energy future.

A FOUNDATION FOR RELIABLE POWER DELIVERY

Recognizing the importance of a robust infrastructure network, at least 20 critical transmission network projects are slated for completion in 2024. This focus on grid modernization strengthens the entire energy system, ensuring the efficient and reliable delivery of power – a crucial factor for attracting further investment and fostering economic growth.

GRI Club

Founded in 1998 in London, the GRI Club currently unites over **16,000 senior executives** spanning 100 countries, active in real estate, infrastructure, and agribusiness markets.

The GRI Club's innovative discussion model encourages the active participation of all executives, facilitating the exchange of experiences and knowledge, networking, and business opportunities.

Additionally, club members gain access to an exclusive platform where they can view detailed information about executives and their companies, schedule meetings, request personalized introductions with industry peers, and enjoy unrestricted access to all our content.



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