Bond Blog

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WHEN NATURE AND POLICY UNITE: THE OPPORTUNITIES IN LATAM RENEWABLES

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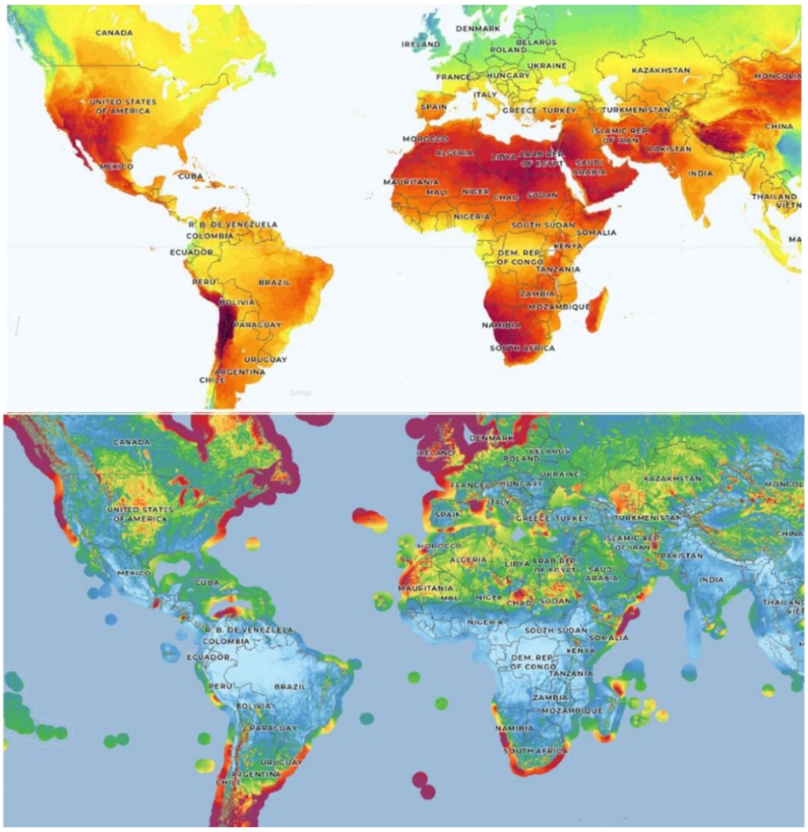
While we felt that the COP26 summit fell short of expectations, it presented an opportunity for some countries, such as Chile, to strengthen their environmental commitments. Chile's ambitious adoption of renewable energy places it at the forefront of the energy transition in Latin America, which is poised to accelerate given the region's significant solar and wind endowment as well as a broad set of policy incentives. The second instalment of investing in the energy transition across emerging markets explores Latin America's potential amid the surging demand for high-yielding, environmentally-beneficial assets.

Latin America presents some of the best resources for utility-scale solar and onshore wind power in the world (Figure 1). Large pockets of the Andes show solar irradiation power potential significantly stronger than the American Southwest and even North Africa and the Arabian Peninsula. Meanwhile, the Chilean and Argentine sides of Patagonia display remarkably higher power densities than most of the world.

FIGURE 1: LATAM'S SIGNIFICANT SOLAR (TOP) AND WIND (BOTTOM) POTENTIAL



Source: World Bank; intensities mapped lowest to highest as blue to red/purple.

Given the environmental advantage, investments into renewables are expected to grow substantially, with some[1] estimating around $20 billion of investment in new, utility-scale PV solar capacity by 2023 and up to $45 billion of investment in new onshore wind capacity by 2030, which could make LatAm comparable to other major regions[2] (Figure 2).

FIGURE 2: LATAM'S EXPECTED CAPACITY ADDITIONS MAY HELP IT CATCH UP TO OTHER MAJOR REGIONS

Wind: Expected Capacity Additions (GW)

	2020	2030E	Growth Rate
Asia	339	870	10%
EU	177	297	5%
North America (ex-Mexico)	139	257	6%
Non-EU Europe	41	107	10%
Latin America	**31**	**75**	**9%**
Oceania	8	19	9%
Sub-Sahara Africa	5	19	15%
Middle East/North Africa	4	13	12%

Utility PV Solar: Expected Capacity Additions (GW)

	2020	2030E	Growth Rate
Asia	334	546	18%
North America (ex-Mexico)	62	127	27%
EU	46	81	20%
Non-EU Europe	22	30	10%
Latin America	**16**	**32**	**26%**
Middle East/North Africa	8	28	52%
Sub-Sahara Africa	4	12	37%
Oceania	4	11	35%

Source: Bloomberg New Energy Finance.

Against this backdrop, the region's five largest economies - Brazil, Mexico, Chile, Colombia, and Peru - have set carbon reduction targets tied to their Intended Nationally Determined Contributions (INDCs) as part of the Paris Agreement, along with incentives for new renewable projects in place of conventional thermal generation projects (Figure 3).

FIGURE 3: A BREAKDOWN OF LATAM'S FIVE LARGEST ECONOMIES FOR POTENTIAL RENEWABLE INVESTMENT

Country	Carbon Reduction Target under UN Paris Agreement INDC	Renewable Energy Contribution Target	2019YE Progress	2019 Total Installed Generation Capacity	NCRE Incentives
Brazil	37% reduction below 2005 levels by 2025	Non-hydro renewables to reach 23% of electricity generation by 2030	80% completed	171GW	Credit Line access; State Development Bank facilities; VAT and excise tax partial exemptions; grid cost/distributed generation subsidies
Mexico	25% reduction by 2030; goal of 50% by 2050*	35% electricity generation from clean energy sources (including hydro and nuclear) by 2024	57% completed	89GW	Accelerated Depreciation; Carbon Tax w/ tradable certificates
Colombia	20% reduction by 2030*	2500MW of renewable energy (ex-hydro) by 2022	< 10% complete	18GW	Accelerated Depreciation; VAT exemptions; Additional Income tax breaks
Chile	30% reduction by 2030*	20% of power from NCRE by 2025 by each utility (contracts after 2013); current proposed legislation to eliminate coal power by 2025	Unclear; NCRE accounted for 17% of Gen in Total (2019)	25GW	Scaling Subsidy for transmission charges on all projects under 20MW; carbon tax on thermal energy production ex-Biomass
Peru	20% reduction by 2030*	5% of national energy consumption to be sourced from NCRE; set to be updated	Achieved	13GW	Accelerate Depreciation

Source: UN Climate Technology Centre & Network; Bloomberg New Energy Finance.

Chile

Our country survey of the region starts with Chile given its resources and power purchasing agreements (PPAs) that are commonly USD-indexed, placing it among the region's most investable countries with a mix of traditional and emerging energy generation names. On the traditional side, Enel Generacion Chile/ Enel Chile, AES Andes, Colbun SA, and Engie Energia Chile are engaged in renewable new build programs as well as coal power divestitures, closures, and conversions designed to maintain competitiveness and compliance in a rapidly de-carbonizing sector. Although most of the current wave of investment is expected to be financed through internally generated cash flows and existing cash on balance sheet, more ambitious plans (i.e., more complex, hybrid generation and storage projects) should soon pass proof of concept and spur greater investment, including USD debt financings.

Looking ahead, the debut of more renewable pure plays, such as Inversiones Latin America Power, could improve access to the space over time.

In terms of renewable investment potential, we see Enel Chile/ Enel Generacion Chile as the best positioned given its strong contracting and focus on lower-marginal-cost hydro, wind, and solar, while Colbun and Engie Energia Chile are best positioned to decrease their marginal cost and improve their contracting competitiveness through additional wind and solar capacity.

Peru

Peru offers a notable investible universe with outstanding notes from Kallpa Generacion, its parent entity Inkia Energy, Orazul, and Fenix Power Peru. While none have a significant footprint of wind or solar capacity, Kallpa is among the lower-marginal-cost thermal operators in the country, and the substantial hydro capacity at both Kallpa and Orazul allows them to leverage their highly-contracted, long-term PPA portfolio given a relatively low marginal cost basis.

Although the current oversupply of capacity on the grid makes near-term plant auctions unlikely, the country has some of the world's best solar potential and excellent pockets of wind density along its coast, while a sizable endowment of natural gas resources from the Camisea Field sets the table for cheap, reliable reserve capacity. These advantages help well-positioned thermal players - particularly Kallpa - eventually offer renewable energy either directly after new builds or indirectly through pass through PPAs. On the demand side, we anticipate a bigger end user base looking to add PPAs as the capacity glut dissipates over the coming years.

Colombia

Based on environmental potential, Colombia's Atlantic Coast along with the greater Medellin area offers some of the best wind resources and solar PV potential in the region, as demonstrated by several medium-sized projects approved in recent years. Importantly, these costal projects also lie within the country's technical transmission boundaries. Enel Americas is perhaps the best situated to benefit from renewables growth in the area. Although Colombia accounted for less than 50% of the company's 2020 EBITDA, Enel Americas' sizable generation output, which is 95% hydro, and efficient natural gas capacity gives it size and scope with lower-carbon intensity and low intermittency risk. Enel is also equipped with the balance sheet capacity necessary to pursue renewable bolt through acquisitions and green field investments, which would likely be funded through a combination of internal cashflows and 144A/RegS USD debt.[3]

Brazil

Brazil's power generation industry is largely financed in real-denominated debt, resulting in relatively limited, USD-denominated opportunities thus far. CEMIG GT (a generation and transmission company with mostly hydro capacity) and Light SA (more distribution focused with sizable hydro generation assets) are unlikely to be positive USD net issuers over the short to medium term.

Meanwhile, state-controlled, low-carbon generation and transmission giant EletroBras[4] is in a similar circumstance, with the added wrinkle of a privatization process designed to end government majority control and boost private investment. That said, additions of wind and solar capacity will offer these hydro-dominant generators more flexibility to reduce exposure to systemic hydrological risk, which may contribute to greater margin stability. And given the backdrop in Brazil (see Figure 3), Centrais Eletricas' sizable scale of operations is likely best positioned to add renewables capacity (which would likely include some funding mix of internally generated cash flow and debt) over the medium to long term once it completes its privatization process.

Mexico

Mexico's investment landscape is somewhat limited, with the only generation pure plays that are freely available in the USD 144A/RegS market - Saavi Energia and FEL Energy[5] - structured as project finance notes. The most sizable issuance of traditional debt comes from state-owned integrated electric utility CFE[6]. Saavi Energia and FEL Energy VI are relatively efficient generators with core natural-gas fueled plans expected to operate into the foreseeable future. Compared to thermal generators, these plants are not as exposed to the intermittency risk related to wind density and solar irradiation inconsistencies, and both names indirectly support the proliferation of wind and solar in Mexico.

Both issuers are mainly remunerated with fixed compensation for available capacity and a pass-through of general operational and related costs. They could benefit should long-term reserve capacity and earned grid balancing rates increase as renewable capacity is commissioned. All of this foreshadows an important role for both Saavi and FEL Energy in a greener Mexican energy future over the medium term and, as a result, we believe they are better poised to benefit from renewable energy than CFE. We also expect greater issuance in renewable energy pure plays in the future given Mexico's proximity to wind and solar developers in the U.S. and its endowment of attractive pockets of resource density.

[1] Bloomberg New Energy Finance

[2] Cost and Performance Characteristics of New Generating Technologies, Annual Energy Outlook 2021, US EIA

[3] Under the Rule 144A, Qualified Institutional Buyers (QIBs) can trade debt securities without registration and review by the Securities and Exchange Commission. The Reg S bond type is available for offers and trades of securities outside of the U.S.

[4] Centrais Eletricas Brasil

[5] Tierra Mojada

[6] Comision Federal de Electricidad

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