Blustery winds onshore in Latin America

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S&P Global Ratings rated its first onshore wind project in 2003. Since then, the renewable energy sector has undergone tremendous expansion. In the past decade alone, its compound annual growth rate has totalled 20%, thanks largely to the rising awareness of how using fossil fuels for power generation contributes to climate change.

In Latin America in particular, where most renewable capacity comes from large hydro plants, onshore wind power sources are playing an increasingly important role. Oaxaca, a region in Mexico, for example, is considered one of the best regions worldwide for onshore wind farms. Its geological formation creates a corridor with consistently strong winds. So, the favourable wind resource, in combination with lower operation and maintenance cost, resulted in the upside of the credit outlook in the region.

A global outlook

Last year alone, onshore wind added approximately 53 gigawatts (GW) to the global capacity grid – bringing the total to around 540 GW. This is partly due to higher capacity factors and falling prices throughout the wind turbine supply chain, both of which are fostering onshore wind power's rapid development.

However, the sector's growth isn't without serious challenges. Wind resource availability has often failed to live up to the initial estimations made in the planning and financing stages. With turbine costs falling and projects expanding to create greater efficiencies of scale, we see more competitors entering the market. In turn, this exerts downward pressure on power prices and thereby exacerbates the challenge of operating wind power projects at profitable levels. So, we expect that merchant exposure will become wind power's greatest antagonist in the next decade.

Europe continues to lead the way for wind power globally. Renewables now represent about 20% of earnings before interest, taxes, depreciation, and amortization (EBITDA) for most rated European integrated utilities players. In addition, there are significant investments dedicated to green energies, which we estimate will reach €55 billion for the top European players over the period from 2017 to 2020. However, with increasing competition and less attractive remuneration schemes in Europe, renewable energy producers' ability to expand in regions outside of Europe – notably into the U.S. and Latin America – will be key for maintaining a balance between growth and profitability.

Potential on the continent

Onshore wind capacity has expanded rapidly in Latin America over recent years. In 2017, Brazil's onshore wind capacity reached 13GW, making it the eighth largest fleet in the world – and all while the country was in the midst of a three-year recession. Moreover, new energy auction prices for wind reached an all-time low in the country on 4th April 2018 – at R$67 (Brazilian real) per megawatt hour (MWh), which is equivalent to about US$20 per MWh.

Chile and Mexico also saw record-low prices for solar and wind last year at their respective energy capacity auctions. This drop highlights the competitiveness of both solar and wind, mainly because the equipment involved is less costly at purchase and entails lower operational costs thereafter.

For example, in Mexico´s third renewable auction round in November 2017, prices were as low as US$20 per MWh – 38% lower than at the second auction. While in Chile, the average was US$32.5 per MWh – 32% lower than in the previous round.

This market trend also reflects a reluctance to develop new large hydro projects and coal-fired capacity, in part due to regulatory risk. For example, in Chile there is riding concern about environmental related taxes.

Lastly, the recent growth in Argentina's renewables capacity follows a complete restructuring of the country's power market, including a US$15 billion investment in renewable sources. This US$15 billion was dedicated to constituting that 20% of the country's energy mixed with renewable sources – around 10GW by 2025 (the current base is 800MW).

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How do ratings fare in the breeze?

Across S&P Global Ratings' portfolio of wind farms, we have seen a majority of negative ratings actions over the last 15 years. Mostly, this is a result of: a combination of consistently lower-than-expected wind speeds at financial close; greater volatility in wind supply between debt service payment periods; and higher-than-expected operating expenses, particularly among projects that we rated before 2010.

More recently, because project developers have expanded and gained more experience, negative ratings actions can be traced to specific triggers: a Brazilian transaction that benefited from a completion financial guarantee during construction, and a project in Mexico that felt the shock of foreign exchange volatility.

On the contrary, in May 2017, we assigned positive outlooks on two projects located in Mexico – Oaxaca Dos and Oaxaca Cuatro, reflecting that an upgrade could be possible in the near term, if these projects continue to strengthen their main credit measures. This is partially due to the projects' location in Oaxaca and the region's propensity to consistently strong winds, as mentioned earlier.

That said, we ultimately expect onshore wind to continue to play a big role in power capacity increases. There will be more emphasis on renewables in the coming years, as attempts to address national climate change commitments made under the Paris Agreement intensify.

We also believe that capital costs for onshore wind power construction and equipment will decrease as the supply chain further matures with improvements in wind turbine efficiency. Moreover, we expect that new energy storage technologies will come on the scene, adding flexibility to these systems. To this end, we expect onshore wind to continue to grow in the energy matrix globally – and develop further in the Latin American region.

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