The rise of renewables in Latin America

The growth of renewable energy production has been one of the defining features of the 21st century as countries worldwide seek to improve their energy security and lower carbon emissions writes Georges Romano, Managing Director and Head – Latin America, Export & Agency Finance, Treasury and Trade Solutions at Citi.

In Latin America, renewable energy has gained prominence in the past five years and is catching up fast thanks to government and public support, the region’s untapped potential, and increasing investment.

This article looks at how the Latin America’s price advantages are driving growth in this sector, the evolution of renewables in the region and the financing structures that are supporting its rise.

Pricing advantages over other regions

Unlike the US and Europe, where renewable energy has been highly subsidised in order to encourage production, the most important characteristic of renewable energy in Latin America is that it is competitive with conventional sources of power without subsidy. This is because other sources of power generation in Latin America are relatively expensive – often two to three times more than in the US or Europe.

The conventional power market across Latin America is markedly different to that of the US and Europe. In the US, energy costs have fallen dramatically as a result of increasing exploitation of shale gas, while in many European countries there is a competitive energy market with nuclear helping to lower prices. In contrast, many Latin American countries have few energy resources and weak infrastructure. As a result, prices are sharply higher.

The importance of Latin America having similar prices for conventional and renewable energy cannot be overestimated. Not only do high energy prices encourage development of renewables but they also make it easier for governments to formulate an energy policy that is supportive of renewables.

When governments in the US and Europe seek to promote renewables, the budgetary implications are challenging given the level of subsidy that must be paid to encourage investment. In contrast, governments in Latin America are able to announce renewable strategies (and targets for renewable energy) without having to fund them. As a result, they are able to achieve politically attractive goals such as diversifying their country’s energy sources and bringing new energy supply online at limited cost. For example Uruguay has set an aggressive objective of 35% of installed capacity to come from wind farms by 2016. Developers from around the world are now investing in the country to build the required 1,200MWs.

Moreover, while popular opposition to many types of energy generation is growing – most notably against large hydro-electric and coal-fired generation because of the environment consequences and against nuclear because of concerns about risks – support for wind and solar power in Latin America is widespread. Again, this is in marked contrast to Europe and the US where there is a growing public backlash against the visual impact of onshore wind power, for example.

Most governments in Latin America are eager to meet public expectations regarding renewable energy and have developed regulatory frameworks to promote renewables. Energy projects usually require environmental permits and increasingly non-renewable energy projects have these refused (or repeatedly delayed – increasing costs) while renewable energy projects are approved. More generally, given the smaller size of most renewable projects compared to conventional projects they find it more straightforward to gain approval.

In addition to high conventional energy costs, renewables-supporting energy policies and certainty regarding environmental permits, Latin America’s delay in adopting renewables has allowed the region’s developers access to more mature and less expensive technology than their predecessors in the US and
Europe. The cost of solar power capacity, for example, has plummeted in recent years as inexpensive panels from China have come to dominate the market.

The evolution and potential of renewable power in Latin America
The renewables market in Latin America has experienced a significant evolution in recent years, underscoring the vast potential of the region. A key reason why Latin America offers excellent opportunities is that the output – and therefore the viability – of wind and solar projects varies considerably depending on location (unlike conventional power plants). In mature markets in Europe, for example, the optimum locations for wind turbines and solar farms that are close to centres of energy demand are often already occupied. In contrast, the Latin American market is far less developed and the best sites remain available.

Latin America’s first wave of renewable power generation initially focused on small hydro-electric schemes and onshore wind farms. In the past two years there has been increasing investment in solar capacity and larger scale commercial wind projects (as well as a limited number of biomass projects). The growing interest in solar is chiefly related to the falling costs of panels, which makes most projects competitive.

Offshore wind capacity has yet to gain momentum in Latin America (and there is no regulatory framework in place yet in most countries). However, despite significantly higher build costs given the difficulty of installing and servicing wind turbines offshore, it could be viable in the region without a subsidy because of the high price of conventional energy. Moreover, offshore wind has a greater capacity factor (as much as 60% compared to 30% for onshore wind) because turbines can be installed in ideal locations.

Across the region there are significant differences in the pace of adoption of renewable power. Uruguay is a clear leader while Brazil has a strong agenda to promote renewables and a longer track record – with ethanol production – than almost any country in the world. Furthermore, given the country’s scale (and regulatory incentives for renewables projects to source equipment domestically) many global turbine manufacturers have opened factories in Brazil. Mexico has also seized the initiative, especially in developing wind power. In contrast, renewable power production in Chile, Peru, Ecuador and Colombia is at an earlier stage of development.

Financing renewables
The capacity to finance renewable power projects in Latin America is increasing as a result of support by export credit agencies (ECAs), the development of regulatory frameworks across the region, and the activity of banks such as Citi.

A large part of the cost of a renewables project, especially for wind and solar, comes from equipment. Given the high cost of equipment, developers (which are often the renewables arms of European electric utilities that are new entrants to Latin America) obtain financing from ECAs in the country of origin of the equipment. Usually around 50% of the financing for a renewable project comes from ECAs; commercial banks (such as Citi) provide around 30% and a developer typically contributes equity representing 20% of the project value.

In 2012, OECD members signed an agreement on renewable energy, climate change mitigation and water projects that enables ECAs to offer loans to renewable energy projects at preferential terms. Whereas conventional tenors usually extend to 12 years, renewable projects can now access 18-year tenor funding and pricing is significantly lower than the associated commercial loan.

ECAs from countries with a strong renewable equipment sector, such as Germany and Denmark, have embraced the OECD agreement: the vast majority of the loan portfolio of Denmark’s Eksport Kredit Fonden (EKF) is now related to renewables projects. Similarly, funding is available for solar projects, with Export-Import Bank of the United States (Ex-Im) extremely supportive of its panel manufacturers as is Germany’s Euler Hermes. China – which is one of the world’s largest manufacturers of solar panels – has yet to offer support for renewable equipment buyers through ECAs but instead often lends directly to projects at low prices.

For renewable generating companies – whether units of European utilities or private equity-backed ventures – it is essential to work with a bank that has a longstanding relationship with the world’s leading ECAs. Companies’ chosen banks should also be able to offer specialist knowledge regarding the pricing dynamics of renewable equipment, electricity pricing and competition, and regulatory change in Latin America. Citi offers a global ECA platform that enables it to assemble financing across several regions, with close relationships in Europe, for example, and on-the-ground coverage in almost all Latin American and Central American countries.

Citi is at the forefront of renewable financing in Latin America. Acting as a sole lead arranger and facility agent, it recently closed two ECA financings for Enel Green Power for €180mn and €110mn, in November and April 2012. Enel Green Power is a listed subsidiary of Italy’s utility and largest power company Enel. The loans financed the purchase of equipment used in the construction of wind farm projects located in a number of countries including Brazil, the US and Chile. The loans were 95% guaranteed by EKF and 100% funded by the Danish export lending scheme Eksportlaaneordningen. Citi also acted as arranger in an ECA financing for Spain’s Abengoa for a US$153.5mn two tranche loan (one tranche financed by Ex-Im, the other by the Inter-American Development Bank). The loan financed the purchase of equipment made in the US (by Spanish wind turbine-maker Gamesa) for the Palmitar greenfield wind project in Tacuarembó, Uruguay.

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Georges Romano, Citi