

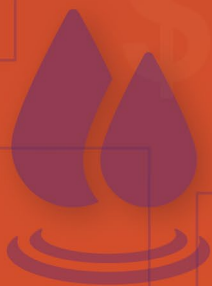


# Latin America roadmap to renewables success

Webinar

**Key Takeouts**

With panel contributions from



## Market insight

# Latin America's roadmap to renewables success



Latin America is rapidly moving to the centre of the global renewable energy map. Whilst developers and lenders are still encountering some challenges in closing projects, the opportunities presented by many of the upcoming auction processes are justifying the worldwide interest in the region

Latin America finds itself at the forefront of global renewable energy development. Countries across the region have established some of the world's most ambitious deployment targets, and although many can already count on vast operating hydropower capacity, most will need a much larger and more diverse pipeline in order for the set targets to be met.

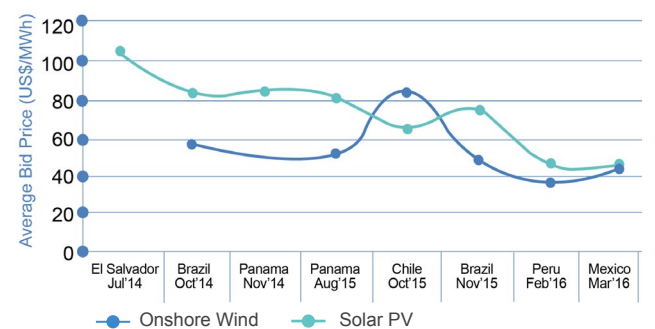
However, according to inspiratia's recent webinar on the topic, the path to success is not easy. Several issues – ranging from the ease and cost of funding in the debt and equity markets, to regulation and macroeconomic factors – can throw more than a spanner in the works.

### Game changing results

Competitive auctions, used historically in Brazil, Chile and Peru, have spread into other major Latin American markets, with many tenders attracting huge participation and record-breaking prices, as shown in figure 1 below.

"The Peruvian and Mexican auctions that took place in February and March this year have broken the market," according to Javier Huergo, chief investment officer at developer FRV, speaking at inspiratia's webinar on the Latin American renewables market last week [16 June].

Figure 1: Recent renewable energy auctions in LatAm - Average winning bid price (US\$/MWh)



Source: El Salvador's National Energy Council, ANEEL, AEP, Osinergmin, CENACE, inspiratia

"They clearly point to the fact that developing renewables in Latin America, and elsewhere across the globe, is finally at least as cheap as developing greenfield conventional power generation. This trend will open up an increasing number of opportunities for renewables developers across the region."

Ricardo Diaz, head of Americas at Cubico Sustainable Investments, agreed: "Solar and wind are finally competing evenly with fossil fuels. Going forward, the renewables markets will be driven more by economic factors than regulation."

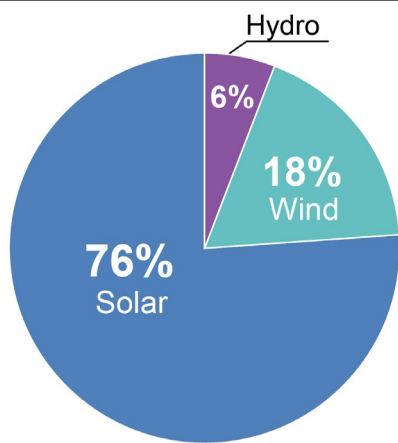
Cubico expects growth to come mainly from the two largest regional markets, Mexico and Brazil, and Diaz found that two clear conclusions can be drawn from the recent auctions: "Solar has become at least as competitive as wind, and this trend may persist in the future."

Moreover, "the low prices we have recently observed in the region are set to continue, and we will very likely see bids below US\$40/MWh in most of the upcoming auctions across the region."

Polls conducted by inspiratia during the webinar suggest that market participants seem to back FRV's and Cubico's market outlook.

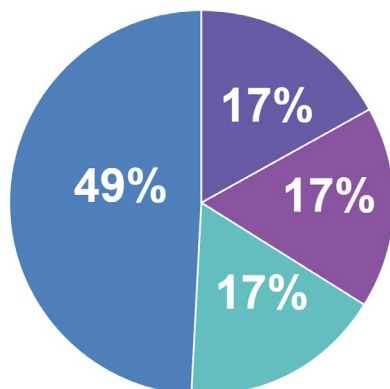
As shown in figures 2 and 3, 76% of those who participated in the survey expect solar to emerge as the leading renewable technology in LatAm in the next four years, whereas half believe that prices of the second Mexican auction will go below the levels reached in the country's first tender in March 2016.

Figure 2: Poll question - Which renewables technology is likely to expand the most in Latin America in the 2016-2020 period?



Source: inspiratia

Figure 3: Poll question - Average winning bid prices for onshore wind and solar PV in the Mexican first energy auction stood at around US\$45/MWh. Which direction do you expect prices to go in the second round?



Source: inspiratia

The low prices we have recently observed in the region are set to continue, and we will very likely see bids below US\$40/MWh in most of the upcoming auctions across the region.  
Ricardo Diaz, Head of Americas, Cubico Sustainable Investments

### Major drivers - debt markets

The diversity of macroeconomic factors, energy markets and renewable support policies found across the region offer a wide pool of opportunities that developers can pick from. At the same time, each country presents a set of different challenges.

Undoubtedly, one of the key ingredients is financing. Given the high level of competition recorded in the recent auctions, developers' ability to cut their cost of capital through access to cheap financing will be paramount for projects to secure tendered PPA contracts.

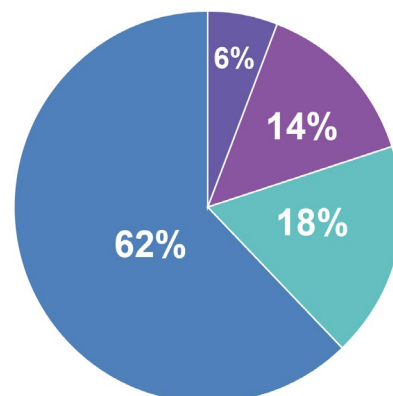
Manuel Cabrero, a partner at advisory business Voltiq, laments that even though the expansive monetary policies set by central banks have made huge amounts of liquidity available to the markets, "not enough liquidity is flowing through to the renewable sector yet".

He added, "Those in charge of conveying that liquidity to the projects demanding it are doing their best, but it is not enough."

As captured by dataLive, inspiratia's proprietary database, and shown in Figure 4 and 5 below, commercial banks are now the main providers of debt to project financed renewable developments in the region.

However, if only regional sources of financing are considered, only half of the debt volume is coming from local commercial banks, as displayed in figure 6 below.

Figure 4: LatAm RE aggregate closed deals' debt by type of lenders (Q12014-to date)



Source: inspiratia | datalive

Figure 5: LatAm RE aggregate closed deals' debt by type and origin of lenders (Q1 2014-to date)

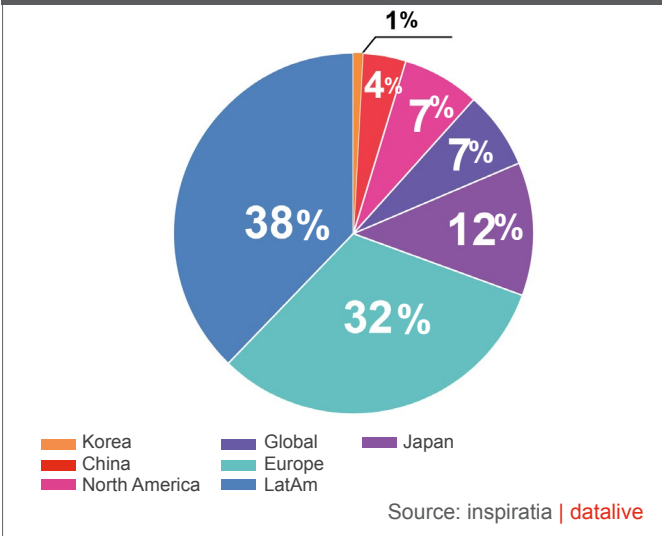
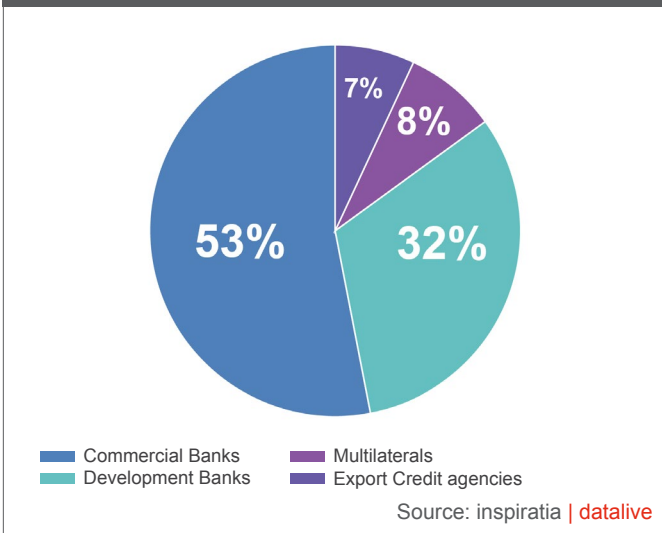


Figure 6: Local providers of debt to project financed renewables transactions (Q1 2014-to date)



Local lenders are required to step up. Voltiq's Manuel Cabrerizo believes that there is often a misalignment between local commercial banks' standards for international project finance and the principles of non-recourse financing.

He said, "The most important thing is that the regional financing market improves the way it accommodates for international standards. When that happens, international lenders will become a lot more comfortable with the local financing climate and regional debt markets will be able to fully take off."

However, Voltiq's view remains optimistic: "Lenders will take larger risks as competition and hunger for margins intensify. If lenders find a way to increase the debt volume in the region they will".

“Lenders will take larger risks as competition and hunger for margins intensify.

Manuel Cabrerizo, Partner, Voltiq

"Alternatively, green bonds and other forms of de-intermediation will increase the pressure on traditional lenders. Well-structured projects will always find debt solutions."

### Major drivers – equity markets

FRV's Huergo argued that the attractiveness of renewables is defined mainly by "two major factors: market size, meaning that the market needs to present enough opportunities to justify the sizable deployment of both financial and human resources on the ground, and the country's credit worthiness."

Looking at the equity markets, he said attracting long term funding at an efficient cost of capital was one the main challenges that developers are facing in the region.

Drawing a comparison with Europe, Huergo highlighted how easy access to cheap local capital was at the core of the renewables boom occurring in Europe during the last 10 years. In Latin America, however, "renewables are yet to be successfully promoted in the local equity markets", he argued.

Europe is also failing to provide a level of equity contribution that LatAm renewables developers expect. "Surely there is equity coming from the US, but there is more Chinese and Japanese than European long term equity in the market. Attracting it is the only way for the LatAm market to achieve its renewables targets," he said.

### Main regional markets - Mexico

Mexico's first renewable auction was an outstanding success. George Humphrey, a partner at the law firm Orrick, defined the country as the "hottest energy market on the planet".

Indeed, investors from across the globe flocked to the country to compete mercilessly on previously untested ground. Humphrey argued that "the pricing was below expectation to the point it cut out the most sophisticated international developers, resetting everybody's view on what pricing you need to bid to get PPAs in Mexico".

“Attracting more long term European equity is the only way for the LatAm market to achieve its renewables targets.

Javier Huergo, Chief Investment Officer, FRV

With an upcoming auction set for September, expectations remain high. "Investors need to catch the moment," Humphrey added. "Once the infant wholesale market matures, the already high reserve margin will reach a level for which developing new power projects will be very difficult."

On the financing side, PPAs are attracting a lot of attention after the auction but "there are some doubts about the bankability, mainly due to lack of clarity of detailed regulation," commented Voltiq's Cabrerizo. Among other things, the market perception is that Clean Energy Certificates (CEL in Spanish) won't take off until sanctions become a reality.

Cubico's Diaz also pointed to the need for the Mexican market to "provide long-term visibility to investors throughout the value chain".

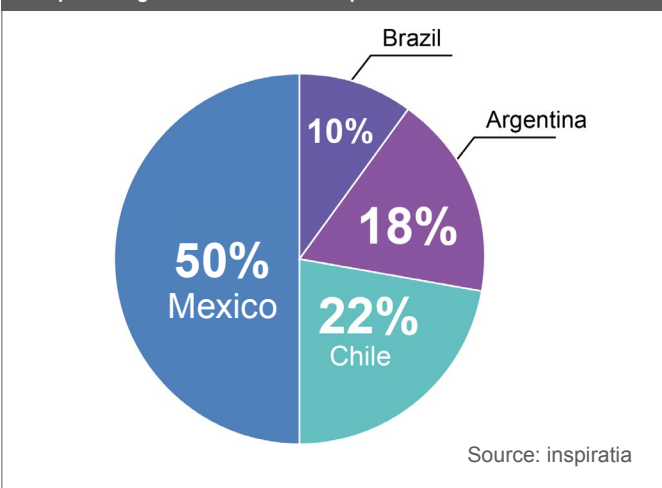
He added, "The very large renewables capacity that will need to be installed in the country requires the domestic value chain to be up-to-speed."

However, all panellists shared a very positive outlook on the Mexican market. Market players attending inspiratia's event seem to agree on this, with half the audience saying that Mexico will be the most attractive country for renewables investment in the region for at least the next couple of years, as shown in figure 7 below

### Main regional markets - Chile

Chile will award over 13TWh in its next power auction, allocating the country's regulated energy supply for the next decade. The sheer amount of new capacity presents alluring opportunities for economy of scales in a country rich with natural resources. However, persisting issues might deter some investors.

Figure 7: Poll question - Which of these Latin American markets is the most promising for renewables development in 2016/2017?



Once the Mexican wholesale market matures, the already high reserve margin will reach a level for which developing new power projects will be very difficult.

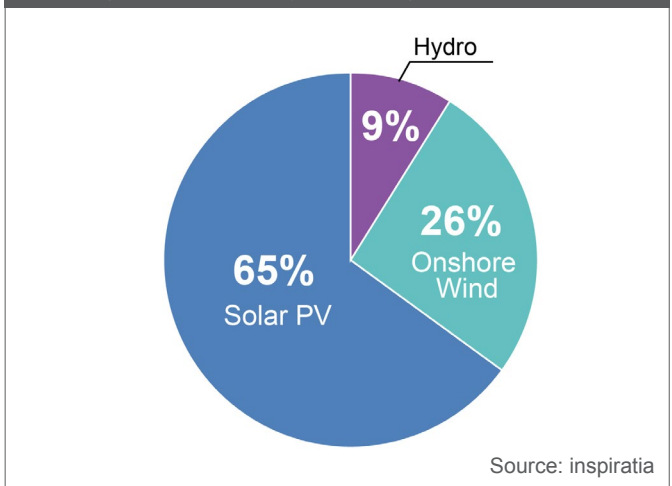
George Humphrey, Partner, Orrick

inspiratia understands that there are a number of projects already developed, or in an advanced stage of development, that were initially conceived for the merchant market, but that might now be looking at the upcoming auction as a last resort to secure a steady cashflow that would make them economically feasible.

FRV's Huergo agreed: "Due to the drop of electricity prices in Chile, the merchant market in the country is now closed for business. Mining companies are barely pursuing new PPAs nowadays, as a consequence of the commodities' glut. So actually my view is that the tender process will attract so much competition that we will see some of the lowest prices of the region."

inspiratia's poll results also highlight a bullish market sentiment towards PV power development in Chile. Two-thirds of attendees believed that solar will be the dominant technology in the upcoming July 2016 auction, as displayed in figure 8 below.

Figure 8: Poll question - Which renewables technology is most likely to win the largest share of capacity in upcoming auction in Chile?



## Main regional markets - Brazil

Brazil will bring to market two auctions in the latter part of 2016. Meanwhile, ongoing economic and political turmoil and currency fluctuations are increasing investment risk in the country.

Diaz of Cubico noted, "Brazil is not an investment grade country, and it won't be in the next few years, so a long term view on Brazil needs to be adopted."

However, the government is taking some measures to support the access to debt for those who want to invest in renewable generation in the country. Diaz added, "While BNDES is and will continue to be the main debt provider for renewable projects in Brazil for the next few years, the government is working more closely with private financial institutions to encourage them to participate in more project financed deals."

"Additionally, the government has extended tax-exempt infrastructure bonds to retail and foreign investors until 2020 in order to stimulate financing on the capital markets."

Some specifics of the Brazilian auction system, such as the local components' requirement and the fact that PPA contracts are provided in Brazilian Real, might also penalise international investment in the country's renewable market. Huergo of FRV agreed: "The more dollarised the market, the more it can be successful internationally. Brazil should either dollarise the PPAs or grant some protection against exposure to currency risk, on both the equity and debt sides."

However, the country's soaring inflation rates, now close to 10%, might help in this respect. Cabrerizo of Voltiq argued that "some international equity investors view high inflation as partial natural hedge for currency risk, meaning that some important international equity players do not need to hedge their currency exposure when moving into Brazil."

## Main regional markets - Argentina

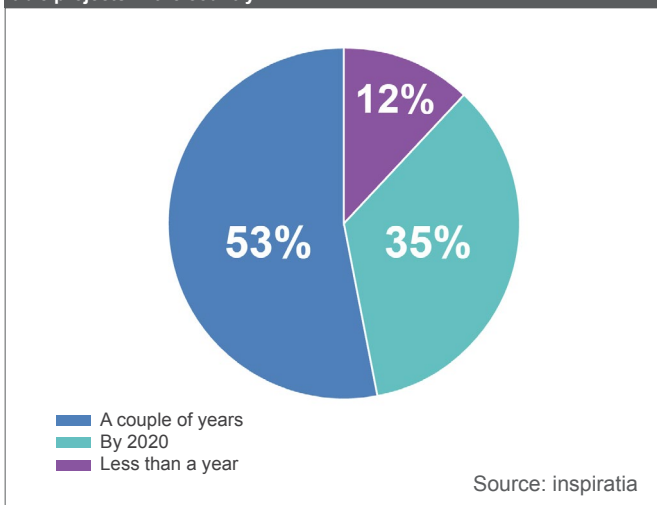
LatAm renewables investors have been taken by surprise by the speed with which Argentina is trying to develop a domestic renewables market. Some 600MW of wind and 300MW of solar capacity will be awarded 15 to 20-year PPAs through regular public auctions, with investors required to place their bids by August this year.

PPA contracts will be denominated in Argentinian pesos and pegged to the US dollar, meaning that their value will be automatically converted to the North American currency.

But this structure might pose a challenge. Manuel Cabrerizo argued "The interim period between the date on which the amount in pesos is fixed and the date on which the counter value in USD is calculated can lead to serious differences in situations of large volatility".

While multilaterals are likely to participate, CAMMESA, the state-owned utility that will act as the sole offtaker, will be "hard to accept for non-Argentinian players," he added.

Figure 9: Poll question - How long will it take for Argentina to be able to attract international commercial lenders to the project financed renewable projects in the country?



"International commercial lenders will very likely pass on the opportunity in the first round of auctions, and international equity players will be generally very cautious", concluded the Voltiq partner, in agreement with FRV's Javier Huergo.

Again, the attendance concurs with the event's panellists. Almost 90% of the market players who participated to inspiratia's survey believe that it will take between two to four years for Argentina to attract international commercial lenders to the country's project financed renewable projects, as shown in figure 9 above.

## Corporate PPAs and secondary markets

Corporate PPAs have been a major growth driver for renewable energy in the US during 2015. However Cubico's Diaz said he does not see the same happening in LatAm: "I have not seen many PPAs coming through in the region, as opposed to the US. The main exception is Mexico, where developers, in parallel to pursuing the auction route, are trying to sign bilateral PPAs, as the market regulatory framework allows this."

Orrick's Humphrey agreed and added that "some companies in Mexico might be offering corporate PPAs with three-year tenors, because they want to see where prices are going without getting locked into high power prices, given the potential of the spot market to go much lower than the current levels."

The importance of corporate PPAs should not be underestimated. "Going forward, having access to long term contracts with creditworthy counterparts is going to be a crucial element of the renewable equation," added Diaz. "We want to see more of this, but it will take time."

A final consideration is the secondary market, which has yet to develop in most of Latin America. According to Diaz, Brazil is the only exception, mainly because the country started the development of greenfield renewable capacity before anybody else in the region.

The country's recent economic downturn is also increasing the activity in the secondary market, due to mounting pressure on the finances of many players, who are increasingly looking at ways to restructure their power assets. "We will see the secondary market developing further across the region in few years' time," Diaz said.

Going forward, the presence of an active M&A market will be critical for developers in order to recycle their capital. At the same time, this will offer institutional investors an opportunity to enter a so-far untapped section of the market, a natural development path already observed in more mature markets across the globe.

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