Latin America's moment in the sun

Emerging markets | The global solar boom is taking foreign players to Brazil and Mexico but the journey may not be for the faint hearted. Approached by José Rojo, operators of Latin America's top two markets are keen to dispel myths of a region they say entails risks but also opportunities

Credit: Scatec Solar

Despite political headwinds, PV in Brazil continues to enjoy high-level support, reflecting its huge potential in the country

"With PV panels we will spend zero … and we will still inject the surplus energy into the grid … This is a very smart project and a very welcome one." Asked to identify which Latin American head of state uttered these words in 2019, few Western solar observers would likely guess it was Brazilian president Jair Bolsonaro. The former army captain who threatened to withdraw Brazil from the Paris Agreement on climate change, build an Amazon highway and expel foreign green NGOs is also, it turns out, an outspoken champion of one of the world's key low-carbon technologies.

To those raising their eyebrows in disbelief, local solar body ABSOLAR urges to look again. When *PV Tech Power* catches up with the association's CEO Rodrigo Sauaia at Intersolar 2019, he is keen to bust a "myth" he says remains apparent. "Some of the people I meet talk about Brazil's tough politics after the elections," he says. "There may be scepticism with climate policy but this is a liberal government interested in efficiency and competitiveness. They've come to office with an open mind, to hear what is actually going on and act based on technical knowledge, not political influence."

Decisions to date do suggest solar is warmly viewed among those Sauaia describes as "deep-knowledge electricity specialists" in the government. Bolsonaro has so far found the time to cut the red ribbon of a floating PV plant in the northeast, personally spearhead a scheme where solar will power a major water transfer – see the statements opening this feature – and amend the so-called A-6 power auction scheme to ensure solar can take part. "It's a clear result of the new mindset," says Sauaia. "The government saw that adding PV [to A-6] would reduce tariffs for end consumers."

Solar's average prices of BRL67.48/MWh (around US$17.5/MWh) at the separate renewable-only A-4 tender, held two months after the A-6 inclusion, can only have strengthened Bolsonaro's faith in PV's cost-cutting potential. The vastly oversubscribed auction further cemented Brazil's standing in the eyes of global solar, already busy making major inroads – from Lightsource BP's 1.9GW to Solatio's 7GW – in a market that doubled installed PV capacity to 2GW-plus last year. "Solar's future looks very bright in Brazil," says Sauaia. "The shift in the following decade will be significant."

Faith in solar's cost-cutting potential has made an industry champion of green sceptic Jair Bolsonaro

Credit: Palácio do Planalto/Flickr

Political curves ahead for Mexican solar

Some 7,000 miles to Brazil's northwest, the headlines faced by Mexican solar are decidedly bleaker. Last year's rise to power of left-wing president Andrés Manuel Lopez Obrador – widely known under the AMLO acronym – was followed this year by the cancellation of Mexico's renewable auction, a core pillar of the energy reform enacted by his pro-market predecessor Enrique Peña Nieto. The move by state-run utility CFE in April to re-open auction contracts it said it had been "forced" to enter did little to dispel the misgivings of renewable players.

Some on the ground are feeling the bite of political volatility. The comings and goings of Mexico's energy policy – from statist approach to liberalisation, followed by an abrupt standstill – are written all over the double-digit-megawatt pipeline a certain firm has tried, without success, to deploy for years. Approached by *PV Tech Power*, the firm explains it bought the schemes in the mid-2010s but failed to reap auction contracts as the projects could not outcompete larger, clustered rivals. The ensuing expiry of interconnection permits pushed the pipeline into a development limbo, the firm adds.

"We've tried to get a deferment but authorities, especially the CFE, have refused," says a project manager at the developer. "If the deadline had been extended, it's likely the projects would have been deployed as there was a window in 2018, with huge investor interest in the market." According to the firm, it is currently rethinking its strategy with its stranded pipeline, eyeing the possibility of finding a major final user. "But we're still waiting as Mexico seems rather stuck since the government change," they add. "There's not a clear outlook of how things might evolve."

Nicolás Escallón of private equity outfit Actis similarly echoes the talk of uncertainty after the auction stalemate. "It's true there are currently elements that are less favourable, and which are triggering uncertainty in the renewable sector," the Mexico City-based energy director tells this publication on his way to the opening of 129MW Guajiro this summer, a PV plant part of Actis's Latin American platform Atlas Renewable Energy. "The impact was on the whole country. Auctions were Mexico's highly efficient way to grow renewables at scale."

Debunking the worse-under-AMLO narrative

Political headwinds or not, Mexican solar remains in ruddy health. From Engie's 746MW to Neoen's 375MW, Northland's 130MW, EDF's 119.6MW and Risen Energy's 117MW, the list of utility-scale ventures marking building and funding milestones so far this year shows shovels are ploughing on ahead regardless of who occupies Mexico City's Palacio Nacional. One of the latest newsworthy moves – the powering-up of Zuma Energia's 162MWp La Orejana – took place with a minister in attendance. Has AMLO's power – or indeed his will – to undo renewable progress been overstated?

This year's linking of Atlas' auction-backed 129MW Guajiro solar plant followed Mexico's decision to put further tenders on hold

Marco Nieto-Vázquez, partner and director of economics at Baker McKenzie Mexico, believes some of the headlines written since last December are hyperbolic. "This is like any other handover – a new government comes in, halts things while prior policies are revised. It's a learning curve, where authorities are trying to understand the new dynamic," he says. "From our end, what we try is monitoring what the government does, not what it says and so far I don't see the dramatic change some talk about – on the whole, this energy market continues to operate as before."

Nieto-Vázquez plays down the actual impacts of the auction freeze. "It's true there was a certain inertia carrying over [from Peña Nieto's auction calendar] but a new government has come in, with the right, I expect, to revise things," he argues. He brushes off claims that the postponement will put sticks in the wheels of Mexico's renewable progress, noting that arranging future tenders is compulsory for national electricity market operator CENACE. "Auctions are the only way energy can be purchased to meet basic supply," he says. "What we have now is a just a delay."

The partner at Baker McKenzie concedes state utility, CFE – which this year branded solar and wind as "very expensive" – has been "ideological" in its approach. However, he says his firm has not witnessed the reopening of any old auction contract by CFE despite its promises in that direction. Making good on its threat could land the utility into trouble, Nieto-Vázquez says. "One of the president's priorities is ensuring power prices remain low," he adds. "If by trying to reconquer power generation and transmission CFE is unable to offer competitive tariffs, there will be problems."

Auctions will only take you so far

Despite their seemingly disparate political outlooks, Brazilian and Mexican solar face a shared obstacle – project finance – on their way to mass-scale success. However eye-catching, auction victories do not guarantee funding: at a respective 5.2GW and 4.3GW, Brazil and Mexico ranked first and third on this year's BloombergNEF global charts for countries with the largest volumes of auction-backed renewables in need of finance. Argentina (2.7GW) and Chile (2.6GW) placed fourth and fifth; India, second with 4.7GW, was the only non-Latin American top-five entry.

That financing is the one fly in the ointment of an otherwise promising Latin American solar future is echoed by some of the newcomers. Pablo Otin, CEO of Powertis, a firm that entered Brazil in early 2018, says the reliance on the country's two main financiers, BNB and BNDES, can somewhat limit developers' options despite both banks' "good work" in adapting to a changing market. Volatility around currency – which CEO Otin describes as one of Brazil's defining features – complicates turning to foreign financiers unless they have the ability to transact in Brazilian reais, he adds.

Powertis, the sister business to Spanish group Soltec Trackers, is working on a 770MW AC/1GW DC solar pipeline in Brazil's central region. According to Otin, the tentative plan is to start building two clusters of 90MW in H1 2020, with the remainder – including a 500MW hub – following in 2021. Powertis, its CEO explains, steered clear of July's renewable A-4 tender after observing the auction was small yet oversubscribed. Accordingly, the firm's participation in the A-6 tender later in 2019 will be decided by how much capacity is on offer, Otin adds.

However large, the five other A-4 and A-6 auctions pencilled in until 2021 cannot sate the global appetite for Brazilian solar. The numbers are dizzying: PV bids of 26.2GW were tabled for this year's A-4 auction alone, of which just over 200MW was awarded. As ABSOLAR's Sauaia notes, official stats place Brazil's technical solar potential at an astounding 28.5TWh, 178 times the size of the country's entire power matrix. Even if doubled to 2GW as ABSOLAR recommends, annual auction contracted volumes cannot hope to fill that gap. Can a Latin American PPA revolution save the day?

Cracking the Latin American PPA code

Those still classifying Brazilian and Mexican solar as "emerging" might find that either market is, as far as the industry's three-letter obsession is concerned, more advanced than headlines might suggest. In Brazil, the talk is now of a PPA-driven "free" electricity market, able to accommodate domestic and foreign PV interest in volumes no auction can match. According to ABSOLAR's estimates, the pipeline of direct solar purchases being negotiated with large industrial and commercial customers reached 2GW this year.

Powertis, it turns out, is among those driving the momentum. The firm, CEO Otin reports, has executed PPAs for its entire 1GW solar pipeline and has seen "significant volumes" being inked by other solar players. "There may be some reservations around Brazilian PPAs more broadly but our belief is – as evidence continues to emerge that these PPAs are bankable – that there's demand for them from both off-takers and investors, and that once price-adjusted returns match expectations from the investment community, the free market will skyrocket," he says

According to ABSOLAR's Sauaia, the PV body's priorities for the new PPA era are twofold. First is de-risking the short-term deals seen in today's market – average lifespans range from three to 10 years, the CEO says – by engaging with financiers, and replicating the auction-plus-unregulated mixed approach some wind players are already following. Second, Sauaia explains, is slashing red tape. "Free-market schemes face more hurdles than regulated peers, such as for instance slightly stricter environmental requirements," he says. "We're trying to equalise conditions."

The long shadow of grid u-turns

For Mexican players, private PPAs offer today a chance to extricate part of one's revenues from the grip of political volatility. Baker McKenzie's Nieto-Vázquez says his firm has advised during various PPA negotiations – representing off-takers, for the most part – at prices he describes as "competitive". Quizzed over timeframes, the partner explains the deals seen to date remain fairly short-lived. "There's often an explanation, though," he says. "Some firms can self-finance and thus have little incentive for longer PPAs."

Nieto-Vázquez does foresee trouble for Mexico's PPA scene if grids do not keep up with a swelling development pipeline. "Solar may be very competitive but if transmission is not promoted at the same speed, energy prices will be high, impacting on end consumers," he says, pointing at AMLO's axing this year of two major transmission projects in Baja California and Oaxaca. Actis's Escallón says the market needs "clarity" after the cancellation, noting the rise of grid bottlenecks. Much-needed upgrades would represent a "great investment opportunity" if the government allows it, he adds.

"As ideological as the government may yet become, energy will be needed and solar's costs are very attractive"

For its part, Brazil's grid may have been spared from high-profile expansion u-turns but is not challenge-free. According to Sauaia, ABSOLAR sees "room for improvement" with grid bureaucracy and is lobbying to ensure auction-backed projects are not automatically prioritised for connection points as per the current rules. However, he argues, the overall system does not face the congestion risks plaguing Spain and other global solar hotspots. "There's been good work interconnecting practically the entire country around a single operator," he says. "A well-distributed solar resource means PV can target states with points available – it's an advantage."

Latin America's hour

Coupled with the PV cost plunges observed worldwide, Mexico's and Brazil's mix of strong solar resource and rising power appetite from a changing society looks set to guarantee PV a role in both countries' future. A cursory glance at media headlines may create assumptions that the industry will be politically safer in Brazil but the reality may be more nuanced. Finding the time to open Zuma Energía's 162MWp La Orejana PV plant in mid-August, Mexico's Energy minister Rocío Nahle stressed AMLO's new renewable policy will not be "constrained, compressed nor inhibited", just "different". Mexico will continue walking towards clean energy, albeit at a "responsible" and "orderly" pace, Nahle added.

The clearest takeaway to emerge after hours of conversation with local experts is that making the most of Latin America's multifaceted solar markets will require challenging one's preconceptions. Interviewees acknowledge the region requires some acclimatising – as ABSOLAR's Sauaia concedes, Brazil is "not for beginners" – but all urge to rethink risk perceptions. "Brazil's electricity system and regulatory framework are both very well run. The grid's development is far superior to many other states," says Powertis' Otin when asked to compare the country with the firm's home market of Spain. "The country has been in the renewable business for over a decade and has learned a lot."

The uncertainty Mexican players have learned to live with has not majorly dented their faith, either. "This is Latin America's second largest market and one of the most attractive," says Actis's Escallón, who advises PV players to nail environmental and social aspects to ensure differentiation in a low-entry-barrier industry. Even the developer of the stranded Mexican pipeline feels bullish. "We will still bet on Mexico," says the project manager approached by *PV Tech Power*. "Foreign investors might not be that well-disposed today but it's still a great time for us developers to take up positions, map out the best spots for projects and wait for the right time to jump in meaningfully."

The parting words of Baker McKenzie's Nieto-Vázquez could easily resonate with firms keen on Latin America's potential, but wary of the volatility. "The big problem I see today is many developers believe the way they operated before AMLO is the only way, they see everything as a risk and struggle to adapt to the new reality. We must accept that things can never be the same," he says. "As ideological as the government may yet become, energy will be needed and solar's costs are very attractive. It's time to be flexible, to listen beyond the show in the media, to realise that change does not mean opportunities are gone." ■