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Spotlight: Brazil’s power distribution scenario

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BNamericas talks to three experts about the tense situation local concessionaires are facing.

Brazil’s power distribution companies are facing a tense moment, as distributed generation (DG) capacity expands and consumers migrate to the free (non-regulated) market.

The scenario has worsened a power surplus hired in past auctions (legacy contracts) amid low electricity consumption growth levels.

Meanwhile, the decontracting of Eletrobras’ hydroelectric plants could further increase power supply in the regulated market – combined with the rapid increase of renewable generation capacity – at a time when short-term prices are low.

Additionally, several distribution concessions are about to expire, and uncertainties remain as long as the federal government does not publish the rules regarding the process.

Mines and energy minister Alexandre Silveira recently said the concession renewals should be conditioned on investments in service quality. Energy efficiency and services for low and medium voltage customers must improve in the distribution segment, according to Silveira.

Power utilities such as Light and Enel, in Rio de Janeiro, whose concessions expire in 2026, have registered high energy losses due to illegal connections, and the former faces financial hurdles – factors authorities consider in the renewal process.

The deadline for opening a public hearing on the rules is May 22, according to the mines and energy ministry (MME).

To learn more about the scenario, BNamericas talked to Marcos Madureira (pictured, left), president of distributors association Abradee; Alexei Vivan (center), partner at Schmidt Valois Advogados law firm and CEO of energy companies association ABCE; and Camila Santiago, partner at Villemor Amaral Advogados law firm.

BNamericas: Could the possibility that all high-voltage consumers will migrate to the free market in 2024, perhaps followed by low-voltage consumers in 2028, affect the profitability and investments of the distribution business?

Madureira: You have to understand that the business of distribution is the wire. The distributors go to the auctions to buy energy and deliver it to consumers. So, there’s no gain for the distributors in the energy portion.

If the free consumer continues to pay the cost of the grid, that’s fine. The problem is that there’s an imbalance between the markets. The regulated market carries costs that are not shared with the free market. One of these is the fact that all thermal energy installed in the country is contracted via regulated auctions. Nuclear energy is also borne by the regulated market, as is the Itaipu hydroelectric plant. Therefore, an important distortion is created.

A second problem is that, with the migration to the free market, a surplus of energy is left with the distributors, the so-called legacy contracts. If, at that moment, [free market reference price] PLD is lower, there is a bill to be paid by the consumer in the regulated market.

A third point is the incentives paid for those who migrate to the free market. For example, the discounts for the [distribution system use rate] TUSD and [transmission system use rate] TUST for those who buy renewable, incentivized energies. And this is paid for by the [consumer-supported energy development account] CDE.

The big concern of the distributors is about the price of the energy rates. When they rise, increases in defaults and non-technical losses, like energy theft, can be seen.

Vivan: I don't believe in an impact on distribution profitability because the margin, the remuneration of distributors does not stem from energy sales but from the availability of their transport and delivery infrastructure, that is, the rate for use of the distribution system. Even if customers migrate to the free market, they will still be connected to the distribution networks and, therefore, remunerate the distributor for grid use.

Santiago: Some measures should be implemented to mitigate the problems related to the opening of the market. According to a study by EY Brasil with [power trader association] Abraceel support, by November 2022, there were sufficient regulatory mechanisms for distributors to manage surplus energy contracts. Examples include a competitive decontracting mechanism, which aims to alleviate the volume of legacy contracts through a mega auction to release the energy contracted in the regulated market to the free market.

Similarly, congress is analyzing a proposal to apportion the cost of over-contracting or involuntary exposure resulting from migration between trading environments.

There are still other factors to guarantee the sustainability of the new model, such as balanced allocation of reliability and security costs between the two markets, reduction of subsidies, separation of distribution and regulated commercialization currently performed by the distributors, and improvement of the distributors' energy contract portfolio management mechanisms.

In short, the answer to the above question will depend on the regulatory arrangements that will be implemented. Every change generates a certain apprehension in the market and the need for adaptations, but, so far, any questioning statement would be hasty.

BNamericas: Would the massive entry of DG change distributors' investment priorities, with the need to first upgrade substations and then focus on lines or the network?

Madureira: The problem of over-contracting is also a result of DG expansion, which has high subsidies. DG does not pay for the use of the distribution and transmission systems and does not contribute to the CDE.

Due to the volume that DG is already representing, above 20GW, some relevant challenges begin to appear. Investments are already needed to compensate for the reversal of power flows and to maintain the quality parameters of the grids.

In some places, the relationship between the lighter load, when there is higher solar generation, and the peak, when there is less solar generated, already causes problems in the national grid.

On the other hand, there are generation shifts, when, at times when there is no DG management control, it's necessary to cut the connection of other generation sources, such as hydro, because there is no system available to transmit this energy.

And when DG goes out, it can cause systemic problems, resulting in deficits, causing load shedding.

Distributors have invested heavily in maintenance, so much so that the quality indicators have grown. The problem's that the market is not growing, so this forces an increase in power rates.

BNamericas: Are there any concerns about politically motivated changes in the power rates review or adjustment rules, as happened in 2012/13?

Madureira: I hope not. Our fear is about energy prices. When this price gets higher for the regulated consumer, there start to be movements in congress to block this increase.

Vivan: I believe the federal government and society learned a lot from the disaster to the electric sector that was [decree] MP 579, issued without a previous and wide discussion with specialists and society.

We're attentive to the alteration of rules due to political interference, which are not usually positive for the sector and for attracting investments.

Proposals for changes in the power rates review and adjustment rules are not uncommon, usually suggested by [regulator] Aneel, but based on technical criteria. Even these changes are usually opposed, when made without prior discussion and implementation period, for bringing legal uncertainty and regulatory instability.

Santiago: [The] government program foresees a 'sustainable policy of rate moderation.' The expectation is for some continuity of the current guidelines regarding important topics, such as the renewal of distributor concessions, and it's unlikely that there will be any rupture like MP 579, whose objective of reducing rates generated strong disarray in the sector.

I don't foresee any changes in the power rates review rules. So far, the government's guidelines have followed the direction of accelerating the energy transition, with the recent promise of launching calls for tender for the contracting of solar and wind energy in amounts equivalent to the generation capacity of the large hydroelectric plants.

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