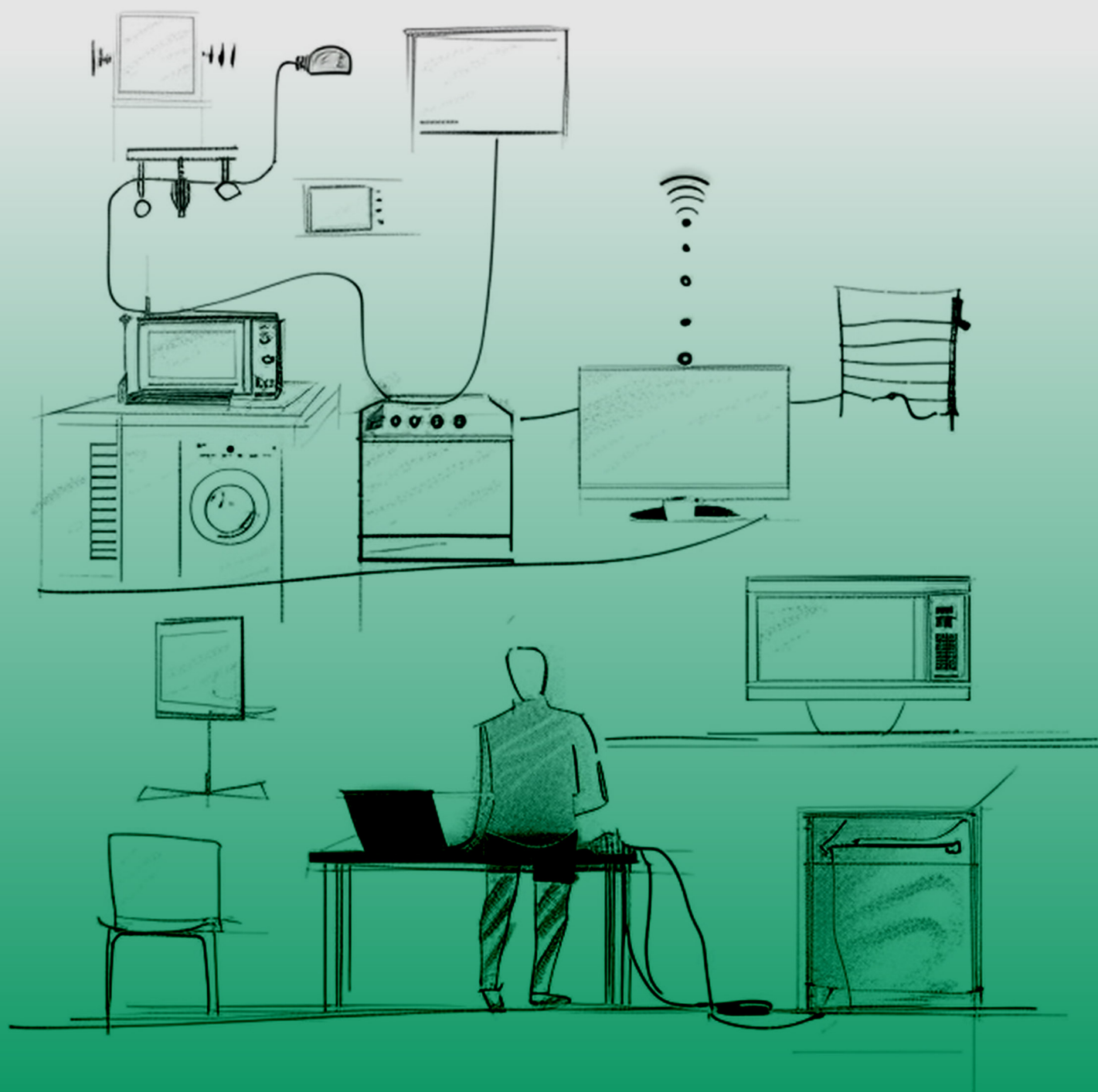


# RETAIL MARKET LIBERALIZATION IN LATIN AMERICA

NEW SCENARIOS FOR ELECTRICITY DISTRIBUTION







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## INTRODUCTION

The liberalization of retail markets has transformed the electricity sector in various parts of the world, promoting competition and allowing consumers to freely choose their energy suppliers. This evolution has brought with it a series of structural changes in the organization of the sector, redefining the role of the different actors involved and generating a more complex and challenging environment for electricity distribution companies. In this context, DSOs have seen their traditional role modified, going from operating in vertically integrated schemes to playing a role within an environment where retail activity can be open to multiple actors, which poses new regulatory, technical and operational challenges. Adapting to this new scenario requires planning and regulation that allow distribution companies to maintain stability and quality of service while integrating into a more competitive and dynamic market.

This document aims to analyze the challenges and opportunities faced by distribution companies in the framework of the liberalization of the retail electricity market, evaluating the regulatory, operational, and competitive impacts. In addition, international best practices are examined to draw lessons applicable to the region. The factors that facilitate or hinder access to the free market by consumers will be analyzed, as well as the barriers that may arise in migration and the regulatory strategies implemented to ensure an orderly and equitable transition.

Throughout the document, key aspects such as access to the free market, mechanisms to promote competition, consumer protection, transparency and access to information, as well as possible forms of interaction between DSOs and retailers, are addressed. The impact of these changes on the management of distribution networks and on the structure of the electricity market will also be examined, considering aspects such as operational efficiency, investment in emerging technologies and the evolution of the regulatory framework. This seeks to contribute to the discussion on how to structure a retail market that guarantees efficiency, equity and sustainability in the supply of electricity, while ensuring the stability of the system and the security of the service, as well as the equal participation of all market players.



The liberalization of electricity markets has transformed the electricity sector in various parts of the world

## LIBERALIZATION OF RETAIL ELECTRICITY MARKETS

The liberalization of retail electricity markets implies opening up energy trading to different actors, allowing consumers to freely choose their supplier. This process aims to improve the efficiency of the sector, promote innovation in service, and benefit consumers through cost reduction, decision-making capacity and a greater adjustment of the contracted products to their specific needs. In addition, competition allows consumers to expand the possibilities of comparison and choice of suppliers or products that can best meet their specific needs, as well as to reject suppliers with a lower quality than desired, based on criteria of quality, transparency, support, opportunity, among others.

However, there are trade-offs between measures aimed at reducing prices and other objectives such as security of supply, efficiency and the energy transition. In addition, challenges remain related to the coexistence of distribution and retail activities, which requires careful consideration of the costs and impacts of opening. Therefore, the transition to a liberalized market requires an appropriate regulatory design to avoid distortions.

Another fundamental aspect in this process is the adaptation of the network infrastructure to the new market dynamics, ensuring that distribution systems can support an environment with a greater number of trading agents and that measurement and demand management technologies facilitate efficient interaction between consumers and energy suppliers. To achieve effective liberalization, it is necessary to establish regulations that ensure fair conditions of competition and promote innovation in the provision of electricity service, facilitating the incorporation of renewable energies and the implementation of innovative business models.

### CONDITIONS FOR THE REDUCTION OF LIMITS TO ACCESS TO THE FREE MARKET

Regulatory frameworks establish different consumption thresholds to define who can access the free market. In many countries, only large industrial and commercial consumers have the option to choose their supplier, while small users are still subject to regulated tariffs. However, in recent years, several jurisdictions have begun to relax these criteria to allow gradual access to a greater number of consumers, with the aim of diversifying the offer and promoting a more competitive market.

The feasibility of reducing the limits on access to the free market depends on the market having reached a sufficient level of maturity and having certain essential conditions. These include:

- Diversity of actors in retail: A market with an adequate number of active suppliers is less prone to concentrations of power, which favors competition and reduces the risks of anticompetitive practices.
- Availability of energy in the wholesale market: The availability of energy at competitive prices in the wholesale market is essential for suppliers to be able to offer attractive rates without compromising their economic sustainability.

- **Interoperable information systems and platforms:** Digitalization and real-time access to consumption data allow suppliers to design personalized offers and reduce operational barriers to compete effectively.
- **Robust regulation and supervision:** A regulatory authority capable of monitoring and acting on market dynamics is indispensable to avoid distortions and ensure fair conditions of competition.

In the absence of these conditions, the reduction of limits can entail significant risks, such as the loss of income for distribution companies due to an abrupt migration of users to the free market without a clear transition scheme; market concentration when there is not enough diversity of suppliers; or the increase in rates for consumers who do not migrate to the free market due to the reallocation of fixed costs among a smaller customer base. The process of phasing out caps should be accompanied by regulatory measures that mitigate other associated risks, such as excessive price fluctuations and grid imbalances.

Removing barriers to free market access also poses significant challenges for distribution companies, which must adapt to a dynamic landscape and face new responsibilities in managing the relationship between suppliers and end consumers. In this context, it is crucial to recognize the strategic role played by distribution companies as facilitators of competition and guarantors of the stability of the electricity system.

A key element is the design of transition mechanisms that allow an orderly migration of consumers from the regulated market to the free market, avoiding abrupt volatility in prices and guaranteeing the stability of supply. DSOs play a central role in this process, as they are responsible for the continuity of service and the implementation of the necessary infrastructures to withstand competition in the market. Therefore, it is essen-

tial that regulatory changes contemplate schemes that allow them to maintain their operational and financial viability while facilitating the entry of new players.

In some markets, the gradual opening has been accompanied by the implementation of protection schemes for the most vulnerable consumers, ensuring that those users who cannot access competitive conditions continue to have a reliable supply at reasonable prices. Distribution companies, as the actors closest to end users, have a deep understanding of the needs of these consumers and can collaborate in the design and implementation of these protection measures, provided that appropriate compensation mechanisms are established.

It is essential that regulators adopt a flexible and adaptive approach, allowing regulatory adjustments according to market developments and the lessons learned from the liberalization process. In addition, they must ensure that distribution companies have the tools and resources to manage the operational complexity arising from the coexistence of regulated and liberalized market segments. International experience suggests that a robust and well-planned regulatory design, based on data and feedback from industry players, including DSOs, contributes to a more efficient and equitable transition towards the liberalization of the retail electricity market.

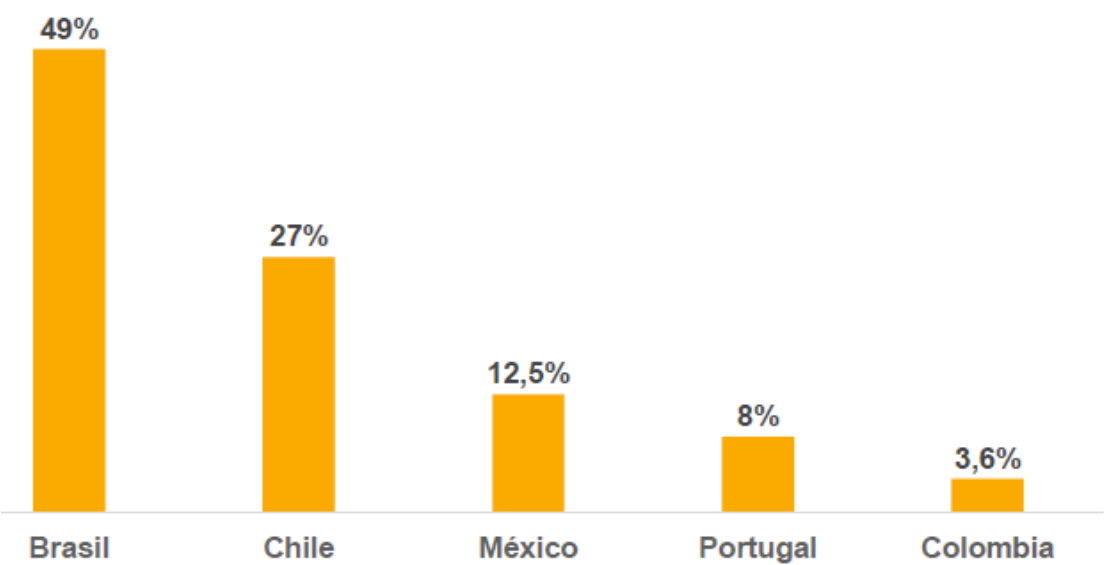
## **FACTORS INFLUENCING CONSUMER MIGRATION TO THE FREE MARKET**

In the free market, one of the main differentiators between suppliers is the price of energy. Retailers that are not integrated into distribution companies have a significant opportunity to gain market share by offering more competitive prices. This is partly because they are not subject to certain regula-



tory obligations that can increase the costs of retailers affiliated with distribution companies, such as minimum long-term energy procurement obligations, but rather have greater flexibility to negotiate directly with generators in the short term or take advantage of more favorable conditions in wholesale markets. as illustrated in Figure 1.

**Figure 1. Price reduction in the free market**



Source: AICE (2024).



But price advantage is not the only criterion that consumers consider for migrating to the free market, and a low level of migration in liberalized markets should not be interpreted as evidence of non-rational behavior or anticompetitive practices on the part of vertically integrated firms. A study by the United Kingdom's Competition and Markets Authority (CMA) identified that consumer preferences should also be considered in aspects such as types of rates, payment methods, quality of service and the financial reliability of suppliers. In many cases, consumers may be hesitant to switch suppliers if there are no robust mechanisms in place to ensure quality of service, effective customer service, and protection against supply failures. In addition, the structure of the contracts offered on the free market plays a crucial role. In many cases, consumers may be disincentivized from migrating due to complex contractual clauses, lack of guarantees of price stability, or additional costs associated with migration.

Despite the growing competition in the free market, many consumers choose to request a proposal from the retailer of the economic group to which the distribution company belongs. This trend reflects a preference for perceived security by continuing within the same economic group that controls electricity distribution. Consumers, especially those of greater size or complexity, value the trust and stability that the retailers associated with the distribution companies can offer. This phenomenon is observed in several countries in the region, where distribution companies that also participate in retail take advantage of their close relationship with consumers to maintain their market share in the retail segment.

Therefore, the ability of independent suppliers to offer more competitive prices allows them to gain market share, while retailers affiliated to DSOs can leverage their perceived financial strength and service continuity to retain customers.

## **PROCEDURES AND REQUIREMENTS FOR MIGRATION**

Agility and transparency in the processes of changing suppliers ensure that competition in the market translates into real benefits for consumers. However, this objective cannot be separated from the role played by distribution companies as key intermediaries in these processes. Since DSOs are responsible for the operation of electricity networks and the management of consumption data, their efficient participation is essential to ensure safe, agile and transparent transitions between suppliers.

To this end, it is essential that the procedures are clear and accessible, not only for consumers, but also for distribution companies, allowing them to integrate changes of supplier into their operating systems without generating greater costs or administrative complications. Digitizing procedures, harmonizing technical and contractual requirements, and to create mechanisms that facilitate the comparison of offers are key elements in this process. Likewise, DSOs must have robust digital platforms that allow them to register and process requests for change of supplier in an automated manner, minimizing errors and optimizing response times.

In some countries, "one-stop-shop" models have been implemented that not only make it easier for consumers to manage their supplier changes, but also simplify the interaction between retailers and distribution companies, promoting greater operational efficiency. This type of centralized system allows DSOs to keep an updated and orderly record of the changes made, avoiding duplication and administrative errors that can affect both users and market players. In addition, the implementation of maximum deadlines for the effective realization of the change benefits all parties, guaranteeing an orderly flow of operations and strengthening confidence in the system.

A key aspect in this process is the protection of consumers against possible contractual abuses or unethical practices by retailers. Distribution companies, as neutral actors in the supply chain, can play an important role in providing objective data on consumption and verifying technical conditions for switching suppliers. In addition, regulations should include protective clauses, such as the prohibition of hidden charges, the regulation of penalties for early termination and the guarantee of access to clear information about the terms of the contract.

Another relevant factor is the education and awareness of consumers about their rights and responsibilities in the free market. In this regard, distribution companies can also contribute by providing reliable information on the processes of change and using their digital platforms to disseminate educational material. In addition, information programs, good practice guides and the participation of consumer associations can empower users, allowing them to make more informed decisions that are appropriate to their needs.

Finally, it is crucial to periodically evaluate supplier change processes to detect opportunities for improvement and adapt regulations according to market evolution. This exercise should include a detailed analysis of the impact of these processes on the operation of distribution companies, ensuring that their role as critical actors in the electricity system remains sustainable and efficient. A flexible regulatory framework based on the joint experience of consumers, retailers and DSOs will allow the continuous optimization of the system, favoring competitiveness and guaranteeing a positive experience for all users involved.

## **2.4. REGULATORY AND OPERATIONAL CONSIDERATIONS**

A liberalized retail market must have regulations that guarantee stability and balance between the different actors, ensuring a sustainable and equitable development of the sector. Key regulatory aspects include defining clear and transparent rules of participation, supervising contracts to prevent abuses, and implementing measures to prevent anti-competitive practices that may distort the market.

It is also essential that the regulation includes effective mechanisms to manage the risk of consumer default, balancing the protection of users with the economic sustainability of the sector. This includes the establishment of guarantee systems that minimize financial risks for retailers and DSOs, as well as the application of flexible payment schemes that allow continuity of supply in situations of economic crisis or social emergency.

At an operational level, distribution companies must adapt to an environment where billing, consumption metering and energy management become more complex due to the presence of multiple suppliers. To this end, the development of advanced measurement and automation technologies is essential, such as the implementation of smart meters, the digitization of consumption information and the integration of energy data management platforms that facilitate the operation of the market.

Regulation should also promote access to relevant information for consumers, ensuring that consumers have clear data on prices, contractual conditions and quality of service, which will help strengthen confidence in the liberalized market and drive greater user participation in it.

## FOSTERING COMPETITION IN RETAIL MARKETS

The potential increase in efficiency with the opening of the market, which can result in a reduction in energy prices and other advantages for consumers derived from the ability to choose suppliers, is conditional on the exercise of free competition. However, this process must also consider the fundamental role of distribution companies in guaranteeing the operational stability of the electricity system and neutrality in access to network infrastructure for all market players.

Some countries have implemented measures to foster competition in free retail markets, such as rules to ensure access to energy for independent traders, rules that allow free market consumers to switch traders without facing economic barriers, limitations on the automatic renewal of contracts in the free market to avoid situations of “capture” of customers by a particular company, and rules so that customers have the possibility of grouping together to bargain collectively with suppliers. These measures not only improve consumers’ bargaining power, but also promote competition between suppliers to offer better rates and conditions.

In this context, distribution companies play an essential role in providing equitable and transparent access to electricity grids for all retailers, ensuring that transactions between them and end consumers are carried out efficiently and without discrimination. The infrastructure operated by DSOs is the axis on which competition develops, and its modernization is a key enabler for retail markets to evolve towards more dynamic and transparent models.

Another fundamental regulatory aspect is to ensure that suppliers operate with high standards of ethics and consumer protection, avoiding abusive practices that may affect the competitiveness and fairness of the market. In this sense, distribution companies can also collaborate by providing reliable information on consumption and the technical conditions necessary for contract management, acting as a neutral bridge between suppliers and consumers.

Therefore, an appropriate regulatory framework must consider not only the balance between promoting competition and ensuring market stability, but also the operational and financial sustainability of distribution companies, which are a pillar in the value chain of the electricity sector. Constant monitoring of competitive dynamics, together with the continuous modernization of distribution networks and the implementation of corrective measures when necessary, will help consolidate a robust, fair and efficient retail market, to the benefit of all actors involved.



## **DEFINITION OF THE SCOPE OF DISTRIBUTION AND RETAIL MARKET**

The scope of retail activity varies across jurisdictions. While in all markets retailers purchase energy in bulk on behalf of their customers, other services, such as billing, metering, and outage reporting, may also be competitive activities or offered as part of the distributor's regulated service. In this context, distribution companies play a crucial role in ensuring the necessary infrastructure and systems so that these activities can be carried out reliably and efficiently, regardless of whether they are managed by retailers or integrated into their own regulated operations.

Some markets have limited the scope of services that retailers must offer to reduce barriers to entry. While these policies may promote competition in relation to the purchase of electricity in the wholesale market for supply to end customers, they also pose challenges for distribution companies, as they must adapt to a more fragmented operating environment. For example, separating activities such as billing or metering may require additional investments in interoperability technologies, data management, and information systems, increasing the complexity and operating costs of the electricity system as a whole.

From the DSO's perspective, it is essential to ensure that any change in the delineation of roles preserves the financial and operational sustainability of the distribution segment. The integration of complementary services, such as metering and billing, within the regulated offer of distribution companies can not only optimize costs, but also ensure a uniform and high-quality service for end consumers, especially in areas where retailers do not have a significant presence.

An adequate balance in the definition of the scopes of each actor is key to maximizing

the benefits of competition without compromising the stability and efficiency of the electricity system. International experiences suggest that the most successful models are those that allow flexibility in the assignment of activities, promoting collaboration between DSOs and retailers to offer a comprehensive and competitive service.

## **REDUCTION OF BARRIERS TO ACCESS TO NEW SUPPLIERS**

The growth of the number of suppliers in the retail market is important to ensure a diversified and competitive ecosystem. A market with a wide variety of players allows consumers to access better tariff options, personalized services, and innovative energy supply models.

In the retail electricity market, economies of scale (e.g., fixed billing costs and customer service systems), licensing, and financial requirements can be barriers to entry for new retailers. This creates operational tensions for distribution companies, who must adapt their systems to interact with a growing and diverse number of actors, ensuring interoperability and efficient data management for the benefit of end consumers. The standardization of contracts, the harmonization of rules and the elimination of unnecessary bureaucratic burdens can facilitate the entry of emerging retailers, but these measures must be accompanied by investments in systems and processes by distribution companies to avoid disruptions in service. Additionally, dismantling all barriers without adequate controls could increase systemic risk in the market, which could ultimately affect supply stability and generate negative impacts on consumers.

It is crucial that regulations maintain a balance between facilitating competition and ensuring that new traders have financial and technical conditions in place that allow them to operate safely and sustainably. From the perspective of distribution companies, the

incorporation of actors without the required solidity can not only generate volatility in the market, but also increase operational costs related to the management of users affected by possible failures or interruptions in commercial service. DSOs, as essential players in the electricity system, must be considered in the design of regulatory frameworks to ensure that their operational capacity is not compromised by changes in market dynamics.

Therefore, establishing minimum solvency and operational capacity requirements for new retailers is a fundamental measure to guarantee market stability. At the same time, mechanisms must be designed that allow distribution companies to recover the additional costs associated with the integration of new retailers in their concession areas, ensuring the financial sustainability of the system as a whole. This holistic approach will promote a competitive environment without compromising the continuity and quality of the electricity supply.

## **CONDITIONS OF ACCESS TO ENERGY AND GRIDS**

Retailers need to purchase energy to serve their end customers. When there is a high concentration in the generation market, a relevant integration between generation and commercialization, or entry barriers that hinder access to energy, this can result in concentration in the retail market, granting advantages to those who have privileged access to energy. To mitigate these inequalities, some countries have implemented mandatory sales policies that ensure that all retailers can access energy on equitable terms.

However, in some markets, distribution companies face minimum long-term power contracting requirements, set to further energy policy objectives. While these obligations may have legitimate objectives, such as diversifying generation sources or promoting

renewable energy, they often put DSOs at a disadvantage compared to independent retailers. This occurs because distribution companies, by complying with these requirements, tend to acquire energy at prices higher than those of the spot market, while independent retailers, not being subject to the same obligations, can offer more competitive rates to their customers. This imbalance distorts the retail market, undermining both the competitiveness of distribution companies and the perceived fairness of the system.

On the other hand, from the perspective of DSOs, access to distribution networks is a crucial element not only for the development of competition, but also for maintaining the operational and financial stability of the electricity system. Distribution networks are the physical link that connects end consumers with retailers and generators, and their management involves costs and complexities that distribution companies must assume. An efficient market design must guarantee that retailers can access networks under fair and non-discriminatory conditions, but also that DSOs have regulatory mechanisms that allow them to recover the costs associated with increasing interoperability, digitalization and infrastructure maintenance.

Distribution companies, as network operators, are responsible for mitigating the operational risks associated with access to infrastructure, ensuring that the electricity system operates safely and reliably. In this sense, any process of market opening must balance the need for non-discriminatory access with the protection of critical infrastructure and system stability, ensuring that the specific obligations imposed on distribution companies do not generate disadvantages that compromise their competitiveness or sustainability.

## **TARIFF SCHEMES**

The design of tariff schemes is a key factor in guaranteeing the economic sustainability

of the system, promoting competition and protecting consumers in liberalized markets. These schemes must be sufficiently robust to incentivize operational efficiency and innovation on the part of suppliers, but they must also include measures that ensure stability of supply and equity in access to services.

One of the main challenges is to define tariffs that adequately reflect the costs of the service, including the management of distribution networks, and at the same time are competitive. This is especially relevant for distribution companies, which usually operate under a regulated regime, facing limitations in the tariff structure that can affect their competitiveness against independent retailers.

In this context, regulators have implemented differentiated tariff schemes to clearly separate the costs associated with distribution and retail activities. This approach seeks to avoid cross-subsidies between activities, ensuring that consumers pay for the services they receive in a transparent and efficient manner. However, in many cases, independent retailers are not subject to the same strict regulations as distribution companies, which can create an uneven playing field that distort competition.

In addition, the evolution of liberalized markets has given rise to new tariff modalities, such as dynamic tariffs based on hourly prices. These tariffs allow consumers to benefit from lower prices in periods of low demand, incentivizing more efficient consumption and facilitating the integration of renewable energies. However, implementing these tariffs requires advanced infrastructure, such as smart meters, and clear regulation that protects the most vulnerable consumers from price volatility. Regulatory schemes must establish clear criteria for setting tariffs for access to distribution networks, ensuring that they are fair, non-discriminatory, and reflect the real costs of operation and maintenance. This includes measures that

recognize the investments needed to modernize infrastructure, incorporate digital technologies and adapt to the dynamics of liberalized markets.



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The liberalization of retail electricity markets implies the opening of energy marketing to different actors

## CONSUMER PROTECTION IN LIBERALIZED MARKETS

To the extent that electricity retail markets are liberalized, new consumers with lower levels of energy consumption enter the free market. Retail consumers tend to differentiate themselves from large consumers in their less experience in participating in the free market, and for the most part they do not have structures in place to analyze and monitor potential risks.

That is why consumer protection in liberalized markets is a key element in ensuring that market opening does not disadvantage end-users, but instead should provide tangible benefits such as competitive rates, quality of service and equitable access to energy. To achieve this goal, it is essential to have robust regulation and effective supervisory mechanisms that ensure a balance between competition, accessibility to the service and the protection of consumer rights.

### MONITORING AND REGULATION OF ANTI-COMPETITIVE PRACTICES

Fair competition is essential in a liberalized market, as it ensures that consumers can benefit from competitive prices, a wider choice and quality service. However, there are significant risks of anti-competitive practices, such as artificial pricing and market manipulation through strategies that limit effective competition. To prevent these situations, a robust regulatory framework is necessary to monitor market behavior, detect anomalous price trends, and apply corrective measures when necessary, including effective sanctions for actors who engage in these practices.

Constant monitoring of the market is a key element in the prevention of abuse and in the detection of irregularities. In retail electricity markets, regulators and others may routinely collect data on prices, costs, and products offered by suppliers as input to analyze market outcomes. To this end, it is essential to develop advanced supervisory tools that allow regulators to identify patterns of anti-competitive behavior in real time. The implementation of mandatory reporting systems and periodic audits of suppliers can also be an effective strategy

to improve transparency and prevent excessive concentrations of power in the market. In addition, the visibility of the information of the suppliers can regulate their behavior.

In addition, the existence of independent supervisory bodies strengthens the capacity to detect and sanction irregularities, ensuring a fair competitive environment for all participants. These bodies must have political and financial independence, as well as the power to apply sanctions proportionate to the seriousness of the infractions committed. Collaboration between national regulators and international agencies can also contribute to the identification of best practices and the strengthening of regulation against anti-competitive conduct in the electricity market.

### SERVICE GUARANTEES AND CONSUMER RIGHTS

In a competitive environment, the quality of service is a key aspect for the consumer, as it determines their level of trust in the market and their willingness to actively participate in the choice of suppliers. Regulations must ensure that retailers comply with minimum quality standards, avoiding prolonged interruptions, undue charges, abusive clauses, deficiencies in customer service and any



practices that could compromise reliable access to energy.

One of the main challenges in market liberalization is to ensure that competition does not lead to a reduction in the quality of service. To this end, it is essential to implement monitoring mechanisms that allow evaluating the performance of energy retailers in terms of continuity of supply, response times to failures and customer satisfaction. These indicators must be supported by a regulatory framework that establishes sanctions proportional to non-compliance and ensures that DSOs and retailers adopt corrective measures in a timely manner.

Dispute resolution mechanisms that allow consumers to file complaints easily and receive quick and effective responses are also essential. The digitalization of complaints and grievance processes, through accessible and transparent online platforms, can make a significant contribution to improving consumer confidence in the market. In addition, regulators should encourage the creation of independent consumer protection entities that act as mediators in disputes between users and suppliers, ensuring that decisions are fair and aligned with international best practices.

## **TRANSPARENCY AND ACCESS TO INFORMATION**

Transparency and access to information in the retail electricity retail markets are fundamental pillars to guarantee effective competition, protect the rights of consumers, and generate trust between consumers and suppliers. Consumers should have clear and understandable information about prices, contract terms, additional costs associated with the service, and available supplier options. Without this information, the market cannot operate efficiently, as consumers lack the tools to make informed decisions that favor their interests and maximize their benefits in terms of costs and quality of service.

Implementing tools such as price comparison websites (PCWs) can be useful for this purpose, which are pages that aggregate information from multiple offers into a centralized platform. This way, consumers who want to switch to a better deal can easily research options, identify potential savings, and access details about the pricing structure in an accessible and simple way. These platforms must be developed with high standards of usability and accessibility, ensuring that all consumers, regardless of their level of knowledge of the electricity market, can interpret the information and use it to make appropriate decisions.

In addition, standards can be established to provide detailed and easily accessible information, such as minimum requirements for transparency and standardization in information on prices and conditions of service, to allow a fair comparison between the different offers in the market.

An additional aspect of transparency is the ability for consumers to have access to their consumption and billing history in real-time. This requires the implementation of smart metering (AMI) and data management systems that allow consumers to visualize their consumption in real time, understand how their energy habits affect their billing, receive personalized recommendations to improve their energy efficiency, and make more informed decisions to optimize their consumption.

In any case, it is essential that regulatory measures aimed at fostering greater competition and empowering consumers also consider the possible adverse effects they could have on companies' operating costs, their financial stability or the quality of service provided to consumers. In this sense, a gradual approach can privilege flexible mechanisms adapted to the particularities of each market, before moving towards highly structured measures that impose unnecessary costs on retailers and distribution companies.



## SUPPLIER OF LAST RESORT

The Supplier of Last Resort (SLR) is an essential mechanism to guarantee the continuity of supply in situations in which a retailer cannot meet its obligations, either due to financial defaults or due to its exit from the market. In addition, this mechanism can be extended to protect inactive consumers or those in a situation of economic vulnerability, ensuring that after being transferred to the SLR, customers can choose to switch to another supplier without penalties. In many countries, SLR not only functions as a back-up against market failures, but also plays a social role by providing basic supply conditions to customers in situations of temporary default.

Distribution companies are often designated as SLRs due to their established infrastructure, operational readiness, and longstanding relationships with consumers. While this may be operationally efficient, it also comes with significant challenges, such as the need for additional resources to manage unpredictable volumes of transferred customers, ensure supply stability, and manage the financial risks associated with consumers with a high probability of default.

Therefore, it is crucial that the regulations that define the role of the SLR ensure adequate compensation to distribution companies for the operational and financial costs they assume in this role. This includes clear cost recovery mechanisms, tariff structures that reflect the associated risk, and contractual conditions that minimize the financial impact on DSOs, and that consider:

- Energy supply costs: These are usually higher due to the need to meet unforeseen demands and sometimes buy energy in spot markets, where prices can be more volatile.
- Operational and administrative costs: These include the management of transferred customers, billing, collection, and

customer service, in addition to the technological and human infrastructure necessary to respond quickly to these contingencies.

- Financial risks associated with delinquency: Since many clients transferred to the SLR are economically vulnerable or have a history of default, it is essential to provide mechanisms to mitigate this risk, such as differentiated fees or compensation funds backed by the regulator or the State.

As for the allocation of the SLR, this can be done through competitive bidding or through regulatory designations, ensuring that the selection criteria prioritize both the technical and financial capacity and the operational experience of the supplier. In many countries, distribution companies are designated as SLRs because of their well-established operational infrastructure, immediate responsiveness, and historical relationship with consumers. However, this designation must be accompanied by regulatory guarantees that allow them to efficiently fulfil this responsibility without compromising their financial sustainability or their main operation as distribution network operators.



As electricity trading markets are liberalized, new consumers with lower levels of energy consumption enter the free market

## RETAIL MARKETS AND CONSUMER PROTECTION OVERVIEW IN LATIN AMERICA

The retail electricity market in Latin America is highly diverse in terms of its degree of liberalization, the participation of suppliers and consumer protection measures. While some countries have made significant progress in opening up their markets, implementing competitive schemes with multiple actors and options for end-users, others maintain highly regulated structures in which retail is an activity restricted to state-owned or concessioned entities with limited market conditions. However, hybrid models prevail, in which large consumers can access a free market, while residential users remain in a regulated scheme with tariffs established by the State.

El Salvador and Brazil are leading countries in the region in terms of opening up their market. In the first case, the entire market is liberalized, and in the second, migration is possible for all customers connected to medium and high voltage. For their part, in countries such as Argentina, Chile, Colombia, Ecuador, Guatemala and Peru, there are stricter demand limits to access the free market, ranging from 30 kW in Buenos Aires to 1000 kW in Ecuador. In Argentina, users can enter the wholesale electricity market through different modalities, depending on their level of demand, which provides some flexibility in market participation. In countries such as Chile, Colombia, Guatemala and Mexico, in addition to the demand limits to access the free market, there are requirements such as the installation of meters with telemetry, the signing of contracts with authorized suppliers, or the registration of consumers with the Ministry of Energy and Mines, which introduces an additional layer of complexity. At the other extreme, Costa Rica has not liberalized its market, which implies that all users must purchase their energy through distribution companies, without the option of choosing between different suppliers.

This heterogeneity responds to multiple factors, such as the history of energy development in each country, the ability of its regulatory frameworks to adapt, and the availability of infrastructure to facilitate competition. In some cases, liberalization has been driven by the need to attract private investment and improve efficiency in service delivery, while in others the state model has prevailed with the aim of guaranteeing affordable tariffs and stability in supply.

With regard to the coexistence of distribution and retail activities, the regulatory frameworks of most Latin American countries allow these activities to be integrated under the same company, without strict separation requirements. Instead, the regulations focus on establishing certain rules that limit the abuse of a dominant position and the possible information asymmetries that could affect competition in the retail market. This flexible regulatory approach seeks to maintain the operational efficiency of integrated companies, avoiding unnecessary costs arising from separation, while implementing safeguards to ensure competition.

Consumer protection is another fundamental aspect that varies between countries in the region. In the most open markets, advanced mechanisms of transparency in information and strict rules have been developed to prevent anti-competitive practices. On the other hand, in more regulated markets, consumer protection often relies on government subsidies, tariff regulations, and state control mechanisms to prevent market abuses.

This section analyzes the main characteristics of the retail market in each country, the strategies implemented to ensure consumer protection, and the challenges faced by the region on the road to greater openness and efficiency in the commercialization of electricity. Although not all aspects are comparable to each other, a brief review of the regulatory frameworks on the liberalization of retail activity in the ADELAT member countries is presented below.



**Table 1. Overview of the regulation on retail energy trading in ADELAT member countries**







## ARGENTINA

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Over the last few decades, the country's energy policy has been marked by strong state intervention in electricity tariffs, with the aim of guaranteeing equitable access to electricity and mitigating the impact of energy costs on the population. This model has limited the space for competition in the retail market.

In recent years, attempts have been made at partial liberalization by opening up the market to large users, allowing them to negotiate supply contracts with independent traders. Currently, the limits to access the free market vary between provinces. In Buenos Aires, there are three categories of free customers: Large Major User (GUMA), Large Minor User (GUME) and Large Private User (GUPA), with different ranges of power demand.

At the national level, the Ministry of Energy began in March 2025 a gradual process of normalization of the Wholesale Electricity Market (MEM), for which purpose it ordered the exclusion of Large Users of the Distributor (GUDI) - with consumption greater than or equal to 300 kW - from the definition of priority demand. In this way, the GUDI will not have restrictions on access to the MEM as agents, allowing the contracting of energy and capacity for any supply over 300 kW. Additionally, all large users will be enabled to re-enter as a demand at a seasonal price, if required. In the previous regulation, the large user who accessed the contract market could not return to being a full customer of the Distributor, and lost the right to buy its supply at the seasonal price of energy.

As for residential consumption, it remains under the regulated market, and the expansion of competition to this segment has been a slow process due to the need to re-structure subsidy mechanisms and ensure an orderly transition for consumers.

There are currently no pure retailers in the Argentine market, but generators can offer contracts to customers through their own commercial structures. These contracts are registered with the administrator of the wholesale market (Cammesa). There are also no requirements for the separation of distribution and retail activities, which can be carried out in an integrated way for regulated customers.



## BRAZIL

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The Brazilian regulatory framework has sought a balance between encouraging competition and ensuring system stability, which has led to a tiered approach to market opening that has allowed for increased participation by private actors, and for a large proportion of consumers to choose their electricity supplier. In addition, it is the country in the region that registers the greatest reduction in prices in the free market, compared to the regulated market.

The National Electric Energy Agency (ANEEL) has implemented measures to progressively expand access to the free market, with plans to include smaller-scale consumers, reducing minimum consumption thresholds and allowing new contracting modalities. From 2024, all consumer units connected to a voltage equal to or greater than 2.3 kV (Group A) can access the free market, regardless of their demand. Additionally, on May 21, 2025, Provisional Measure No. 1,300 was issued, which established a transition period for other consumers. Thus, from August 2026 all industrial and commercial consumers will be able to migrate, and the rest of consumers from December 2027. This trend points to greater market decentralization and consumer empowerment, giving them a more active role in choosing their energy supplier.

However, significant challenges remain related to equity in access, regulation of distribution tariffs, and protection of vulnerable

consumers. In 2024, ANEEL published Technical Note No. 152, in which it evaluates measures to improve the regulatory framework, monitoring and inspection of issues related to competition in retail electricity markets. The document includes a proposal aimed at prohibiting a retailer belonging to the same economic group as a distributor from operating in the free market of the concession area of said distributor. This proposal could have negative effects on the development of competition and competitiveness in the Brazilian electricity market, as developed in section 6.1.



## CHILE

Chile was a pioneer in the opening of the electricity market and is currently one of the countries with the highest degree of liberalization in Latin America, as its free market represents 60.5% of total consumption, promoting competition and greater diversity in energy markets. However, there are no pure retailers in the Chilean market, since in order to commercialize energy it is necessary to own or exploit generation assets.

The current regulation imposes two consumption thresholds to access the free market: consumers with connected power equal to or greater than 5000 kW are mandatory free customers, while consumers with connected power between 300 kW and 5000 kW can choose their price regime. Proposals for progressive easing are currently being evaluated to allow an orderly and guaranteed transition for all segments of demand.

The regulation does not establish an absolute prohibition of vertical integration between distribution and retail, provided that there is a functional separation of activities and they are carried out in conditions of transparency and non-discrimination. This means that a company may be involved in

both distribution and retail, but it must ensure that distribution operations are carried out independently to avoid conflicts of interest and anti-competitive practices. In addition, for free customers there are provisions that regulate transparency and access to information, to ensure that all market players operate in a competitive environment.

There are regulatory proposals that seek to expand competition, improve transparency in the setting of tariffs and generate conditions that allow greater participation of new players in the market. These measures include the adoption of stricter supervisory mechanisms to prevent anti-competitive practices. In addition, the possibility of establishing demand aggregation schemes that allow smaller-scale consumers to negotiate jointly with suppliers, thus optimizing their bargaining power, is being evaluated.



The retail electricity market in Latin America is highly diverse in terms of its degree of liberalization, the participation of suppliers and consumer protection measures



## COLOMBIA



Colombia has a relatively open retail market, with unregulated consumption accounting for 30% of the total. The threshold to access the free market is 100 kW of power or an average consumption of 55 MWh-month, and has not been modified for the last 25 years. Additionally, it is the only country in the region that allows the free choice of supplier to regulated consumers, which has allowed the migration of an additional 5% of consumption, which corresponds to about 100 thousand users. This model has allowed the diversification of the sector and the growth of the number of retailers operating in the country, facilitating competition and the creation of differentiated offers for end users. However, the penetration of competitors in the residential segment remains limited, as these consumers continue to be subject to regulated tariffs. The regulator has recognized the need to assess a reduction in barriers to entry so that more users can access supply contracts under competitive conditions.

The distribution and retail activities in Colombia can be carried out in an integrated manner, but there are limits to market share. In the case of retail, companies must not have more than 25% of the national market. In addition, the regulation establishes requirements for the accounting separation of activities and promotes competition through rules of behavior in the market, rules aimed at guaranteeing access to energy for independent retailers, and avoiding penalties for consumers for changing suppliers. In addition, mechanisms have been put in place to ensure that consumers have clear information and that market conditions are fair for all participants.



## COSTA RICA



Costa Rica maintains a highly regulated electricity market, where the electricity supply is mostly operated by state-owned companies, mainly the Costa Rican Electricity Institute (ICE) and other regional electricity cooperatives. Retail activity is not open to competition, and rates are determined by the Public Services Regulatory Authority (ARESEP). Therefore, distribution and retail activities are carried out in an integrated manner.

This model has made it possible to maintain the stability of the service and guarantee electricity coverage in almost the entire national territory, achieving high electrification rates. However, in recent years there have been debates about the possibility of partially opening the market to improve the efficiency of the sector without compromising equity in access. One of the proposals is to allow certain consumer segments, such as large industrial and commercial customers, to be able to buy energy directly from independent generators or retailers. Significant advances in smart metering coverage, which already reaches 54%, and the introduction of digital platforms for consumption management could contribute to improving the efficiency of the sector and preparing the market for an eventual opening.



## ECUADOR



Ecuador operates under a model where the electricity sector is largely controlled by the state. The commercialization of electricity is centralized in public companies, and the rates are determined by the government through the Agency for the Regulation and Control of Electricity (ARCONEL). This scheme seeks to maintain affordable prices for consumers and avoid abrupt fluctuations in the cost of electricity.

Opportunities for competition in the retail market are still limited and there are no pure retailers. However, large consumers can access the free market if they meet certain requirements, such as having a power demand equal to or greater than 1000 kW and an annual consumption equal to or greater than 7000 MWh, with a minimum load factor of 0.50. Currently, free market consumption represents 5.7% of the total, and there are no regulatory projects to advance in the opening of the retail market. There are also no requirements for the separation of distribution and retail activities, which can be carried out in an integrated manner.



## EL SALVADOR

El Salvador is the only country represented in ADELAT whose electricity market has been fully liberalized since the enactment of the General Electricity Law in 1996. This law allows competition in distribution and also the free choice of supplier for all consumers, which has promoted the diversification of the offer and competition between suppliers. Currently, the market has 47 independent retailers that represent about 6% of total electricity consumption, and that offer flexible contracting schemes. All users can opt for bilateral contracts with generators or retailers, which allows them to ensure stable costs in the long term and avoid price fluctuations in the regulated market.

Distribution and retail activities can be carried out in an integrated way, but with accounting separation. Challenges include the need to strengthen supervisory mechanisms and implement advanced monitoring and control tools to prevent anticompetitive practices and ensure that market liberalization benefits all consumers, including the most vulnerable. The digitization of metering and billing, the standardization of contracts and the improvement in the transparency of information for end users are key aspects

that must be reinforced to consolidate a more efficient and equitable retail model.



## GUATEMALA

Guatemala has developed a relatively open market, where large consumers can contract directly with retailers or generators, which has allowed greater flexibility in the purchase of energy and cost optimization for the industrial and commercial sector. Currently, the threshold for accessing the free market is 100 kW of power demand. The retail market for residential users continues to be subject to regulated tariffs, with the aim of guaranteeing accessibility and stability in the cost of electricity service.

This opening has been driven by a regulatory framework that seeks to promote efficiency and transparency in the commercialization of electricity, facilitating the participation of new actors and the diversification of the energy supply. Currently, the market has 35 independent retailers that represent about 37% of total electricity consumption. There are also regulatory requirements for distribution and retail activities to be carried out separately.



## PERU

Peru has a structured electricity market that combines a regulated component with a segment of free competition. Large consumers can participate in the free market, negotiating directly with generators or distribution companies to obtain prices and conditions adapted to their power and energy needs, while residential users remain in the regulated market with tariffs set by the government. Currently, the threshold to access the free market is optional for consumption between 200 kW and 2500 kW, and mandatory



for those above 2,500 kW. Free consumption already reaches 62% of the total market.

Currently there are no pure retailers, although the creation of this figure is being evaluated, but generators can offer power and energy contracts. There is also no requirement for separation of activities between distribution and retail.

Consumer protection has been strengthened with oversight and control measures, including regulations that prevent abuses and ensure a level playing field for all users. However, there are still areas for improvement in tariff transparency and accessibility to information. In addition, the digitalization of the electricity grid and the modernization of metering systems can contribute to greater operational efficiency and the active participation of consumers in the management of their consumption.



The electricity retail market in Latin America is highly diverse in terms of its degree of liberalization, the participation of marketers, and consumer protection measures



## CHALLENGES AND OPPORTUNITIES FOR DSOS

The liberalization of the electricity market is transforming the role of distribution companies, introducing new challenges and opportunities into their business model. This process generates structural changes in the organization and operation of electricity markets, requiring rapid adaptation by distribution companies to guarantee system stability and quality of service in an increasingly competitive context.

In an environment where retail activity is open to competition, DSOs must adapt to a more dynamic landscape, characterized by the diversification of suppliers, the evolution of regulatory frameworks and the change in the relationship with consumers and suppliers. The transition to a competitive market implies that distribution companies no longer have an exclusive role in the provision of electricity service, but become distribution system operators (DSOs) that facilitate the participation of different actors on equal terms.

This change also entails the development of new operating and business models for distribution companies, including the digitalization of the network, the adoption of advanced measurement and data management technologies, and the strengthening of interaction mechanisms with suppliers and end customers. The need for smart metering infrastructure and robust information systems becomes crucial to ensure transparency in billing, facilitate demand management, and improve system efficiency.

In addition, liberalization poses challenges in the regulation of access to the network and in the definition of tariffs that adequately reflect operation and maintenance costs without generating barriers to entry for new suppliers. Regulation should also address aspects related to equity in energy access and the protection of vulnerable consumers, ensuring that the new market scheme does not compromise the affordability of the service.

### MODELS OF INTEGRATION OR SEPARATION OF DISTRIBUTION AND RETAIL SUPPLY

One of the central aspects of the liberalization of the electricity market is the definition of an appropriate model of integration or separation between distribution and retail activities. There are different approaches, ranging from full integration to functional, accounting or even legal separation between the two activities. Choosing the right model depends largely on the characteristics of the market, the maturity of the competition and the regulatory conditions of each country.

In some countries, the regulation has chosen to keep retail within the structure of the

distribution companies, allowing vertical integration that facilitates service continuity and minimizes transaction costs. However, this modality may give advantages to the retailers associated with the distributor with respect to their competitors in aspects such as prices, cross-subsidies, technical requirements and procedures.

In other markets, strict separation has been proposed to encourage competition and avoid conflicts of interest, ensuring that all retailers have equal access to distribution infrastructure. Imposing a total separation between distribution and retail is not consistent with international best practices as it limits the number of actors, can generate significant operational inefficiencies and in-

crease the costs of service delivery.

Some countries have adopted intermediate models such as functional separation, which imposes some obligations on distribution companies to guarantee net neutrality, avoiding discrimination between retailers and ensuring a level playing field for all market players. To achieve this, requirements such as operational independence and the prohibition of sharing sensitive information between the distributor and its affiliated retailers (the “Chinese wall” technique) are established. Likewise, transparent management of billing and metering processes is required, ensuring that all retailers receive the same treatment. There are also other proposals to compensate for the competitive advantage of distribution companies, such as restrictions on the use of a distributor’s brand or logo by the retailer of the same economic group.

This separation also presents operational and financial challenges, as it involves adjustments in the cost structure and distribution tariffs. Removing economies of scale that previously benefited the distributor can increase administrative and operational costs, which could be reflected in an increase in feed-in tariffs. In addition, separation can lead to fragmentation in customer service, making it difficult to resolve issues and reducing efficiency in service delivery.

Another alternative is accounting separation, where distribution and retail activities are kept under the same corporate entity, but with separate financial records. This makes it possible to ensure greater transparency without significantly impacting operational efficiency.

The definition of the appropriate model requires a balance between the promotion of competition, operational efficiency and the financial sustainability of distribution companies, and must be focused on promoting transparency and avoiding anti-competitive practices, rather than on restricting the par-

ticipation of certain agents. A study by the UK’s Competition and Markets Authority (CMA) found no evidence that vertical integration was detrimental to the functioning of wholesale energy markets, nor evidence of barriers to entry for new entrants. International experience suggests that allowing the integration of activities, accompanied by regulatory mechanisms and partial restrictions on the relationship between affiliated DSOs and retailers, and oversight that ensure transparency and limit conflicts of interest, offer an appropriate balance between integration and competition. In addition, an adequate regulatory design must consider the particularities of the market, ensuring that the transition to a competitive scheme does not compromise the quality of the service or the economic viability of the distribution system.

## **IMPACT OF LIBERALIZATION ON DISTRIBUTION GRIDS MANAGEMENT**

The liberalization of the retail market introduces significant changes in the management of distribution networks, which requires an evolution in the systems and methodologies used to guarantee the reliability and efficiency of the electricity supply. The increasing diversification of retailers and the increased mobility of consumers require the adoption of advanced technologies for monitoring, billing and data management. In this sense, distribution companies can implement interconnected digital platforms that facilitate the exchange of information in real time between the different market players, ensuring transparency and accuracy in the measurement of consumption.

Digitalization and automation of the electricity grid are key elements to improve the efficiency of the distribution system in an environment of retail competition. The incorporation of smart meters, advanced data analysis systems and energy management platforms will facilitate a more efficient op-

eration, allowing distribution companies to optimize the use of infrastructure and reduce technical and non-technical losses. In addition, the development of dynamic tariff models may encourage more efficient demand management, promoting the active participation of consumers in the regulation of consumption and in the optimization of energy use at times of lower demand.

Finally, the transition to a more competitive retail market raises the need to improve interoperability between distributor and retailer platforms. The integration of systems that allow information to be shared in a standardized and secure manner will be essential to avoid distortions in the market and ensure fair and equitable competition between the different actors. The evolution of the role of distribution companies in this new scenario will depend to a large extent on their ability to adopt technological innovations, guarantee the efficiency of the operation and offer services adapted to the new needs of consumers.

## **RELATIONSHIP BETWEEN DSOS AND RETAILERS**

In a liberalized market, the relationship between distribution companies and retailers takes on a new dynamic, characterized by greater complexity in operational management and a growing need for regulation to ensure equity in access to the network. DSOs, while maintaining responsibility for the network infrastructure, must guarantee equal access to all retailers, ensuring non-discriminatory conditions in billing, access to data metering and customer management. This principle of neutrality is key to promoting effective competition and avoiding the consolidation of dominant positions in the retail market.

In turn, the growing presence of multiple suppliers requires efficient coordination mechanisms to guarantee continuity of service, avoid billing errors and ensure the qual-

ity of customer service. The proliferation of suppliers with different business models, billing schemes and tariff structures imposes significant challenges for distribution companies, which must efficiently manage the relationship with these actors without generating barriers to entry for new market entrants.

In addition, transparency in the relationship between DSOs and retailers is essential to prevent conflicts and promote a more balanced competitive environment. The implementation of mechanisms for monitoring and auditing the interactions between these actors is essential. It is also necessary to establish clear regulations that limit possible conflicts of interest and guarantee equity in the contractual relationship between DSOs and retailers.

Finally, the evolution of the relationship between DSOs and retailers in a liberalized market will depend to a large extent on the ability of both parties to adapt to technological and regulatory innovations. The digitization of processes, the implementation of standardized contracts and the automation of customer management will be key factors to improve market efficiency and ensure fair and transparent competition.

## **DISPUTE RESOLUTION MECHANISMS**

The increased complexity of the retail market can lead to disputes between DSOS, retailers and consumers, whether due to differences in billing, problems in the continuity of supply or disagreements in the interpretation of contracts. The coexistence of multiple retailers and the variability in the conditions of contracts can generate uncertainty among consumers and make it difficult to resolve conflicts expeditiously.

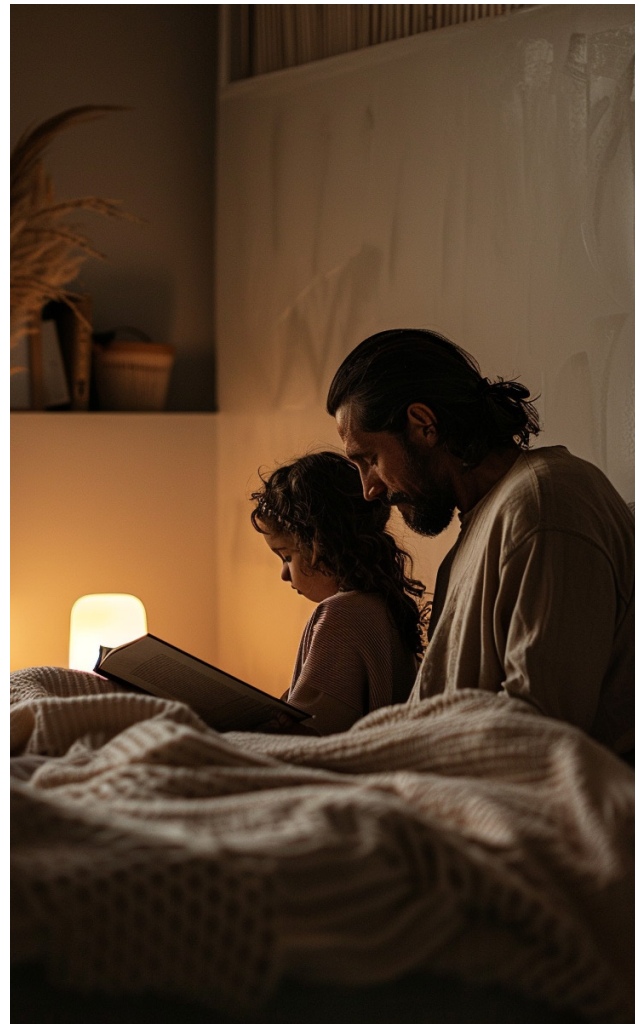
To mitigate these issues, it is essential to establish transparent and standardized protocols for billing, changing suppliers, and



compensation in the event of service failures. Implementing a code of good practice for retailers and distribution companies can help minimize conflicts and provide uniform criteria for dispute resolution.

In addition, effective dispute resolution mechanisms can be established to quickly and equitably address disputes that arise in the market, such as the use of mediation instances prior to the judicialization of conflicts, with the aim of finding quick and effective solutions. Finally, regulators can create specialized dispute resolution units that can act as a prior and mandatory instance in disputes between retailers, DSOs and consumers, ensuring that market rules are effectively complied with.

The development of these mechanisms will not only contribute to market stability, but will also strengthen consumer confidence in the transition to a competitive environment in the electricity retail.



## INTERNATIONAL GOOD PRACTICES IN MARKET LIBERALIZATION AND CONSUMER PROTECTION

The liberalization of electricity markets has been a key process in various economies around the world, allowing the introduction of greater competition in retail activity. However, this process must be accompanied by strategies that guarantee the stability of the system, consumer protection and economic efficiency. Below are some of the best practices adopted in different countries that have managed to implement successful liberalization schemes without compromising service quality or equity in access.

### MARKET OPENING AND COMPETITION MODELS

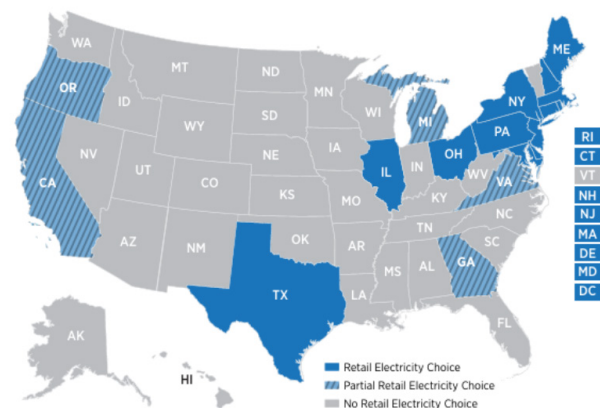
Some countries have implemented progressive models for opening up the electricity market to avoid disruptions and ensure an orderly transition, and there is also diversity in the roles attributed to DSOs and retailers. The models applied for these aspects are illustrated below.

#### Gradual liberalization based on consumption thresholds:

In countries such as Germany and the United Kingdom, market opening began with large industrial consumers before spreading to residential users. This approach made it possible to assess the impact of competition on different scales of consumption and adjust regulation according to market needs.

In the United States, some states have completed their liberalization processes, allowing end consumers (including industrial, commercial, and residential customers) to purchase electricity from competing suppliers. Thirteen states and the District of Columbia have fully liberalized their retail electricity markets (Figure 1), although residential customer participation rates in free markets remain low in most states.

**Figure 1. Liberalization of retail markets in the U.S.**



Source: NREL (2017).

#### Definition of distribution and retail activities

There are several models for defining the scope of activities that are considered competitive. In Illinois and Pennsylvania, retailers compete for energy procurement, while all other services (including billing and most customer service) are managed by distribution companies. Restricting the scope of competition in this way makes it easier for new retailers to enter, but it also reduces their ability and incentives to innovate. The following table summarizes the services that are considered competitive in some liberalized markets.

**Table 2. Competing services for residential consumers**

| Market               | Billing | Measurement | Collection |
|----------------------|---------|-------------|------------|
| <b>United States</b> |         |             |            |
| Illinois             | No      | No          | No         |
| New York             | Yes     | No          | Yes        |
| Pennsylvania         | No      | No          | No         |
| Texas                | Yes     | No          | Yes        |
| France               | Yes     | No          | Yes        |
| Germany              | Yes     | Yes         | Yes        |
| United Kingdom       | Yes     | Yes         | Yes        |
| Italy                | Yes     | Yes         | Yes        |
| Netherlands          | Yes     | Yes         | Yes        |
| Australia (NEM)      | Yes     | Yes         | Yes        |
| New Zealand          | Yes     | Yes         | Yes        |

Source: The Brattle Group (2018).

To avoid conflicts of interest in the case of companies that simultaneously carry out distribution and retail activities, many markets have established functional separation requirements. For example, the Council of Ministers of the European Union adopted the Regulation on Energy Market Integrity and Transparency (REMIT) which adopts the Chinese Wall technique for vertically integrated groups or companies, where related entities can be managed by the commercial arm of said group. REMIT also prohibits the abuse of market power through insider trading and price manipulation.

## CONSUMER PROTECTION IN LIBERALIZED MARKETS

In some countries, the liberalization of electricity markets has been accompanied by effective mechanisms to protect consumers, especially those in vulnerable situations. International best practices include:

### Transparency and access to information

Countries such as the United Kingdom, France and New Zealand have implemented digital price comparison platforms (PCWs), managed by the regulator or an independent organization, which allow consumers to compare rates and conditions from different suppliers in a simple and accessible way. In Germany and Great Britain there are no official PCWs, but there are websites run by private companies, which receive direct or indirect compensation from the retailers who publish their information. In the European Union, Directive 2019/944 established criteria for tariff and contract comparison tools available to consumers. Thus, there are services that allow you to compare alternatives and send alerts to the consumer by email. The table below summarizes the current situation of some official price comparison platforms.

**Table 3. Official Price Comparison Platforms**

| Market               | Administered by | Reporting obligation | Name                                       |
|----------------------|-----------------|----------------------|--------------------------------------------|
| <b>United States</b> |                 |                      |                                            |
| Illinois             | Regulator       | No                   | PlugInIllinois.org                         |
| New York             | Regulator       | Yes                  | Power to choose                            |
| Pennsylvania         | Regulator       | No                   | PA Power Switch                            |
| Texas                | Regulator       | No                   | PowerToChoose.org                          |
| France               | Ombudsman       | No                   | Energy info                                |
| Italy                | Regulator       | No                   | Find offers                                |
| Australia (NEM)      | Regulator       | Yes                  | Energy Made Easy, Victorian Energy Compare |
| New Zealand          | NGO             | No                   | Powerswitch                                |

Source: The Brattle Group (2018).

### Simplification of products and rates

When consumers find retail price information complex, or have difficulty comparing offers from different retailers, they may not actively participate in the retail market. To avoid this, product standardization can favor price comparisons between suppliers, reducing information asymmetry and allowing consumers to make rational decisions.

In the UK, OFGEM proposed a regulation of “simple fare options” to introduce rules simplifying packages, discounts and rewards. This includes standardization in rate presentation and customized annual cost projections based on actual customer consumption.

Similarly, European Union countries have made progress in developing reporting standards for electricity bills, including price payable breakdowns, comparisons of consumption with a reference price, information on consumer rights, information on the mix of sources used (including environmental impact), and contact information for consumer organizations and the dispute resolution body (ACER, 2023). In the Netherlands, the regulator applies penalties when information on electricity bills does not meet the requirements.

In Pennsylvania, suppliers are required to use the terms set forth in a state glossary in all marketing materials. In Texas, regulations require that written, electronic, and oral communications, websites, marketing materials, and invoices must be clear, not misleading, unfair, or anticompetitive.

### Requirements for migration

The European Union establishes a maximum period of three weeks for the processes of changing the supplier from the date of the consumer’s request. It is expected that, by 2026 at the latest, the process for the change should not last more than one working day. Additionally, some marketplaces have implemented requirements to alert customers when their contracts are about to end, to prevent suppliers from setting higher rates at the end of the contract.

As for early termination charges or migration fees, some marketplaces focus on clear disclosure of these fees at the beginning of the contract. In Texas, suppliers can charge early termination fees, but they can’t charge customer fees for switching to another supplier. In Australia (NEM), New Zealand, Illinois, New York, Pennsylvania, and Great Britain, suppliers may charge early termination or change of supplier fees, but they must disclose them first. Early migration fines



may be levied in the Netherlands, but they are subject to limits set by the Electricity Act. In other markets, such as Germany and Italy, suppliers are prohibited from charging termination fines or migration fees. In France, consumers can terminate their contract at any time without penalty, but they may have to pay for the out-of-cycle reading and network rates specified in the contract. However, if the consumer owes debts to the supplier, the provider can block the change until an agreement is reached on the payment of the debt.

Some markets have notice requirements prior to contract renewals. In Illinois, the supplier must notify the customer 30 to 60 days prior to the automatic renewal date, by a separate means from the bill. Pennsylvania, notice must occur 45 to 60 days before the expiration of the contract.

### **Bargaining and collective migration**

An alternative to individual migration is negotiation processes and collective migration agreements. Collective bargaining allows for increased competition by aggregating buyers to exert greater purchasing power. In addition, it tends to mitigate information asymmetries and reduce pricing research costs.

Collective bargaining takes place in a variety of ways in Britain, the Netherlands and the USA. In the latter case, it is known as Community Choice Aggregation (CCA), and it allows a municipality or county to negotiate the purchase of electricity supply for all of its residential and small commercial customers. In the Netherlands, there is a similar program of aggregation purchases through “Consumentenbond”, a non-profit organization that negotiates, on behalf of its members, collective energy prices with suppliers, through competitive auctions. In Britain, consumers can meet and ask an independent organization to represent them and negotiate agreements with suppliers on their behalf, although the scope of this service is still relatively small.

### **Entry requirements for new suppliers**

The requirements that an inbound supplier must meet vary considerably between jurisdictions. In Australia, the requirements to qualify as a retailer include: organizational and technical capacity and compliance with laws; financial resources to operate as a retail trader and manage market risk; and not have previous licenses revoked. In Illinois, Pennsylvania, and Texas, there are financial credit score or net worth requirements. In Germany, there are also credit requirements. In Britain, retailers have an obligation to reduce carbon emissions. In New Zealand, there are no formal entry requirements, but the Electricity Authority monitors compliance with guidelines regarding vulnerable contracts and consumers. The regulator also publishes lists of retailers that comply and do not comply with the regulations.

### **Grievance and dispute resolution mechanisms**

In cases where the supplier fails to comply with the requirements set by the regulator, consumers should have the right to a fair and timely complaint resolution process. To do this, suppliers must have agile channels that allow customers to file their complaints.

In addition, some markets have incorporated non-binding mediation and arbitration systems to resolve disputes between suppliers and customers quickly and efficiently. In Italy, consumers can contact a free conciliation service set up by the regulator. In Germany, consumers can contact the Conciliation Board (Schlichtungsstelle Energie) as a mediator to resolve disputes with their supplier. The service is free and non-binding. In New Zealand, there is also a process in which an independent arbitrator holds a conciliation conference between the customer and the supplier and issues a recommendation.

Binding dispute resolution mechanisms may also be in place. In Australia (NEM), state and territorial ombudsmen are external bod-

ies that receive, investigate and facilitate the resolution of consumer complaints. In the Netherlands, if the process cannot be resolved between the customer and the supplier, the consumer can contact the aggregator organization that represents him.

### **Supplier of Last Resort**

All countries of the European Union, except Bulgaria, have regulated the figure of the Supplier of Last Resort (SLR), as a safeguard against the eventual failure of the service supplier. In addition, there are two complementary mechanisms: the first, known as the “default supply mechanism”, protects inactive consumers in 12 member states; The second, known as the “individual or basic supply mechanism”, protects consumers with payment difficulties in 5 Member States.

In Germany, the supplier that serves the majority of residential customers in a local distribution network acts as a SLR. There are about 800 of these local distribution networks, and the SLR determination is reviewed every three years. SLR rates are not regulated and, consequently, tend to be more expensive than other available rates, however, there are rules for them to be published and disaggregated by components. Similarly, changes in SLR prices must be publicly reported along with written notice to customers.

In Texas, the regulator assigns a backup SLR in each area for customers who have not yet chosen a supplier or who have had their service discontinued. This service comes at a relatively high price due to the costs associated with serving an uncertain number of customers with uncertain electrical loads.

### **USE OF DIGITALIZATION IN OPEN MARKETS**

The use of digital technologies is a determining factor in the evolution of liberalized

markets, facilitating the efficient management of consumption and access to information in real time. The implementation of advanced meters allows consumers to know their consumption in real time, facilitating better planning and cost optimization. The data from smart meters, combined with the incorporation of predictive analytics tools, allows suppliers to get a better estimate of how much it costs to serve each individual customer. In turn, they can offer pricing that rewards behaviors that reduce costs or offer services that help customers manage their costs.

For example, in Texas, where most customers have smart meters, time-of-use programs like “free nights and weekends” are very popular. In New Zealand, most new suppliers have created innovative business models that were made possible by using smart meter data to reduce costs, increase efficiency, improve customer service, and offer new services and rates. Finally, price migration and comparison platforms can use a customer’s usage data to find the best pricing package that fits their particular consumption profile (The Battle Group, 2018).

### **ASSESSING THE RESULTS OF LIBERALIZATION**

A common feature in the most successful markets has been the implementation of monitoring and evaluation mechanisms to ensure that market liberalization meets its objectives and continues to provide benefits to both consumers and market participants. Constant monitoring allows identifying deviations, correcting inefficiencies and strengthening the competitiveness of the electricity sector.

In the European Union, regulators conduct regular analyses of market behavior to detect potential anti-competitive practices, assess price developments and ensure that consumers benefit from competitive and fair rates. This monitoring also allows reg-

ulations to be adjusted based on market dynamics and consumption trends.

Measuring the degree of competition in the market is also essential for assessing the success of liberalization. Countries such as Australia and the United Kingdom have established metrics that allow analyzing the diversification of suppliers and the ease of switching suppliers without excessive costs.

In markets such as Germany and the Netherlands, regular surveys have been developed to measure consumer satisfaction and the accessibility of tariff and contract information. In addition, customer complaints and claims are monitored to detect possible market abuses and areas where strengthening regulation is required.

Finally, liberalization requires continuous adjustments in the regulatory framework. Countries such as Spain and Denmark have implemented mechanisms for periodic review of electricity market regulation to adapt it to new technologies, changes in demand and trends in distributed generation and self-consumption.

In general, the most successful markets have shown that liberalization is a dynamic process that requires constant adjustments and effective control mechanisms to ensure its sustainability over time. Implementing regular assessments and responsiveness to industry changes are key factors in maximizing the benefits of competition in retail electricity retailing.



The liberalization of electricity markets has been a key process in various economies around the world, allowing the introduction of greater competition in retail activity

## CONCLUSIONS AND RECOMMENDATIONS

The liberalization of the electricity market has proven to be a complex and multifaceted process that requires a delicate balance between openness to competition, stability of supply, consumer protection and the financial sustainability of the system. International experience shows that effective liberalization should focus not only on the entry of new players into the market, but also on ensuring a level playing field for all participants, modernizing grid infrastructure and creating regulatory mechanisms that avoid distortions and ensure the efficiency of the electricity system.

From the analysis of various international experiences and the specific context of the markets in Latin America, important lessons and recommendations can be drawn that allow us to redefine the role of distribution companies in this process. Regulation must evolve to accompany these changes and ensure an environment that fosters innovation, without compromising the stability and accessibility of the electricity service. To this end, it is essential that the regulatory measures are not excessively restrictive or put the retailers affiliated to distribution companies at a disadvantage.

Imposing a strict separation between distribution and retail is not consistent with international best practices and can lead to significant operational inefficiencies, increasing service costs. Although regulation must guarantee fair competition between retailers, it is important to recognize that retailers affiliated to distribution companies play a key role in boosting the market. Their knowledge of the sector, their infrastructure and their pre-existing relationship with consumers make them competitive players that can offer more attractive rates and favorable conditions for users.

Markets that have achieved an orderly transition have implemented strategies of gradual market opening, promoted transparency in consumer information, and established oversight and regulatory adjustment mechanisms to respond to changing industry dynamics. In Latin America, where there are diverse realities regarding the structure and maturity of markets, it is essential to adapt liberalization strategies to the particularities of each country, ensuring that access to energy remains affordable and that the reliability of the system is maintained. In this regard, the liberalization of the region's markets should consider the following aspects:

- **Gradualness and planning:** Markets that have successfully transitioned towards liberalization have implemented progressive processes, allowing agents to adapt and regulation to be strengthened. A gradual opening allows us to evaluate impacts, mitigate risks and generate confidence in consumers and market players, ensuring that competition is developed under equitable conditions.
- **Consumer protection and empowerment:** Clear and accessible information mechanisms must be developed, as well as digital platforms that allow the comparison of rates and suppliers. It is essential to strengthen consumer rights through regulations that reduce transaction costs and guarantee efficient service to users. Distribution companies can play a key role in the implementation of these platforms, ensuring that customer information is transparent and accessible to all suppliers.



- Investment in digitalization and modernization of the grid: The transition to a liberalized market requires distribution companies to make significant investments in technological infrastructure, management systems and cybersecurity, and to integrate advanced technologies, such as smart meters, allowing for the optimization of demand and greater transparency in marketing. In addition, it is crucial to develop specialized human talent, particularly in areas such as data analysis, commercial management and strategic planning, to ensure an efficient operation adapted to new market demands. Distribution companies play a central role in the implementation of these investments, which must be supported by appropriate regulations and are essential to facilitate a more efficient and dynamic market.
- SLR Regulation: It is essential to establish a clear regulatory framework for the SLR that contemplates its scope, functions, compensation schemes and selection mechanisms. This framework must ensure that the SLR has the necessary operational and financial resources to act effectively in the face of market contingencies and protect the most vulnerable users. In addition, the regulation must include cost recovery mechanisms and ensure that the service offered by the SLR is efficient and competitive, aligned with the objectives of stability and equity of the electricity system.
- Tariff considerations: In liberalized markets, it is essential that tariff regulations adequately reflect the costs and risks associated with distribution and retail activities. This includes the design of tariffs that allow fair remuneration and avoid competitive disadvantages against independent retailers, ensuring the economic sustainability of the agents involved.
- Regulatory supervision and adaptability: The evolution of markets requires periodic supervision and dynamic regulations that allow adjustments according to the maturity of the market and the incorporation of new players. For distribution companies, this framework should consider periodic evaluations of market performance, adjustments in access tariffs, and measures to ensure their financial viability in a competitive environment.

On the other hand, the liberalization of the electricity market presents both challenges and opportunities for distribution companies. While market opening promotes competition and innovation, it can also introduce financial and operational risks if proper regulations are not implemented that consider its central role in electricity infrastructure and supply. Openness also requires a comprehensive modernization of the infrastructure and an adaptation that guarantees the stability of the system. The redefinition of the role of distribution companies in this process must consider their ability to adapt to a more competitive environment without compromising their sustainability or the quality of the service they offer. The transition from being agents with a purely operational function to becoming facilitators of competition and the energy transition implies the need for new business models and investments in technology. Utilities must play a key role in the implementation of smart grids, demand management, and the integration of renewable energy. Likewise, the digitalization of the sector will allow greater transparency, cost optimization and a more efficient relationship with suppliers and consumers. The main challenges and opportunities that suppliers will need to address in the context of the liberalization of retail markets are summarized below.

**Table 3. Challenges and opportunities for distribution companies in liberalized markets**

| Challenges                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Opportunities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>○ Ensure net neutrality for all retailers, guaranteeing fair operating conditions.</li><li>○ Adapt to the new role of distribution system operator (DSO), taking on responsibilities in infrastructure management and facilitating competition.</li><li>○ Ensure financial sustainability in an environment of increasing competition, with tariffs that reflect real costs and allow the modernization of the network without distorting the market.</li><li>○ Manage the integration of renewable energy sources and distributed generation, ensuring that the infrastructure can respond to new consumption and generation dynamics.</li><li>○ Improve the quality of service through the implementation of smart grids, advanced monitoring tools and digital management platforms.</li><li>○ Strengthening cybersecurity to ensure the stability and reliability of modernized power grids, avoiding vulnerabilities in a digitized and highly interconnected environment.</li></ul> | <ul style="list-style-type: none"><li>○ Development of complementary services for the optimization of network use.</li><li>○ Digitalization and automation of processes to improve the relationship with suppliers and consumers, data management and billing.</li><li>○ Promotion of flexibility schemes to optimize grid capacity, incentivizing efficient consumption management through dynamic tariffs and demand response.</li><li>○ Creation of energy data management platforms that improve interaction between users, retailers and regulators, ensuring equitable access to market information.</li><li>○ Explore new business models, such as distributed storage and demand aggregation, to improve system efficiency and seize the opportunities of energy transition.</li></ul> |

International experience has shown that market liberalization requires continuous supervision, flexible regulatory adjustments, and consumer protection measures to avoid distortions and ensure that the benefits of competition reach all users. In this way, the liberalization of the electricity market will not only strengthen the sustainability of the system but will also open up new opportunities for economic development and the transition to a more resilient and efficient energy model. To achieve these objectives, the commitment of regulators, market operators and distribution and retail companies is necessary to build a flexible and inclusive framework, where competition can be developed for the benefit of consumers and the modernization of the electricity sector.

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