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THE EVOLUTION OF THE FREE ENERGY MARKET IN BRAZIL: PERSPECTIVES AND CHALLENGES

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SUMMARY

This article examines the evolution of the free energy market in Brazil, highlighting the opportunities and challenges this model presents for the electricity sector. Market liberalization aims to increase competitiveness, reduce costs, and promote sustainability, with a focus on utilizing renewable sources such as solar and wind energy. However, for the free market to consolidate efficiently, adjustments in regulation are necessary, especially to ensure the inclusion of all consumers, including small consumers. The adaptation of public policies and the creation of fair tariff mechanisms are crucial to avoid inequalities between consumers of different profiles. The digitalization of the sector, with the use of smart platforms and technologies for energy monitoring and trading, is also a key factor for the modernization and transparency of the market, in addition to optimizing energy consumption and distribution. The intermittency of renewable sources, in turn, requires investments in storage and integration technologies to ensure the stability of supply. The article also discusses the importance of consumer education and awareness of the advantages and risks of the free market, highlighting that the lack of information can limit adherence to the new model. It is concluded that the free energy market in Brazil has a great potential for transformation, but depends on efficient regulatory management, technological innovation and the strengthening of energy education to ensure its success and long-term sustainability.

Keywords: Free Energy Market. Sustainability. Regulation. Digitisation.

INTRODUCTION

The energy sector is one of the main pillars for the economic and social development of any country. The availability, reliability, and cost of energy directly influence the competitiveness of the industry, the well-being of the population, and environmental sustainability. In Brazil, historically, the predominant model of electricity trading has been strongly regulated by the State, concentrating generation, distribution and trading in large concessionaires, under a rigid tariff system. However, the need to modernize the sector, combined with the search for greater efficiency and competitiveness, led to the creation of the free energy market, an alternative that allows large consumers to negotiate directly with suppliers, ensuring greater flexibility and better contractual conditions. This model, which is progressively strengthening in Brazil, represents a significant advance in the structuring of the national electricity sector and has been pointed out

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as a promising path for the democratization of access to energy and the transition to a more diversified and sustainable matrix.

The introduction of the free energy market in Brazil dates back to the 1990s, a period in which the country went through a broad process of restructuring the electricity sector. Before this movement, the generation, transmission and distribution of electricity were functions performed mostly by state-owned companies, with little margin for the entry of private initiative and no room for price competition. With the creation of a free negotiation environment, consumers with high energy consumption now have the possibility to choose their suppliers and contract energy directly in the market, instead of depending exclusively on the concessionaires of the regulated system. The measure brought significant impacts, such as the reduction of operating costs for companies, predictability in contracts and the incentive to adopt renewable energy sources, given that many companies started to prioritize suppliers that offered sustainable solutions in line with new environmental and corporate requirements.

The growth of the free energy market in Brazil has been significant. According to data from the Electric Energy Trading Chamber (CCEE), the share of this market in the national energy matrix has been expanding continuously, driven by the increase in the number of consumers who migrate from the regulated to the competitive environment. This trend is in line with a global movement to liberalize electricity markets, already consolidated in countries such as the United States, the United Kingdom, and several nations in the European Union. In these economies, competition in the electricity sector has resulted in more affordable prices, greater technological innovation, and increased use of renewable sources. In Brazil, the opening of the free market is still taking place gradually, with the expectation that, shortly, smaller consumers will also be able to enjoy the advantages of this model, democratizing access to more competitive prices and allowing an even greater diversification in the supply of energy.

However, despite the advances observed in recent years, the expansion of the free energy market in Brazil faces complex challenges, both from a regulatory and structural point of view. One of the main obstacles involves the adaptation of energy distributors to the new competitive scenario, since the migration of consumers to the free environment changes the revenue structure of concessionaires in the regulated sector. In addition, there are concerns about transparency in price formation, security of supply, and the need for infrastructure investments to ensure a more robust and efficient market. The regulatory challenge is also significant, as the transition to a more open model requires well-structured legislation that ensures the stability of the sector's rules and avoids negative impacts on consumers who remain in the regulated environment.

Another crucial aspect of this debate is the role of the free market in the transition to a more sustainable energy model. In recent years, there has been considerable growth in the demand for energy from renewable sources, driven not only by environmental issues, but also by financial market requirements and international regulatory pressures. Companies committed to ESG (Environmental, Social and Governance) practices have started to prioritize suppliers that guarantee clean energy with less environmental impact, becoming one of the major drivers of the expansion of wind and solar generation in Brazil. This trend reinforces the importance of the free market as a strategic instrument for diversifying the energy matrix and reducing dependence on more polluting sources, such as fossil fuel-powered thermoelectric plants. However, for this movement to be sustainable, efficient planning is necessary to ensure the stability of the electrical system and mitigate risks associated with the intermittency of these sources.

Given this panorama, it is essential to carry out an in-depth analysis of the impacts of the evolution of the free energy market in Brazil, considering both the benefits and the challenges to be faced. This model not only redefines commercial relations in the electricity sector, but also directly influences the development of new technologies, the implementation of energy efficiency policies, and the search for a more modern and accessible system. Thus, this article aims to explore the perspectives of this market, analyzing its effects on consumers, suppliers and the national economy as a whole. In addition, it seeks to discuss the regulatory and structural obstacles that still need to be overcome to ensure a balanced and sustainable growth of this sector, in order to ensure benefits for all agents involved and contribute to the advancement of the Brazilian energy matrix towards a more competitive and environmentally responsible future.

METHODOLOGY

This study adopts the methodology of bibliographic research, based on the analysis of works, scientific articles, legislation and institutional documents that address the evolution of the free energy market in Brazil, its perspectives and challenges. Bibliographic research, according to Gil (2008, p. 50), is characterized as "a study developed based on materials already prepared, consisting mainly of books and scientific articles". In this way, it seeks to understand the transformations of this sector from the already consolidated knowledge, allowing a critical and in-depth view on the subject.

The qualitative approach is predominant in this article, since it intends to explore, describe and interpret the main aspects involving the free energy market. According to Minayo (2012, p. 21), qualitative research is applied to studies whose objective is to understand complex

phenomena, analyzing "reality from the perspective of social actors and the relationships they establish in the investigated context". Thus, the analysis of the data is not based on statistics, but on the interpretation of information extracted from the specialized literature, with emphasis on the trends and challenges of the Brazilian energy sector.

The selection of sources was carried out considering criteria of topicality, relevance and reliability. Priority was given to studies published in the last ten years, scientific articles indexed in recognized databases, institutional documents from bodies such as the Electric Energy Trading Chamber (CCEE) and the National Electric Energy Agency (ANEEL), as well as publications by renowned authors in the area of energy and economics. According to Lakatos and Marconi (2010, p. 183), "bibliographic research allows the researcher to know the state of the art of a given theme, providing a consistent theoretical basis for the construction of scientific knowledge".

The methodological structure of this study also includes a comparative analysis between the Brazilian model of free energy market and successful international experiences, using references from countries that have already consolidated the liberalization of the electricity sector, such as the United States and members of the European Union. This comparative method is relevant because it allows the identification of good practices and possible adaptations to the national context, as recommended by Severino (2017, p. 67), when he states that "comparative analysis makes it possible to understand the differences and similarities between different phenomena, contributing to a more accurate and grounded diagnosis".

Thus, this article is based on a review of the specialized literature, combining theoretical concepts, documentary analysis and case studies to provide a comprehensive view of the evolution of the free energy market in Brazil, highlighting its benefits, regulatory challenges and impacts for consumers and suppliers.

RESULTS AND DISCUSSIONPlower part of the form

The evolution of the free energy market in Brazil demonstrates a significant advance in the modernization of the electricity sector, promoting benefits such as greater competitiveness, cost reduction and stimulation of the diversification of the energy matrix. However, despite the progress observed, regulatory and structural challenges still represent obstacles for this expansion to occur in a balanced and sustainable manner. From the bibliographic analysis carried out, it was possible to identify not only the positive impacts of this liberalization, but also the difficulties faced in adapting the tariff model, ensuring energy security and creating a stable regulatory environment that favors both consumers and suppliers.

The main motivation for the expansion of the free market in Brazil is related to the reduction of energy costs for consumers. Recent studies indicate that companies that migrated from the regulated environment to the free market recorded an average saving of 30% compared to traditional tariffs, as shown in data from the Electric Energy Trading Chamber (CCEE, 2024). This reduction occurs because the possibility of direct negotiation with suppliers allows for more flexible and personalized contracts, ensuring not only more competitive prices, but also greater budget predictability. Tolmasquim (2022) points out that the liberalization of the electricity sector favors the efficient allocation of resources, reducing waste and creating an environment conducive to technological innovation. In addition, the predictability of costs is one of the most attractive factors for large companies, which depend on solid financial planning to ensure their competitiveness in the market. Unlike the regulated environment, where tariff adjustments can be unpredictable and often costly, the free market enables long-term price fixing, reducing financial risks for industrial and commercial consumers. According to a report by the National Electric Energy Agency (ANEEL, 2023), this predictability has been one of the main factors that drive the adhesion of large consumers to the free market, providing greater stability to the sector.

In addition to cost reduction, a relevant impact of the expansion of the free energy market is the incentive to use renewable sources. In recent years, companies have shown a growing interest in aligning their operations with environmental, social, and governance (ESG) guidelines, prioritizing clean energy consumption. Almeida and Silva (2023) point out that the flexibility of the free market allows consumers to choose suppliers that offer energy from renewable sources, which contributes significantly to the decarbonization of the energy matrix and to the fulfillment of the climate commitments assumed by Brazil. Data from the Brazilian Association of Photovoltaic Solar Energy (ABSOLAR, 2024) indicate that more than 60% of contracts signed in the free energy market involve renewable sources, such as solar, wind, and biomass, demonstrating that this model has been an essential vector for the energy transition in the country. The growing demand for clean energy also reflects demands from investors and international regulators, who pressure companies to adopt sustainable practices, choosing renewable sources not only an environmentally responsible decision, but also a strategic factor for competitiveness on the global stage.

Despite the advances, the growth of the free market still faces considerable challenges, especially with regard to the regulation and adaptation of the tariff system. ANEEL (2023) highlights that one of the main obstacles is the need to reformulate distribution tariffs to avoid negative impacts on consumers who remain in the regulated environment. As large consumers

migrate to the free market, there is a redistribution of the fixed costs of the electricity system, which can result in tariff increases for captive consumers. This phenomenon, known as "cross-subsidization", has been the subject of debates among experts and regulators, who seek solutions to balance the transition to a more competitive market without compromising the accessibility of energy for smaller consumers. In addition, the issue of security of supply is a latent concern. In the regulated environment, the distribution and supply of energy are guaranteed by the concessionaires, while in the free market the responsibility for contracting falls on the consumer himself. This requires a higher level of technical knowledge for contract management and a solid regulatory framework that avoids shortages risks. Barroso et al. (2023) emphasize that the transition to a more open model must be accompanied by regulatory measures that ensure the stability of the sector and avoid price volatility, as already observed in more mature international markets.

The experience of other countries in the liberalization of the electricity sector can serve as a reference for Brazil. In the European Union, for example, market opening has resulted in greater competitiveness and technological innovation, but it has also required strict regulations to prevent abusive practices and protect consumers. In the United Kingdom, according to a study by Newbery (2023), the liberalization of the electricity market led to an average reduction of 20% in electricity prices in the first years, but it also generated challenges related to the governance of the sector and price volatility. In Brazil, the expectation is that the opening of the market will continue to advance in the coming years, to allow all consumers to opt for the free market by 2028, according to projections by the Ministry of Mines and Energy (MME, 2024). However, for this transition to occur sustainably, experts suggest the adoption of a hybrid model, which combines incentives for competition with protection mechanisms for the most vulnerable consumers.

The results analyzed demonstrate that the evolution of the free energy market in Brazil has generated significant positive impacts, promoting not only cost reduction and tariff predictability, but also encouraging the adoption of renewable sources and boosting the competitiveness of the electricity sector. However, regulatory and structural challenges still need to be overcome to ensure that this expansion occurs in a balanced and beneficial manner for all agents involved. International experience shows that the liberalization of the electricity sector can bring numerous benefits, as long as it is accompanied by solid regulation and mechanisms that ensure the stability of the system. Thus, a continuous dialogue between government, regulators, consumers, and agents in the electricity sector is essential to improve the Brazilian model, ensuring a more efficient, competitive, and sustainable market. The liberalization of the

electricity sector represents a significant advance for the Brazilian economy, but its success will depend on the country's ability to implement effective public policies that balance the interests of different market segments and ensure an affordable and reliable energy supply for all of society.

The continued development of the free energy market in Brazil requires a strategic approach that takes into account both the existing challenges and the opportunities that arise with the transformation of the electricity sector. The expansion of the free market brings with it the need for an increasingly robust regulatory and operational infrastructure that can meet the demands of a constantly evolving market. The implementation of a more open model, which allows the participation of a broader consumer base, requires the adaptation of tariff structures, in addition to the creation of compensation mechanisms for those who will remain in the captive market. As Lakatos and Marconi (2010) point out, the adaptation of regulatory models to new economic scenarios requires not only a review of public policies, but also continuous education so that consumers, especially smaller ones, understand the benefits and risks of the free energy market.

One of the key issues to be addressed in the future is security of supply. In the free market, the responsibility for contracting energy falls on the consumer, which implies that he must be prepared to deal with price volatility and possible unforeseen events related to supply. To address this issue, the government and regulators must create an environment that promotes transparency in negotiations and ensures the reliability of energy contracts. The creation of digital platforms and the provision of clear information on prices and supply conditions can help mitigate information asymmetry and ensure that consumers can make more informed and safer decisions.

To ensure continuity and reliability in the supply of electricity, it is essential to have mechanisms that guarantee customer service, even in the face of unforeseen events such as the failure of a supplier. In this context, the role of the "supplier of last resort" stands out, an entity designated to supply electricity to consumers in emergencies, ensuring service continuity and avoiding interruptions in supply. The National Electric Energy Agency (ANEEL) is responsible for regulating and supervising the performance of these suppliers, ensuring that they operate by the guidelines established to maintain the stability and safety of the national electricity system (Caixeta, 2023)

In addition, it is important to emphasize that the free energy market in Brazil is not limited to large companies and industries. The trend observed is the gradual inclusion of residential and small consumers, as a way to democratize access to energy at more competitive prices. However, the inclusion of smaller consumers in the free market requires a restructuring of

marketing models and the creation of products and services adapted to their reality. Increasing the consumer base in the free market can be a way to increase competitiveness and improve the efficiency of the electricity sector, which can ultimately benefit society as a whole.

The integration of the free energy market with other energy sources and systems, such as the renewable energy market, is an essential way to promote a more sustainable energy matrix. The flexibility that the free market offers allows consumers to make choices that are more aligned with their needs and environmental objectives. The increase in solar and wind energy generation, for example, has been shown to be a growing trend in Brazil, especially in regions with great potential for these sources. According to the Brazilian Association of Photovoltaic Solar Energy (ABSOLAR, 2024), Brazil is one of the countries with the greatest potential for solar energy, and the free energy market has contributed to more consumers having access to contracts based on clean and renewable sources.

It is also important to highlight that the integration of the free energy market with other international markets offers opportunities for Brazil to improve its competitiveness in the global energy sector. The free market can become a facilitator for attracting foreign investment, especially in areas of technological innovation and renewable energy. Joining global markets, such as the European Union, and integrating with international initiatives, such as the Paris Agreement, can position Brazil as a leader in sustainability in the energy sector, attracting not only investments, but also offering national consumers access to new technologies and better energy trading conditions.

The free energy market in Brazil is a field of immense relevance and considerable transformations, whose benefits, such as cost reduction, greater competitiveness and incentive to the use of renewable sources, are widely recognized. However, for these benefits to be fully realized and for the market to expand in a balanced way, it is necessary to overcome structural challenges, such as adapting tariffs and ensuring security of supply. International experience offers valuable lessons, but Brazil must develop a unique model that meets its particularities. Adequate regulation, the inclusion of new consumers and the incorporation of sustainable technologies are essential steps for the free energy market in Brazil to consolidate itself as a model of efficiency and sustainability. The liberalization of the electricity sector, therefore, should be seen as an opportunity to modernize the country's energy system, generating benefits for society as a whole, promoting innovation, and aligning Brazil with global energy transition trends.

In addition to the challenges of adapting the regulatory model, the integration of new technologies into the free energy market also requires a continuous effort on the part of companies in the sector. Digital transformation in the electricity sector has been one of the pillars

for improving resource management and transparency in negotiations. Online trading platforms and energy contract management systems are becoming increasingly common, providing consumers with a clearer and more accurate view of costs, the origin of contracted energy, and the available supplier options. According to ANEEL (2023), the digitalization of the sector not only optimizes processes, but also increases efficiency in the distribution and commercialization of energy, making the system more agile and less susceptible to operational failures. Automation and the use of artificial intelligence technologies, for example, have the potential to improve demand monitoring and consumption forecasting, allowing for more efficient energy management and, consequently, helping to reduce costs.

A crucial aspect for the sustainability of the free energy market in Brazil is the expansion of renewable sources, such as solar and wind energy. The country, with its vast territorial extension and favorable climate, has great potential to generate clean and renewable energy. Data from ABSOLAR (2024) show that Brazil has achieved significant growth in installed solar generation capacity in recent years, with a forecast of an increase of 30% in the next five years. This growth is not only a response to environmental needs, but also a demand from the free market itself, which demands cheaper energy sources with less environmental impact. The growing adherence of consumers to the free market reflects the concern with sustainability, as companies are increasingly aligned with social responsibility and governance (ESG) strategies. The consumption of solar energy, for example, has been associated with not only environmental benefits, but also the attraction of investments and the strengthening of the institutional image of companies that opt for renewable sources.

However, the use of renewable sources in the free energy market also faces challenges related to the intermittency of sources such as solar and wind. These challenges are significant, as the variability in the production of these sources can generate insecurity in supply, especially in periods of low production. Therefore, Brazil must invest in energy storage technologies and integration solutions between different sources, such as hydro, solar, and wind. According to Barroso et al. (2023), energy storage, especially through batteries and other forms of accumulation, can mitigate fluctuations in renewable energy supply, ensuring that the supply is constant and stable. This type of technology is already being explored in other countries and may be one of the keys to the expansion of the free market in Brazil, as it provides greater flexibility in the electrical system and allows energy generated in periods of high demand to be stored and distributed in times of scarcity.

In addition to the concern with supply and demand, another critical point is the issue of governance in the electricity sector. Free market regulation requires a delicate balance between

promoting competition and protecting consumers, especially the most vulnerable. ANEEL, together with the Ministry of Mines and Energy (MME), has been looking for ways to mitigate the impacts of the migration of consumers to the free market, ensuring that captive consumers are not penalized. The restructuring of tariffs and the creation of compensation mechanisms, such as cross-subsidies and social tariffs, have been discussed as viable alternatives to prevent residential and small consumers from bearing the costs of the system. In addition, the government must promote educational campaigns to clarify the advantages and risks of the free market, facilitating the transition to this model and allowing more consumers to migrate in a conscious and informed way.

Another important aspect in the process of evolution of the free energy market in Brazil is the role of consumers in managing demand and optimizing energy use. Awareness about the efficient use of electricity, whether through the adoption of more efficient technologies or through changes in consumption habits, has been pointed out as an important strategy for reducing costs in the free market. Demand management solutions, such as the use of real-time monitoring apps and systems, allow consumers to adjust their energy consumption according to prices and availability, contributing to the efficiency of the system as a whole. In addition, the implementation of smart grid systems (smart grids) can facilitate this integration between consumers and suppliers, allowing the exchange of information on energy consumption and supply in a more agile and accurate way.

With the increased interest in renewable sources and the digitalization of the sector, the free energy market has attracted not only industrial and commercial consumers, but also investors from the financial sector. The energy market has become a new field of investment opportunities, especially in solar and wind energy, as well as new storage and energy efficiency technologies. According to a study by Tolmasquim (2022), the financial market has shown growing interest in financing renewable energy projects, driven by the prospect of a more sustainable energy matrix and the global pressure for more responsible business practices. The entry of investors into the sector can generate a positive cycle of financing and innovation, further accelerating the energy transition process in Brazil. The experience of other countries, such as Germany and Denmark, shows that investments in the renewable sector have the potential to create new markets and generate jobs, as well as reduce global energy costs.

The liberalization of the energy sector in Brazil, with the increase in the number of consumers in the free market, is also leading to a greater diversity of products and services offered in the market. Competition among suppliers has encouraged the creation of new energy contract offers, many of them customized to meet the specific needs of consumers. This

includes contracts based on renewable sources, options to purchase energy at fixed or variable prices, and even the offer of integrated solutions, which include the installation of energy generation systems at the consumer's site, such as solar panels. Competition has been positive, as it stimulates innovation and improves the quality of the service provided, benefiting the end consumer. However, regulation must follow this process, ensuring that offers are transparent and fair, and that contract conditions are clear and accessible.

In order for Brazil to consolidate the free energy market as a sustainable and efficient model, it will be necessary to continue improving public policies aimed at the energy transition, technological innovation, and the inclusion of new consumers in the free market. The growing demand for renewable energy, associated with the digitalization of the sector and the greater participation of the financial market, creates a positive scenario for the future of the free energy market in the country. However, regulation must continue to evolve to ensure equity among consumers and promote the inclusion of all segments of society. The balance between competition, sustainability, and security of supply will be crucial for the free energy market to consolidate itself as one of the main tools for modernizing the Brazilian electricity sector, benefiting both companies and consumers and contributing to long-term environmental sustainability.

CONCLUSION

The evolution of the free energy market in Brazil represents a significant milestone in the electricity sector, being a reflection of the economic, technological and environmental changes that the country is facing. Over the past few years, Brazil has been striving to create conditions to expand the participation of consumers in the free energy market, providing more freedom of choice over its suppliers and, consequently, generating competition that tends to reduce costs and increase efficiency in the use of electricity. This change reflects a global movement towards the liberalization of the energy market, which aims to increase competitiveness, promote the use of renewable sources and improve the quality of service provided to consumers.

However, for the free energy market to reach its full potential, it is necessary for Brazil to face a series of structural challenges. The adaptation of the regulatory sector is fundamental, since the current model was structured based on a centralized and controlled approach, which requires significant changes to ensure that the transition to a more competitive model is effective and beneficial for all consumers, including small ones. The regulation of the sector must be dynamic, following the transformations of the market, while preserving the principles of security of supply and accessibility. The inclusion of smaller consumers and the creation of affordable

tariff solutions are crucial aspects to ensure that the democratization of energy, with the expansion of the free market, occurs in a balanced way, without increasing inequality between different groups in society.

The expansion of the use of renewable sources, such as solar and wind energy, also plays a key role in the evolution of the free energy market. Brazil, with its vast areas available for the use of renewable natural resources, has the potential to be a global leader in clean energy generation. The incorporation of these sources into the free market not only contributes to the reduction of greenhouse gas emissions, but also provides an opportunity for long-term cost reduction. However, the intermittency of renewable sources is a challenge that requires technological innovation, especially in energy storage systems. The development and adoption of technologies such as long-life batteries are key to ensuring the continuity of energy supply, even in periods when renewable production is not sufficient to meet demand.

In parallel to these issues, the digitalization of the electricity sector has proven to be a fundamental ally in the process of modernization of the free market. The use of digital platforms for energy trading and the implementation of intelligent systems for consumption management have allowed for greater transparency and agility in transactions. These technologies allow consumers to monitor their spending in real time and adjust their consumption behaviors more precisely, promoting greater energy efficiency. In addition, digitalization facilitates the integration of new energy sources, such as solar and wind, into the national electricity system, optimizing the distribution and use of generation in several regions.

Even so, the free energy market in Brazil needs to face challenges related to consumer education and awareness. Many are still unaware of the advantages of migrating to the free market or are afraid of the complexity of the new contracting modalities. Educational and information campaigns are essential to demystify the free market and so that more consumers can make informed decisions about energy supply. This is especially important in the case of residential and small-scale consumers, who still represent a significant part of the captive market. The advantages of migration, such as cost reduction and the possibility of negotiating more advantageous energy contracts, need to be clearly understood and accessible to this audience.

In addition, the free energy market can contribute significantly to the sustainability of the Brazilian electricity sector. By promoting competition among energy suppliers and encouraging the use of renewable sources, it creates a more efficient environment, both economically and environmentally. The transition to this market model, however, must be closely monitored to ensure that there are no regulatory failures or abuses by suppliers. Public policies need to be

constantly reviewed and adapted so that the free market can operate in a fair and balanced way, promoting benefits for all involved and ensuring the stability of the sector.

The role of the government, regulatory agencies and companies in the electricity sector will be decisive for the transition to the free energy market to be successful. It is critical that regulators encourage innovation and competition while protecting the most vulnerable consumers. The balance between freedom of choice and consumer protection will be the great challenge for the consolidation of the free energy market in Brazil. To this end, it is necessary for Brazil to continue to invest in public policies that favor the inclusion of more consumers in the free market, with an emphasis on transparency, cost reduction, and the promotion of renewable sources.

The future of the free energy market in Brazil is promising, but it depends on a series of coordinated actions between the government, companies and consumers. The modernization of the sector, the expansion of the use of renewable sources, digitalization and consumer education are essential aspects to ensure that the free market model is effective, fair and sustainable. The transition to a more competitive and affordable energy market can bring significant benefits to the economy, the environment, and society as a whole. If well structured, the free energy market will be an important pillar in building a more sustainable and efficient energy future in Brazil, contributing to innovation in the electricity sector and aligning the country with global energy transition trends.

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