



PATHWAYS TO **TARIFF JUSTICE** IN THE BRAZILIAN ELECTRICITY SECTOR

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EXECUTIVE SUMMARY

Tariff justice is defined as “the condition in which the composition and distribution of electricity sector costs ensure universal access to energy at affordable and equitable prices.” Embedded within the broader debate on energy justice, this perspective acknowledges socioeconomic inequalities and seeks to ensure that vulnerable consumers are not disproportionately burdened, aligning with the concepts of material equality and contributive capacity. Despite the progress made in universalizing electricity access in Brazil, notably through the Luz Para Todos (LpT) Program and the country’s predominantly renewable energy matrix, challenges regarding the financial affordability of electricity persist. This is because (i) tariffs are increasingly burdened by inefficiencies or now-unnecessary subsidies; and (ii) public policies aimed at low-income consumers, such as the Social Electricity Tariff (TSEE), require improvements.

Indeed, the burden of electricity tariffs on household budgets has been exacerbated by the accelerated growth of sectoral charges and taxes, which accounted for about 37% of consumer bills in 2023. The Energy Development Account (CDE), the main sectoral charge, has more than doubled over the past decade, driven by the expansion of subsidies — even for incentivized sources that have already become competitive. When adding to the CDE other subsidies, such as the Energy Reserve Charge, the PROINFA program, and incentives for Micro and Mini Distributed Generation (MMGD), the total amount surpassed R\$ 60 billion in 2024, further pressuring tariffs. This increase disproportionately affects low-income families, for whom the cost of electricity can represent up to 18% of monthly income and more than 23% of the final price of the basic food basket. Beyond the direct effects, high energy costs also impact the competitiveness of Brazilian industry and the economy as a whole, making the revision of charges and subsidies urgent to ensure fairer and more sustainable tariffs.

CHALLENGES IN NUMBERS

37%

of the electricity bill is made up of charges and taxes (2023)

BRL60
billion

in subsidies put pressure on electricity tariffs (2024)

18%

Electricity costs represent up to **18% of the monthly** income of low-income households

BRL10
billion/year

is the loss caused by non-technical losses (energy theft)

In this context, it is important to mention that the tariff structure of the Brazilian Electricity Sector (SEB) presents significant distortions in cost allocation, penalizing captive consumers, especially those in low voltage. The migration of large consumers to the free market (ACL) and the growth of MMGD have overloaded the regulated market (ACR), resulting in higher and less efficient tariffs. The CDE charge, which will exceed R\$ 40 billion in 2025, follows an allocation criterion that disproportionately burdens low-voltage consumers, while subsidies to MMGD and self-production continue to grow, shifting costs onto other consumers, mainly smaller ones. Overcontracting imposed on distributors due to migrations exacerbates this scenario.

Moreover, **the lower the population's ability to pay electricity bills, the higher the propensity for electricity theft and default.** In other words, the increase in non-technical losses, mainly due to energy theft, emerges as a consequence of tariff injustice. Conversely, as losses rise, the cost of providing services increases, leading to higher tariffs.

Thus, non-technical losses, particularly high in regions of greater socioeconomic vulnerability, also become a cause of tariff injustice, creating a self-reinforcing “cause and effect” vicious cycle.



In 2023, the cost of non-technical losses totaled around R\$ 10 billion, with part of this amount being passed onto tariffs and the rest absorbed by concessionaires, impacting their financial sustainability. It is important to note that the problem is expected to worsen in the future due to factors external to the electricity sector,

mainly the growing expansion of areas dominated by organized crime, increased urban informality, and the worsening impacts of climate change, which intensify heatwaves and sharply increase the need for air conditioning in socioeconomically complex regions.

In this context, the Social Electricity Tariff (TSEE) remains the main mechanism to combat energy poverty in Brazil, offering graduated discounts on electricity bills for low-income families enrolled in the Cadastro Único (CadÚnico), the federal government's registry for selecting and including low-income families in social programs. However, the policy presents limitations that reduce its effectiveness. First, millions of eligible families do not access the benefit due to bureaucratic barriers and registration difficulties. Moreover, the TSEE does not adequately consider regional heterogeneities and consumption patterns. Given this scenario, there is room to expand the program's coverage by adjusting discounts to reflect the country's socioeconomic and regional diversity. Recently, regulatory innovations such as those established by Decree No. 12.068/2024 have complemented the TSEE, allowing tariff differentiation in regions where non-technical losses are high, often the areas with greater socioeconomic deficiencies.

Additionally, besides rising temperatures, the effects of climate change pose concrete challenges to the electricity sector, making extreme weather events increasingly frequent and severe. To ensure the resilience of the electricity system while mitigating impacts on tariff affordability, a balanced planning approach between structural, complementary, and resilience investments is essential. The rising costs associated with climate adaptation affect the entire sector's supply chain, making it necessary to strengthen infrastructure with innovative technologies and advanced monitoring models.

Finally, a closer analysis reveals that the escalation of tariff costs in Brazil is not only the result of technical and economic factors but also of growing political and institutional interference in the electricity sector. The proliferation of subsidies without clear technical criteria, the inefficient allocation of costs, and the asymmetry among consumers overload

tariffs, deepening tariff injustice. It is essential that all consumers share the same costs and benefits within the sector. Currently, the most vulnerable consumers bear costs not paid by others and do not benefit from advantages such as the right to electricity bill portability.

Moreover, this environment is compounded by the encroachment of the Legislature into competences traditionally reserved for the Executive, imposing decisions regarding energy planning and the contracting of specific sources, which compromises regulatory predictability and economic efficiency. Recent examples, such as the expanded subsidies to MMGD and the attempts to include "pork-barrel amendments" ("jabutis") into legislative bills, illustrate this worrying trend.



Given the challenges presented, we recommend the following guidelines to mitigate tariff injustice in the Brazilian Electricity Sector. These examples are not exhaustive, as many measures are needed to bring SEB closer to economic rationality, seize new development opportunities, and better adapt the sector to the impacts of climate change - consequently reducing the tariff injustices that burden Brazilian consumers.

WE PROPOSE THE FOLLOWING ACTIONS TO MITIGATE TARIFF INJUSTICE:

- 01** Strengthen the institutions of the Brazilian Electricity Sector;
- 02** Improve and disseminate indicators to diagnose energy injustices;
- 03** Increase transparency in electricity bills;
- 04** Reduce tariffs and rationalize overcharges;
- 05** Improve the allocation of electricity sector costs;
- 06** Modernize the tariff structure and enhance economic signals;
- 07** Reform the Social Electricity Tariff (TSEE);
- 08** Enable the economically sustainable opening of the free market to low-voltage consumers;
- 09** Combat electricity theft with a holistic approach;
- 08** Adapt the electricity sector to the effects of climate change.

The implementation of the recommendations proposed in this report becomes even more critical in the current global context, in which Brazil assumes a central role in discussions on energy transition and social justice. **With the upcoming COP30 and its recent leadership role within the G20,** the country has the opportunity to consolidate an agenda that not only promotes the decarbonization of the global energy matrix but also ensures that the benefits of this transition reach the entire population, especially the most socioeconomically vulnerable. For this to happen, tariff justice must be recognized as a fundamental pillar of this transformation.