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Energy inSight



CAMPOS MELLO ADVOGADOS





Editorial

With the intensification of the energy transition, the reorganization of global supply chains for strategic inputs, and the advancement of new regulatory fronts in the electricity sector, the continuous monitoring of regulatory, institutional, and geopolitical developments affecting agents in the energy and natural resources sector has become increasingly relevant.

In this context, this edition of the Energy inSight Newsletter brings together discussions that reflect some of the main challenges currently faced by the Brazilian electricity sector, particularly with respect to supply security, infrastructure expansion, regulatory predictability, and the adaptation of contracts and business models to an environment in constant transformation.

This edition begins with an analysis of the **developments related to the 2026 Capacity Reserve Auction in the Form of Power** (“LRCAP 2026”), a relevant mechanism to ensure the availability of power in the National Interconnected System (“SIN”) and to strengthen the reliability of electricity supply. The article addresses the recent history of the auctions, the changes introduced to the contractual model, the results of the two phases held in March 2026, and the discussions initiated before the Brazilian Federal Court of Accounts, particularly regarding the methodology for setting price caps, the competitiveness of the auction, tariff impacts, and the systemic efficiency of the procurement.

The Newsletter then examines the **strategic role of critical minerals and rare earths in global energy geopolitics**. In a scenario where technologies essential to the energy transition, electromobility, renewable generation, artificial intelligence, and the defense industry depend on these inputs, the concentration of refining and processing activities in a limited number of countries has gained significant relevance. The article analyzes the vulnerabilities arising from this concentration, the responses adopted by Western countries through supply diversification agreements and the financing of strategic projects, as well as Brazil’s unique position, given its significant reserves and increasingly relevant role in the global race for more resilient and less dependent supply chains.

Also from an international perspective, this edition addresses the **impacts of the war scenario on offshore shipping**, especially in the transportation of oil, liquefied natural gas, and other strategic cargoes. The article discusses the effects of restrictions on sensitive routes, such as the Strait of Hormuz and the Bab el-Mandeb Strait, on energy prices, freight rates, insurance, logistics deadlines, and commodity trading contracts. It also analyzes contractual risk mitigation mechanisms, including force majeure clauses, war risk surcharges, specific war risk provisions, and clauses aimed at allocating liabilities in international maritime operations.

Within the domestic regulatory framework, the Newsletter examines **Public Consultation No. 42/2025**, launched by the Brazilian Electricity Regulatory Agency (“ANEEL”), **concerning the improvement of the rules for access and connection of electromobility facilities to the distribution system**. This discussion is particularly relevant considering the growth of the electrified fleet, the expansion of charging infrastructure, and the challenges faced by distribution companies in planning and operating the grid. The article presents the current regulatory framework, with emphasis on ANEEL Normative Resolution No. 1,000/2021, and analyzes the proposals concerning the flexibilization of connection conditions, the creation of greater transparency mechanisms, availability maps, public connection queues, and the improvement of registration databases applicable to charging stations.

Finally, this edition discusses **Public Consultation No. 210/2025**, launched by the Ministry of Mines and Energy (“MME”), to address the **new design for financial compensation to wind and solar photovoltaic generators affected by curtailment events in the SIN**. The article provides context on the regulatory and judicial evolution of the matter, including the conversion of Provisional Measure No. 1,304/2025 into Law No. 15,269/2025, and analyzes the draft Commitment Agreement submitted to public consultation, with particular attention to eligibility criteria, the distinction between compensable and non-compensable events, data governance, assessment by the National Electric System Operator (“ONS”), calculation by the Brazilian Electricity Commercialization Chamber (“CCEE”), and the effects of the waiver and discontinuance of disputes by adhering agents.

We wish you all good reading!

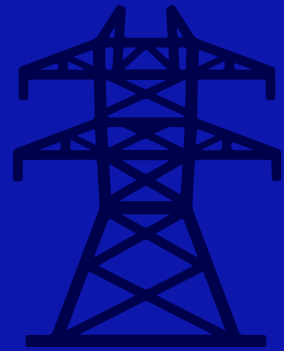
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Analysis of the LRCAP (Capacity Reserve Auctions in the Form of Power)

Including outcomes and potential
developments at the TCU



The Capacity Reserve Auctions in the Form of Power (“LRCAP”) are designed to ensure the continuity of electricity supply, representing a strategic initiative to safeguard the security of the Brazilian energy matrix. The LRCAP framework focuses on contracting capacity to ensure the availability of power and/or energy required by the National Interconnected System (“SIN”), so that consumers can be served at any time, reliably and safely, even during critical periods or moments of intermittency from renewable sources.



I. Background and key features

The legal basis for the trading of electricity and for capacity reserve auctions is set out in Law No. 10,848 of March 15, 2004 and in Decree No. 10,707 of May 28, 2021.

The aforementioned law and decree establish that electricity trading takes place among concessionaires, permittees and authorized parties for electricity services and facilities, as well as between such parties and their consumers, through regulated or free-market contracting.

Capacity reserve, in the form of power, must be contracted through auctions held by the Brazilian Electricity Regulatory Agency (“ANEEL”), while the Ministry of Mines and Energy (“MME”) is responsible for defining the total amount of capacity reserve to be contracted, based on studies prepared by the Energy Research Office (“EPE”) and by the National Electric System Operator (“ONS”).

It is worth noting that, alongside the capacity reserve auctions, there are also energy auctions and storage auctions. Energy auctions were created in 2004 and are the main contracting instrument in the electricity sector. Through these auctions, distribution companies enter into long-term contracts to secure supply to consumers.



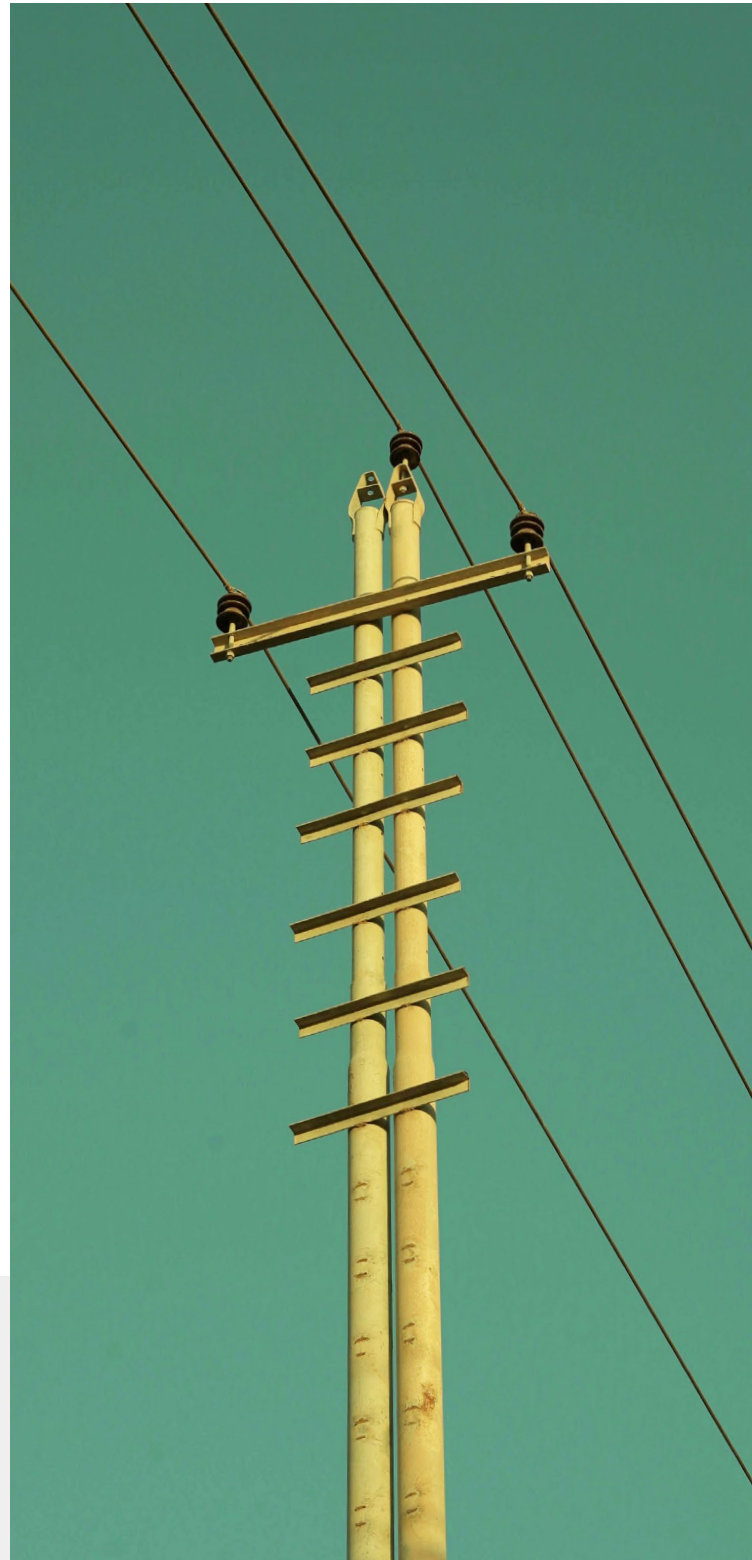
Energy auctions were created in 2004 and are the main contracting instrument in the electricity sector.

Storage auctions follow a logic similar to that of the LRCAP, but are specifically focused on storage systems, namely batteries, capable of providing energy and power during critical moments. The first auction of this kind in Brazil is expected to take place in 2026. Public Consultation No. 202/2025 has already been carried out, open from November 10, 2025 to December 1, 2025, gathering contributions from sector participants on the draft of the regulatory ordinance for the auction.

In contrast to traditional energy auctions, in which distribution companies contract energy volumes to meet their projected annual market consumption, the LRCAP prioritizes the contracting of power, with a focus on expanding the operational flexibility of the system. That is, in the LRCAP, what is purchased is not energy itself, but rather the availability of generating units to produce energy when needed. This feature is particularly relevant given daily variations in consumption and fluctuations in generation from renewable sources, such as wind and solar, which are inherently intermittent.


Contracted power resources can be dispatched on demand, in line with system requirements, and operations become more efficient as constraints associated with the structural rigidity of the electricity system are reduced. In this context, the power contracted under the LRCAP must remain continuously available for dispatch by the National Electric System Operator (“ONS”), with the possibility of rapid adjustment throughout the day as operational conditions may require.

Operational efficiency is enhanced by mitigating the limitations associated with the structural rigidity of the electric power system.







II. Background of the 2026 LRCAP

2021  **The first edition of the LRCAP, held in 2021**, aimed to contract electric power and the energy associated with inflexible generation from new or existing electricity generation projects, based on thermal power plants, accompanied by the issuance of an authorization or the adjustment of an existing concession prior to the auction.

The previous edition was held on December 21, 2021, contracting 4,632.88 MW (four thousand six hundred and thirty-two point eighty-eight megawatts), with an average discount of 15.34% (fifteen point thirty-four percent). Supply is scheduled to begin on June 1, 2026, for a 15-year term.

In addition, a total of 17 (seventeen) thermal power projects fueled by natural gas, fuel oil, diesel oil and sugarcane bagasse were declared winners of the 2021 LRCAP. These projects are held by the following companies: Azulão Geração de Energia S.A.; Companhia Energética Candeias; Companhia Energética Potiguar; Delta Geração de Energia – Investimentos e Participações Ltda.; Gera Maranhão – Geradora de Energia do Maranhão S.A.; Linhares Geração S.A.; Parnaíba II Geração de Energia S.A.; Petróleo Brasileiro S.A. – Petrobras; Portocem Geração de Energia S.A.; Termopernambuco S.A.; Termoelétrica Viana S.A.; Beta Produtora de Energia S.A.; and Usina Termelétrica Lençóis Paulista SPE S.A.

2024  Following the 2021 LRCAP, on **March 7, 2024**, the MME issued Ordinance No. 774/2024, releasing, for Public Consultation, the draft regulatory ordinance for the new LRCAP, originally scheduled for August of the same year.

2025  However, following the contributions received in that Public Consultation, on **January 3, 2025**, Regulatory Ordinance GM/MME No. 97/2025 was issued, amending some of the guidelines established in the previous ordinance and rescheduling the auction to June 27, 2025.

Nevertheless, on April 4, 2025, the MME revoked the ordinances setting forth the auction guidelines and cancelled the holding of the new LRCAP in 2025. The decision was driven by court disputes among the groups involved in the auction.

In summary, Eneva, through its thermal-power subsidiaries, obtained a preliminary injunction suspending the so-called “Factor A,” a parameter of the auction linked to plant flexibility — i.e., the time required to respond to the ONS dispatch call — which would have made projects with longer ramp-up times less competitive. The injunction prompted challenges from other groups in the electricity sector. In that context, the MME decided once again to postpone the LRCAP to 2026.

2025

On August 22, 2025, the MME issued Ordinances MME No. 859/2025 and 860/2025, whose purpose was to release, for the purposes of Public Consultations No. 194/2025 and 195/2025 (subsequently published on October 24, 2025), the draft regulatory ordinances for the two phases of the 2026 LRCAP. The contribution period for both Public Consultations ran from August 22, 2025 to November 12, 2025.

Regulatory Ordinance No. 118/2025 governed the participation of natural-gas thermal power projects, both new and existing, as well as coal-fired plants already in operation and hydropower expansion projects, grouped under the heading “2026 Capacity Reserve Auction in the Form of Power – 2026 LRCAP – Natural Gas TPPs, Coal-Fired TPPs and HPPs.”

Regulatory Ordinance No. 119, in turn, covered existing thermal power plants fueled by fuel oil, diesel oil and biodiesel, under the “2026 Capacity Reserve Auction in the Form of Power – 2026 LRCAP – Oil and Biodiesel TPPs.” Biodiesel plants, initially excluded during the public-consultation stage, were ultimately included in the scope of the auction in the final regulation.

2026

Accordingly, the two phases of the 2026 LRCAP were held on **March 18, 2026 and March 20, 2026**, respectively. The auction had been awaited by the sector, considering that the only previous auction of this kind in Brazil had taken place in 2021, as well as the multiple attempts to hold new auctions since 2024, which were cancelled and resulted in court disputes.

The 2026 LRCAP also introduced a positive innovation on the contractual side, as a contractual structure more closely aligned with the operation of the power system was adopted, replacing more rigid models. The result is greater efficiency, better use of available resources and long-term savings. In general, contracts had previously been structured on an energy basis, with mandatory minimum generation and lengthy continuous-operation requirements. These features drove the dispatch of thermal power plants even when cheaper sources were available, raising the overall cost of the system.

The contractual model adopted in the 2026 LRCAP corrected this distortion by contracting power subject to flexibility requirements, so that plants are dispatched only when needed. This change lowers operating costs, improves the efficiency of thermal-plant dispatch and increases the system’s ability to integrate renewable sources.



III. LRCAP results



Considering the two phases combined, the 2026 LRCAP resulted in the contracting of approximately 19.5 GW of available capacity. The impact on the expansion of available power supply in the SIN was significant, as the contracted volume is material and represents nearly 10% of the current installed capacity of the Brazilian generation fleet, which, according to ONS data, stands at 249,497 MW.

III.1. First phase (March 18)

In the first phase of the auction, 100 plants were selected out of 330 registered projects, totaling approximately 29,686 MW of installed capacity and 18,981 MW of capacity effectively contracted. The installed-capacity figure corresponds to the sum of the nameplate capacity of all generating units of the projects — i.e., the maximum energy they could produce if operating at 100% of capacity simultaneously. The contracted-capacity figure, in turn, equals the amount of power the generator commits to make available to the SIN and that is effectively secured by the contract signed after winning the auction.

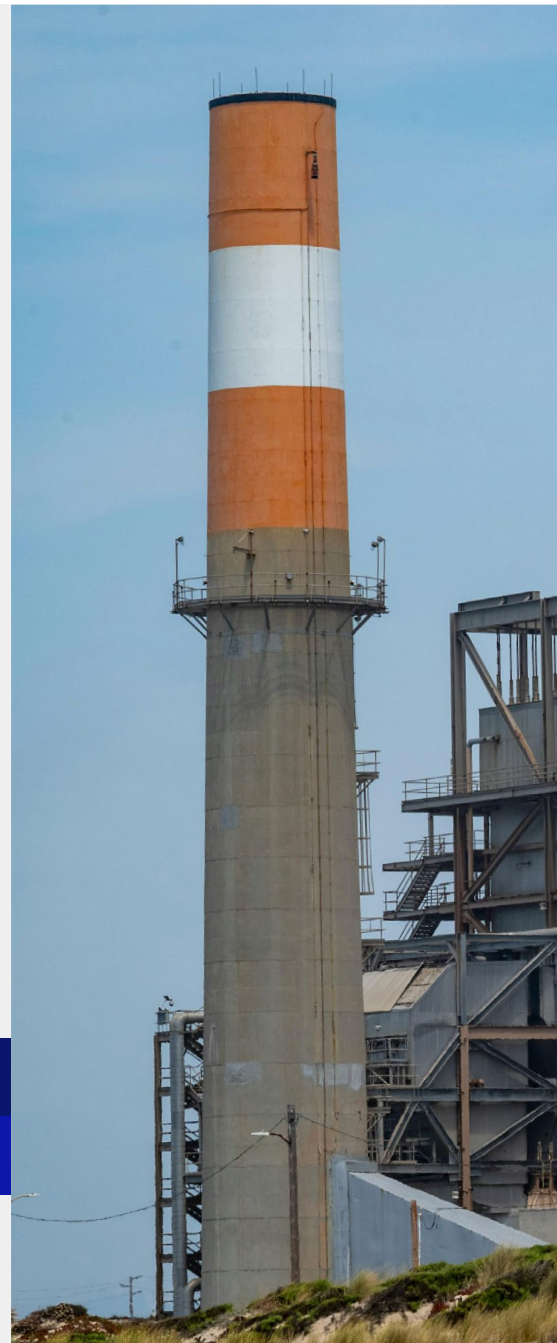
In this phase of the 2026 LRCAP, approximately 86% of the winning projects were thermal power plants, predominantly natural-gas-fired, with the remainder split between hydropower plants and coal-fired generation. The total revenue associated with the contracts reaches approximately R\$515.7 billion, with expected investments of around R\$64 billion and estimated savings of R\$33.6 billion, with an average discount (the percentage difference between the price cap and the winning bid) of 5.5%.

In this phase, 8 power products were traded — that is, the winners' commitment to deliver electric-power availability in megawatts. As provided in Auction Notice No. 2/2026-ANEEL, two (2) categories of power products were offered:

(i) Thermal Power Products (“POTT”); and

(ii) Hydropower Power Products (“POTH”)

Of the total above, six (6) are POTT and the remaining two (2) are POTH.



The supply start dates and terms of the POTT and POTH products are set out in section 1.1 of Auction Notice No. 2/2026-ANEEL, as described below. The winners of each auctioned product are also shown below.

#	Power Products	Term Start	Term End	Number of Projects	Winning Companies
1	POTT 2026	08/01/2026	07/31/2036	10	Eneva S.A.; J&F Investimentos S.A.; Petróleo Brasileiro S.A. – Petrobras; UTE Paulínia Verde S.A.; and UTE Norte Fluminense S.A.
2	POTT 2027	08/01/2027	07/31/2037	4	Companhia Energética do Jaraguá; Copel Geração e Transmissão S.A.; FDA Geração de Energia Elétrica S.A.; and UHE São Simão Energia S.A.
3	POTT 2028	10/01/2028	09/30/2038 for existing projects 09/30/2043 for new projects	51	UEG Araucária S.A.; Centrais Elétricas Paraibanas S.A. – EPASA; J&F Investimentos S.A.; Petróleo Brasileiro S.A. – Petrobras; and other winners
4	POTT 2029	08/01/2028	07/31/2039 for existing projects 07/31/2044 for new projects	22	Origem Energia Pilar S.A.; Eneva S.A.; Termog SPE Ltda.; and other winners
5	POTT 2030	08/01/2030	07/31/2040 for existing projects 07/31/2045 for new projects	N/A	No bids received during the auction.
6	POTH 2030	08/01/2030	07/31/2045	4	Companhia Energética do Jaraguá; Copel Geração e Transmissão S.A.; FDA Geração de Energia Elétrica S.A.; and UHE São Simão Energia S.A.
7	POTT 2031	08/01/2031	07/31/2041 for existing projects 07/31/2046 for new projects	8	Eneva S.A.; Petróleo Brasileiro S.A. – Petrobras; Pecém II Geração de Energia S.A.; Itaqui Geração de Energia S.A.; and Usina Termelétrica de Lins S.A.
8	POTH 2031	08/01/2031	07/31/2046	1	Axia Energia Nordeste S.A.

III.2. Second phase (March 20)

In the second phase of the 2026 LRCAP, which covered existing thermal power plants fueled by fuel oil, diesel oil and biodiesel, the average price recorded was R\$831,251.52 per MW/year, corresponding to a 50.14% discount against the established price caps. The discount level was considered high, with estimated savings of R\$1.83 billion against the initial values. One factor that may help explain this outcome is the smaller volume of energy traded relative to the first phase, which resulted in heightened competition among the participating projects and, consequently, a larger average discount.

It is also worth noting that high international natural-gas prices weighed on the competitiveness of gas-fired plants, favoring the contracting of oil-fired thermal units in the final phase. Given the high operating cost of gas-fired plants, the price cap set out in Auction Notice No. 3/2026-ANEEL proved unattractive for new projects or contract renewals on gas, favoring sources with lower upfront capital costs, even where fuel costs are higher. Consequently, oil-fired plants, including coal and diesel, recorded average prices between R\$800 and R\$900/MWh, compared with lower levels for hydropower (between R\$400 and R\$500/MWh) and for biomethane plants (around R\$300/MWh).

In this phase, three power products were traded, all of them POTT. Their supply start dates and terms are set out in section 1.1 of Auction Notice No. 3/2026-ANEEL, as described below. The winners of each auctioned product are also shown below.

#	Power Products	Term Start	Term End	Number of Projects	Winning Companies
1	POTT 2026	08/01/2026	07/31/2029	3	Companhia Energética Candeias; Petróleo Brasileiro S.A. – Petrobras; and Usina Xavantes S.A.
2	POTT 2027	08/01/2027	07/31/2030	1	Petróleo Brasileiro S.A. – Petrobras
3	POTT 2030	08/01/2030	07/31/2040	2	Petróleo Brasileiro S.A. – Petrobras; and Usina Xavantes S.A.

Thus, based on the data from the two phases of the 2026 LRCAP set forth above, although the auction was considered historic in terms of the volume contracted, the average discount against the price cap was deemed low, particularly when looking at the first phase.

Accordingly, the 2026 LRCAP was received with mixed views by the energy sector, with positive aspects, mainly related to energy security, but also negative aspects linked to consumer cost and regulatory uncertainty, which will be addressed below.



IV. Suspension request by the Federal Court of Accounts

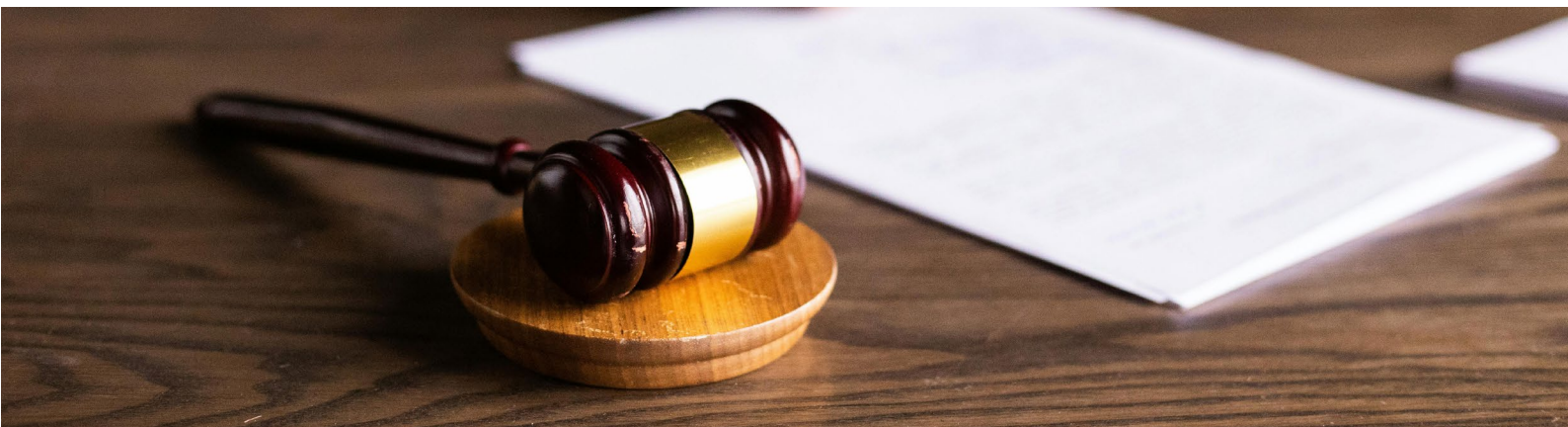
On March 19, 2026, between the two phases of the 2026 LRCAP, the Public Prosecutor’s Office at the Federal Court of Accounts (“MPTCU”) requested the suspension of the second phase of the auction. The petition, signed by Deputy Prosecutor-General Lucas Furtado, requested that the auction be postponed by 30 days, to enable a technical reassessment of the auction parameters.

The body also requested the suspension of the results of the first phase, held the previous day, to prevent the consolidation of potentially inefficient contracting, given that the price caps were very high — resulting in a low average discount, since with such high caps the bids submitted by the winners would be close to the price cap. The MPTCU’s assessment is that the first phase exposed the structural weaknesses of the model adopted in the LRCAP, considering that the mix of contracted projects skewed heavily toward thermal generation and concentrated on a few economic groups, such as Eneva, Petrobras and Âmbar Energia.

Based on the foregoing, the MPTCU requested that the Court of Accounts order the MME and ANEEL to revise the methodology for setting the price caps, to reassess the auction’s competitive conditions and to present a detailed analysis of the tariff impacts and the systemic efficiency of the contracting.

Subsequently, on March 20, 2026, the reporting Justice analyzed one of the suspension requests filed in the proceeding and decided not to halt the auction. In support of the decision, the Justice considered the volume already contracted in the first phase of the 2026 LRCAP, close to 19 GW, along with the technical information on price caps and the fact that the schedule had not yet ended, with adjudication and homologation expected for May 2026. On that basis, the Justice concluded that the risk associated with a suspension outweighed, at that moment, the grounds presented for granting the precautionary measure, denying the request and ordering the continuation of the technical reviews.

Accordingly, in light of the decision above, the second phase took place as scheduled on March 20, 2026, contracting approximately 501 MW, with a predominance of oil-fired thermal projects, especially diesel, increasing the total volume contracted.





V. Appeal filed with ANEEL

On March 23, 2026 — that is, after both phases of the 2026 LRCAP had been completed — Âmbar Energia filed an appeal with ANEEL, seeking the annulment of the results of the POTT 2026 and POTT 2027 contracted during the first phase of the auction.

The company alleges that it was harmed by a misclassification of UTE Araucária II and by a block in the bidding system for UTE Santa Cruz, both thermal plants. According to the appeal, UTE Araucária II — a project the company considered new — was ultimately contracted as an existing plant. As a result, the project was allocated to a category with a lower price cap and a shorter contract term.

As to UTE Santa Cruz, it is worth noting that the project includes an expansion component that depends on the existing structure to operate. During the auction, Âmbar Energia's strategy was to sell the expansion capacity in POTT 2026 and the original-structure capacity in POTT 2027. However, after winning the POTT 2026 round, the auction system did not allow the same project to submit bids in POTT 2027.

In this context, Âmbar requests that POTT 2026 and POTT 2027 be cancelled and the rounds re-run, which would require all winners to submit new bids. Should the request be denied, the company alternatively asks to be allowed to perform only part of the contracted volume without incurring any penalty.

To date, ANEEL has not yet begun reviewing the case; however, the appeal heightens the degree of uncertainty in the sector, which had appeared to subside after the successive postponements and format changes that preceded the 2026 LRCAP. Concerns therefore remain about a re-tender or delays in signing the contracts, given the need for the winners to accelerate investments for the development of the works or interventions within the contractual deadlines, since the first new plants are scheduled for delivery in October 2028.



VI. Impacts on end consumers and the environment

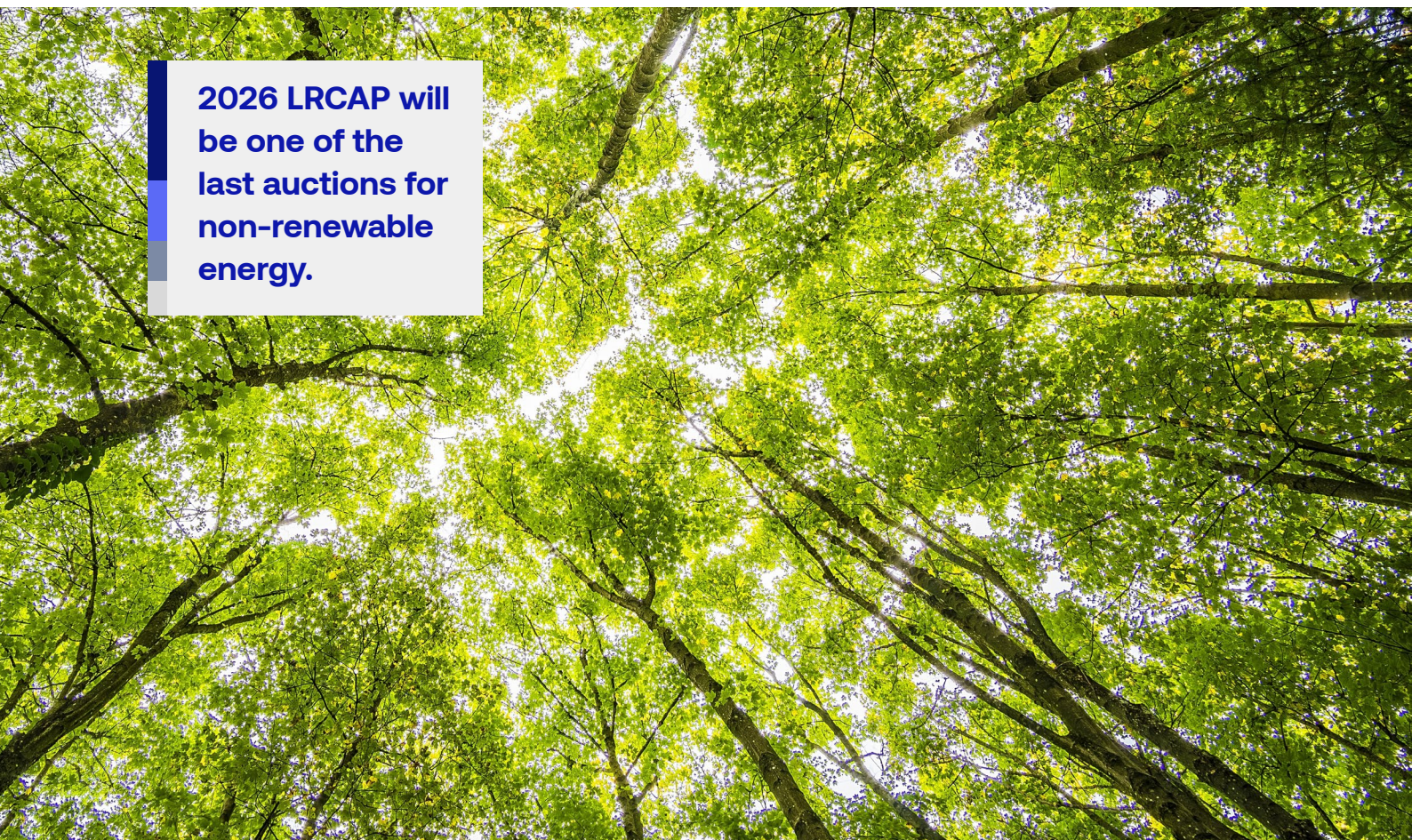


The National Institute for Clean Energy (“INEL”) filed a challenge against the 2026 LRCAP, based on the predominance of non-renewable sources in the auction. The Institute also presented calculations indicating potential impacts on consumers ranging from R\$190 billion to R\$510 billion over 10 years. The petition was denied by ANEEL.

Likewise, the Arayara International Institute (“IIA”), which is active in climate and environmental litigation, criticized the priority given to fossil-fuel plants and stressed that, of the 100 winning projects in the first phase of the 2026 LRCAP, only 5 are hydropower, while 90 are natural-gas thermal plants, 3 are coal-fired and 2 are biogas-fueled.

The IIA also argues that coal-fired plants lack the flexibility needed to meet the function of guaranteeing energy at peak demand, particularly in the early evening. The argument relies on ONS data indicating that the dispatch time for such plants can take up to 8 hours.

Conversely, Alexandre Silveira, the Minister of Mines and Energy, stated that he believes the 2026 LRCAP will be one of the last auctions for non-renewable energy.



2026 LRCAP will be one of the last auctions for non-renewable energy.

VII. Conclusion

Despite the progress observed, it is important to emphasize that the post-2026-LRCAP landscape, while reinforcing the reliability of the system, implies an increase in the average cost of thermal generation, owing to greater reliance on alternative fuels. Added to this is sensitivity to logistical factors, since possible blockages or operational constraints — such as disruptions to maritime transport — may put pressure on the costs of plants fueled by imported liquid fuels. The predominance of coal- and oil-fired plants will prevail as long as the inefficiency in immediately meeting the system's needs and the insufficient storage of natural gas itself in a high-price market remain unresolved.

Furthermore, as noted above, the results of the 2026 LRCAP were received with mixed views by the sector. While there are optimistic assessments, particularly regarding energy security, there are also negative aspects, considering the auction's potential impact on the final price of energy and the legal uncertainties that arose both before and after the 2026 LRCAP. Even though the contracted volume of power is sufficient to avoid physical-delivery problems, risks remain of higher production costs that may be passed on to the final consumer.

The predominance of gas-fired thermal projects made the auction the largest thermal auction ever held in the country, highlighting the limited availability of alternative supply in the electricity system. Despite the significant volume, the level of competition was modest, given that only about 12% of registered projects were effectively contracted. This scenario directly influenced the low average discount recorded in the first phase of the 2026 LRCAP. The concentration of a high volume of energy traded in the first phase resulted in less competition and, consequently, reduced the discount.



The conclusion of the 2026 LRCAP signals a potential shift in the country's energy-insecurity outlook, responding to an existing expectation in the sector for greater predictability of supply. The configuration observed in the auction contributes not only to mitigating current challenges, such as possible disruptions in natural-gas supply, but also to providing greater predictability and preparedness for potential future constraints, such as interference along LNG routes.

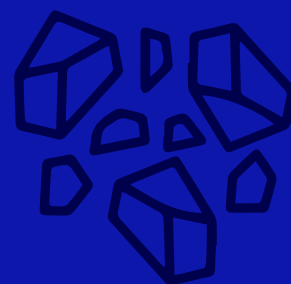
In light of all the above, although the LRCAP was held on schedule and has not been suspended to date, the ongoing discussions before the TCU and the appeal filed by Âmbar before ANEEL keep in place a meaningful environment of regulatory uncertainty.

The combination of these factors creates legal uncertainty for the winning agents, who have already begun structuring their projects based on the auction's results, including investment decisions, financing arrangements and implementation planning. Any subsequent revisions or challenges to the auction parameters could affect regulatory predictability and the stability of the originally established conditions, with potential implications for the execution of the contracted projects.



Critical minerals and **rare earths**

Outlook and challenges



Critical minerals have become one of the central axes of global energy geopolitics. Securing access to these resources today is as strategic as control over oil routes was in earlier decades.

The debate, however, no longer turns on which countries hold the reserves, but on who controls processing and refining, the stage at which China holds an unprecedented concentration of capacity. According to the International Energy Agency (IEA), China is the leading refiner of 19 of the 20 strategic minerals it monitors, with an average 70% share of the global market¹.

Brazil holds a singular position in this landscape. It has the world's second-largest rare earth reserves and is the global leader in niobium. Investors from the United States, Canada, France and Australia increasingly view the country as a strategic target, though it still faces material challenges in turning reserves into industrial production and added value.

Brazil holds a singular position in this landscape. It has the world's second-largest rare earth reserves and is the global leader in niobium.

¹ Link





I. Definitions and relevance

The Energy Act of 2020 defines a "critical mineral" as:

- (i) any non-fuel mineral, element, substance or material that faces a high risk of supply-chain disruption; and
- (ii) plays an essential role in one or more energy technologies, including those that produce, transmit, store or conserve energy.

Rare earths are part of the broader critical minerals group and are its most emblematic subset: 17 metals² whose unique magnetic, optical and catalytic properties make them irreplaceable in a wide range of advanced applications.

These metals are essential to a variety of technologies and sit at the heart of the energy transition. Their use spans multiple sectors, including:

- | | |
|-------------------|---|
| Technology | <ul style="list-style-type: none"> • Essential to building data centers that underpin AI infrastructure, the manufacture of smartphones, displays, and similar devices; |
| Energy | <ul style="list-style-type: none"> • Manufacture of permanent magnets that support renewable technologies such as electric vehicles and wind turbines; • Military equipment, including guided missile systems and F-35 fighter jets; • Copper and aluminum form the backbone of power grids; • Indium, tellurium and selenium are inputs into next-generation solar panels. |

The breadth of these applications explains why governments and corporates treat the topic with growing urgency. A disruption in heavy rare earths supply could halt critical industrial chains worldwide and create simultaneous bottlenecks across multiple defense systems. It is no exaggeration to say that whoever controls these minerals today wields influence comparable to what oil conferred on the Middle East in the previous century.

<p>²</p> <p>Scandium (Sc) Promethium (Pm) Holmium (Ho)</p> <p>Yttrium (Y) Samarium (Sm) Erbium (Er)</p> <p>Lanthanum (La) Europium (Eu) Thulium (Tm)</p> <p>Cerium (Ce) Gadolinium (Gd) Ytterbium (Yb)</p> <p>Praseodymium (Pr) Terbium (Tb) Lutetium (Lu)</p> <p>Neodymium (Nd) Dysprosium (Dy)</p>	
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II. The production and processing bottleneck



The term "rare" does not refer to scarcity in nature, but to the technical and economic difficulty of extraction, refining and processing, all of which are highly costly.

Global reserves are estimated at roughly 110 million tons, with China holding around 44 million and Brazil 21 million, the first and second largest, respectively. Yet roughly 60% of the world's rare earths are mined in China, which also processes more than 90% of them. The bottleneck is structural: extreme concentration of refining and processing capacity in a single country.

Estimated
global
reserves

110

million tons



China 1st largest reserve

44 million
tons



Brazil 2nd largest reserve

21 million
tons

China's share in the refining of the main critical minerals has grown in recent years. This model is the result of decades of deliberate industrial policy: the country has built a vertically integrated extraction-refining-manufacturing chain unmatched in any other commodity. The IEA has warned that, under current policies and investment trends, this concentration will recede only marginally over the next decade.

Over the past two decades, efforts to rebuild domestic supply chains have gained traction, particularly in the United States. Mountain Pass, in California, once the world's most important rare earths mine, was effectively shut down in 2002 amid issues and Chinese competition, and resumed production in 2017. Even today, however, the U.S. lacks industrial-scale capacity to process the material extracted at Mountain Pass into finished products, and must ship intermediates abroad for refining.

The term "rare" does not refer to scarcity in nature, but to the technical and economic difficulty of extraction, refining and processing, all of which are highly costly.

Refineries, magnet plants and related facilities remain under construction. Intermediate products are routinely shipped to China and re-imported as finished magnets. China has also secured its access to overseas critical minerals by investing directly in foreign companies specialized in these resources. As a result, the Chinese have for years been not only the world's largest producers of rare earths, but also the largest importers.

The result is layered vulnerability. The U.S. imports roughly 80% of its rare earths supply from China. The European Union depends on Chinese inputs for approximately 98% of its rare earths needs. In many cases, even where mining occurs in other countries, concentrates are sent to China for refining and re-imported as finished goods or components.

An instructive parallel can be drawn with the trajectory of Brazil's oil sector. For decades, Brazil, although considered self-sufficient in crude oil, had to import refined products because its refineries lacked the capacity to process the heavy pre-salt crude. The mismatch between production and industrial transformation capacity created a structural dependency. The dynamic with rare earths is analogous, with the aggravating factor that concentration sits in a single country, not distributed across a global market.



III. The role of geopolitics

If Chinese concentration was already a recognized fact in global infrastructure discussions, what changed recently was Beijing's willingness to use this leverage explicitly. In April 2025, China imposed export controls on seven heavy rare earth elements³. In October of the same year, the Chinese Ministry of Commerce extended these restrictions to compounds, metals, equipment and related technologies⁴. From December 2025, the new rules began to cover even products manufactured outside China that contain Chinese-origin materials or use Chinese technology⁵, under the Regulation on Export Controls of Dual-Use Items.

³ Samarium (Sm), Gadolinium (Gd), Terbium (Tb), Dysprosium (Dy), Lutetium (Lu), Scandium (Sc), Yttrium (Y).
Announcement No. 18-2025

[Link](#)

See Chinese Ministry of Commerce

[Link](#)

⁴ **Announcement No. 55, 56, 57, 61 and 62**

[Link](#)

⁵ [Link](#)

⁶ [Link](#)



In response to the Chinese measures, several automotive plants worldwide were forced to scale back or temporarily suspend operations shortly after the first April controls. The IEA described 2025 as an "inflection point" in critical-minerals supply security, the moment when risks ceased to be theoretical and became real.

The Western response has organized itself around bilateral and plurilateral supply-diversification agreements. In March 2026, the United States and Japan announced a joint action plan for critical minerals, with the explicit goal of reducing dependence on China. The plan envisages the development of a plurilateral initiative with price-floor mechanisms, an instrument designed to protect investment in new sources of production, keeping them economically viable even in the face of Chinese overproduction at artificially depressed prices.

In March 2026, Washington also convened representatives of 54 nations, including Brazil, to advance a coordinated approach to supply-chain security. Argentina, Guinea, Morocco, Peru, the Philippines, the United Arab Emirates and Uzbekistan signed memoranda of understanding or framework agreements to join the critical-minerals alliance. The U.S. announced investments of USD 565 million for the extraction of light and heavy rare earths in Brazil.

In parallel, allied countries have mobilized their financing agencies. Canada, France, Australia and the United States have made public credit available for projects in jurisdictions deemed strategic, including Brazil. The logic is clear: unable to match China on refining capacity in the short term, the West is securing physical access to deposits while gradually building a parallel processing chain.

Diversification, however, has structural limits. The IEA itself recognizes that, even with current policies and investments, the share of the top three suppliers of the main critical minerals will recede only marginally over the next decade; the separation of magnetic rare earths remains a major technological bottleneck, which is why China is expected to retain roughly 80% of magnetic-rare-earth refining by 2035, supported by fully amortized infrastructure and accumulated chemical know-how.

Refining rare earths is technically complex, environmentally sensitive and requires industrial scale to be economically viable, conditions that take years, not months, to establish.





IV. Brazil's role in the global landscape

Brazil holds the world's second-largest rare earth reserves and is the leading global producer and exporter of niobium, accounting for around 80% of global supply, with the Companhia Brasileira de Metalurgia e Mineração ("CBMM") responsible for the bulk of it. The country also ranks among the leading holders of graphite, lithium, manganese, bauxite and nickel reserves, all minerals essential to the manufacture of batteries, solar panels, wind generators and electric motors.

Brazil's energy mix, diversified across hydropower, biomass, wind and solar, is one of the most renewable in the world, an attribute increasingly valued by investors applying environmental, social and governance ("ESG") criteria to allocation decisions.

Under the 1988 Federal Constitution, mineral resources, including subsoil resources, constitute property distinct from the surface land and belong to the federal government (Art. 20, IX), which also has exclusive legislative competence over mineral deposits, mines, other mineral resources and metallurgy (Art. 22, XII).

The Ministry of Mines and Energy ("MME") is responsible for setting public policies and guidelines for the mineral sector, while the National Mining Agency ("ANM") is the regulator, managing mining titles, supervising exploration and mining activities, and collecting the CFEM (Financial Compensation for the Exploitation of Mineral Resources).

In addition, the Geological Survey of Brazil ("CPRM") carries out geological mapping and identifies areas with rare earth potential, providing the technical foundation for the sector. The National Nuclear Energy Commission ("CNEN"), in turn, given the frequent association of rare earths with radioactive minerals (such as thorium and uranium), regulates and supervises the handling of these elements to ensure radiological safety.

Strategic international interest is already materializing in concrete projects. In Goiás, Serra Verde received a financing package of up to USD 565 million from the DFC (U.S. International Development Finance Corporation), the U.S. government's development-financing arm. The agreement, which includes an option for U.S. equity participation, was a milestone in bilateral cooperation on critical minerals.



In Minas Gerais, the Colossus Project, run by Australian Viridis Mining & Minerals, holds ionic-clay deposits rich in neodymium, praseodymium, terbium and dysprosium, the so-called magnetic rare earths of the future. The project received support letters for financing from Export Development Canada (up to USD 100 million) and Bpifrance Assurance Export (via its Strategic Loan Guarantee program), as well as Export Finance Australia (up to USD 50 million). Viridis's strategy is to build a processing hub free of any Chinese inputs or technology, signaling a clear intent to serve Western demand for verifiable and independent supply chains.

The Araxá Project (MG), operated by Australian St George Mining and focused on magnetic rare earths and niobium, will leverage the existing CBMM and Mosaic (the fertilizer giant) infrastructure as well as the well-mapped local geology. EBITDA is expected to approach USD 130 million per year with margins above 60%, according to the company's own estimates. Its shares rose around 390% in 2025.

Also in Minas Gerais, the Caldeira Project, run by Meteoric Resources, is considered one of the largest and most advanced ionic-adsorption-clay rare earths projects in the world, with a letter of interest for financing from the U.S. EXIM Bank for up to USD 250 million. In Piauí, Canadian-based Origen Resources signed a letter of intent to acquire a rare earths project across two blocks totaling roughly 4,000 hectares, with potential to anchor a new mining district in Northeastern Brazil.



V. Challenges

Despite this exceptional portfolio, Brazil produced only 20 tons of rare earths in 2024, less than 1% of global output, which reached 390,000 tons. The country is not among the top ten producers, despite holding the second-largest reserves globally.

The reasons are several. Among others:

- (i) detailed geological knowledge of much of the resource base remains limited;
- (ii) the processing and refining chain effectively does not exist at industrial scale within Brazil, which means that even as extraction advances, the capacity to transform raw ore into value-added products will need to be built from scratch;
- (iii) a dedicated regulatory framework for critical minerals remains under congressional review, and the National Mining Agency (ANM) lacks specific sectoral regulation on the topic;
- (iv) environmental licensing also involves timelines that can stretch for years on complex projects.





VI. Outlook

Demand projections for critical minerals consistently point to significant growth over the coming decades. The global energy transition is fundamentally dependent on a growing stock of specific minerals, given the requirement to replace internal combustion engines with electric motors, low-efficiency transmission grids with smart grids, and thermal power plants with renewable sources.

The current paradox is that markets are relatively well supplied in the short term, as prices of several minerals fell significantly between 2022 and 2024, partly driven by the rapid expansion of supply led by China. The issue is that underinvestment in new mining and refining projects outside China, combined with mounting demand pressure, sets the stage for a severe imbalance over the medium term.

Mining projects typically take 10 to 15 years from discovery to industrial-scale production. This means the investments needed today to secure supply in the 2030s should already be underway, and in many cases are not.

In this context, energy security and mineral security are converging into a single agenda. Countries that fail to secure access to diversified and reliable sources of critical minerals will face bottlenecks that may compromise both their climate targets and their industrial and defense autonomy.

For Brazil, the window of opportunity is real but time-bound. International interest in Brazilian mineral assets is high today precisely because reliable alternatives to China are scarce. As other countries scale up their own extraction and refining capacity, competition for capital and offtake contracts will intensify. Capturing this demand requires speed: building a clear regulatory environment, investing in geological knowledge and technological capacity, and defining a clear strategy on which segments of the value chain Brazil intends, and is able, to develop domestically.



Mining projects typically take 10 to 15 years from discovery to industrial-scale production.

VII. Conclusion



The critical-minerals question is a structural feature of the energy transition and of 21st-century technological competition. The supply crisis that began to materialize in 2025, with Chinese export controls and their effects on global industrial chains, was a wake-up call no government or corporate decision-maker can afford to ignore.

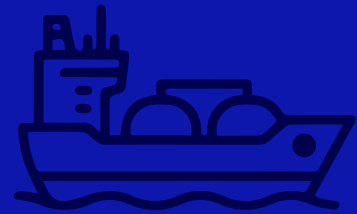
For investors, the theme presents a meaningful set of opportunities: structurally rising demand, a concentrated supply base that pressures prices in stress scenarios, and an unprecedented mobilization of public and private capital to finance projects in trusted jurisdictions.

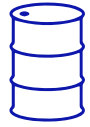
The gap between reserves and production capacity, the absence of refining at industrial scale, regulatory hurdles and the complexity of environmental licensing remain concrete barriers. These barriers, however, are increasingly being addressed by public policy and targeted by international private investors.



Offshore shipping

In a wartime scenario





I. Context and the rise in oil prices

The conflict in the Middle East, which began in the early hours of February 28, 2026, has been affecting maritime transport in general, and oil and gas transport in particular, reshaping contractual relationships and driving up global energy prices. Considering the growing possibility of blockades on strategic oil transport routes and the damage to vessels and infrastructure in the region, the wartime scenario translates into severe obstacles to the transport of hydrocarbons.

The main logistical bottleneck has been the selective closure of the Strait of Hormuz by Iran, a stretch that concentrates the transit of approximately 25% of the world's oil consumption and 20% of global liquefied natural gas ("LNG") transport, mostly exported from Qatar.

A second sensitive route is the one that includes the Bab el-Mandeb Strait, through which around 10% to 12% of the world's seaborne hydrocarbon trade passes. With growing tensions around the Strait of Hormuz, there are fears that Yemen's Houthi movement may block the Bab el-Mandeb Strait, which would further aggravate the impacts on maritime transport, energy markets and global supply chains.

As a result of the armed confrontation, there has been a significant increase in navigational risk on one of the most important hydrocarbon and cargo transport routes in global maritime trade, with damage to at least 16 vessels and a number of fatalities, and, as a consequence, on all international maritime routes. This scenario led to an immediate rise in freight, insurance and logistics costs, putting pressure on the sector's margins.

Routes between China and Jebel Ali, in Dubai, have faced average increases of more than 270% in spot rates compared to February. And even distant routes between China and the United States across the Pacific Ocean, which are therefore not directly affected by the conflict, have seen a 37% increase in spot rates¹.

Hapag-Lloyd, for example, reported additional costs of USD 50 to 60 million per week², which are expected to be passed on to its customers, even if only in part.

- ¹Link
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The spot price for Brent crude oil cargoes exceeded USD 124 per barrel on April 8, following the failed attempt at an agreement between the United States and Iran³ announced the previous day.





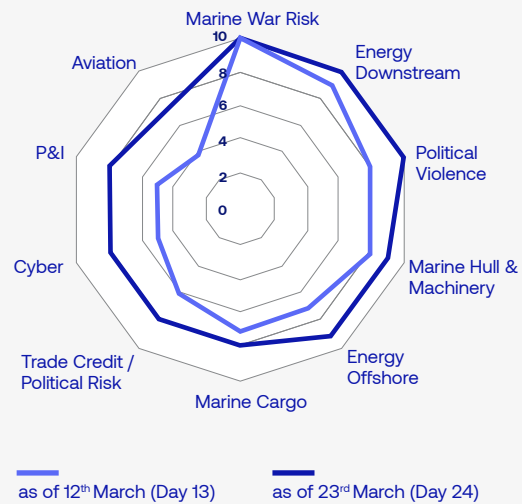
II. Contractual impacts and mitigation mechanisms

Within the context of the conflict, insurers and companies engaged in the maritime transport of hydrocarbons should thoroughly reassess existing contractual terms in search of legal protections.

For ships passing through the Strait of Hormuz, the war risk insurance premium jumped from 0.25% to 3% of the vessel’s value, that is, an oil tanker/LNG Carrier costing approximately USD 250 million now pays premiums of USD 7.5 million instead of USD 675,000. This impact on the premium can result in an increase of more than USD 200,000 per voyage in the freight cost of an oil tanker.

The analysis released by global reinsurance broker Howden Re showed that the impacts have caused severe stress in the market, with sharp increases in war-risk insurance premiums, mass policy cancellations and a migration of plans toward voyage-based coverage⁴.

Insurance severity score by line



⁴See HowdenRe Analysis, of 03/26/2026.
[Link](#)

The conflict is creating severe to extreme stress across multiple lines

Line of Business	Impact Level	Key Driver
Marine War Risk	Extreme	Mass cancellations, 1,000%+ premium increases
Marine Hull & Machinery	Severe	Physical vessel losses, AP increases 25–50%+
Marine Cargo (energy/bulk)	Severe	Voyage-by-voyage pricing, rerouting costs
P&I / Marine Liability	High	Crew casualties, pollution risk, cancellations of nonmutual entries
Energy – Downstream (refineries/LNG)	Severe	Direct infrastructure strikes, BI losses
Energy – Offshore	High	War risk extensions withdrawn or unpriced
Political Violence / SRCC	Severe	Unprecedented demand, multiples of prior pricing
Trade Credit / Supply Chain	Elevated	Port disruptions, rerouting, LC failures
Credit and Political Risk	Elevated	Greater risk if disruptions are prolonged, may lead to long lasting trade disruption
Cyber	Elevated	State-linked cyber attacks as conflict spillover
Aviation	Elevated	Airspace closures, missile risk

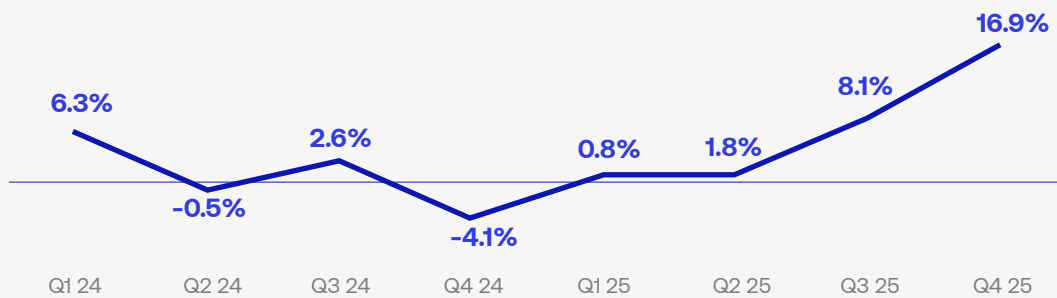
Due to the extreme situation of current logistics in the Strait of Hormuz, some shipping companies have already paid premiums for a single Persian Gulf transit equivalent to nearly ten times the rates charged before the start of the Middle East conflict.

Howden Re’s analysis summarized the movements in war risk premiums and freight, illustrating the increases impacting the sector:

War risk premium movements

Coverage type	Pre-conflict rate	Current rate (March 2026)	Change
War Risk (% of vessel value, transit)	~0.10–0.125%	2–3%	+1,000–2,400%
War Risk premium (worst-case voyages)	~\$250,000/transit (\$100M vessel)	~\$375,000–\$3M/transit	+50% to >1,000%
Cargo War Risk (energy/bulk commodities)	Available at standard rates	Voyage-by-voyage basis only	Significant increase
Political Violence coverage	Standard	Standard Several multiples of pre-conflict levels	>200–500%

War Breach year on year risk adjusted rate change



In response to growing risks, some shipping companies have adjusted their routes, suspending many transits through the Red Sea corridor and instead rounding the Cape of Good Hope. This detour adds 12 to 15 days to the transit time between Asia and Europe, resulting in a significant impact on fuel costs and delivery deadlines.

Companies have also adopted a “land-bridge” system to transport certain seaborne cargoes to the Persian Gulf, using the ports of Jeddah, Salalah and Sohar, and Khor Fakkan, in Saudi Arabia, Oman and the United Arab Emirates, respectively.

Some oil and LNG sale contracts have been affected by the application of force majeure clauses. On March 4, 2026, QatarEnergy, which accounts for around 20% of global LNG supply, declared force majeure on all LNG shipments following attacks on its facilities and the selective closure of the Strait of Hormuz.

In line with this, delays and rescheduling of oil and LNG cargo shipments may frustrate fixed contractual deadlines or letter-of-credit conditions embedded in commodity-trading contracts. These factors put pressure on links of the supply chain to renegotiate commercial terms amid the uncertainties pervading the current scenario.


To mitigate these risks, contracts should provide for force majeure events such as “acts of war,” “hostilities” and “blockades,” and similar expressions, in addition to defining the effects arising from the respective event, such as suspension of obligations, extension of the contractual term and termination.


It is worth mentioning that Article 393 of the Brazilian Civil Code establishes that force majeure is an unforeseeable, unavoidable and irresistible event, such as natural disasters that prevent the performance of an obligation. The occurrence of a force majeure event excludes the liability of the debtor whose obligation was affected by the event, provided that the debtor has not assumed such risk and is not in default.

One of the solutions found by some shipping companies is the implementation of the so-called War Risk Surcharge, a kind of war-risk “surcharge”. Hapag-Lloyd, for example, has been applying a War Risk Surcharge of USD 1,500 to USD 3,500 per container. Maersk has been charging a surcharge between USD 1,500 and USD 3,000 per container⁵. CMA CGM, in turn, charges USD 2,000 to USD 4,000 per container⁶. Meanwhile, some transport bookings remain closed.

The War Risk Surcharge is applied precisely to cover the increase in war-risk insurance premiums. Some countries, such as India, for example, are considering offering sovereign guarantees to finance the increases in risk and prices.



⁵ [Link](#) 


⁶ [Link](#) 

It is also recommended to add war-risk clauses, such as BIMCO VOYWAR and CONWARTIME. These provisions allow the shipowner to refuse voyage orders or unilaterally change the originally agreed port of destination, should the operating area come to be characterized as a high-risk zone. This measure aims to safeguard the safety of the crew and the vessel, mitigating liability for any route deviations made necessary by external threats.

Maritime insurers will be able to negotiate war-risk policies for hull and cargo, including extending geographic coverage and the fulfillment of minimum contractual requirements. Insurers may also agree on the obligation to notify the insured of changes to prohibited zones and define how the parties will allocate the liabilities arising from extraordinary additional-insurance costs.

Another alternative for legal protection is the Himalaya clause (Himalaya clause), which extends the limitations of civil liability granted to the carrier to its servants, agents, subcontractors and port operators. In practice, this means that any damage to the cargo or the vessel resulting from acts of third parties involved in the operation, such as an attack stemming from the Middle East conflict, will be subject to the liability limits stipulated in the main contract.

From the insured's perspective, it becomes essential to pay attention to the wording of insurance policies so that they cover all, or as many as possible, of the war risks, especially to cover simultaneous and multi-jurisdictional conflicts. From the perspective of insurers and reinsurers, broader exclusions and tighter limitations are to be expected.



**The War Risk
Surcharge is designed
to cover the additional
costs arising from
heightened war risk
insurance premiums.**



III. Conclusion

The impacts of the conflict obviously are not restricted to hydrocarbon maritime transport and extend to all forms of maritime transport using the affected route, creating a permanent repricing event for Marine War Risk.

The restrictions in the Strait of Hormuz, even if selective, combined with the increase in operational and logistical risks, contribute to sustaining elevated prices and significant volatility in the global energy market.

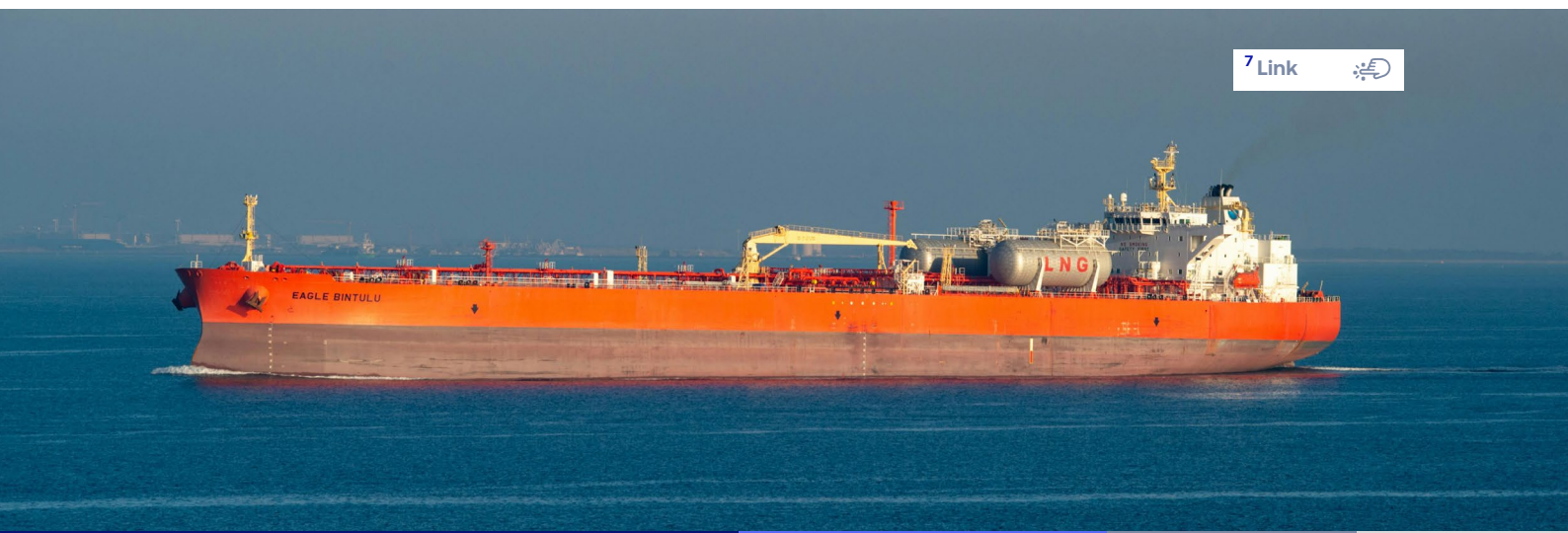
Negotiations to end the conflict and the disinformation propagated by the countries involved only reinforce the increase in the risk and volatility of operations. On April 7, the United States and Iran announced a ceasefire agreement, which was interrupted hours later by attacks on Lebanon and other Middle Eastern countries, such as Kuwait and Qatar.

As reported by the publication *Portos e Navios*⁷, global shipping giants such as Maersk and Hapag-Lloyd have publicly stated the need for caution before resuming normal operations, with their transport bookings still closed. The normalization of operations would take at least 6 to 8 weeks.

Vessel owners will certainly choose to renew their coverage rather than remain uncovered, even if they have to bear higher premiums.

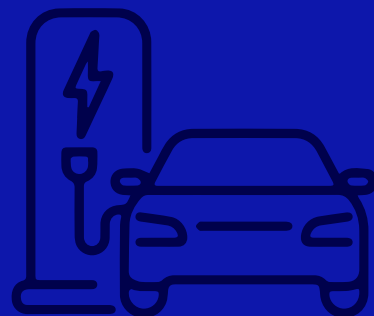
The current scenario requires that maritime transport contracts be reviewed and, where appropriate, adapted, in order to protect shipowners, charterers, cargo owners and insurers in the face of the unpredictability generated by the Middle East conflict.

Lastly, it should be added that the scenario remains extremely unstable, with successive closures and reopenings of the Strait of Hormuz upon each perceived breach of the ceasefire. Even during periods of de-escalation, war-risk premiums have not returned to pre-conflict levels, signaling that the realignment of Marine War Risk is likely to be structural, with part of the premium permanently embedded in the cost of maritime transport of hydrocarbons in the region.



Electric vehicle charging systems and access to the distribution network

Public Consultation No. 42/2025



In the current landscape of the Brazilian electricity sector, electromobility has ceased to be a forward-looking topic and has come to occupy a central position on the energy-transition agenda, with direct implications for the decarbonization of transportation and the regulatory activity of the National Electric Energy Agency ("ANEEL").

This transformation, however, is accompanied by a challenge typical of infrastructure: the accelerated growth of the electrified fleet and the associated energy demand for charging. Given this scenario, coordination between the sector authorities - particularly the Ministry of Mines and Energy ("MME") and ANEEL itself - becomes necessary to strengthen and refine the existing legal and regulatory framework and, above all at the distribution end, to modernize instruments for connection, planning, and transparency, without losing sight of the safety of installations and the adequate provision of the public service.

In this context, on December 11, 2025, ANEEL published in the Official Gazette of the Union the [notice](#) of the opening of [Public Consultation No. 42/2025](#) ("CP 42/2025"), intended to gather input for the improvement of the rules governing the access and connection of electromobility facilities to the distribution system, with the contribution period having closed on March 10, 2026. The Public Consultation is part of a broader institutional environment in which the MME has reiterated electromobility as one of the pillars of the Brazilian energy transition and signaled the intention to deepen policies aimed at integrating infrastructure, innovation, industrial policy, and energy supply.

Accordingly, the objective of this article is, initially, to present the current state of the topic - with emphasis on the frameworks applicable to connection and interaction with the distribution network - and, subsequently, to analyze CP 42/2025 in light of Joint [Technical Note No. 24/2025](#), which systematizes the rationale, the diagnosis, and the regulatory proposals submitted for discussion among electricity-sector agents.

See notice of the opening of Public Consultation No. 42/2025

[Link](#)



See Public Consultation No. 42/2025

[Link](#)



See Technical Note No. 24/2025

[Link](#)



I. Current regulation applicable to charging and associated storage



ANEEL, through its regulatory framework, has recognized for years the legitimacy of the electric vehicle charging activity, including for commercial exploitation with pricing conditions set by the service provider. This recognition appeared expressly upon the issuance of ANEEL Normative Resolution No. 819/2018 ("REN 819/2018"), which established procedures and conditions for charging activities in the country.

Although REN 819/2018 was subsequently repealed as part of the normative consolidation process, the regulatory classification maintained the premise that charging does not, in itself, require a sector-specific authorization or concession of the kind applicable to generation, transmission, or distribution, and the regulatory agenda evolved to focus primarily on the aspects of access and connection at the distribution level.

Accordingly, for purposes of the sale and commercial exploitation of these activities, no specific ANEEL authorization or license is required for the mere sale of charging equipment, nor for the sale per se of storage systems that may be employed in projects related to charging infrastructure.

In practice, the most sensitive regulatory issue lies not in the sale of the equipment itself, but in the manner in which the project connects to and operates on the distribution network, in light of ANEEL Normative Resolution No. 1,000/2021 ("REN 1,000/2021") and the connection procedures applicable in each concession area.



See ANEEL's Normative Resolution No. 1.000/2021

[Link](#)



Under the current rules, the deployment or adaptation of charging stations must be previously communicated to the distributor in typical connection scenarios - such as a new service connection, an increase or reduction of load, or a change in voltage level - and the technical and operational rules established by each distributor become determinative for the viability and costs of the project, with significant variations among concessionaires.

The following is a summary table of the main topics and regulatory frameworks applicable to the electric vehicle charging activity and the use of storage systems in Brazil:

The most sensitive regulatory issue lies in how the project connects to and operates before the distribution network, in light of ANEEL Normative Resolution No. 1,000/2021.

Regulatory framework	Applicable rule	Implication for charging projects with storage systems
REN ANEEL No. 1,000/2021	Governs the right to connection and the modalities (permanent/temporary), the procedural flow for requests, estimates, and contracting, as well as operational and contractual obligations	Establishes the "regulatory pathway" for the connection of a charging hub (with or without batteries), including with respect to load/voltage-level changes and technical conditions required by the distributor
Technical standards of the local distributor	Supplementary local rules on construction standards, equipment, protections, metering, sizing, and connection conditions	In hubs with batteries (higher power and demand profile), compliance with local standards is typically determinative for implementation, cost, timeline, and the viability of the point of connection
PRODIST (when applicable)	Establishes parameters and responsibilities related to the provision of the service and technical requirements associated with connection	Relevant for addressing quality/continuity issues and the effects of potential operational restrictions, especially when there are automated demand-management solutions and complex electrical integration

II. Analysis of CP 42/2025 / Objectives and rationale



Within the scope of CP 42/2025, ANEEL submitted for discussion a set of technical documents aimed at improving the rules governing the access and connection of electromobility facilities to the distribution system. Among the materials made available, Joint Technical Note No. 24/2025 (“Technical Note”) stands out, as it systematizes the rationale, diagnosis, and regulatory proposals guiding the discussion. In summary, the main objective of the Technical Note is to evaluate and present to power sector agents potential regulatory improvements related to the access and connection of electromobility facilities to the distribution system.

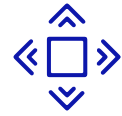
Based on studies and projections prepared by the Energy Research Company (“EPE”), used as inputs in the Technical Note, a significant increase in electricity demand associated with electric vehicles is expected, from 627 GWh in 2025 to 7.8 TWh in 2035. These same studies also highlight the evolution of the electrified fleet and the role of public policies aimed at the electrification of public transport and the advancement of electrification in freight transportation, while noting that charging infrastructure, although expanding, remains regionally concentrated and predominantly composed of slow chargers.

From an operational perspective, the Technical Note identifies a significant limitation for distribution planning purposes, insofar as most distributors lack adequate information on charging stations owned by third parties. According to the distributors, this is largely because many charging points are installed within consumer units engaged in other activities, such as shopping centers, condominiums, and supermarkets, without dedicated metering systems.

As a result, ANEEL identifies the following recurring challenges: the installation of charging points without prior notice to the distributor; the need for greater detail on usage profiles to identify optimal charging schedules and enable demand management; the absence of a specific subclass that would allow individual contract registration; and the need for instruments that provide price signals and help mitigate adverse impacts on the system. This diagnosis underpins the central premise of CP 42/2025: to modernize the access and connection framework through mechanisms designed to reduce waiting times, decrease the need for infrastructure works, expand transparency and public information on available capacity, and make the connection process more predictable - without converting the initiative into a subsidy policy.

In summary, the main objective of the Technical Note is to evaluate and present to power sector agents potential regulatory improvements related to the access and connection of electromobility facilities to the distribution system.

III. ANEEL's Central Proposal / Flexibilization



The Technical Note consolidates a set of proposals that, while addressing distinct fronts, share the same diagnosis and converge toward three central directions:

- (i) the introduction of mechanisms to flexibilize connection conditions, including through contractual alternatives and technical solutions, with the objective of enabling service provision with less need for infrastructure works and lower overall costs;
- (ii) the expansion of transparency, traceability, and predictability in the connection process, in order to reduce informational asymmetries between prospective users and distributors; and
- (iii) the strengthening of the regulatory database, ensuring that ANEEL and distributors have more complete and structured information for planning, monitoring, and oversight purposes, including through specific registration improvements for charging stations.

In this context, the most significant proposal presented in the Technical Note is the discussion regarding the creation of a flexible permanent contracting modality, designed to allow the use of the distribution system under predefined operating conditions, with operation limited on certain days and/or at certain times, as a means of shortening the waiting period for connection and reducing the investments required in distribution network infrastructure.

The Technical Note therefore frames this proposal in alignment with the approach already adopted under REN 1,000/2021, which provides for permanent and temporary connection modalities. With respect to charging infrastructure, the flexible permanent contracting modality is presented as a mechanism capable of enabling, for example, installations at bus depots and residential condominiums, allowing charging to be concentrated during periods of greater system availability - such as nighttime periods - without necessarily requiring the immediate execution of reinforcement works on the distribution system. It should be noted, however, that the adoption of this alternative presupposes the implementation of automatic demand control or usage management, in order to ensure that the agreed operating conditions are effectively enforceable, verifiable, and compatible with the safety and reliability of the network.

In this regard, the draft Normative Resolution referenced in the Technical Note contemplates, among other aspects, the possibility that the connection solution may include the installation of storage systems. It also requires that the flexibilization conditions be expressly reflected in the connection estimate, in the contracts entered into, including the Distribution System Use Agreement (“CUSD”), and in the operating agreement. In addition, it provides for the possibility of the distributor presenting, in the estimate, additional service alternatives with differentiated operating conditions, for selection by the consumer and other users.

III.1. Transparency and predictability in the connection process

In line with the draft Normative Resolution referenced in the Technical Note, the second axis of proposals contemplates the inclusion, in REN 1,000/2021, of an obligation for distributors to make available an availability map for load and generation connections, subject to minimum requirements. The main basis for this axis derives from Decree No. 12,068/2024, which provides for the publication, on the concessionaires' websites, of information on load availability, current and projected loading, power flows, and other data necessary to facilitate connection processes.

To this end, the Technical Note draws on experiences already existing in the sector, such as tools and availability maps already adopted by some distributors for the connection of distributed generation, as well as the transmission-system model, in which the National Electric System Operator ("ONS") publishes margin maps on its website. From this perspective, ANEEL's technical staff seeks to bring the distribution environment closer to higher standards of transparency and informational efficiency, enabling interested parties to identify, in advance, areas with greater or lesser availability and to make locational choices that are better aligned with connection conditions.

Also under the same transparency directive, the Technical Note proposes to improve the monitoring of connection requests by requiring the distributor to publish the queue of connection estimates, with updates every 24 (twenty-four) hours. This queue would correspond to the set of connection requests filed with the distributor, allowing each applicant to consult its relative position vis-à-vis the others. To this end, the Technical Note suggests that the queue contain, at a minimum, information associated with the request process itself, such as reference number and filing date, status (under initial review, denied, approved, or approved with conditions), type of user, installed load and generation capacity, municipality, type of estimate (preliminary or connection), and date of issuance of the estimate, so as to allow interested parties to monitor the progress and status of their applications.

In addition, the document proposes to expand transparency during the execution stage of connection works, through the disclosure of specific information on delays and the respective updated schedule, suspensions of deadlines, and status updates on the works, in response to reports of limited visibility in scenarios involving delays or suspensions.



III.2. Monitoring and regulatory improvements

In the area of data and monitoring, the Technical Note proposes a set of improvements aimed, on the one hand, at enhancing the quality of information available for planning and oversight and, on the other hand, at codifying regulatory understandings relevant to the implementation of charging facilities. In this context, it proposes amending REN 1,000/2021 to provide for the obligation of the consumer to report the installation of a charging station or equipment in all cases, with the objective of supporting the monitoring of charging infrastructure growth and its potential impacts on the operation of the distribution system.

The Technical Note also proposes to discuss the creation of a specific subclass within the commercial/services/other activities class, in order to enable a more appropriate registration classification for charging stations, in line with the subclass already existing for consumer units owned by the distributor, as well as adjustments aimed at ensuring the maintenance of detailed and segregated information in the installed-load registry.

Additionally, in the same vein, the Technical Note, based on the draft Normative Resolution submitted within the scope of CP 42/2025, brings together proposals aimed at providing greater regulatory clarity and reinforcing legal certainty in the implementation of facilities, with emphasis on the following:



Safety and Responsibility (Article 553 of the draft Normative Resolution)

ANEEL proposes to make explicit that the design and execution of the electrical installations of the charging station, which are the responsibility of the consumer and other users, must have a designated responsible technical professional whenever required by specific legislation, who shall be subject to administrative, civil, and criminal liability in the event of damages or accidents.



Micromobility (Article 554 of the draft Normative Resolution)

ANEEL's proposal is to allow agents to use charging stations for the charging of removable batteries, particularly in battery swap or exchange models, with reference to the possibility of performing charging at times of lower prices and/or greater system availability.



Preliminary Estimate (Article 60 of the draft Normative Resolution)

The Technical Note provides that cost estimates must present, on a segregated basis, the amounts attributable to the consumer as a financial contribution and the calculation of the charge allocated to the distributor, as well as contain the list of works and services and an estimated connection timeline. The document indicates that such information is relevant for prospecting locations with better cost and connection conditions.



Licenses (Article 87 of the draft Normative Resolution)

Finally, with respect to licenses, authorizations, and approvals, the Technical Note reaffirms the current regime under which, even when the consumer advances the execution of works that are the responsibility of the distributors, the obligation to obtain licenses, authorizations, and approvals, as well as to take steps related to expropriation and the creation of administrative easements, remains with the distributors, and certain costs may not be passed through to the consumer in the connection estimate.

With respect to this last item, however, the Technical Note and the normative text itself note that the consumer may, under the supervision of the distributor, directly take the necessary steps to obtain licenses and authorizations, with reimbursement of the costs incurred, provided that situations in which certain acts must be carried out by the distributor itself are preserved, for purposes of implementing charging stations.



IV. Final considerations

At the institutional level, the MME has reiterated electromobility as one of the pillars of the Brazilian energy transition, signaling its intention to deepen policies that integrate infrastructure, innovation, industrial policy, and energy supply¹. ANEEL, for its part, has emphasized that the objective of the initiative is to modernize the regulatory framework and connection procedures -without creating subsidies - in order to accommodate new demands, such as public and private charging stations, with greater efficiency, predictability, and safety².

By systematizing the proposals submitted to power sector agents, the Technical Note provides a basis for regulation to keep pace with the evolution of electromobility and, at the same time, for the connection process to operate with more adaptable contractual alternatives, greater transparency regarding available capacity, and better traceability of the connection and works-execution stages.

The Energy and Natural Resources team of Campos Mello Advogados will continue to monitor the developments of CP 42/2025, as well as the potential consolidation and issuance of the resulting Normative Resolution and related regulatory acts, and remains available to provide clarifications and specific analyses regarding the impacts of the new guidelines on agents and investors in the Brazilian power sector.

In light of the foregoing, CP 42/2025 focuses on improving the access and connection regime applicable to electromobility facilities within the distribution system, based on a diagnosis that combines accelerated demand growth, information gaps, and the need for more flexible and transparent instruments.

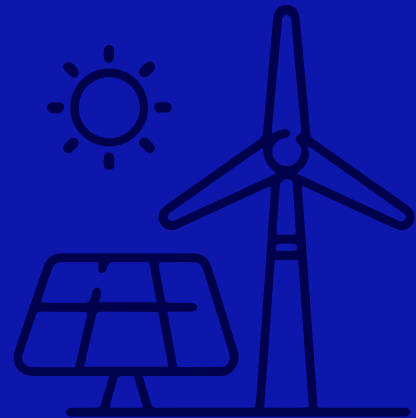


¹ Link

² Link

New framework for compensation of **curtailment events**

Analysis of Public
Consultation No. 210/2025



On December 31, 2025, the Ministry of Mines and Energy (“MME”) opened [Public Consultation No. 210/2025](#) (“CP 210/2025”) to discuss rules for the financial compensation of wind and solar/photovoltaic generators affected by generation curtailment events within the National Interconnected System (“SIN”), submitting for public contributions a draft [Commitment Agreement](#) provided for in Article 1-B of [Law No. 10,848, of March 15, 2004](#). According to the MME, the proposal seeks to consolidate a balanced solution, with clear compensation criteria, aimed at providing predictability and legal certainty to the renewables market, without imposing excessive costs on consumers, while also addressing impacts on project financing and investment.

As set forth in [Technical Note No. 10/2025](#), the analysis focuses on the development of an exceptional financial compensation mechanism for operational restrictions determined by the National Electric System Operator (“ONS”) during the period from September 1, 2023, to November 25, 2025, subject to the applicable legal limits and, in particular, to the segregation between compensable scenarios, including:

(i) external unavailability events, typically associated with transmission constraints or unavailabilities external to the generation facility; and

(ii) events arising from electrical reliability requirements applicable to system operation.

See Public Consultation No. 210/2025

[Link](#)

See Commitment Agreement

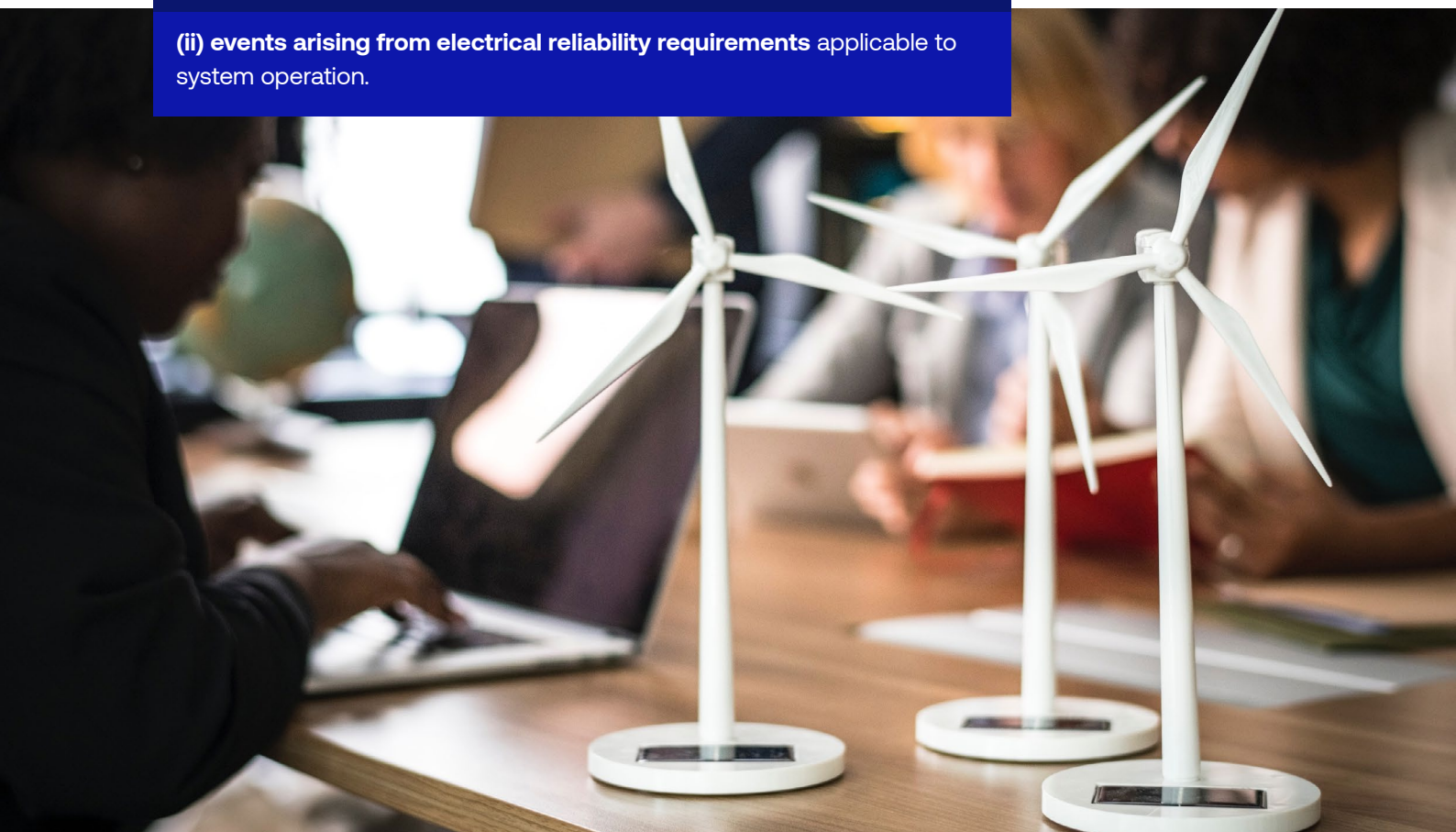
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See Law No. 10,848, of March 15, 2004

[Link](#)

See Technical Note No. 10/2025

[Link](#)



As discussed in detail in the 10th edition of the Energy inSight, curtailment events may be understood as the total or partial reduction of effectively available generation, as determined by the ONS for operational reasons, when the transmission system is unable to absorb or dispatch the energy produced under the applicable technical and safety conditions - whether due to grid/infrastructure constraints, reliability requirements, or the impossibility of allocating generation to load in scenarios of excess supply. CP 210/2025 remained open for contributions until January 16, 2026.

Following the conclusion of this phase, the MME will be responsible for reviewing and consolidating the contributions received, with a view to potentially refining the Commitment Agreement and defining the operational and economic criteria required for its implementation. By its nature, this stage will require technical coordination with other power sector authorities, including the ONS and the Electric Energy Trading Chamber (“CCEE”), as well as subsequent alignment with the applicable regulatory framework, including within the scope of the Brazilian Electricity Regulatory Agency (“ANEEL”).



Curtailment events may be understood as the total or partial reduction of effectively available generation, as determined by the ONS for operational reasons.

See the 10th edition of the Energy inSight

[Link](#)



I. Regulation and judicialization of curtailment



The debate over compensation for curtailment events gained greater institutional relevance as of 2024, when the intensification of wind and solar generation curtailments began to move beyond the strictly operational sphere and into litigation and the public-policy agenda. In December 2024, the Federal Regional Court of the 1st Region (“TRF-1”) granted a decision in an interlocutory appeal filed by power sector associations, with immediate repercussions on the discussion of compensation through System Service Charges (“ESS”) and on the interpretation that a significant portion of curtailment events resulted from systemic limitations, rather than from a risk exclusively borne by generators on a commercial basis.

The controversy, however, remained unresolved and returned to the center of the power sector agenda in early 2025. In January 2025, the Superior Court of Justice (“STJ”) suspended the injunction that required ANEEL to compensate generation curtailment events, which, at that point, reinforced the perception of legal uncertainty and the need for a normative and institutional solution capable of reducing judicialization and avoiding asymmetric case-by-case outcomes.

It was precisely in this context that Provisional Measure No. 1,304/2025 (“MP 1,304”) was enacted on July 11, 2025, and subsequently converted into [Law No. 15,269/2025](#), published on November 24, 2025, as part of a broader agenda to modernize the regulatory framework of the Brazilian power sector. Although the MP 1,304 was not limited to curtailment, it came to incorporate, at the normative level, the discussion of an extraordinary arrangement aimed at addressing past curtailment events and their economic and financial repercussions for power sector agents.

See Law No.
15,269/2025

[Link](#)



Throughout the legislative process and the conversion of MP 1,304, curtailment became explicitly linked to two competing objectives: on the one hand, the need for predictability to preserve the financial viability of projects and reduce the proliferation of administrative proceedings on the matter; and, on the other hand, the concern with tariff affordability and the preservation of appropriate economic signals, so that costs would not be fully socialized among consumers. In this context, the conversion of MP 1,304 into Law No. 15,269/2025 was accompanied by a series of presidential vetoes, particularly of provisions that could have expanded compensation for wind and solar generation curtailment beyond the scope strictly associated with external unavailability and electrical reliability, on the grounds of avoiding significant tariff impacts and preventing the weakening of economic signals related to oversupply risk.

Although the final text sought to delimit the scope of the compensation available to generators, Law No. 15,269/2025 introduced Article 1-B into Law No. 10,848/2004, establishing an exceptional compensation model for past curtailment events, conditioned upon the execution of a Commitment Agreement and the waiver of, and withdrawal from, related litigation.

CP 210/2025 is therefore situated within the implementation of this new legal instrument, seeking to structure the operationalization of the Commitment Agreement through verifiable criteria, methodology, data governance, verification by the ONS, and calculation and settlement by the CCEE, in order to distinguish systemic risk from market risk.



CP 210/2025 is therefore situated within the implementation of this new legal instrument, seeking to structure the operationalization of the Commitment Agreement.

II. Analysis of Public Consultation No. 210/2025

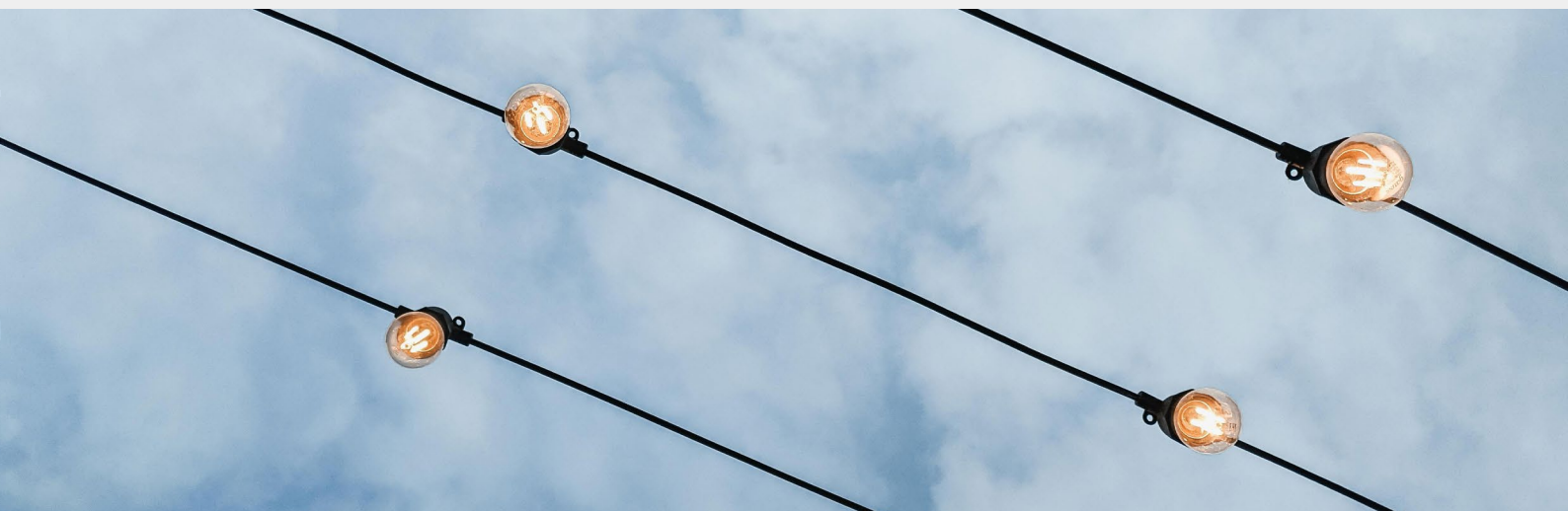


Technical Note No. 10/2025 and the draft Commitment Agreement, both published by the MME within the scope of CP 210/2025, share a common premise: the structuring of an exceptional compensation mechanism applicable to curtailment events that occurred within the time window defined by Law No. 10,848/2004 - that is, between September 1, 2023, and November 25, 2025.

For the period following the statutory window, the architecture proposed by the MME itself establishes an important distinction. In such cases, the Commitment Agreement is not intended to operate as a single and permanent instrument for establishing a compensation regime, but rather as a mechanism aimed at settling a past liability based on verifiable criteria and adhesion conditions designed to provide predictability and reduce litigation.

In other words, the Technical Note recognizes the possibility of compensation to power sector agents within the applicable legal limits, conditioned, as consideration, upon the waiver of and withdrawal from litigation concerning the same subject matter, through execution of the draft Commitment Agreement. For the MME, such conditions are treated as elements of legal certainty within this model, as they seek to avoid asymmetric case-by-case solutions, reduce judicialization, and mitigate the risk of duplicative compensation, whether administrative or judicial, with potential tariff repercussions.

In this context, the most sensitive legal element for power sector agents is not merely the amount to be received, but rather the relationship between “compensation” and “release/waiver.” The draft Commitment Agreement provides for an “irrevocable and irreversible” waiver of discussions regarding past compensation claims in the administrative, arbitral, and judicial spheres, in addition to requiring the effective withdrawal from pending proceedings, with proof to be submitted to the MME. In practice, the focus shifts to what the Commitment Agreement effectively covers and what is waived, which depends directly on the methodology for classifying and verifying curtailment events by the ONS, as well as on the calculation and settlement of compensation amounts by the CCEE.



III. Eligibility criteria for compensation



Technical Note No. 10/2025 expressly provides that the Commitment Agreement must maintain a strict segregation between curtailments resulting from external unavailability and electrical reliability events, which are eligible for compensation, and curtailments resulting from energy-related reasons, which are not compensable under the current regulatory model, in accordance with the presidential vetoes applicable to the conversion of MP 1,304.

In this context, the MME's analysis anticipates two main risks. On the one hand, an excessive broadening of the scope of compensation could, in practice, allow the recovery of oversupply events "disguised" as electrical constraints, with a potentially significant increase in costs to consumers. On the other hand, an overly restrictive interpretation could result in residual compensation amounts, reducing incentives for adhesion and frustrating the objective of dispute settlement and de-judicialization intended by the instrument.

With respect to external unavailability, the draft Commitment Agreement proposes compensation for all curtailments arising from external events and expressly includes the scenario of delays in the entry into operation of transmission facilities external to the generation facilities - a point that the MME itself highlights as a central issue to be discussed in CP 210/2025. Regarding electrical reliability, the Commitment Agreement recognizes compensation but introduces relevant exceptions when:

(i) the curtailment results from a restriction already provided for in the system access documents, limited to restrictions set forth at the time of execution of the original Transmission System Use Agreement ("CUST"), and only until implementation of the solutions contemplated in those documents, provided that the reason for the curtailment is justified and made public by the ONS, with proportional allocation of the impact to the generator; and

(ii) the curtailment was caused exclusively by the generator, due to operation in non-compliance with the minimum technical requirements for connection, provided that such requirements do not exceed those required for the Provisional Grid Procedures Compliance Declaration ("DAPR/P") - excluding, from the definition of minimum requirements, requirements related to mathematical models used in system operation and the commissioning report derived from such models.

Within the scope of CP 210/2025, the MME also notes that the segregation between compensable and non-compensable scenarios requires operationalization through objective and verifiable classification criteria for curtailment events. To this end, the draft Commitment Agreement establishes procedural and methodological rules aimed at the verification and classification of events by the competent power sector agents.

The first set of procedures addresses the characterization of “energy-related reasons.” The draft provides that no compensation shall be payable when the curtailment is motivated exclusively by oversupply, characterized by the impossibility of allocating generation to load, in accordance with the proposed methodology.

The second set governs the classification of curtailments where more than one cause is present. The draft establishes that each curtailment must be classified under a single type and provides for classification at the highest level of temporal granularity possible. When it is not possible to separate simultaneous causes, external unavailability shall prevail and, in its absence, electrical reliability shall apply.

The third set addresses the verification procedure and data governance. The draft establishes deadlines for generators to submit records and information, including measurements and curves, provides for the disclosure by the ONS of the database used for verification and classification, sets a minimum period for challenges, and ultimately requires the verified amounts to be forwarded to the CCEE for financial calculation and settlement.

Finally, it is worth noting that this debate unfolds against a regulatory backdrop in which compensation through ESS has, as a rule, been structured in a more restrictive manner, with emphasis on external unavailability and annual allowances. This regime was consolidated and updated by ANEEL in the recent regulatory cycle, with particular reference to [Normative Resolution No. 1,030/2022](#). In this context, the Technical Note and the draft Commitment Agreement are positioned as an exceptional and delimited mechanism, designed in accordance with the vetoes to MP 1,304 and the principle of tariff affordability.

In this context, the Technical Note and the draft Commitment Agreement are positioned as an exceptional and delimited mechanism, designed to comply with the vetoes to MP 1,304 and the principle of tariff affordability.



See Normative Resolution
No. 1,030/2022

[Link](#)





IV. Valuation and payment to power sector agents

Once the energy volumes subject to compensation have been verified and classified, the draft Commitment Agreement defines how such amounts are to be valued and financially settled. In summary, the draft provides that curtailed energy shall be remunerated at the contract price for the portion linked to contracts executed in the Regulated Contracting Environment (“ACR”) that contain a compensation clause, and at the Settlement Price for Differences (“PLD”) of the submarket where the generation facility is located for the portion not contracted under such arrangements.

The Commitment Agreement also provides for monetary adjustment by the Broad National Consumer Price Index (“IPCA”) from the date of the event until the date of actual payment, in addition to establishing a payment deadline for the financial settlement of past events, calculated from the date of execution of the instrument.

It should also be noted that Technical Note No. 10/2025 treats the definition of the applicable price parameter for the non-contracted portion as a central issue of the Public Consultation, questioning whether the use of the hourly PLD adequately reflects the need for compensation or whether alternative methodologies - such as the annual average PLD or a regulatory reference price - should be adopted. According to the Technical Note, this discussion highlights the relevance of the pricing criterion for the economic balance of the model and for predictability for power sector agents.

In addition, the proposed distinction between the portion contracted in the ACR with a compensation clause and the non-contracted portion tends to produce different impacts across projects, depending on their contracting profile, level of exposure, and revenue structure. Although the draft establishes general valuation rules, the concrete economic effects result from the combination of:

- (i) the classification of the curtailed energy under each “portion”; and
- (ii) the applicable price parameter, which explains the centrality of objective and verifiable criteria in the debate.

The draft also addresses related regulatory effects, providing that generation volumes lost due to curtailment, whether compensable or not, shall be treated as effective generation for purposes of calculating and revising physical guarantee. By including this provision, the Commitment Agreement projects effects that extend beyond financial compensation and touch upon structural issues of power sector regulation, such as resource adequacy requirements, accounting, and physical guarantee revision parameters. In this context, implementation of the mechanism presupposes operational alignment among the MME, ONS, and CCEE, as well as harmonization with the applicable regulatory framework, in order to ensure consistency with the prevailing trading rules and avoid procedural overlaps.

Commitment Agreement projects effects that extend beyond financial compensation and touch upon structural issues of power sector regulation.



V. Challenges for the power sector and final considerations

In light of the foregoing, the treatment of curtailment in Brazil is not limited to the recovery of past losses. Above all, it involves the alignment of regulatory instruments, infrastructure planning and execution, and system adequacy and flexibility mechanisms, in order to support the expansion of renewables under conditions of systemic reliability.

The central question for investors and power sector agents is not whether operational restrictions will continue to occur, but how they will be governed, quantified, and economically allocated, so as to preserve predictability, regulatory coherence, and tariff affordability.

CP 210/2025 is situated precisely at this point of transition, as it seeks to operationalize Article 1-B through verifiable classification criteria, verification methodology, and data governance, with defined roles for the ONS and CCEE, and with a clear boundary between compensable events, namely external unavailability and electrical reliability, and non-compensable events, namely oversupply and other energy-related reasons. By structuring an extraordinary solution for past liability, conditioned upon execution of the Commitment Agreement and the waiver of litigation, the model aims to reduce uncertainty, decrease litigation, and reinforce predictability conditions relevant to investment decisions.

This movement also signals a new phase in the renewable expansion cycle. The focus is no longer solely on installed capacity growth and now requires more integrated coordination among transmission reinforcements, operational criteria, adequacy mechanisms, and, where applicable, flexibility assets, so that curtailment remains a manageable element of SIN operation, rather than a diffuse source of structural uncertainty.

The Energy and Natural Resources team of Campos Mello Advogados will continue to monitor the developments of CP 210/2025 and the implementation of the mechanism provided for in Article 1-B of Law No. 10,848/2004, as well as subsequent regulatory proceedings, and remains available to provide clarifications and specific analyses regarding the impacts of the new guidelines on agents in the Brazilian power sector.





Energy Radar

See below, in chronological order, the 12 main publications in the Energy, Oil & Gas sector for the 1st quarter of 2026.

1 / ANP Resolution No. 991, of January 2, 2026

Subject: To establish the rate regime applicable to natural gas transportation systems and transportation services offered under the contracting regime for entry and exit capacity.

See the full text

Link



2 / MME Ordinance No. 891, of January 8, 2026

Subject: To release, for Public Consultation, the draft of the National Mining Plan 2050 (“PNM 2050”), in order to gather input and contributions.

Contribution period: Closed (January 9, 2026 to February 8, 2026).

See the full text

Link



Link



See MME Ordinance

Link



3 / MME Resolution No. 892, of January 22, 2026

Subject: To announce, for Public Consultation, a proposal for a resolution of the Electric Sector Monitoring Committee (“CMSE”) establishing general guidelines for the anticipation of the contracts of the winning projects of the Capacity Reserve Auction in the Form of Energy (“LRCE”) and the Capacity Reserve Auction in the Form of Power (“LRCAP”), which contribute to the security of electricity supply starting in August of each year.

Contribution period: Closed (January 23, 2026 to February 11, 2026).

See the full text

Link



See MME Resolution

Link



4 / ANP Board of Directors Decision No. 54/2026

Subject: Approval by the ANP Board of Directors of the new draft version of the Permanent Production Sharing Offer (“OPP”) notice, updated to include 17 (seventeen) exploration blocks in addition to the 8 (eight) already included in the previous version, resulting in a total of 25 (twenty-five) blocks.

[See the full text](#)[Link](#)

5 / ANEEL Normative Resolution No. 1,148, of January 27, 2026

Subject: Amends Normative Resolution No. 1,000, of December 7, 2021, Annexes VI and VIII to Normative Resolution No. 956, of December 7, 2021 — Modules 6 and 8 of PRODIST, Normative Resolution No. 1,003/2022 — Submodules 2.5 and 2.5-A of PRORET, and Resolution No. 846, of June 11, 2019, establishing measures to increase consumer and other users’ satisfaction with the provision of electricity distribution services.

[See the full text](#)[Link](#)

6 / Public Consultation Notice No. 1/2026

Subject: To collect inputs and information for the improvement of the Regulatory Impact Assessment, within the scope of the activity “Assessment of metering systems for the energy transition and modernization of the distribution segment”, as provided for in the Regulatory Agenda.

Contribution period: Closed (January 29, 2026 to March 16, 2026).

[See Notice of Public Consultation](#)[Link](#)

7 / Call for Contributions Notice No. 3/2026

Subject: To collect inputs and contributions on the review/update of the following Submodules of the Grid Procedures: Submodule 6.2 — Operational and Responsibilities; Submodule 6.7 — Procedural; Submodule 8.1 — Procedural and Responsibilities; and Submodule 8.3 — Responsibilities.

Contribution period: Closed (January 29, 2026 to March 14, 2026).

[See Notice of Call for Contributions](#)[Link](#)

8 / Call for Contributions Notice No. 4/2026

Subject: To collect inputs on Regulatory Outcome Assessment Report — ARR No. 1/2026-SFF/ANEEL, concerning the application of Annex VII to Normative Resolution — REN No. 948, of November 16, 2021, which addresses the assessment of the quality of corporate governance systems adopted by electricity distribution agents.

Contribution period: Closed (January 30, 2026 to March 16, 2026).

See Notice
of Call for
Contributions

Link



9 / ANP Resolution No. 995, of March 3, 2026

Subject: To establish the individualization of mandatory annual targets for natural gas producers and importers regarding the use of biomethane, within the scope of the National Program for the Decarbonization of Natural Gas Producers and Importers and for the Promotion of Biomethane, established by Law No. 14,993/2024.

See the full text

Link



10 / ANP Resolution No. 996, of March 3, 2026

Subject: Regulates the certification of biomethane producers and importers for the issuance of the Biomethane Guarantee of Origin Certificate (“CGOB”), the procedures for generating the necessary supporting documentation for the initial issuance of the CGOB, and the accreditation of origin certification agents.

See the full text

Link



11 / Call for Contributions Notice No. 5/2026

Subject: To collect inputs for the improvement of the rules governing access to the transmission system.

Contribution period: Closed (March 17, 2026 to May 15, 2026).

See Notice
of Call for
Contributions

Link



12 / Call for Contributions Notice No. 6/2026

Subject: To collect inputs regarding the Periodic Review of the Allowed Annual Revenue (“RAP”) under electricity transmission concession agreements related to projects awarded through auctions and subject to review in July 2026.

Contribution period: Closed (March 25, 2026 to May 8, 2026).

See Notice
of Call for
Contributions

Link



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