

Regulatory context for the MMGD transition and the principal findings from Tomada de Subsídios No. 023/2025

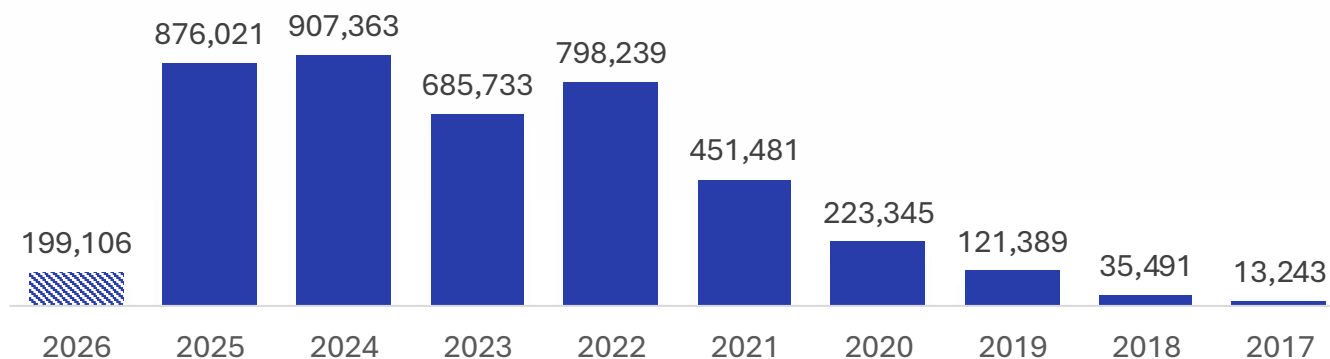
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April 30th, 2026



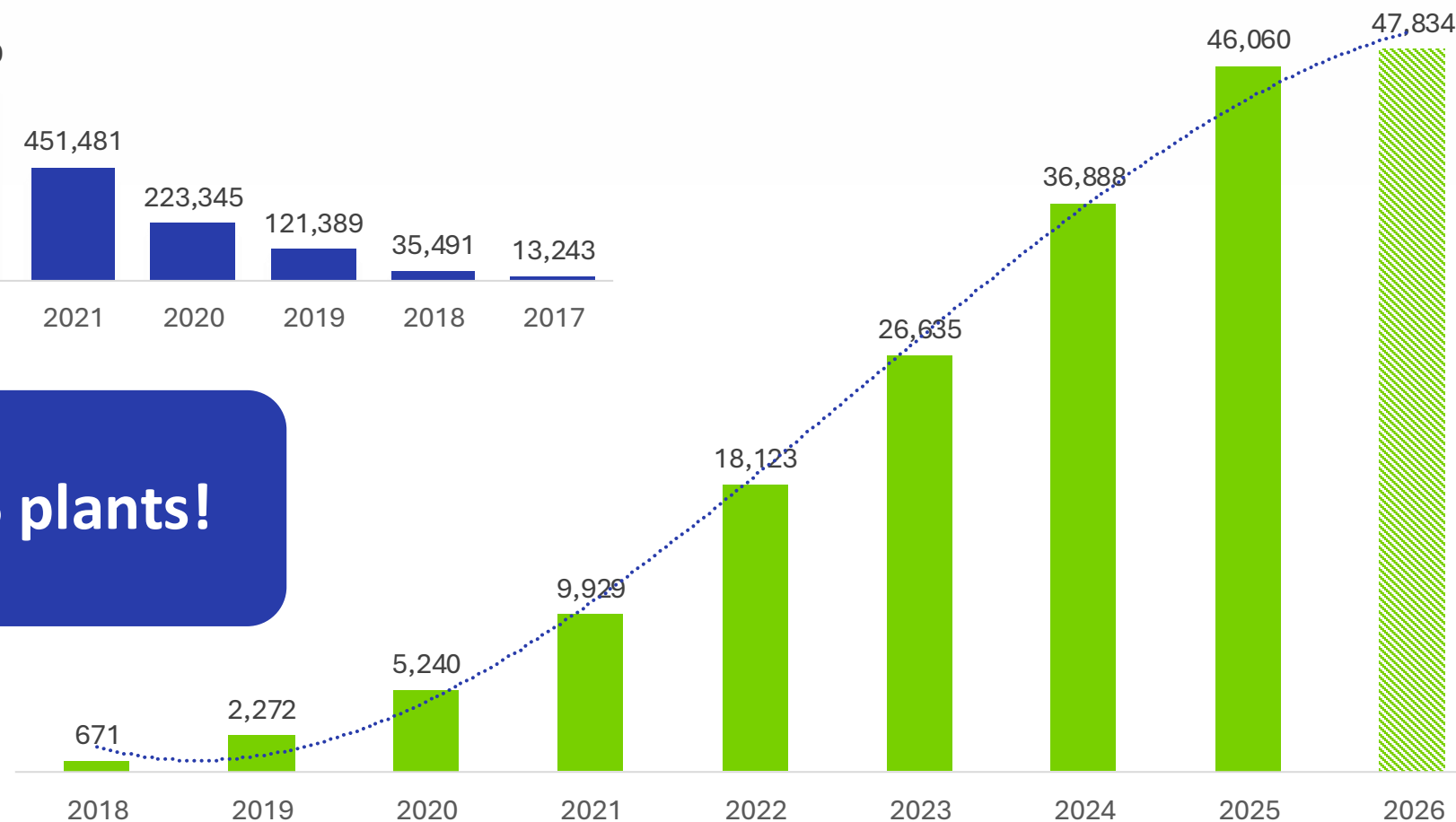
MMGD development in Brazil

Annual number of connections



4,319,505 plants!

Installed Capacity MMGD (MW)



*Data: Painel de Micro e Minigeração distribuída - Abril 30th, 2026

Distributed Micro and mini-generation (MMGD) and the Brazilian Electric Energy Compensation System - SCEE



Main Characteristics

- Renewable sources eligible: solar, wind, small hydro and biofuels power plants
- Micro-generation: $\leq 75\text{kW}$
- Mini-generation: $\leq 5\text{ MW}$ controllable hydro or biofuels power plants, or any plants connected to the distribution grid (or that requested connection) before January 7th, 2023; ii) $\leq 3\text{ MW}$ other power plants.
- Forms of compensation: local only, remote (self), local (shared/pool) or remote (shared/pool). With remote compensation restricted to the same distribution company area.
- Micro and mini-generation plants are considered consumer units.
- Credits for compensation can be used up to 60 months after the energy export to the grid.

Brazilian Electric Energy Compensation System - SCEE

Essential Rules

- Creation: 2012 (Normative Resolution – REN 482)
- Mechanism until 2022: **Net metering**, with compensation of all tariff components (even the ones not related to the cost of the energy, e.g. transport, losses, taxes, etc.)
- Mechanism after law No 14,300/2022: Net metering. With a transition period with full or partial compensation of tariff components not related with the cost of the energy. This transition period will remain until **2029, 2031 or 2046**, depending on factors such as the date of connection request and the characteristics of the consumer unit with MMGD that is the source of the energy compensated.
- ‘Definitive’ Mechanism (after the transition period): Net metering, with incidence in the billing of all tariff components not associated to the cost of the energy, with a possible reduction of these values, depending on the net benefits to the electric system provided by the MMGD.
- The rules for the valuation of the costs and benefits should be issued by ANEEL, based on guidelines established by the National Energy Policy Council (CNPE), issued on May 7, 2024 through the CNPE Resolution No. 2, of April 22, 2024.

ANEEL's Rulemaking Process for valuation of the costs and benefits of MMGD



Schedule

2024

- Initial studies and interaction with academy researches, based on the CNPE Guidelines.
- Interaction with international partners (as GIZ and RAP) and preparation of working plans.

2025

- State-of-art survey on methodologies to value the costs and benefits of the MMGD in electrical systems, in the different aspects addressed in Brazilian laws and regulations. Cooperation with GIZ and GME Global.
- Cooperation with UFU (University of Uberlândia/MG) in the organization of a symposium with national specialists.
- Internal discussions of rulemaking alternatives, based on the experiences studied.
- Launch of a public consultation – Tomada de Subídios Nº 23/2025 .

Tomada de Subsídios No 23/2025

Key information

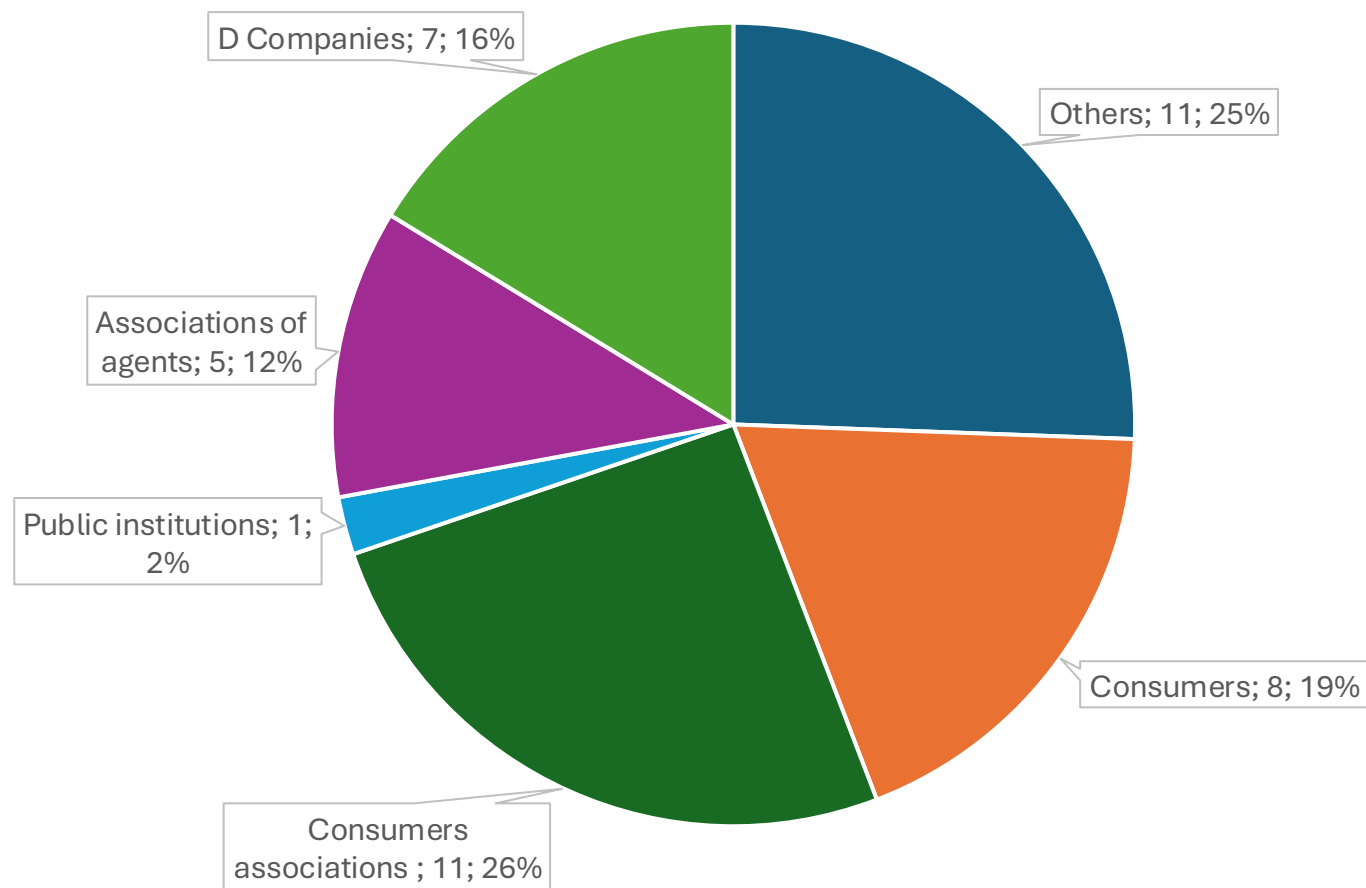
- Public Consultation to support regulation of Article 17 of Law No. 14,300/2022.
- An international study (GME Global / GIZ) reviewed experiences in California, New York, and Australia, highlighting the shift from net metering to value-based and time-/location-sensitive pricing models.
- Two regulatory approaches were discussed: (i) tariff differentiation for MMGD units and (ii) an aggregated valuation approach, each with distinct legal and methodological implications.
- Based on these two topics, ANEEL proposed 15 questions to be answered by participants.
- Format and period: Online remote form, available from December 2025 to March 2026.
- Documents available:

<https://www.gov.br/aneel/pt-br/acesso-a-informacao/participacao-social/tomada-de-subsidios>

Tomada de Subsídios No 23/2025

Participants

43 answers received via form



+ 9 answers received via letters, with more details

ANEEL, with help of GIZ/GME, is currently analyzing the answers.

Highlighted Q&A

7. Which international transition experiences addressed in the GME Global study (California, New York, and Australia) could be best adapted to the Brazilian context, and how?

The three experiences were cited in the following order: **Australia** (19 mentions), **New York** (18), and **California** (16). A recurring concern across responses is the need to account for the specific characteristics of the Brazilian power sector and to avoid direct transplantation of foreign models. Contributors emphasize learning from the **architecture and principles of transitions**, rather than copying implementation details.

9. Can granular metering enable dynamic tariffs and efficient MMDG integration? Should deployment be accelerated for low voltage consumers participating in the SCEE?

There was **no disagreement** regarding the importance of granular (hourly or sub-hourly) metering. It is widely viewed as a **technical prerequisite** for dynamic tariffs, accurate valuation of MMDG, and reduction of cross-subsidies by distinguishing consumption and export over time.

Highlighted Q&A

14. Which option is the best path?

86% of respondents favor **Option A – Tariff Differentiation** (33 responses), while **5 responses** support **Option B – Aggregated Form**.

Supporters of Option A highlight: Better alignment with cost causality; Greater transparency and reproducibility; Integration with the existing tariff framework; Compatibility with temporal and locational signaling; Greater regulatory predictability.

Across the remaining questions, the contributions consistently emphasize:

- Preference for **Tariff Differentiation** as the medium- to long-term solution;
- Caution regarding aggregated approaches due to counterfactual dependence and risk of distortion;
- Need for **gradual implementation**, protection of vulnerable consumers, and clear transition rules;
- Importance of granular data, component-based valuation, public models, and periodic review;
- Ensuring **economic-financial balance of distribution utilities** through transparent, auditable mechanisms, preferably within or coherently aligned with the tariff process.

ANEEL's Rulemaking Process for valuation of the costs and benefits of MMGD



Schedule

2026

- Analysis of the contributions of the Tomada de Subsídios No 23/2025
- Cooperation with RAP (and RETA) in actions proposed to develop stakeholder's participation.
- Studies to develop new methodologies needed for the Brazilian case, based on the results of Tomada de Subsídios No 23/2025. Regulatory Impact Analysis (RIA) of the problem and regulatory alternatives.
- December: Launch of a new public consultation for gathering contributions from the society over the RIA results (possibly already with a text proposal together). (Board of Directors)

2027

- Submission, discussion and approval of the new Rule. (Board of Directors)

Thank you!



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