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# **Japan Energy Newsletter**

**Japan Electric Power  
Information Center, U.S.A.**

## 1 Japanese Cabinet Approves the Basic Policy for Enforcement of the Revised Energy Conservation Act, Promoting the Shift Towards Non-fossil Energy<sup>1,2</sup>

On March 17, 2023, the Japanese government announced that the “Revised Energy Conservation Act,” which added non-fossil energy to the list of targets for energy conservation use by large-scale consumers, would be enforced starting from April 1, 2023. Subsequently, the Cabinet decided on a Basic Policy, which also came into effect on April 1, 2023, that stipulates the fundamental rules that energy-using business operators should follow for energy conservation.

### Background

The Law Concerning the Rational Use of Energy (Energy Conservation Law), originally enacted in 1979 against the backdrop of the oil crisis, aims to rationalize the use of energy and stabilize the electricity demand. The law requires large-scale consumers, such as businesses/companies, to implement measures to reduce their usage of energy from fossil fuels. The Law Concerning the Rational Use of Energy and Conversion to Non-fossil Energy (the Revised Energy Conservation Act), which has been enforced since April 1, 2023, calls for the rationalization of the use of all energy sources, including non-fossil energy, and for the conversion to non-fossil energy.

This law is based on the need to expand the introduction of non-fossil energy to make progress towards meeting Japan’s goal of achieving carbon neutrality by 2050 and the need to optimize the electricity demand while taking into account the possible fluctuations on the supply side, such as from solar power generation. In addition, while the Energy Conservation Law aimed to “stabilize the electricity demand,” the Revised Energy Conservation Act establishes guidelines on electricity usage for business operators, with the aim of “optimizing electricity demand.” Furthermore, electric suppliers are required to create plans for measures that contribute to the optimization of the electricity demand, such as maintaining the electricity rates.<sup>3</sup> In the future, energy-using businesses are expected to follow the Basic Policy and work towards improving their energy conservation and promoting the conversion to non-fossil energy.

### Outline of the Basic Policy

The Basic Policy accompanying the enforcement of the Revised Act on the Rational Use of Energy mainly stipulates the following contents:

- Measures to be taken for energy conservation
- Measures to be taken for conversion to non-fossil energy
- Measures to be taken to optimize electricity demand
- Others (basic requirements, etc.)

Specifically, the following examples of actions are expected: 1) the installation of equipment that contributes to the use of non-fossil electricity, such as equipment with excellent energy consumption efficiency and solar power generation equipment; 2)

<sup>1</sup> <https://www.meti.go.jp/press/2022/03/20230317004/20230317004.html>

<sup>2</sup> <https://www.meti.go.jp/press/2022/03/20230317004/20230317004-1.pdf>

<sup>3</sup> <https://www.meti.go.jp/press/2021/03/20220301002/20220301002.html>

choosing sources with a high proportion of non-fossil energy when procuring heat and electricity, and 3) the introduction of in-house power generation equipment and storage batteries for the optimization of electricity demand.

Electric suppliers will be requested to disclose information on electricity usage when requested by their customers to optimize electricity demand. In addition, they will also be expected to create and publicize plans for 1) developing an electricity rate plan that encourages initiatives contributing to the optimization of electricity demand 2) facilitating the installation of necessary equipment such as smart meters, and 3) creating an environment for providing information.

Moreover, the Basic Policy requires operators to disclose their sustainability-related information, such as their energy usage status, to promote energy conservation. In March 2023, the Agency for Natural Resources and Energy (ANRE) launched a voluntary disclosure system to initiate information disclosures, such as periodic reports under the Energy Conservation Act (before revision), in response to the growing demand for companies to disclose their sustainability-related information. The law requires businesses whose total energy consumption (crude oil equivalent) is 1,500 kiloliters/year or more to report on their annual energy usage. ANRE will produce a list of applicable companies and publish them on ANRE's website. In addition, ANRE will give businesses that comply with the requirements some additional points on their scores during the process to apply for subsidies for energy conservation as an added incentive for compliance.<sup>4</sup>

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<sup>4</sup> <https://www.meti.go.jp/press/2022/03/20230303003/20230303003.html>

## 2 Committee on Next-Generation Distributed Power Generation Systems Releases Interim Report<sup>5</sup>

On March 14, 2023, the Agency for Natural Resources and Energy (ANRE) released an interim report based on the discussions at the “Committee on Distributed Power Systems for the Next Generation.” To achieve carbon neutrality by 2050, maximizing the value of distributed resources and building a stable power system will be critical. The ANRE has therefore held six committee meetings since November 2022 to discuss the value discovery of distributed energy resources (DER), the evaluation of DER value, and the construction of a distributed system.

The interim report discusses and summarizes the content of ANRE’s committee discussions, according to the following main points: 1) utilization of low-voltage resources in each power market; 2) application of individual equipment measurement in supply-demand adjustment; 3) utilization of distributed energy resources in the power distribution sector; 4) integration of EVs and power systems, and 5) promotion of Demand Response (DR) under the Revised Law Concerning the Rational Use of Energy.

The following are the results of the discussions to date on issues 1) to 4), which are considered the most significant<sup>6</sup>:

- 1) Utilization of low-voltage resources in each electricity market:
  - Low-voltage resources such as stationary battery storage systems are currently used in conjunction with renewable energy (e.g., solar power) and for demand response provided by retail electricity companies. However, under the current rules, these systems are unable to participate in the adjustment market.<sup>7</sup> Therefore, the goal is to enable their participation in the supply and demand adjustment market for low-voltage resources in FY2026 by creating detailed market rules for participation.
  
- 2) Application of individual device measurements in the adjustment market:
  - Current rules require power receiving point measurements when a consumer side resource participates in the supply and demand adjustment market. However, the impact of demand fluctuations caused by demand loads other than the resources to be controlled (such as storage batteries, etc.) and solar power generation has been higher than expected. Therefore, new rules are expected to extract the system issues and organize countermeasures to realize individual device measurements in the supply and demand adjustment market. At the same time, ANRE will continue to study the details, with the aim of implementation from FY2026.
  
- 3) Utilization of distributed energy resources in the power distribution sector:

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<sup>5</sup> [https://www.meti.go.jp/shingikai/energy\\_environment/jisedai\\_bunsan/20230314\\_report.html](https://www.meti.go.jp/shingikai/energy_environment/jisedai_bunsan/20230314_report.html)

<sup>6</sup> [https://www.meti.go.jp/shingikai/energy\\_environment/jisedai\\_bunsan/pdf/20230314\\_1.pdf](https://www.meti.go.jp/shingikai/energy_environment/jisedai_bunsan/pdf/20230314_1.pdf)

<sup>7</sup> [https://www.meti.go.jp/shingikai/energy\\_environment/jisedai\\_bunsan/pdf/20230314\\_1.pdf](https://www.meti.go.jp/shingikai/energy_environment/jisedai_bunsan/pdf/20230314_1.pdf)

- With the increase in renewable energy, progress in electrification, and increase in EVs, the conventional power distribution system may experience grid congestion in the future. To solve the problem of system congestion, the use of DER in the power distribution field is under consideration, in addition to implementing basic measures such as reinforcing distribution facilities or curtailing renewable energy output. NEDO's DER flexibility demonstration, which can be the basis for this, aims to conduct field demonstrations by FY2024 and will promote the development and verification of the underlying technologies.

4) Integration of EVs and power systems:

- While there have been opportunities to encourage EV adoption in response to the expansion of renewable energy, tight supply and demand, natural disasters, etc., specific use cases and issues have not been organized. For this reason, it was agreed to sort out use cases for utilizing EVs as DERs and to establish the "EV Grid Working Group" in FY2023. Stakeholders from the automobile and electric power industries will participate in the working group to discuss future scenarios and measures to be taken.

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