

Achieving Net Zero GHG Emissions by 2050 in Japan

Policies and Measures Update (as of February 2021)

Ministry of the Environment, Japan

GHG net zero by 2050, Japan

Update of development of Policy and measures



- **Rapid but steady movement on declaration on GHG net zero by 2050**

- **Medium/Long-term Plan and Strategy**
- **Legal framework for Carbon Neutrality**
- **Budget**

- **Support for decarbonization of subnationals**
 - **Zero Carbon Cities**
- **Export of infrastructure**
- **Carbon Pricing**

GHG net zero by 2050, Japan

Update of development of Policy and measures



■ Rapid but steady movement on declaration on GHG net zero by 2050

□ Government

GHG net zero by 2050 declaration by PM SUGA, who instructed all ministers to pursue their efforts (October 2020)

□ Congress

Climate Crisis Declaration adopted by all parties in both House of Representatives and House of Councilors (November 2020)

□ Local governments

More than 200 cities/local governments declared net zero by 2050 (They cover more than 95 millions, about 75% of Japan's population)

■ Medium/Long-term Plan and Strategy

- ✓ Review of the Plan for Global Warming Countermeasures (cabinet decision) and Strategic Energy Plan started in autumn 2020.
- ✓ PM SUGA expressed that he will announce 'an aspiring 2030 target' by COP26 in his policy address to the Parliament (Jan. 18, 2021).
- ✓ The Long-Term Strategy under the Paris Agreement, decided in 2019, will also be revised

■ Legal Framework for Carbon Neutrality

MoEJ considers the revision of the Act on Promotion of Global Warming Countermeasures:

- ✓ **Providing long-term perspective taking into account the Paris Agreement and the Pledge for Carbon Neutrality by 2050**
- ✓ **Accelerating local actions by revising 'Local Government Action Plan' scheme to promote decarbonization at local level**
- ✓ **Revising GHG emissions measuring / reporting / disclosure systems for decarbonization of businesses**

GHG net zero by 2050, Japan

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■ Budget

- ✓ **Economic package for recovery from COVID19 pandemic**
 - e.g., subsidies for EV, insulation of houses, 2 trillion yen fund to promote ecological businesses and innovation
- ✓ **Budget plan for FY 2021**
 - e.g., support for the decarbonization of local governments in developing projects, building capacity and introducing renewable energy equipment

GHG net zero by 2050, Japan

Update of development of Policy and measures



■ Support for decarbonization of subnational - Zero Carbon Cities

- ✓ **228 local governments including Tokyo, Kyoto, and Yokohama announced their commitment to net zero carbon emissions by 2050.**
- ✓ **These local governments represent 95 million people (75.0% of Japan's population), and 4.0 trillion USD in GDP.**
- ✓ **New Committee of Ministers and Mayors** (Council for National and Local Decarbonization) **launched in Dec. 2020**
- ✓ **Roadmap will be developed by this summer for decarbonization of all local governments by 2050**

GHG net zero by 2050, Japan

Update of development of Policy and measures



■ Export of infrastructure

- ✓ Aim to contribute to the carbon neutrality in other countries
- ✓ Coal power generation projects: “stricter” criteria

■ Carbon Pricing

- ✓ Based on the PM SUGA’s instruction to Ministers of Environment and of Economy, Trade and Industry, MoEJ reconvened the Minister’s advisory committee on carbon pricing on Feb. 1

■ References

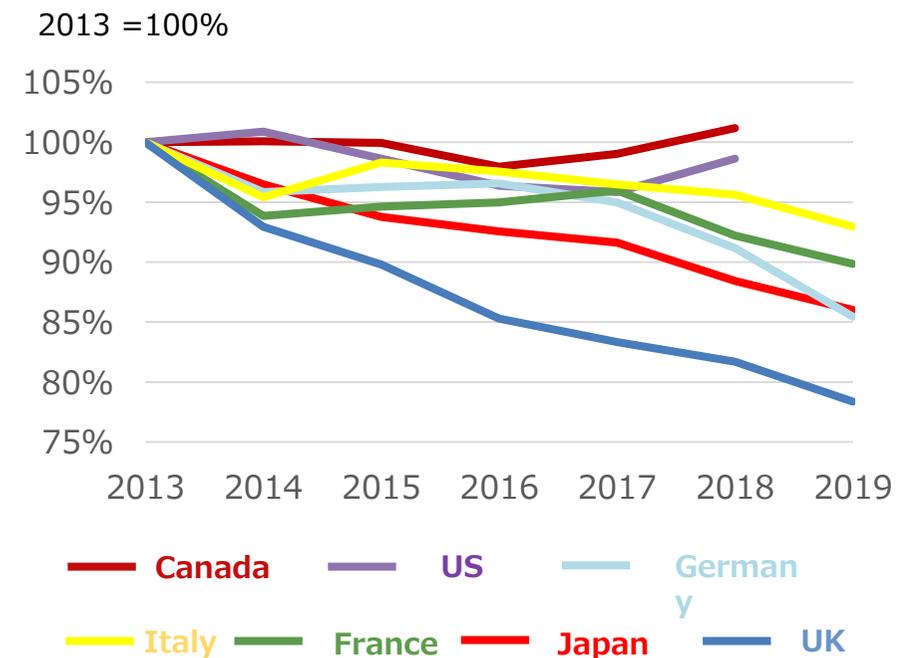
Japan's NDC and revision of the Plan for Global Warming Countermeasures

- Japan has **started to revise the Plan for Global Warming Countermeasures** with the submission of the NDC to the UNFCCC in March 2020 as a turning point.
- **The review of reduction target** will be carried out consistently with the revision of the energy mix so as not to be held up until the next deadline for quinquennial submission pursuant to the Paris Agreement, and **will aim at aspiring figures to reflect further ambitious efforts.**

Summary of Japan's NDC (March, 2020)

- Confirmed to continue to aim at resolutely achieving the level of a reduction of 26.0% by FY 2030 compared to FY 2013.
→ will pursue further efforts to reduce GHG emissions beyond this level.
- Carries out a review on the Plan for Global Warming Countermeasures.
→ will submit the information necessary to UNFCCC after its revision
- The review of reduction target will be carried out consistently with the revision of the energy mix, and will aim at aspiring figures to reflect.
→ make sure not to be held up until the next deadline for quinquennial submission pursuant to the Paris Agreement

GHG reduction level of G7 since 2013



Procedure from now on

- Japan will continue the discussion on the review of the Plan for Global Warming Countermeasures at the joint meetings of Central Environment Council and Industrial Structure Council, while considering the impact of the COVID-19 pandemic and the prolonged schedule of COP26.

Implementation of measures

- For 2050 carbon neutrality, **the decade from 2021 to 2030 is decisive.**
- We will trigger a regional decarbonization domino effect by implementing measures such as doubling the share of renewable energy consumption in regions.

“Zero carbon cities”: About 200 local governments (representing more than 95 million people)
Shift from “Declaration” to “Realization” (Budgeting)

- **Integrated support**, including support to the establishment of information infrastructure, planning, and to the introduction of renewable energy equipment
- Decarbonization measures will **foster a circular economy and increase the resilience of regions**

Council for National and Local Decarbonization

- ✓ Roadmap for decarbonization of all local governments by 2050
- ✓ Aim to realize model decarbonized regions by 2025

Carbon pricing

- ✓ Resume the examination of carbon pricing to promote the growth strategy in cooperation with the Ministry of Economy, Trade and Industry

Act on Promotion of Global Warming Countermeasures

- ✓ Examine the positioning of “2050 carbon neutrality” and the establishment of a system to foster the regional use of renewable energy

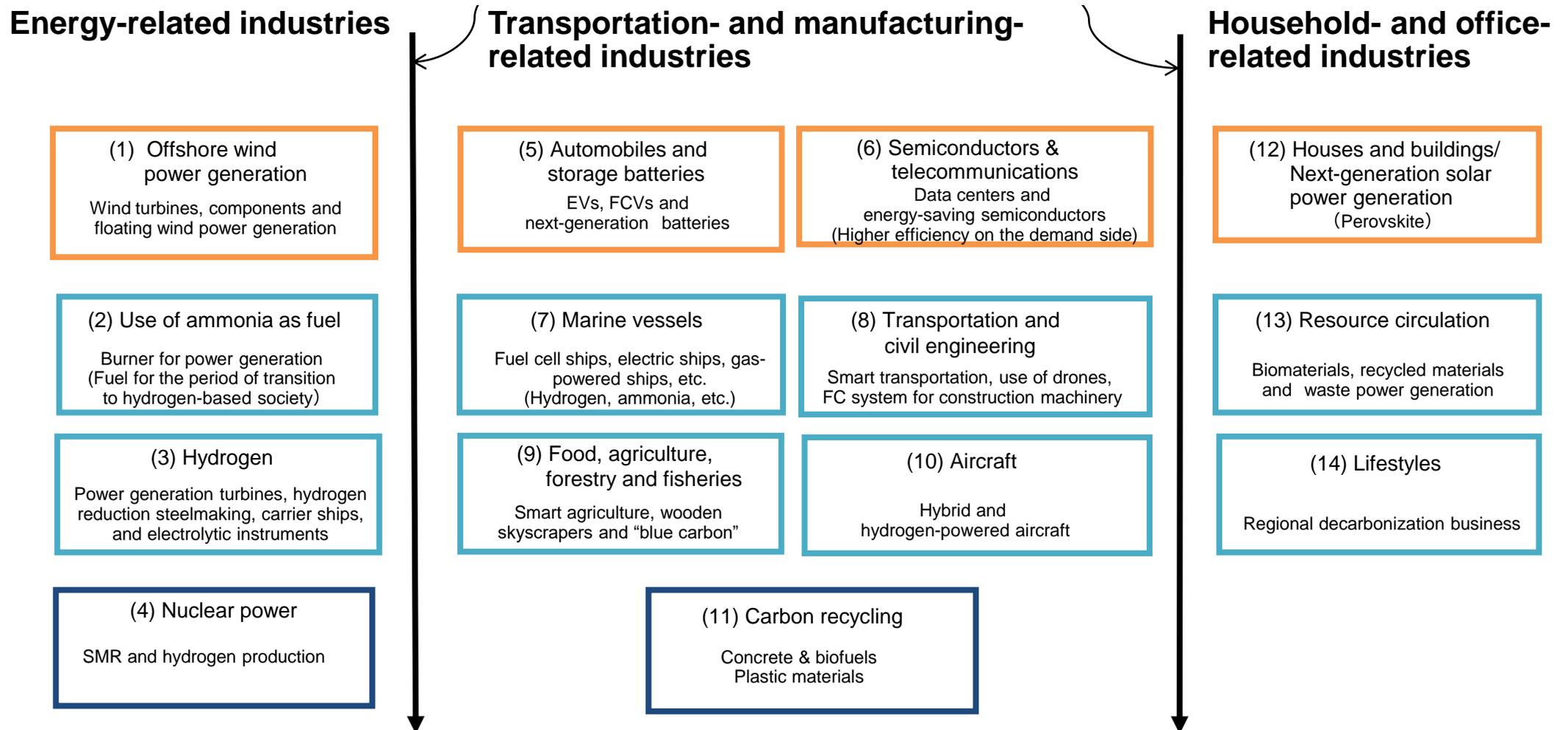
Plan for Global Warming Countermeasures and Long-Term Strategy

- ✓ Foster discussions to enhance measures to achieve the 2030 target
- ✓ Discuss the direction toward achieving the 2050 target

Green Growth Strategy towards 2050 Carbon Neutrality

- Submitted to the Committee on the Growth Strategy (at the meeting held on December 25, 2020)
- For each of the priority fields for 2050 carbon neutrality, an action plan is set including the details of the targets, R&D, necessary systems and international collaboration measures.

From the present to 2030 and 2050: Expansion of growth fields



Facilitation of decarbonization of subnationals

- a **new council for national and local decarbonization**, consists of **Ministers and Mayors**, launched in December 2020.
- **Expected outcome: Roadmap for 2050 carbon neutrality of all local governments by 2050**

Participants in the meeting: **【National government】**

(Chair) Chief Cabinet Secretary

(Vice Chairs)

Minister of the Environment

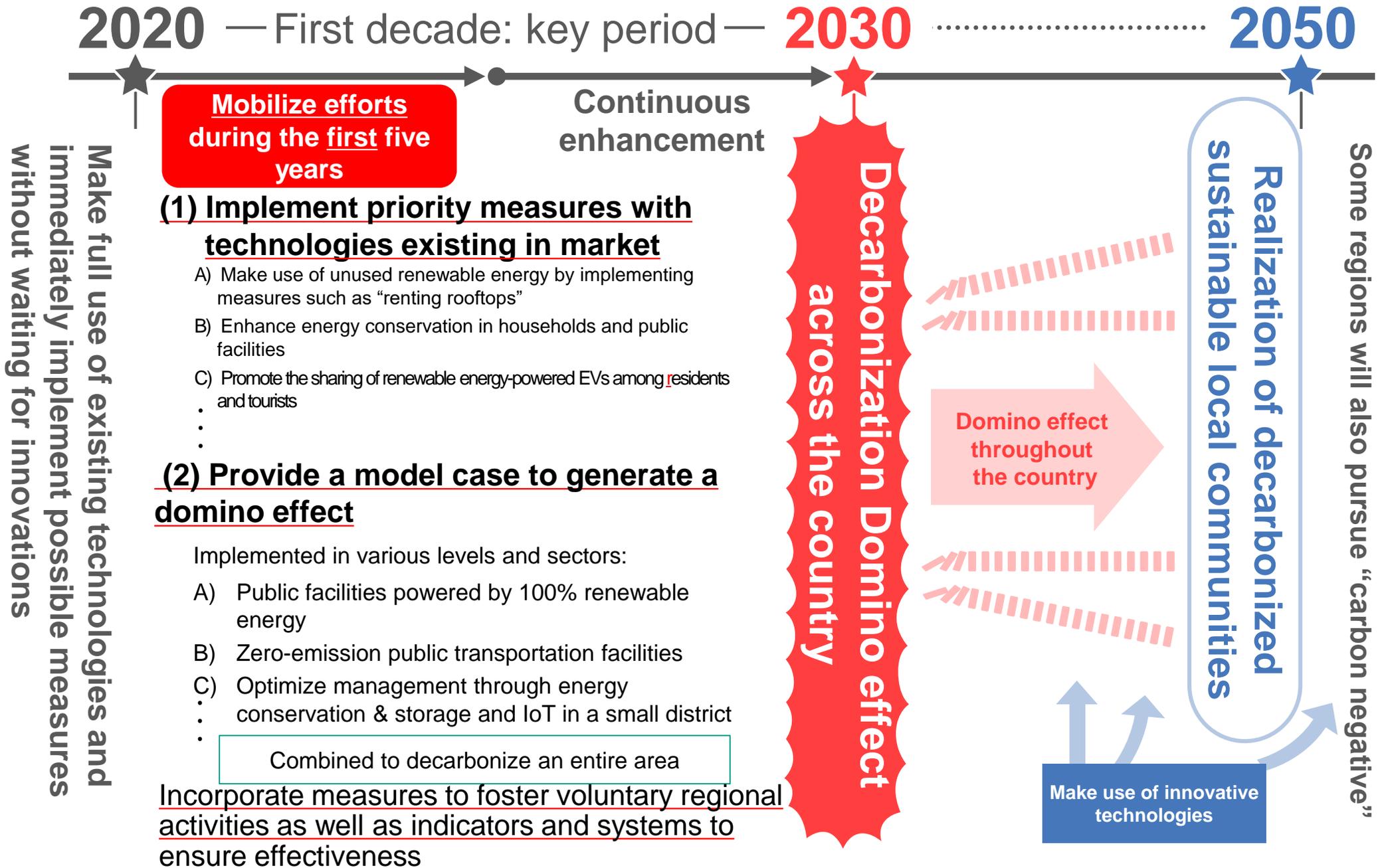
Minister of Internal Affairs and Communications

- Minister of Agriculture, Forestry and Fisheries,
- Minister of Economy, Trade and Industry,
- Minister of Land, Infrastructure, Transport and Tourism
- Minister of State for Regional Revitalization

【Local governments】

Governor of Nagano Prefecture, Mayor of Yokohama City, Mayor of Ono City (Fukui), Mayor of Iki City (Nagasaki), Mayor of Karumai Town (Iwate) and Mayor of Tsunan Town (Niigata)

Roadmap for decarbonization of subnationals



Decarbonizing both housing and transportation with Moving Batteries

- ① RE100 power + EVs + charging stations
- ② Free parking spots and charging stations made available in national parks (in respectively 13 and 10 locations)

Target: Individuals, SMEs, local governments, and more



100% renewable energy supply^{※1}

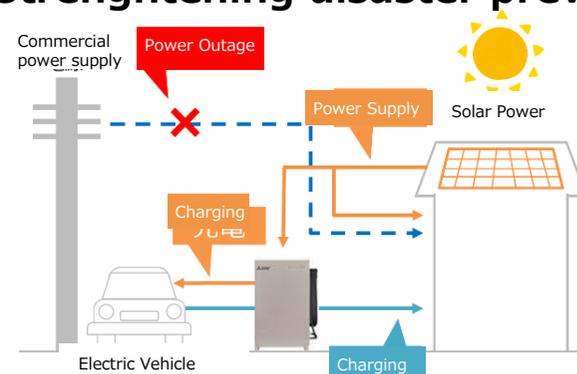
Introduction of EVs^{※2}

Originally set to 400,000 yen → Doubled to 800,000 yen

※1 Conditioned to 100% renewable energy supply and participation in monitoring surveys

※2 Incentives for purchasing EVs (electric vehicle), PHEV (plug-in hybrid vehicle), and FCV (fuel cell vehicle)

Strengthening disaster prevention



Introducing charging stations

Total incentive of **up to 1.95 million yen** upon the introduction of charging stations

※3

※3 Subsidizing 1/2 of charging station + installation costs (limited), totaling 1.15 million yen, details under consideration

Budget plan for the path to decarbonization especially to support local governments committing to zero carbon emissions



■ Information on infrastructure development

Mapping local governments' current situation, planning tools (regional climate change countermeasures applied toward the realization of Zero carbon cities) **0.8 billion yen (new)**

→Assessing the situation toward the realization of zero carbon cities, mapping, developing scenarios, and building consensus

■ Supporting project development

Mainstream the introduction of renewable energy in project planning, capacity building toward the realization of sustainable and resilient communities. **1.2 billion yen (new) [Amended in March 2020]2.5 billion yen**

→Support the formulation of targets for the introduction of renewable energy, build support for renewable energy zoning, and the formulation of schemes and systems to introduce renewable energy, toward achieving zero emissions by 2050.

■ Supporting the introduction of equipment

Support the joint introduction of resilient and decarbonized equipment for self-reliant and decentralized energy in evacuation facilities **[Energy Special Account]5 billion yen (new)[Amended in March 2020]5.5 billion yen**

→This is “hard” incentive to provide renewable energy equipment to evacuation centers.

Overview of policies to encourage further Global Warming Countermeasures



As part of the **work of the** “Institutional Study Group on the Promotion of Global Warming Countermeasures”, a revision of the **Direction of Further** Promotion of Global Warming Countermeasures was considered and an overview of future policies was provided. (publicly announced in December 2020)

(1) Setting long-term objectives taking into account the Paris Agreement and the Pledge for Carbon Neutrality by 2050

Stemming from the conclusion of the Paris Agreement, the publication of the IPCC Special Report on Global Warming of 1.5°C, and the 2050 carbon neutral pledge, the law will pave the way for the decarbonization of our society by encouraging stakeholders to drive decarbonization initiatives and innovations.

(2) Reviewing local decarbonization strategies to accelerate regional decarbonization

It is important to increase the local production and supply of renewable energy to promote regional decarbonization initiatives, such as zero carbon cities. In order to ensure local community acceptance for the development of renewable energy projects, it is essential to promote regional consensus building and to support local governments’ initiatives.

(3) Reviewing GHG emissions’ measuring / reporting / disclosure systems for the decarbonization of businesses

Ensuring that the measured/reported/disclosed information on GHG emissions is available to the large public, including investors, local governments, consumers, and businesses to encourage the decarbonization of corporate management and drive the decarbonization of local businesses.

One of Major Policies ; **Contribute to carbon neutrality**

- Promote joint development, pilot project, and acquisition of overseas markets, which will contribute to **global decarbonization**, as well as achieving carbon neutrality by 2050 in Japan.
- With respect to coal power generation projects, clarify export requirements and lay out stricter criteria for the provision of support.

Support overseas expansion via public funding, obtaining credits

- Improve access to funds utilizing **JPRSI (Japan Platform for Redesign: Sustainable Infrastructure)**
(Established in September 2020 with membership totaling 293 organizations)
- GHG emissions reduction or removal through the **Joint Crediting Mechanism (JCM)**
Approved projects are expected to reduce more than 17 million t-CO₂ by fiscal 2030. Accumulated emission reductions or removals by FY 2030 through the JCM are estimated to be ranging from 50 to 100 million t-CO₂ via scale-up or horizontal expansion of the project going forward.

Support policy frameworks development of partner countries

- Policy dialogue on the environment
(Ongoing with nine countries)
- Support development of a long term strategy under the Paris Agreement
(Ongoing with one country)