



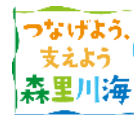
EU Delegation Lecture Material

Recent Developments on Regional Decarbonization Policies

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- 1 . Overview of National Policies
- 2 . Regional Decarbonization Roadmap
- 3 . Decarbonization model regions
- 4 . Financial Support

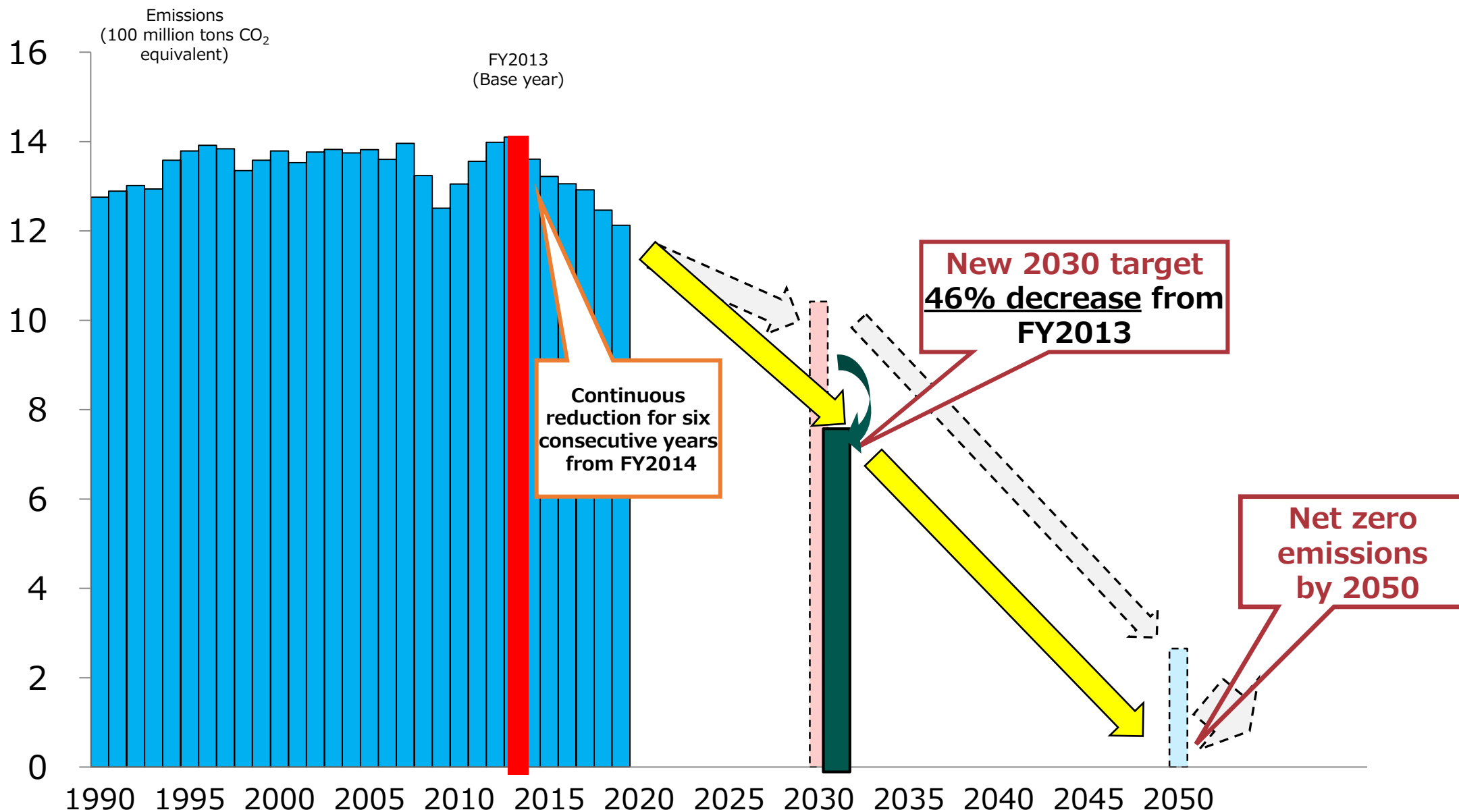
1. Overview of National Policies

Developments with carbon neutrality in Japan



- October 2020** 2050 Carbon Neutral Declaration by Prime Minister Suga
- April 2021** Setting of new greenhouse gas emission target for 2030
○ Aim for a reduction in FY2030 of 46%, and if possible, 50%
- May 2021** Enactment of law to partially revise the Act on Promotion of Global Warming Countermeasures
- June 2021** Determination of Regional Decarbonization Roadmap
○ Create at least 100 “decarbonization model regions” by 2030
○ Implement priority measures nationwide (self-consumption solar power generation, energy-saving housing, zero carbon driving, etc.)
- October 2021** Cabinet adoption of Plan for Global Warming Countermeasures (revised)
Cabinet decision on government action plan
NDC (Nationally Determined Contribution) submission
○ As an ambitious goal consistent with 2050 carbon neutrality, Japan aims to reduce greenhouse gas
- February 2022** Law to partially revise the Act on Promotion of Global Warming Countermeasures

Domestic moves to reduce greenhouse gases



Revisions to Plan for Global Warming Countermeasures Adopted by Cabinet on October 22, 2021



Greenhouse gas emissions /absorption (Unit: 100 million t-CO ₂)		2013 emissions (actual)	2030 emissions	Percentage reduction	Previous target
		14.08	7.60	-46%	-26%
Energy-origin CO ₂		12.35	6.77	-45%	-25%
By sector	Industry	4.63	2.89	-38%	-7%
	Commercial and other	2.38	1.16	-51%	-40%
	Households	2.08	0.70	-66%	-39%
	Transportation	2.24	1.46	-35%	-27%
	Energy conversion	1.06	0.56	-47%	-27%
Non-energy-origin CO ₂ , methane, N ₂ O		1.34	1.15	-14%	-8%
Four gases including HFC (fluorinated gases)		0.39	0.22	-44%	-25%
Sink		-	-0.48	-	(-37 million t-CO ₂)
Joint Crediting Mechanism (JCM)		Through public-private partnerships, the aim is for a cumulative reduction/absorption of international emissions of about 100 million tons of CO ₂ by FY2030. Credits earned by Japan will be appropriately counted to ensure that Japan's NDC is achieved.			-

Key measures/strategies positioned as part of Plan for Global Warming Countermeasures



Renewable energy / energy saving

- Local governments determine promotion zones based on the revised Act on Promotion of Global Warming Countermeasures
 - ➔ Expand use of renewable energy that benefits the region (**solar power** etc.)
- Expand mandatory compliance with energy-saving standards for **homes and buildings**

Industry, transportation, etc.

- Innovation support for 2050
 - ➔ Use a two-trillion-yen fund to support R&D and community adoption in priority fields such as hydrogen and storage batteries
- Support R&D for and verification of energy savings of 30% or more at data centers

Cross-disciplinary initiatives

- Create **at least 100 “decarbonization model regions”** by FY2030 (Regional Decarbonization Roadmap)
- Reduce emissions in developing countries etc. through the utilization of superior decarbonization technology etc.
 - ➔ Contribute to global reduction through the Joint Crediting Mechanism (JCM)

Government action plan

Adopted by Cabinet on October 22, 2021



- Greenhouse gas emission reduction plan for government administration and operations (Article 20 of the Act on Promotion of Global Warming Countermeasures)
- This time, the target has been changed to a **50% reduction** by FY2030 (from FY2013).

Key initiatives included in the new plan

Solar power generation

50% or more of government-owned buildings (including sites)



New buildings

Average of new buildings is to be **equivalent to ZEB Ready** by FY2030.

Government vehicles

All government vehicles used must be **EVs** by FY2030.



LED lighting

100% of lighting must be LED by FY2030.

Renewable electricity procurement

By 2030, more than **60%** of the electricity procured by each ministry and agency must be **from renewable energy sources**.

Waste management 3Rs + Renewable

By rigorously adhering to the **3Rs + Renewable** for the management of waste, including plastic trash, produced by government buildings, we will comprehensively promote the **transition to a circular economy**.



Plastic bottle collection machine in Joint Government Building No. 5

Law to partially revise the Act on Promotion of Global Warming Countermeasures (enacted in May 2021)



By codifying in law a long-term direction, promote action/investment toward decarbonization.

Codification in law of a basic philosophy based on the goals of the Paris Agreement and the 2050 Carbon Neutral Declaration



Promotion of the introduction of renewable energy to spur regional revitalization

Promotion of smooth consensus building through the introduction of a system for enabling municipalities to certify renewable energy utilization projects that conform to the policy required by the region (e.g., environmentally-friendly and contributes to the region)



Expansion of ESG investment through adoption of open data practices for corporate emissions information

Digitalization in principle of greenhouse gas emission reports from companies
Elimination of need for disclosure request and change in the period until publication from the current “two years” to “less than one year”

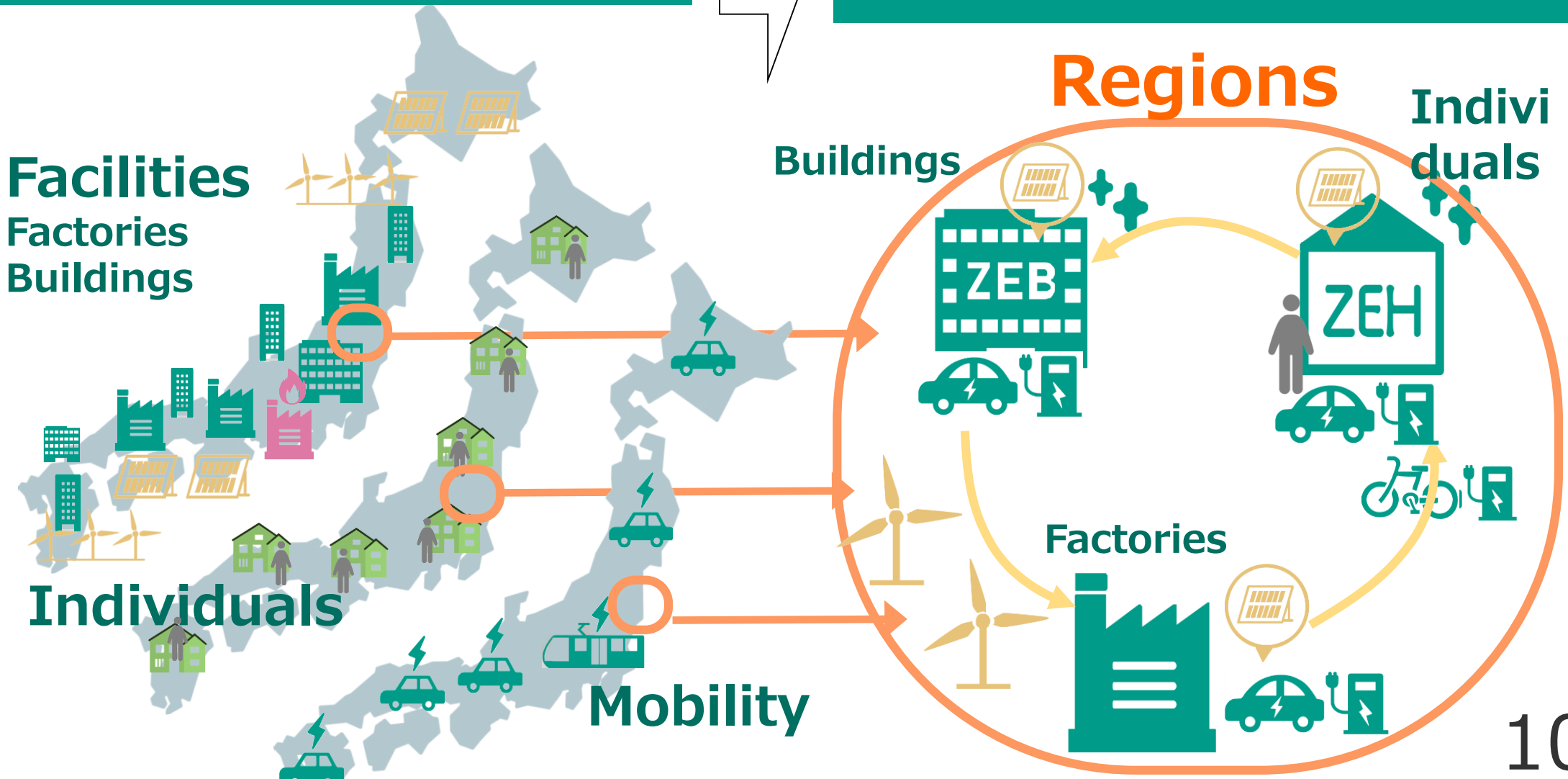
2. Regional Decarbonization Roadmap

Regional Decarbonization

Conventional

Additio
nally

Regional Decarbonization



Regional revitalization through carbon neutrality

**Regional
revitalization**

**Disaster
Preparedness
and response**

**Comfortable
living**

**Returning profits
from power
generation to regions**



**Active during
typhoon-caused
power outage**



(Source: ANN News)

**Enhancing
profitability of
existing industries**



- To realize carbon neutrality by 2050 through collaboration and co-creation between the national and local governments, especially in **fields that are closely related to local initiatives and people's lifestyles**, we have established the Council for National and Regional Decarbonization

● Members

<Government> Chief Cabinet Secretary (Chair), Minister of the Environment (Vice Chair), Minister of Internal Affairs and Communications (same as above), Minister of State for Regional Revitalization, Minister of Agriculture, Forestry and Fisheries, Minister of Economy, Trade and Industry, Minister of Land, Infrastructure, Transport and Tourism

<Local government> Governor of Nagano, Mayor of Karumai, Mayor of Yokohama, Mayor of Tsunan, Mayor of Ono, Mayor of Iki

● Summary of each meeting

1st: December 25, 2020	Discussed purpose and goals of roadmap and efforts by ministries and local governments
2nd: April 20, 2021	Produced draft outline of roadmap
3rd: June 9, 2021	Finalized roadmap

*In addition, four hearings with local governments, companies, etc. were held, and opinions were exchanged with relevant organizations.

Overview of Regional Decarbonization Roadmap measures/strategies



Full utilization of policy tools during five-year focus period

(1) At least 100 decarbonization model regions*

*Realization of net zero CO₂ emissions from electricity consumption by households and the service sector

(2) Implementation of priority measures all over the country

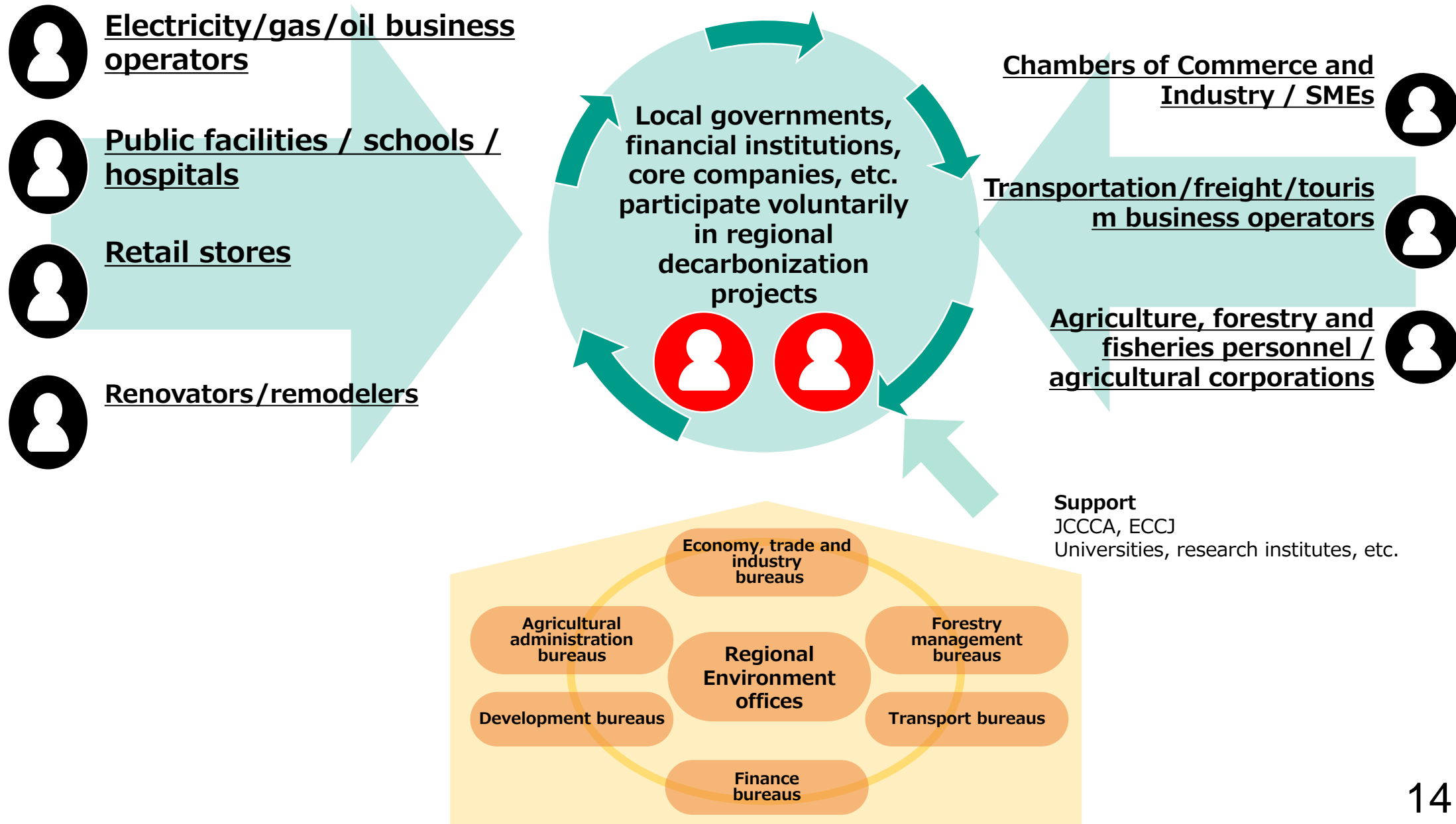
Numerous decarbonization dominoes across the country



Nationwide creation of local communities characterized by resilience and vigor as a result of decarbonization

Implement with linkages to policy programs such as the Green Food System Strategy, the MLIT Green Challenge, and the Green Growth Strategy Through Achieving Carbon Neutrality in 2050

Establishment of structure for regional implementation system and active support of national government



3 . Decarbonization model regions

What are decarbonization model regions?

- Decarbonization model regions will achieve **net zero CO₂ emissions from electricity consumption by households and the service sector**. These regions will also reduce other greenhouse gas emissions that is consistent with the FY2030 target for Japan as a whole.
- **At least 100 decarbonization model regions by FY2030** will be at the forefront of action toward decarbonization that reflects local characteristics
- They will trigger a **decarbonization domino effect** demonstrate a **path toward carbon neutrality in 2050** that other regions can follow.
- They will present a direction for action toward decarbonization while **solving local problems and improving the quality of life of residents**.

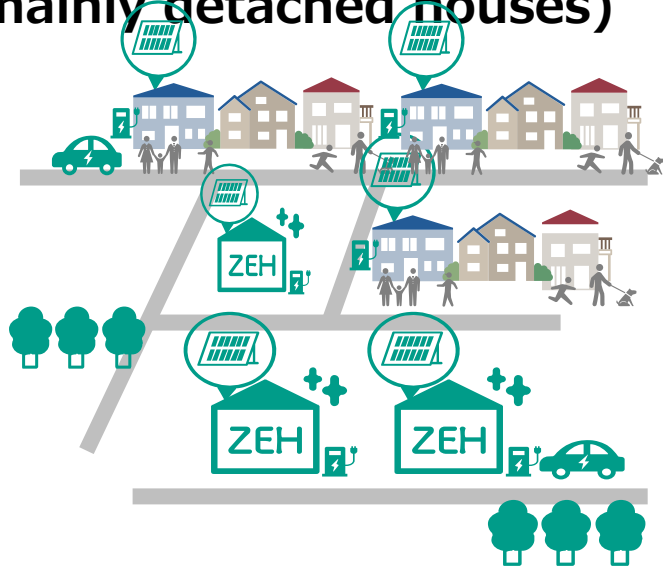
Criteria for selection of decarbonization model regions



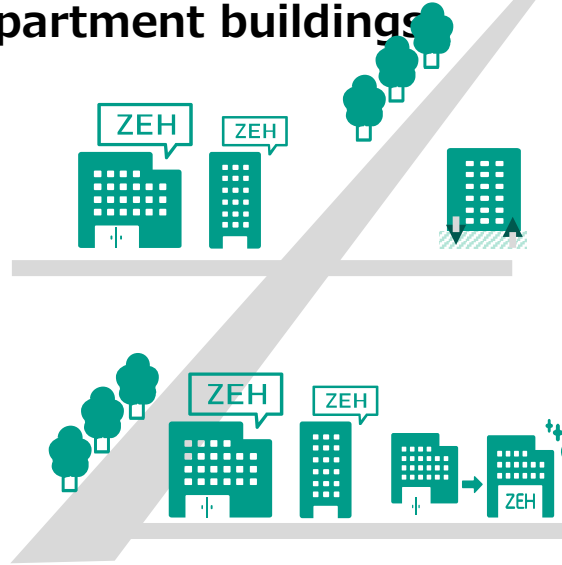
- (1-1) Achievement of **net zero CO₂ emissions from electricity consumption by households and the service sector** in the decarbonization model region by FY2030
- (1-2) Efforts to combat global warming in ways that reflect local characteristics (other than CO₂ emissions from electricity consumption by households and the service sector)
- (2) Maximum deployment of renewable energy equipment based on factors such as renewable energy potential
- (3) **Solutions to local problems and improvement in the quality of life of residents** as a result of decarbonization initiatives
- (4) Determination of scope and category of model region
- (5) Feasibility of the plan
- (6) Implementation policy and system for managing progress of initiatives
- (7) Formulation of an action plan based on the revised Act on Promotion of Global Warming Countermeasures etc.

Scope and categories of decarbonization model regions

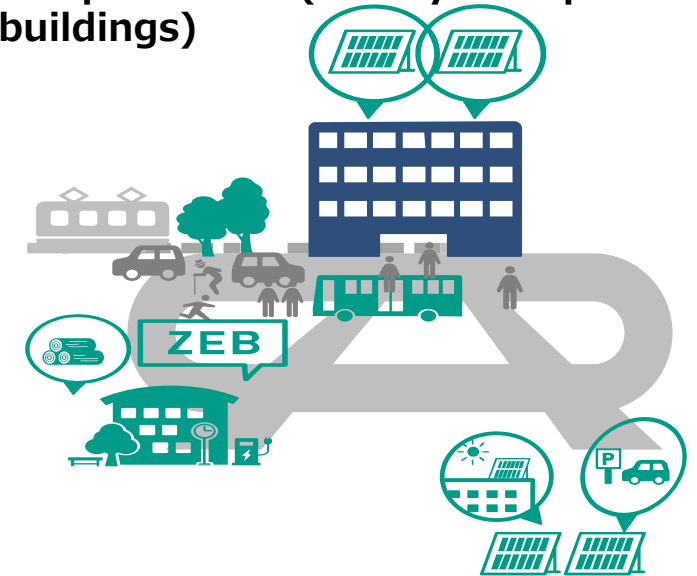
A Residential areas (mainly detached houses)



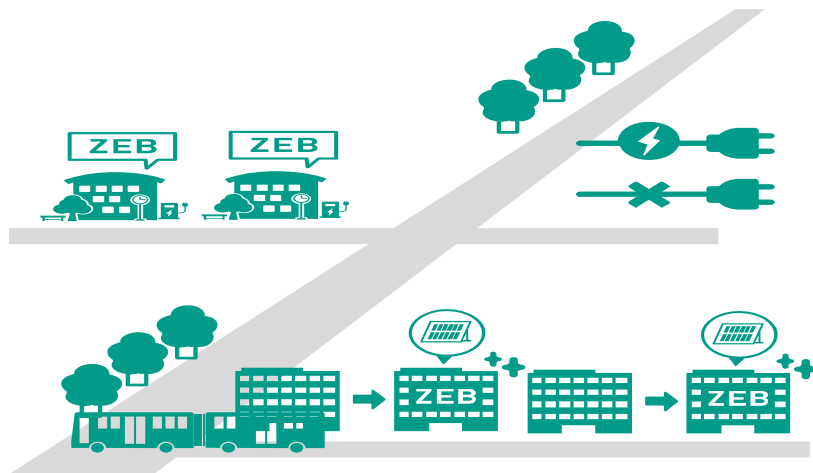
B Residential areas (mainly apartment buildings)



C Residential areas / housing complexes (mainly apartment buildings)



D Central urban areas of large cities



E Specific sites Ex. university campuses

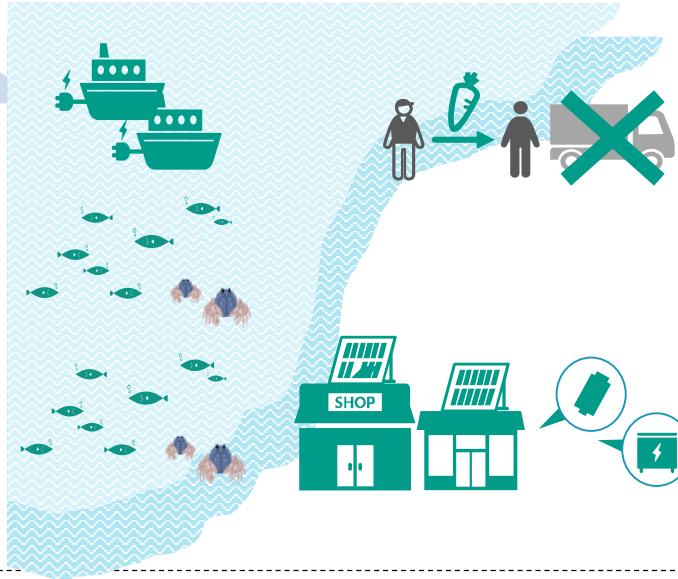


Scope and categories of decarbonization model regions

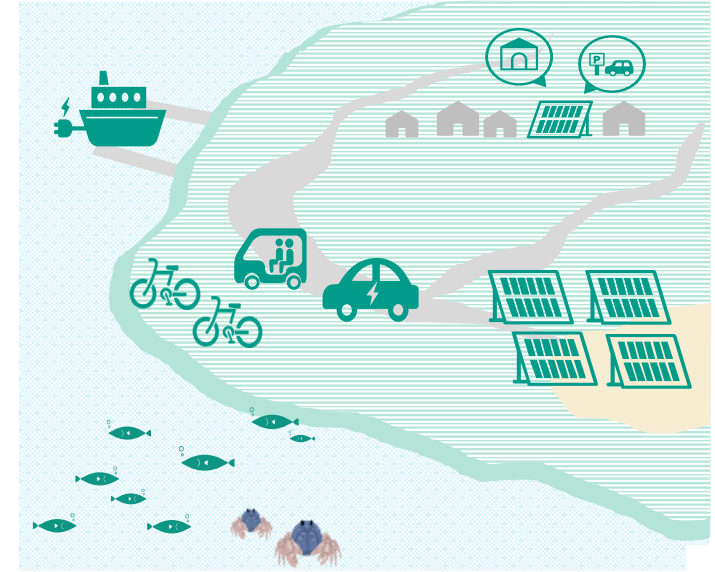
F Agroforestry villages



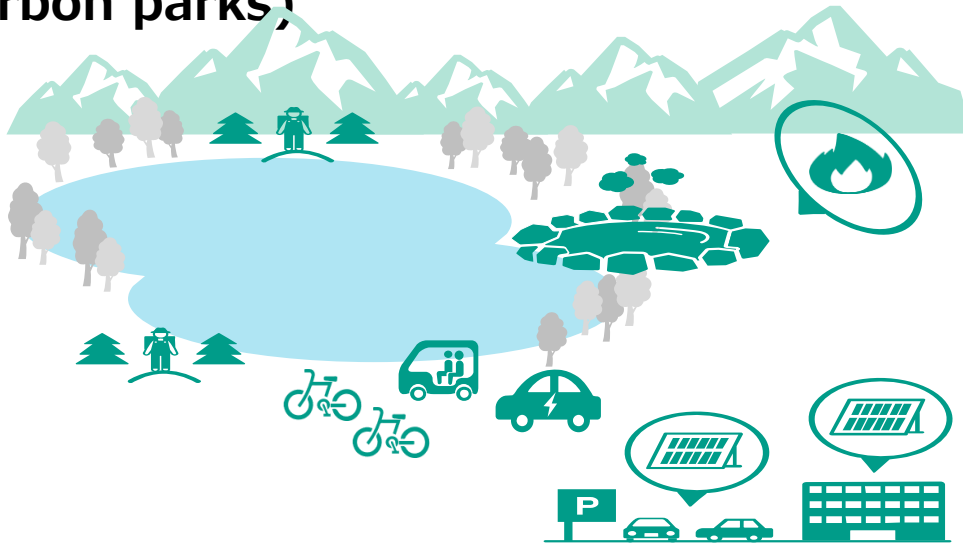
G Fishing villages



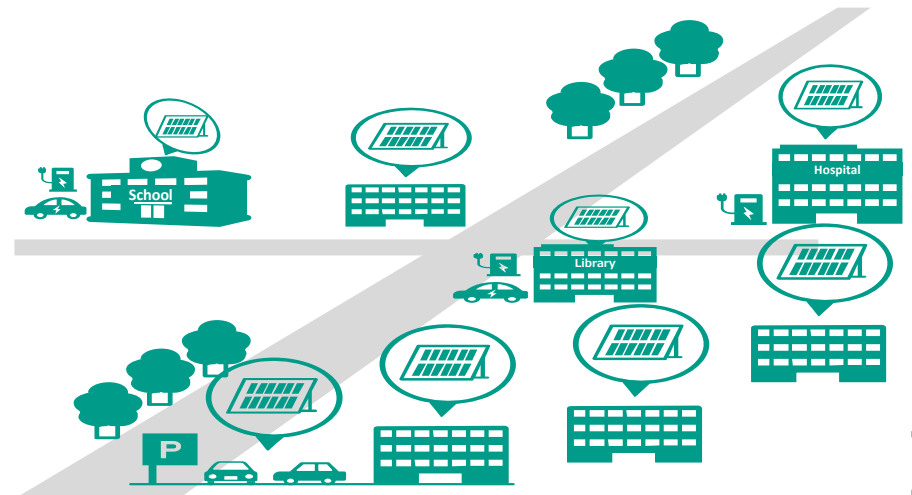
H Remote islands



I Sightseeing areas / natural parks (zero carbon parks)



J Groups of facilities,



Future schedule for selection of decarbonization model regions

January 25–February 21 **Open call for applications**

This spring **Selection and public announcement of decarbonization model regions**

After that, open calls for applications will be made about twice a year until FY2025

- * Publication of reference materials such as guidebooks to assist local governments in making proposals
 - Guidebook for creating a decarbonization model region
 - Study guide for creating a decarbonization model region
 - Power demand, power supplied from renewable energy etc., power reduction by saving energy
 - Example calculation method



4. Financial Support

Financial support for local governments for regional decarbonization



The MOEJ **proactively supports local governments** and private-sector companies that are actively implementing decarbonization projects

Regional decarbonization transition / renewable energy promotion grants (20 billion)

Establishment of new decarbonization investment system for ambitious decarbonization projects by private-sector companies (20 billion)

Community harmonized renewable energy introduction acceleration support package (26.6 billion)

Other regional decarbonization and lifestyle-related budgets (37 billion)

Regional decarbonization transition / renewable energy promotion grants



Introduction of a comprehensive grant scheme to facilitate multifaceted/multiyear strategic and flexible implementation of ambitious decarbonization initiatives by **local governments** aiming to achieve the FY2030 target and carbon neutrality in 2050

[FY2022 (first fiscal year) budget (tentative)] **20 billion yen**

Decarbonization model region development projects

Grant recipients

Local governments working to create a decarbonization model region (e.g. realization of net zero CO₂ emissions from electricity consumption by households and the service sector in a certain region)

Proportion subsidized

Generally 2/3

Support content

Renewable energy equipment

basic infrastructure equipment

low-CO2 etc. equipment etc.



Priority measure execution acceleration projects

Local governments accelerating the execution of priority measures such as community symbiotic renewable energy and energy-saving housing

2/3 to 1/3, fixed amount

Combination of priority measures etc.

- Solar power generation for self-consumption
- Installation of renewable energy infrastructure for community symbiosis / local benefit
- Thorough energy saving and ZEB conversion for commercial buildings etc.
- Improvement of energy-saving performance of homes and buildings
- Zero carbon driving



Promotion of private-sector investment through establishment of new decarbonization investment system



Establishment of a new decarbonization investment system that will provide funds for decarbonization projects, activities, etc. for which it is normally difficult to obtain funding due to factors such as a lack of past examples and low awareness of such initiatives.

Investment recipients

Effective projects for contributing to decarbonization, such as ones involving renewable energy, energy saving, and effective resource utilization, and business operators pursuing such projects

Financing methods

Equity investment, mezzanine finance (subordinated loans etc.), debt guarantees, etc.

Overview of new organization

[Name] Decarbonization Support Organization (tentative name)

[Form] *kabushiki gaisha* (joint-stock company) (approved by the Minister of the Environment)

[Period of operation] until FY2050

[FY2022 Fiscal Investment and Loan] 20 billion yen

