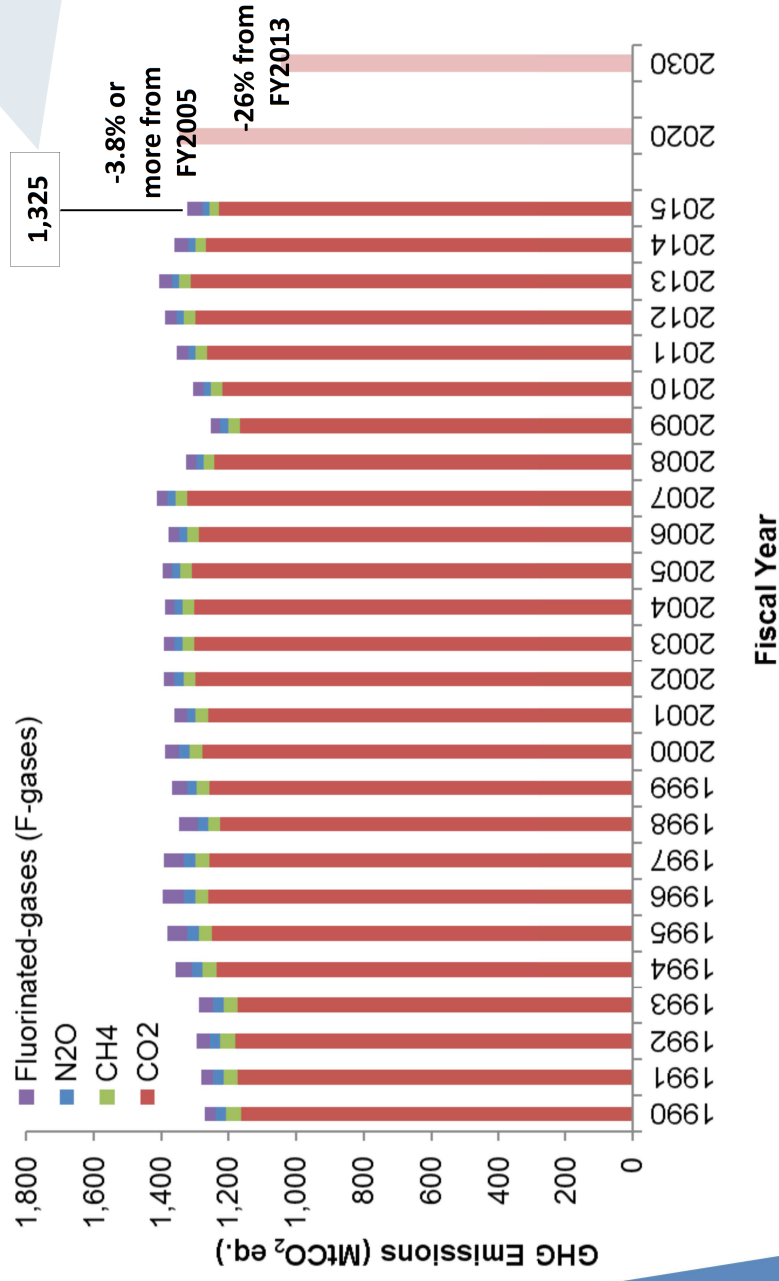


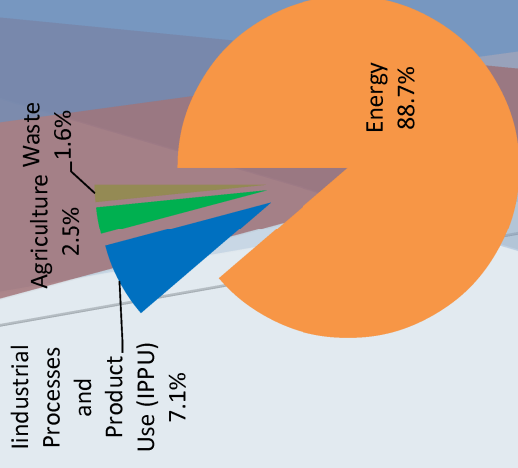
# Climate Change Policies of Japan

Hiroshi ONO  
Deputy Director General,  
Global Environment Bureau  
Ministry of the Environment

# GHG Emissions Trends (1990-2015)



## Emissions by sector in FY 2015 (excluding LULUCF)

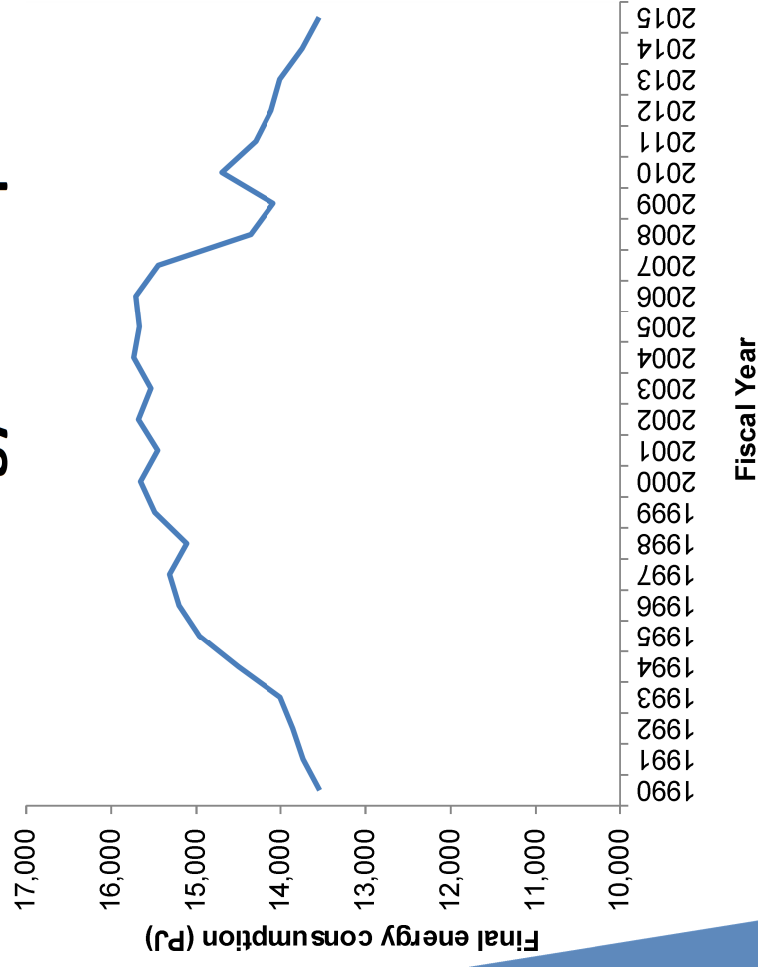


(Source) National Greenhouse Gas Inventory Report of Japan (April, 2017), Global Warming Countermeasures Plan

Note: The values of GHG emissions are based on the 2017 GHG inventory submission, which were revised from the values reported in the BR2. In the right pie chart, total is not equal 100% due to rounding.

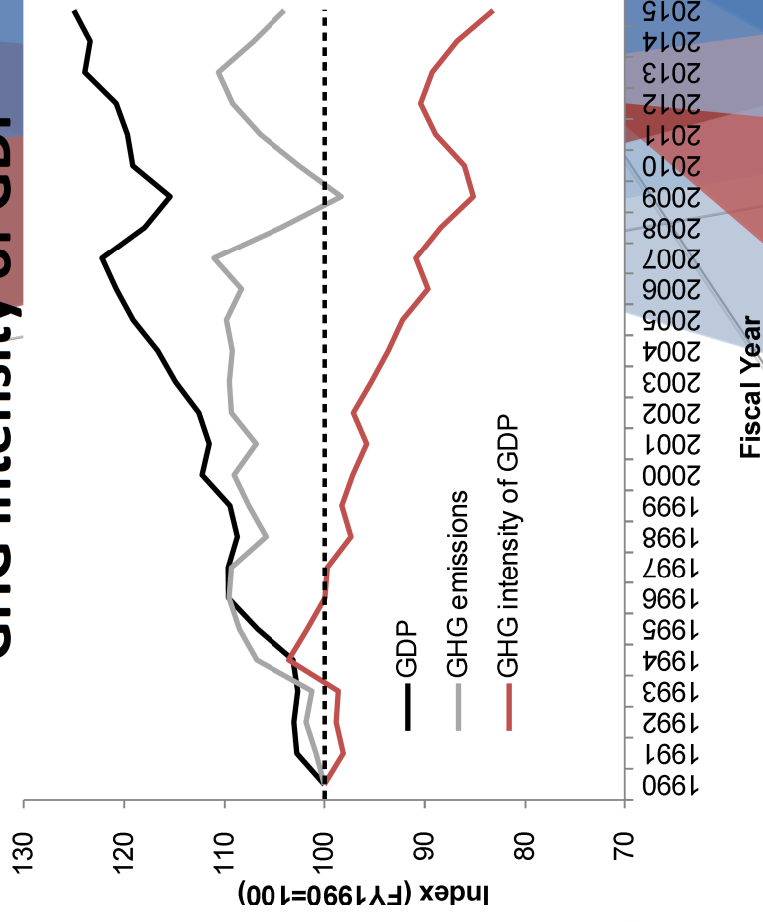
# Energy Consumption and GHG Intensity

## Final energy consumption



(Source) General Energy Statistics of Japan (April, 2017)

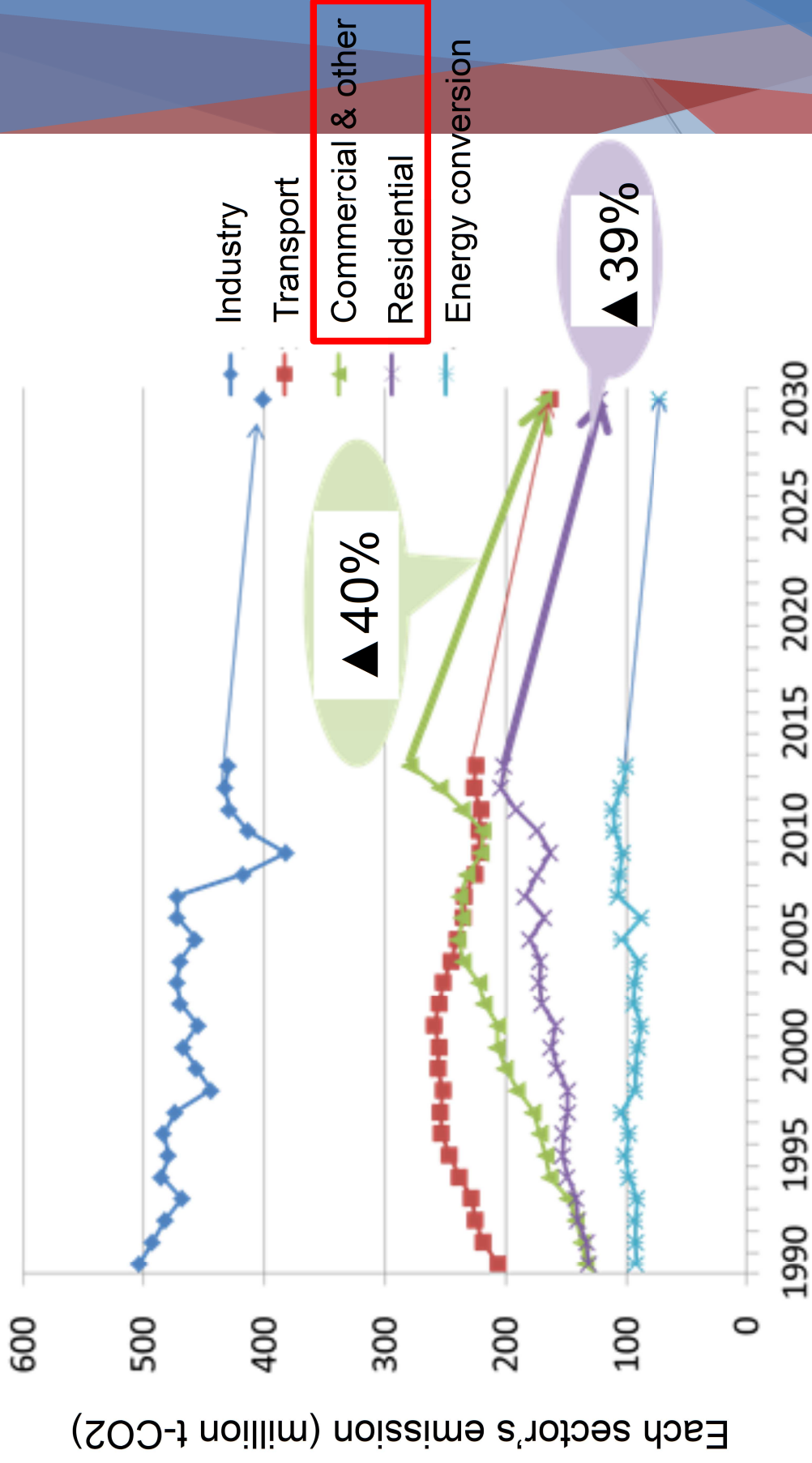
## GHG intensity of GDP



(Source) National Greenhouse Gas Inventory Report of Japan (April, 2017), Annual Report on National Accounts

Note: The values of GHG emissions are based on the 2017 GHG inventory submission, which were revised from the values reported in the BR2.

# Japan's INDC and reduction target

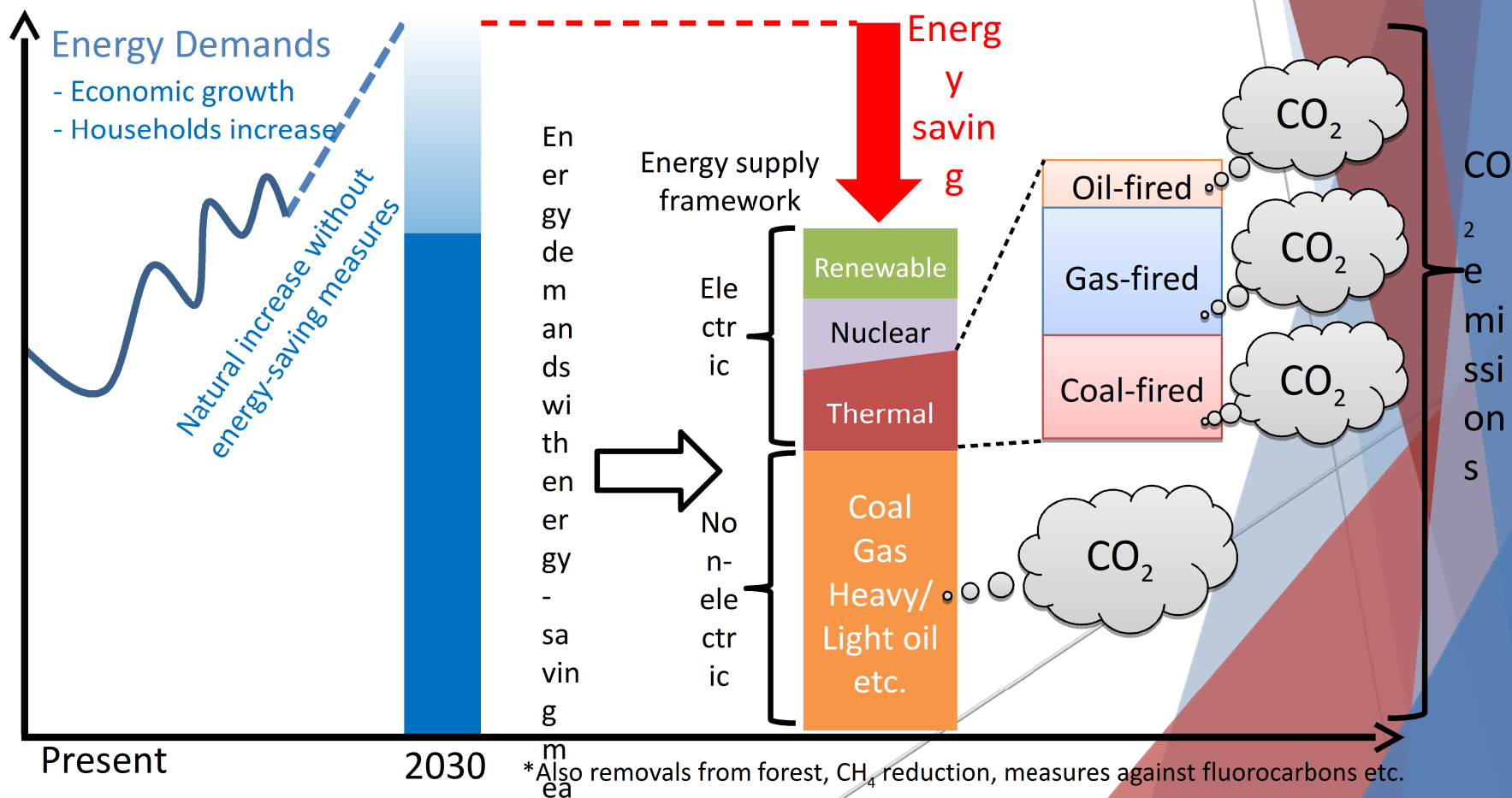


# Plan for Global Warming Countermeasures (May 2016)

- ✓ GHG reduction target
  - BY FY2030 : 26% reduction compared to
  - BY FY2020 : 3.8% or more compared to FY2005
- ✓ Progress Management
  - Progress review : every year
  - Revision : every 3 years
- ✓ Policies and measures for achieving targets

# Framework of emissions reduction target

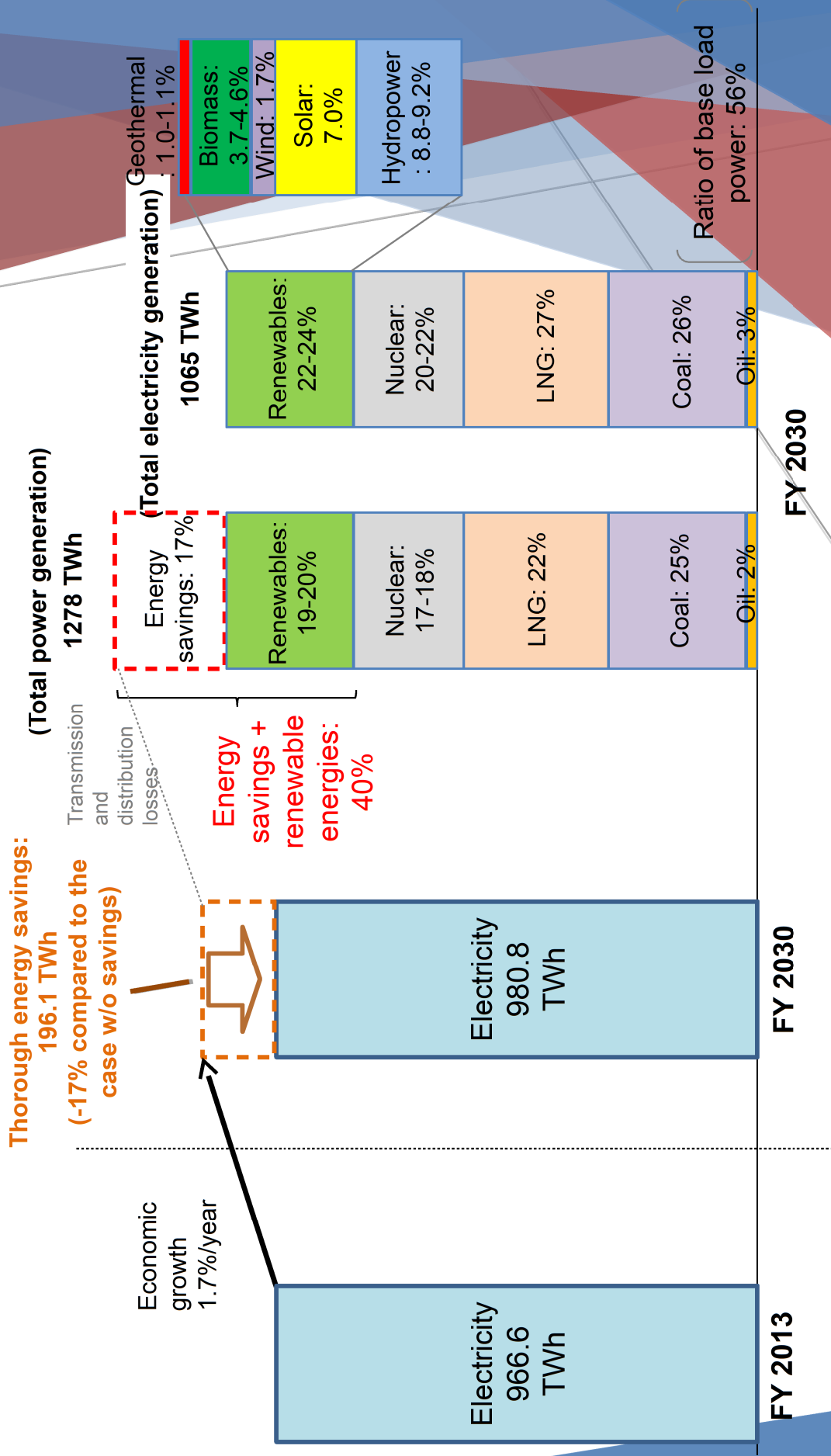
**Control of energy demands** by energy conservation  
Use of zero-emission source and **less CO<sub>2</sub> energy**



# Energy mix in FY 2030

## Electricity demand

## Breakdown of electricity generation



(All figures in FY 2030 are approximate)



# Long-term Low-carbon Vision

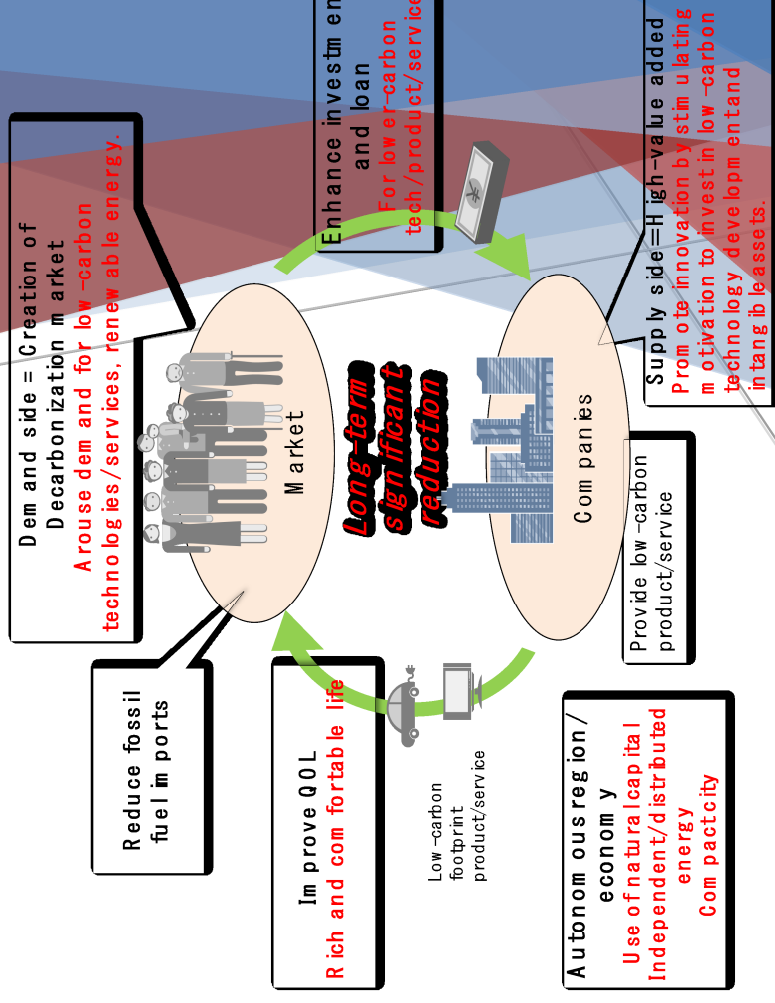


# Climate change policy for green growth

- ✓ Actions based on science
  - ✓ achieve a balance between anthropogenic emissions by sources and removals by sinks of GHG in the second half of this century.
  - ✓ Aim to reduce GHG by 80% by 2050, in light of Paris Agreement
- ✓ Full mobilization of all effective policies and measures
  - ✓ Existing technologies, know-how and findings
  - ✓ **Innovation**

# Innovation beyond existing measures

- ✓ Innovation of economic and social system
  - ✓ Create mechanism to produce incentives for enhancing needs of new technology
- ✓ Innovation of technology
  - ✓ Promotion of advanced technology and combination of existing technologies
- ✓ Innovation of lifestyle
  - ✓ Transformation of life style, work style, choice of services toward decarbonization




# MOE's Policy

- Carbon Tax and its Uses -

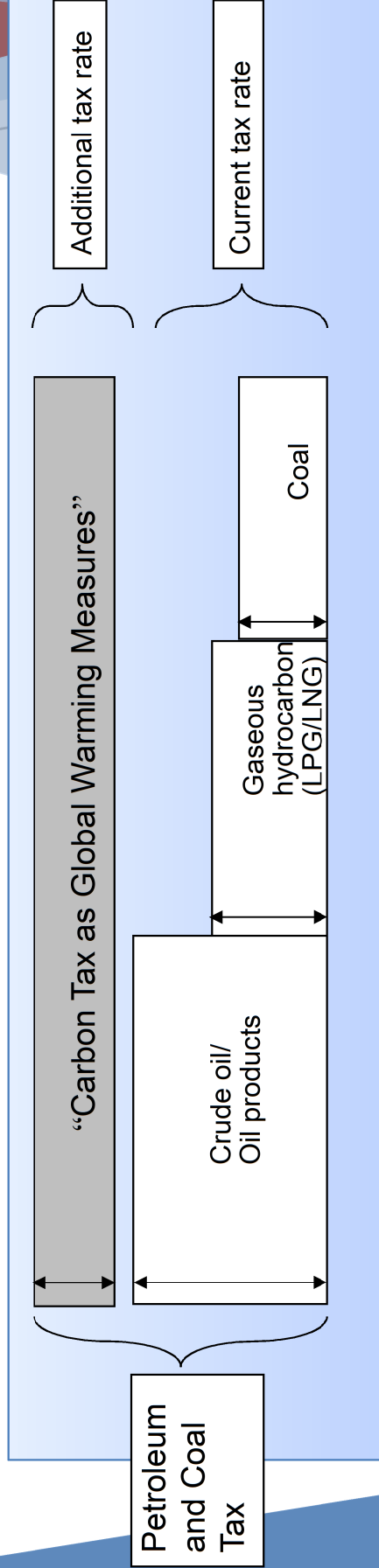


# Carbon tax scheme - Tax Rate

- ✓ Enforced since 2012;
  - ✓ Tax rate;
    - ✓ corresponds to the amount of CO<sub>2</sub> emissions for all fossil fuels
    - ✓ JPY 289/t-CO<sub>2</sub>
    - ✓ has been increasing gradually over 3.5 years
  - ✓ Revenue:
    - ✓ JPY 260 billion (EUR 2 billion)
    - ✓ Used for the introduction of renewable energy and enhancement of energy conservation measures
- 

# Carbon tax scheme - Enforcement

Type	Current Tax Rate
Crude oil/Oil products [per 1 kl]	2,040 (EUR 15.7)
Gaseous hydrocarbon [per 1 t]	1,080 (EUR 8.3)
Coal [per 1 t]	JPY 700 (EUR 5.4)



# Major uses of tax revenue 1

## ✓ Promotion of renewable energy and energy savings

- ✓ public buildings
- ✓ renewable heat and electric energy
- ✓ CO2 emissions in logistics sector
- ✓ water supply systems
- ✓ LED light in regions



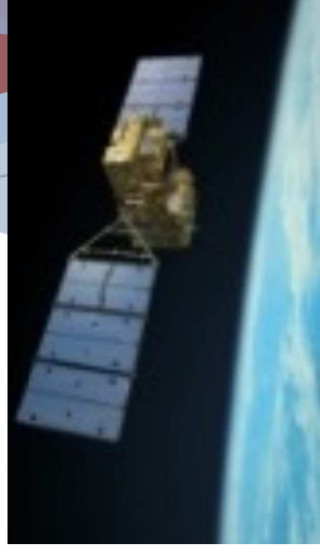
## ✓ Technologies for renewable energy and energy saving

- ✓ CO2 emission reduction technologies
- ✓ Hydrogen society using renewable energy
- ✓ Next-generation materials
- ✓ CCS
- ✓ floating wind turbines

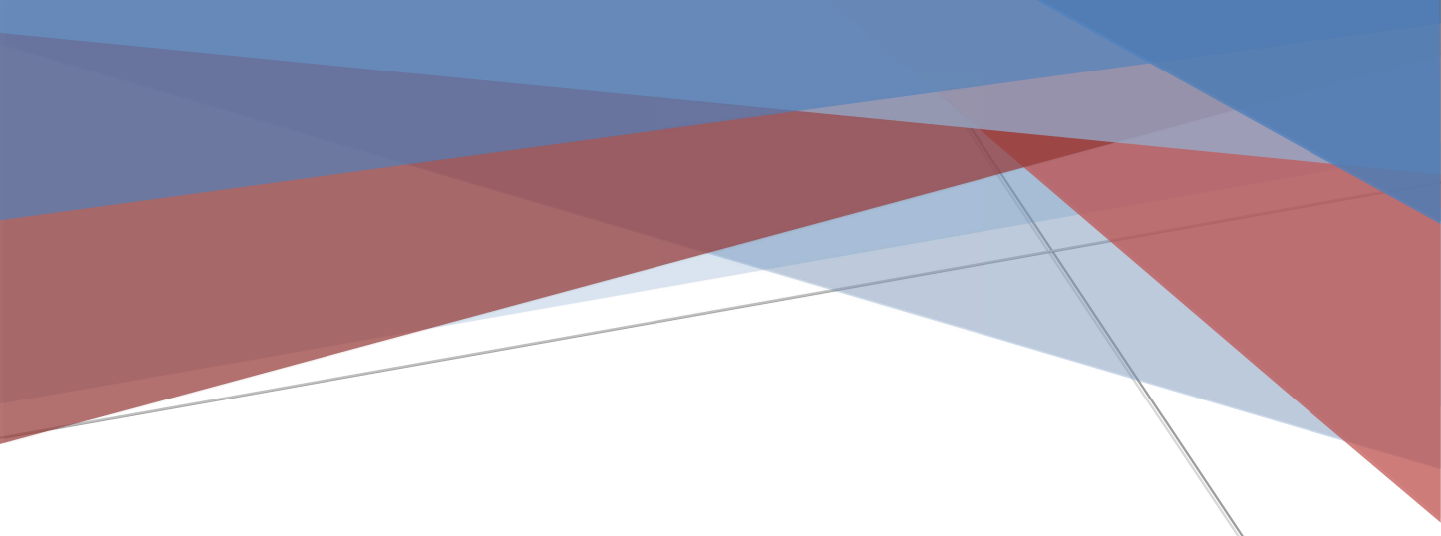


# Major uses of tax revenue 2

- ✓ Environmental finance and public campaign
  - ✓ Investment fund
  - ✓ Public campaigns
- ✓ Contributions to global emission reduction
  - ✓ Enhancing technology of MRV for JCM promotion
  - ✓ Funding support for JCM
  - ✓



# Renewable Energy and Energy Saving





# Policy for Renewable Energy

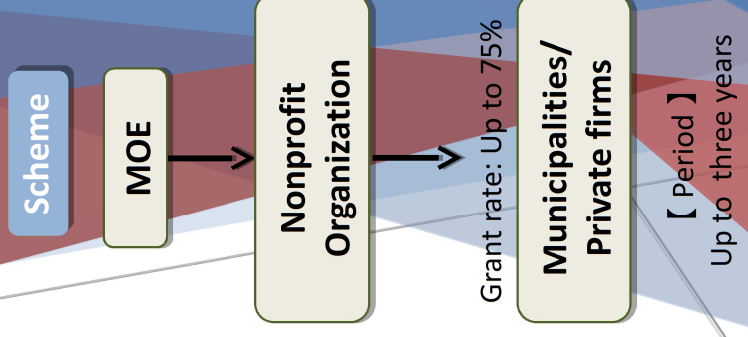
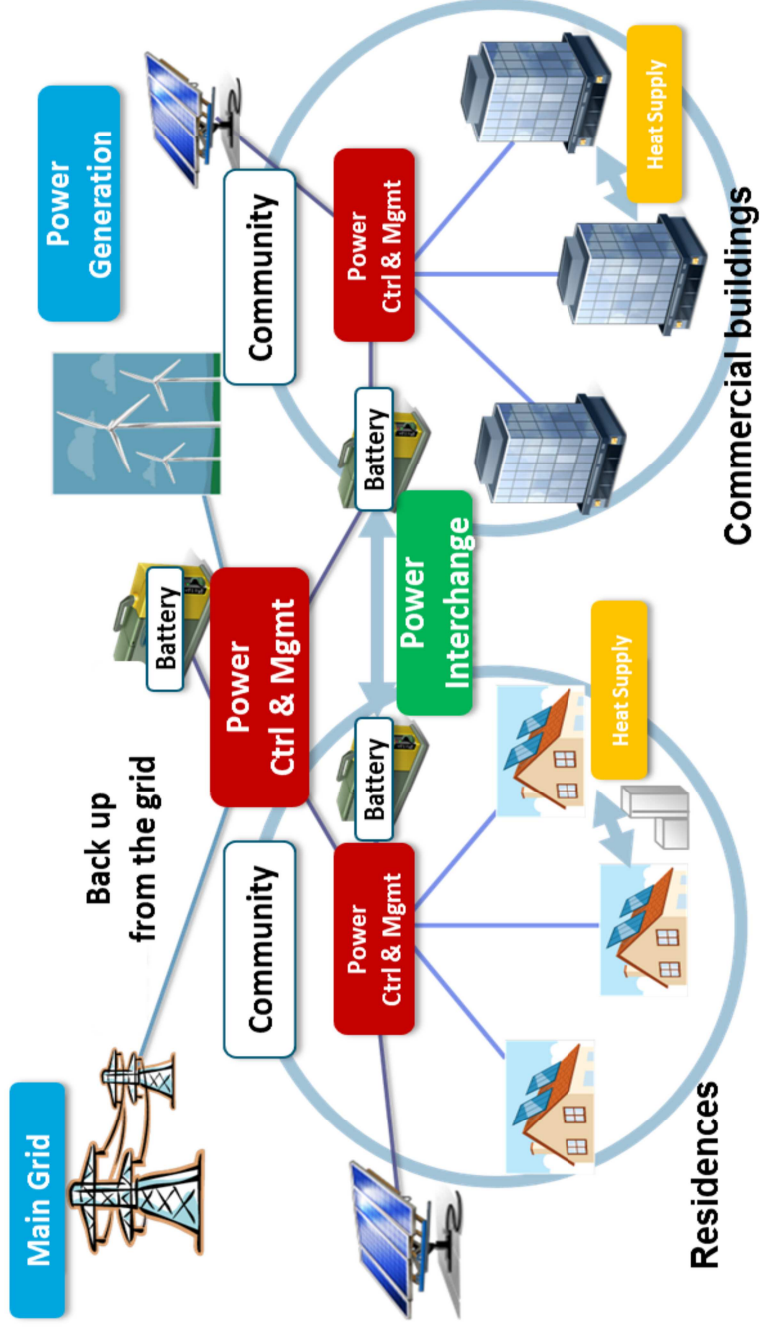
- ✓ Introduction of renewable energy for:
  - ✓ Realization of a low-carbon society with “autonomous & distributed energy system,”
  - ✓ Achieving high resistance to disaster
  - ✓ Revitalization of local economy

# Projects to accelerate the introduction of renewables

- ◆ Wind
  - ◆ Floating offshore wind power generation
  - ◆ Environment impact assessment regarding wind and geothermal
- ◆ Geothermal
  - ◆ Geothermal power
- ◆ Biomass
  - ◆ Local communities utilizing wood-based biomass power and heat
  - ◆ Regional recycling biogas system
  - ◆ Low emission waste -to-energy system
- ◆ Hydropower
  - ◆ Hydropower generation utilizing in waterworks
- ◆ Ocean
  - ◆ Tidal power generation

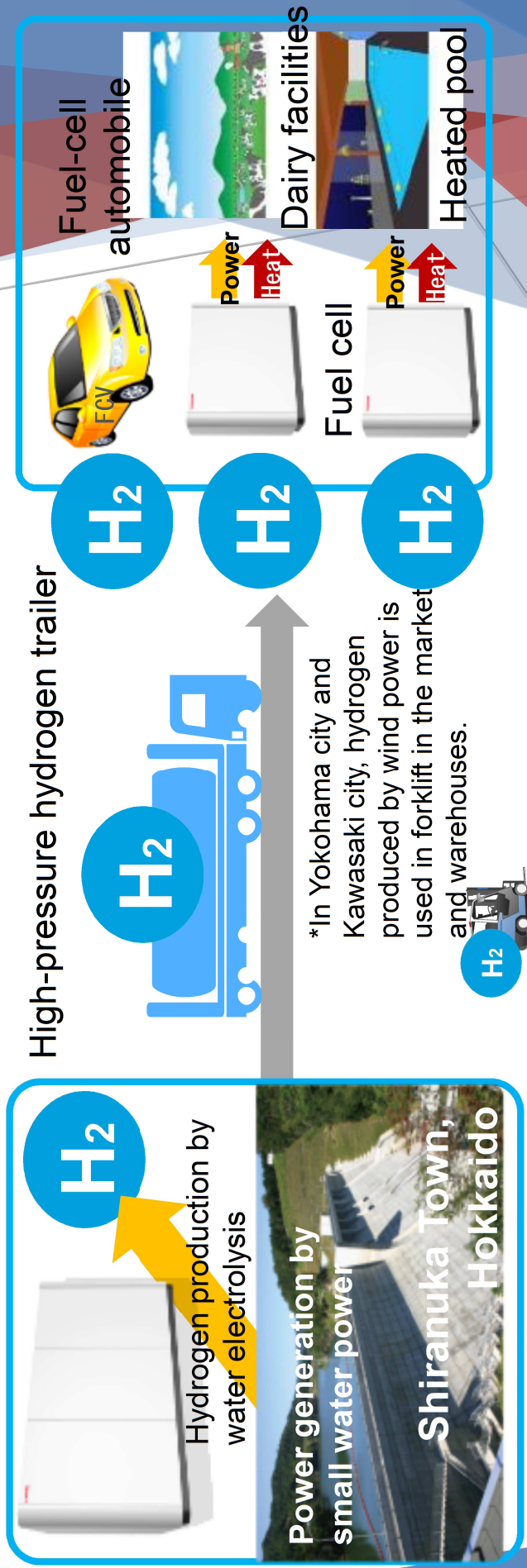


# Autonomous and distributed low-carbon society



Full-scale demonstration of renewable power generation, storage, and interchange in areas with microgrids.

# Expansion of the use of CO2-free hydrogen





# National Campaign “COOL CHOICE”

# “COOL CHOICE” campaign

## **Develop a sense of urgency on global warming crisis**

- ✓ Help people to relate global warming issues with their personal lives
- ✓ Encourage their voluntary actions as individuals

e.g. : Production of effective content for crisis education



## **(1) Replacement to low-carbon products**

e.g. : LED and energy efficient appliances

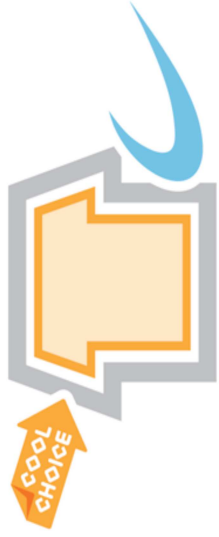
## **(2) Low-carbon services**

e.g. : Promote use of public transport

## **(3) Low-carbon lifestyle**

e.g. : Public relations activities on campaigns such as COOL BIZ, WARM BIZ, Eco-drive

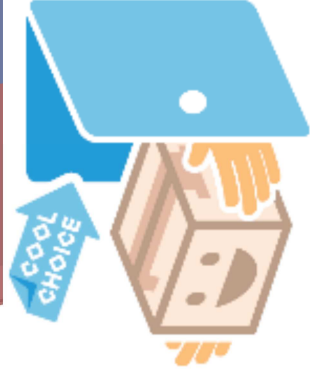
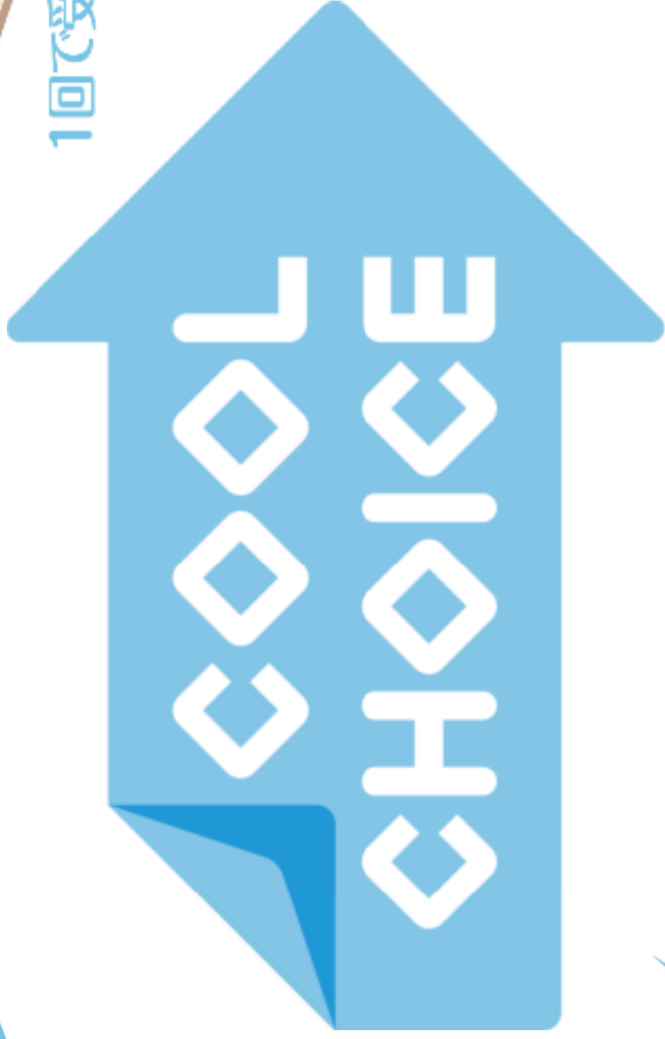




断熱リフォーム



賢い選択 ★★★★★  
省エネ  
5つ星  
家電



1回で受け取りませんか



省エネ建材



賢い選択

Thank you

