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Kitakyushu's efforts leading a transition toward a sustainable Asia by a PPP model

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The City of Kitakyushu supports the Sustainable Development Goals (SDGs).

1. Kitakyushu: The “Key” of Kyushu

Kitakyushu Airport

Fukuoka Airport
(International Flights)

Kokura Station
(Shinkansen)

2.Attractive Resources in Kitakyushu

Leading Companies in the Kitakyushu Region


Nippon Steel


Yaskawa Electric


TOTO


Mitsubishi Chemical


Toyota


Nissan

Surrounded by Nature


Hiraodai Karst Plateau


Wakamatsu North Coast


Kokura Castle


Night Views from Mount Sarakura


Sunflowers (City Flower)

Regional Specialties


Buzen Sea Oysters


Wakamatsu Tomatoes


Ouma Bamboo Shoots


Kanmon Strait Octopuses


Kokura Beef

3. History ～ Development featuring a balance between the environment and economy via the power of the local community

<1950s to present> Kitakyushu overcame pollution through the power of its local community and now contributes globally based on its experience (know-how)

1960s

“We Want Our Blue Skies Back”

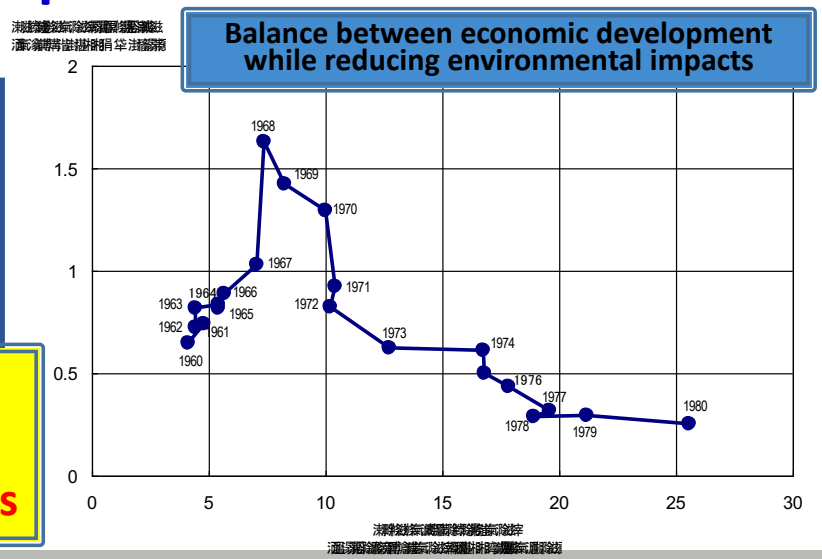
movement by residents (women’s associations)

Overcoming pollution through collaboration among industry, government, academia and the public.

Point!!

International cooperation with cities overseas using Kitakyushu's experience in overcoming pollution.

International recognition
- ○ UNEP’s Global 500 award
- ○ UN Local Government Honours



4. International environmental cooperation

Conducted 238 projects in close cooperation with local partners in 80 Asian cities.

Phnom Penh City

Cambodia (Support for the formulation of the Phnom Penh Capital City Strategic Action Plan for Climate Change)

Surabaya City

Indonesia (Deployment and promotion of Surabaya City Green City Project)

Hai Phong City

Viet Nam (Support for the formulation of the Hai Phong Green Growth Strategy Action Plan)

Davao City

Philippines (Deployment and promotion of power generation technologies using waste)

Water supply project at Phnom Penh

5.Visits by World Leaders

Kitakyushu's actions are the focus of international attention

Xi Jinping President of PRC (Dec 2009)

The People's Daily (Dec 17, 2009)

"Kitakyushu's rich experiences in environmental protection and development of advanced technologies deserve to be used as a model for application in China today."

H.E. Dr. Somkid Jatusripitak,Deputy Prime Minister of Thailand

Both country of Thailand and Japan agreed that Consulate General will be established in Fukuoka city, so H.E. Dr. Somkid Jatusripitak, Deputy Prime Minister came to Fukuoka city and Kitakyushu city for the seminar to attempt investment to Thailand and visit robotics factory under the Thailand 4.0 and EEC projects.

6.SDGs Pilot Model City

SDGs Awards by Gov. of Japan (Dec. 2017)

SDGs Future City Initiative by Gov. of Japan (Jun. 2018)

OECD selecting **SDGs Pilot Model City** for territorial approach (Apr. 2018)

OECD

THE WORLD BANK
IBRD • IDA

ICLEI

SUSTAINABLE DEVELOPMENT GOALS
世界を変えるための17の目標

Help solve global challenges

7. Asian Center for Low Carbon Society
～Kitakyushu's hub for environmental business in Asia～

2010　Kitakyushu Asian Center for Low Carbon Society established

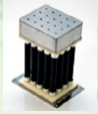
Center's aims ⇒Respond to the needs of Asian cities

"not simply to export technology, but to create green cities"

Collective strength as a top environmental city (City of Kitakyushu)

Experience overcoming pollution

Visionary social systems
(Kitakyushu Eco-Town, etc.)



Superior environmental technologies

Respond to diverse needs of Asian cities and companies
Eco-cities, smart cities, other

Made-to-order system
for export to cities

Reduce greenhouse gases
through JCM

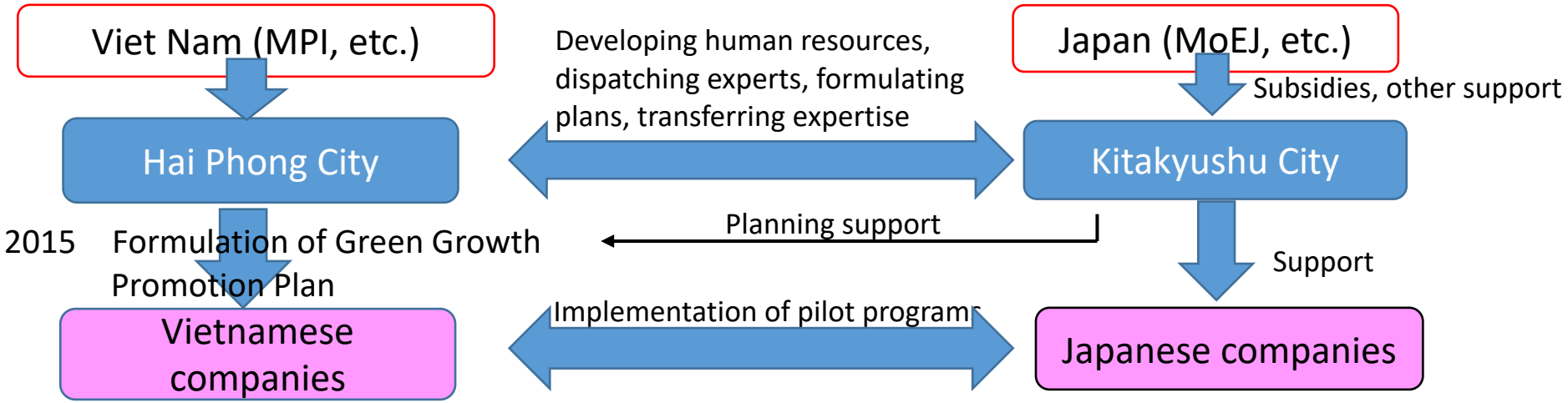
Asian region as the location for the
creation of a base for demonstrations and the development of human resources

Hub for environmental business in Asia

8. Case study : Hai Phong, Viet nam
~ Promotion of pilot projects based on the "Green Growth Promotion Plan"

■Kitakyushu provided support to Hai Phong in drawing up a Green Growth Promotion Plan based on the national Green Growth Strategy of the Vietnamese government.
■As indicated in the promotion plan, fifteen pilot projects are being implemented in seven areas, including waste management, energy, water supply and sewage, and transportation in collaboration between the cities of Hai Phong and Kitakyushu, as well as companies in Viet Nam and Japan.

2014 Signing sister city agreement



Examples of pilot projects


Solar power generation


Electric bus


Treatment of wastewater with high concentrations of organic matter


Composting of organic waste


Development of eco-industrial parks in industrial estates

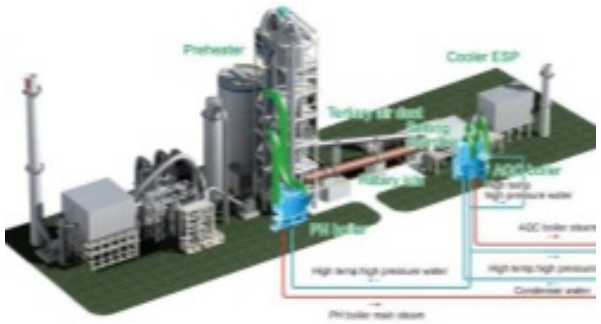
9. K-MRV
～ Visualizing the Degree of Contribution through the K-MRV Project ～

①City needs

■ **Key areas for technology export**

①Energy management
②Water business
③Recycling, waste management
④Cleaner production and pollution control

Introduction of waste heat recovery power generation system at a cement plant
Reduction of approximately 40,000 tons of CO_2 emissions annually



K-MRV

④ Quantify reductions in greenhouse gas emissions from low-carbon projects

Kitakyushu New Low-Carbon Measurement, Reporting and Verification Mechanism (K-MRV)

The amount of greenhouse gas emissions that can be reduced through the implementation of each project is measured through a certified system (K-MRV) by external experts, in order to **visualize the level of contribution.**

②Project formulation

Investigate causes
↓
Consider solutions
↓
Survey industrial composition in surrounding area
↓
Consider marketability
↓
Review project methodology

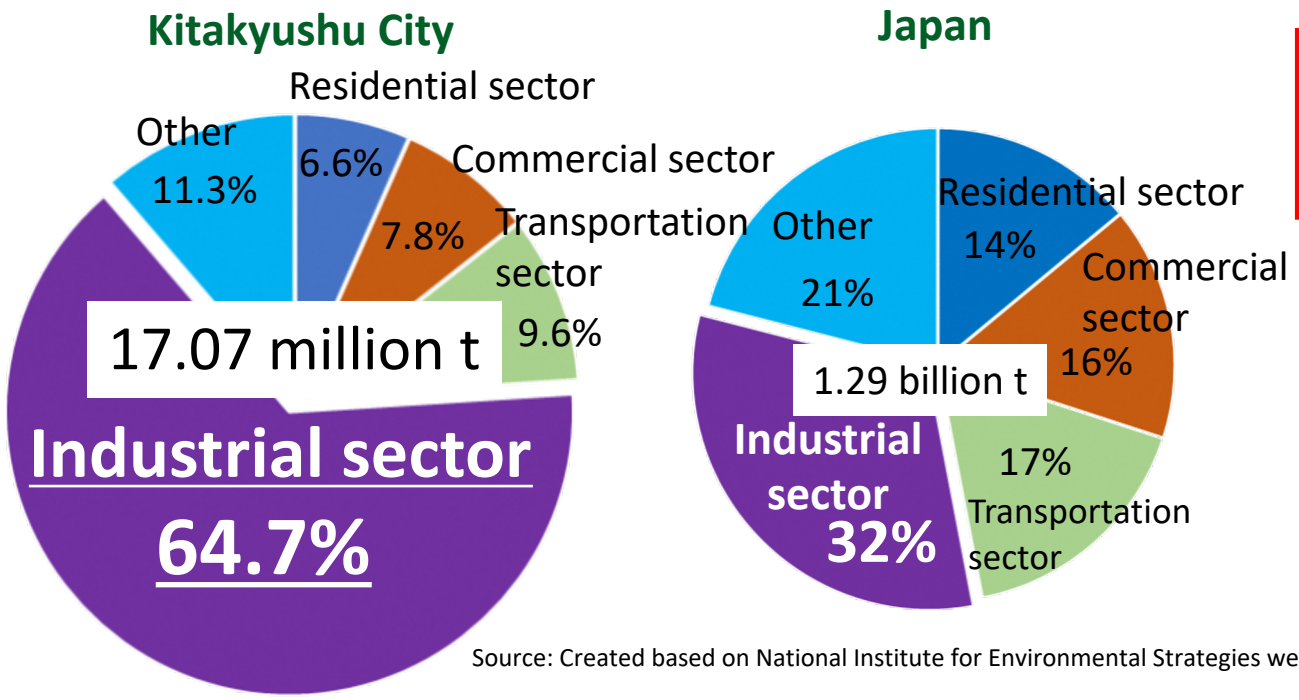
③Project implementation
(Establish business)

10. Creating a Zero-Carbon City through a Virtuous Cycle for the Environment and Economy

- The "realization of a decarbonized society" is a major challenge for the industrial city of Kitakyushu
- Responses to global warming will transform the industrial, economic and social structure, leading to significant growth

Creation of a "virtuous cycle for the environment and economy" in an industrial city = Aim to develop the "Kitakyushu Model" for deployment in Japan and overseas

GHG emissions (2017)



Source: Created based on National Institute for Environmental Strategies website

5 Pillars to Achieve Zero-Carbon

I Decarbonize energy

II Promote innovation

III Transform lifestyles

IV Develop resilient cities capable of adapting to climate change

V Contribute to the global society

Formulate the Kitakyushu Green Growth Strategy (in 2021)

(1) Strategically secure decarbonized energy

- ①Wind power: Maximize the use of the only base port in western Japan to develop a comprehensive base for wind-power related industries
- ②Storage batteries: Build an electricity storage system to supply renewable energy in a stable and efficient manner at low cost
- ③Hydrogen: Establish a production and import base for CO_2-free hydrogen using surplus wind power

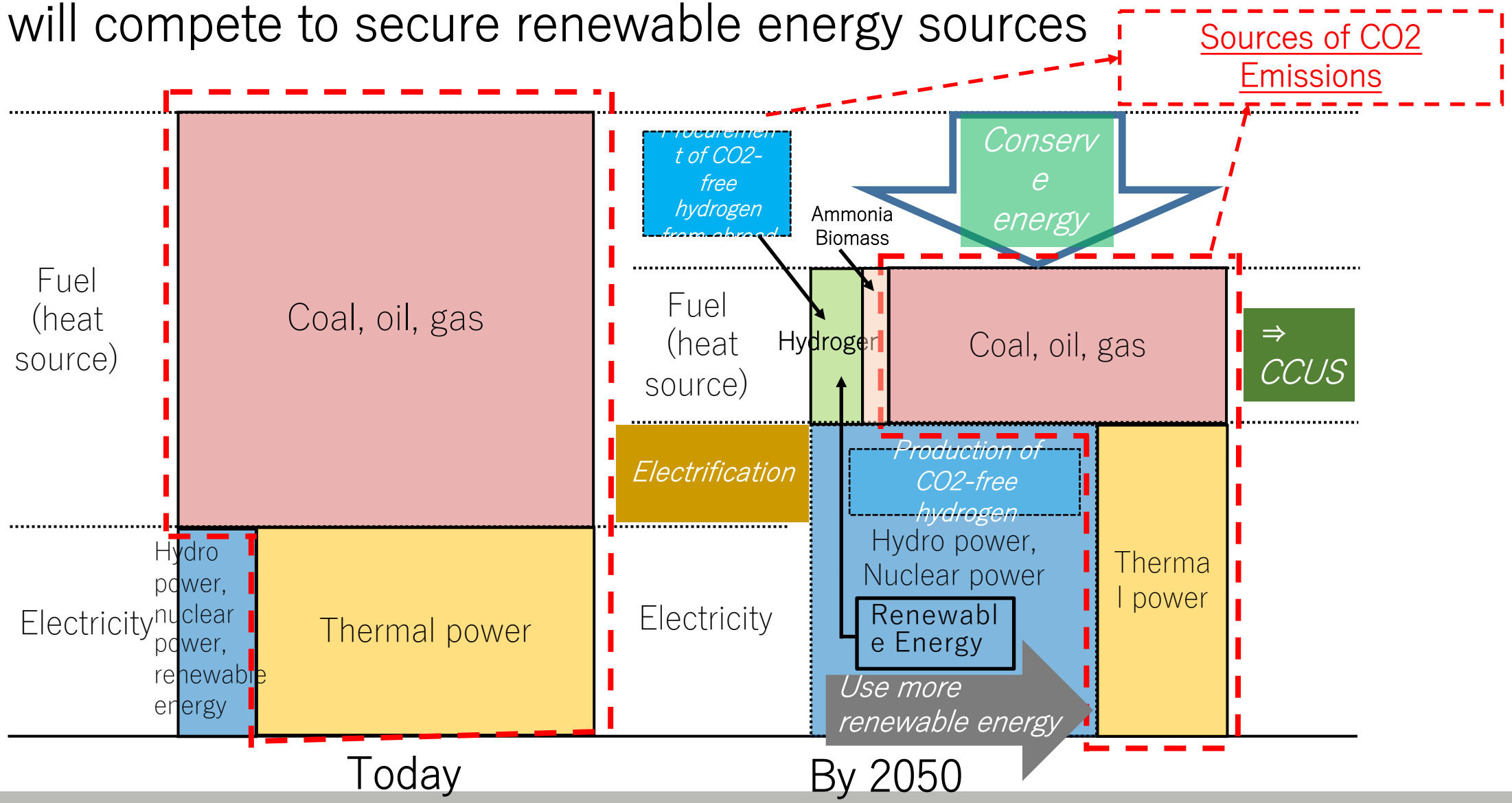
Required for stability

(2) Support the early achievement of innovations

Develop human resources in collaboration with industry, academia and the government and support corporate activities from a system and financial perspective in collaboration with the national government

11.How Japan Can Achieve a Low Carbon Society (Energy Conservation, Electrification, Fuel Conversion)

Countries will compete to secure renewable energy sources



12.Creating values and strengthening competitiveness leads to sustainable urban development

Current Challenges for Kitakyushu

- Urban landscape: Creating an attractive city, renovating,addressing the issue of abandoned homes
- Economy/society: Attracting crowds, rethinking “liveliness”
- Declining birthrate and aging population: Supporting the elderly, new parents, and caretakers
- Environmental impact: Mitigating global warming, securing energy, implementing adaptation measures
- Leadership: Fostering entrepreneurs, strengthening civic engagement, maintaining community associations
- Local finances: Securing our own financial resources

Our Initiatives

- Improving safety, comfort, and welfare
- Attracting more people (residents, daytime population,tourists, etc.)
- Promoting new industries and entrepreneurship
- Attracting companies and projects
- Becoming a zero-carbon city

Creating values and strengthening our competitiveness as a city

Development and growth as a sustainable city

13.Urban Development in the City of Kitakyushu 1

➢ Basic Principles of Our Urban Development

Build a compact city through diverse types of cooperation that enriches residents' lives, industries, and nature

Become the environmental capital of the world by leveraging urban resources, protecting our greenery and water, and ensuring that everyone leads a happy and active life

➢ Main Goals

1) To provide a worry-free environment to all residents
2) To become a city brimming with vitality
3) To attract visitors and new residents
4) To become an eco-friendly city
5) To achieve urban development based on cooperation among residents, the municipality, and various entities

14.Urban Development in the City of Kitakyushu 2

Become a city with an advanced energy storage system

1. Power all public facilities with 100% renewable energy by FY2025
   - The earliest deadline among prefectures and major cities
   - Use electricity created by renewable energy plants within Kitakyushu (local consumption of locally produced energy)
2. Promote renewable energy throughout the city
   - Create a “Kitakyushu model for 100% renewable energy”
3. Expand throughout the greater metropolitan area
   - Promote low carbon efforts throughout the Kitakyushu metropolitan area (6 cities and 11 towns)

Participate in the “Decarbonization Domino Effect,” the Government of Japan’s low carbon roadmap for regions

15.Power All Public Facilities with 100% Renewable Energy by FY2025

Target facilities

City hall and ward offices

Public elementary and middle schools

Facilities for community activities (community centers, etc.)

Completion of switchover

A total of 2,000 facilities

Social/ education facilities

Cultural /sports facilities

800 facilities

Completed in April 2021

200 facilities

FY2021 FY2022-23 FY2024-25

Gradually supply to more facilities according to the amount of renewable energy procured

Power sources in Kitakyushu

Waste-to-energy

Mega Solar

Onshore wind power

Biomass

Waste-to-energy

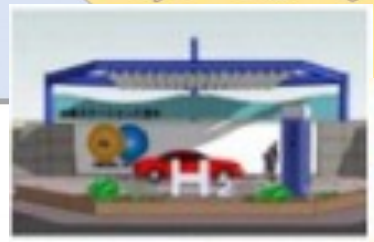
16.Kitakyushu's Vision for the Strategic Use of Energy

Import hydrogen

Produce/store hydrogen

Hydrogen

Respond to the heat demand of industries



3. A hub city for hydrogen production and supply

1. A hub city for promoting wind power generation

Electricity

Supply 100% renewable energy

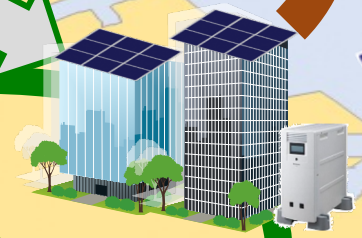
Kitakyushu Eco Town

Recycle solar panels and storage batteries

Homes

Factories

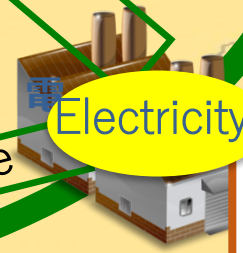
100% renewable energy



Office buildings

Use electric vehicles as storage batteries

City-owned facilities



Electricity

Power plant (waste-to-energy)

100% renewable energy

2. A city with an advanced energy storage system

Thank you for your kind attention.

Contact Kitakyushu for the key to your environmental problems.

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