

# 唐津市のエネルギー政策について

About the energy policy of karatsu

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# Overview of Karatsu City

## Basic info

### Size

Population : 120,149 (As of August 2020)  
Number of households : 51,105 (As of August 2020)  
Revenue and expenditure : JPY 69,296,431,000  
(General account budget of FY2020)  
Area : 487.58km<sup>2</sup> (As of January 4, 2018)  
(20% of total area of Saga prefecture)

### Access

- ① From Fukuoka City
  - 1.5 hours from Fukuoka Airport by train
  - 1.5 hours by express bus
- ② From Saga
  - 35 min from Saga Airport to Saga station by bus
  - 1 hour from Saga station to Karatsu station

### Features

- Thriving primary industry with abundant agricultural, livestock and fisheries resources
- Human resources and economic exchange with the neighboring metropolis Fukuoka City
- Traditional local cultures : "Yama, Hoko, Yatai float festivals in Japan" including "Hikiyama float event of Karatsu Kunchi" (Registered as UNESCO Intangible Cultural Heritage in 2016)
- Traditional Craftsmanship: With over 400 years of history, there are about 70 Karatsu potteries scattered throughout the city

## Location



# Karatsu Kunchi (UNESCO Intangible Cultural Heritage in 2016)

- ❖ Held every year on 2-4 November
- ❖ Approx. 500,000 tourists every year



# Challenges of Karatsu City

## 1. Vulnerable capacity to respond to disasters

Karatsu experienced unprecedented disasters such as the heavy rains and flooding in July 2017, August and September 2019, which highlighted the need to expand the evacuation shelters and raise residents' awareness of the need for disaster preparedness. Electric outage etc. that hampered citizens' livelihoods reminded the need to promote the development of decentralized energy centers and emergency infrastructure, such as self-operated transmission lines and storage batteries, as well as the need for resilience centered around local disaster prevention centers.

## 2. High dependency on oil energy and outflow of energy costs

City's primary industries based on agricultural, livestock, and fisheries resources consume large amount of energy for heating, lighting, and powering greenhouses etc. Most of energy comes from petroleum, which has led to an increase in CO2 emissions. Countermeasures for global warming are urgently needed. As of 2013, 17.9 billion yen have flowed out of the region as energy costs, which is about 5.6% of the GRP (gross regional product). It is important to establish a mechanism to circulate the outflowed funds within the region to revitalize the regional economy. We aim to promote the introduction of renewable energy and local energy production for local consumption, to create business between local industries and new energy industries, and to circulate the funds within the region through new jobs and electricity retailing projects through the establishment of regional energy companies.

## 3. Sections in city administration in charge of SDGs, Society 5.0, climate change, biodiversity, disaster prevention are fragmented. Human resources with crosscutting expertise are inadequate

It is difficult to pursue a coherent policy because different sections of city administration looks at different topics which need to be addressed simultaneously. There is lack of human resources with cross-cutting expertise in areas such as decarbonization, renewable energy, and disaster prevention, as well as training programs to raise such human resources.

# Hazards (Causes of disasters)

## Earthquakes

Jyouyama Minami Fault Zone  
(Maximum seismic intensity predicted is 7.)

## Wind and flood damages

Disaster Information Office was set up due to heavy rainfall warnings etc. 8 times in FY2018 and 6 times in FY2019. Heavy rain special warnings were issued for 2 consecutive years (FY18 and 19).

## Damage from sediment disasters

3,315 sediment disaster alert spots (As of 2019)

## Nuclear hazards

Entire city is within 30km UPZ

## Storm and storm surge

Fires in petroleum complexes and forest fires

## Flooding in Karatsu due to heavy rainfalls in Aug 2019



# Measures for challenges

## 1. Vulnerable capacity to respond to disasters

- ① Expansion of evacuation environment
- ② Reform of citizens' awareness
- ③ Development of decentralized energy base
- ④ Laying a self-operated transmission line
- ⑤ Introduction of storage batteries (including EV)
- ⑥ Smart resilience base construction project

## 2. High dependency on oil energy and outflow of energy costs

- ⑦ Building a carbon-free society
- ⑧ Promotion of introduction of renewable energy
- ⑨ Introducing renewable energy equipment by utilizing the Act on Promoting Generation of Electricity from Renewable Energy Sources Harmonized with Sound Development of Agriculture, Forestry and Fisheries
- ⑩ Creating business with local industries
- ⑪ Creation of a regional energy company

## 3. Sections in city administration in charge of SDGs, Society 5.0, climate change, biodiversity, disaster prevention are fragmented. Human resources with crosscutting expertise are inadequate

- ⑫ A new energy countermeasures section with cross-sectoral specialists is assigned to the policy department, and build an organizational structure centered on that department

※The measure number is listed in each project.

Aiming to establish Karatsu version of  
the Regional Circulating and Ecological Economy

# Expansion of evacuation environment

Measure ①

## 1 Insufficient evacuation environment at evacuation sites (especially school gymnasiums)

- ⇒ Since evacuation sites with only administrative facilities are not enough, it is necessary to secure sites in collaboration with the public and private sectors.
- ⇒ Securing air-conditioner, women-only toilets, and toilets for people with disabilities
- ⇒ Measures to strengthen disaster prevention functions due to aging facilities (multiplexing of electric power, earthquake resistance, verticalization of buildings, etc.)

## 2 Correspondence to information vulnerable people

- ⇒ Installation of TV, radio, wi-fi, etc.

## 3 Response to the COVID-19

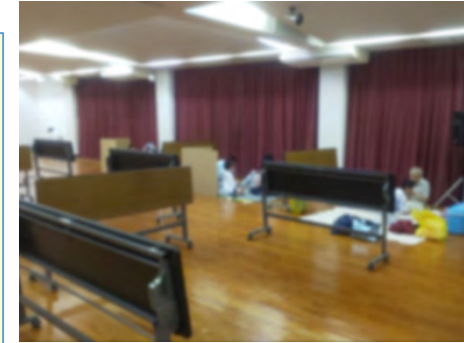
- ⇒ Ensuring social distance, Solving accommodation capacity issues

## 4 Response to power outages, etc.

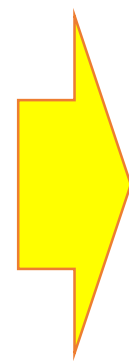
- ⇒ Securing emergency power supplies for electrical products like mobile phone, flashlights etc. Correspondence to those who need medical care (especially respirator)

## 5 Response assuming a long life in an evacuation center

- ⇒ Securing emergency food, mental care for evacuees, etc.



**2020 Typhoon No. 10 shelter**



We will focus on introducing equipment from the facilities that are expected to be used most frequently, and secure new evacuation sites.

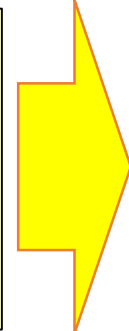
# Change citizens' awareness

Measure②

**Change awareness to move to evacuation** for elderly people, who account for 70% of disaster victims

- ① Do not evacuate (do not aware of crisis) ⇒ Examination of information sharing
- ② Can not evacuate ⇒ Securing reliable supporters, etc.
- ③ Do not want to evacuate ⇒ Environmental improvement of evacuation site, impact of the COVID-19

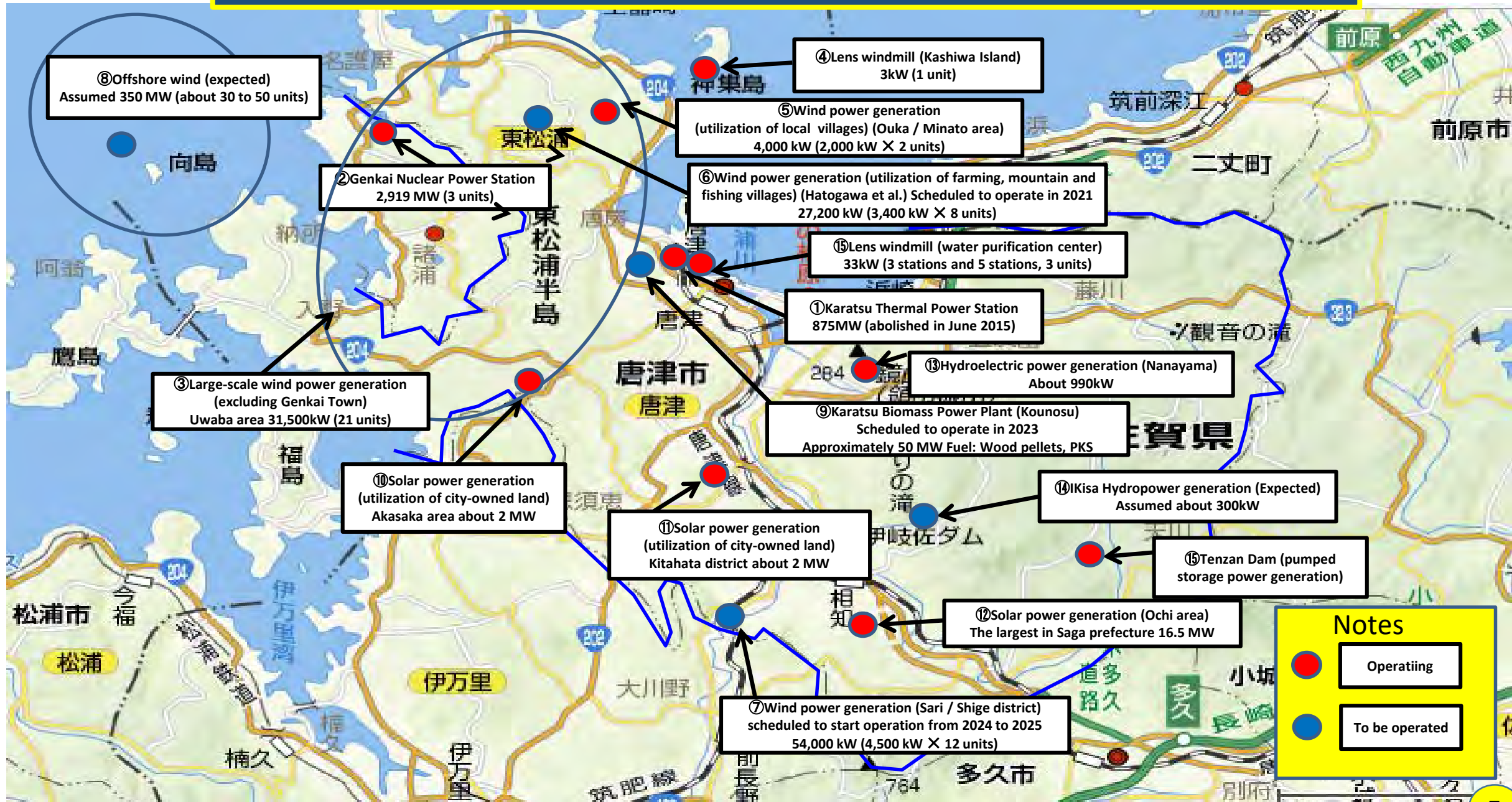
※The number of citizens evacuating at hotels in the city is increasing rapidly.



Notification of evacuation shelter establishment, etc. by emergency information mail (Area Mail)

# Introduction status of renewable energy etc. in Karatsu city

Measure⑧



# Efforts for local production for local consumption energy circulation

Measure④,  
⑦,⑧,⑩,⑪

## Ministry of the Environment: Project on Constructing a Regional Circulating and Ecological Economy through Innovation for Decarbonization (Karatsu City)

### ①Regional energy creation project (FY2018)

- Examination of renewable energy business utilizing local resources, revitalization of local industry by Stadtwerke Detailed examination, examination of Karatsu version of a structural sophistication model, etc.

### ②Karatsu version of innovation for decarbonization to build a regional circulating and ecological economy (FY2019)

- Construction of Karatsu version of the Circulating and Ecological Economy., business development to a carbon-free society F/S survey, etc.



(Fig. 1) Examination of self-operated transmission lines including private facilities

## Ministry of the Environment: Regional Decarbonization Promotion Business Unit Installation Model Project (Karatsu Power Holdings)

### ①Karatsu version of innovation for decarbonization to build a regional circulating and ecological economy (FY2019, 2020)

- Investigation and examination of step-by-step power supply and demand management, examination and introduction of customer management system on retail electricity business, regional renewable energy business development feasibility study, etc. for strengthening the regional decarbonization promotion project

①In the project under the Ministry of the Environment, the city was able to investigate the renewable energy power source utilizing local resources, consider the construction of self-operated transmission line (Fig. 1), and build Karatsu version of the Circulating and Ecological Economy.

②An innovative Karatsu regional energy company was established.

①Cheap power procurement for wind graduate FIT

②No new investment required by the city

③Know-how as a private company

Achieve  
-ments

# Karatsu Smart Resilience Base Construction Project

Measure:

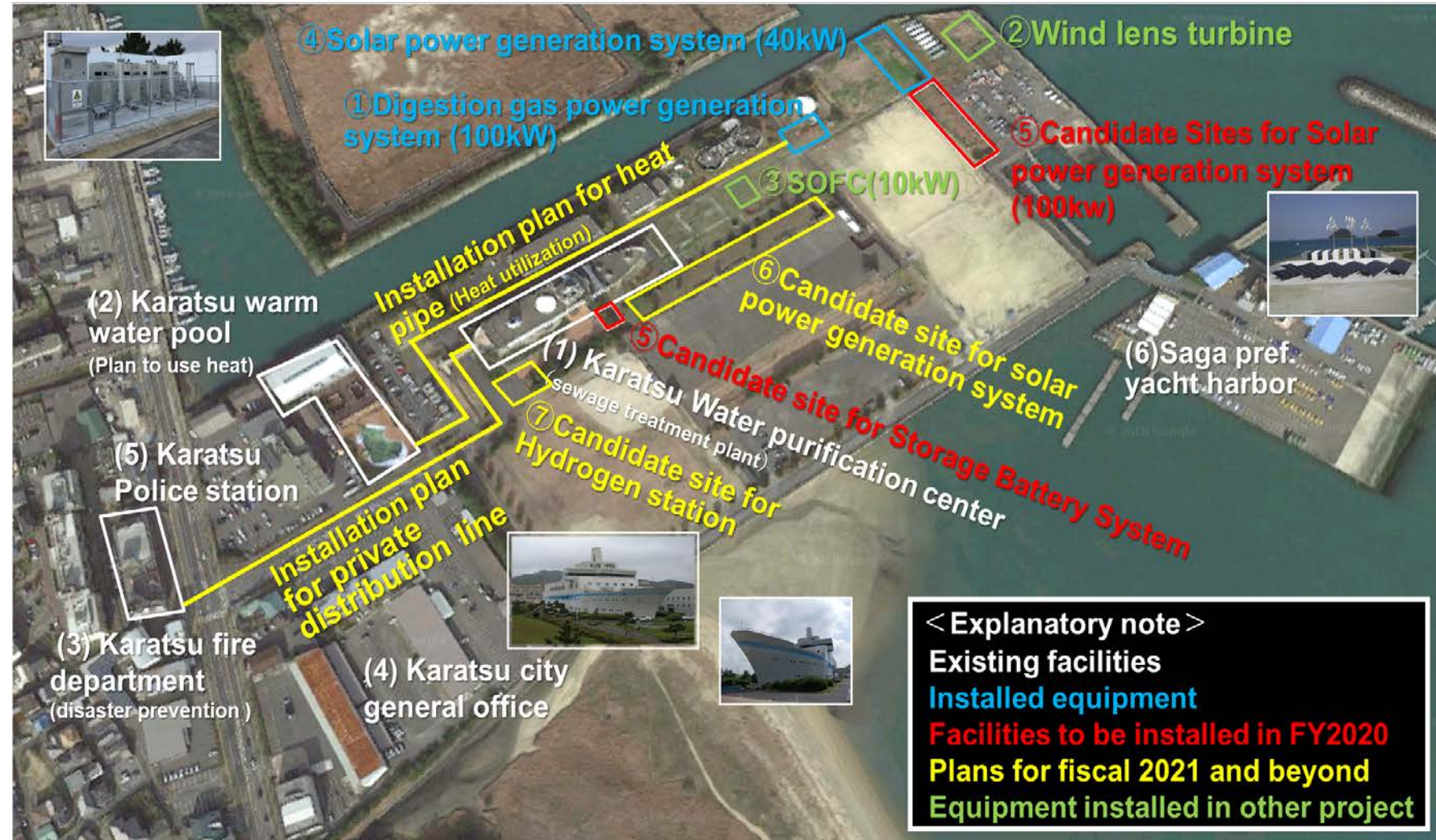
③, ④, ⑤, ⑥

## 【Summary】

With the Water Purification Center at the center, the project aims to develop the area where Karatsu City has a high concentration of public facilities such as a fire station and an indoor swimming pool, to provide a base for supplying energy at all times and in emergencies.

In its Comprehensive Plan for Renewable Energies, Karatsu City aims to create an energy-recycling society toward realizing a low-carbon society by actively introducing renewable energies and building a local production for local consumption energy supply and demand structure.

The term "resilience" refers to "toughness" and "flexible strength". In this project, the area around the water purification center has been developed as a decentralized energy supply base that will enable seamless energy supply to the disaster prevention center facilities. As part of this effort, the city has established a system that uses a variety of well-balanced renewable energy sources to power the water purification center on an everyday basis, and to supply power to key facilities during emergencies.



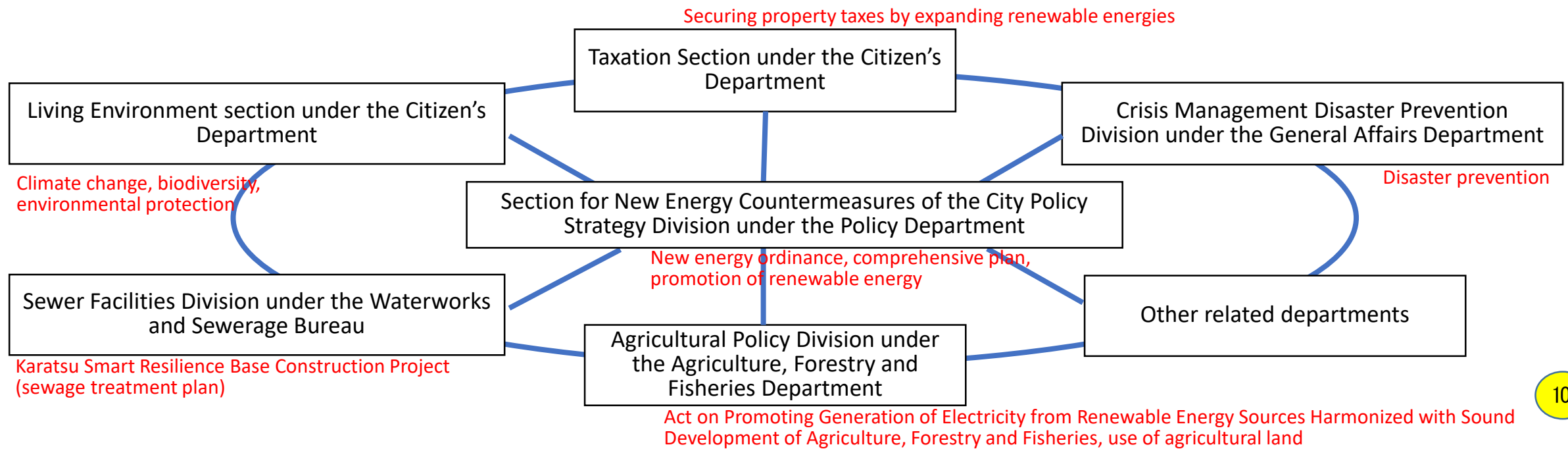
## Utilization of the Act on Promoting Generation of Electricity from Renewable Energy Sources Harmonized with Sound Development of Agriculture, Forestry and Fisheries

Measure : ⑨, ⑫

- By developing a council and basic plan in accordance with the provision of the above-mentioned act promoted, private enterprises can operate renewable energy projects on the first type of farmland.
- With this act, two wind power facilities were approved in FY2015, and a further eight wind power facilities are under construction by private enterprises.

### Regional energy promotion strategy meeting to discuss Karatsu City's organizational structure and general energy issues

- Section for New Energy Countermeasures of the City Policy Strategy Division under of the Policy Department serves as a cross-organizational link between the various sections of the city office, including new Energy, SDGs, Climate Change, Biodiversity, and Disaster Prevention. In addition, a regional energy promotion strategy meeting is held with university experts and major companies to discuss general energy issues, and the relevant sections of the city participate in the meeting to share information.



## Efforts to Create a Decarbonized Region

On April 13, 2018, at the 18th session of the United Nations Economic and Social Council in New York City, Mayor Mine spoke on “Initiatives for the Conservation of the Rainbow Pine Barrens” in relation to the Millennium Development Goals (MDGs) adopted in 2000 as well as the goal 15 of the Sustainable Development Goals (SDGs) adopted in 2015, entitled "Protecting the Abundance of Greenery".



# Karatsu Version of the Circulating and Ecological Economy

⑥— 1 Promotion of fuel cell vehicles (buses) and attraction of hydrogen stations



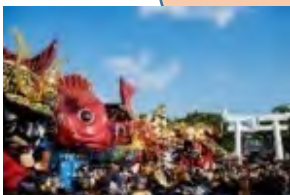
⑥— 2 Effective use of hydrogen



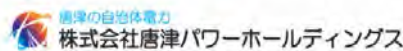
⑥ Creation of hydrogen-related businesses (transportation and mobility)

⑦ Collaboration with Waseda University

⑧ Attracting tourists



⑤ Creation of regional economic value added by regional energy companies



④ Promotion of SDGs initiatives

③— 1 Fostering the cosmetics-related industry



③ Creation of cosmetics-related businesses

③— 2 Herb Garden (in cooperation with Genkai Town)



② Creation of health-related businesses (lifestyle)



②— 1 Karatsu Welpo Project

②— 2 Karatsu Materials Conversion Project



① Constructing a decentralized energy cycle (building a disaster-resistant city)

①— 2 Renewable energy projects in rural, fishery and mountain areas



①— 3 Project on Constructing a Regional Circular and Ecological Economy through Innovation for Decarbonization

①— 1 Karatsu Smart Resilience Base Construction Project



**Thank you very much.**

