

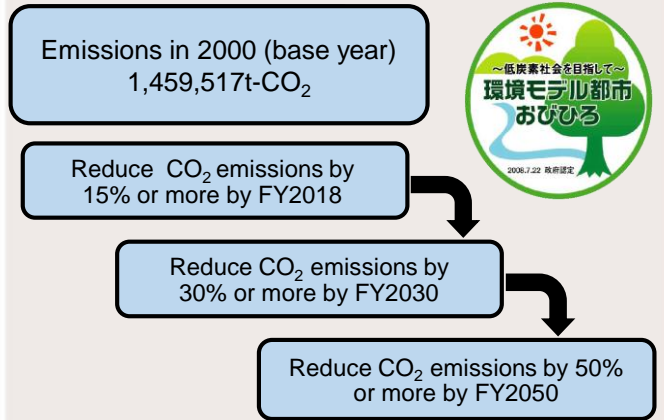
About Obihiro City

- Population: 166,867 (as of end of March 2018)
- Area: 619.34 km²
- Blessed with abundant nature, Obihiro is a harmonious city of urban and rural communities. Obihiro is the only place in the world where draft-horse racing (Ban'ei horse racing) can be seen.



Activities/Vision/Plan

CO₂ Reduction Goal



Ensure compatibility between the environment and economy by transforming lifestyles, making use of renewable energy, etc.

Outline of Characteristic Initiatives

Environmental Education Programs Unique to Obihiro

To pass the society where people and the nature live together to the next generation...

develop the “**persons who practice from what can be done now**”



- (1) Link “experience,” “understanding” and “practice” spirally.
- (2) Create initiatives utilizing regional resources such as rich nature.
- (3) Value independent learning of children.



Three perspectives unique to Obihiro

Total 36 programs which can be freely combined with



“Nature observation” learning



“Global warming issue” learning



“Waste and recycle” learning



“Agricultural experience” learning

Schools with environment friendly activity programs



Completed approvals of all 41 schools in fiscal 2017 !!

Ministry of the Environment Good Life Award 2018
Received the Implementation Committee Special Award !!

Obihiro and the Obihiro Board of Education approve schools that create mechanisms for environmental activities and get everyone involved as “schools with environment friendly activity programs.”

Schools conduct environmental activities together with the local area.

About Chiyoda City

- Population: 61,875
- Area: 11.66 km²



Chiyoda City is not only a political and economic center but also has beautiful natural surroundings around the Imperial Palace.

Activities/Vision/Plan

Eco-Model City Action Plan (Action Plan as a demonstration city)

Three Main Focuses to achieve the goal

- Higher level of energy-saving measures in building
- Wide coordination leveraging opportunities and places for community development
- Regional collaboration



Outline of Characteristic Initiatives

Chiyoda City Buildings Environmental Plan System (revised in October 2016)

- Objective:** To encourage further energy-saving measures in constructing new buildings.
- Coverage:** Building projects with total floor space of 300m² or more.
- Details:** The city and the enterprise discuss energy-saving measures before the plans of construction are finalized.
- Target:** To set a target of 35% reduction by the standard consumption shown in the Building Energy Conservation Act.
- Evaluation:** With 35% reduction, the building is approved as an “Excellent eco-building”.
With 20% reduction, it is approved as an “Adequate eco-building”
- Achievements:** 14 cases which have achieved 35% reduction and 48 cases which have achieved 20% reduction (in 132 cases submitted, since October 2016 until March 2018)

Chiyoda City
evaluates
energy-saving
buildings!



About Niigata City

- Population: Approx. 800,000
- Area: 726.45 km²
- Land use: 45% farm land
- Food self-sufficiency rate: 63%

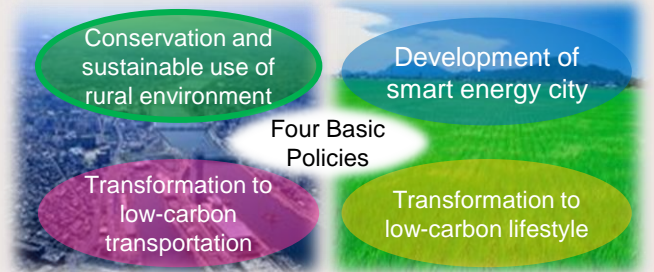


Activities/Vision/Plan

Niigata Eco-Model City Action Plan

Circulate abundant value between urban and rural areas, with the aim of creating a Rural Eco-City, a city that can achieve harmonious growth.

Rural Eco-City



Outline of Characteristic Initiatives

Promotion of “Exciting Education Farm from Niigata”

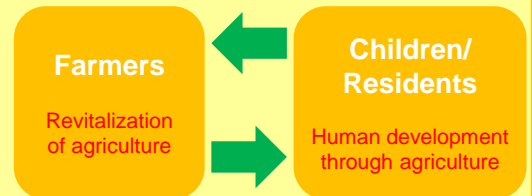
Foster affection and proud for the hometown and zest for living by giving children and residents opportunities to experience agriculture and further understand agriculture and food, and promote revitalization of agriculture at the same time.



“Agri Study Program” developed in cooperation between the Agriculture, Forestry and Fisheries Department and the Education Board in accordance with the Courses of Study is currently underway at all schools in the city.

Situation to be realized

Support of agriculture



Provision of learning through agriculture

Place of activities

Agripark

- First public education farm in Japan
- With accommodations, able to have residential-type experience
- Support of sixth industry promotion
- Provision of experience programs using five senses

IKUTOPIA SHOKU HANA

- Facility to convey attractiveness of food and flowers across Japan
- Provision of various experience programs



School education rice field
School teaching material field



About Iida City

- Population: 102,012 (as of Mar. 31, 2018)
- Area: 658.66 km² (84% forest)
- Hours of sunlight per year: 2,242.2 hours (2018)
- Solar power take-up rate: 9.4% (as of Mar. 31, 2018)



Specialty of Minami Shinshu, "Ichidagaki" (dry persimmons)

Iida is a city of the best grilled meat restaurants in Japan. (5.31 restaurants per 10,000 population)

Activities/Vision/Plan

Iida Future Design 2028

Designing a "community with a vibrant lifestyle" in an era of major exchange enabled by linear train service
"Take action" city, future platform with a role for everyone

Policies for community development and a comprehensive plan to strategically realize the area's future vision formulated by local residents, the region, businesses, NPOs, and government

Ideal city image we hope to achieve

- A city where we can enjoy our lifestyles
- A city where we can live peacefully and safely due to close relationships among residents
- A city where we can enjoy healthy and active lives
- A city which nurtures a zest for life and culture by mutual learning
- A city where we can enjoy the happiness of raising children with the help of community support
- An eco city where people and nature can coexist
- A sustainable and self-sufficient city
- A city where its 20 areas have their attractive individual characteristics with their pride and affection



Residents Communities Businesses Government

City development through "a sense of ownership" and "co-creation"

Outline of Characteristic Initiatives

Locally-led renewable energy business via an environment rights ordinance

Currently has 10 solar power projects and two hydropower projects based on the local environment rights ordinance; applying power sales revenue to activity costs for resolving local issues and local people are also actively involved.



*The photo is of the school solar power generation project by junior high school students.



Consensus formation about the project in a community



Locally-led renewable energy business examples (various positive effects)



Initiatives for unique environmental efforts by the Region-Wide Environmental ISO Study Group

Environment management system in the Minami Shinshu region (limusu), led by Iida City, initiatives and research are taking place under the Region-Wide Environmental ISO Study Group led by interested private-sector companies.

Fifty groups participate in "Minami Shinshu limusu 21" a unique limusu for this region that is being implemented by the Study Group.

These efforts aim to broaden business community initiatives to lessen environmental burden to the entire area and promote energy savings as a region.



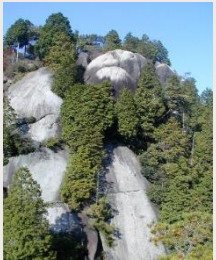
Energy saving checks among companies of different industries (Iikosu Iida Project)



Region-Wide Environmental ISO Study Group which marks its 20th anniversary

About Mitake Town

- Population: Approx. 18,500
- Area: 56.69km²
(around 60% forested)
- Attractions: A historically prosperous stop on the Nakasendo route with great natural beauty



▲ The famous giant rock of Oniwa Park



▲ The sasayuri lily in bloom



▲ Mitake hana-zushi, a new specialty of the town

Activities/Vision/Plan

Vision for Eco-Model City

Vision for Mitake as a low-carbon community that harnesses local resources (through Town Action Plan)



Outline of Characteristic Initiatives



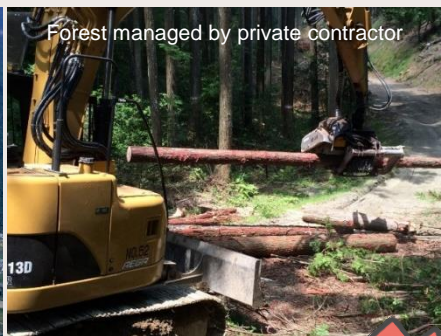
Low-carbon urban development



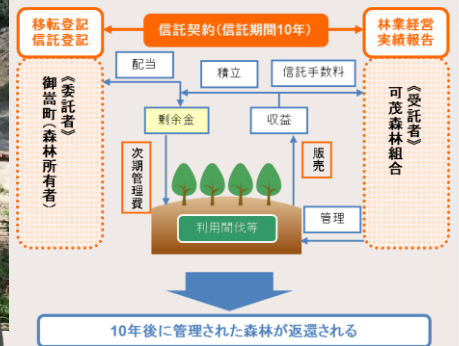
Cooperative actions are under way to fulfill the vision of an Eco-Model City by residents, business and government!



Some 60% of the town's area is forest ▼



Forest managed by private contractor



▲ Development of child environmental education



▼ Promotion of green gardens



▲ Perfectly thinned forest



Town mascot Mimo-kun ▲

About Kyoto City

- Population: Approx. 1,470,000
- Area: 827.8 km²



Parade of decorated floats at Gion Festival



Traditional performance in Hanamachi



Autumn colors at Kkiyomizudera Temple



Japanese cuisine of Kyoto

Activities/Vision/Plan

Kyoto, a low-carbon city co-existing with the environment

GHG Reduction Targets

2020: 25% reduction (compared to 1990)

2030: 40% reduction (compared to 1990)

Kyoto's Six Visions of a society for the Future

- Vision of a society 1: An enjoyable walking city that gives priority to people and public transport
- Vision of a society 2: Forest regeneration and giving important value to "culture of wood" city
- Vision of a society 3: City of energy creation and Community recycling
- Vision of a society 4: Environmentally-friendly lifestyles
- Vision of a society 5: Environmentally-friendly economic activities
- Vision of a society 6: Garbage reduction

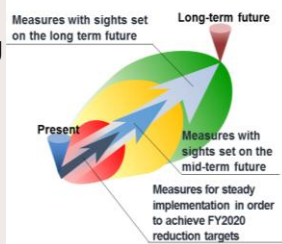
Outline of Characteristic Initiatives

Promotion of shift to environmentally-friendly life style and community planning

With the keyword, "DO YOU KYOTO ?" meaning, "Do you do something good for environment?", we are promoting shift to environmentally-friendly life style and community planning and at the same time trying to spread our effort as a model measures against global warming to promote efforts at community level through cooperate with autonomous communities in the world.

Road to Zero Project

Proposed the Road to Zero Project as a strategy targeting the long-term future and promoting initiatives with the aim of the net-zero greenhouse gas emissions by the latter half of this century.



Road to Zero Project

Community planning where people can enjoy walking by prioritizing people and public transport

We are aiming to create "Kyoto, the town for walking" through improved convenience of public transportation, community planning by prioritizing pedestrians to enjoy attractiveness of walking to the maximum extent and shift to life style focusing on life enjoying walking.



Shijo Dori Street Widening

Experience-based learning of hydrogen

The experience-based learning of hydrogen project is underway for learning of mechanism of smart hydrogen refueling stations producing hydrogen from renewable energy and FCVs and test drive of FCVs.



Picture of experience-based learning of hydrogen

Children eco-life challenge

"Children eco-life challenge" where after the lesson at study meetings, using the "environment housekeeping book for children," children learn and practice life considering environment together with their family members is conducted at all public elementary schools in the city.



Picture of study meeting

About Amagasaki City

• Population: 451,425

• Area: 50.72 km²

A great strength of Amagasaki City is a integration of industrial and urban functions in the compact area. A variety of charms in the compact-sized city will entertain visitors.

Night view of the waterfront factory zone

Large companies and small and medium-sized enterprises with state-of-the-art technologies are located in the waterfront industrial area.

Cosmos Garden

Natural forests and rural landscape can be seen in the northern area of the city.

Shopping arcade near station

Bustling shopping arcades have been formed near railway stations.



Activities/Vision/Plan

ECO Future City, Amagasaki

Although we have experienced severe pollution in the past, we have gotten it over through the cooperative efforts of industry, residents and the government. Environmental awareness and bonds among residents, industry, academia and the government have been nurtured in the process of tackling the problems. Our aim is to realize "Eco Future City" with this backdrop

Residents

- Amagasaki 21st Century Forest Preservation Conference
- Forest of Nature and Culture Association
- •Other various citizens' groups

Academia, etc.

- Osaka University
- University of Hyogo
- College of Industrial Technology
- Vocational Eco College
- Elementary, junior high and high schools

Amagasaki Open College of the Environment

Government

- Amagasaki Green New Deal Promotion Conference

Declaration of ECO Future City Amagasaki

Industry

- Amagasaki Chamber of Commerce and Industry
- Amagasaki Employers' Association
- Amagasaki Industrial Association
- Amagasaki Institute of Regional and Industrial Advancement
- Local financial institutions, etc.

Coordination towards ECO Future City Amagasaki

Outline of Characteristic Initiatives

Amagasaki Smart Community initiatives

Promotion of Amagasaki Smart Community

The **Amagasaki Smart Community** is an accredited area that deploys HEMS for residential developments over a certain scale and implements initiatives related to energy management systems in regions utilizing HEMS and builds a mechanism for stimulating the local economy through such initiatives. The city also issues a grant to the certified system.

Knock-on effect derived from Amagasaki Smart Community

Local currency is, which is called "Mypo" was introduced to stimulate local economy in the 1st approved project. Mypo card holders can receive twice as many points as usual by turning off their air-conditioners, going out and shopping at the local currency member stores responding to **DR(demand response)**. **Points** are worth one yen each at member stores. This program achieved some benefits in **both reduction of electricity usage and stimulation of the local economy**.

1 Effects of saving energy by implementation of DR

Quarterly DR effect was -70,371 kWh. It amounted to about **10%** reduction in electricity usage. There were some effects obtained by both introduction of HEMS and response to DR request.

2 Economic effect by implementation of DR

Regarding regional currency point allocation value per payment at a member store, **spending per time was higher on DR implementation days than on non-DR days**. There was a difference of about **1,400 yen** per time in summer of fiscal 2016.

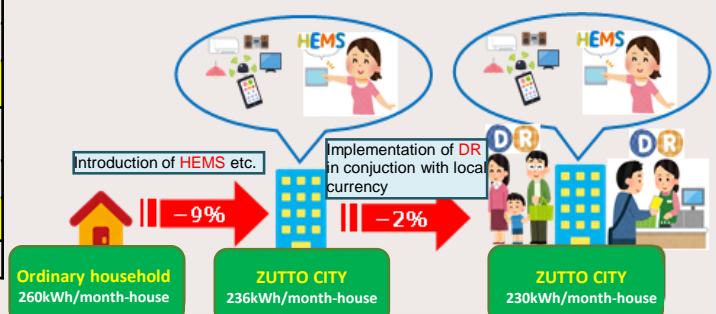
3 Comparison with ordinary household

Since monthly electricity usage for an ordinary household is about **260kWh** (monthly usage volume in the average model; Source: Kansai Electric Power), household in ZUTTOCITY reduced monthly electricity usage by **9%** through non-DR initiatives, such as visualization of power utilization, compared to the ordinary household. With the DR initiative savings of **2%**, electricity usage volume dropped by **11% in total**.

Table: Point awarded situation of the local currency ("ZUTTO ECO_Mypo")

Season		Summer		Winter	
		Jul-Sep (weekdays) 1pm-4pm		Dec-Feb (weekdays) 1pm-9pm	
Fiscal year		FY2016	FY2017	FY2016	FY2017
Day responding to DR	Amount of money eligible for point* (yen)	428,485	332,500	1,037,698	1,073,448
	Number of times point awarded (times)	277	313	287	409
(1) Amount of money eligible for point per payment (yen/time)		1,547	1,062	3,616	2,625
Day not responding to DR	Amount of money eligible for point* (yen)	359,371	293,395	1,717,102	1,669,863
	Number of times point awarded (times)	320	303	779	616
(2) Amount of money eligible for point per payme (yen/time)		1,123	968	2,204	2,711
Effect responding to DR requests ((1)-(2)) (yen/time)		+424	+94	+1,412	-86

* Point allocation value calculated from allocated points



About Kobe City

- Population: approx. 1,527,390
- Area: 557.02km²
- Key industries: manufacturing, services, fashion, etc.



Activities/Vision/Plan

Kobe City Environmental Master Plan

For Kobe to be a future city blessed by nature and sunshine, 4 basic aims are in place.

For future life & community

1. Reduce CO2
2. Use resources effectively and minimize waste
3. Preserve biodiversity
4. Secure safe and comfortable living environment

Outline of Characteristic Initiatives

Towards the environmentally friendly city of KOBE

Efforts to meet the objective of a “low carbon lifestyle and community” revolve around 3 pillars:

Energy saving

KOBE COOL CHOICE campaign



Awareness-raising events held for citizens and companies

Community cycles (Kobelin)



LED lighting



Promotion of renewable energy

Use of wood biomass



Practical use of felled wood as local energy.

Kobe biogas



Use of methane gas arising from the sewage treatment process to generate electricity.

Promotion of innovative technology development

Demonstration Project to Establish a Hydrogen Supply Chain



Source: HySTRA

A hydrogen supply system that provides an offloading and supply site in Japan for liquid hydrogen produced offshore and transported by sea to Japan

Demonstration Project to Develop a System Utilizing Hydrogen Energy



Source: ©Kawasaki Heavy Industries, Ltd.

A system to supply heat and electricity to public facilities from power stations running on hydrogen and natural gas.

※ Demonstration project carried out with local businesses and others, using subsidies from the New Energy and Industrial Technology Development Organization (NEDO).

About Ikoma City

- Population: 120,132 (as of Jan. 1, 2019)
- Area: Approx. 53 km²
- Ikoma is a residential city, whose charm lies in its rich natural surroundings, as typified by the Mt. Ikoma Range.



Traditional handcraft, Takayama Chasen bamboo tea whisk



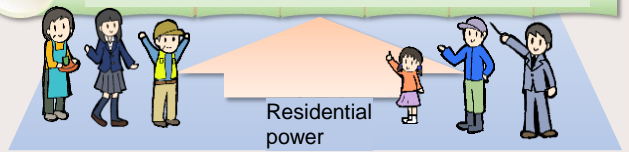
Mt. Ikoma

Activities/Vision/Plan

Five pillars of initiatives

Future Vision for Ikoma
Low-carbon, recycling residential city, built through collaboration between residents, business, and government

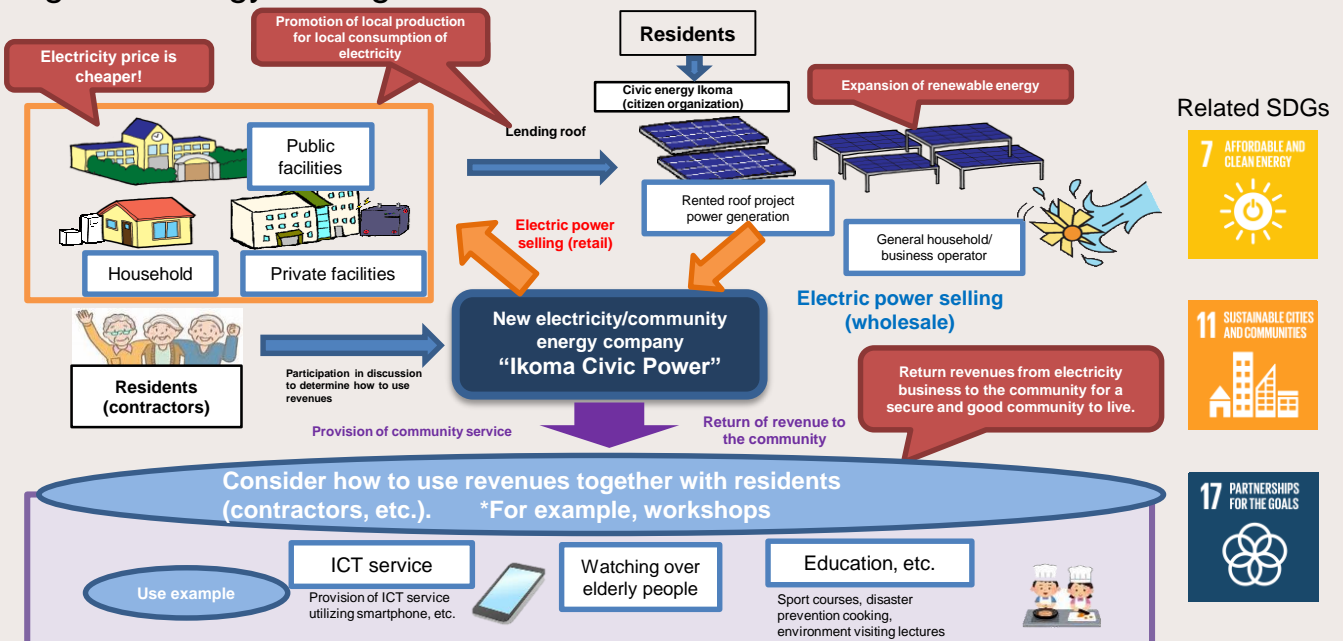
1. Re-Design of Urban Structure
2. Construction of resource recycling, energy self-sufficient systems
3. Promotion of community services using ICT
4. Development of food value chain
5. Re-development of community transport systems



Outline of Characteristic Initiatives

Establishment of Ikoma Civic Power

Ikoma City, citizen organizations, businesses, and others invested in the creation of a local energy company with the purpose of resolving local issues. Profits will be reinvested in the local area for provision of community services that qualitatively enhance resident lives. This initiative aims to build a Japan-version Stadtwerke model as a lifestyle comprehensive assistance business by promoting local energy output and consumption, such as proactively purchasing former FIT power sources, and utilizing these capabilities as the core of regional energy management in the future.



About Nishiawakura Village

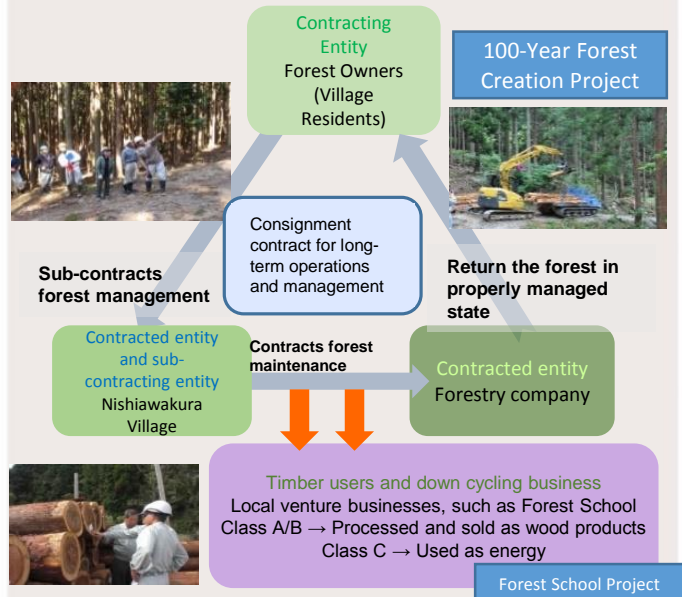
- Population: 1,468
- Area: 57.93 km²
- Land use: 95% forest, 5% agricultural/residential land and other
- Major industries: Forestry, tourism

Winter Summer 100-Year Forest



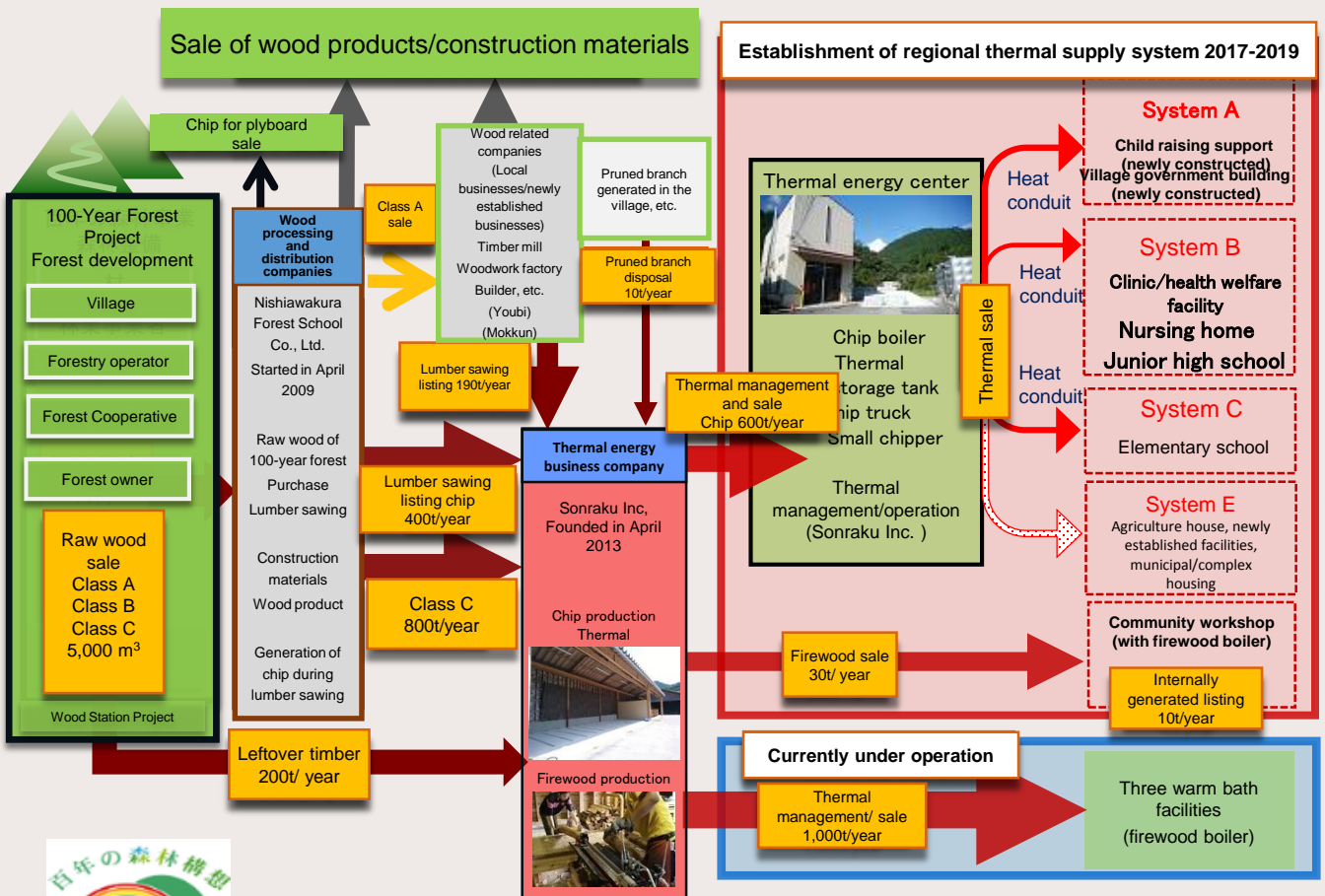
Activities/Vision/Plan

100-Year Forest Project (Overview)



Outline of Characteristic Initiatives

Cascade Use of Forest Resources (Woody Biomass Thermal Use)



About Matsuyama City

- Population: Approx. 510,809
- Area: 429.40 km²
- Main tourist attractions: Dogo Onsen, Matsuyama Castle
- Local specialties: Beni Madonna orange, Setoka mandarin orange



Dōgo Onsen



Matsuyama Castle



Beni Madonna orange

Activities/Vision/Plan

Matsuyama, The proud Eco-Model City

Promotion of Matsuyama Sunshine Project

Promotion of Smart Community

Promotion of Healthy City Where People Enjoy Walking

Promotion of Local Recycling System

➔ **Build a sustainable, low-carbon community**

Outline of Characteristic Initiatives

Matsuyama Smart City Promotion Project

○We have been conducting feasibility surveys and verification projects of the islands area (Nakajima District) of the city as our field in a step-by-step manner.

○The aim is that the whole city turns out to be the energy effective smart city by introducing BEMS and remote monitoring system of solar power generation and utilizing obtained data and know-how.

2014

Feasibility survey for introduction of renewable energy

2015

Deliberation by council comprising industry, academia, citizens and government



2016

Introduction of BEMS in Nakajima Branch Office



2017

Installation of a solar power remote monitoring system and increase of solar panels (10kW) at the Nakajima Comprehensive Cultural Center



Create

PV, remote monitoring



Future image of E-Island (good island), "Nakajima" with the harmony of gift from the sun and renewable energy

Use wisely

BEMS

Save

EV

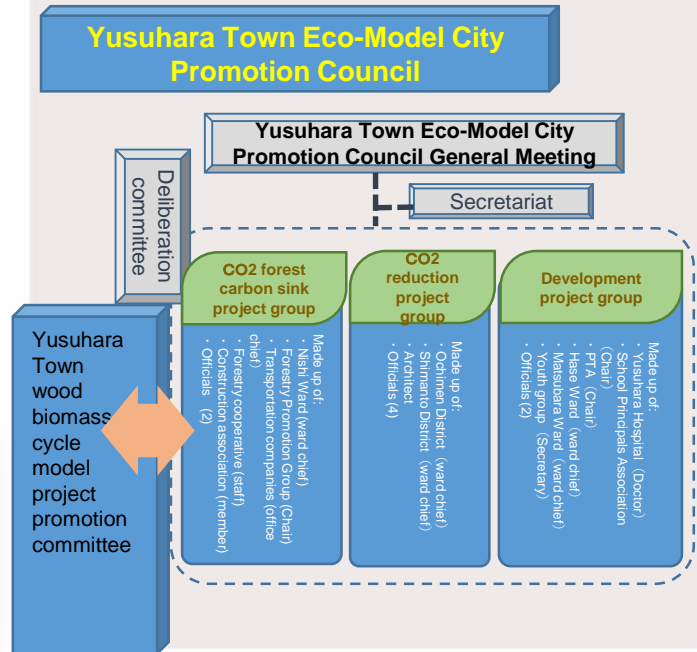
About Yasuhara Town

- Population: 3,542 (as of end of Dec. 2018)
- Area: 236.51km²
- Land use: Forest 91%, rice paddies 0.7%, horticulture 0.6%
- Key industries: forestry, construction



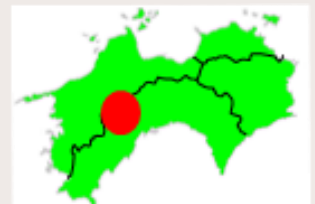
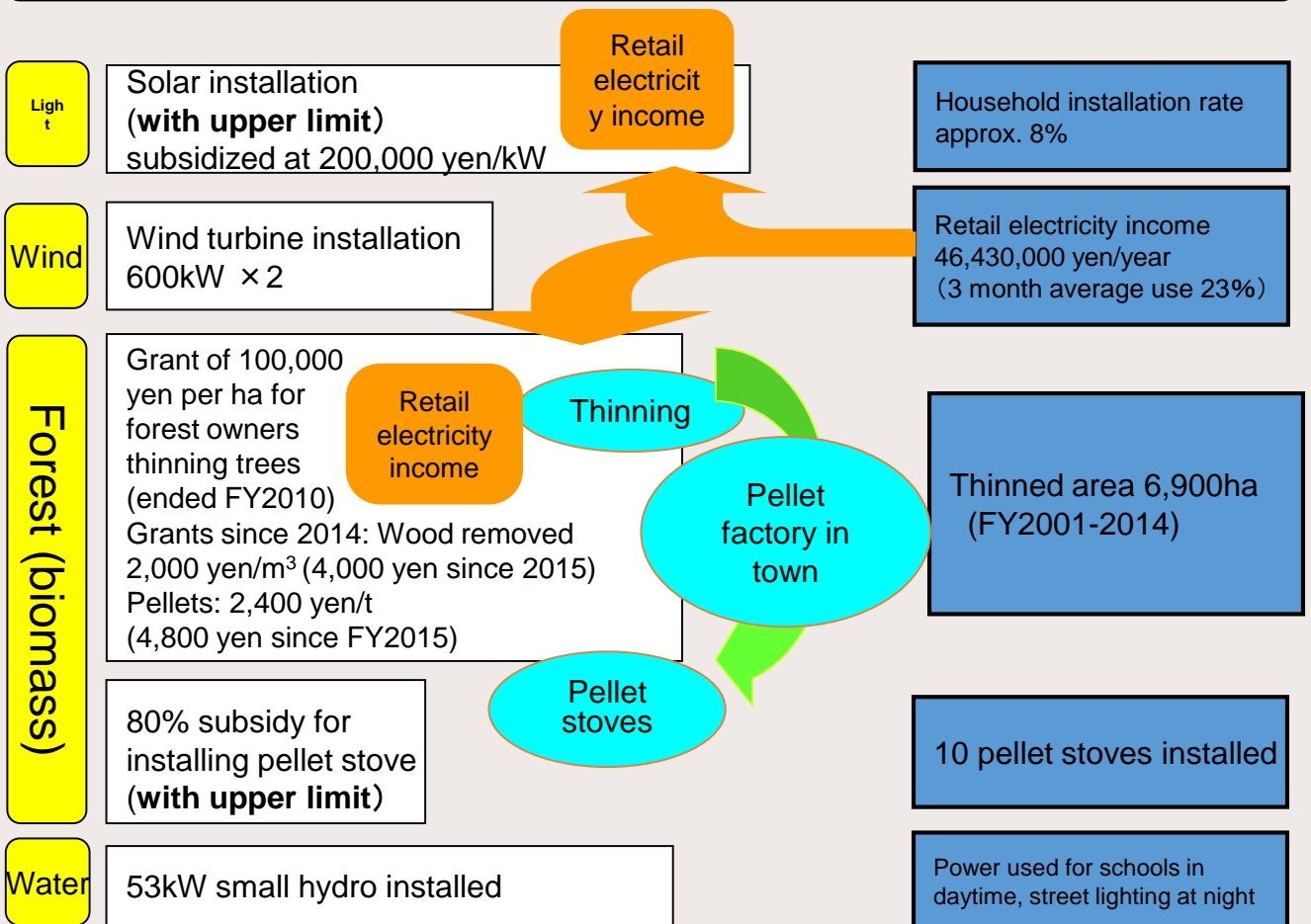
Activities/Vision/Plan

Role of government, residents and business



Outline of Characteristic Initiatives

Best mix of renewable energy and the two cycles



About Minamata City

- Population: 24,859
(as of end of May 2018)

- Area: 163.29 km²

Highlights of this area include the sawtooth Yunoko Coast facing the Shiranui Sea, a hot spring town with a real sense of history, and facilities with environmental themes.



Salad onions



Minamata tea



Yunotsuru hot spring

Activities/Vision/Plan

Minamata Environmental Academia

Established in April 2016 as a central facility for higher education and research activities

◆ Minamata Environmental Academia Philosophy

Contributions to the local community

- Organically linking industry, academia, government, and private residents, we contribute to the creation and sharing of new knowledge and local revitalization.

(Developing people, developing towns, and developing jobs)

Contributions to the world

- By collecting the knowledge, wisdom, and lessons of the Minamata area, we present solutions to the world in order to create a sustainable society.

Outline of Characteristic Initiatives

SDG activities in Minamata City

◆ Holding symposiums

- Professor Managi of Kyushu University offers lectures and panel discussions about Minamata's sustainability value using Inclusive Wealth, the new economic indicator replacing GDP.



◆ Carrying out SDG fieldwork

- Students from Minamata High School, designated a Super Global High School by MEXT, explain local activities based on SDGs to exchange students from overseas.

Local Minamata fieldwork by students from Keio University and universities from ASEAN countries



Terraced rice fields



Social welfare facilities



Private water-supply systems, RBS waste treatment plants, septic tanks with combined processing

◆ Holding public lectures

- Lectures are held to help create a sustainable local community while meeting the particulars of each SDG by theme, with useful content familiar to local residents in their everyday lives such as health, environment, and food education



Students from Super Global High School Minamata High School give a tour in English



Constructing a sustainable local community

About Miyakojima City



イメージキャラクター「みーや」

- Population: Approx. 55,000
- Area: 205 km²
- Main industries: Agriculture, forestry and fisheries, tourism
- Main products: sugar cane, mangoes



Wind power (Karimata)



Mango



Sugar cane

Activities/Vision/Plan

Eco Island Miyakojima Declaration 2.0



Toward the future a thousand years from now

Eco Island Miyakojima Declaration (march 30, 2018)



Eco Island Miyakojima's goals

1. We will protect our precious ground water which supports the island's life.
 1. We will protect our beautiful coral reefs and the sea.
 1. We will conserve our limited resources and energy by using our wisdom and creativity.
 1. We will act individually, aiming to make Miyakojima beautiful, tidy, and earth friendly.
- 1. We will protect our forests, sea, and air and act to make an environment in which all living things can co-exist.
1. We will think and act together with the peoples of the world to preserve and protect our environment and pass it on to future generations.

Setting goals for five indicators in 2030 and 2050

- 6 **WATER SECURITY** Groundwater quality and nitrogen concentration
- 11 **RESILIENT CITIES AND COMMUNITIES** Household garbage volume
- 7 **ENERGY AFFORDABLE AND CLEAN** Energy self-supply ratio
- 14 **LIFE BELOW WATER** Coral reef coverage
- 15 **TERRESTRIAL ECOSYSTEMS** Local species preservation

Outline of Characteristic Initiatives

Miyakojima island-style smart community real-world project

- Aim to increase the self-sufficiency ratio with stable, sustained, and low-cost energy supply
- High-volume deployment of low-cost solar power is effective for achieving this goal
- Supply-demand balance adjustment capability is an issue for outlying islands because of the small grid
- Utilize IT/IoT to control solar power, HP water heaters, etc. as a community
- Review promotion of solar power as the main source and demand-side adjustment capability

