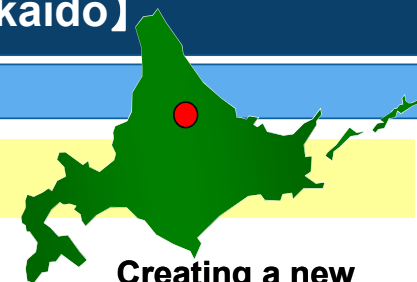


Overview of distinctive initiatives



“Ichi No Hashi” settlement in Shimokawa, a group living area for responding to the aging of the population, equipped with its own independent energy system



Population: 150 people (2010)
Elderly as % of population: 52%
Lack of stores and hospitals
Age-related deterioration of houses
Difficulties with snow-clearing; increasing demand for support with everyday living

Issues faced by the traditional settlements

Depopulation/aging
 ×
 Rising energy costs
 ×
 Decline of local industry

Various steps to be taken

Transitioning towards group living
 ×
 Renewable energy
 ×
 Community businesses

Creating a new housing model

Create housing that can respond to the super-aged population's needs
 ×
 Create an independent energy supply
 ×
 Revive the idea of group living settlements

Community dining hall, small local stores, creation of industries based on group housing settlements through the development of a community cafeteria, small local stores and local produce, cultivation of forestry products for special applications etc.



Overview of the city

- Population: 3,532 people (end of August 2014)
- Area: 644.2 km²
- Land utilization rate: Mountain forest: 91%; agricultural land: 5.5%
- Main industries: Forestry, forestry production, agriculture

Inquiries:

FutureCity Initiative Division, Shimokawa Town, Hokkaido
 Officer in charge: Nakano
 TEL: 01655-4-2511
 E-mail kankyo-m@town.shimokawa.hokkaido.jp

Overview of distinctive initiatives

Area Energy Management System (AEMS)/Smart Center

Since July 2014, facilities which promote the optimized use of energy have been installed by Kashiwa City around the district around the front of Kashiwanoha-campus Station on the Tsukuba Express line.

- These facilities will not only help to save energy and reduce CO2 emissions at ordinary times through the effects of peak shaving (reducing the amount of energy purchased during peak hours when charges are highest) but can also, at times of emergency such as disasters or power outages, deliver power to infrastructure such as elevators and underground water pumps for tall apartment blocks by combining power from high-volume storage batteries with power from gas-powered generators, bringing citizens greater safety and peace of mind.
- Kashiwa City is continuing to develop plans which aim not only to reduce environmental impact but also build a city which is resilient in the face of disaster.



Overview of the city

- Population: 406,395 people
- Area: 114.9 km²
- Land utilization rate: (Top 3 types of land use) residential area: 31.3%; fields: 13.9%; rice paddies: 12.2%
- Main industries: (On an employee number basis) Retail, medicine/welfare, restaurant trade (all figures taken from Kashiwa City Statistics 2013)

Inquiries:

Planning and Coordination Division, Planning Department, Kashiwa City, Chiba Prefecture
 Officer in charge: Ogawara
 TEL: 04-7167-1111 FAX: 04-7167-1117
 E-MAIL: kikakuchosei@city.kashiwa.lg.jp

Overview of distinctive initiatives

Yokohama Smart City Project

Yokohama Smart City Project (YSCP), an initiative aiming to establish Japanese-style "smart grids" and expand these overseas, was selected as a "Next Generation Energy Infrastructure and Social System Demonstration Area" by the Ministry of Economy, Trade and Industry in April 2010. The City is collaborating with the private sector (Accenture, Tokyo Gas, Toshiba, Nissan Motor, Panasonic, Meidensha, TEPCO, etc.) to work on various projects such as introduction of renewable energy, energy management of households, buildings and local communities.

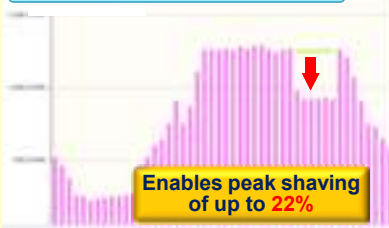
Yokohama is creating links with a variety of energy management systems (CEMS, HEMS, BEMS and FEMS) to develop systems for demonstrating community energy management systems, with large-scale built-up neighborhoods as the setting for the experiments.

■ **Number of systems introduced:** Actual figure (by FY2013)/Target (FY2010~2014)
 Home Energy Management Systems (HEMS) **4,200 systems**/4,000 systems)
 Solar panels (**36 MW**/27 MW) Electric vehicles (**2,300 vehicles**/2,000 vehicles)

Demonstration experiment for verifying demand response (DR) in the office block sector

● **16 locations (FY2013)--> 29 locations (FY2014)**

Winter
 (January 2013~time of demonstration on experiment)
 Peak demand hours: 17:00~20:00

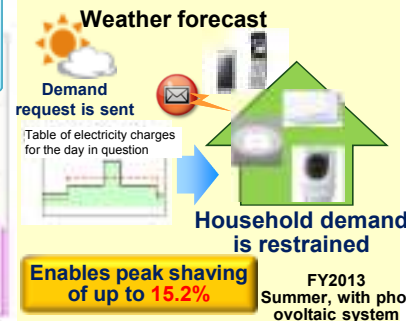


Summer
 (July 2013~time of demonstration on experiment)
 Peak demand hours: 13:00~16:00



Demonstration experiment for verifying DR in the household sector

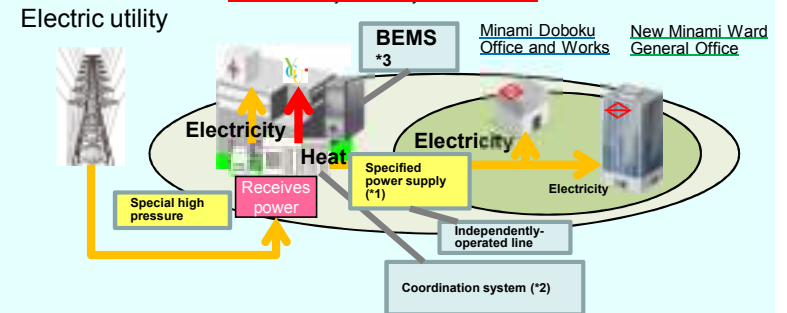
● **1,900 households (FY2013) --> 3,500 households (FY2014)**



Energy linkage between Yokohama City University Medical Center and the new Minami Ward General Office

A coordination system has been introduced linking energy usage between Yokohama City University Medical Center and the new Minami Ward General Office and improving the institutions' resilience against disaster; the system works to make efficient use of waste heat, cut CO₂ emissions, reduce costs and provide optimization control using BEMs.

Yokohama City University Medical Center



*1: This means that power is supplied to specified parties who have a close connection with the electricity that is generated
 *2: While electricity is generated using gas engines etc., waste heat given off from the process is supplied to be used for air conditioning etc.
 *3: BEMS works to make efficient use of waste heat and provide optimized local control of energy.

Creating a variety of values

Improved energy security

Developing energy-related industries (Green innovation)

Reducing CO₂, realizing peak shaving and shifting demand to off-peak times

Reduced energy costs

Overview of the city

- Population: Approximately 3,710,000 people (as of October 1, 2014)
- Area: Approximately 435 km² (as of January 15, 2014)
- Land utilization rate: Urban usage: approx. 81%; nature-centered usage: approx. 19%
- Main industries: Service industry, real estate, wholesale/retail, manufacturing industry

Inquiries:

Future City Promotion Section, Climate Change Policy Headquarters, City of Yokohama, Kanagawa Prefecture
 Officer in charge: Tanabe, Seki
 TEL: 045-671-4371
 E-MAIL: on-futurecity@city.yokohama.jp
 URL: <http://www.city.yokohama.lg.jp/ondan/futurecity/>

Overview of distinctive initiatives

Light Rail Network

Toyama is creating a 25.3 km LRT network. This includes converting the Toyama-Port Line from a heavy rail to a light rail system, creating a tram loop line in the city center, and joining the north-south tram lines under Toyama Station to connect with the Hokuriku Shinkansen which opens on March 14, 2015.

LRT Results

- (1) Large increase in passenger numbers
- (2) New opportunities for elderly people to go out of the house
- (3) Reduction in CO2 emissions
- (4) Increased number of new residential developments on transportation corridors
- (5) Increase in visitors at transportation corridor tourist facilities



➤➤ Creating a environmentally sustainable city that can respond to the needs of an aging society

Overview of Toyama

Population: 421,953 people (National Census 2010)
Area: 1,241.85 km² (859.83 km² of which is forested)
Main industries: Pharmaceutical, Biotech, IT, Manufacturing

Inquiries:

Environment Policy Section, Environmental Division
 Toyama City, Toyama Prefecture
 Officer in charge: Shunsuke.Sunuma
 TEL: 076-443-2053 FAX: 076-443-2122
 E-mail: kankyousei-01@city.toyama.lg.jp

Overview of distinctive initiatives

Japan-China city-to-city cooperative partnership for improving air quality

Since FY2014, Kitakyushu City has been working on a city-to-city cooperative project with several Chinese cities, aiming to improve air quality. The cities Kitakyushu City is working with—Shanghai, Wuhan, Tangshan and Tianjin—are examples of cities which have experienced increasingly severe air pollution, including fine particles like PM2.5 and PM10.

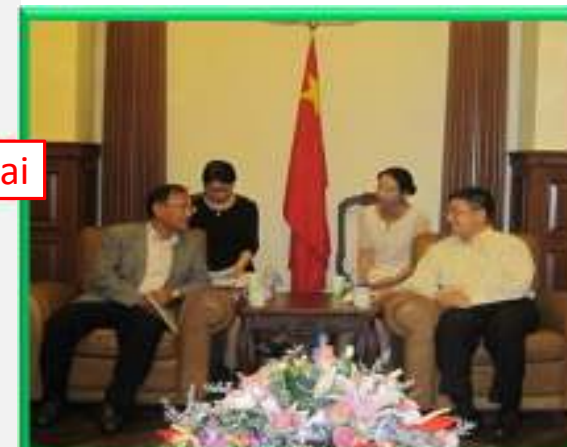
The nature of the cooperative activities will be tailored to the needs of each individual city; specific activities that are planned include inviting Chinese trainees to Japan for training, dispatching Japanese experts to China, and conducting joint research and urban model projects on air quality.

Other possible areas of cooperation include monitoring, analysis of the sources of air pollution, alert/warning systems, countermeasures against major stationary source which emits more than a certain amount of a pollutant, and anti-motor vehicle traffic measures.

As the project makes progress, the Kitakyushu China-Japan Air Pollution Improvement Association, comprising universities in Kitakyushu, companies and government agencies, is holding discussions on how to move the project forward.



Director General Meeting between Kitakyushu and Wuhan



Director General Meeting between Kitakyushu and Shanghai

Overview of the city

- Population: 963,259 people (as of October 2014); Area: 489.6 km²
- Land utilization rate: Forest: 42.7%; residential area: 14%; industrial area: 7.0%; farmland: 6.0%; commercial area: 3.2%
- Main industries: Manufacturing industry, core manufacturing industries, automaker industry, electronic components/device manufacturing industry, environmental/energy industry etc.

Inquiries:

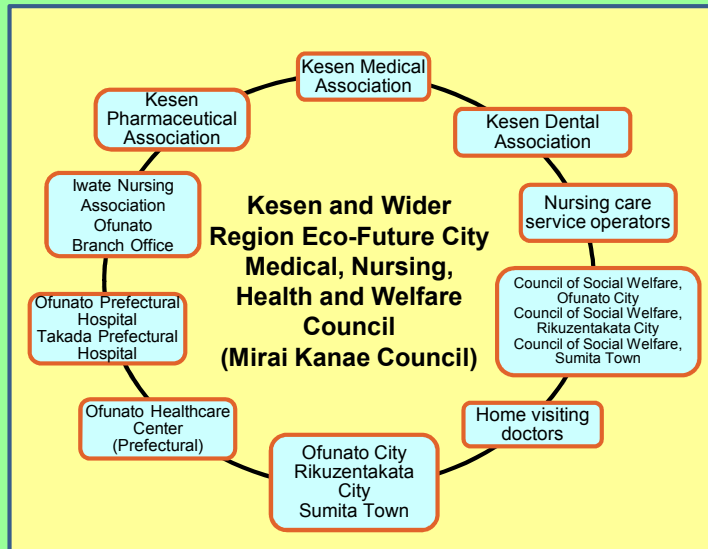
Policy Coordination Division, General Affairs and Planning Bureau, City of Kitakyushu, Fukuoka Prefecture
 Officer in charge: Nobuyuki Sasaki (Mr.), Takashima Nakajima (Mr.)
 TEL: 093-582-2156 FAX: 093-582-2176
 E-MAIL: nobuyuki_sasaki01@city.kitakyushu.lg.jp

Overview of distinctive initiatives

Establishing an advanced collaboration model for medical and nursing care etc.

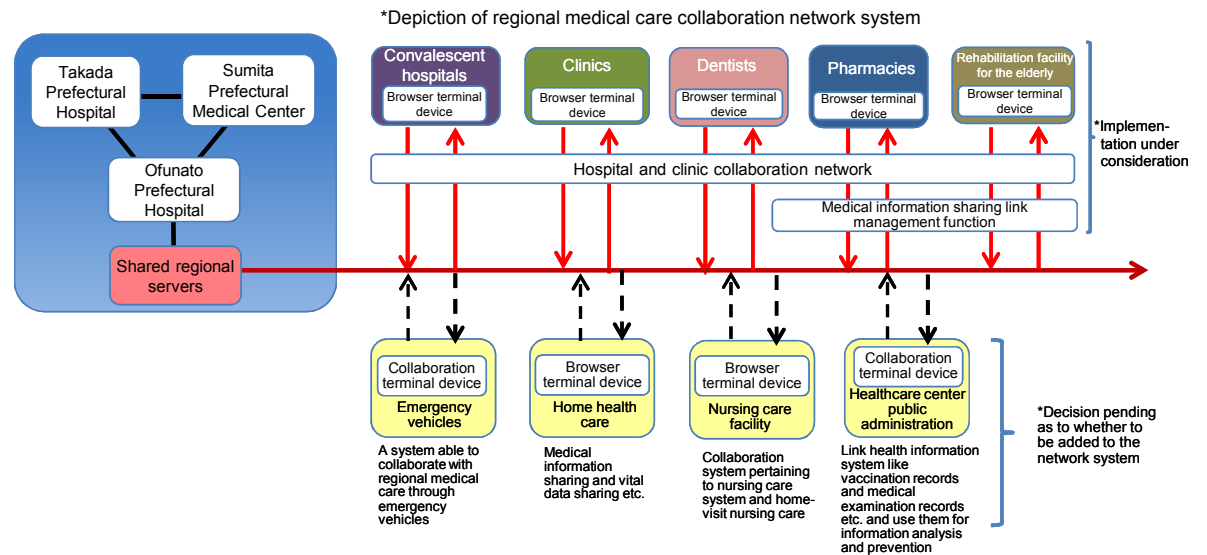
Medical, Nursing, Health and Welfare Council, Kesen and Wider Region Eco-Future City (established August 8, 2012; affectionately nicknamed Mirai Kanae Council) **"Future Comes True Council"

Consists of medical, nursing, health and welfare personnel and experts in the Kesen region who are looking into how medical care and nursing care should work together to address issues of a super-aging society.



(Details of specific initiatives)

- Study on utilizing Iwate Prefecture's Fund for Recovery of Regional Medical Care to implement a regional medical care collaboration network system.
- Preparations for setting up a company to manage the operation of the regional medical care collaboration network system.
- Organization of working group sessions for the purpose of improving the environment in order to attract professionals from the medical field etc. and for improving the nursing care ability of the local residents themselves.



*Symposium looking at medical care, nursing care and welfare in the Kesen region; meant for residents (March 15, 2014; Ofunato Civic Centre)



*Working group for the implementation of regional medical care collaboration network system (August 27, 2014; Ofunato Municipal Office)

Overview of the city

- Population: 65,457 people (end of September, 2014)
- Area: 890 km²
- Distinguishing characteristic: Kesen and Wider Region Eco-Future City is composed of the coastal cities Ofunato City and Rikuzentakata City, as well as Sumita Town, where forestry is a thriving industry. With a long history of mutual cooperation as a wider region, they are taken as a single region. Having suffered unprecedented damages by the tsunami during the Great East Japan earthquake, Ofunato City and Rikuzentakata City are stepping up efforts in various recovery and reconstruction projects, working towards a creative revival.

Inquiries:

Future City Medical, Nursing,
Health and Welfare Council (Mirai Kanae Council)
Executive Office: Abe
TEL: 080-1885-8932
E-MAIL: hakudo7695@gmail.com

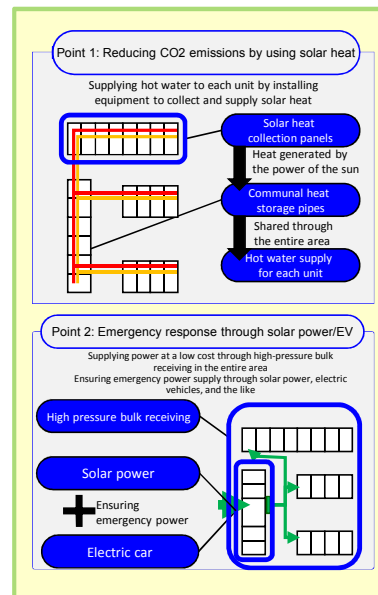
Overview of distinctive initiatives

<Low Carbon/Energy Saving/Emergency Power Assurance> "Smart Public Housing Reconstruction" that is resilient in disasters and environmentally friendly

Project Background

We were keenly aware of vulnerabilities in the energy environment after lifelines were disrupted by the earthquake disaster, falling into situation in which it was difficult to secure electrical power over the long term. By installing equipment that can secure power even during emergencies, we are able to increase the energy independence of the region as well as plan the development of environmentally conscious public housing that contributes to energy saving and reduced CO₂ emissions.

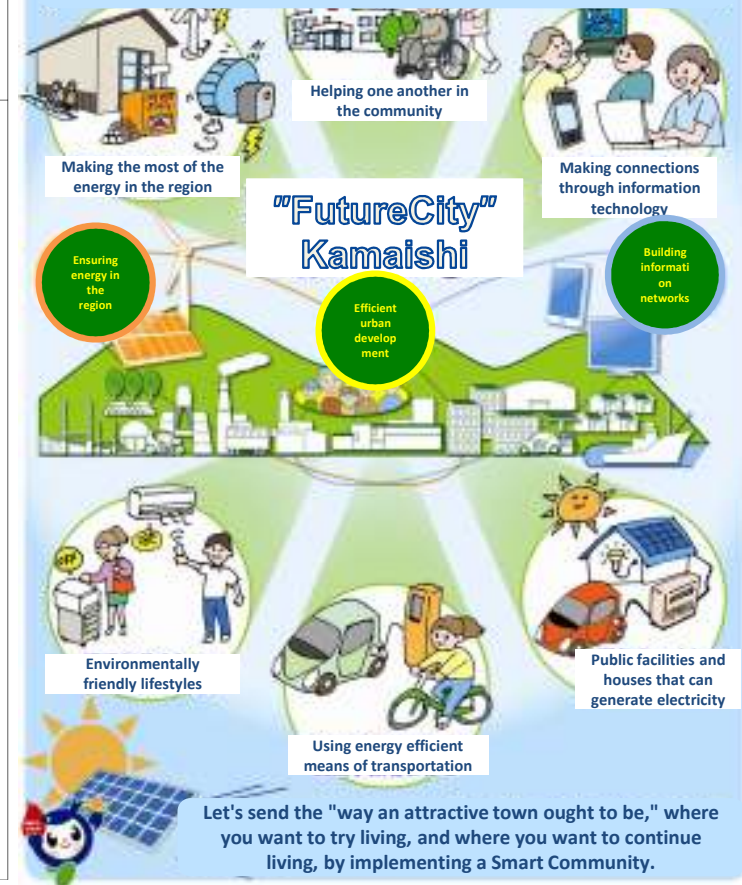
Project Overview



Subsidies that were used

- Solar Water Heating Equipment—Subsidies for the costs of projects accelerating measures in support of using heat with renewable energy (one company) New Energy Promotion Council/Agency for Natural Resources and Energy).
- Electric car charging equipment—Subsidies for the cost of projects promoting the introduction of Smart Communities (one company) New Energy Promotion Council/Agency for Natural Resources and Energy).

Smart Cities that are "More Abundant," "More Convenient," and "More Secure."



Overview of the city

- Population: 36,570 people (As of end of September, 2014)
- Area: 441.39 km²
- Land utilization rate: Forest: 89.2%
- Main industries: Industrial (machine manufacturing industry), water industry

Inquiries:

Leading Business Promotion Office, Reconstruction Headquarters, City of Kamaishi, Iwate Prefecture
 E-MAIL: fukko-lead@city.kamaishi.iwate.jp
 TEL: 0193-22-2111 FAX: 0193-22-2686

Overview of distinctive initiatives

Creating an Eco Compact City



Iwanuma City aims to build a more compact city while maintaining its traditional community through collective relocation of the six settlements that existed prior to the disaster, creating a single settlement in a new location; at the same time, the city will also introduce a solar power generation system combined with a storage battery into the public housing complex which will be established in the new location for those affected by the disaster.

The Tamauranishi Discussion Committee has been set up, consisting primarily of citizens affected by the relocation, to hold all-encompassing discussions on the process of creating the new settlement in Tamauranishi where the citizens are to be located to. The final report of the Committee was submitted in November 2013. The transfer of the lots where the individual residences are to be built was completed by April 2014, and the development of the public housing complex is currently underway.

Creating the Hill of Thousand-Year Hope



In the coastal area which was affected by the disaster, Iwanuma City is also building the Hill of Thousand-Year Hope (evacuation hill) as a site for primary evacuation, a lifesaving measure for people who are unable to evacuate quickly enough when disaster strikes. Iwanuma city is also developing a “disaster prevention park” which will serve as a place for education about disasters; it will include a multi-purpose plaza and a memorial which will preserve the remains of buildings and surrounding area which were damaged by the disaster and inform people from Japan and overseas and future generations living thousands of years hence about the disaster.

The first hill was completed in June 2013 with the help of donations which arrived from all corners of Japan; Iwanuma City plans to complete 15 hills in total.

Establishing an energy management system for natural energy sources



Agricultural land whose drainage function has declined due to ground subsidence caused by the disaster is to be used for setting up a natural energy supply point.

In terms of specific initiatives, megasolar businesses are being invited to help Iwanuma City develop into a new city with its own self-sustained energy supply. At ordinary times, the system will be used for supplying the 100% buyback program; at times of emergency, the power can be supplied to the eco-compact city and to the enterprise zone where medical and healthcare companies are to be invited to relocate to.

The businesses were selected in June 2012 and the installation of the solar panels is currently underway. Iwanuma City plans to start generating power in FY2015.

Overview of the city

- Population: 43,656 people
- Area: 60.71 ha
- Land utilization rate: Rice paddies: 24.8%; fields: 9.2%; residential area: 17.1%; mountain forest: 23.5%; wilderness: 0.8%; other: 24.7%
- Main industries: Distribution industry (represented by Rinku Industrial Park), agriculture (main commodity: wet-field rice)
- The area suffered massive damage in the Great East Japan Earthquake of March 11, 2011

Inquiries:

Policy Planning Section, General Affairs Division, City of Iwanuma,
Miyagi Prefecture
Officer in charge: Momoi, Otomo, Sasaki
TEL: 0223-22-1111 (extension 526)
E-MAIL: seisaku-k@city.iwanuma.miyagi.jp

Overview of distinctive initiatives

“Rebuilding the forest through the cooperation of the local community”

—Helping to relieve survivors’ stress and help them stay active in their communities for life

Treehouse

The CW Nicol Afan Woodland Trust has taken responsibility for development of the approximately 10 ha municipal forest based on an agreement with the city.

The “Regenerated Forest” area

Site where construction of a school is planned

Uma no Hizume Observation Deck around the “Mother Fir Tree”
An observation deck has been created overlooking the sea and the town

In April, the forest is carpeted with katakuri (trout lilies)

In May, the forest fills with chigoyuri flowers (Disporum smilacinum)

Building bridle paths
Bridle paths accommodating horses have been built, so that harvested timber can be carried away without causing damage to the forest.

A “school in the woods” program has started in Higashi-matsushima!
Higashi-matsushima is holding a forest-development program in the regenerated forest to help participants discover a new sense of love and pride in their local area and set out their hopes and dreams for the future through carrying out regeneration activities in the community forest.

The “Forest School” development

How this connects with developing a city where people can get a sense of the benefits the forest brings to them

The opening of the tree house, “Tree Dragon”
This tree house is a symbol of the forest, and was created as a space for giving comfort and solace to all those who encounter the forest. The treehouse is created in the image of a dragon taking off, an image that is full of hope.

The Wood-Based City Concept

The “forest cure” as a medical treatment

Overview of the city

- Population: 40,169 people (as of October 1, 2014)
- Area: 101.86 km²
- Land utilization rate: Forest: 32%; agricultural land: 30%; roads/residential area: 15%
- Main industries: Fishing, agriculture

Inquiries:

Future City Project Section, Revival Policy Division, Revival Policy Department, city of Higashi-matsushima, Miyagi Prefecture
 TEL: 0225-82-1111 FAX: 82-8143
 E-MAIL: fukko@city.higashimatsushima.miyagi.jp

Overview of distinctive initiatives

Minamisoma Solar Agri Park Project

(1) Vegetable factory domes

- Minamisoma City has constructed vegetable factories as a model project for the regeneration of agriculture
- The Agricultural Council in Fukushima Prefecture, a local agricultural production corporation, undertakes the operation and maintenance of the facilities.
- The power generated by the solar power plant is used to power air conditioning and the pumps used in hydroponic agriculture
- Sales are supported by major local supermarkets



(2) Solar power plant

- The 500 kW-grade solar power plant was constructed by Fukushima Solar and Agriculture Experience Association, which now runs the plant
- 100 kW of all the power that it generates is delivered to the vegetable factories at a reasonable price
- The surplus portion is sold to a power company through the Feed-in Tariff



(3) Facilities for people to experience renewable energy for themselves through interpersonal exchange

- The Fukushima Solar and Agriculture Experience Association has planned and created an education program with unique installations based on its partnership with Kidzania
- The facility helps to support the development of children by letting them learn through hands-on experience in the solar power plants and vegetable factories
- Promoting exchange between the local community and the rest of the country



Build-up of interpersonal exchange + media

Overcoming reputational damage

Revitalize the local agriculture, industries and tourism

Regenerate Fukushima and Minamisoma

Employment opportunities are created in the industries thus revitalized

Overview of the city

- Population: 63,700 people (as of October 1, 2014)
- Area: 398.50 km²
- Land utilization rate: Rice paddies: 17%; fields: 7%; residential area: 5%; mountain forests: 43%; other: 28%
- Main industries: Agriculture, metal working industry etc.

Inquiries:

New Energy Promotion Section, Reconstruction Planning Department,
Minamisoma City, Fukushima Prefecture
Officer in charge: Tonami
TEL: 0244-24-5248 FAX: 0244-23-2511
E-MAIL: shinene@city.minamisoma.lg.jp

Overview of distinctive initiatives

[Future image of 2050]

Where people say to each other "indeed Shinchi is good"

[Future image of 2020 to 2030]

- A town where people have pride and love for the community
- A town of the sea in harmony with nature
- A town of energy locally produced and locally consumed while environmental risk is reduced
- A town that creates industries to utilize various local resources
- A town where people can learn at any age and live with sense of purpose in life
- A town where people nurture human bonds

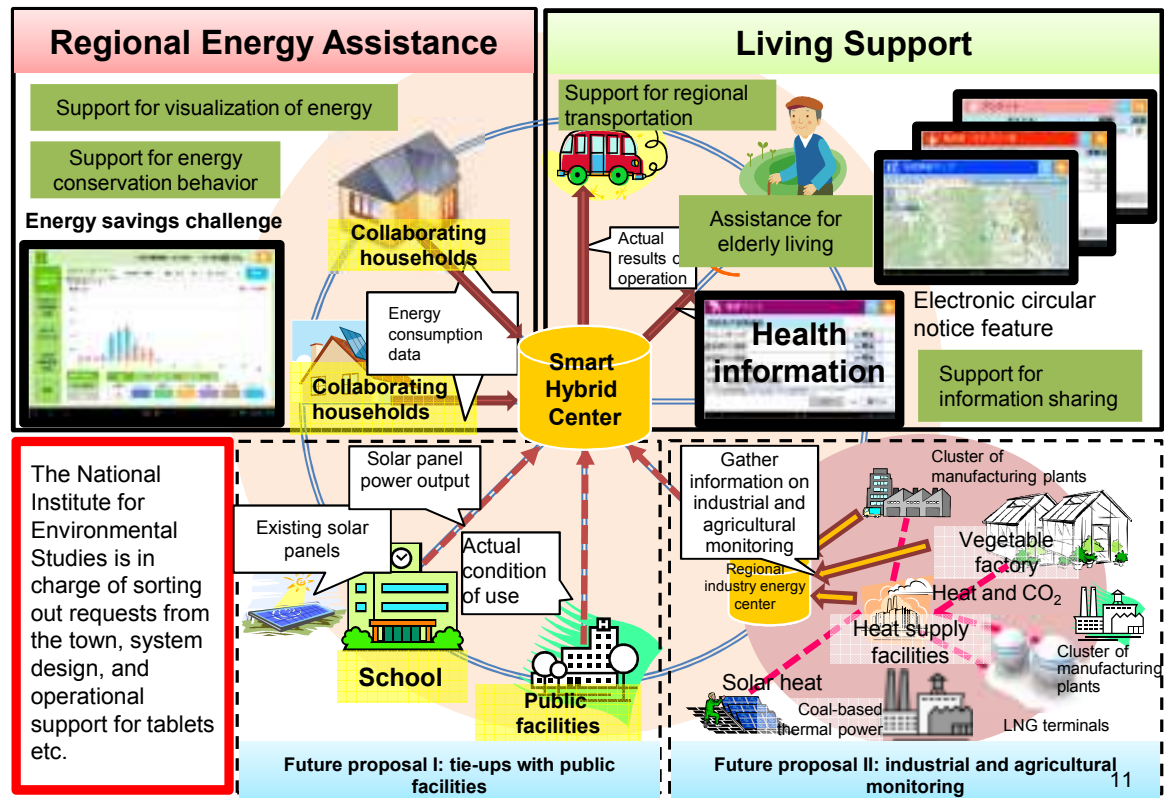
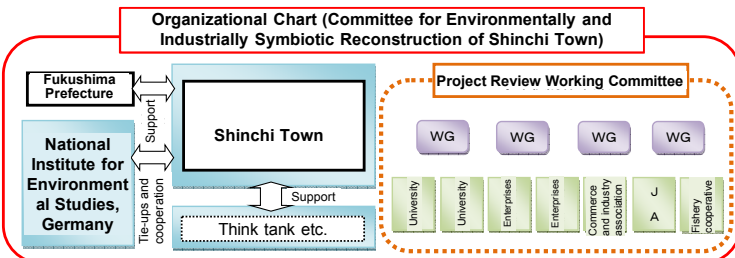
Creating the "smart hybrid town," increasing the environmental, economic and societal values, going forward to create the Future Town
(Aging population and environmental support such as model reconstruction project cost subsidies)

Put in place on a trial basis a regional information network in coordination with facility development projects for infrastructure and housing, etc. in the ongoing reconstruction, to realize environmental measures and measures to address the declining birthrate and the aging population, to promote the community demonstration projects following a recovery model to enhance the values of society, environment and economy of the local community.

Shinchi Town – Towards Environmentally and Industrially Symbiotic Reconstruction

From the perspective of living in an environmental city and bringing about industrial development, we intend to establish a collaborative network between industry, academia and government. We will create a platform for the exchange of information pertaining to environment-related industries, as we research and study the utilization and application of regional energy resources etc. and consider the course of action towards commercialization.

In addition, we intend to collaborate with the Fukushima International Research Industry City "Innovation Coast" Vision and at the same time, work towards an environmentally and industrially symbiotic model of community reconstruction, developing a community where reconstruction, the environment and the economy are in harmony, by fostering the agglomeration of energy-related industries.



The National Institute for Environmental Studies is in charge of sorting out requests from the town, system design, and operational support for tablets etc.

Overview of the city

- Population: 7,957 people (as of November 1, 2014)
- Area: 46.35 km²
- Land utilization rate: Agricultural land: 28.5%; forest: 35.9%; roads: 7.3%; residential area: 12.9%; other: 15.4%
- Main industries: Agriculture, electricity, gas, heat supply and waterworks

Inquiries:

Future City Promotion Office (part of Planning and Development Section), Shinchi Town, Fukushima Prefecture
 Officer in charge: Kurosawa
 TEL: 0244-62-2112 FAX: 0244-62-3194
 E-MAIL: kanko@shinchi-town.jp