Overview : Minamisoma City Renewable Energy Promotion Vision-1

【Background & Goals of Formulating a Renewable Energy Promotion Vision】

In December 2011, the city formulated the “Minamisoma City Reconstruction Plan” in order to overcome the Great East Japan Earthquake and the nuclear power plant accident and work to rebuild the lives of citizens as soon as possible.
In this plan, as a basic measure, we will work on reconstruction with the aim of coexisting with the environment, such as switching from nuclear power to renewable energy.

This vision is an introductory goal for citizens, businesses, and the city to work together to promote the utilization of renewable energy and energy conservation in order to promote renewable energy as an important measure for achieving the reconstruction of the city. The purpose is to show the direction of basic efforts.

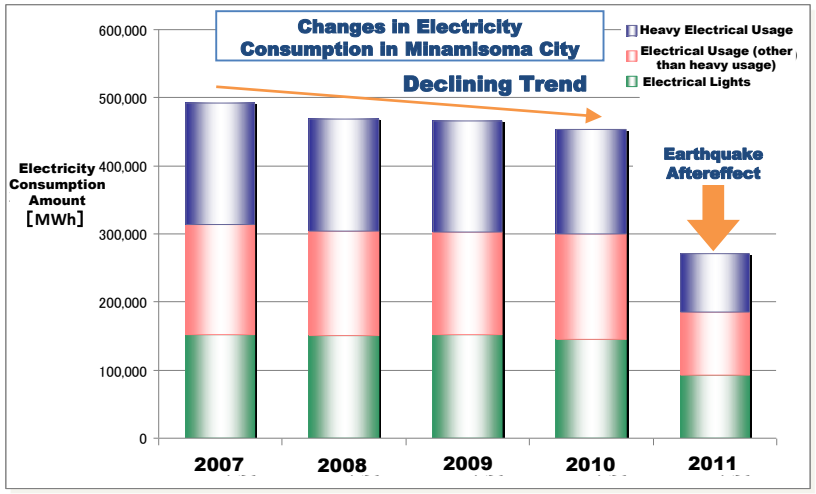
This vision’s purpose is to promote renewable energy as an important measure for achieving the reconstruction of the city. The purpose is to show the direction of basic efforts. The goal is to have citizens, businesses, and the city are work together to promote the utilization of renewable energy and energy conservation, as well as to show basic courses of action.
This vision also seeks to promote the revitalization of industries from before the Great East Japan Earthquake as well as to create new ones. It aims to promote the local consumption of locally produced energy in an area rooted in using energy as efficiently as possible in civic life.

【Current Vision Promotion Period】

The promotion period will be approximately 10 years from 2012 to 2020 in line with the Minamisoma City Reconstruction Plan. However, the figures from 2021 and onwards will also be listed in the implementation target values.

【Amount of Energy Consumption in Minamisoma City】

Both electricity consumption and thermal energy consumption have been on a downward trend in the last five years, but due to the effects of the Great East Japan Earthquake, electricity consumption in 2011 was almost halved.



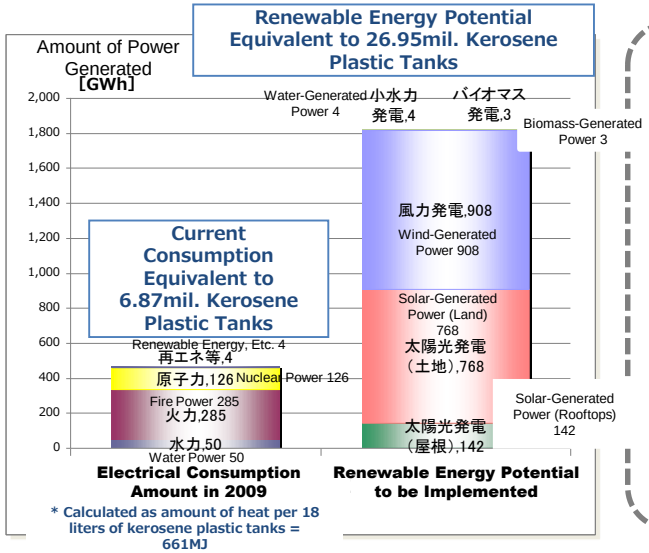
【What is Renewable Energy?】

Unlike conventional fossil fuels, renewable energy is an excellent energy source that can be used repeatedly without depleting resources and emits almost no carbon dioxide that causes global warming during power generation and heat utilization.

Renewable Energy Types	Contents
Solar Power	Using energy from sunlight to generate electricity. In addition to roof-mounted solar panels, there are also large-scale power generation facilities installed on land.
Wind Power	Wind turbines use wind power to turn and generate electricity. In addition to those installed on land, there are also offshore wind power generators.
Water Power	Facilities **that** use the flow of water from agricultural canals and small rivers to generate electricity.
Geothermal Power	Geothermal energy stored underground is produced in the form of steam or hot water, and turbines are rotated to generate electricity.
Utilization of Solar Heat and Temperature Difference	Heat from the sun is collected by a heat collector and used for generating hot water and air conditioning. In addition, The temperature difference in between rivers and subterranean ground is also used.
Utilization of Biomass Power/Heat	Burning wood, plants, animal manure, etc., results in fermented gas that can be used as fuel to generate electricity, and can also use heat.

【Renewable Energy in Minamisoma】

There is an abundance of renewable energy resources in Minamisoma City.



【Survey Results】

We performed a survey about renewable energy for residents and business establishments.

(Summary of Survey Results)

◇ About half of the citizens answered that they have already implemented or are considering implementing solar power generation.
◇ From the perspective of implementation, citizens emphasize "contribution to the local environment and an emergency power supply in the event of a disaster," and business establishments emphasize "economics, cost, and energy saving effect."
◇ Approximately 80% of citizens and businesses answered that they are "working on energy conservation."
◇ As for intention to participate in the project, many respondents answered that they would "implement a power generation facility in the office" and then "partially invest in the power generation business."
◇ With business establishments, there were many answers that were concerned about economic efficiency and costs, such as "economic effect at the time of implementation and the burden of project costs."

Overview : Minamisoma City Renewable Energy Promotion Vision-2

【Basic Policy for Promoting Renewable Energy】

Promoting renewable energy in the city is based on the three perspectives of "a city that does not depend on nuclear power," "a city that is resilient to disasters," and "contribution to the local environment."

① Promotion of energy saving
② Active use of renewable energy
③ Construction of a Minamisoma City-version "smart community"

In addition to stipulating these three points in the basic policy of this vision, we will also work on the "regional circulation plan" in order to aim for the economic independence of the region and coexistence with the environment.

【Basic Measures for Promoting Renewable Energy】

Promotion of Saving Energy

◇ Promote environmental learning and provide environmental information to citizens and businesses.
◇ Support energy conservation efforts in homes and businesses.
◇ Promote energy conservation efforts in public facilities.

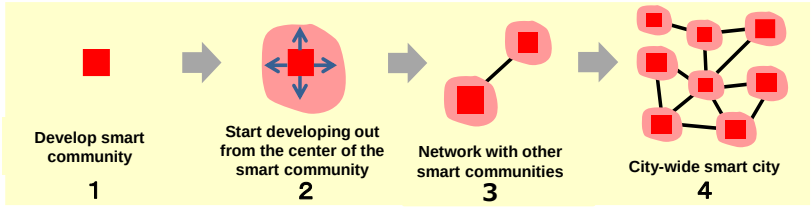
Active Use of Renewable Energy

◇ Promote the implementation of solar power generation equipment.
◇ Take the initiative in implementing renewable energy in public facilities.
◇ Promote the attraction of renewable energy related organizations and companies.

Building a Smart Community for Minamisoma City

◇ We will build a safe and secure "Minamisoma City version" of a smart community based on the lessons learned from the disaster.
◇ We will form a small smart community as a model project centering on disaster public housing and disaster relocation housing, and create a model in the city.

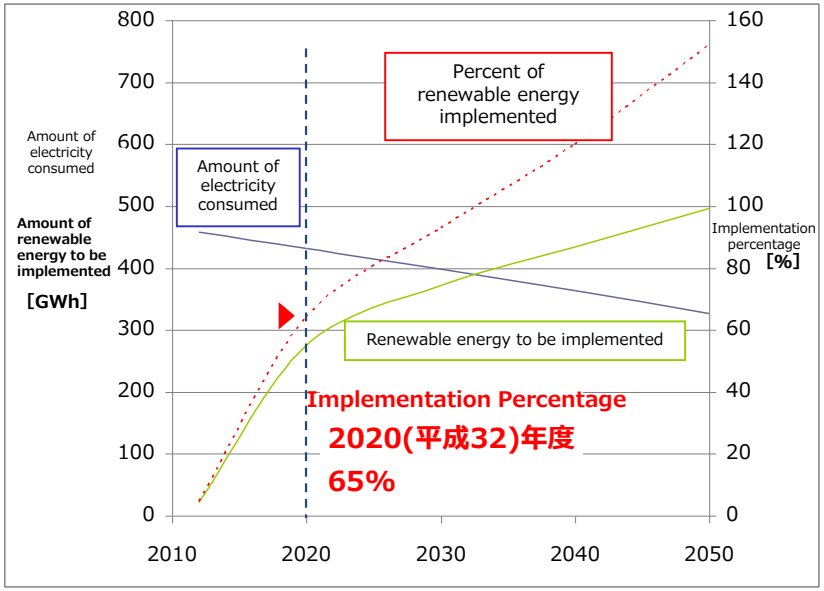
Example of power generation using renewable energy



Networking small smart communities

【Target Goals of the Renewable Energy Vision】

The target goal for the fiscal year of 2020, the final target year of this vision, will be set at **65%** for the renewable energy implementation ratio, and the target goal for the fiscal year of 2030 will be set at almost **100%**.



【Image of Regional Circulation Plan】

Part of the energy generated by the solar power generation business will be used in a new agricultural "plant factory." Businesses that process, distribute, and sell safe and secure crops produced there will be created one after another in the region. Employment will be secured and the economy revitalized.

In addition, sharing these efforts as learning materials and tourism resources and spreading them both within and outside the city is thought to be an effective way to raise awareness, produce empathy, and attract new ideas and funds.