

Enhancing Industrial Competitiveness Through the Promotion of Local Decarbonisation—Hamamatsu City Decarbonisation Management Support Project 2030



Background

Hamamatsu City is surrounded by the sea, lakes, rivers and mountains on all sides, and is Japan’s second largest designated city by area. Known for its thriving industries, such as transportation equipment, musical instruments, photonics, agriculture, forestry, and fisheries, Hamamatsu City has developed as one of Japan’s leading industrial manufacturing hubs and serves as home to global manufacturers including Suzuki Motor Corporation, Honda Motor Co., Ltd., Yamaha Corporation, Yamaha Motor Co., Ltd., Kawai Musical Instruments Mfg. Co., Ltd. and Hamamatsu Photonics K.K., along with numerous SMEs that support their robust supply chains.

To ensure Hamamatsu’s sustainable development in this industrial context, it is essential to promote greater local industrial activity. The city aims to achieve both decarbonisation and economic growth through promoting carbon neutral initiatives based on public-private collaboration.

Objectives

The Hamamatsu City Decarbonisation Management Support Project 2030 seeks to decarbonise the entire supply chain by providing support for local decarbonisation initiatives, such as corporate decarbonisation management, based on the pillars of a public-private partnership organisation providing tailored support, a promotion conference with companies inside and outside the region, and a

local power producer and supplier of effectively 100% renewable electricity. This project will thereby improve local industrial competitiveness and contribute to sustainable local economic development.

Project Outline

○ Hamamatsu City Decarbonisation Management Support Project 2030

The city promotes this project based on the following three public-private partnership organisations:

1. Hamamatsu Local Decarbonisation Management Support Consortium

This consortium was formed in 2023 by seven core entities involved in supporting local industry, namely Hamamatsu City, Hamamatsu Chamber of Commerce and Industry, Hamamatsu Agency for Innovation, The Shizuoka Bank, Ltd., Hamamatsu Iwata Shinkin Bank, Enshu Shinkin Bank, and Hamamatsu Energy Co., Ltd., as the implementation body of decarbonisation support.

The consortium has a range of support programmes designed for each of the three stages of decarbonisation management (*know, measure and reduce*), offering tailored support for local companies’ decarbonisation efforts.

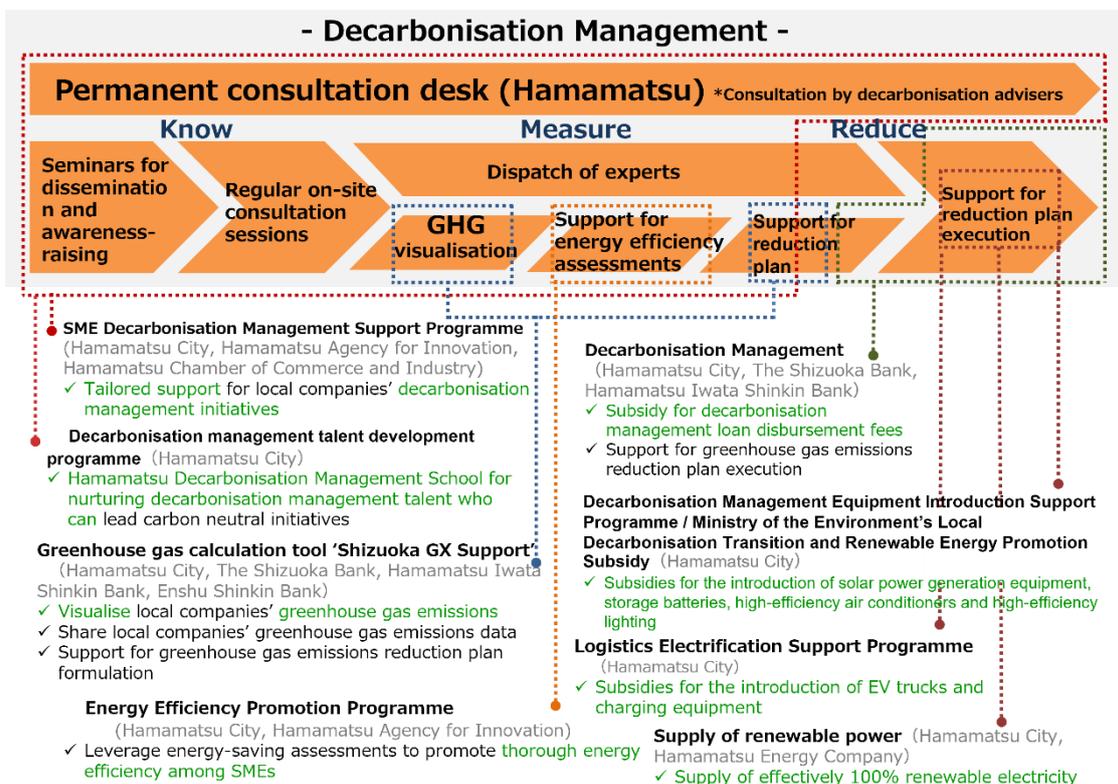
Specifically, under the SME Decarbonisation Management Support Programme, the consortium operates a permanent Decarbonisation

Management Support Desk where decarbonisation advisers offer consultation on decarbonisation management and conduct simplified energy efficiency assessments. The support desk also holds awareness-raising seminars and dispatches experts to companies implementing decarbonisation management. The Hamamatsu Decarbonisation Management School, which is part of the Decarbonisation Management Talent Development Programme, is held in SMEs that have not yet implemented decarbonisation management to nurture/trains individuals who can lead decarbonisation management initiatives in their companies. Shizuoka GX Support is a greenhouse gas calculation tool that visualises greenhouse gas emissions and enables reduction plan management. Local financial institutions offer this tool free of charge. The Decarbonisation Management Equipment Introduction Support Programme provides subsidies for local companies with greenhouse gas emissions reduction plans and systematically implemented decarbonisation management initiatives that introduce renewable energy or energy-saving equipment.

2. Hamamatsu City Carbon Neutral Promotion Conference

The Hamamatsu City Carbon Neutral Promotion Conference was started in 2023 by a host of companies, groups and research organisations inside and outside Hamamatsu. Currently comprising over 200 companies, it promotes programmes for the development of new decarbonisation technologies and services and the creation of pioneering projects.

Specifically, it holds the Zero Carbon Short Pitch, an event for promoting business matching between companies with presentations on decarbonisation needs and technological seeds. It also hosts the Carbon Neutral Promotion Conference Forum, which involves sessions such as expert talks and activity reports. The conference works closely with universities, research organisations and start-ups inside and outside the region to promote the development of new decarbonisation technologies and projects through industry-academia-government collaboration and company partnerships.



Hamamatsu Local Decarbonisation Management Support Consortium: Support flowchart

Furthermore, the conference promotes intra-industry and cross-sector projects for the development and utilisation of new technologies, products and services leading to green innovation through the following two research groups:

1) Next-Generation Energy Utilisation Research Group (participants: 47 companies, groups and research organisations)

To help society adapt to and utilise next-generation energy sources such as hydrogen, e-methane and perovskite solar cells, the research group conducts relevant surveys and research.

2) Construction Industry Carbon Neutral Research Group (participants: 42 companies, groups and research organisations)

To contribute to the reduction of construction industry GHG emissions and sustainable development of the local construction industry, the research group conducts surveys and research related to estimating the building lifecycle carbon emissions of public facilities, as well as to the decarbonisation initiatives of major general contractors.

3. Local power producer and supplier: Hamamatsu Energy Co., Ltd.

Hamamatsu City is not only Japan's second largest city by area but also boasts some of the longest sunlight hours in Japan. To take advantage of this, the city has actively embraced solar power generation through public-private partnerships. As a result, Hamamatsu City ranks first in installation capacity and numbers (10 kW or more) among Japan's municipalities.

In addition, the city carries out biomass power generation using waste at two large-scale municipal incineration plants.

To procure electricity generated from these locally produced renewable energy sources, in 2015 the city established Hamamatsu Energy Co., Ltd., the first local power producer and supplier to be established in a designated city, jointly with eight private company partners. Through Hamamatsu

Energy, the city supports decarbonisation management by supplying effectively 100% renewable electricity to local companies at cheap prices.

In addition, promotion of local consumption of renewable electricity generated in the city, as well as the redirection of energy funds to circulate within the region contribute to the city's energy self-sufficiency and revitalisation of the local economy.



Hamamatsu Hamanako Solar Power Plant (Shizukatani Final Disposal Site)



Hamamatsu Tenryu Incineration Plant (Eco Terrace)

Issues, Problems and Responses

Carbon neutral initiatives are steadily advancing, particularly among larger corporations. For instance, Hamamatsu's transportation equipment manufacturers moved up their target for achieving carbon neutral plants from 2050 to 2035. Meanwhile, decarbonisation initiatives lag in progress among SMEs, which represent a large part of the supply chain, as well as in industries and sectors outside of manufacturing, primarily due to the shortage of funds and human resources and to the low priority assigned to decarbonisation.

Hamamatsu City is implementing various initiatives to address this, such as providing tailored support for decarbonisation management, developing new decarbonisation technologies, products, and services projects in those areas through the Hamamatsu City Decarbonisation Management Support Project 2030, as well as promoting the procurement, supply and local consumption of effectively 100% renewable electricity generated in the city.

Thanks to these initiatives, interest in decarbonisation is steadily growing among local companies, leading to an increasing number of consultation requests, seminar attendees, and research group participants.

Future Developments (expected effects, project vision, and issues)

To accelerate decarbonisation among SMEs that support the supply chain for manufacturing, which is Hamamatsu City's key industry, as well as various other sectors such as commerce, services, tourism, agriculture, forestry, and fisheries, the city is committed to enhancing collaboration among Hamamatsu Local Decarbonisation Management Support Consortium member organisations even further to effectively implement a variety of programmes to provide enhanced, tailored support to companies, among other aims. In this way, the city seeks to create successful decarbonisation models and roll them out broadly across various industries and sectors.

Through these initiatives, Hamamatsu City will promote decarbonisation across the entire region and industry to achieve both decarbonisation and economic growth, thereby further reinforcing its role as one of Japan's leading industrial manufacturing hubs.



Central Hamamatsu City



Lake Hamana, Sea of Enshu (Pacific)

URL Reference

<https://www.city.hamamatsu.shizuoka.jp/consortium/index.html>

(Hamamatsu Local Decarbonisation Management Support Consortium)

https://www.city.hamamatsu.shizuoka.jp/shi-n-ene/new_ene/kyougikai/home.html

(Hamamatsu City Carbon Neutral Promotion Conference)

<https://www.hamamatsu-e.co.jp/>

(Hamamatsu Energy Co., Ltd.)

Contact

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Meaning of Technical Terms and Coined Terms Used

- Local decarbonisation

A local growth strategy for an era where

decarbonisation is seen as an opportunity for growth. Driven by local governments, local companies, citizens and other local stakeholders, the strategy is achieved by applying current technologies to make full use of local resources such as renewable energy. The strategy contributes to local revitalisation through promoting economic circulation, as well as solving local challenges in areas such as disaster prevention and the improvement of living standards.

- Decarbonisation management

Business management that incorporates decarbonisation perspectives, where companies engage in decarbonisation as a key management challenge to reduce business risks and capture growth opportunities.

- Hamamatsu Agency for Innovation

An organisation established to carry out programmes to strengthen the management foundation of local companies through industry-academia-government exchange and collaboration, thereby contributing to industrial and economic development not only in the Hamamatsu area but also throughout Shizuoka Prefecture. In addition, the organisation implements programmes that provide decarbonisation management support to SMEs.

- E-methane

Methane synthesised by chemically reacting hydrogen with carbon dioxide.

- Local power producers and suppliers

The Ministry of the Environment defines 'local power producers and suppliers' as enterprises that engage in the electricity retail business with the strategic participation or involvement of local governments and that use their proceeds to address local issues.

- Effectively 100% renewable electricity

Electricity regarded as effectively derived from renewable energy sources under the following scheme: the environmental value of solar power,

hydropower, and other sources of carbon-free energy is converted into 'Non-FIT Non-Fossil Certificates (renewable energy attributes)', then electricity retailers acquire those certificates and combine them with the electricity they supply.