

# FUNABASHI MORINO CITY PROJECT

Community-oriented urban development based  
on advanced technologies and rich nature

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Conceptual illustration of the completed town blocks

ふなばし  
**森のシティ**  
MORINO CITY

## Funabashi Morino City Aspiring to be a forward-thinking, next-generation community

Funabashi Morino City is a re-development project being undertaken on a 17-hectare former factory site based on a district plan prepared by Funabashi City. The project is aimed at creating a town that is surrounded by lush greenery that enriches the lives of residents in every age group. In addition to approximately 1,500 housing units, the project is comprised of commercial, healthcare, and childcare facilities. By developing public roads and five parks/green zones, the project supports not only new residents of the town, but also those of the surrounding communities.



An old Asahi Glass factory site of over 17 hectares in front of Shin-Funabashi Station (July 2011).

### Funabashi Morino City



Aerial photograph of the site and its periphery (June 2013)



PROUD Funabashi block #1-#5  
1,497 condominium units  
(five blocks in total)



PROUD Funabashi Clubhouse



PROUD SEASON Funabashi Morino City  
42 detached houses



AEON MALL Funabashi



AEON TOWN  
Shinfunabashi



The Keiyo Bank, Ltd.  
Shinfunabashi Branch



Funabashi  
General Hospital



Morino City Pharmacy



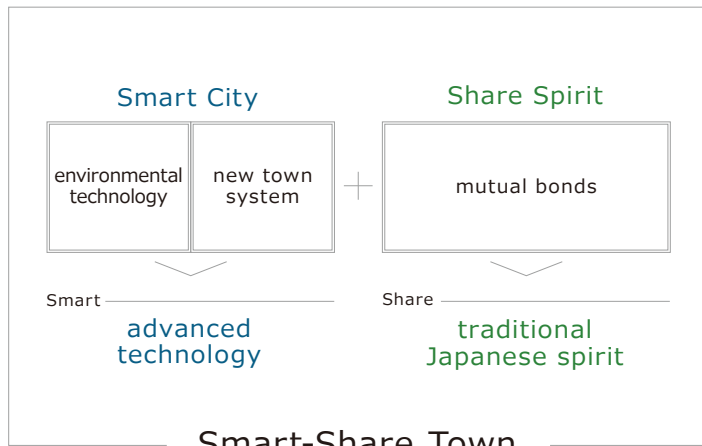
Sakura Park

## “Smart & Share Town” Concept

### “Smart & Share Town” Concept

Cultivating the value of sharing through a commitment to innovation and the Japanese spirit

“Smart” represents innovative technologies, while “Share” expresses the opportunities the residents encounter in their daily lives to form bonds with one another. “Smart & Share Town” is a vision of urban development for connecting people by leveraging advanced technologies and IT networks.



### Five acts of sharing

Five acts of sharing that support the “Smart & Share Town” concept

The Funabashi Morino City Project brings enhanced comfort to the community by delivering convenience, peace of mind, and learning opportunities. At the heart of the project are five acts of sharing, including the sharing of the natural environment and the sharing of the planet with nature.



## Common area designs to create a comfortable community.

In multi-family housing complexes, a diverse range of values and lifestyles exist side by side. This makes it all the more important to ensure that every resident feels comfortable spending time in the community. The common areas in Morino City are designed in such a way as to facilitate comfortable interactions among residents and nurture a sense of community.

### The “Morino City” concept

A community where trees connect people and space

Trees connect people to people	Trees connect people to places	The forest connects people to the future
 Tree benches	 A network of trees connects the town.	 The town center, a community gathering place, will be surrounded by a forest.

A community made of shared time and private moments  
Relaxing daily lives and exciting out-of-the-ordinary experiences

### Common area designs produced by industry-academia collaboration

“100 Design Techniques for Condominium Communities” were an outcome of the industry-academia collaboration between Nomura Real Estate and the Japan Women’s University Graduate School (winner of the 2011 Good Design Award). Professor Shinohara’s community design techniques were incorporated into Funabashi Morino City.



Specializing in Housing Studies  
Satoko Shinohara Lab

Japan Women’s University Graduate School Mainly designs multi-family housing complexes and studies spatial designs to achieve optimal connections among residents in a community.

\*The overall view of the town blocks published in this brochure is based on the conceptual image drawn in the planning stage and does not reflect the actual shape or color. The planting plan indicated herein, including the species and numbers of trees to be planted, differs from the actual plan implemented.

## Town development advocated by Funabashi City

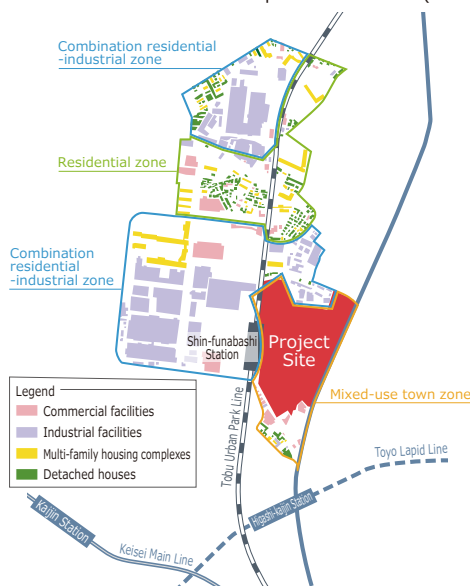
Funabashi City's vision of town development in regions where Morino City is located is described in the following:

- Funabashi City Urban Development Master Plan
- "Yamate District Town Development" (brochure)

The Houten District, where Morino City is located, is considered to be "a town where residential, agricultural, and industrial areas co-exist in harmony amidst a rich natural environment blessed with lush farmland." In addition, the Shin-Funabashi Station East Zone is designated as a mixed-use town zone. An urban development policy is established for this zone with the goal of supplying housing that accommodates the lifestyles of different age groups, offering livelihood support services, and developing infrastructure essential for community development.

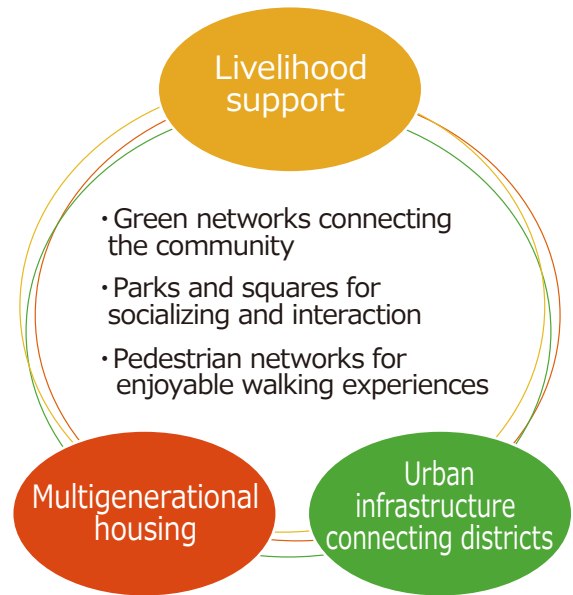
### Funabashi City Urban Development Master Plan

Conceptual image of the town blocks development plan  
Source: "Yamate District Town Development" brochure (Funabashi City)



### "Yamate District Town Development" (brochure)

Source: "Yamate District Town Development" brochure (Funabashi City)

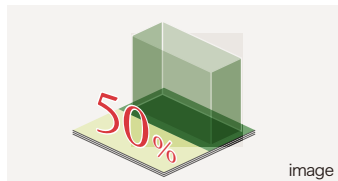


## District development plan

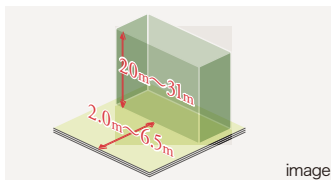
In 2011, Funabashi City formulated the Development Plan for the Yamate District Shin-funabashi Station East Zone to protect the living environment for future generations. The plan made it possible to create an open, beautiful town and preserve it into the future.



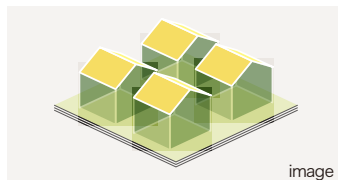
The project site was divided into five districts to attract a diverse range of facilities.



The building-land ratio for the residential district and the mixed-use district is restricted to 50% to secure sufficient open space in the town.



An open street view is ensured by capping the maximum building height at 31 m and setting back the wall surface line by 2.0 to 6.5 m.



Warm and soothing color tones unify the building exteriors of Morino City.

### < Project History >

2001		Funabashi City announced its Urban Development Master Plan.
2007		Funabashi City began conducting a survey concerning "Yamate District Town Development," with the aim of developing a mixed-use town with an attractive streetscape.
2010	Oct	Project owners acquired the project site.
2011	Jul	Funabashi City finalized the Development Plan for the Yamate District Shin-Funabashi Station East Zone.
	Aug	Construction of PROUD Funabashi Blocks 1 and 2 began.
2012	Apr	Aeon Mall Funabashi opened.
2013	Feb	The Morino City Community Building Association was established.
	Mar	The town was officially named "Funabashi Morino City." Residents began moving into Blocks 1 and 2.
	Apr	Aeon Town ShinFunabashi opened.
	May	Funabashi General Hospital opened.
	Oct	Residents began moving into Blocks 3 and 5.
2014	Jul	Residents began moving into Block 4.

## Capitalizing on advanced technologies to promote an eco-friendly community life

The Morino City community is united in its commitment to an eco-friendly lifestyle with the help of energy-efficient technologies.

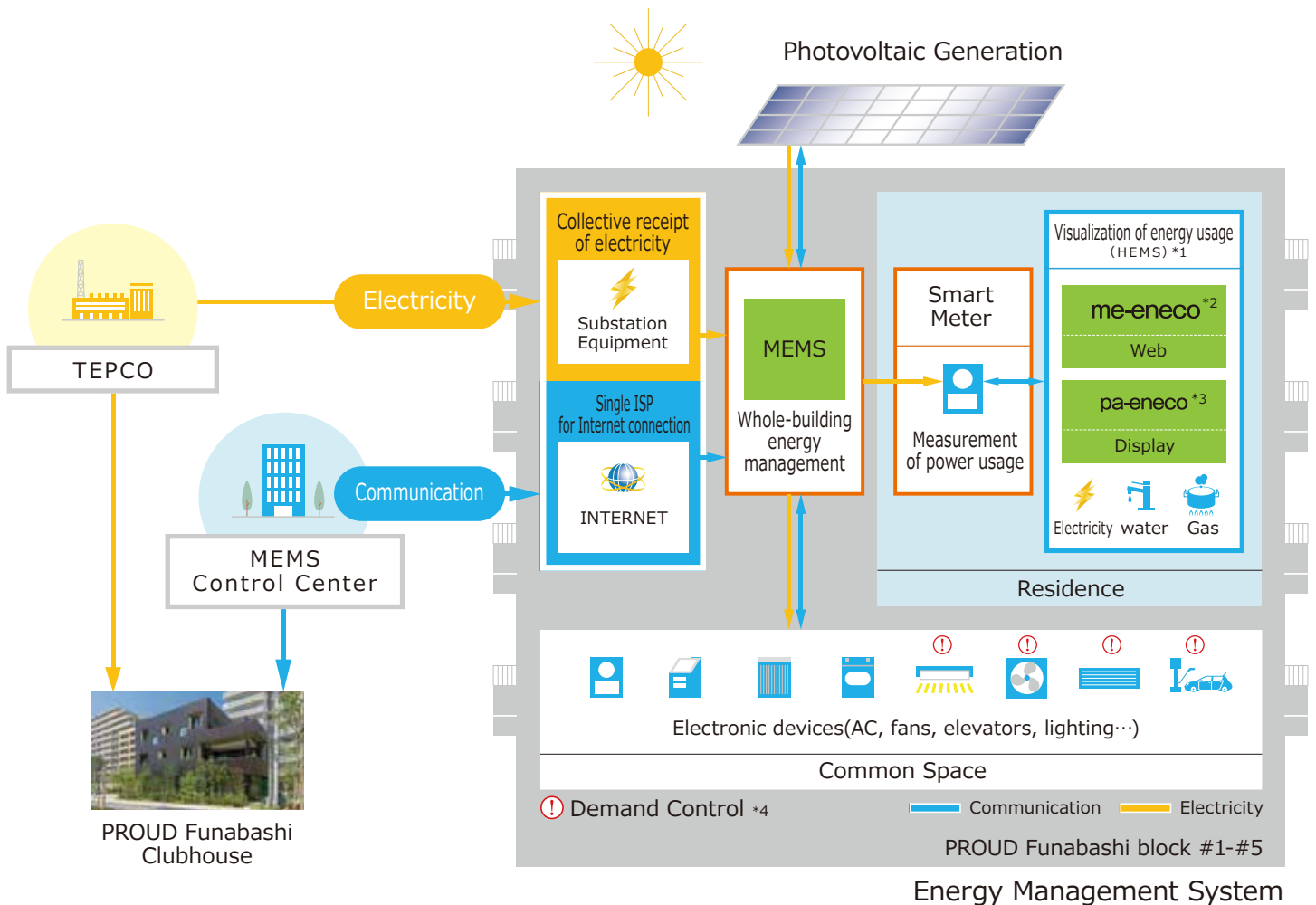
### What is “enecoQ”?

“enecoQ” is an energy management system in which the energy usage of an entire condominium building is managed by purchasing electricity for the whole building and combining electricity generated by solar powered energy resources and the internet (ICT). The enecoQ system offers eco-friendly and economical services by integrating energy and communication technologies.



※What is “enecoQ”? “enecoQ” is a new word created by combining “energy,” “ecology,” and “quality.”

“ The word also represents the ability to put energy to good use, just as a skilled “cook” can make use of ingredients.



### Town Energy Management Service (TEMS): Community

Morino City adopted Town Energy Management Service (TEMS), a system that manages the energy use of the entire town. By using energy efficiently in common facilities and each town blocks, the system saves energy and contributes to the development of an eco-friendly town.

### Mansion Energy Management Service (MEMS): Condominium buildings

The electricity purchased (collectively received) for an entire building is combined with electricity generated by solar and the energy use of the entire building is managed by leveraging information and communication technologies (ICT).

\*1: HEMS is an acronym for Home Energy Management System, which manages energy usage in homes by leveraging information and communication technologies.

\*2: me-eneco is the name of a HEMS device used in the enecoQ system.

\*3: pa-eneco is the name of a HEMS device used in the enecoQ system.

\*4: “Demand control” signifies the regulation of electricity usage in the common areas of condominium buildings remotely by the MEMS Control Center during peak demand, leveraging information and communication technologies.

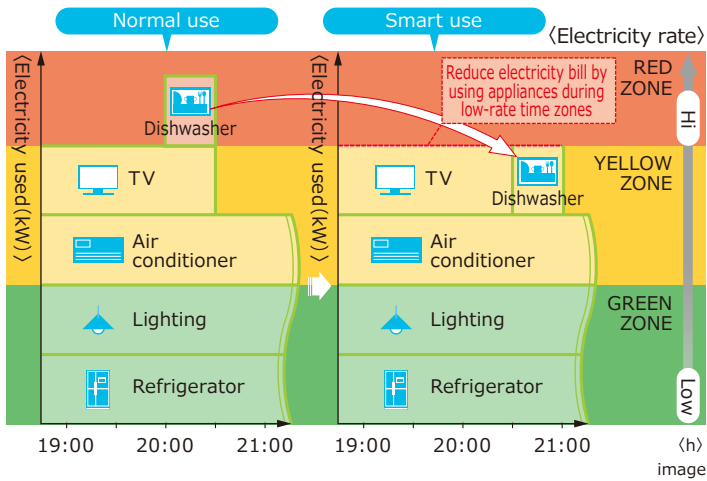
## Demand response (exclusively owned spaces in condominium buildings)

Unlike the standard electricity billing system in Japan that determines the amount based on monthly consumption levels, enecoQ employs “Smart Plan,” which sets the electricity rate based on the consumption levels measured every 30 minutes. If the average of 30-minute electricity consumption level is high, electricity bills will increase. Conversely, electricity bills can be reduced by avoiding the simultaneous use of household appliances and keeping the electricity rate low.

### Making Smart Use of the Smart Plan: Example 1

Avoid using household appliances that run for a long time at the same time

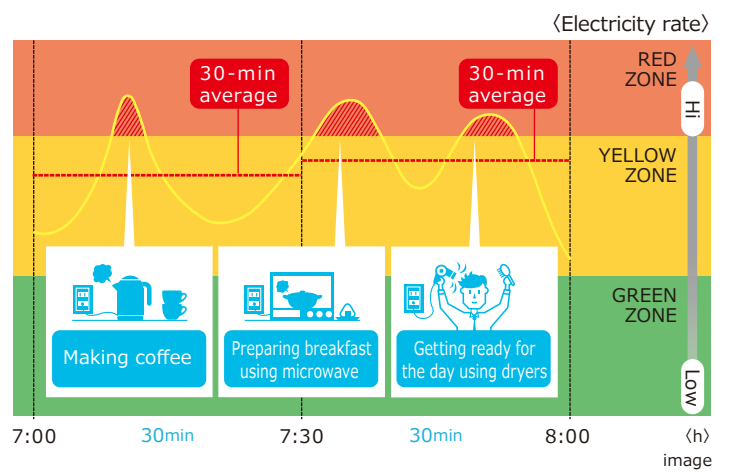
Residents can save money on their electricity bills by using household appliances that run for a long time such as washers and dishwashers at different times, instead of simultaneously. The key is to lower the peak consumption levels and distribute electricity use to keep the rate low.



### Making Smart Use of the Smart Plan: Example 2

Use power-consuming household appliances for shorter periods.

Residents can save energy by using power-consuming microwaves and dryers in shorter periods to keep their consumption levels below the red zone.



## My Page

Residents can access “My Page” to view their past power usage and rankings in their condominium building. The information is updated every 30 minutes and is also available on PCs or smartphones.

me-eneco

Personal Computer

Smart Phone

Smart Phone

pa-eneco

Living Panel

image

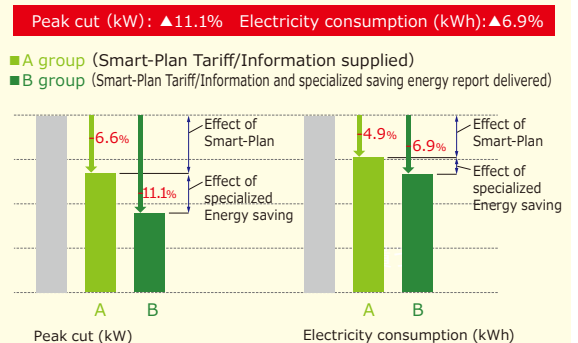
## 2013 Energy Conservation Validation Project (2013)

A survey was conducted in Blocks 1 and 2 of PROUD Funabashi from 2013 to 2014 concerning the residents’ awareness of energy conservation and the effects of energy-saving measures. The project demonstrated the effectiveness of the “Smart Plan” electricity billing system and energy-saving tips.

As many as 500 households participated in the survey, one of the highest among the validation projects conducted in Japan concerning energy-saving measures for multi-unit residential complexes.

Research	Nomura Real Estate Development Familynet Japan Central Research Institute of Electric Power Industry
Period	From August 2013 to November 2014 (16months)
Participant	Total: approx 500 units
Purpose	①Which one is most effective for peak cut? ②How effective?

Results as of summer 2014  
(13:00-16:00, 7th August – 6th Sep 2013)



## 200 units of EV-charging equipment/ EV car sharing

Approximately 200 chargers for electric vehicles, or about 20% of the number of parking spaces, are available in Morino City. In addition, each block has a car-sharing program for EV.



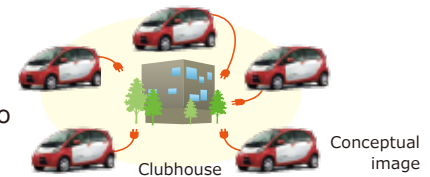
## EV town security

A security guard is stationed at the clubhouse during the night and makes rounds throughout the town.



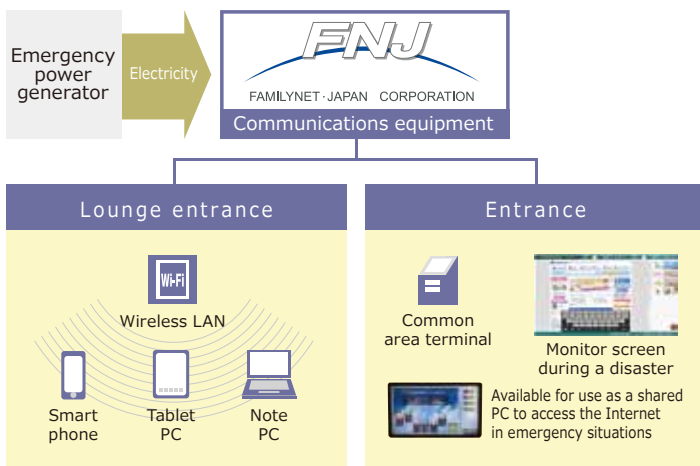
## Vehicle to Home (VtoH) for emergencies

During a power outage, electric vehicles are used as an emergency power source to send electricity to electrical equipment in the clubhouse.



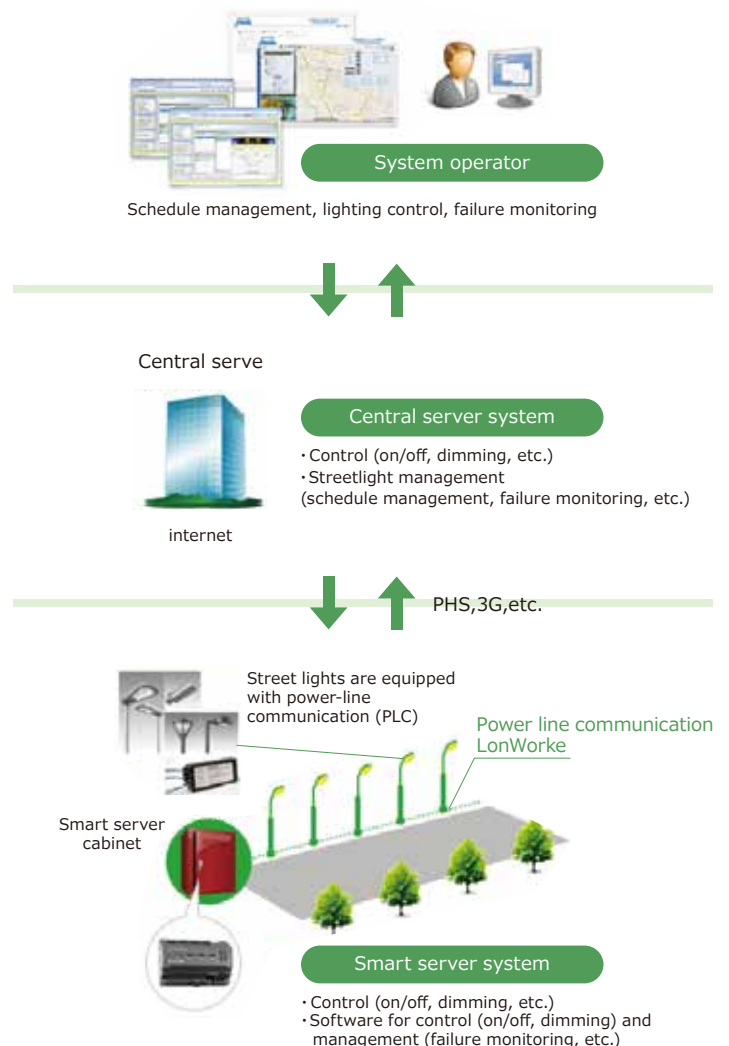
## Wireless LAN in common areas

During emergencies, the internet is sometimes more stable than mobile phone lines. Wireless LAN is installed in lounges and other common areas, allowing residents to gather information in emergencies.



## Smart street lighting

Street lighting is controlled remotely by transmitting data to and from individual street lights through power cables. By measuring power consumption and observing cumulative lighting time, smart street lighting curbs energy consumption and streamlines street lighting maintenance operations.



## Digital signage

Digital signs are installed in each block and at the clubhouse entrance. They display notices from the strata council and information on neighborhood and community activities. Residents can also use the signs to check the amount of electricity generated by the solar power system and the reduction in CO<sub>2</sub> emissions in each block, as well as the energy usage and the proportion of electricity supplemented by solar power generation in common areas. The digital signs switch to an emergency mode during natural disasters and power outages so that residents can gather emergency information.



## For a sustainable community

Funabashi Morino City aims to be a “future hometown” by encouraging the residents to connect with and support one another through community and neighborhood activities, and work together to improve the community.

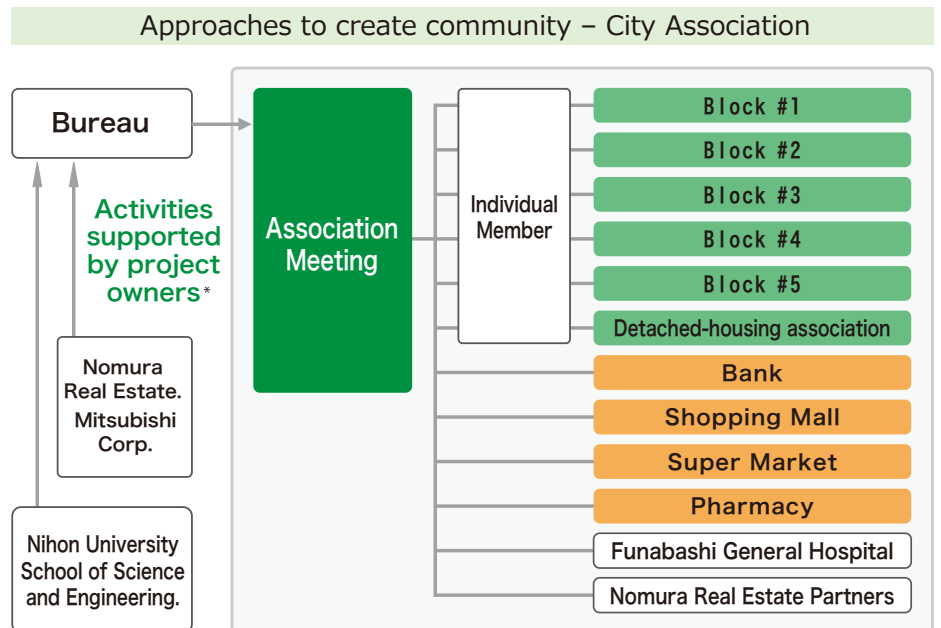
### Morino City Town Association (formerly Morino City Community Building Association)?

#### A community nurtured by the collaborative effort of residents and businesses

In February 2013, the Morino City Town Association, consisting of residents and businesses in the community, was established in response to calls from project owners. The objective is to nurture a healthy and comfortable living environment and a sustainable community. The Council was operated with the support of the project owners for three years after its establishment, and independently by the members since then. In 2015, the third year of its establishment, the Council was registered as a residents’ association of Funabashi City at the proposal of the residents. Many programs are introduced at the initiative of the members.

#### Morino City Residents’ Association (formerly Morino City Town Association)

The Morino City Residents’ Association (formerly Morino City Town Association) consists of Blocks 1 to 5 of PROUD Funabashi, the Association of Detached Houses, Aeon Mall Funabashi, Aeon Town Shinfunabashi, Keiyo Bank Shinfunabashi Branch, and Morino City Pharmacy. Town meetings are held periodically to give residents and businesses a chance to discuss what they desire and what solutions are feasible. Priority is given to the discussion process, and decisions are made by unanimity during town meetings.



\*For the three-year period ending March 2016

## Activities

The main activities of the Association include those that are essential to all residents, such as neighborhood beautification and disaster defense, as well as community-building events. As of 2017, more than 90% of the residents have joined the Association.

#### Community-improvement activities (public-oriented activities)

Disaster defense



Greening/beautification



#### Community-building events (voluntary events)

Summer festival



Big band concert





## Creating communities

### PROUD Funabashi Clubhouse Community clubs

Community clubs are formed to nurture a sense of community among residents. Based at the clubhouse, the clubs help residents take on new challenges or learn something new. Through the club activities, residents form bonds with one another and enhance their attachment to the community and neighborhood.



### Community club activities



Hula dancing club



Parent-child playgroup



Summer festival workshop



Yoga class

### Funabashi Morino City community activities



## Acclaim for Funabashi Morino City Smart Share & Town Concept

Funabashi Morino City has earned a good reputation at home and abroad for its advanced environmental technologies and low-carbon infrastructure, as well as for its participatory community-building approach in which residents form bonds with another and work together to improve the community.

### Funabashi Morino City was awarded ÉcoQuartier (eco-district) certification by the government of France in 2016

Funabashi Morino City became the first project outside France to win the ÉcoQuartier (eco-district certification) quality label, a certification awarded by the Ministry of Housing and Sustainable Homes of France (“the French Ministry of Housing”). The project was recognized particularly for continuously creating environmental value and developing the foundation for a low-carbon society through collaboration among the government, the private sector, and civil society.



### What is ÉcoQuartier certification (Label ÉcoQuartier, eco-district certification)?

The French Ministry of Housing awards the ÉcoQuartier quality label (eco-district certification) with the aim of realizing high-quality living through sustainable urban development. The certification is designed mainly for neighborhood associations in France. By 2016, 800 cities have participated, and 51 districts have been selected for the certification from among 353 projects. The ÉcoQuartier certification system has an impressive record of promoting sustainable community development in France.

To obtain ÉcoQuartier certification, a project is reviewed based on 20 criteria under four categories: (1) Approach and process; (2) living environment and uses; (3) territorial development; and (4) preservation of resources and adaptation to climate change.

#### 〈 ÉcoQuartier certification assessment criteria 〉

Approach and process	Living environment	Territorial development	Preservation of resources and adaption to climate change
1- Carrying out projects that meet everyone's needs. 2- Management for the entire project period. 3- Incorporating the life-cycle-cost approach. 4- Taking account of users' practices and managers' constraints. 5- Implementing continuous assessment and improvement practices.	6- Working with the existing city and proposing an appropriate density. 7- Implementing conditions of mutual help. 8- Providing a safe and healthy living environment. 9- Taking account of landscape and architectural qualities. 10- Promoting the local heritage, history and identity of the neighborhood.	11- Balanced local economic development. 12- Providing a wide range of functions in the community. 13- Optimizing the consumption of resources and developing local sectors and short circuits. 14- Favoring walking/bicycling and public transport. 15- Deploying innovative services and networks.	16- Taking initiatives to anticipate and adapt to climate changes and risks. 17- Conserving energy and promoting the use of renewable energy resources and recovery. 18- Reducing, recovering and recycling waste. 19- Preserving and managing water resources. 20- Preserving and promoting biodiversity, soils and natural environments.

### Assessment of Funabashi Morino City

Following a review process of approximately one year, the Funabashi Morino City Project was deemed to have satisfied all certification criteria based on its town meetings, energy management system, community development, and support for the local circular economy, and was awarded the certification. Funabashi Morino City was particularly recognized for its participatory community development and its spirit of putting the community first. The certification is a testament to the project owners' sustainable and comprehensive town development efforts.



Toru Matsudo, the mayor of Funabashi City (left), and Kamezo Nakai, Chair of Nomura Real Estate Holdings (right), receive the certification from Emmanuelle Cosse, Minister of Housing and Sustainable Homes.

## Funabashi Morino City won a World Smart City Award in the Project category

### at the Smart City Expo World Congress 2013 held in Barcelona, Spain

The Funabashi Morino City project was the winner of the World Smart City Award in the Project category at the Smart City Expo World Congress 2013 held in Barcelona, Spain. The award recognized the project's "Smart & Share Town" concept as an initiative that continuously creates environmental value.

## Assessment of Funabashi Morino City

The award recognized the fact that the project is not a project in the experimental stage, but a large-scale private-sector re-development initiative covering housing, commercial facilities, and a hospital that fully incorporated advanced environmental technologies, as well as the fact that it has developed low-carbon infrastructure by incorporating mechanisms for area management.

〈Reasons for the Award〉

- The project is based on an innovative urban re-development plan that combines a wide variety of smart city solutions, such as energy efficiency improvement, sustainable environmental considerations, and the use of information communication technologies.
- These initiatives are playing effective and crucial roles in community activities.

## World Smart Cities Awards

The Smart City Expo World Congress 2013, an international conference and exhibition, was held in Barcelona, Spain. Some 9,000 visitors from nearly 400 cities from 29 countries participated in this conference dedicated to the development of a sustainable society.

The international congress established the World Smart Cities Awards to recognize projects that contribute to its concept. Award winners are selected by a jury comprised of representatives from the World Bank and other external experts. The 2013 awards received over 200 entries in total from 35 countries for the three categories of city, project and innovation.



## Good Design Awards

### PROUD Funabashi

(MIRA SATO: Futuristic Hometown Project) (FY 2013)



### Morino City Green Curtain Project:

a project undertaken by the entire community to grow green curtains (FY 2013)



### FORESTCITY BIGBAND:

community development through music (FY 2014)



### Morino City Residents' Association:

A platform for fostering a sustainable community (FY 2015)

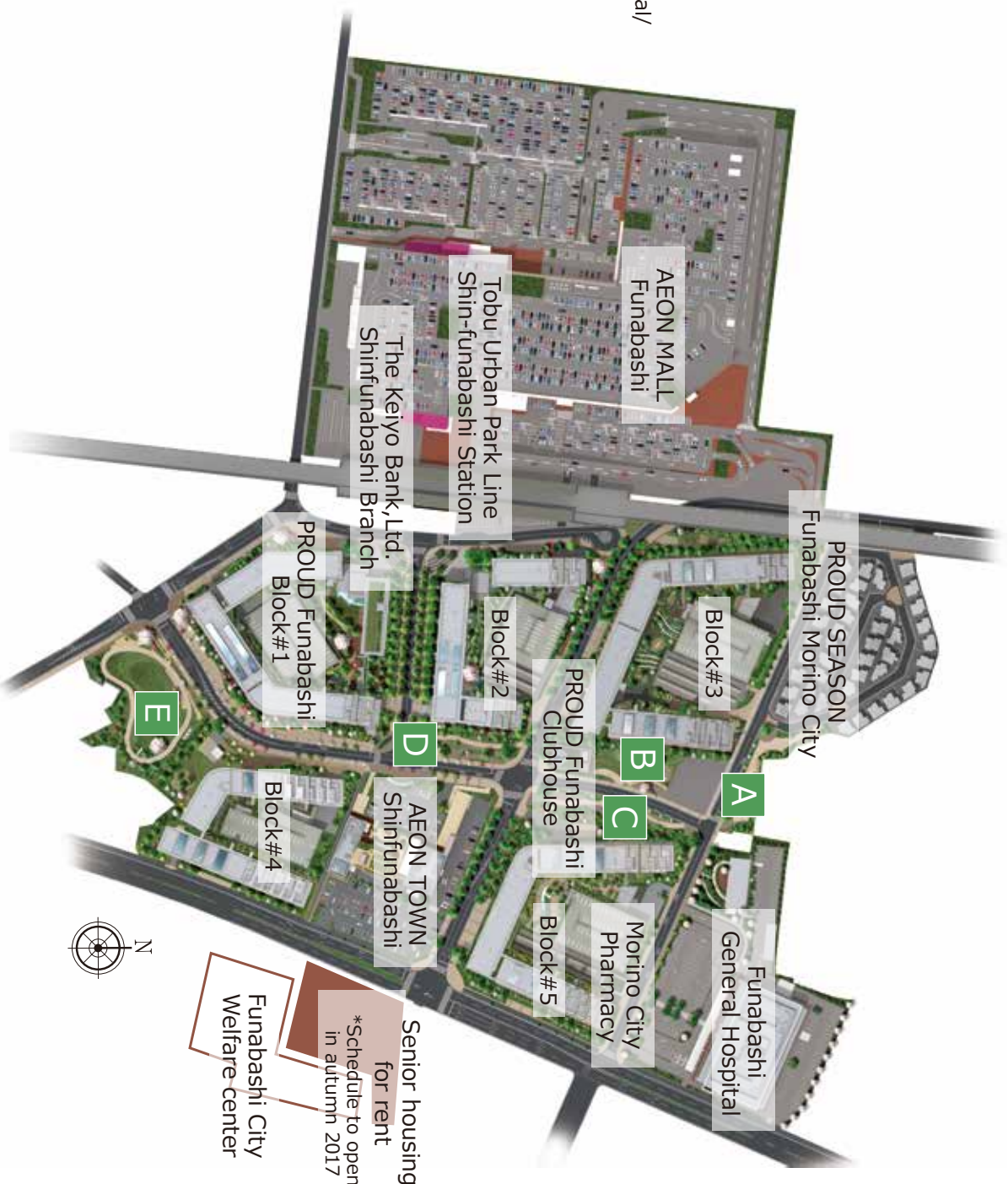


# Funabashi Morino City

< Project Outline >

Name	Funabashi Morino City
Total site area	17.6 ha
Housing and facilities	1,497 condominium units (five blocks in total) 42 detached houses Commercial facilities Hospital/ childcare support facilities
Project owners	Nomura Real Estate Development Co., Ltd. Mitsubishi Corporation
Construction schedule	2011 to 2014
Location	Kita-Honcho 1-chome, Funabashi City, Chiba Prefecture
Completion date	July 2014

- A** Japanese Stewartia Park
- B** Azalea Park
- C** Dogwood Park
- D** Zelkova Park
- E** Sakura Park



Senior housing  
for rent  
\*Schedule to open  
in autumn 2017