

Financial Summary

Financial Highlights (consolidated)



- Orders received decreased 5.3% because of delays in sales activities early in the fiscal year and a decline in NTT Group orders.
- Sales decreased 3.7%, as progress with orders carried over continued but orders received and construction completions decreased.
- Operating and ordinary profit increased mainly due to an improvement in construction profit margins resulting from the strict management of expenses.

(Billion yen)

	2019/3	2020/3	2021/3					
	Actual	Actual ①	Forecast ②	Actual ③		oY - ①	Vs. For	
Orders received	75.8	78.4	72.0	74.3	-4.1	-5.3%	+2.3	+3.2%
Net sales	70.0	75.8	74.0	73.1	-2.7	-3.7%	-0.8	-1.2%
Operating profit	2.0	3.6	3.0	3.9	+0.3	+8.3%	+0.9	+33.2%
Ordinary profit	3.2	4.2	3.5	4.5	+0.3	+8.4%	+1.0	+31.3%
Profit attributable to owners of parent	2.7	3.5	2.0	3.0	-0.4	-13.1%	+1.0	+53.8%
					* ^			

ROE 4.7% 6.1% 3.5% 5.2%

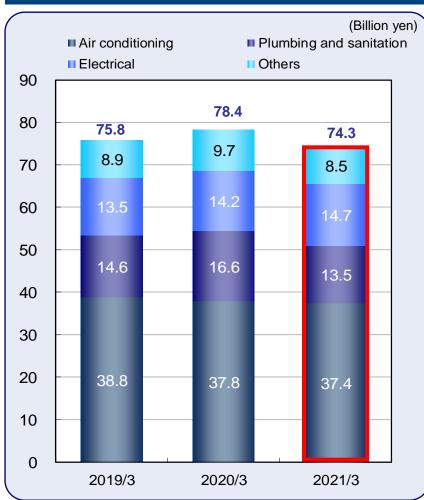
*Announced Nov. 6, 2020

Orders Received by Category & by Customer (consolidated)

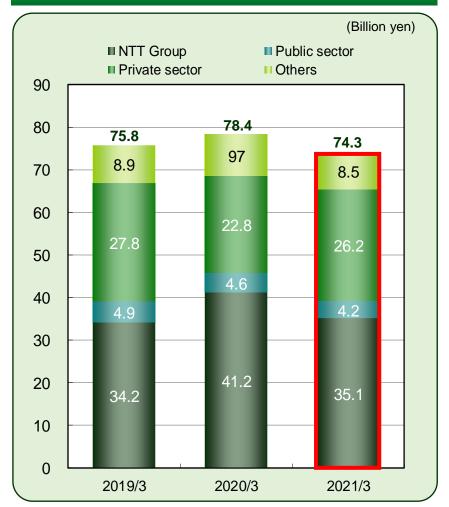


- Orders received were down ¥4.1 billion because of delays in sales activities early in the fiscal year and a decline in NTT Group orders.
- However, private-sector orders increased because of more orders involving data centers and large newly constructed buildings.

By category



By customer

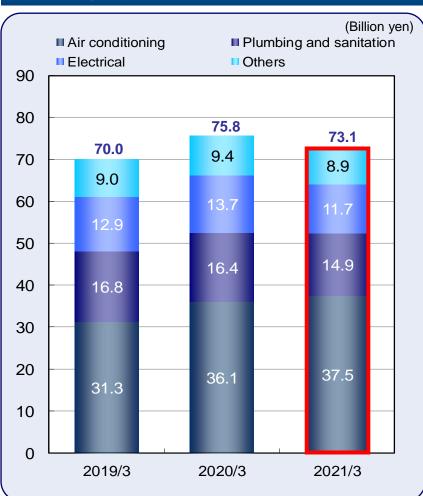


Sales by Category & by Customer (consolidated)

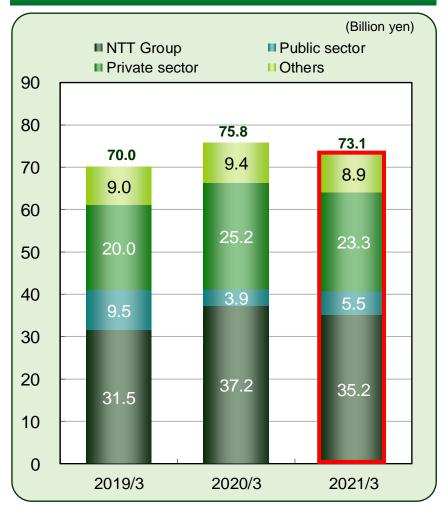


Although orders carried over were completed as planned, sales decreased ¥2.7 billion because orders received and construction completions declined.

By category



By customer



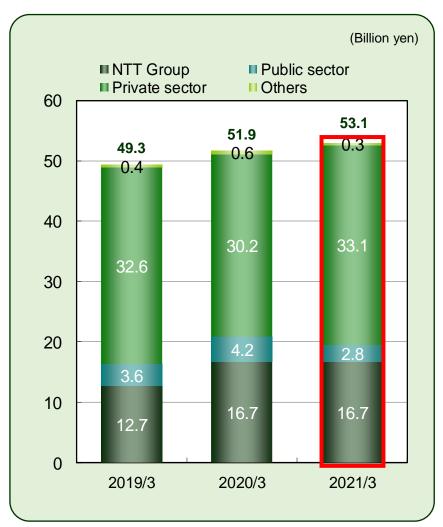
Major completed projects and projects carried over



Completed projects

NTT Group NTT Shin Kuhonji Building **NTT Group** WITH HARAJUKU **Public** Chiba Univ. (Inohana) Medical Building sector **Public** Kamigori Town Hall ZEB Renovations sector **Private** MIYASHITA PARK sector **Private** Tokyo Nihonbashi Tower Annex sector **Private** The b GINZA sector Private ESR Amagasaki Distribution Center sector Private Hotel LiVE MAX PREMIUM Nagoya Marunouchi sector

Projects carried over



Summary Income Statements (consolidated)



- The gross profit margin increased because the tight management of expenses raised construction profitability.
- Profit attributable to owners of parent decreased ¥0.4 billion but was far above the forecast of ¥2 billion.

(Billion yen)

	2019/3 (A)	2020/3 (A)	2021/3 (A)	YoY
Net sales	70.0	75.8	73.1	-2.7
Cost of sales	60.4	63.9	60.8	-3.0
Gross profit [Gross profit margin]	9.5 [13.7%]	11.9 [15.8%]	12.2 [16.8%]	+0.2 [+1.0]
SG&A expenses	7.5	8.2	8.2	-0.0
Operating profit (loss)	2.0	3.6	3.9	+0.3
Non-operating income	1.1	0.5	0.5	0.0
Ordinary profit (loss)	3.2	4.2	4.5	+0.3
Extraordinary income	0.5	0.8*	0.0	-0.8
Income taxes	0.9	1.4	1.4	-0.0
Profit (loss) attributable to owners of parent	2.7	3.5	3.0	-0.4

Forecast 2022/3



■ Forecast higher orders and sales in the final year of the Seventh Medium-term Management Plan

(Billion yen)

	7 th Medium-term Management Plan		
	2021/3 (A)	2022/3 (F)	2023/3 (Plan)
Orders received	74.3	77.5	80.0
Net sales	73.1	77.0	80.0
Operating profit	3.9	4.0	4.5
Ordinary profit	4.5	4.5	5.0
Profit attributable to owners of parent	3.0	3.0	3.5

ROE: 6.0% or above

Distributions to Shareholders



The basic policy is dividend stability and buying back shares with flexibility.

		2018/3 (A)	2019/3 (A)	2020/3 (A)	2021/3 (Plan)	2022/3 (F)
Dividends per share (yen)		60	80	80	80	80
Treasury	No. of shares (million shs)	4.49	0.37	0.30	-	0.50 (max)
shares	Amount (billion yen)	11.02*	0.70	0.56	-	1.00 (max)



Seventh Medium-term Management Plan

Seventh Medium-term Management Plan (April 2020 - March 2023)



Fundamental goals

Business and corporate value growth by making core businesses more profitable and creating new business opportunities

Help create a sustainable society through the convergence of people and technologies

Core strategies

Business strategy

More advanced life cycle total solutions that can benefit all stakeholders

Technology strategy

Leading-edge technologies for higher productivity

Human resources strategy

"Smart WORK" working style reforms and workforce diversity

Governance

An infrastructure for sound management of the Hibiya Engineering Group

Create the Future of Hibiya (1)



Needs involving buildings are likely to shift from new construction to the utilization of existing buildings in response to the rising public interest in climate change and sustainability. Create the Future of Hibiya aims for growth along with a focus on decarbonization and low-carbon technologies at renovation projects.

Goals of Create the Future of Hibiya

Opportu nities

- Needs involving zero emissions building (ZEB) technologies for decarbonization, low carbon and resource recycling
- Growth of the renovation market reflecting structural issues for buildings and cities
- Creation of smart cities based on self-sufficient, dispersed energy

Actions

- Use renovations for ZEB and "Re-ZEB" for energy efficiency plus people-friendly properties (pleasant work spaces, health, etc.)
- "Beyond ZEB" for increasing real estate value
- "Composite ZEB" for recycling regional heat, electricity and water
- Build a new business model that matches changes to the profit structure due to using "Composite ZEB" for an energy management business and other actions

Our reputation

- Incorporate Create the Future of Hibiya activities in ESG measures to contribute to society
- Earn recognition as a green engineering company with technologies for a sustainable society
- Create businesses with substantial added value by using ZEB technologies targeting mainly the renovation market
- A new stage of growth as an engineering company for smart cities

Progress

- Develop technologies, strengthen the technology development infrastructure
- Establish strategic task forces for human resources, technologies and other resources and for construction experience
- Investments for business alliances, M&A and other activities
- Sales channels (switch from local governments to public-sector companies)

Create the Future of Hibiya (2)



[Roadmap for "green engineering"]

Next 3 years Model construction and trials

3 to 7 years **Trials and implementation**

7 to 10 years Implementation and establishment

New technologies

ZEB renovation needs mainly for local government

ZEB needs expand to the private sector

Emergence of self-sufficient, dispersed cities with local production and consumption

Create Re-ZEB technologies

Establish Hibiya ZEB

company

Re-ZEB

ater)

Become a green engineering

Storage battery/heat storage systems Research for reused energy and unused energy

Create composite energy use technologies

Composite ZEB (Smart cities)

Cloud open building automation system (BAS) partnerships/automatic control

Acquire our own instrumentation knowhow

Grid technologies Digital (heat/electricity/w transformation (DX)

Gray water treatment technologies

Gray water facility installation technology

Energy management

◆ Establish project teams for specific strategic objectives

◆Human resources (establish academy, give people advanced

know-how)

◆ Capital (seek alliances and partners, M&A)

Use Composite ZEB and other recycling technologies for zeroemission cities

More progress and growth by using technology and information assets

Strategies

The Digital Transformation (1)



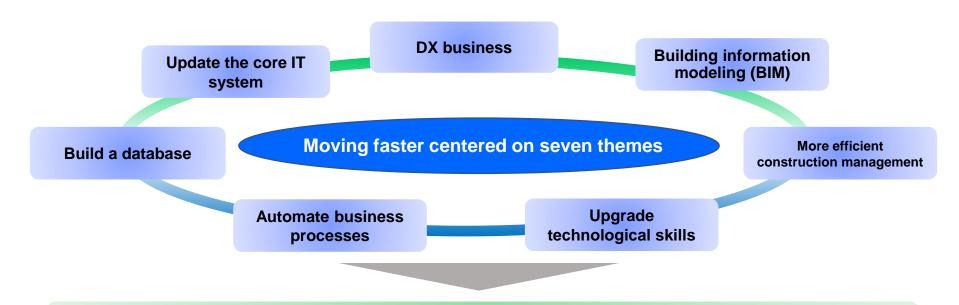
- ◆ New services backed by equipment using smart office and other ICT/digital technologies
- ◆ Proposals and construction for value-added systems for growth of the solutions business

Business strategy

Assemble a framework for DX business activities to expand to new market sectors, develop and acquire new technologies, proposals using new technologies, demonstrations of benefits of new technologies

Working style reforms

Use the DX for more efficient working styles and the use of many ways of doing jobs that are not restricted by time of day or locations (telework, shifts, etc.)



Use these measures for standardizing business processes and DX progress

Solution business expansion Working style reforms

The Digital Transformation (2)



Hibiya Engineering Group activities based on the Seventh Management Plan

DX business

Building information modeling (BIM)

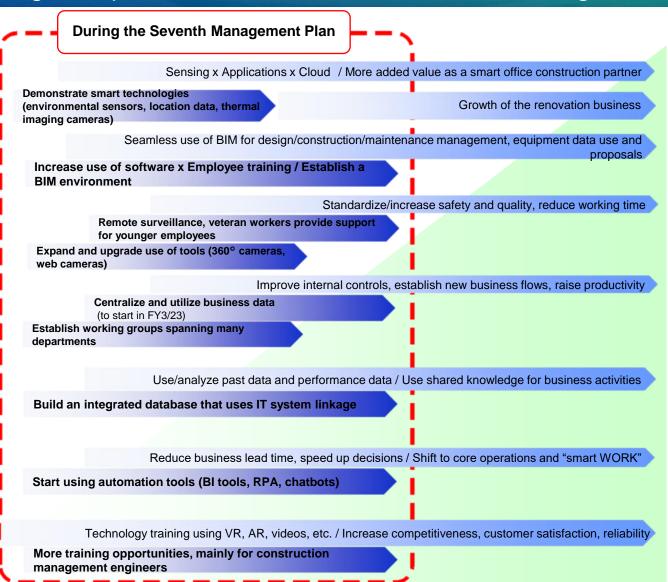
More efficient construction management

Update the core IT system

Build a database

Automate business processes

Upgrade technological skills



Seventh Medium-term Management Plan Progress Report



- **■** Business strategy
 - (1) City/town hall renovation/ZEB business
 - (2) Decarbonization/energy conservation using alliances

(P14~15)

- **■** Technology strategy
 - (1) A stronger jobsite oversight system
 - (2) Renovation business growth using proposals for entire buildings and other measures
 - (3) Use of ICT and digital technologies

(P16~18)

■ Human resources strategy "Smart WORK" working style reforms and diversity

(P19)

■ Governance

Maintain the soundness of management

(P20)

Business strategy (1)



City/town hall renovation/ZEB business

Kamigori-cho town office, Ako-gun, Hyogo

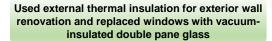


Complete renovation of the aging building

Big reduction of greenhouse gas emissions

Big reduction in building running costs

Used external thermal insulation for exterior wall renovation and replaced windows with vacuuminsulated double pane glass





Thermal burden calculation to downsize HVAC unit, use of LED lights, etc.

Solar power and storage battery units for disaster resilience

Used alliance with a consulting firm to complete a ZEB Ready* building project

Starting a three-year demonstration project in FY3/22 for the optimization of equipment operation for energy conservation

Use Renovation ZEB accomplishments to capture local gov't orders nationwide

Business strategy (2)



Decarbonization/energy conservation using alliances



Power source during grid interruptions

COVID and CO₂ reduction measures

Better emergency evacuation environment /
Improve hygiene environment



Project Group

Hibiya Engineering



Consultant, others

Roles: Survey of existing equipment for energy conservation/CO2 reduction, installation/maintenance of equipment, use of local companies to support the local economy

Elementary school in Matsudo: Bathroom renovation (automatic faucet activation, etc.) LED lights, new ventilation system

Renovation for a barrier-free evacuation facility including COVID safety functions

Manazuru funeral hall: Updated gas heat pump, LED lights, disaster resilience

Renovation for evacuation facility with power supply, environmental protection measures, etc.

Use accomplishments of prior years

Nagano prefecture gov't buildings

Used bulk lease for LED lights to reduce CO2 emissions

(see page 26)

Manazuru-machi, Kanagawa prefecture

Installation of self-sufficient, dispersed energy system, etc. (see page 27)

Sango-cho, Nara prefecture

Upgrade of carbon management and other activities

(see page 28)

Technology Strategy (1)



A stronger jobsite oversight system

ONE TEAM Project

Establishment of a team encompassing all tasks to support construction operations from the very first stage; aims for cost reductions and other benefits

FY3/21 Accomplishments

of expenses

▶ Used One Team at 8 job sites, a total of 10 since the start of this project (goal is 10 jobsites every year)

Face to Face Project

Supervisors with extensive knowledge of the construction project visit the jobsite to strengthen communications and reduce the need to redo jobs and other risks

FY3/21 Accomplishments

▶ Used Face to Face at 7 job sites, a total of 81 since the start of this campaign (goal is 80 jobsites every year)

Support for creating proposals VE+CD Lower procurement expenses Start of Face Construction study group Support for determining Start of construction ð construction Face Order received Start of project Use Reduce knowledge production objectives expenses of ICT jobsite discussions Reduce diagram labor required Hibiya Cost Management **Working Group** A more thorough examination/study

Technology Strategy (2)



Growth of the renovation business by using proposals for entire buildings and other measures

Activities for capturing renovation orders

Use regular maintenance and aging diagnosis services as the first step for providing medium/long-term repair plan proposals

Timely proposals based on the customer's life cycle plan for previously accomplished projects

Maintenance, repair and inspection work proposals for projects after completion

Combine proposals for renovation work for part of a building to a whole-building proposal in order to receive more orders

<Strengths of Hibiya Engineering Renovation Services>

Experience at many renovation projects where existing facilities are reused

Experience building many telecommunication buildings

Technologies for renovating computer rooms and other critical facilities

Big increase in FY3/21 orders due to whole-building proposals and other activities

FY3/21 renovation orders increased 65.7%

Aiming for steady orders by using medium/long-term proposals based on the life cycle of building facilities

Technology Strategy (3)



Utilization of ICT and digital technologies

Demonstration of smart technologies

Environment sensor

CO₂ concentration in each room shows that the CO₂ level exceeds in rooms where people are crowded, such as when there are with visitors.

Position sensing

Increase the accuracy of employee location detection.

Thermo camera

Introduced 5 products from 4 companies to compare their functions and moved to the product evaluation stage.

Continued CO₂ concentration measurements. Improved accuracy of location sensing

To be completed within the current FY

Endeavor to expand air conditioning and ventilation renewal business.

Utilize web camera

Used for site patrols, and safety and quality control rounds, monitoring dangerous processes, etc.





President's rounds (Hokuriku region)

	Web camera	360deg. camera
FY2021 results	6	5

Vital sensor

Field workers' health and safety management

Wearing the vital sensor on your wrist enables real time checks on **physical condition**, **physical load level**, **location**, etc.

Physical condition

Heat exhaustion

Physical load

Location

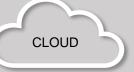
To be deployed at sites nationwide

Human resources strategy



"Smart WORK" working style reforms and diversity

Use of cloud virtual desktop service









· Allows doing work at any location

Eruboshi certification (stage 2)



Aichi empowering women company



Environment for telework









iPad

·All employees, personnel of partner companies and temporary staff receive a notebook PC and modem

(Use of senior staff members)

·Considering a system that allows continuing to use older people.

(Support for staying healthy)

- ·Encouraging eligible people to receive an annual check-up
- ·Activities targeting lifestyle diseases, insufficient exercise and mental health issues

Before FY3/20 FY3/21 Beyond FY3/22

Working Style Reform poster



Raise awareness of working style reforms

Jobsite visits and discussion groups



Working Style Reform Working Group



Initiatives at branch level Share WG measures Identify issues

STOP Power/Sex Harassment stickers, etc.



Online discussion groups

- Incorporate feedback fror jobsite visits and discussion groups
- Award given at event to announce outstanding harassment prevention measures

· Participants talk about career goals and other subjects

[Working Style Reform Working Group]

·Conducted a nationwide tour of this group

[Career Design Project for Women]

· A career with proper work-life balance

Step 1

Assess career thus far and confirm current position Step 2

Discussions about how to determine a career path and goals

Step 3

Establish a career plan, including skills and environment

 Method for advancing one's career, sharing opinions

Governance



Maintain the soundness of management

■ Compliance

- Reinforce the commitment to compliance
 Compliance commitment caravan at all business sites, compliance training

■ Information security

- Review standards for information security measures
- Upgrade security by ending network attached storage²(NAS) and using a cloud file storage service³

■ Corporate governance

- Comply with revisions to the Corporate Governance Code
- Maintain the transparency of management
- 1. Risk approach: A method for increasing the efficiency and effectiveness of audits by focusing resources (people, time, etc.) on items with the greatest risk of fraudulent information and other improper activity
- 2. NAS: An external hard disk drive linked to an LAN to give PCs linked to a network access to the same information
- 3. Cloud file storage service: A service that allows many users to access at the same time data stored in the cloud

Major completed projects

Orders Received of the Priority Domains



(Priority Domains)

(Billion yen)

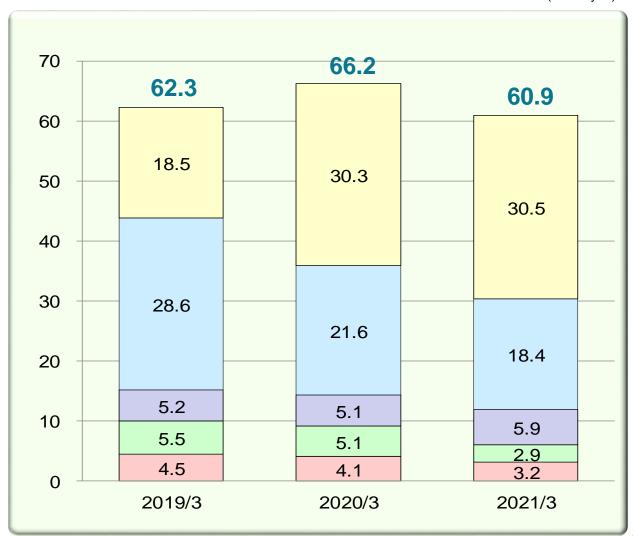
Data centers /Information

Office buildings

Manufacturing /Distribution

Health care /Medical Welfare

Hotels/Resorts



Complex Facilities



MIYASHITA PARK

Combines high and low-rise buildings with a shopping complex, hotel and park



Location	Shibuya-ku, Tokyo
Floor area	46,086m²
Structure	18 stories above ground/2 stories below ground
Hibiya's work	Air conditioning/sanitation

WITH HARAJUKU

TOKYO's new presentation stage that conveys culture and creativity to the world



(Photo: Yoji Watanabe)

Location	Shibuya-ku, Tokyo
Floor area	26,666m²
Structure	10 stories above ground/3 stories below ground
Hibiya's work	Air conditioning/sanitation



Prime Terrace KAMIYACHO

An innovative office buildings with an open atmosphere and large terraces



Location	Minato-ku, Tokyo
Floor area	9,272m ²
Structure	10 stories above ground/1 stories below ground
Hibiya's work	Air conditioning/sanitation

NTT Shin-Kuhonji Building

The NTT West Kumamoto Building serves as a base for disaster readiness



Location	Kumamoto city, Kumamoto
Floor area	6,833m ²
Structure	6 stories above ground
Hibiya's work	Air conditioning/sanitation

Health care / Research facilities



Fukagawa Tachikawa Hospital

A neighborhood hospital in Tokyo with emergency care



Location	Koto-ku, Tokyo
Floor area	4,255m ²
Structure	6 stories above ground
Hibiya's work	Electrical

Chiba Univ. (Inohana) Medical Building

A research facility for new methods for the future of medical care



(Photo: FOTOTECA)

Location	Chiba city, Chiba
Floor area	40,727m ²
Structure	11 stories above ground
Hibiya's work	Air conditioning



Hotel LiVE MAX PREMIUM Nagoya Marunouchi

A hotel in central Nagoya with a natural hot spring bath



Location	Nagoya cty, Aich	
Floor area	4,530m²	
Structure	12 stories above ground	
Hibiya's work	Air conditioning/sanitation	

ESR Amagasaki Distribution Center

One of the largest and most advanced distribution centers in Asia



Location	Amagasaki city, Hyogo	
Floor area	388,570m ²	
Structure 6 stories above ground		
Hibiya's work	Sanitation	

Reference

CO₂ Reduction Initiatives



Use of LED lights at all Nagano prefectural government buildings

The first project by a prefecture in Japan that uses a large-scale bulk lease for many buildings and facilities in order to lower CO₂ emissions

The Nagano Prefecture LED Light Project

A bulk lease was used to install LED lights at all prefectural government buildings and facilities in order to lower CO2 emissions. [Cost]

- ► About ¥300 million 【Purpose】
 - ► Reduce CO₂ emissions and electricity use at the prefectural government buildings and facilities
- ► Use of a lease prevented spikes in expenses

[Length of project]

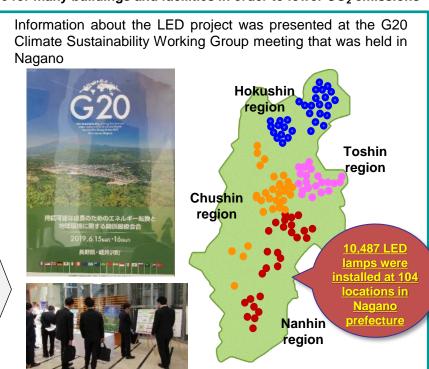
► July 2018 to September 2019 (LEDs in police stations and boxes)

P	art	ici	pating	com	panies
- '					

İ	Organization	Mitsubishi UFJ Lease & Finance Co., Ltd.		
	Organization			
	/financing			
	Design/installation /inspection	Hibiya Engineering		
	Design/installation	Six companies in Nagano		

Hibiya Engineering activities

► Studies, installation work and maintenance services for lowering CO₂ emissions associated with current equipment



Hibiya Engineering plans to use expertise gained form this project to meet the needs of local governments throughout Japan for activities that lower CO₂ emissions.

Alliances to meet public sector needs and receive renovation project orders



Self-sufficient and dispersed energy and other equipment for Information Center Manazuru

Information Center Manazuru, Manazuru-machi, Ashigarashimo-gun, Kanagawa

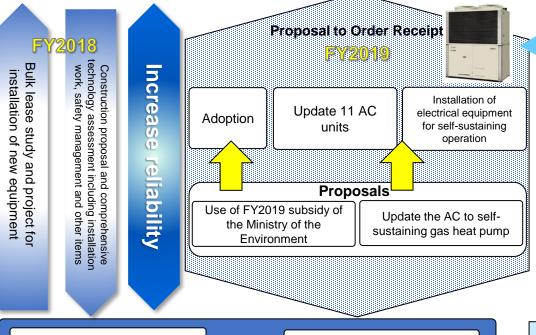
Needs

Equipment for evacuation site designation based on the Manazuru regional disaster response plan

Upgrade of the current air conditioning system, which is more than 20 years old

Renovations to conserve energy and lower the cost of operating the center





Example of the System Power supply Self-sustaining gas heat pump Fail Battery operation during power fail Power supply Battery transfer Inverter After power fail switch to batterv Gas engine Generator Indoor Lights Compressor JΙΙ Turn on self-Manual switch for Gas sustaining switch self-sustaining supply

operation

Construction consultant (Design, supervision, etc.)



Hibiya Engineering (Oversight, construction)

Expected benefits

- ◆ Reduction in greenhouse gas emissions (CO₂)
- ◆ Lights, AC and other equipment at evacuation sites function even after a disaster

after power fail

Alliances to meet public sector needs and receive renovation project orders



Project to upgrade carbon management and project for installation of self-sufficient, dispersed energy equipment

Buildings of the town of Sango-cho in Nara prefecture

Needs

Update aging equipment

Reduce greenhouse gas emissions

Add disaster readiness capabilities (town office, welfare center)



Update for disaster resilience for town office lights FY3/20 FY3/19 **Electric utility** Execution of project for disaster readiness, self-sufficient/dispersed energy equipment, etc Plan for disaster readiness, carbon reduction **Town offices** reduction, self-sufficient/dispersed energy Execution of carbon management Trans-Plan for carbon management former Solar panels AC for server upgrade project pgrade project Welfare center Control Electric unit panel **LED lights Batteries** Self-Emergency carbor sufficient Normal switch

Electricity path during an emergency

- a. Electricity released from batteries
- b.Goes to the self-sufficient switch
- c.Powers LED lights and other items

	Updates					
Location	AC	Lights	Trans- former	EMS	Disaster response	
Sango Elementary School	0			0		
Sango Kita Elementary School	0			0		
Sango Town Office	0	0		0	0	
Library	0	0		0		
Culture Center		0	0	0		
Sports Center	0	0		0		
Welfare Center		0			0	

Design consultant



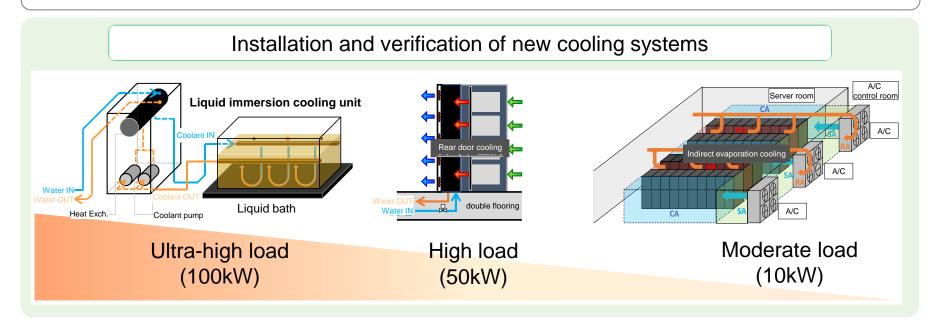
Hibiya Engineering (leader, design, installation)

Data Center Construction Technologies



Capabilities for all data center cooling needs, from new construction to updates

■ Expertise for installing ultra-high-load cooling systems and verifying performance



Cooling System Renovation (cooling capability)

3/2021	41MW	>1,500 units
3/2020	51MW	>1,600 units
3/2019	40MW	>1,100 units

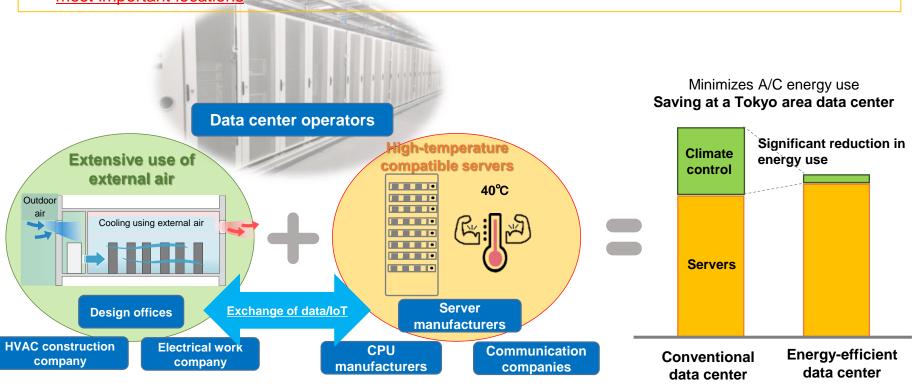
Minimizing Data Center A/C Energy Consumption



Activities for creating an energy-efficient data center for NTT Data Corporation

Used for HVAC equipment control by server internal sensors

- Data links incorporating the IoT overcome barriers between ICT equipment management and facility management
- Conventional temperature sensors to not monitor the internal temperature of servers, which is what must be held down
 - ⇒ <u>Using data from sensors inside servers for climate control makes it possible to control temperatures in the</u> most important locations



Aisle Capping for Smaller Computers in Data Centers



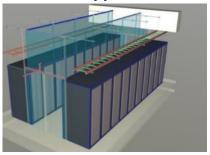
A flexible aisle capping system for small computer rooms

Features

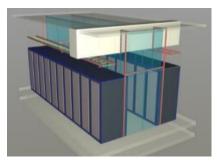
More efficient climate control Uniform temperature of rack air supply surface Flexible installation to match environment for equipment

Low cost by using generalpurpose sheets

Potential applications



Capping with ceiling



Capping with no ceiling



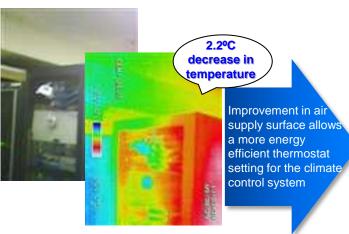


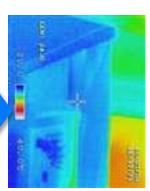
Installed under a ceiling beam

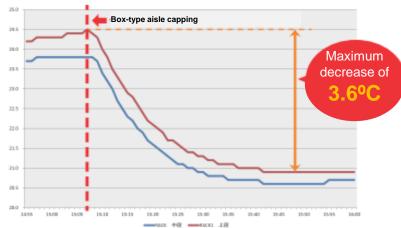


Box-type capping

Benefits





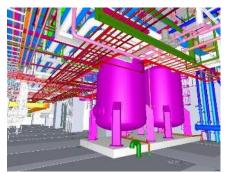


Examples of Building Information Modeling



BIM for constructing a new building with greater efficiency

- 3D imaging for determining placements of pipes and ducts relative to steel beams, braces and many other obstacles eliminates the risk of needing to redo a job.
- 3D presentations of the locations of equipment ensure trouble-free agreements between designers and project owners; customer response is very positive
- Using BIM for pipe processing orders, simulated deliveries and other items makes all tasks efficient and trouble-free









► No need to repeat tasks to fix mistakes

► Construction proceeds using adjusted diagrams

Advantages of using BIM

3D

- Placement adjustments/interference checks for facility designs
- Adjustments using overall diagrams, faster decisionmaking
- ➤ More efficient checking of confirmation applications, etc.

Database links

- ➤ BIM-linked automatic calculations (loads, energy conservation)
- Automated equipment designs (device tables, device configurations)
- Use of information about building characteristics for maintenance operations

Building Information Modeling (BIM) is a method for constructing a building data model consisting of 3D shape information created in a computer and various characteristics of a building, such as names and floor areas of rooms, the types and properties of materials used, finishing work, and other items.

Streamlining Construction and Installation Technologies



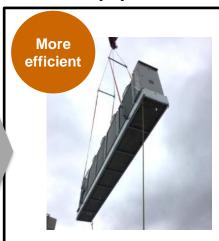
Labor-saving method for installing rooftop equipment raises efficiency

Simple installation with single unit package for exterior equipment



A single unit for exterior equipment/base /refrigerant pipes

- · Smaller amount of labor required
- · Better, more uniform quality due to fabrication at a factory



Rooftop placement using a crane

No need for placing separate units



Simple rooftop installation

 No time-consuming installation steps

Installation of pre-assembled rooftop water tank





- Reduces the need for performing work in high places (safety)
- Reduces scaffolding, the need for protective plastic coverings of adjacent areas, and crane use (efficiency)

Cogeneration Awards - Special Award in the Private Sector Category

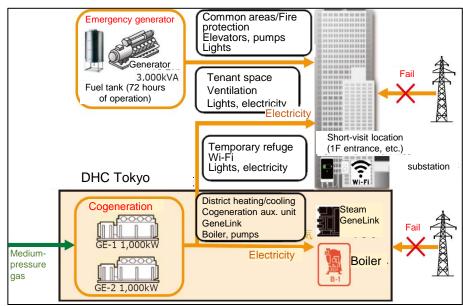


Cogeneration system renewal for DHC Tokyo



An updating project for a cogeneration system of DHC Tokyo that was completed in March 2020 received a Special Award in the private sector category from the Advanced Cogeneration and Energy Utilization Center.

Hibiya Engineering received an order for updating the cogeneration system and for improvement and installation work for peripheral equipment. This project increased electricity produced by the system and added a steam GeneLink that uses hot water effluent from the cogeneration system. The electricity supply and other systems were also checked and improved. Overall, the project resulted in big improvements in energy conservation and the ability to continue operations even after a natural disaster or some other emergency.



Electricity supply during power outage



Upgraded gas engine

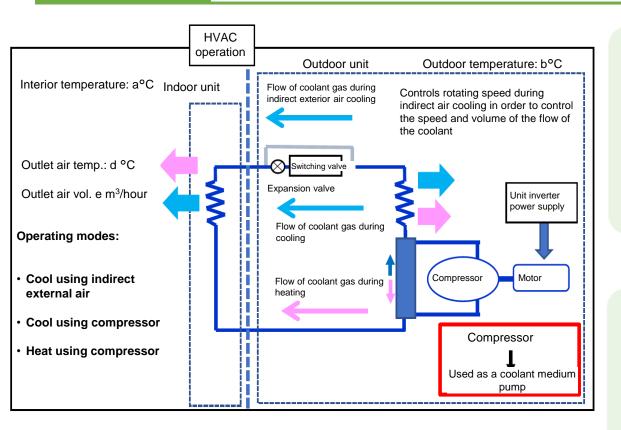
Major Patents and Patents Pending (1)



Patent for reusable energy use for carbon neutrality and decarbonization

New patent

Air balance unit* (Indirect external air heater/cooler)



*Patent no. 6800283 (Registered November 26, 2020)

Features

- Automatic selection of operating mode based on the thermostat setting and outdoor temperature
- When the outdoor temperature is low, the compressor is used as a coolant pump

Benefits

- Energy-efficient heating and cooling by reducing power required to operate the compressor
- Eliminates wasted energy use by quickly switching to a different operating mode as needed

Major Patents and Patents Pending (2)



Patent for reusable energy use for carbon neutrality and decarbonization

Patent pending

Extra-high voltage transmission system linkage for reusable energy¹

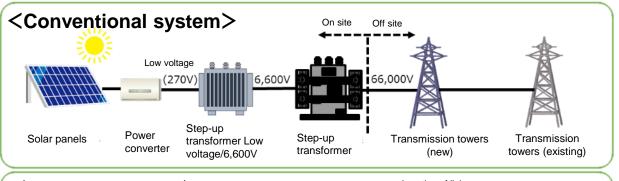
1. Application 2021-009543 (January 25, 2021)

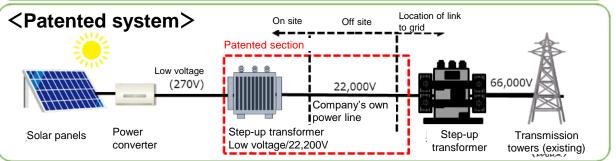
Applied for a patent for a reusable energy utilization system for energy sources other than solar power, a revised version of the existing patent for solar power utilization

Existing patent

Solar power electricity generation system²

2. Patent no. 6411114 (Registered October 5, 2018)





Feature

 The use of a company's own power line outside the company's business site simplifies the equipment needed for an extrahigh voltage link with a utility

Benefit

 The system can be installed at a low cost and with a plan that is easy to implement



時代にまっすぐ、技術にまじめです。