Tour of Shiroi Data Center Campus

Outlook for Data Center Market & IIJ's Initiatives

December 1, 2025

Internet Initiative Japan Inc.

Data Center Service Department, Infrastructure Engineering Division, Network Service Business Unit

1. Market Trends in DCs
2. IIJ’s initiatives for DCs
3. Carbon Neutrality Initiatives

Abbreviation:
DC stands for data center, Shiroi DCC stands for Shiroi Data Center Campus, Matsue DCP stands for Matsue Data Center Park
FY2026 stands for a fiscal year from Apr. 1, 2025 to Mar. 31, 2026, others alike

Market Trends in DCs

Transformation of the DC market

The role of DCs is transforming with edge computing, carbon neutrality, and AI in the 2020s and beyond.

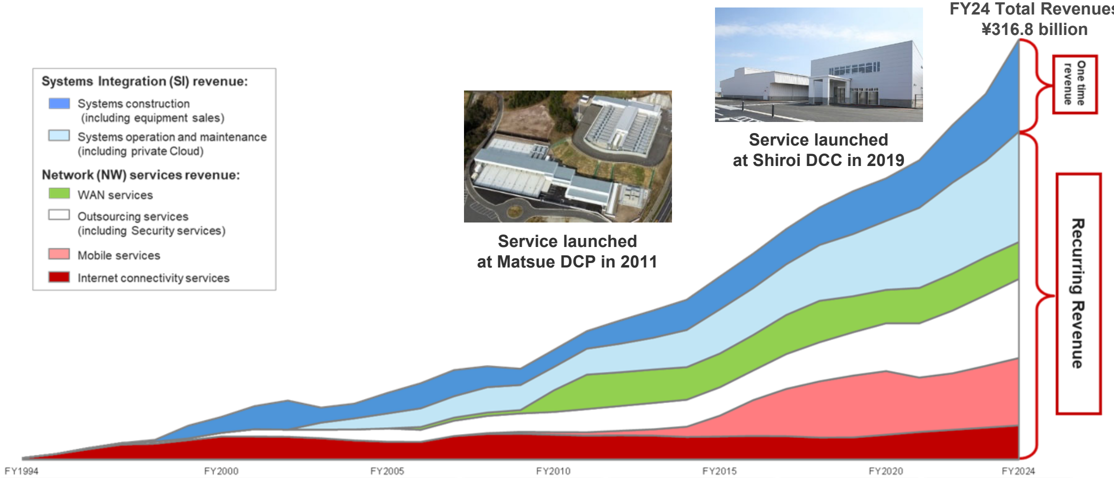
Transformation of the DCs

- **1990s Dawn of DC** — From the computer center/ communication station to DCs
- **2000s Adoption period** — With the adoption of the Internet, data centers came to be used by enterprises
- **2010s Transformation period** — Cloud adoption and emergence of hyperscale DCs
- **2020s and ongoing Drastic change period** — Proliferation of hyperscale DCs; Requirement for Sustainability; Widespread adoption of new technologies and infrastructures such as 5G, AI, IoT, etc.

IIJ's consolidated revenues

- Simple resale of NOC (Network Operation Center)
- Used third party DCs for IIJ's own services and colocation services
- Construction of container type DCs and hyperscale DCs as IIJ's own asset

FY24 Total Revenues
¥316.8 billion



Service launched at Matsue DCP in 2011

Service launched at Shiroi DCC in 2019

- **Increase in number of ISPs in Japan** — IIJ launched Internet connectivity services in 1993 (NTT in 1996)
- **Price war and market consolidation for ISPs in Japan** — IIJ shifted its focus to large corporates, survived the tough competition, and established market position
- **Gradual cloud migration** — Launched Cloud services in 2009
- **Birth of the Low-Cost SIM Market** — Launched consumer mobile services in 2012
- **DX triggered by the Pandemic** — Rapid Expansion in Demand for Remote Access Services, etc.
- **Advancement of DX in post-pandemic era** — Shift to Network-Centric Architectures

Issues to be addressed

Shifting to a hierarchical data market structure. Rising construction costs
- Rapid expansion of hyperscale DCs
- Edge Computing
- Addressing rising construction costs and labor shortages

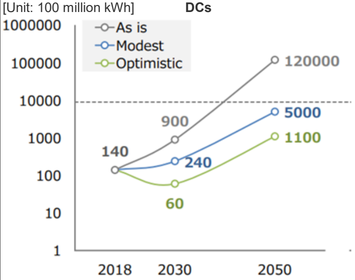
Growing demand for AI processing infrastructure
- Rising power consumption of CPUs and GPUs

Achieving carbon neutrality
- Ongoing efforts to improve energy efficiency
- Diversifying renewable energy procurement
- Delivering environmental value

Requirements for DCs

To meet the growing demand for AI processing, DCs must handle significantly increased power consumption. Efficient deployment of high-density servers, adoption of liquid cooling technologies, and achieving carbon neutrality through renewable energy integration and high energy efficiency are essential.

Projected Power Consumption of DCs in Japan

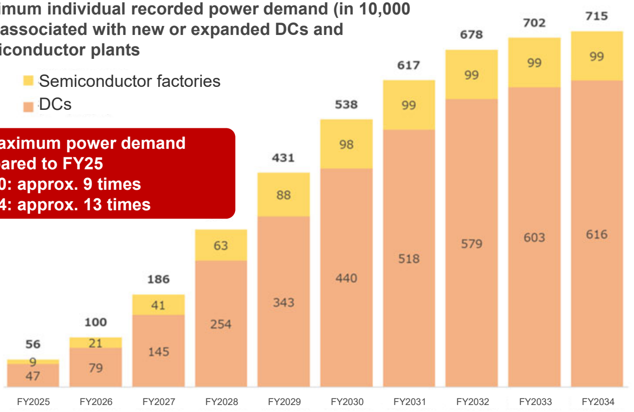


If energy-saving measures progress at the current pace, power consumption by DCs alone will account for about 50% of Japan's total electricity demand. Even if energy efficiency improves significantly, it will still exceed about 10% of Japan's electricity demand.

As is: No progress in energy-saving measures with current technology
Modest: Small improvement in energy efficiency (same level as up to 2030)
Optimistic: Significant improvement in energy efficiency

Source: Agency for Natural Resources and Energy – On Electricity Demand
https://www.enecho.meti.go.jp/committee/council/basic_policy_subcommittee/2024/056/056_005.pdf

Maximum individual recorded power demand (in 10,000 kW) associated with new or expanded DCs and semiconductor plants



DC maximum power demand Compared to FY25
FY30: approx. 9 times
FY34: approx. 13 times

Source: Organization for Cross-regional Coordination of Transmission Operators – Nationwide and supply area demand forecast (FY2025)
https://www.occto.or.jp/juyousoutei/2024/files/250122_juyousoutei.pdf

Solutions

Power: Distributed DC Deployment (Watt-Bit Integration)

- Integrated development and operation of power and communication infrastructure to achieve **distributed AI DCs and decarbonization**
- Local production and consumption of renewable energy

Cooling: From Air Cooling to Liquid Cooling (DLC: Direct Liquid Cooling)

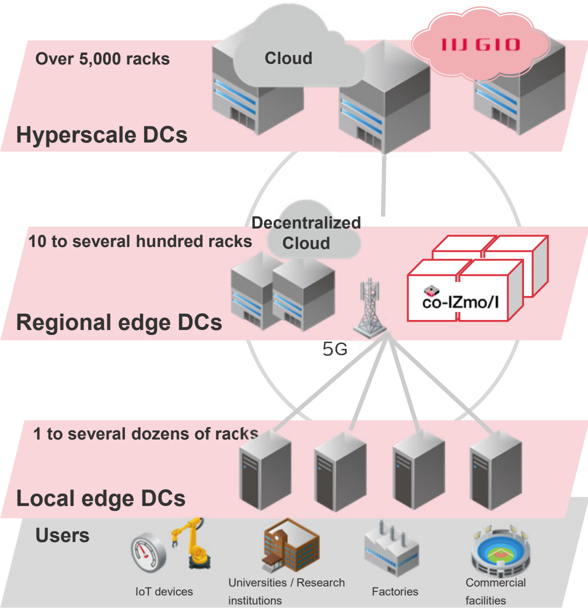
- Initially popularized through **Cold Plate method**
- Immersion cooling is the next step
- Higher cooling efficiency compared to air cooling, enabling high-density server deployment
- **Contributes to energy savings and space efficiency**

Strengthening IT and Facility Integration

- **Optimization through coordinated control** of liquid cooling facilities and liquid-cooled servers (Software Defined Liquid Cooling Facility)
- Water at server rooms
  CDU with anti-condensation function. Monitoring of water quality, flow rate, and temperature
  Emergency shut-off valves and drainage systems

Changes in the DC Environment

The concentration of applications that require **low latency** and strict **security** still need to be processed on servers located at the data source, such as production facilities cloud services in hyperscale DCs is accelerating, prioritizing efficiency and economies of scale. At the same time, data and and IoT devices. The demand for handling the exceptional growth of data is rising rapidly.



DCs	IIJ's Initiatives	Uses
	Jul. 2023: Shiroi DCC 1st site building started operation FY26: Shiroi DCC 3rd site building will start its operation	Core cloud platforms used by large-scale cloud service providers Platforms for SaaS operators Backbone system platforms used by companies
	Nov. 2013: Launched co-IZmo/I Jun. 2025: Matsue DCP system module building started its operation	Distributed cloud infrastructure Regional colocation providers 5G + MEC*
	Nov. 2021: Launched DX Edge FY25: DX Edge Cool Cube to be launched	On-premise system platforms (private cloud) Edge computing

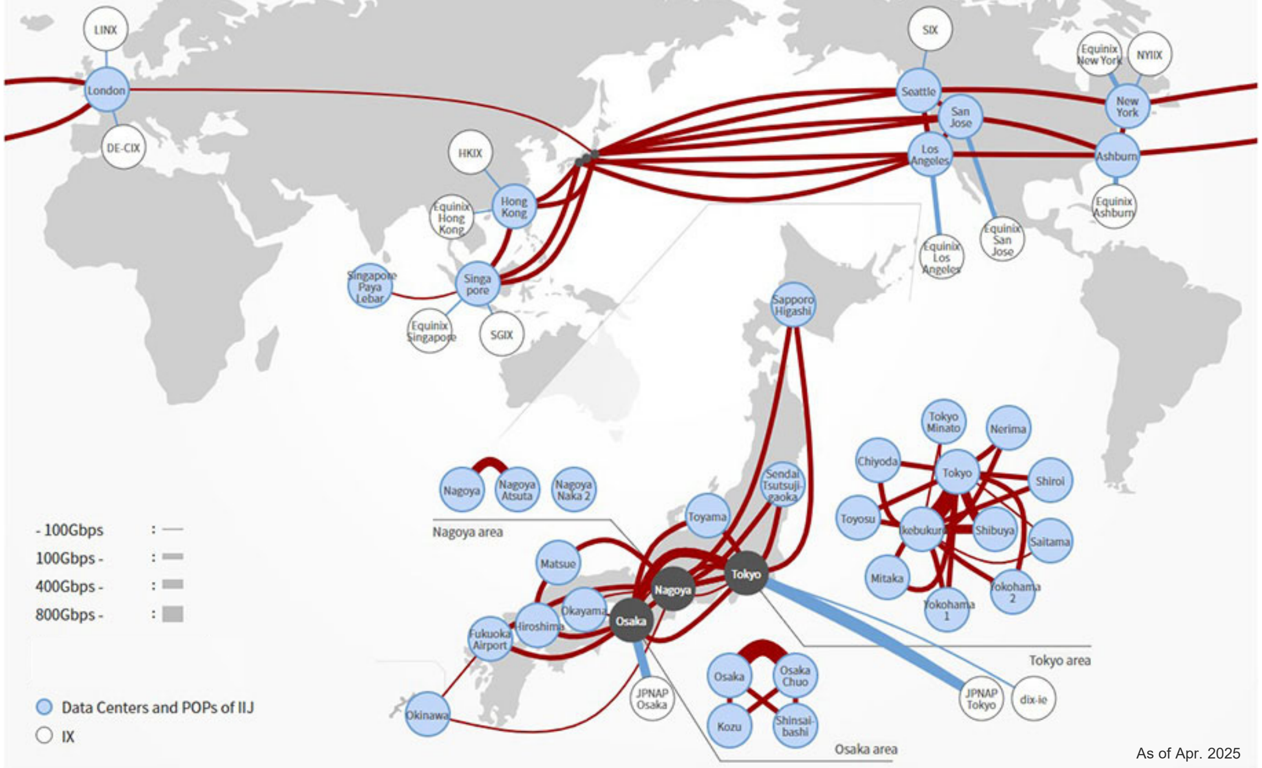
*MEC: Short for the Multi-access Edge Computing. One of the edge computing standards that factors in accessibility from local 5G terminals, Wi-Fi devices, IoT devices, etc.

IIJ’s initiatives for DCs

IIJ's DC Lineup

In addition to expanding DCs across Japan, IIJ is also extending its presence overseas. We have established robust network hubs in major cities both domestically and internationally, delivering high-quality connectivity services supported by advanced operations and monitoring technologies.

IIJ's DCs and backbone network



As of Apr. 2025

Shiroi DCC

- Adoption of the latest energy-saving technologies and AI
- Site area of approximately 40,000m² with a power receiving capacity of 50MW
- System modular construction method
- Phase 2 building began operations in July 2023

Matsue DCP

- Japan's first container-type DC
- Utilizes outside-air cooling to reduce overall power consumption by about 40%
- System module building began operations in June 2025

History of DC Construction and Technology Validation

DC Construction

IZmo @ Matsue City, Shimane Prefecture
Realization of an Air-Cooled Container-Type DC

Matsue DCP
(Site 1: 2011–)

(Site 2: 2013–)

IZmo @ Domestic Location
Delivered to research institution: 2013

co-IZmo/I @Laos

co-IZmo/I @Russia

Shiroi DCC
@ Shiroi City, Chiba Prefecture: 2019-
Phase 1 Building:
・1000-rack scale
・Outdoor air cooling

Phase 2 Building:
・Automation
・Green DC

Year

2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024

Proof of Concept (PoC)

IZmo Proof-of-Concept
Development and evaluation of containerized DC demonstration units and direct outside air air-conditioning units

Server High-Density Deployment & Chillerless Operation Demonstration
Calculating cost reduction effects through improved server space utilization, operational evaluation of chillerless systems, and power reduction effects

DC Utilizing the Chimney Effect
Utilizing the chimney effect, server exhaust heat drives air intake and exhaust, ensuring the necessary airflow for cooling without air conditioning units

co-IZmo/D Proof-of-Concept
Fabrication and Evaluation of Chillerless Container DC Prototype

IT Equipment Adaptation Testing
Conducted with various server vendors. Evaluation of IT equipment performance in chillerless environments and identification of concerns

co-IZmo/I Proof-of-Concept
Construction and evaluation of a sales promotion container DC prototype equipped with indirect outside air cooling

Server Deterioration Diagnostic Testing
Evaluation of IT equipment degradation rates in chillerless environments and identification of concerns

Power Software Proof of Concept
Evaluation of Power Forecasting and Peak Power Cut Control Software

Container DC Destruction Diagnosis
Destroying fifth-year proof-of-concept containers to diagnose invisible internal mechanisms

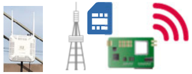
co-IZmo/I v2 Demonstration Experiment
Construction and evaluation of a connected co-IZmo/I demonstration unit. Construction and evaluation of the selective power supply mechanism for fuel cells, PV, and DC-UPS.

Liquid Immersion Cooling System Proof of Concept
Verification of installability and operability. Comparison with conventional air conditioning equipment. Exploring further applications, including cooling for GPU-equipped servers for AI/HPC.

co-IZmo/Z Demonstration Experiment
Construction and Proof-of-Concept Testing of a Low-Cost Container DC Utilizing Refrigeration Air Conditioning Units

Automation, Battery Storage, AI Control Demonstration Experiment ☆Shiroi to Become DC Technology Development Hub☆
Evaluation of physical robots, RBA/RPA automation platforms, Tesla lithium-ion batteries, and AI-based air conditioning control

Launch of Shiroi Wireless Campus
Centralized wireless communication technologies like Local 5G and Private LTE (sXGP) in one location. Serves as a venue for customers to experience these technologies and conduct proof-of-concept experiments

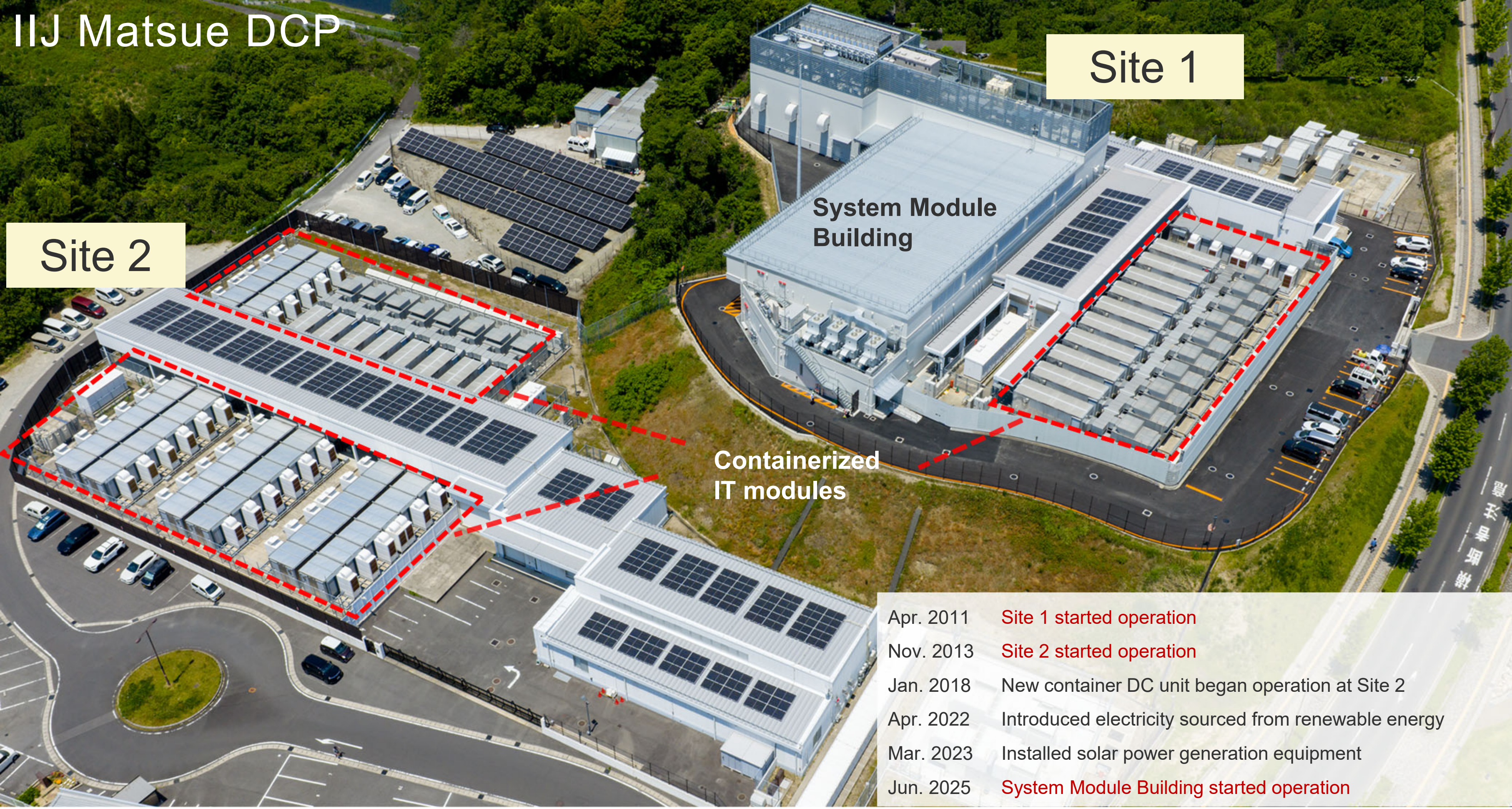


Edge Micro DC Proof of Concept
Evaluated a compact DC (approx. 1-2m tall) equipped with essential DC facilities and functions—including server cooling air conditioning, UPS, and physical security—usable as an edge computing infrastructure.

Drone-based surveillance demonstration experiment (Matsue DCP)
Exploring potential for reducing operational burden by utilizing drones for equipment maintenance and DC patrol security

Shiroi DCC's HVAC system received the Technical Award at the Air Conditioning, Heating, and Sanitary Engineering Society Achievement Awards
Recognized for adopting a wall-mounted air conditioning system combined with outside air cooling, optimizing building shape and spatial configuration, implementing AI-driven operational control, deploying displacement ventilation systems in UPS and electrical rooms, and rigorously applying best practices for ICT equipment mounting and airflow control.

IIJ Matsue DCP



Apr. 2011	Site 1 started operation
Nov. 2013	Site 2 started operation
Jan. 2018	New container DC unit began operation at Site 2
Apr. 2022	Introduced electricity sourced from renewable energy
Mar. 2023	Installed solar power generation equipment
Jun. 2025	System Module Building started operation

IIJ Matsue DCP – System Modular Building

As the infrastructure foundation for IIJ's expanding services and as a core DC supporting the regional digital infrastructure required by the Digital Garden City Nation initiative, **operations began on June 20, 2025**.

■Exterior View of the System Modular Building

■Specifications

	Site 1		Site2
	Existing facilities	System Modular Building	
Date opened	Apr. 2011	Jun. 2025	Nov. 2013
Site area	16,000㎡		
Construction Area	Approx. 1,000㎡	Approx. 2,000㎡	Approx. 1,500㎡
Capacity	Approx. 100 racks	Approx. 300 racks	Approx. 300 racks
Air conditioning system	Direct outside-air cooling		
Electrical Equipment	3-phase 3-wire UPS	3-phase 4-wire UPS	3-phase 4-wire UPS
Maximum power received	Total for 2 Sites: 4,000 kVA		

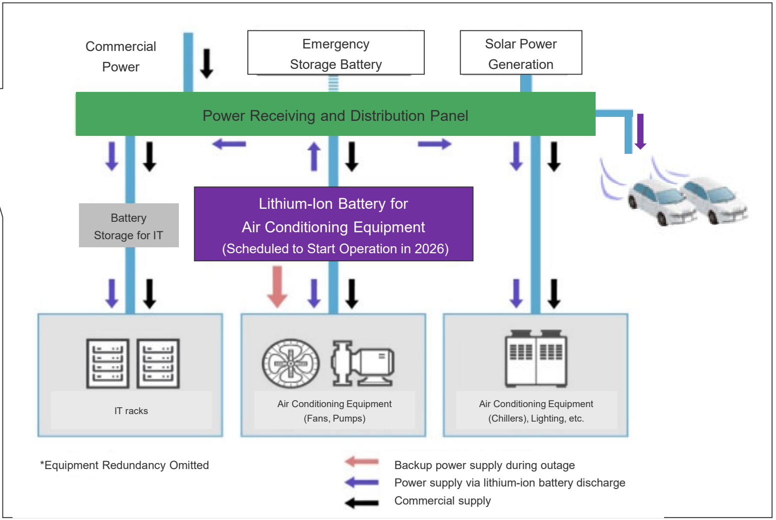
■Features

- Continuous efforts toward energy conservation
  - Adoption of "outside-air cooling system" to minimize power consumption for air conditioning and "wall-mounted air distribution" for efficient airflow
  - Energy efficiency evaluation (PUE*1): Designed to achieve **an industry-leading PUE in the 1.2 range**
  - PML*2: 1.0% (System Modular Building)
- Promoting carbon-neutral initiatives
  - Participating as a co-proposer with Matsue City, which has been designated as a "Decarbonization Leading Area" by the Ministry of the Environment, to advance mutual cooperation with local communities toward realizing a decarbonized society through energy supply

*1 PUE: Power Usage Effectiveness – An indicator of the energy efficiency of a DC.
*2 PML: Probable Maximum Loss – The expected maximum loss, defined as a 10% probability of exceedance over 50 years (the smaller, the better).

Regional Contribution and Disaster Preparedness Initiatives

- Participated as a co-proposer with Matsue City in the Ministry of the Environment’s publicly funded “Decarbonization Leading Area” project, utilizing subsidies (*1)
- Introduced backup power UPS with large-capacity lithium-ion batteries
- In addition to conventional UPS usage, provided as a regional power supply infrastructure during disasters, contributing to local disaster preparedness and resilience enhancement
- During normal operations, participates in a Virtual Power Plant (VPP) program to earn incentives by responding to power reduction requests (already implemented at Shiroi DCC)

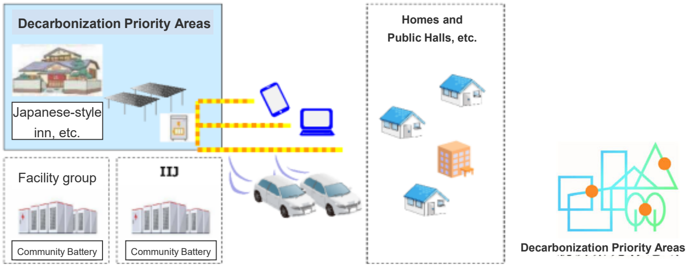


Matsue City Plan “International Cultural and Tourism City, Matsue”: Creating an Attractive City through Decarbonization — Carbon-Neutral Tourism

Utilization of Storage Batteries During Disasters and Installation of Fully Autonomous Solar Carports

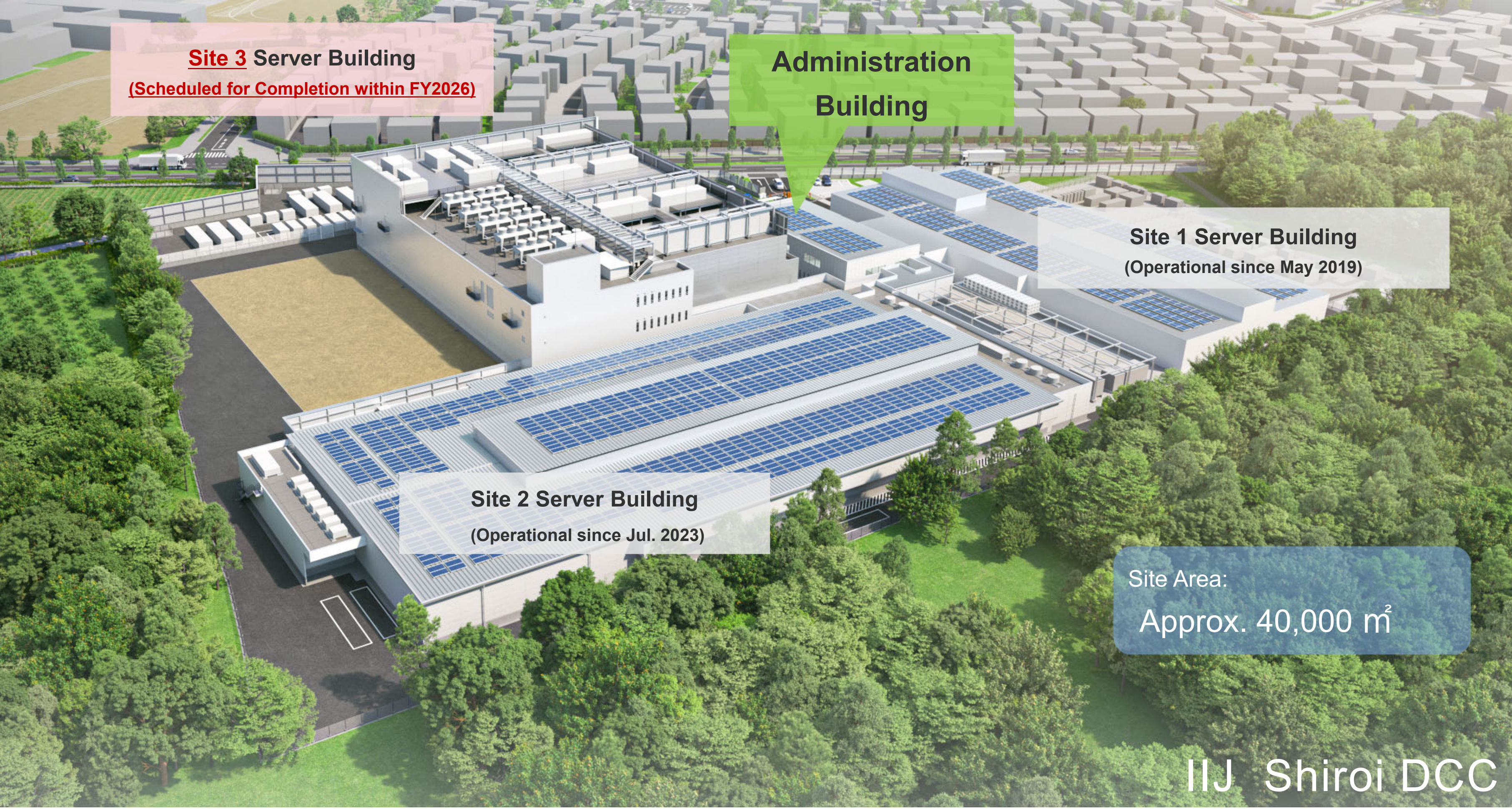
Storage batteries installed on city-owned idle land (off-site PPA) and at IIJ Matsue DC will be fully utilized as regional power supply infrastructure during disasters. In addition, fully autonomous solar carports capable of operating without any power supply from the grid during emergencies will be installed. These measures aim to create a disaster-resilient city and tourist destination where residents can “live with peace of mind” and visitors can “stay with confidence.”

Image of Community Battery Utilization



Elevating the power initiatives demonstrated at Shiroi DCC using UPS systems, and from the perspective of the government’s regional digital infrastructure development policy(*2), **promoting advanced efforts as a role model for collaboration between local communities and DCs**.

(*1) Decarbonization Leading Area: Regions publicly solicited by the Ministry of the Environment based on the “Regional Decarbonization Roadmap” to achieve carbon neutrality by 2050. At least 100 areas are expected to simultaneously solve local issues and improve residents’ quality of life while moving toward decarbonization. “Matsue City Decarbonization Leading Area Development Project Subsidy” – Grant decision made on June 2, 2025.
(*2) Government Policy on Digital Infrastructure Development: Summarized in the revised “Digital Garden City Nation Infrastructure Development Plan” and the interim report “Expert Meeting on Digital Infrastructure (including DCs) Development 2.0” by the Ministry of Internal Affairs and Communications and the Ministry of Economy, Trade and Industry. These policies promote decentralized DC locations in regional areas and efficient utilization of renewable energy.


Site 3 Server Building
(Scheduled for Completion within FY2026)
Administration Building
Site 1 Server Building
(Operational since May 2019)
Site 2 Server Building
(Operational since Jul. 2023)
Site Area:
Approx. 40,000 ㎡
IIJ Shiroi DCC

Site 3: Shiroi DCC

Site 2 is expected to reach full capacity by FY2026. Construction of Phase 3 is currently underway (Start of construction on June 1, 2025; **operations scheduled for FY2026**).

To meet growing demand for IIJ's services and solutions such as cloud, security, IoT, and MVNO, Site 3 will further enhance service infrastructure.

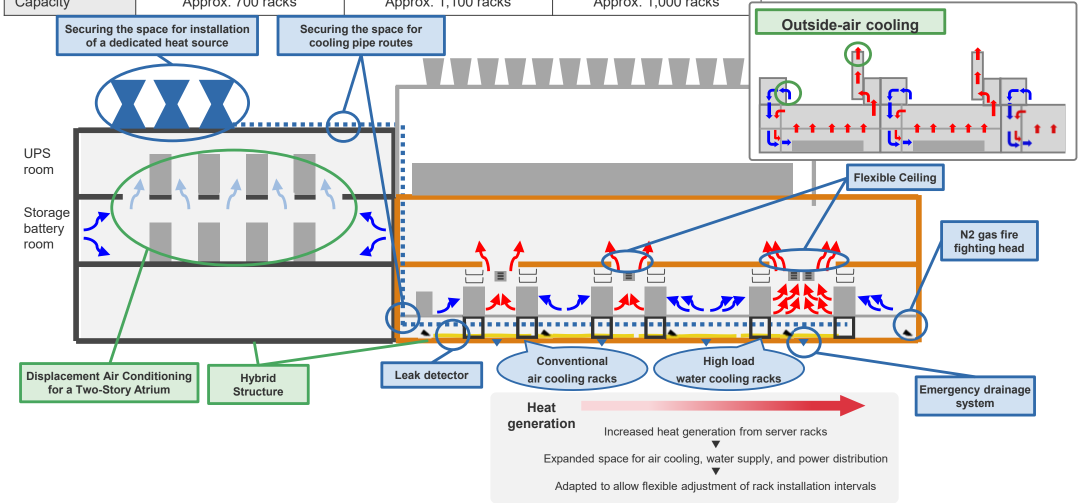
Key Features of Phase 3

1. **"Liquid-cooling ready design" for AI and high-Density IT equipment**
   - Securing the dedicated heat source space and cooling pipe routes in advance
   - Emergency drainage system for water leakage incidents

2. **Flexible architectural design and scalability**
   - Measures for larger high-density server racks and securing space for water-cooling equipment and power distribution are essential
   - **"Flexible ceiling"** design allows adjustable openings in server rooms
   - Zoning areas based on structural design tailored to usage (load and floor height), and adopting a **"Hybrid Structure"** with structural plans optimized for each zone

3. **High-efficiency cooling and power supply**
   - hybrid system combining **outside air cooling** and air-cooled chillers
   - Site 3 4-wire UPS adopted
   - receiving capacity of 10 MW (**expandable up to 25 MW**)

	Site 1 Building	Site 2 Building	Site 3 Building
Location	Shiroi City, Chiba Prefecture		
Site area	Approx. 40,000㎡		
Date opened	May 2019	Jul. 2023	FY2026 (scheduled)
Power receiving capacity	10MW	10MW	10MW (Expandable up to 25 MW to accommodate future high-density and water-cooling requirements)
Electrical Equipment	3-phase 4-wire UPS		
Air conditioning system	Direct outside-air cooling		
Capacity	Approx. 700 racks	Approx. 1,100 racks	Approx. 1,000 racks



Micro DCs / Container DCs for Edge Infrastructure

Building an edge IT and digital platform with the efficiency, operability, and cost-effectiveness required in the DX era

DX edge

DC Anywhere – A compact, refrigerator-sized micro edge DC (Micro DC) that can be installed anywhere, indoors or outdoors, to securely house and operate servers. We have entered into a partnership with Zella DC, an Australian company specializing in micro DCs with over 10 years of experience, to provide turnkey managed services that include both the micro DC equipment and the servers housed within, along with full operational support.


IIJ Shiroi DC
(12U for use indoors)


Warehouse in Tokyo
(25U outdoors model)


Mine in Australia*
(38U outdoors model)
*Case Study of Z

<Competitive advantages>

Scalability
- Can be started on a small scale in a short period of time
- Ability to expand or relocate to respond to demands

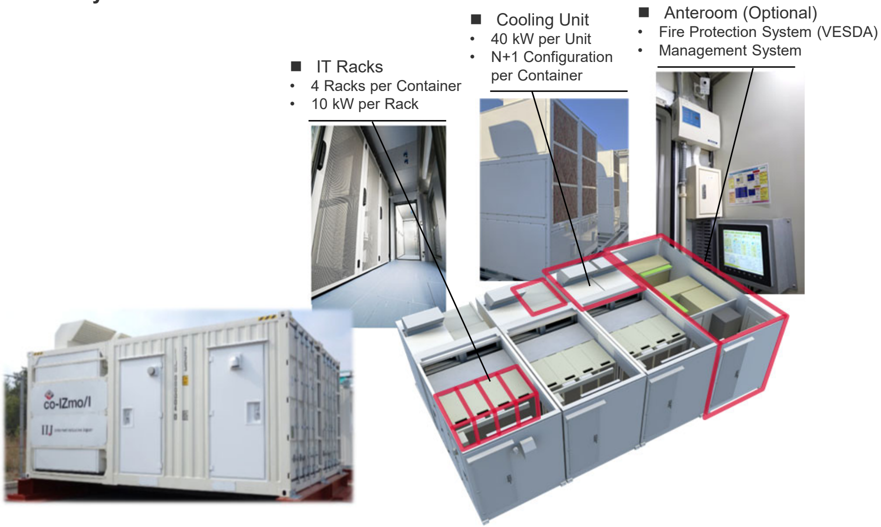
Operability
- Centralized operation of servers and DC facilities (remote operation and maintenance by IIJ)
- Adoption of highly reliable Japanese and U.S. manufacturer components. Plug & Play

Economic feasibility
- Low installation cost compared to constructing a server room
- Power savings and low operating costs

Effective as next generation server room as well as edge infrastructure

co-IZmo/I – Indirect Outside Air Containerized DC Module

Matsue DC Model – Thanks to its modular, interconnected design, the latest technologies can be easily implemented on a per-module basis. It can be installed even in cold regions, areas with high temperatures and humidity, or locations with poor outdoor air quality, while delivering exceptional energy efficiency.



All-in-One Package
- Efficient operation through a management system
- Optional equipment to meet diverse needs

Energy Efficiency
- Reduced power costs with outside air cooling
- Adaptable to any environment without being affected by outside air
- Up to 10 kW power consumption per rack

Case Study: Micro DC / Container DC (FY2025)

DX edge

1. Infrastructure support project for Ukraine

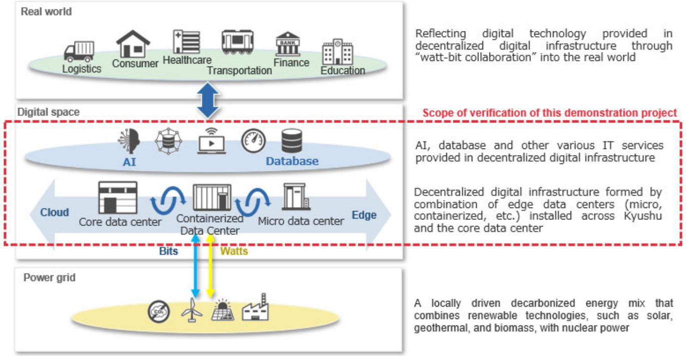
➡ As part of a Japan International Cooperation Agency (JICA) demonstration project, four units were deployed to local infrastructure operators. Promoting reconstruction support and the development of a business foundation

- Provided one unit (DX edge Pro) to each of two locations of the telecommunications operator
- A backup system ensuring geographic redundancy
- Provided two units (DX edge Hut) to one site of a power infrastructure operator
- Operation Monitoring of Substations

2. Demonstration Project to Build and Validate a Regionally Distributed Digital Infrastructure

➡ Leveraging renewable energy in Kyushu, we aim to achieve an optimal balance between power and IT processing by interconnecting regionally distributed DCs

- Kyushu Electric Power, IIJ, QTnet, 1FINITY, and Nautilus Technologies
- Verification of digital technologies to enable Watt-Bit integration
- Evaluation of the effectiveness of AI processing and distributed databases using distributed digital infrastructure technologies
- Provision and deployment of DX edge and GPU servers
- Overall project design and progress management, full construction of the verification environment, and execution of validation tasks



Verification scope of the project and the envisioned future

co-IZmo/I

1. Received an order from Uzbektelecom for the "Telecommunication Infrastructure Development Project"

➡ Contributing to the sustainable development of digital infrastructure in Uzbekistan

- Provision of co-IZmo/I
- Construction of a cloud platform
- Training for Uzbektelecom DC operations personnel


News Release

TOYOTA TSUSHO IIJ Orchestrating a brighter world NEC NTT Communications

January 27, 2023

Toyota Tsusho, IIJ, NEC, and NTT Com Sign Contract with Uzbektelecom for Telecommunications Infrastructure Development Project

- Contributing to DX efforts by advancing Uzbekistan's information and ...ommunications infrastructure -

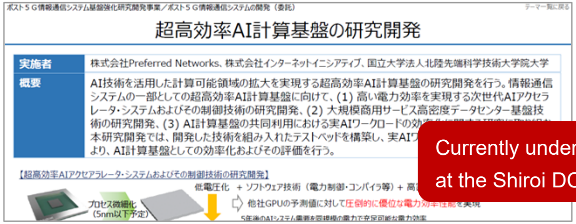
...a Tsusho"), Internet Initiative Japan Inc. ("IIJ"), NEC Corporation ("NEC"), and NTT Communications Corporation ("NTT Com") announced today the conclusion of a contract with JSC Uzbektelecom ("Uzbektelecom"), a state-owned telecommunications operator in Uzbekistan, for a telecommunications infrastructure development project ("the Project") to provide data center and telecommunications infrastructure for an advanced data communication system ("the System").

Currently being shipped to Uzbekistan in sequence

2. PFN, IIJ and JAIST to Launch Joint Research Project on Ultra-High-Efficiency AI Computing Infrastructure

➡ Proposed and selected through public calls by the Ministry of Economy, Trade and Industry (METI) and NEDO
Aiming to build a next-generation AI platform with global competitiveness

- IIJ **has built Almod (water-cooled)** based on co-IZmo/I **at the Shiroi DCC**
  Developing DC technologies to support high-density AI computing
- PFN, IIJ, and JAIST aim to achieve power savings and high efficiency for commercial AI platforms through coordinated control of AI workloads and facilities


ポスト５Ｇ情報通信システム基盤強化研究開発事業／ポスト５Ｇ情報通信システムの開発（委託）　テーマ一覧に戻る

超高効率AI計算基盤の研究開発

実施者	株式会社Preferred Networks、株式会社インターネットイニシアティブ、国立大学法人北陸先端科学技術大学院大学
概要	AI技術を活用した計算可能領域の拡大を実現する超高効率AI計算基盤の研究開発を行う。情報通信システムの一部としての超高効率AI計算基盤に向けて、(1) 高い電力効率を実現する次世代AIアクセラレータ・システムおよびその制御技術の研究開発、(2) 大規模商用サービス高密度データセンター基盤技術の研究開発、(3) AI計算基盤の共同利用における実AIワークロードの効… 本研究開発では、開発した技術を組み入れたテストベッドを構築し、実AIワ… より、AI計算基盤としての効率化およびその評価を行う。

【超高効率AIアクセラレータ・システムおよびその制御技術の研究開発】

低電圧化　＋ ソフトウェア技術（電力制御・コンパイラ等）＋ 高…

プロセス微細化（5nm以下予定）

他社GPUの予測値に対して圧倒的に優位な電力効率性能を実現

Currently under construction at the Shiroi DCC

Source: NEDO website, "Post-5G Information and Communication System Infrastructure Enhancement R&D Project" page
https://www.nedo.go.jp/content/100972818.pdf#page=4

DX Edge Cool Cube under development: Edge DC

Modular edge DC that can be installed indoors or outdoors (scheduled for commercialization **in the second half of FY2025**
Jointly developing a modular edge DC with Kawamura Electric Inc., capable of housing AI GPU-equipped servers

*Press Release (Mar. 11, 2025): :https://www.iij.ad.jp/news/pressrelease/2025/0311.html

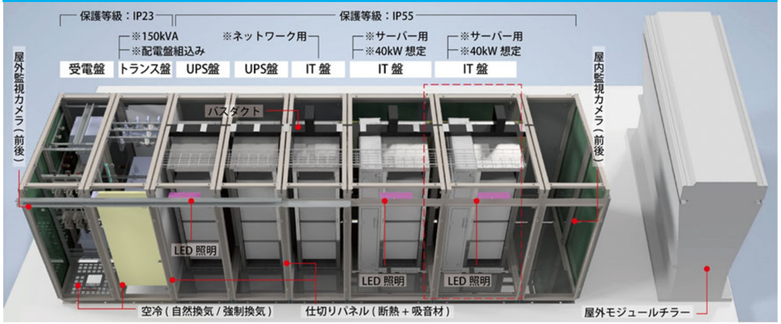
- Modular edge DC based on a power-receiving cubicle, equipped with cooling units (In-Row air conditioning) and racks
- By connecting modules, deployment can be scaled efficiently without waste. Unlike ISO container types, installation inside buildings or warehouses is also possible
- Designed as a self-contained unit, eliminating individual design elements compared to rack installation in containers or rooms

Prototype exterior image

Image of modules when connected

Currently considering a configuration combining Direct Liquid Cooling (DLC) : Water cooling 7 : Air cooling 3

Example of Module Configuration



Main Specifications of the Prototype

Item	Specification	Remarks
Server Load Capacity	Rated 45 kW (Estimated effective capacity: approx. 40 kW based on cooling capability)	Power distribution panel option available
Module Size	W1,200 × D2,000 × H2,300 mm	
Weight	Approx. 1,200 kg	Excludes servers and UPS units
Cooling Method	In-Row Air Conditioning	Requires chilled water supply; DLC support planned
External Environment	-20°C to 40°C	
Dustproof/Waterproof Performance	IP55	
Security	Card key, security cameras, door open sensors, smoke detection, fire extinguishing equipment	
Other Features	Remote environment monitoring, control, soundproofing performance	

Note: These specifications represent development targets and may differ from the specifications of the final commercial product.

Carbon Neutrality Initiatives

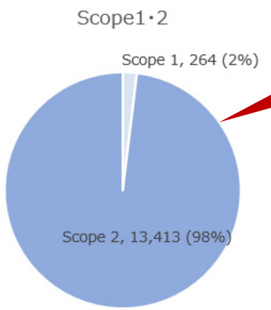
IIJ's initiatives for carbon neutrality: Information Disclosure based on the TCFD (*1) Recommendations

Policy for Greenhouse Gas Reduction Initiatives at IIJ's Own DCs

https://www.iij.ad.jp/en/sustainability/materiality01/climate/tcfd/

IIJ Group contributes to reducing greenhouse gas emissions in society by improving the efficiency of social activities through network-related services and by providing cloud services that enable resource sharing. However, electricity consumption is essential for delivering these services. IIJ recognizes the importance of reducing greenhouse gas emissions at its own DCs, which account for about 90% of total electricity consumption, through the "use of renewable energy(*2)" and "improved energy conservation."

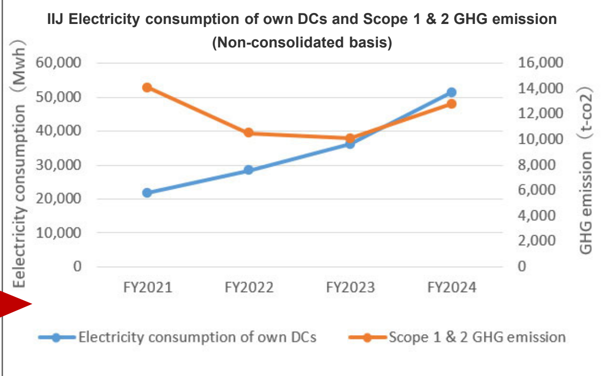
Measures	Targets	FY2024 results
Usage of renewable energy	The target is to increase the renewable energy usage rate of DCs (Scope 1 and 2(*2)) to 85% in FY2030.	55% (Matsue DC has continued to achieve 100% renewable energy utilization)
Improvement of energy conservation	The target is to keep the PUE(*3) of the DC at or below the industry's highest level(*4) until FY2030 through continuous technological innovation.	Matsue DCP: 1.34, Shiroi DCC: 1.32 (Continued to achieve industry's highest level PUE of 1.4 or lower).



FY2024 Greenhouse Gas Emissions
(Unit: t-CO_2)

Over 90% of the greenhouse gas emissions generated by IIJ come from its DCs.

Due to business expansion and the consolidation of DCs, IIJ's electricity consumption at its own DCs in FY2024 increased by 42% compared to the previous year. Meanwhile, through 100% renewable energy at Matsue, the use of non-fossil certificates, and energy-saving measures, the increase in greenhouse gas emissions was limited to 27%.



(*1) TCFD: Task Force on Climate-related Financial Disclosures
(*2) Renewable energy: Including substantial renewable energy through the use of non-fossil fuel certificates
(*3) Scope 1 and 2 (Greenhouse gas emissions by a company): Direct emissions from the use of fuels and industrial processes at the company and indirect emissions from the use of electricity and heat purchased by the company (as defined by the GHG Protocol)
(*4) PUE (Power Usage Effectiveness): Total DC facility energy usage divided by IT equipment energy usage
(*5) Industry's highest level PUE: PUE 1.4 or lower (As of March 31, 2025, the Agency for Natural Resources and Energy has set a benchmark index and target level of PUE as 1.4 or lower in the DC sector, and operators that achieve this are considered excellent energy conservation operators.)

Realization and Future of Carbon Neutral DCs

Leveraging DC resources to create new value to customers and society

Traditional DCs

- Off-site fossil fuel-derived electricity
- Power generator + UPS
- Air conditioning equipment

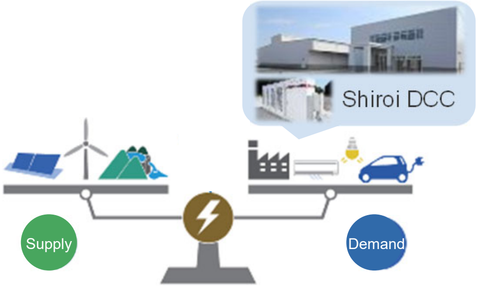
IIJ Carbon Neutral DCs

- Off-site renewable electricity
  - Non-fossil certificate
  - PPA, Self-consignment
- On-site renewable electricity
- Power generator + UPS
- Large capacity battery
- Outside-air cooling systems
- IT demand controls

Matsue DCP
Achieved 100% renewable energy (via non-fossil certificates) On-site Solar Power: 293 kWp

Shiroi DCC
On-site Solar Power: 336 kWp

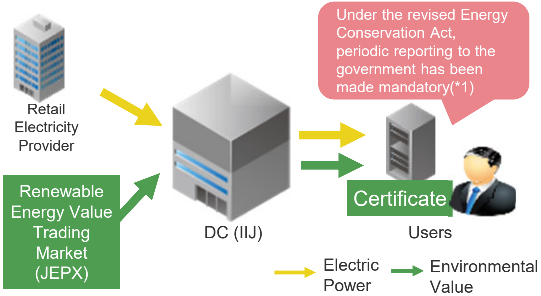
Jul. 2022
Contributing to the stability of the power market as a VPP (Virtual Power Plant)



Reference: Press Release (Jul. 28, 2022): IIJ to Participate in "Virtual Power Plant (VPP)" Project of Kansai Electric Power https://www.iij.ad.jp/en/news/pressrelease/2022/0728.html

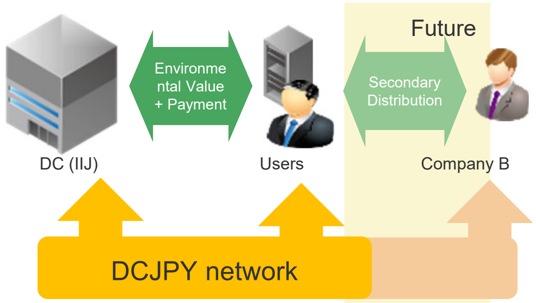
Source: Agency for Natural Resources and Energy Website
https://www.enecho.meti.go.jp/category/saving_and_new/advanced_systems/vpp_dr/about.html

Oct. 2023
Started proxy procurement of non-fossil certificates to support customers in achieving decarbonization



(*1)https://www.enecho.meti.go.jp/category/saving_and_new/saving/enterprise/factory/faq/pdf/a1-18.pdf
Agency for Natural Resources and Energy: Key Points Regarding Periodic Reporting under the Energy Conservation Act — Inclusion of IT Equipment Energy Usage by Tenant Businesses (May 2023)

Aug. 2024
Promoting customers' GX/DX through the digital assetization of environmental value and integration with digital currency settlement



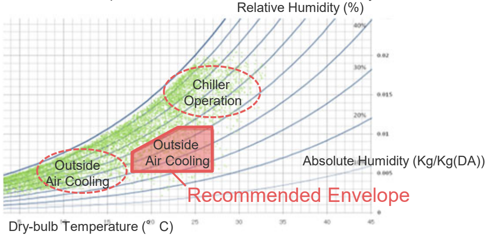
Energy-saving initiatives

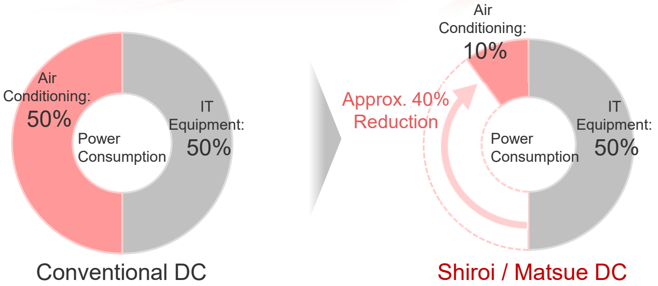
By adopting an outside-air cooling method, we achieved approximately 40% reduction in power consumption compared to conventional air-conditioning systems

Compliant with ASHRAE TC9.9 2008 edition

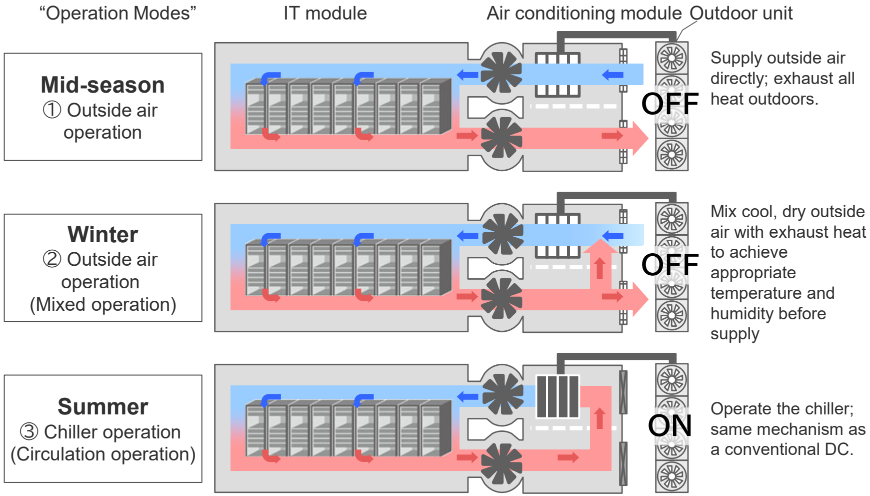
For two-thirds of the annual operating time, outside air is utilized, and the temperature and humidity at the server air intake are controlled within the Recommended Envelope

*Green dots represent observed values in Matsue City





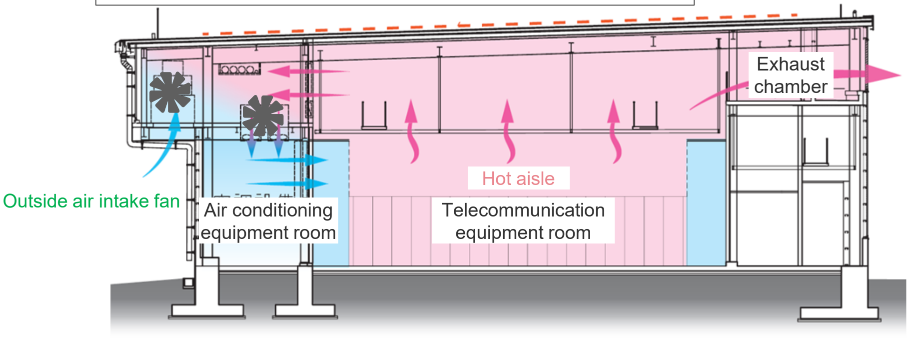
Air Conditioning Method for Container-Type DC (Matsue DCP)



Air Conditioning Method for System Module Building (Shiroi DCC / Matsue IDCP)

Leveraging Direct Outside Air Cooling Technology Developed in Container-Type DCs

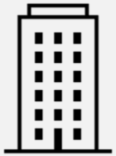
Winter: Airflow Diagram for Outside Air Operation (Mixed Operation)



Gradually Increasing the Share of Highly Additional Renewable Energy

Step1. Improving Early Renewable Energy Ratio through Use of Non-Fossil Certificates and Green Power Certificates

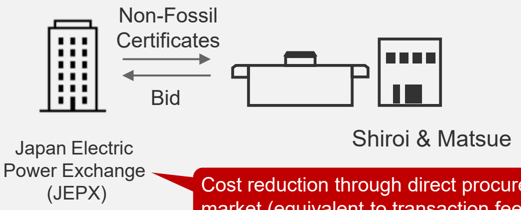
Matsue DCP: Achieved 100% renewable energy ratio in Apr. 2022



Retail Electricity Provider

Shiroi DCC began direct procurement of electricity using non-fossil certificates from FY2023

Matsue DCP began direct procurement of electricity using non-fossil certificates from FY2024



Cost reduction through direct procurement from the market (equivalent to transaction fees)

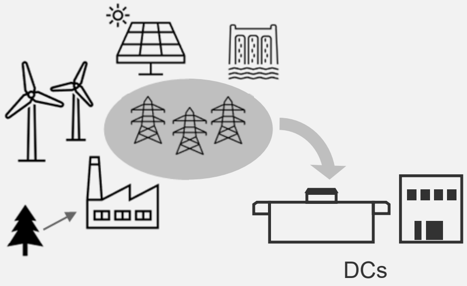
Step2. Increasing the Share of Highly Additional Renewable Energy and Stabilizing Renewable Energy Costs

Shiroi DCC installed on-site solar power in Feb. 2023

Matsue DCP installed on-site solar power in Mar. 2023

Highly cost-effective, but can only cover a few percent

Considering Off-site PPA* (including self-consumption) for renewable energy power supply



*Power Purchase Agreement (PPA): A contract for electricity sales between the electricity consumer (demand-side) and the power supplier (PPA provider) that sells electricity to the consumer

Internet Initiative Japan

The internet started in Japan in 1992, along with IIJ. Since that time, the IIJ Group has been building the infrastructure for a networked society, and with our technical expertise, we have continued to support its development. We have also continued to evolve our vision for the future and innovate to make it a reality. As an internet pioneer, IIJ has blazed the trail so that others could realize the full potential of a networked society, and that will never change. The middle "I" in "IIJ" stands for "initiative," and IIJ always starts with the future.