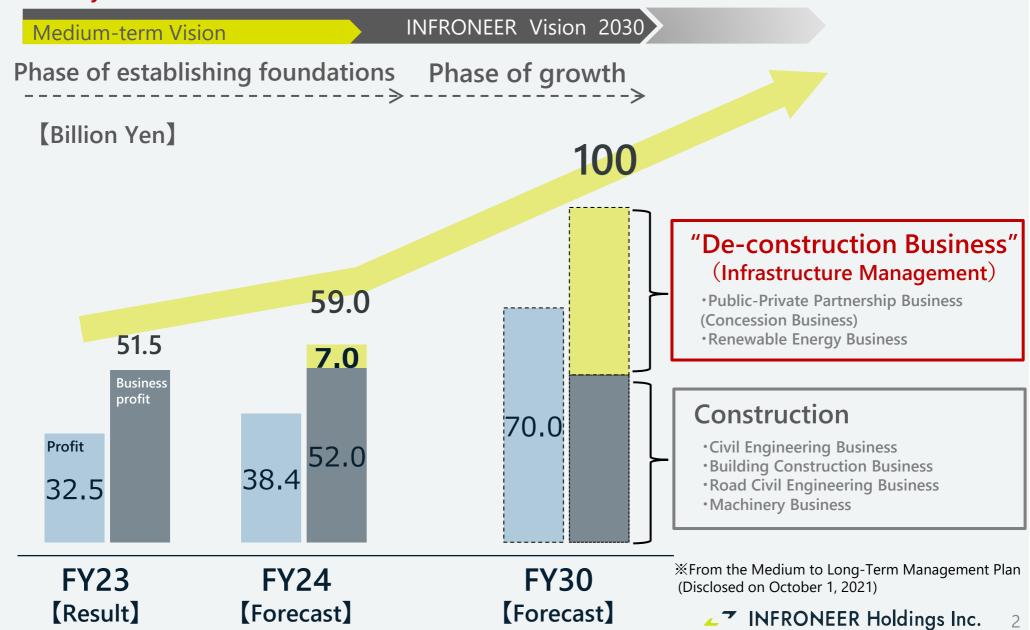
# INFRONEER Holdings Inc 2nd IR DAY 2024

January 23, 2025

# On the occasion of IR DAY - The Vision INFRONEER Aims For -

## Goals Until 2030 (Medium to Long-Term Management Plan)

Expand the Infrastructure Management Business to Achieve an Operating Profit of 100 Billion Yen by FY30.



The key to achieving an operating profit of 100 billion yen is rule change.

- INFRONEER focuses on value to maximize returns.
- The key to value-driven business is rule change, such as in the arena/stadium business and water business.
- To accelerate management speed, delegation of authority is essential.
- We will thoroughly deepen and explore investment opportunities and actively pursue M&A
- Capital and return policies support investments and M&A activities.

## From Cost-Driven to Value-Driven Thinking.

## **Engineering Approach**

- ·Create opportunities by leveraging existing regional networks.
- ·Reduce operational risks through precise cost management.

## **Cost Focus**

Further Strengthening of the Revenue Base through

Construction

# Positive Cycle

## **Value Focus**

Expanding New Revenue Bases through

"De-Construction Business"

Comprehensive Construction Services Including Development, Investment, Operation, and Sale

# Making the Difference Through a "De-Construction" Way of Thinking

- •Shift to a proposal-based manufacturing approach from the perspective of business owners.
  - •Enable technical demonstrations in operating infrastructure facilities.

# Future Market Outlook and Business Models/Strategies

- 1. Arena and Stadium Business
- 2. Water Business
- ③. Renewable Energy Business

## Social Issues Surrounding Infrastructure.

Issue ①Decline in the working-age population.

Issue ②Aging population.

Issue ③Intensification of natural disasters and rapid deterioration of infrastructure.



Decrease in tax revenue.



Increase in social security costs.



Enormous costs incurred for seismic retrofitting and maintenance/repairs.

Due to financial difficulties, budgets for new infrastructure construction, maintenance, and renewal are decreasing.

## At this rate, it will become impossible to properly maintain and manage infrastructure.



Collapse of the Rokudo Water Pipe Bridge in Wakayama City resulted in water outages for about 60,000 households



Reiwa Year 6 Noto Peninsula Earthquake resulted in water outages for about 140,000 households

**Utilization of Public-Private Partnerships.** (PPP/PFI)

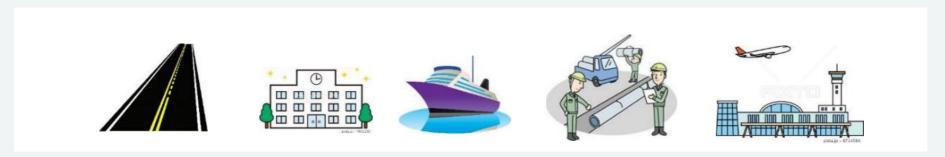
Infrastructure management solely by local governments is reaching its limits.

Leveraging <u>private capital</u>, <u>technology</u>, <u>and expertise</u> is essential.

## **Public-Private Partnerships (PPP/PFI)**

(Concession model, performance-based model, comprehensive management outsourcing, etc.)

The concession model, which involves obtaining operational rights for infrastructure with toll collection, offers the highest degree of freedom and revenue potential.



Many infrastructures such as airports, roads, water and sewage systems, MICE facilities, and ports are targeted.

## What is Public-Private Partnership?

The Private Finance Initiative (PFI) is a method that utilizes private sector funds, management capabilities, and technical expertise to design, construct, maintain, and operate public facilities and other infrastructure.

\* The diagram below is for illustrative purposes, and actual details may vary

depending on the specific case or situation. **Private** private sector **PPP** (Public-private partnership) Public-private partnership development PFI project Revenue-Asset ownership generating Revenue-Service Concession facility cogenerating purchase location model model model Utilization of public spaces Comprehensive Designated private manager outsourcing Regular public sector project **Private** Public **Business operations** 

# Public-Private Partnership Project PPP/PFI Promotion Action Plan. (Major Revisions for FY 2022-2024)

• The action plan establishes an implementation plan that includes targets for business scale, the establishment of priority areas, and initiatives to promote PPP/PFI, as decided by the Promotion Council for Private Finance Initiative based on the PFI Act and announced by the Cabinet Office's PPP/PFI Promotion Office.

Five-Year Project Count Target - R4 Action Plan (Target: FY 2022-FY 2026)			
Focus Are	A target number of projects to be materialized over five years.	Target Facilities/ Type of Contract	
Airport	3	Concession	
Water Suply	5	Concession, etc.	
Sewage System	6	Concession	
Road	7	PPP/PFI such as concessions in Bus Terminals	
Sports Facilities	10	Concession	
Cultural and Social Education Facilities	10	Concession, etc.	
University Facilities	5	Concession, etc.	
Park	2	Concessions in parks with set fees for use	
MICE Facilities	10	Concession	
Public Housing	10	Concession, profitable business, Public Real Estate Utilization	
Cruise Ship Terminals	3	Concession	
Public Hydropower Generation	3	Management style examination of public enterprise bureaus	
Industrial Water Supply	3	Various PPP/PFI including concessions	
Self-Defense Force Facilities (New)	20	A comprehensive combination of PFI, ECI, and other private sector outsourcing	
Total	77→97		

Ten-Year Project Count Target - R5 Action Plan (Target: FY 2022-FY 2031) *Revised Edition for FY 2024			
Focus Area	Aiming to materialize a number of projects over ten years.	Target Facilities/ Type of Contract	
Airport	10	Concession	
Water Suply	100	Water PPP	
Sewage System	100	Water PPP	
Road	60	PPP/PFI in the entire road sector (including collaboration with other sectors), including Bus Terminals	
Sports Facilities	30→ <mark>40</mark>	Concession	
Cultural and Social Education Facilities	30→ <mark>35</mark>	Concession, etc.	
University Facilities	30→ <mark>40</mark>	Concession, PPP/PFI	
Park	Private-sector utiliz including concession entire park sector		
MICE Facilities	30	Concession, PPP/PFI	
Public Housing	100	Concession, profitable business, Public Real Estate Utilization, PFI	
Cruise Ship Terminals	10	Concession and International Passenger Ship Base Formation Port System	
Public Hydropower Generation	20	Management style examination of public enterprise bureaus	
Industrial Water Supply	Various PPP/PFI include Water PPP		
Self-Defense Force Facilities (New)	50	A comprehensive combination of PFI, ECI, and other private sector outsourcing	
Total	575→ <mark>650</mark>		

## Arena and Stadium Business: Market Overview - Part 1

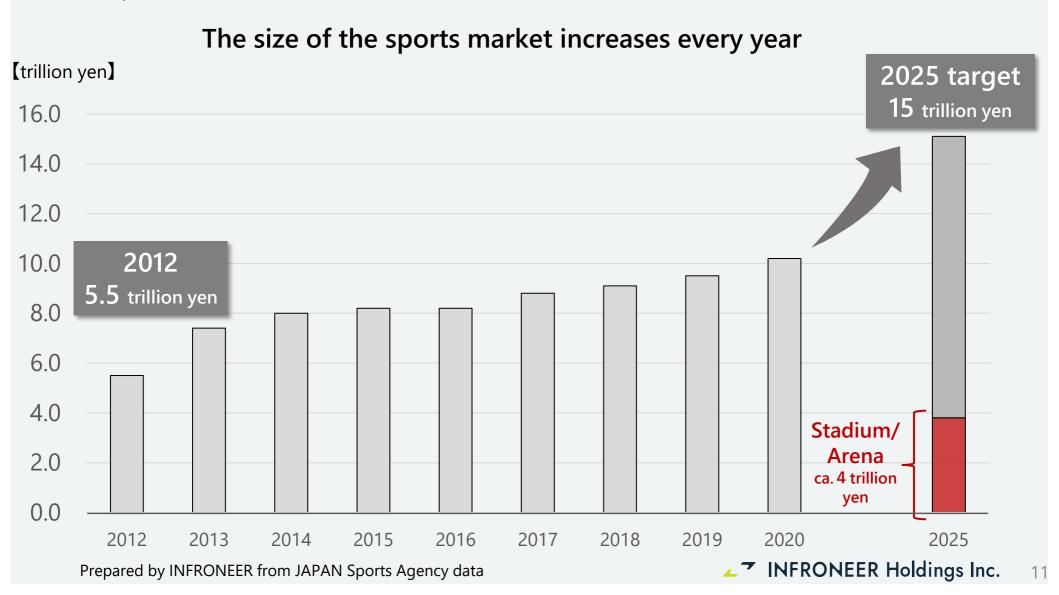
Source: Japan Sports Agency (https://www.mext.go.jp/sports/b\_menu/sports/mcatetop02/list/1384234.htm)

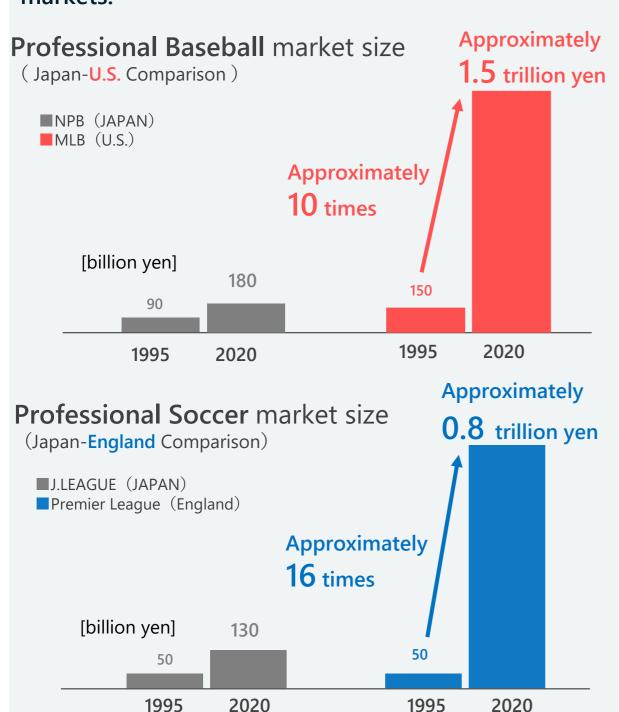
Increased consideration for BT + concessions as the government promotes stadium/arena reform as a catalyst for regional revitalization. BT + Concession: In addition to design and construction of public facilities, operation through concession method R Concession: Rehabilitate and operate by concession method **■**Akita Gymnasium ■ : Arena · Gymnasium (54 cases) ■Hokkaido sports center ■Aomori Arena Blaublitz Akita Stadium Stadium · Ball field (42 cases) ■Sapporo ice skating rink **\*\*Blue indicates PPP such as BTO and** ■Sapporo Dome area Iwate Bank Stadium Montedio Yamagata Stadium Concession **■Otaru Gymnasium** ■Toyama Arena R Concession by INF Group Xebio Arena Sendai ■Toyama Martial Arts Stadium Vegalta Sendai Stadium ■Hokkoku Bank Arena •Kanazawa Go Go Curry Stadium ■Shinshu Brave Warriors Arena **■**Koriyama Arena ■Nagano Gymnasium •Iwaki FC Stadium ■Okayama Arena Fukui Arena Matsumoto Yamaga Stadium Fukushima Stadium ■Moriguchi Gymnasium **■**Utsunomiya Brex Arena ■Fujiidera Gymnasium ■Shimane Susanoo Magic Arena ■Expo memorial Park Station Arena ■Izumo Gymnasium Kashima Antlers Stadium Nankadai Stadium Mito Holly Hock Stadium ■Kyoto prefectural ■Hiroshima Dragon Fllies Arena ■Tottori · Yonago Gymnasium University Arena ■Yono Central Park Arena Edion Peace Wing Hiroshima ■Koshigaya Arena Fukuyama Sports Park Omiya Ball Park **■Onda Sports Park** ■ LaLa arena TOKYO-BAY ■Shimonoseki Gymnasium Chiba Marines Stadium Renofa Yamaguchi Stadium ● The Japan National Stadium Concession by INF Group ■Setagaya Gymnasium **■Omuta Arena** ■ TOYOTA ARENA TOKYO Nara club Stadium Shin Chichibunomiya Rugby field **■**Kagawa Gymnasium ■ Nagasaki Stadium TOKYO GIANTS TOWN ■Tokushima Gymnasium Edogawa Track and Filed Stadium BT+ Concession by INF Group ■Aichi Arene ■Kumamoto Volters Arena ■Tokushima Arena Katsushika Stadium Seas horse Mikawa Arena Jingu BALL PARK ■Toyohashi Arena BT+ Concession by INF Group Athlete Town Nobeoka Arena Nankatsu SC Stadium Suzuka sanjumaru Sqtadium ■Hisaya-odori park south area Arena Mie Soccer Association Stadium Miyazaki track and filed Stadium ■ Fighting Eagles Arena Paloma Mizuho Stadium Kawasaki Stadium ■Kagoshima Gymnasium ■Higashi Shizuoka Arena Miyoshi Sports ground ■ ●Todoroki Arena Kagoshima Stadium ■ Hamamatsu Arena ■YOKOHAMA BUNTAI Azul-Claro Numazu Stadium ■Nishinomiya central park ■Kawasaki Arena Shimizu S-Pulse Stadium ■Kobe Arena **■**Uruma Arena ■Fujisawa Gymnasium ■Tegarayama central park Hamamatsu Stadium Sagamihara Stadium Okinawa Stadium **Gymnasium** • Fujieda Stadium Shonan Stadium Tomigusuku Track and Field Stadium Hanshin Tigers Farm

(Information as of January 2024) Created by INF from the materials

## Arena and Stadium Business: Market Overview - Part 2

- The government aims to turn the sports market into a growth industry, targeting a market size of 15 trillion yen by 2025
- About 4 trillion yen of the 15 trillion yen comes from stadium/arena measures, which is positioned as an important measure.





In almost 30 years, the gap in the sports market between Japan and the West

# has grown substantially.

In the West, sports have become industrialized.

- Huge broadcasting rights fees
- Digitalization of Ticket Sales
- Effective use of stadiums/arenas
- Naming rights and other advertising fees

% Prepared by INFRONEER from J.LEAGUE disclosure materials and Forbes and other sources.



## Arena and Sports Business: INFRONEER Group Case Example

• Implemented as a BT+Concession model, where private entities handle everything from design to operation of public facilities.

## **Development and Operation of Aichi** Prefecture's New Gymnasium.Project

Operator	Aichi International Arena Co., Ltd		
Constituent companies	Maeda Corp. (54.1%) NTT DOCOMO, INC (24.1%)  "Design and Construction Phase"  *During the operation phase, the ownership and management are divided as follows: NTT DOCOMO, INC (51.1%), Maeda Corporation (27.1%), ASH (10%), SMFL (5%), Tokyu (2%), CBC (1.9%), DBJ (1.9%), and C&W (1%).		
Work content	The design, construction, maintenance, and operation of the new Aichi Prefecture Gymnasium.		
Period	(Operation Period) From April 2025 for 30 years		

Leverage Effect through **Operational Rights Payments** (Private Funding)

40 billion yen



**Operational Rights Payments** (Private Funding) 20 billion yen



Surrounding Restaurants

**Project Duration** 

30 years





Concerts





**Professional** Basketball

20 billion yen



**Arena Development Cost** Borne by Aichi Prefecture Global standard facilities

Ceiling height

(Usually about 20m in Japan)

Maximum capacity 17,000 people

Partnerships with worldclass companies

Cooperation with AEG.

Ownership of artist's performance rights and sports teams **Event planning** Facility development and management, etc. **Numerous achievements** 

Revenue from naming rights

Largest scale in Asia For 10 years since 2025

JAPAN Approx. 500-600 million yen per year in high-cost cases

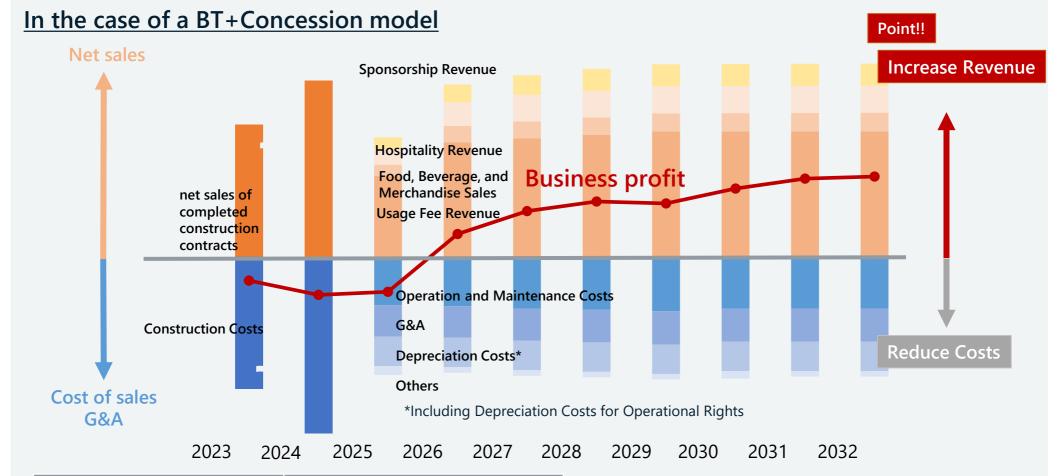
Approx. 4 billion yen/year in some cases

Quality hospitality services

40 suites and premium lounges

## **Arena and Stadium Business Model (IG Arena Concept)**

- ✓ Enhancing profitability by designing and constructing attractive facilities for promoters and audiences.
- ✓ Maximizing sponsorship and hospitality revenues through high-quality facilities and enriched content.
- ✓ Continuously incorporating the latest global insights to further increase revenue.



Our Projects	Operational Rights Payments	
Aichi Prefecture New Gymnasium	20 billion yen	
New National Stadium	52.8 billion yen	

# Our company's aim

- ✓ Pioneering the arena and stadium business, which is expected to expand nationwide in Japan.
- ✓ Utilize the arena and stadium as a foothold to build regional networks and operate infrastructure in each area.

## Ecosystem for regional revitalization using Stadiums/Arenas as a catalyst

Providing knowledge and structuring projects in line with local government needs

Conducting sales activities and construction of facilities in cooperation with local companies



Utilize the established local network for infrastructure operations

Creating a lively community with the Stadium/Arena at its core

Type 1: Metropolis × Global·Large-scale events

### **National Stadium Concession**



Renovation	Apr. 2024 to Dec. 2024 (Under discussion)
Management	Apr. 2025 to Mar. 2055 (30 years)

## Type2: Metropolitan area × Domestic· Mid-scale events

### **Toyohashi Arena Concession**



Construction	Sep. 2025 to Jun. 2027
Management	Oct. 2027 to Sep. 2057 (30 years)

## $\textbf{Type3:Local area} \times \textbf{Community-based}$

## Toyama city Gymnasium Renovation-Concession



	Oct. 2024 to Sep. 2026
Management	Oct. 2026 to Sep. 2039 (13 years)

## Need to change the rules, not get stuck in conventional thinking.

## **Past**

- Government-led development
- Priority on community health
- Minimum required maintenance
- Focus on amateur sports
- Focus on Public

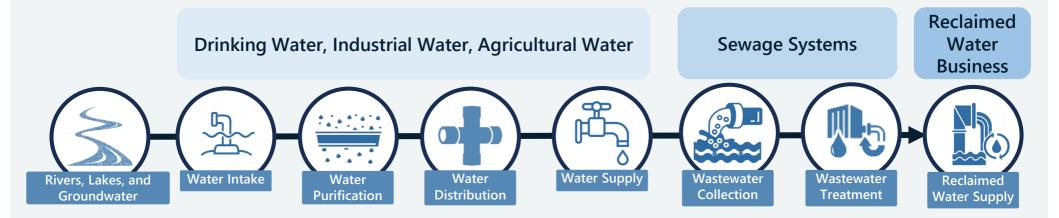
## **Future**

- **PPP** development
- Priority on local economic revitalization
- **Pursuit of entertainment**
- Focus on Professional sports
- Focus on profitability

# Future Market Outlook and Business Models/Strategies

- 1. Arena and Stadium Business
- 2. Water Business
- ③. Renewable Energy Business

• The "water" business encompasses various sectors beyond just the familiar water supply and sewage systems, such as industrial water, agricultural water, and reclaimed water.



Drinking Water, Industrial Water, Agricultural Water

The business of supplying potable and domestic water to households, commercial establishments, and industrial facilities.

**Sewage Systems** 

The business of collecting and treating sewage generated in urban areas, minimizing environmental impact.

Reclaimed Water
Business

The business of treating domestic and industrial wastewater into reusable water, supplying it for agricultural and industrial purposes.

# Regional environmental changes including stagnation of the regional economy.

# Business Environment Changes: Declining birthrate, aging population, and decreased demand.

# External environmental changes : such as large-scale rainfall events.

# Organization and Human Resources

- ✓ Chronic shortage of personnel with the appropriate skills.
- ✓ Public business structures with unclear management responsibilities, leading to weak governance.

# Assets and Operations

- ✓ Formulation and execution of appropriate renewal plans for aging facilities.
- Addressing disaster preparedness, environmental initiatives, and cybersecurity.
- ✓ Disparities in usage fees among municipalities, affecting the financial status and pricing of **smaller municipalities**.

## Financial Management

- ✓ Reduced demand due to declining birthrate, aging population, and water conservation.
- ✓ **Significant increases in user fees** to cover asset maintenance costs, including renovations and upgrades.
- ✓ Disparities in usage fees among municipalities, affecting the financial status and pricing of smaller municipalities.

# Social environmental changes: such as the adoption of SDGs and carbon neutrality initiatives.

Regardless of the size of each city, challenges related to "people, goods, and money" are becoming more severe.

Based on the government's promoted action plan, an acceleration of concessions and similar initiatives is anticipated.

INFRONEER Holdings Inc.

## PPP/ PFI Promotion Action Plan (Major Revisions for FY 2022-2024)

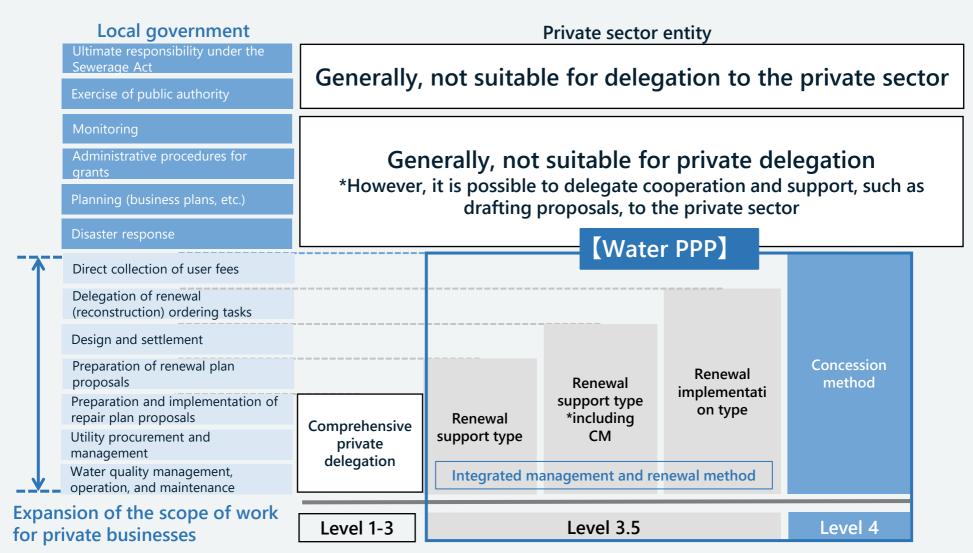
Water Business

• The action plan establishes execution plans for setting business scale targets, priority areas, and initiatives to promote PPP/PFI. (Decided at the Council for Promotion of Private Finance Initiative based on the PFI Law, announced by the Cabinet Office PPP/PFI Promotion Office)

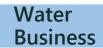
The 5-year project count goal is specified in the FY22 Action Plan, targeting the period from FY22 to FY26.			
Focus Are	A target number of projects to be materialized over five years.	Target Facilities/ Type of Contract	
Airport	3	Concession	
Water Suply	5	Concession, etc.	
Sewage System	6	Concession	
Road	7	PPP/PFI such as concessions in Bus Terminals	
Sports Facilities	10	Concession	
Cultural and Social Education Facilities	10	Concession, etc.	
University Facilities	5	Concession, etc.	
Park	2	Concessions in parks with set fees for use	
MICE Facilities	10	Concession	
Public Housing	10	Concession, profitable business, Public Real Estate Utilization	
Cruise Ship Terminals	3	Concession	
Public Hydropower Generation	3	Management style examination of public enterprise bureaus	
Industrial Water Supply	3	Various PPP/PFI including concessions	
Self-Defense Force Facilities (New)	20	A comprehensive combination of PFI, ECI, and other private sector outsourcing	
Total	<b>77</b> → <b>97</b>	Concession	

The 10-year target for the number of projects is outlined in the FY23 Action Plan, covering the period from FY22 to FY31, as per the revised edition of 2024.			
Focus Area	Aiming to materialize a number of projects over ten years.	Target Facilities/ Type of Contract	
Airport	10	Concession	
Water Suply	100	Water PPP	
Sewage System	100	Water PPP	
Road	60	PPP/PFI in the entire road sector (including collaboration with other sectors), including Bus Terminals	
Sports Facilities	30→40	Concession	
Cultural and Social Education Facilities	30→ <mark>35</mark>	Concession, etc.	
University Facilities	30→ <mark>40</mark>	Concession, PPP/PFI	
Park	30	Private-sector utilization including concession in entire park sector	
MICE Facilities	30	Concession, PPP/PFI	
Public Housing	100 Concession, profitable by Public Real Estate Utiliza		
Cruise Ship Terminals	10	Concession and International Passenger Ship Base Formation Port System	
Public Hydropower Generation	20	Management style examination of public enterprise bureaus	
Industrial Water Supply	25	Various PPP/PFI including Water PPP	
Self-Defense Force Facilities (New)	50	A comprehensive combination of PFI, ECI, and other private sector outsourcing	
Total	575→ <mark>650</mark>	Concession	

• "Water PPP" refers to a public-private partnership model aimed at gradually transitioning to a concession system for water supply, sewage, and industrial water systems. It involves integrated management of operations and renewal under long-term contracts. Starting from FY27, local governments must have decided to implement "Water PPP" as a condition to receive grants for the reconstruction of sewage pipelines.



## Introduction of Our Company's Cases in the Water Business.



## Osaka City's Specific Operation Project for Industrial Water Supply

**POINT** 

✓ Promoting the development and implementation of operational systems and technologies that contribute to the efficiency of concession projects and other operations.

Client	Osaka City Waterworks Bureau			
Operating company	Miotsukushi Industrial Water Concession Corporation			
Constituent companies	Maeda Corp. (71%), Nippon Koei (25%), NTT West (3%), Toshiba Infrastructure Systems (1%)			
Period	April 2022 - March 2032 (10 years)			
Target	Water Intake and Purification  Facility Operation Managem ent Water Quality Manage ment  Operation Managem ent Water Quality Manage ment  Subcontracted to Osaka City  Water Distrib ution Customer Service  Service Pipeline Manage ment			

■Osaka City Industrial Water Supply Area



■ Breakdown of Distribution Pipeline Length

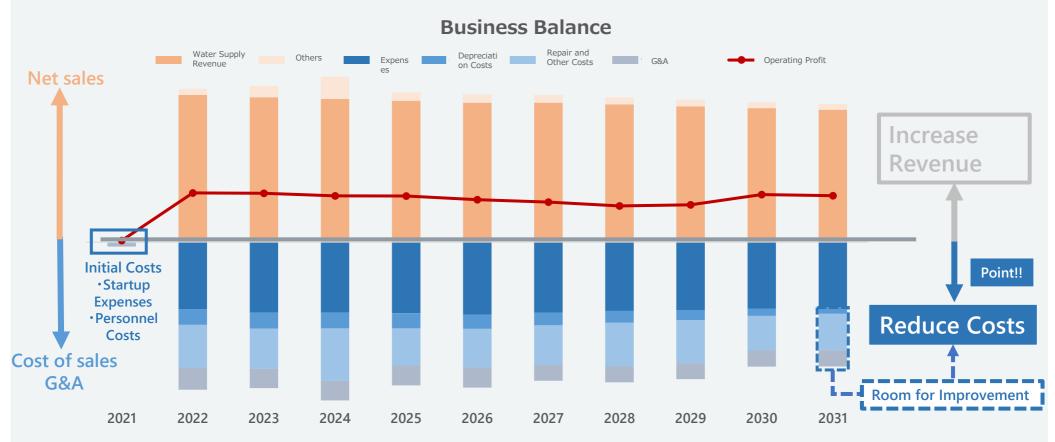
Work content	<ul> <li>Supply and management of industrial water, etc.</li> <li>Management and operation of water purification and distribution facilities</li> <li>Management and operation of pipelines (maintenance and renewal)</li> <li>Customer service</li> <li>Response to disasters and accidents</li> </ul>

Distribution Pipe Diameter	Before 1980	After 1981	Total
Large Diameter (Ф800and above)	49 km	3 km	52 km
Medium Diameter (Φ400~Φ800)	92 km	21 km	113 km
Small Diameter (Less than Φ400)	89 km	37 km	126 km
Total	230 km	60 km	290 km

## Business Model of the Project (Case of Osaka Industrial Water)



- A business with stable revenue prospects
- Key to reducing costs (repair costs and general administrative expenses) through efficient management and operations
- Aiming to expand revenue in the future by establishing a centralized management system across multiple regions



Our Projects	Initial Investment	Operating Profit
Osaka City Industrial Water Supply Specific Operation Project	12 million yen	620 million yen (over 10 years)
Miura City Public Sewerage (Eastern Treatment District) Operation Project	10 million yen	280 million yen (over 20 years)

Others: Contracted construction revenue, etc.

Major Expenses: Sewerage Law Article 20 Charges (usage fees to the city)Costs related to facilities not subject to operational rights (facility operation costs to the city)

Both projects are the first model projects of their kind in Japan. We anticipate accumulating technology and know-how to expand future project acquisitions.

## Opportunities for cost reduction (engineering approach) 1



Aim to achieve cost reduction and expand profitability through the following measures.

## Reduction of Power and Chemical Costs Based on Data Management. Reduction in Personnel Through Remote Monitoring Reduction in Personnel Through Multi-Skilling (Operation Management and Reduction of Maintenance Inspection) Maintenance Costs Introduction of energy-efficient equipment through renovations and upgrades. Promotion of shared services in SPC operations. Reduction of personnel cost levels by utilizing maintenance subsidiaries through M&A. Downsizing during renovations and updates. Reduction of Promotion of in-house production and longevity (utilizing maintenance inspection data and mechanical/electrical know-how). Renovation and Renewal Prioritization based on importance (grounded in maintenance management know-how). Costs Unblocking vendor lock-in and procurement of standard products.

• Our company creates real operational efficiency improvement cases, not just on paper, in ongoing concessions, and is pioneering in accumulation and expansion ahead of other companies.

## Traditional methods by municipalities.

Case 1: Vendor lock (VL) during repairs.

•Replacing the entire system due to the failure of a single specially-processed motor in the sludge discharge valve actuator.

Case 2: Human inefficiency in administrative tasks.

•Transportation of an engine-driven device for cleaning water treatment plant sedimentation basins requires five people. Case 3: Operation management based on know-how.

•Adjustment of blowers in sewage treatment performed by a contracted company operator based on experience.

Operational efficiency improvement through MK infrastructure management.

◎ 大阪工水

Vendor lock-in release through inhouse production.

• Successfully processed and replaced a general-purpose motor at a local factory capable of special processing, releasing the vendor lock.





Efficiency improvement through the introduction of an alternative product.

 Introduced a German-made electric valve actuator that can be transported by a single person. The city also purchased the same type of equipment.

Approximately 3 million

>approximately 1 million yen

5 personnel ≥ 1 personnel





Selficiency improvement through the utilization of Power BI

 Based on operational performance, recommended values are calculated using Power BI, and operations to adjust airflow have been initiated.

## Relying on experience Utilizing data



1. Vendor lock-in: A state where customers become dependent on a provider of products or services, making it difficult to switch to other options.



## Opportunities for cost reduction (engineering approach) ③



• Considering the decline in the working-age population and fiscal challenges, automation could become the standard for water purification and treatment plants in Japan.

## Remote monitoring and operational efficiency improvements.



Establishment of an integrated monitoring center (Suez)

- Integrated monitoring of multiple water treatment plants.
- **Facilitates** benchmarking and time-series analysis among water treatment plants, enabling on-site analysis and response to reduce chemicals and electricity.
- Integrated management of procurement and quality control.

## Integrated management of pipelines



- A platform enabling remote management of pipeline networks.
- Facilitates remote data collection, time-series analysis, and real-time data analysis and management through alarm functions.
- This achieves water loss management and optimizes water supply network operations.

## **Distribution Optimization**

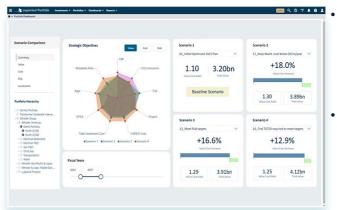


- A digital twin that comprehensively manages information on pipeline networks, GIS, water demand and usage trends, materials, and components of the distribution network.
- Supports optimization by displaying real-time simulations of water pressure fluctuations in the distribution network.



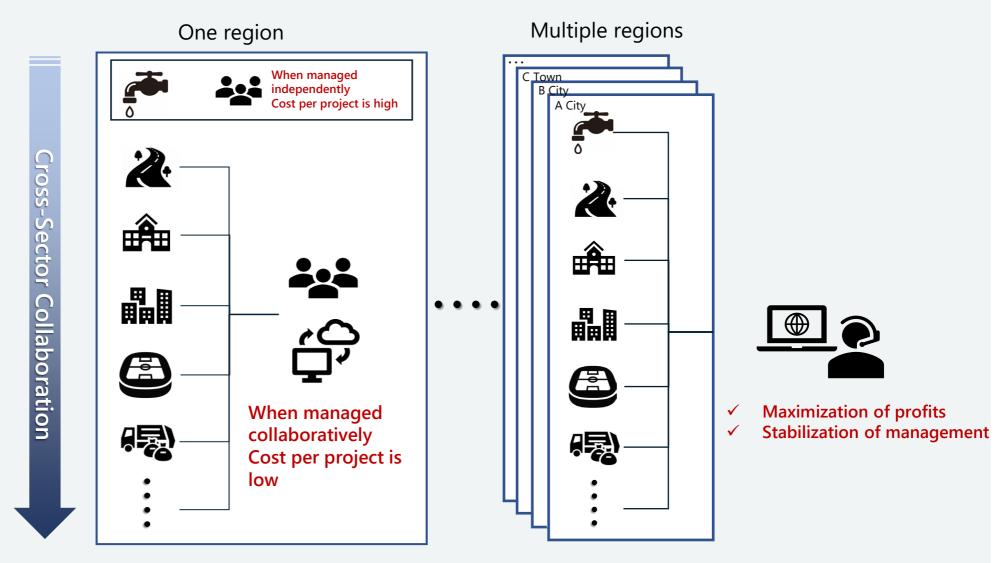


## **Optimization of Renewal and Repair Plans**



- supercomputers to comprehensively extract renewal and repair plans based on various conditions.
- Derives the optimal plan by balancing risk and cost, supporting the formulation of plans that consider budget and human resources.

- By managing multiple businesses, including water services, in an integrated manner, it is possible to reduce costs per project.
- Furthermore, by managing multiple regions collectively, additional cost reductions can be achieved, leading to the maximization of profits and stabilization of management.



Strengths of INFRONEER that other companies do not have.

## **Engineering Capability**

Cultivated in the Construction business



## **Operational Know-How**

Cultivated in "De-construction" business





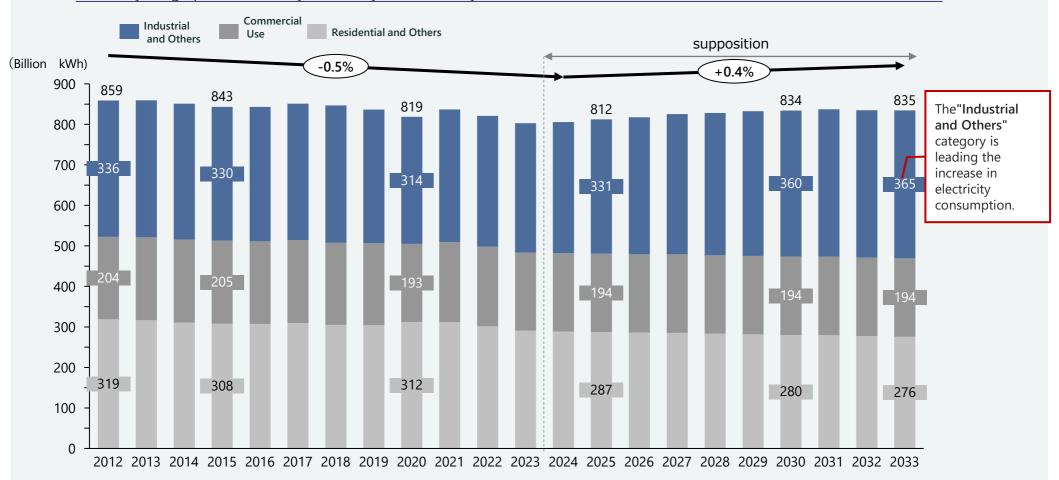
# Future Market Outlook and Business Models/Strategies

- 1. Arena and Stadium Business
- 2. Water Business
- 3. Renewable Energy Business

The demand for industrial electricity is expected to increase, primarily driven by the construction of new semiconductor factories and data centers.

Breakdown of actual and projected domestic electricity demand.

(by usage point: electricity ultimately consumed by end-users)



## Market Environment of the Domestic Wind Power Generation Business 1

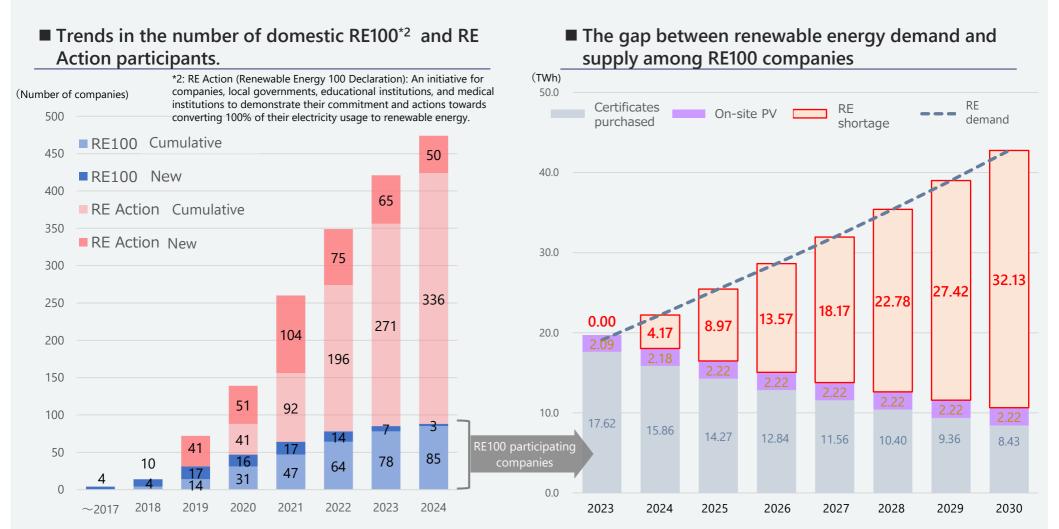
Renewable energy business

The **demand** for renewable energy sources among domestic \*1RE100 member companies is **on the rise**.

The gap between supply and demand is widening.

\*1: RE100 (Renewable Energy 100%): An international initiative aiming for companies to cover 100% of their electricity usage with renewable energy.

There is a growing need for wind power generation, which can provide 24-hour output.



Reference: Created based on the RE100 website and the Japan RE Action Council website

Source: BloombergNEF RE100 Data Viewer, Data as of May 31, 2024 (some data processed).

## Trends in domestic power generation and energy mix.

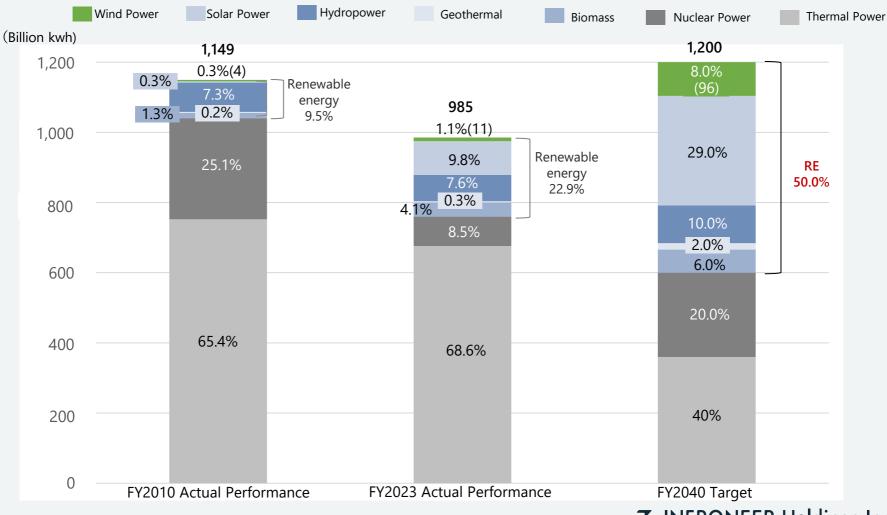
Renewable energy business

The 7th Basic Energy Plan (Draft) 2040 Target: 40-50% from renewable energy (including 4-8% from wind power).

(The 6th plan aimed for 36-38% by FY2030)

A projected 960 billion kWh, approximately 9.1 times the amount in FY2023 = about 9,000 onshore wind turbines (4MW class) and about 2,500 offshore wind turbines (15MW class).

## Domestic power source composition: Actual performance and targets



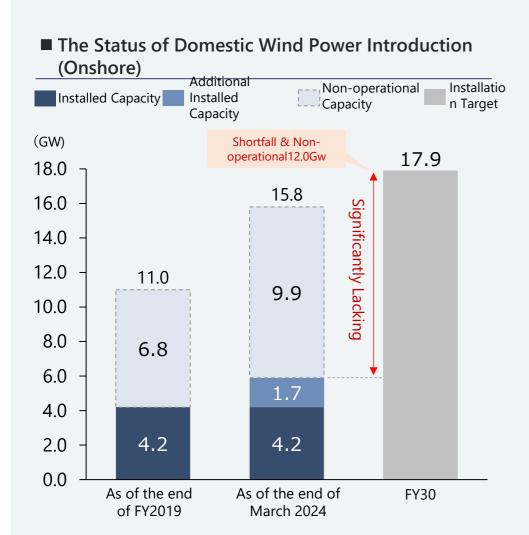
## Market Environment of the Domestic Wind Power Generation Business 2

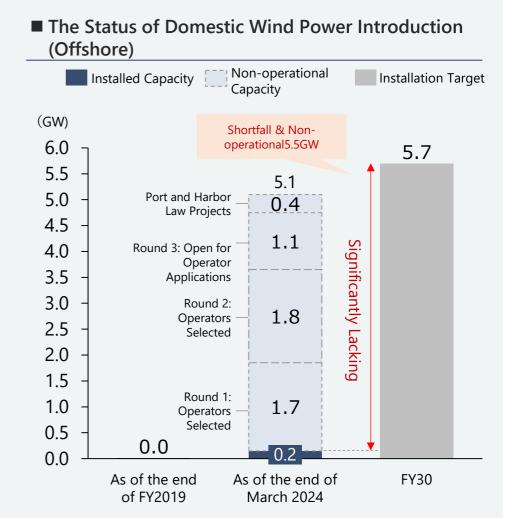
2 Renewable energy business

The introduction of wind power is significantly lacking as of the end of March 2024 compared to the 2030 target.

The gap between supply and demand is widening.

## This scarcity is increasing, leading to a further rise in its value.





Environmental changes across the industry are leading to the emergence of new revenue opportunities.

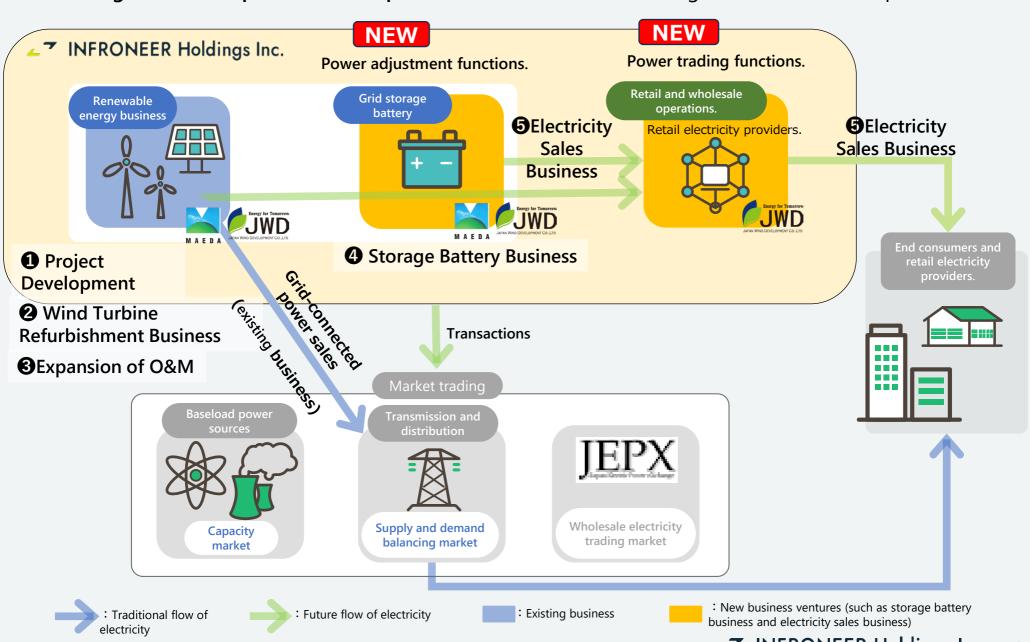
**Strategies and Approaches Current Industry Changes and Challenges Specific Measures** Market Environment The reduction of suitable Project Advanced development sites and rising development expertise and seamless costs are increasing the **Development** difficulty of development end-to-end management (Pipeline + New Projects) and construction. Leveraging **2**Wind Turbine Increasing Demand for **Leveraging O&M** Strengthening the long-Wind Power Refurbishment expertise for repowering term competitiveness of Growth in Operational Strengths existing power sources. and extended operation. **Business** Wind Power Sources Capture the need for **3** Expansion of Increase in demand for outsourcing and expand 0&M. **0&M** the O&M business. Transition to Renewable **4**Storage Entry into the grid-scale Stabilization of the power Energy as Main Power grid. battery storage business. **Business Areas Battery Business** Source **Expansion of the 5**Electricity A shift towards entrusting Diversification of distribution channel to revenue opportunities to **Electricity Trading** Sales Business include sales to end operators.

consumers.

### INFRONEER Group's electric power value chain.

Renewable energy business

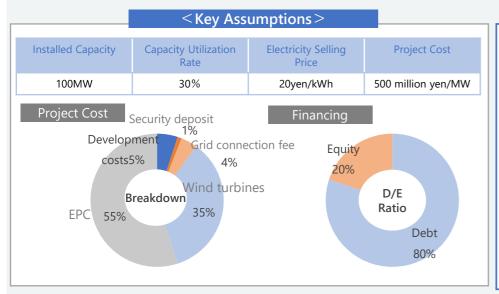
We manage the entire process from upstream to midstream, achieving efficient business operations.

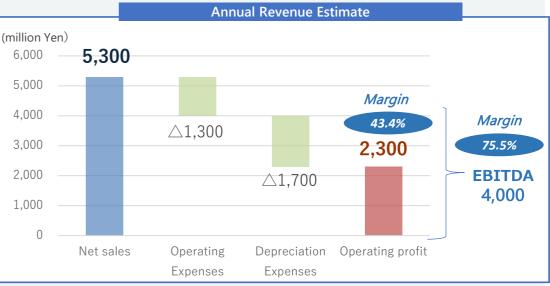


### Revenue Model Case for A Wind Power Generation Business.



Case of a 100MW Onshore Wind Farm —





 $\times$ 100 MW (100,000 kW) × 20 yen × 24 hours × 365 days × 30% (capacity utilization rate) = 5,256 million yen  $\stackrel{.}{=}$  5,300 million yen





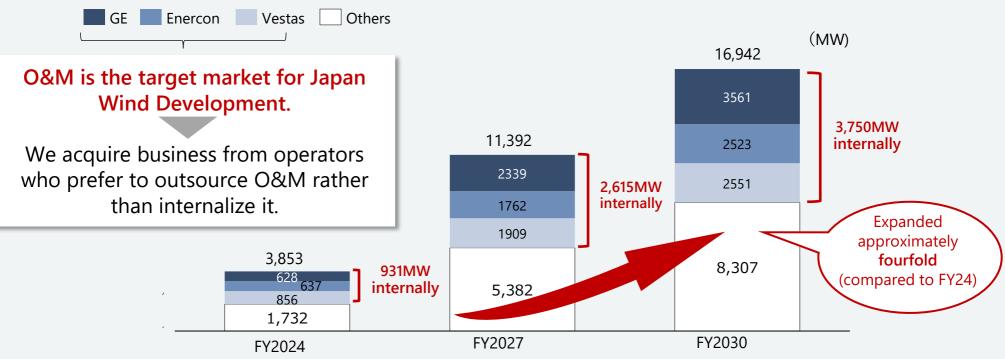
Reference: Economic Viability at the Time

### **O&M Business**



We aim to expand our business by capturing the demand for outsourcing O&M services.

■Trends in operational capacity by manufacturer in domestic onshore wind power and the target market for Japan Wind Development.



### Strategy accompanying the expansion of the O&M market.

### Expansion of business.

- Expanding the range of models handled by each wind turbine manufacturer.
- Expansion of blade repair services.



## Improving the quality of existing services.

- Advancement of blade repair technology.
- Labor-saving and advancement of maintenance technology.



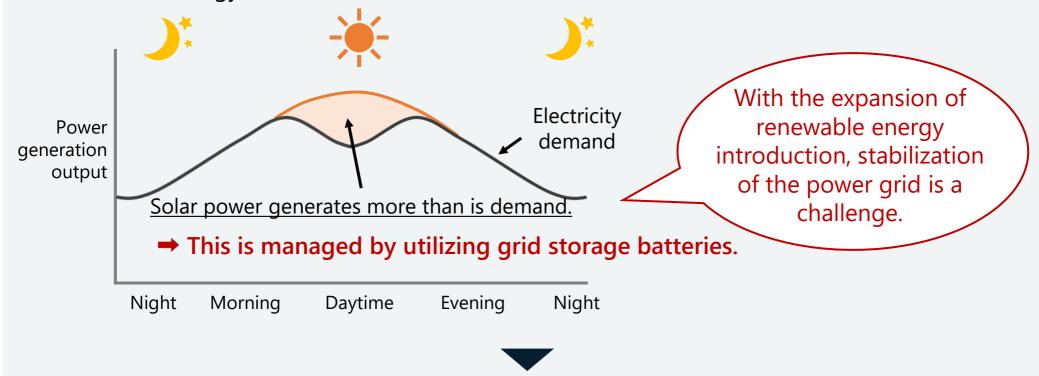
# Initiatives in the regeneration and dismantling business.

- Wind turbine regeneration business.
- Examination of wind turbine dismantling methods.

## Overview of Grid Storage Batteries.

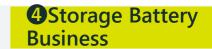


- A large storage battery directly connected to the power grid (power plants, transmission lines, substations, distribution facilities, etc.) and used for its operations.
- The main roles are **the stabilization of the power grid** and the effective utilization of renewable energy.



In the push towards carbon neutrality, the expansion of renewable energy adoption is expected to see **storage batteries as an effective supply-demand adjustment system.** 

## Market for Grid Storage Batteries.

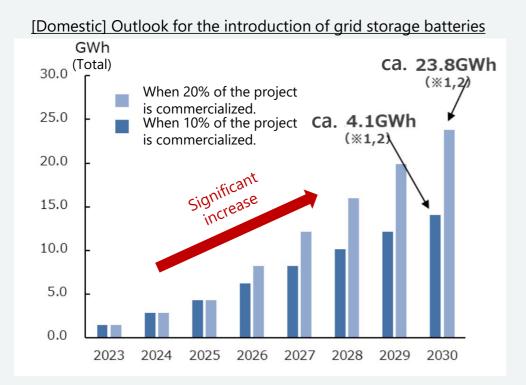


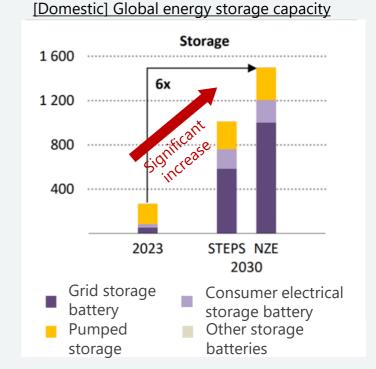
- As the adoption of renewable energy progresses, it is becoming increasingly difficult to balance supply and demand, and from this fiscal year (FY24), output control will be required across all of Japan.
- The outlook for the introduction of grid storage batteries in Japan is expected to increase significantly toward 2030.

Internationally, the storage capacity of grid storage batteries is predicted to be more than 10 times that of 2023.

Demand for grid storage batteries is increasing significantly both domestically and internationally.

The demand for supplydemand adjustment capability is increasing worldwide.





Source: Ministry of Economy, Trade and Industry (Current Status and Challenges of Grid Storage Batteries)

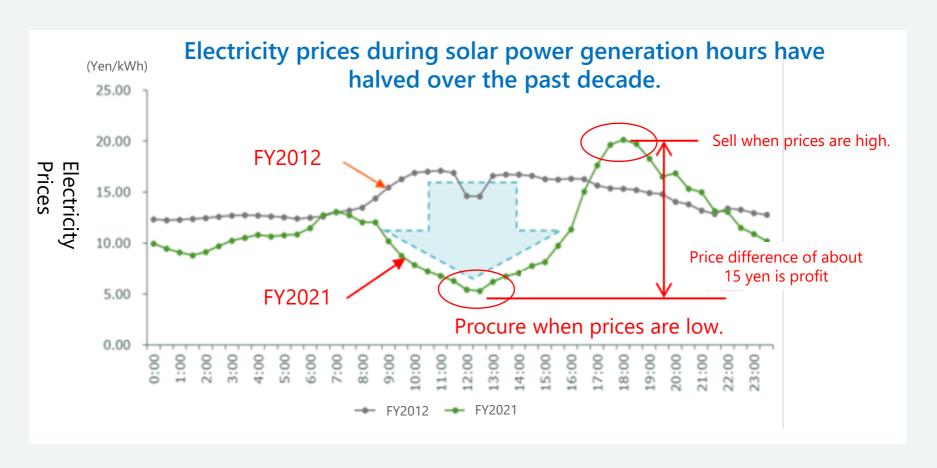
## Benefits of Grid Storage Batteries.



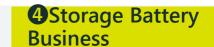
• Due to the increase in the introduction of renewable energy, electricity prices during solar power generation hours have halved over the past decade.

# With grid storage batteries, it is possible to procure electricity when prices are low and sell it when prices are high.

Comparison of Electricity Prices in the Kyushu Area on the Spot Market (FY2012- FY2021)

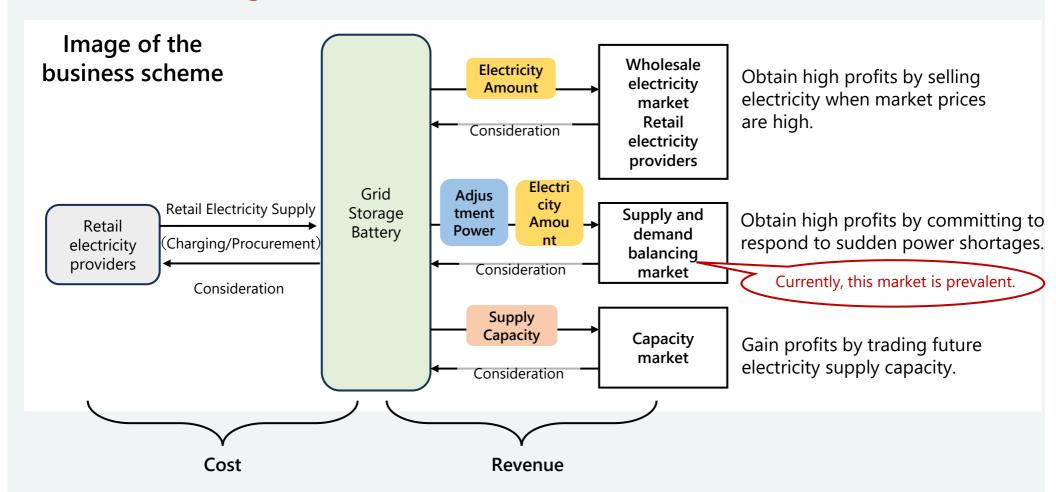


## **Business Model for Grid Storage Battery Business.**

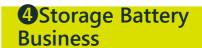


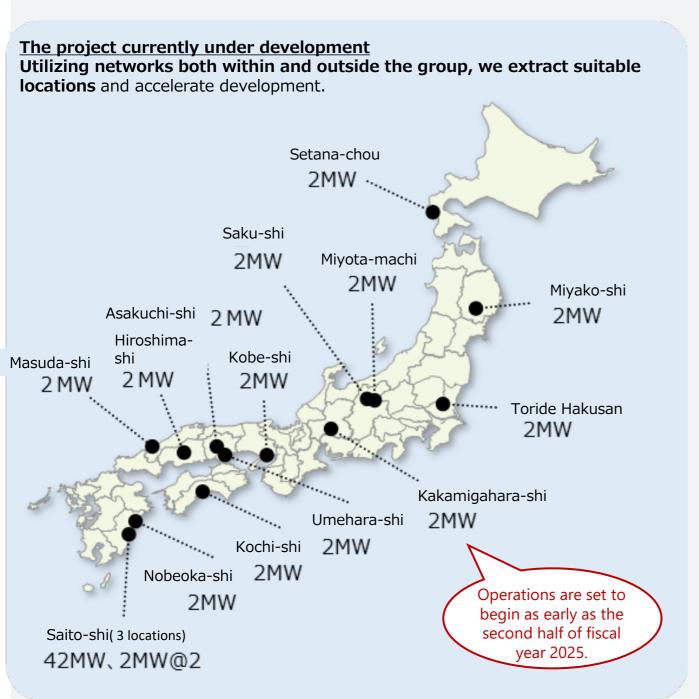
 A scheme to secure revenue by trading electricity stored in grid storage batteries in three markets: the Wholesale electricity market, the Supply and demand balancing market, and the Capacity market.

## Grid storage batteries can secure revenue in three markets.



## Regarding projects currently under development.





(Reference) Battery Storage Installation Image



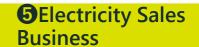
(Reference) Tesla Battery Storage



(Reference) Power X Battery Storage

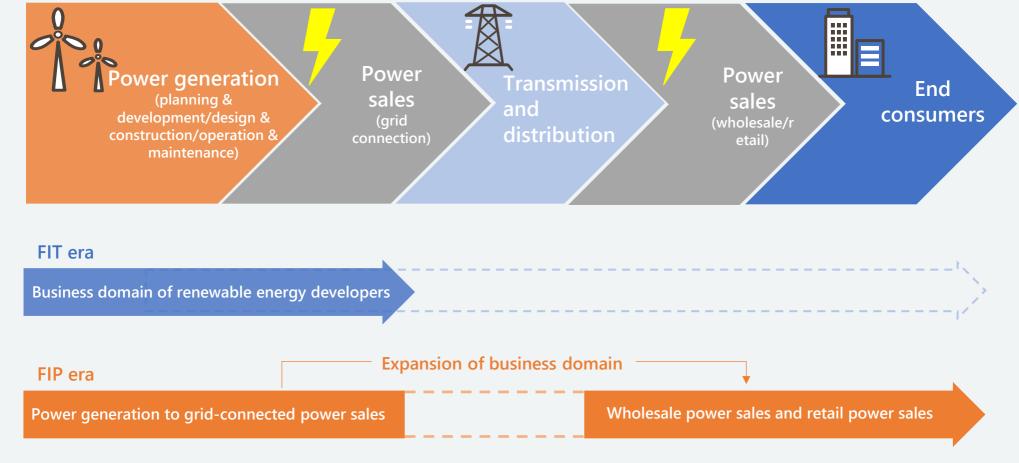


## **Expansion of the Power Sales Business Domain.**

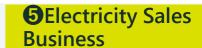


Due to the FIT system, renewable energy development has long had **power generation as its goal**. However, with the introduction of the FIP system, it has become **an era where power sales capability is now being questioned**.

Among these areas, electricity retail, which our company has not yet undertaken, is an important area that **generates certain profits** within the renewable energy supply value chain. Acquiring retail functions will be **key to capturing the future increase in renewable energy value** and will also **lay the groundwork for expanding renewable energy and infrastructure services.** 



## Revenue improvement through the expansion of business domains.

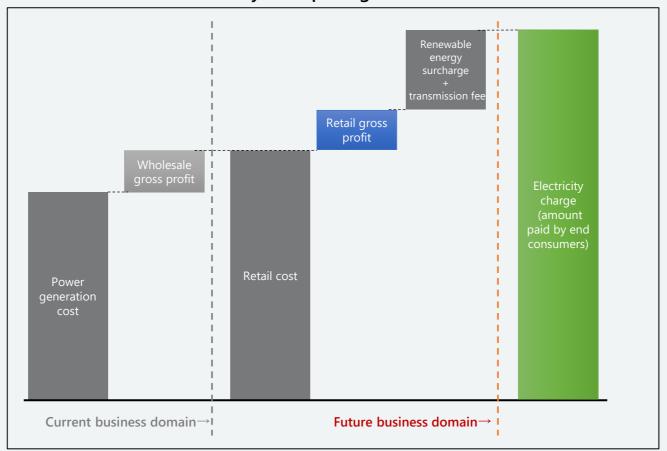


- We purchase power from self-developed projects at a long-term fixed price and sell to end consumers.
- We provide adjustment capability utilizing battery storage.

#### Self-offtake

We capture profits generated from the company's pipeline without leakage and with stability.

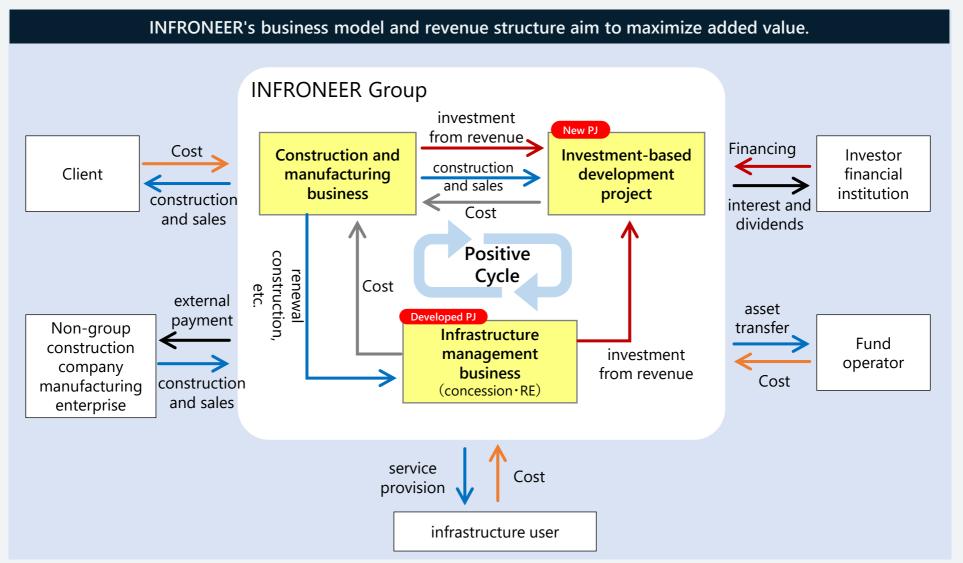
### ■General structure of electricity sales pricing



In Conclusion: INFRONEER's Business Model

### **INFRONEER's Business Model and Revenue Structure.**

- INFRONEER's business model, involving construction and "de-construction", creates multiple revenue opportunities within a single project.
- This model enables capital recycling within the group, reducing cash outflows to external parties.
- It allows for growth with a value-driven approach.



### 【Cautionary Notes】

The performance figures presented in this document are based on the financial results report and rounded to the nearest hundred million yen. This document is originally in Japanese and has been translated into English; thus, the Japanese document is the original and the English version is for reference purposes only. In case of any conflict or inconsistency between these two documents, the Japanese document shall prevail. Any forward-looking statements regarding performance plans are based on judgments made with information available as of the date of this document's release and are subject to risks and uncertainties that may cause actual results to vary.

インフラの未来に挑む Challenge the status quo

INFRONEER Holdings Inc.