

NTT Group's Smart Energy Business

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NTT Anode Energy Corporation

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* “E” in this material represents that the figure is a plan or projection for operation.

** “FY” in this material indicates the fiscal year ending March 31 of the succeeding year.

Topics for Discussion

1. Current Status of NTT Group's Energy Business

- **NTT Group's Carbon Neutrality**
- **NTT Anode Energy Group's Business**

2. Expanding NTT Group's Green Solutions

- **Green Solutions for Businesses**
- **Green Solutions for Local Governments**

3. Furthering the Growth of NTT Group's Energy Business

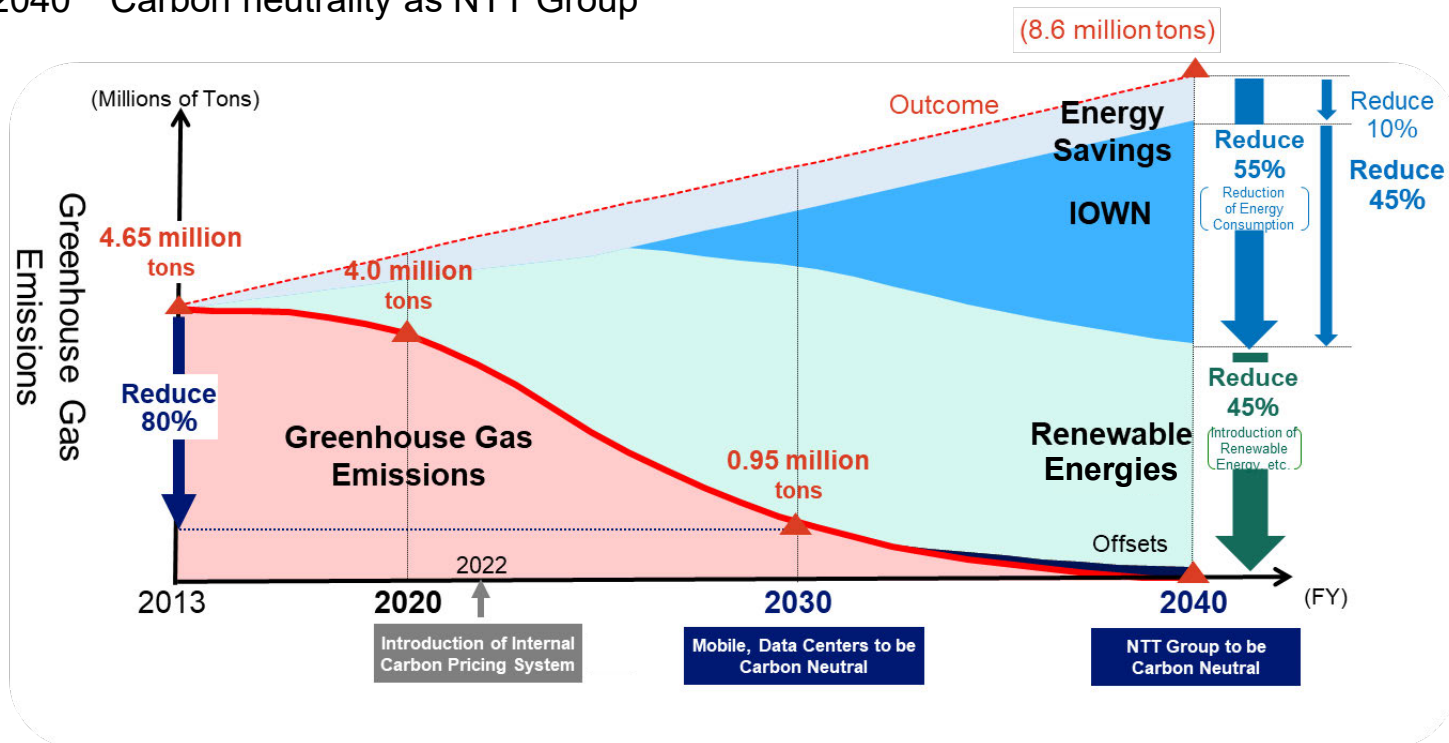
- **GPI's Strengths**
- **Developing New Business with Non-FIT Power Supply**
- **Leveraging the Energy Distribution Platform**

Current Status of NTT Group's Energy Business

Targets of “NTT Green Innovation toward 2040”



- FY2030 Reduction of NTT Group's greenhouse gas emissions by 80% (compared to FY2013)
Carbon neutrality for the mobile (NTT DOCOMO) and data center businesses
- FY2040 Carbon neutrality as NTT Group

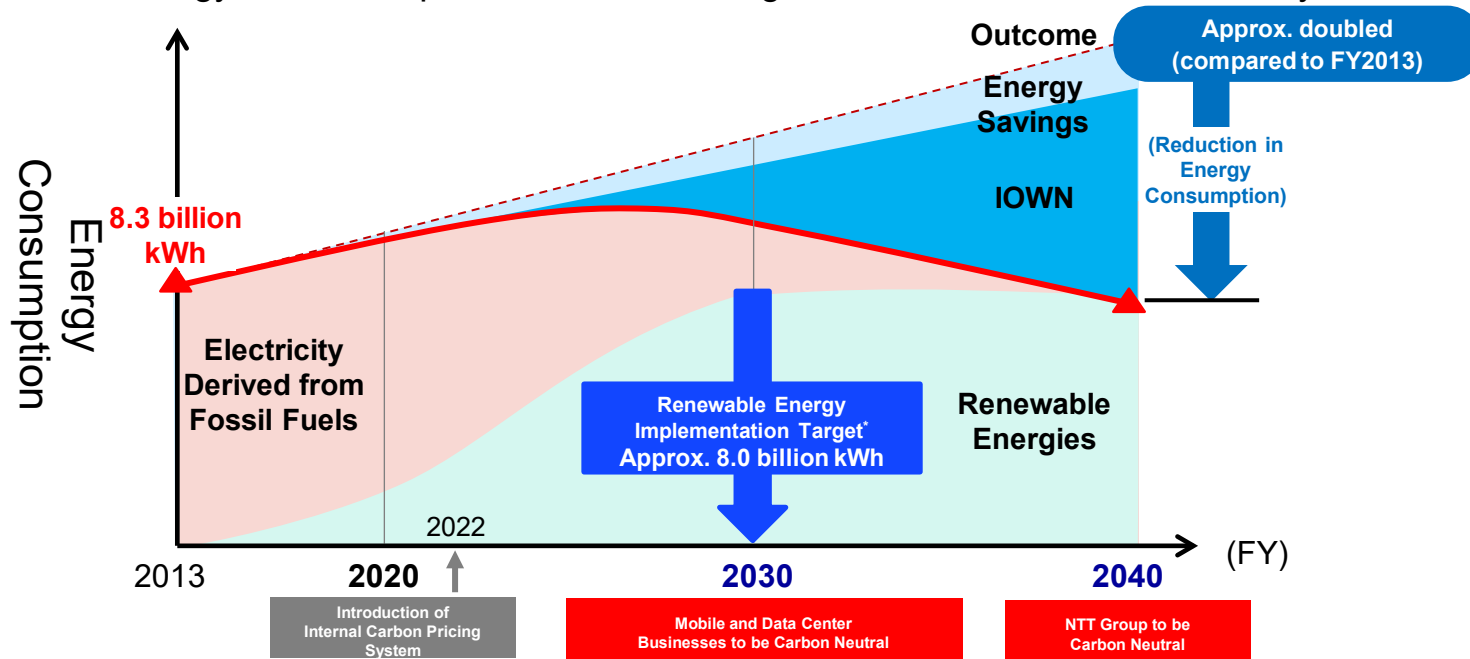


Source: Created from “NTT Green Innovation toward 2040” Presentation (September 28, 2021).

Outlook of NTT Group's Energy Consumption



- BY replacing legacy facilities with IOWN, energy consumption will be reduced by approximately half by FY2040
- Renewable energy will be adopted for the remaining half to achieve carbon neutrality



Source: Created from NTT IR DAY 2021 Presentation.

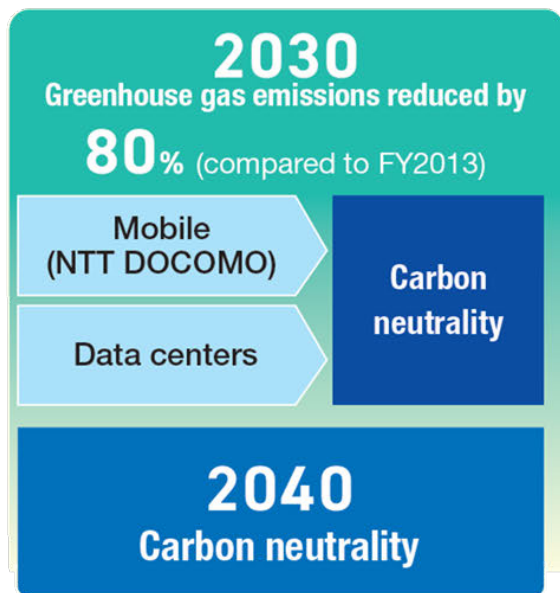
* Includes certified renewable energy equivalents derived from non-fossil fuels

Achievement of a Circular Economy Society: towards Net Zero



- NTT Group is going to expand “NTT Green Innovation toward 2040” to Scope 3 by FY2040

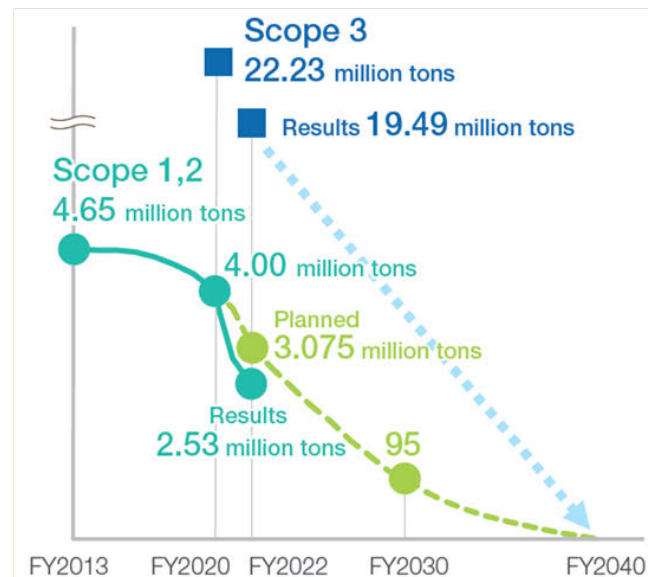
NTT Green Innovation toward 2040^{*1}



Expand to include Scope 3



- Illustration of NTT Group Greenhouse Gas Emission Reductions (Domestic + Overseas)

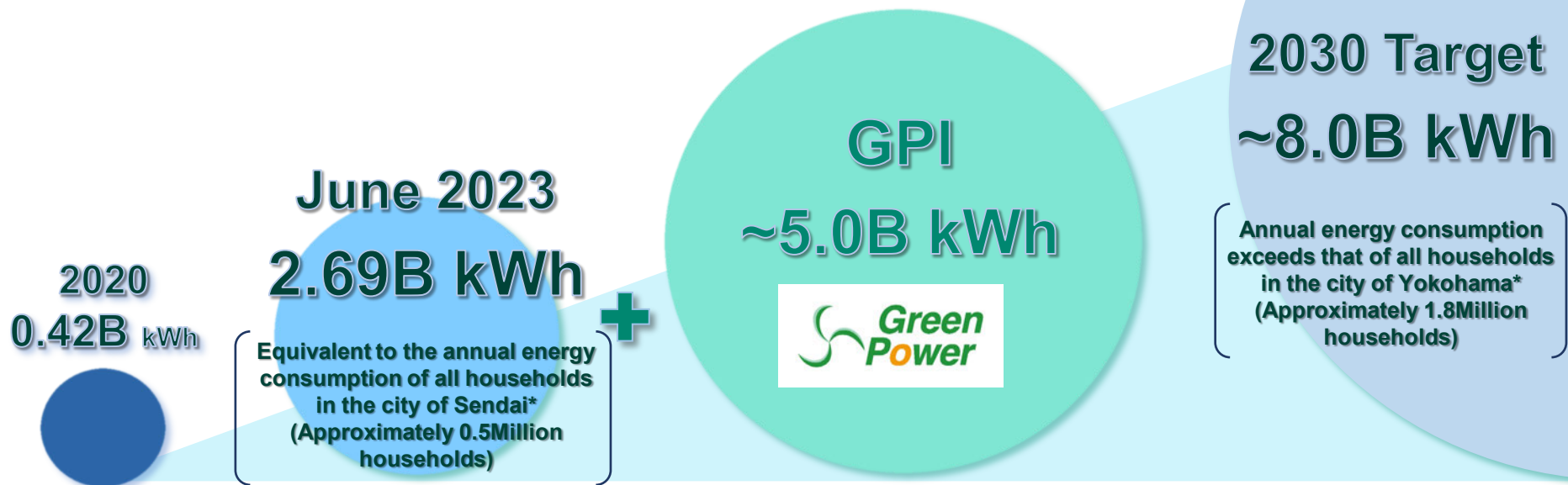


^{*1} GHG protocol: Scope 1 (own direct emissions of GHG) and Scope 2 (indirect emissions from using electricity, heat and steam supplied by other companies)

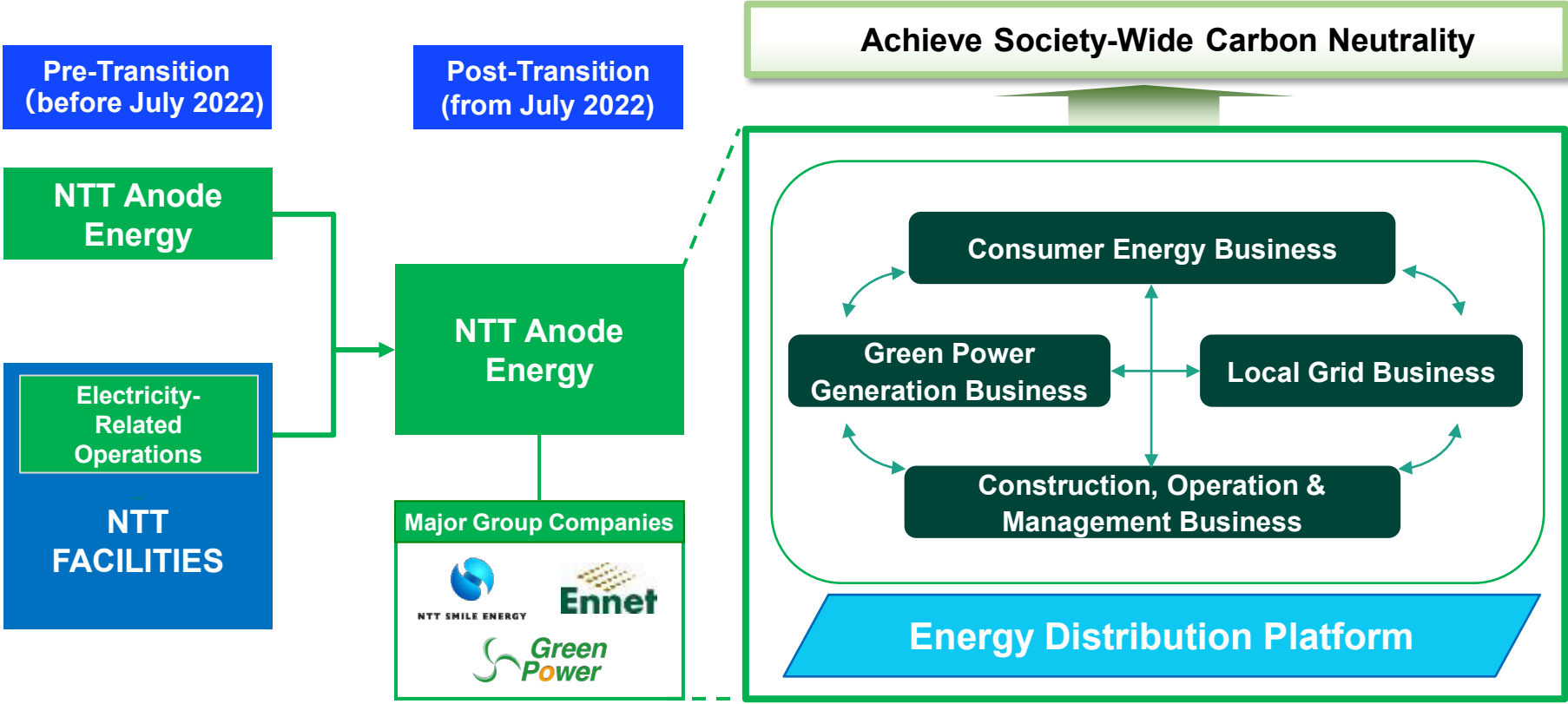
Source: Excerpts from NTT's Annual Report 2023

Acquisitions of Renewable Energy Sources

- 2.69 billion kWh renewable energy in June 2023 with under development projects
- As a result of the acquisition of GPI in August 2023, the 2030 target is now within reach



NTT Anode Energy Group's Business

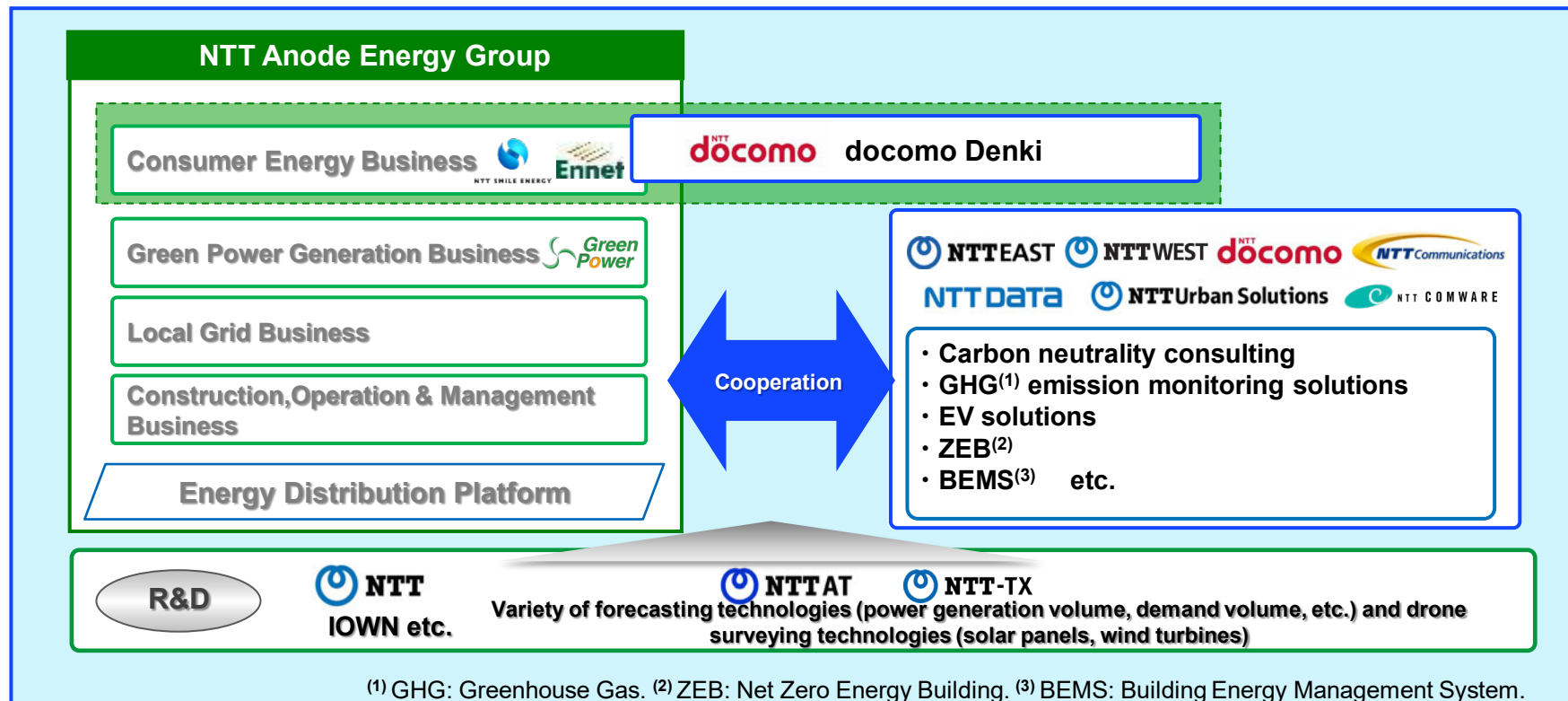


Expanding NTT Group's Green Solutions

NTT Group's Green Solutions



- Develop solutions that leverage the strengths of each group company in order to support customers and local communities to achieve carbon neutrality.



Green Solutions for Businesses



- Provide comprehensive solutions including GHG emission reduction planning / execution and retail service of renewable energy.
- Support customers including their supply chain to achieve carbon neutrality

Support for GHG Emission Reduction Planning

- Green Strategy
- Support for ICP⁽¹⁾, etc Implementation
- Support for TCFD⁽²⁾ Disclosure



NTT DATA



Visualization of Emissions

Monitoring Consulting



NTT DATA



GHG Emission Visualization Platform



NTT DATA

Providing Energy Saving/ Renewable Energy Services

Emission Reduction Solutions of NTT Group Companies



NTTEAST



NTTWEST

NTT docomo



NTT DATA



NTT Anode Energy



NTT Urban Solutions

- Corporate PPAs
- Renewable energy data centers
- EV solutions
- Carbon offset support, etc.

(1) ICP: Internal carbon pricing.

(2) TCFD: Task Force on Climate-Related Financial Disclosures.

Seven & i Holdings Case Study

- Certain stores were the first in Japan* to adopt renewable energy from offsite PPAs and achieve RE100 standards

NTT Anode Energy



Electricity +
Environmental Value

Seven & i Holdings



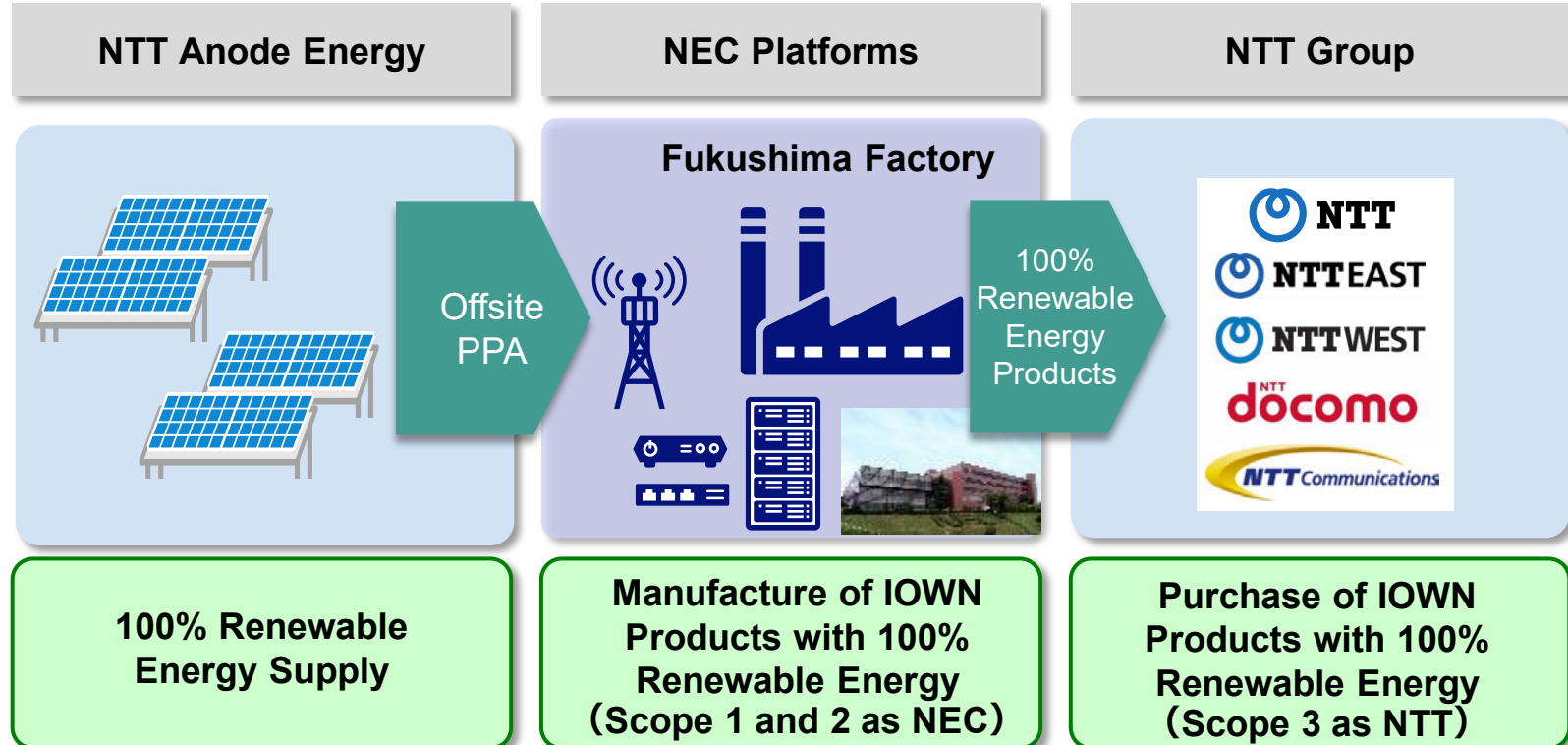
- **Seven-Eleven Stores**
(40 stores)
- **Ito-Yokado Store**
Ario Kameari Mall



RE100 Zero CO₂ Emissions

NEC Platforms Case Study

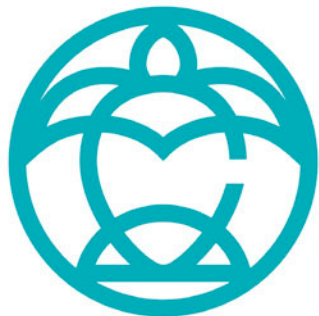
- Provided support for carbon neutrality in IOWN product manufacturing at NEC Platforms' Fukushima factory



C-Turtle® GHG Emission Visualization Platform



- Compatible with each of Scopes 1, 2 and 3, enabling accounting and reduction of emissions throughout the entire supply chain



C-Turtle®
NTT DATA



Green Solutions for Local Governments



- Achieving local production for local consumption of energy with renewable energy generation, storage batteries, EMS and other technologies
- Providing efficient and stable locally generated energy to local public facilities, enterprises and others

Consulting



NTT EAST

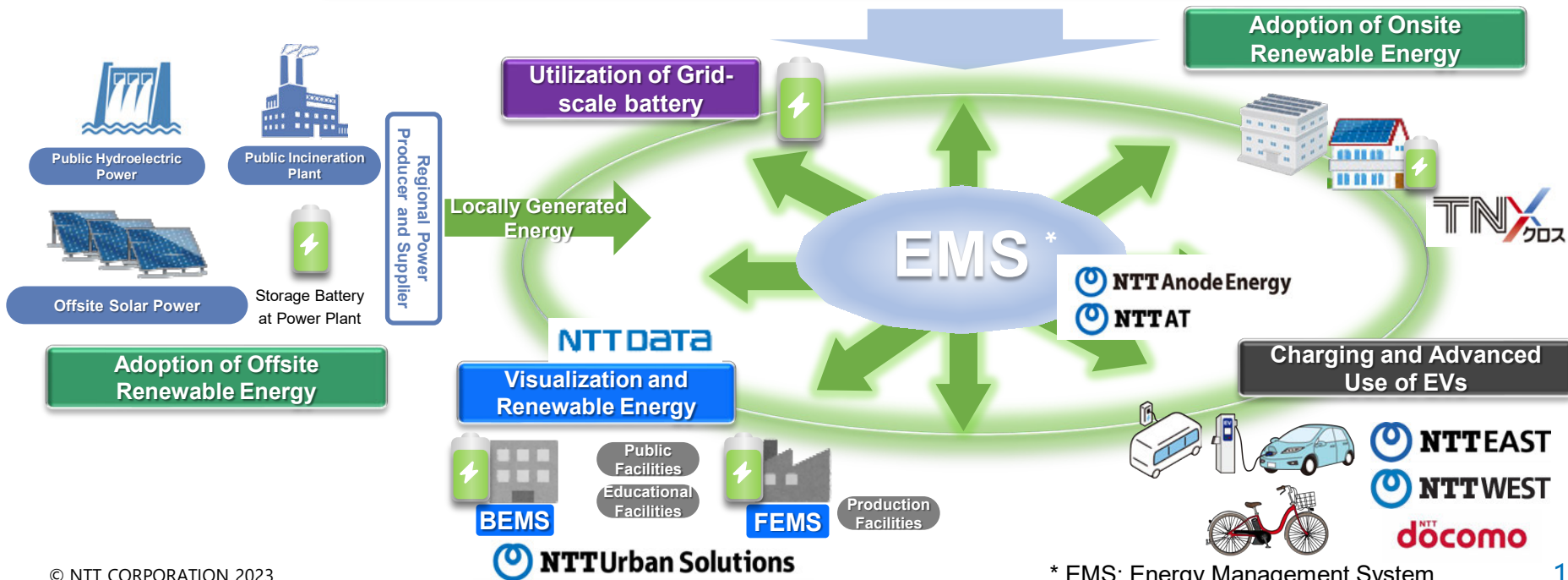


NTT WEST

NTT DATA



NTT Anode Energy



“Decarbonization Leading Areas” Initiative

- NTT Group supported 8 of the 62 local governments selected through the third round of the initiative
- Work with the local governments for local renewable energy production for local consumption system implementation

8 Local Governments



Utsunomiya Case Study



- Trying to reach net zero CO₂ emissions from private sector electricity consumption by FY2030
- The regional power generation company, Utsunomiya Light & Power Co., Inc., in which NTT Anode Energy has invested, supplied the LRT* with renewable energy



宇都宮ライトパワー株式会社

Utsunomiya Light & Power Co., Inc.



Fukushima Case Study

- Supplied renewable energy through the prefecture's first onsite PPA for a public facility in Fukushima (the Fukushima Prefectural Centre for Environmental Creation)
- This effort contributes to increasing visitors' awareness of carbon neutrality



Chiba Case Study

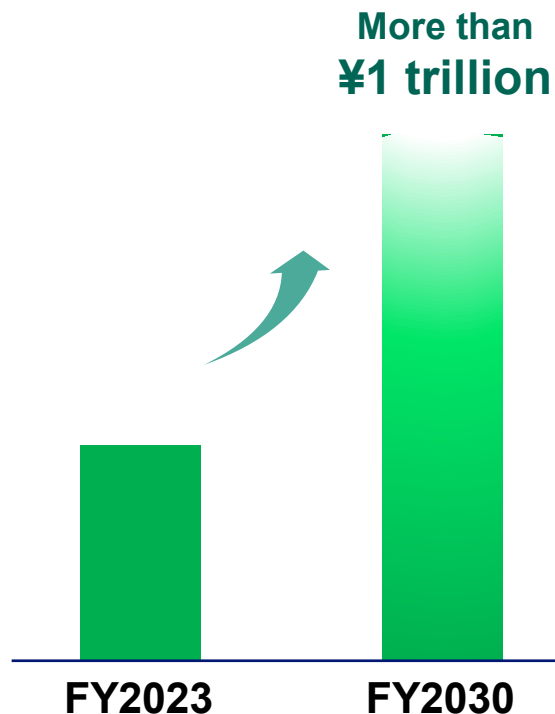
- TNcross Corp., which was established by NTT and TEPCO, provides backup power services to evacuation sites in Chiba
- Advancing natural disaster-ready urban development through decarbonization and strengthening resilience



Constructing solar power generators and batteries at evacuation sites (public halls and public schools)



Award ceremony for selection and certification as Decarbonization Leading Area



**Targeting more than
¥1 trillion in revenue by
2030**

Furthering the Growth of NTT Group's Energy Business

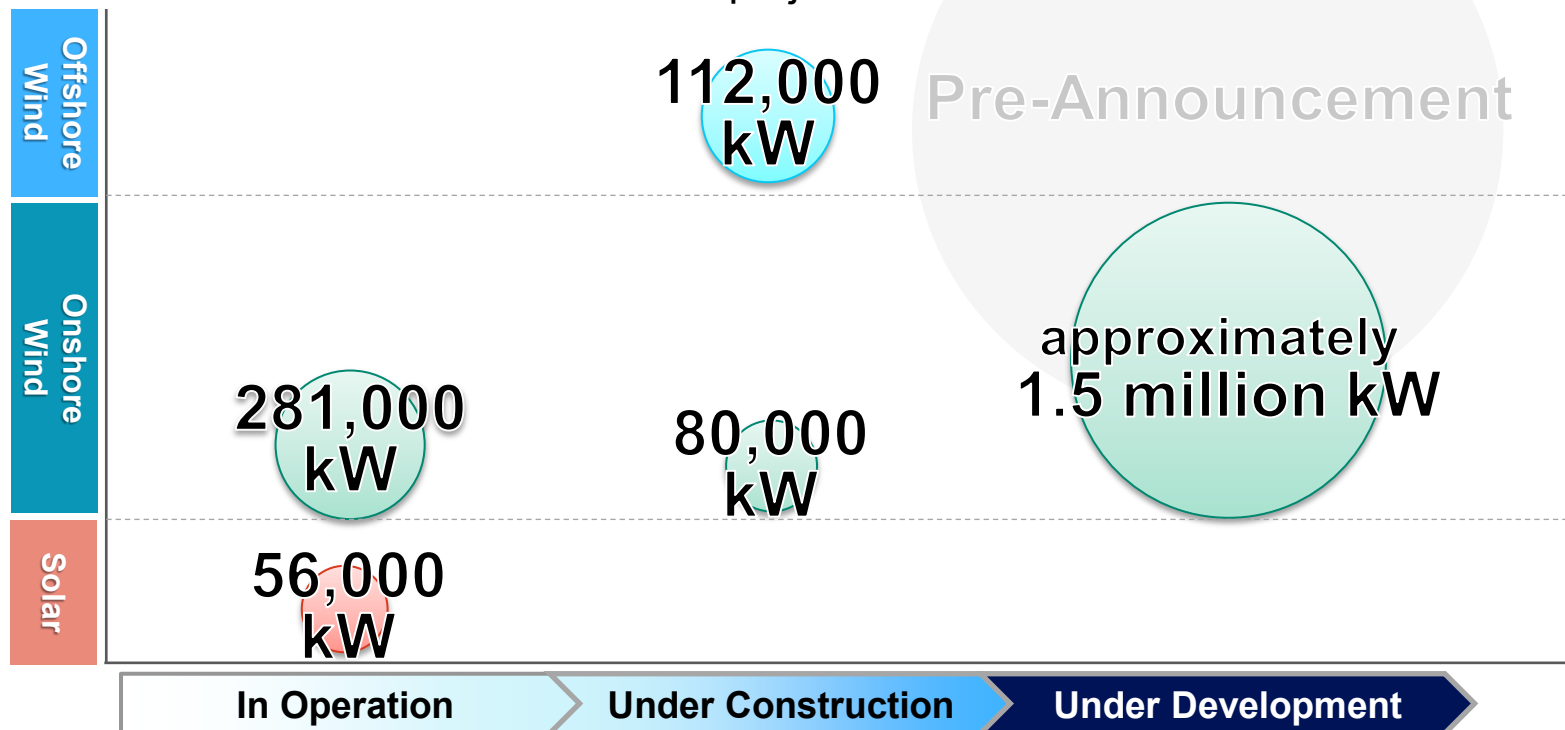


FIT Certified
approximately
2 Million kW

GPI's Renewable Energy Capacity

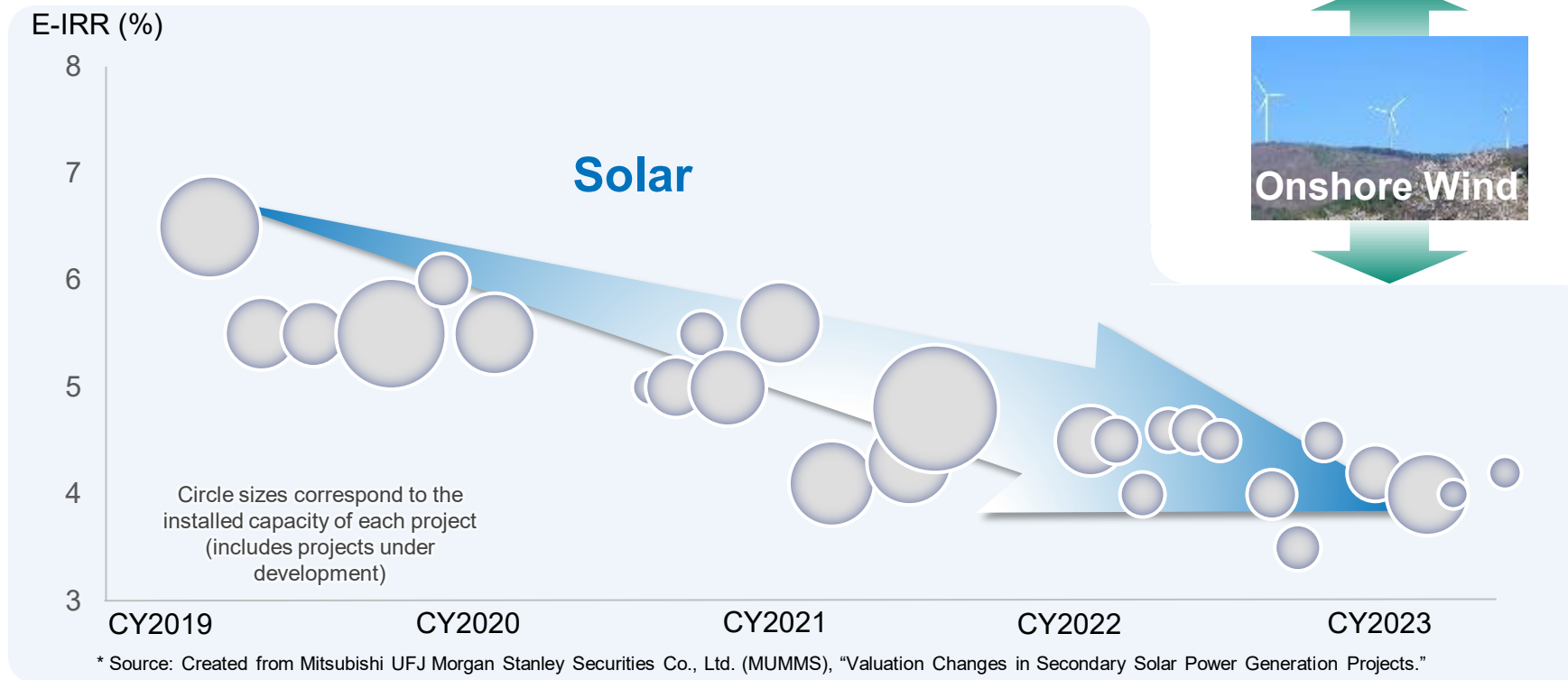


- Approximately 2 million kW of renewable energy capacity, consisting of solar and wind power
- Assessed the financial value of each project



(Reference) Image of profitability of Renewable Energy Generation

- Downward trend in E-IRR for solar power generation
- Higher E-IRR for onshore wind than solar

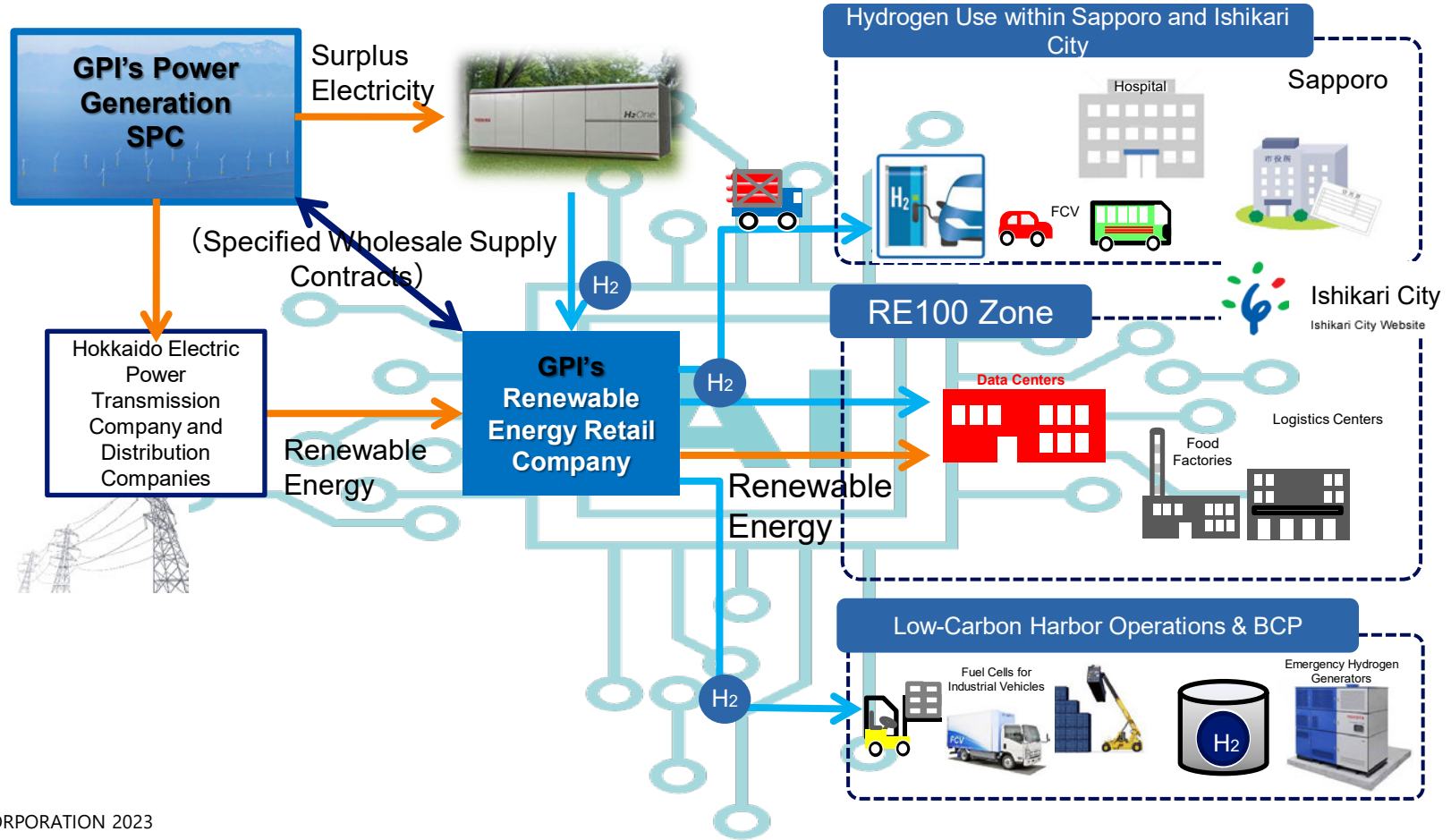


Project execution with balancing both “Volume” and “Quality” at a high standard

“Volume”	“Quality”		
<ul style="list-style-type: none"> • 2.0 million kW FIT Certified • Three of the company’s wind power projects rank among the top five largest domestically • For offshore wind power, which has been a recent center of attention, we will complete construction of the largest domestic power plant in Ishikari, Hokkaido, by this year-end 	Project Profitability	High Level of Success in Project Development	Social Acceptance
<ul style="list-style-type: none"> • Members of management have deep development know-how with over 30 years of knowledge and experience • Highly precise site selection, including analysis of wind conditions • High level of execution ability across all phases, from the development phase through financing, construction management and project management 		<ul style="list-style-type: none"> • Community-based renewable energy development systems (with special team dedicated to regional promotion) <ul style="list-style-type: none"> • Implementation of regional promotion measures Including revitalization of existing primary industries, education of renewable energy, and development of local community leveraging renewable energy 	

Development policy with foresight based on the philosophy

Illustration of Wind Power-Based Initiatives



Regional Revitalization that Starts with the Introduction of Renewable Energy



Regional Fairs and Products (Regional Promotions)



Interregional exchange fairs at
offices (Aomori and Kochi)



Regional products for sale at GPI
headquarters (GPI Tokyo
Headquarters)

Lectures at Educational Institutions(Education)



Career lectures for high school
students (Kizukuri High School,
Aomori)



University lectures on renewable
energy (The University of Shimane)

Educational Tour to Completed Power Plants (Public Awareness)



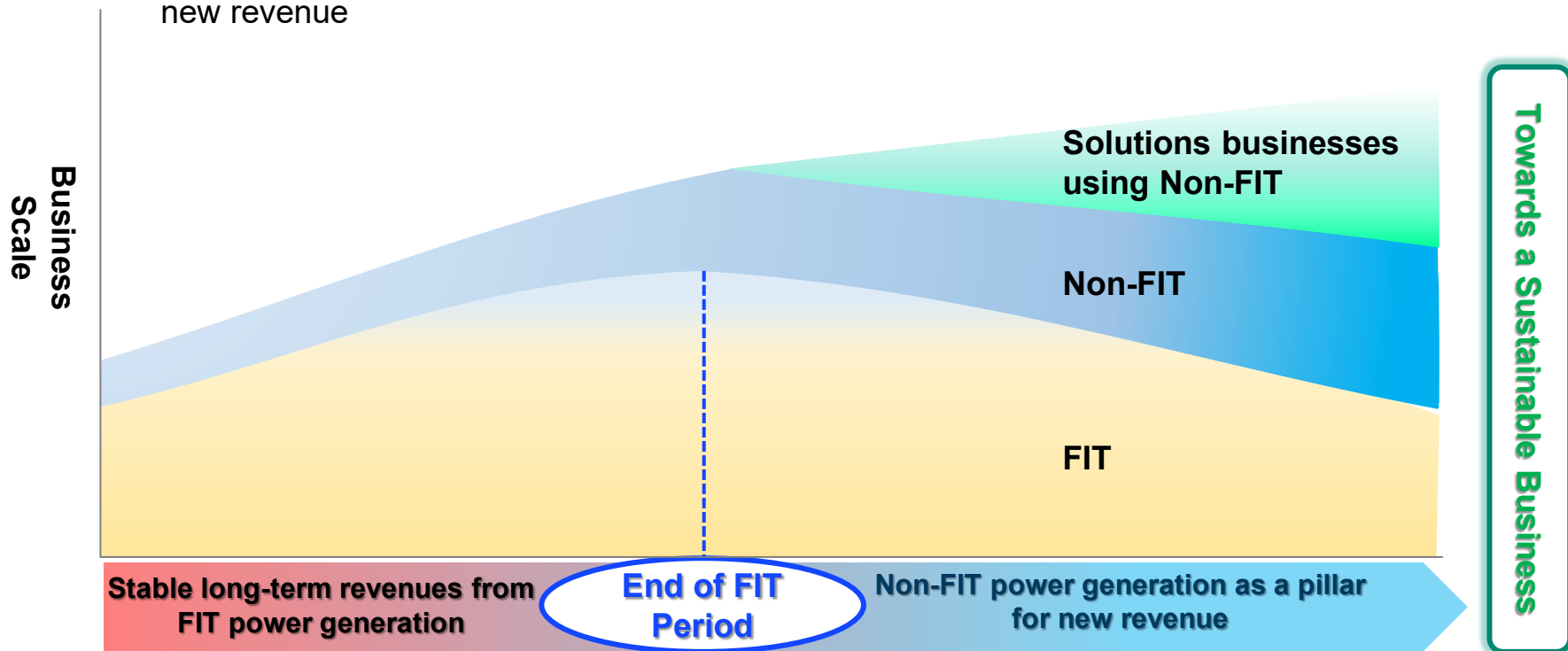
Power plants open to the public*
(Otsuki, Kochi)



Environmental studies for primary
and middle school students
(Tsugaru, Aomori)

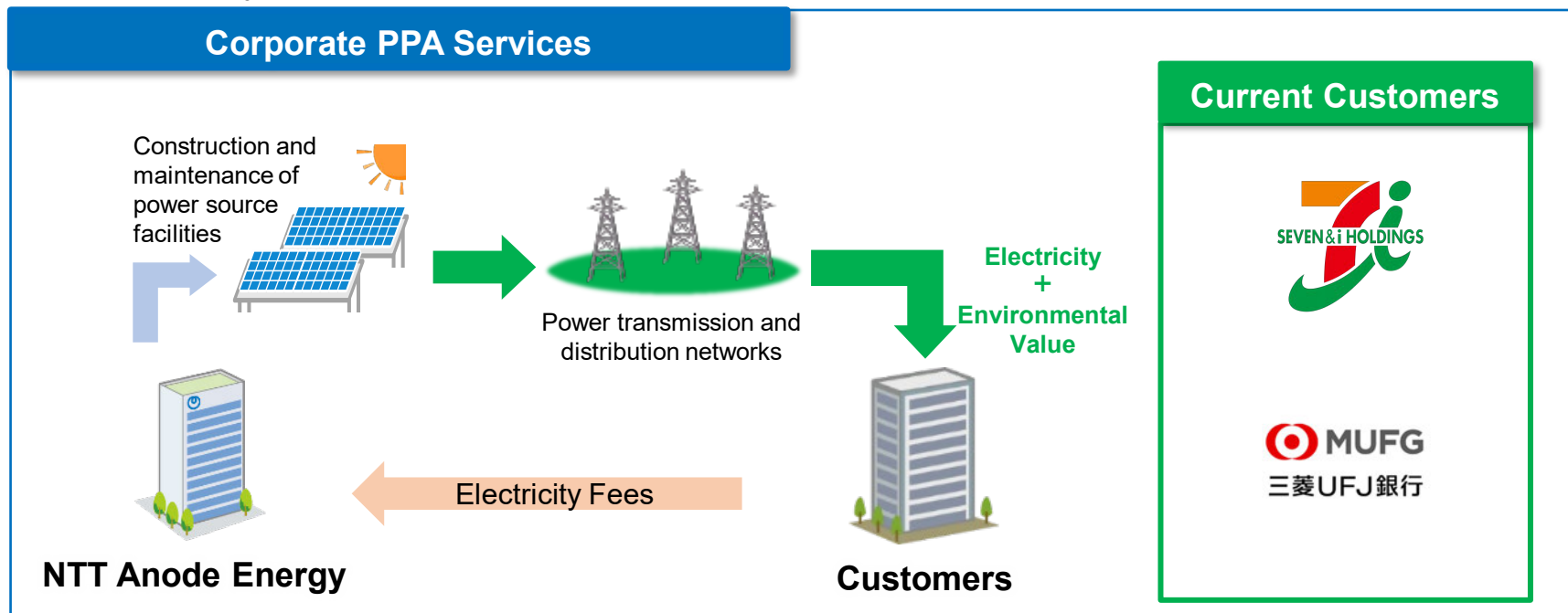
Beyond FIT

- Revenue generated from feed-in tariff (FIT)-generated power will drop in conjunction with the end of the FIT period
- NTT is working on the development and expansion of Non-FIT power generation as a pillar of new revenue



Corporate Services Using Non-FIT Power

- Directly providing Non-FIT power sources as renewable energy with high environmental value
- Providing power sources with long-term contract which reduce risk of sudden rise of electricity price



Issues Facing the Spread and Expansion of Renewable Energy

Characteristics of Renewable Energy Sources

Fluctuations in Power Generated Depending on the Time of Day

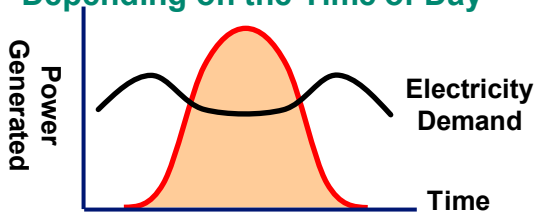
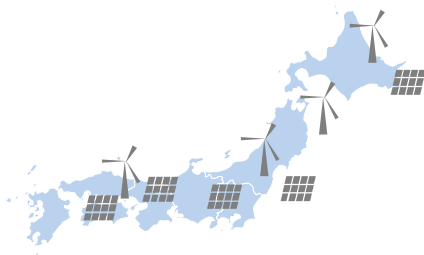


Illustration of solar power generated in one day

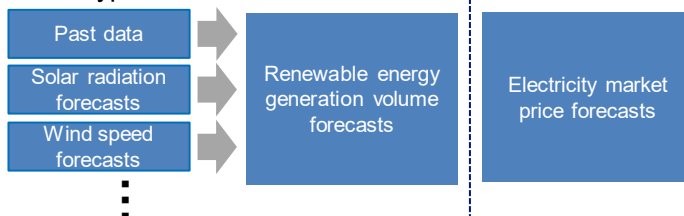
Small Scale & Decentralized Model



Issues Facing the Spread and Expansion of Renewable Energy

Highly Accurate Forecasting

Data Types



Adjusting the Gap between Supply and Demand



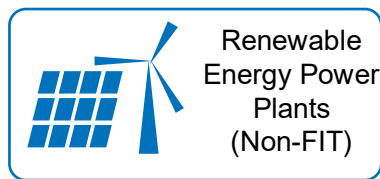
* Simultaneous and balanced production (supply) and consumption (demand) of power

Development and Operation of the Energy Distribution Platform



- Developing forecast and optimization engines that achieve highly accurate AI- and DTC-driven data analysis
- The energy distribution platform offers optimized electricity from the aggregation of decentralized energy resources

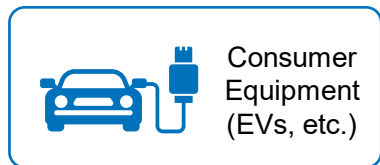
Energy Resources



Renewable
Energy Power
Plants
(Non-FIT)

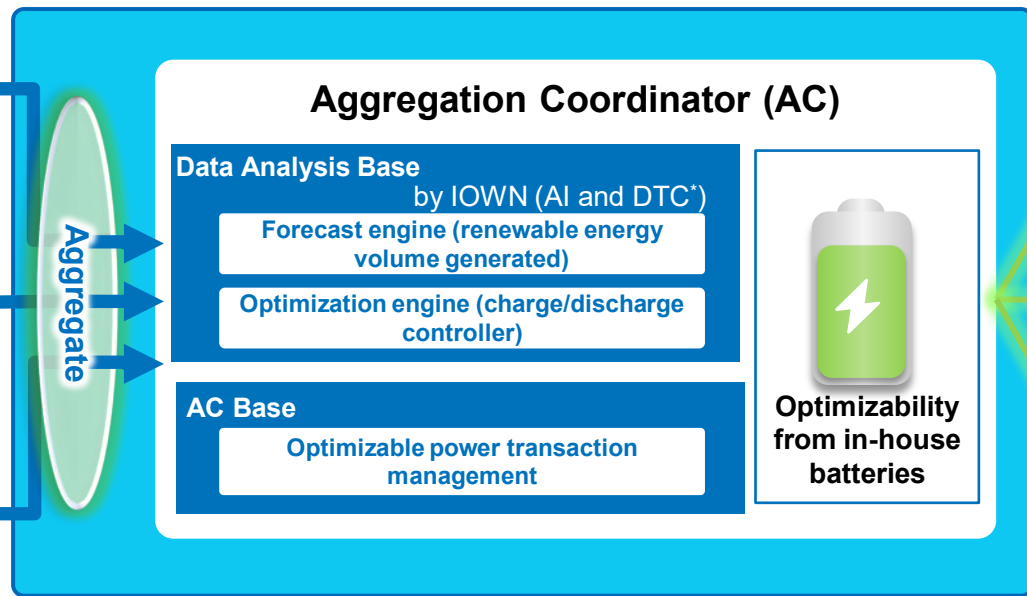


Grid-scale
battery

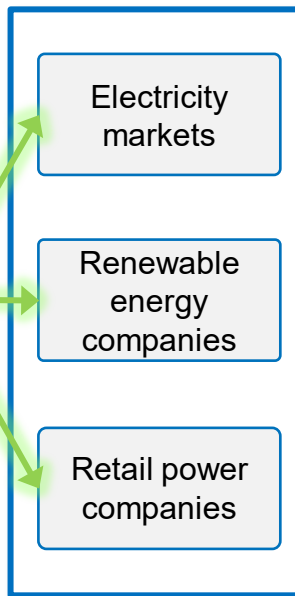


Consumer
Equipment
(EVs, etc.)

Energy Distribution Platform



Recipients



Grid-scale battery(Tagawa,Fukuoka pref.)

