

Promotion of DX

Realization of DX 3S+ D and Enhancement of Corporate Value

The J-POWER Group strives to realize "DX 3S+D" by drawing Yoryoku* powers from our employees through the promotion of digital transformation (DX). With "Data (data driven)" as the foundation, this "DX 3S+D" vision aims to enhance the three elements supporting the company and its employees, i.e., "Safety (safety and security)," "Smartness (efficiency and immediate response)," and "Strength (Earning power)," and to create new values. The realization of "DX 3S+D" is an objective that will contribute to achieving a carbon-neutral society by 2050, in addition to resolving material issues such as enhancement of our business foundation and respect for people, and will lead to the creation of financial and social corporate value.



*Power of potentiality: The power of leeway created through the automation and streamlining of operations

Power of productivity: The power of originality and ingenuity gained through the addition of senses and new functions

Power of predictivity: The ability to predict and foresee based on data analysis

Direction of DX Promotion toward FY2025

In promoting DX, we have been carrying out various initiatives guided by the DX Roadmap for 2030 and the Medium-Term Plan for DX Promotion (DX Medium-Term Plan), a two-year rolling plan that lays out specific measures to achieve the roadmap. Under the DX Med-Term Plan started in FY2022, we have achieved certain results, including the utilization of drones and AI, as well as the development of data infrastructure.

As the DX Med-Term Plan moved into the Phase II in FY2024, we have redefined three priority measures to further accelerate the promotion toward FY2025: (1) thorough business process transformation, (2) establishment of a platform for data utilization, and (3) development of DX human resources and a digital environment.

Specifically, we have launched initiatives to consolidate and streamline administrative back-office operations, and to create a digital twin of power facilities that makes full use of AI and XR technologies, as well as to develop a remote work environment that enables remote and automated operations. In addition, we will work to thoroughly transform our business processes through, for example, prompt implementation of generative AI, introduction of a next-generation ERP system, and revamp of IT systems that have become obsolete.

By attaining these objectives, we aim to achieve the quantitative targets of time effect (300 thousand hours per year) and monetary effects (3 billion yen per year).

	Item	Initiatives	Specific measures
Priority measures for the DX Med-Term Plan Phase II	(1) Thorough business process transformation	<ul style="list-style-type: none"> Measures to ensure the safety of workers Mechanisms to reduce burdens on on-site workers Digital-based business process transformation 	<ul style="list-style-type: none"> Introducing AI, VR/AR, digital twin Efforts for smart industrial safety Implementing generative AI and other cutting-edge technologies in operations
	(2) Establishment of a platform for data utilization	<ul style="list-style-type: none"> Visualizing, systematizing and streamlining data Developing data management tools and systems Enterprise performance management (ERM) tools 	<ul style="list-style-type: none"> Shared data platform (Data smart) Standard rules/data governance Management dashboard, etc.
	(3) Development of DX human resources and a digital environment	<ul style="list-style-type: none"> Developing an environment that helps create Yoryoku on-site Measures that contribute to location-free operations Making digital tools available at all times and standardizing their quality Developing and generating DX human resources 	<ul style="list-style-type: none"> Next-generation remote work tools Implementing devices and applications Training for DX core/highly specialized human resource development
Targets	Quantitative targets (by FY2025-end)	<ul style="list-style-type: none"> Time effect: 300 thousand hours per year Monetary effect: 3 billion per yen year 	<ul style="list-style-type: none"> Measures listed in (1) to (3) above



In January 2024, we were certified as a "DX-certified Operator" under the certification initiative established by the Ministry of Economy, Trade and Industry (METI).

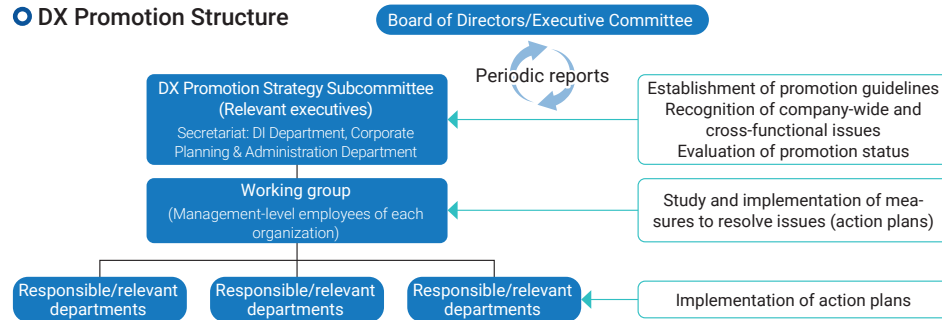
Promotion of DX

Promotion Structure

The DX Promotion structure consists of two levels: the DX Promotion Strategy Subcommittee and a working group. The DX Promotion Strategy Subcommittee discusses the direction of Group-wide DX promotion, recognition on cross-sectional issues and measures to resolve such issues, and formulates roadmaps and medium-term plans. The working group discusses how to materialize and implement these measures.

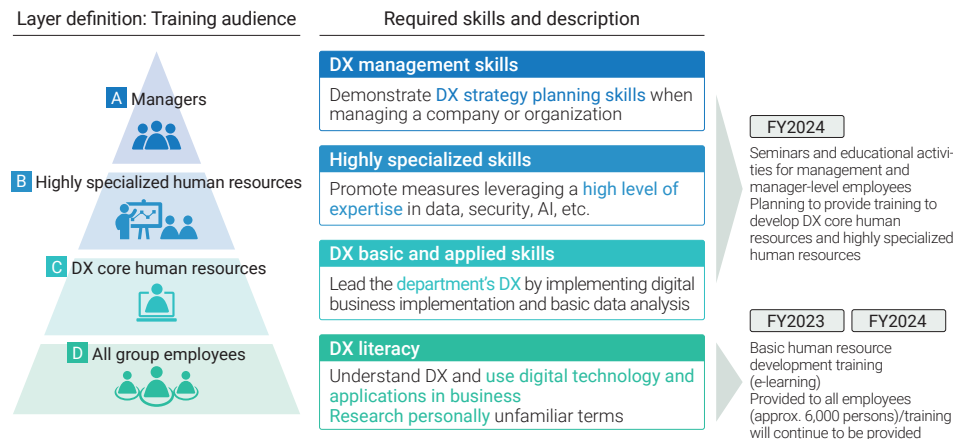
The status of DX promotion is periodically reported to the Board of Directors and the Executive Committee for discussion to identify issues and revising existing strategies, which will be then incorporated into the new direction of promotion. As such, this cycle enables flexible responses to changes.

DX Promotion Structure



DX Human Resource Development

We define DX human resources in accordance with the Digital Skill Standards established by Ministry of Economy, Trade and Industry (METI) and the Information-technology Promotion Agency, Japan (IPA), and have a DX training system in place to meet the needs, experience, and degree of DX progress of each employee, from executives to general employees.



In FY2023, we provided training for all Group employees to improve their DX literacy. Going forward, we plan to train several hundred employees in two categories by FY2025: "DX core human resources" for taking initiative in DX of each department as business architects (sophisticating and streamlining in-house operations), and "highly specialized human resources" for solving issues by utilizing highly specialized technologies such as data analysis, security, and AI. We also plan to hold seminars for management and manager-level employees and conduct educational activities.

Case Examples

J-POWER Group DX Exchange Meetings

The "J-POWER Group DX Exchange Meetings" are held to share examples of DX initiatives and the latest technologies within the Group. In FY2023, a meeting was held at J-POWER's headquarters, while connected online with local operating units, to share best practices in the form of exhibits and presentations, which include advanced facility operation and maintenance work using drones, quadruped robots, etc., and optimization of energy trading through data utilization. In addition, a lecture on ChatGPT was given by an outside speaker.

DX Exchange Meetings are also held at local operating units, facilitating active communications among employees for DX promotion.



Meeting at J-POWER's headquarters

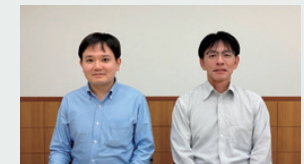


Meeting at a local operating unit

Efforts to sophisticate facility operation and maintenance

Aiming to sophisticate the operation and maintenance of electric power facilities, we utilize drones and robots to obtain images and numerical data of facilities, and perform AI-based analysis of the acquired information. In particular, we are developing drones for autonomously capturing images of electric wires to be used for transmission lines and overhead ground wires that are difficult to photograph by drones, as well as AI-based image analysis applications specialized to detect deformities in overhead power lines.

Incorporating these technologies into maintenance and inspection operations will reduce work at height to improve safety, while also enabling an efficient inspection process, in which high-definition images are easily captured by drones and abnormalities are visualized by AI. With these, we can expect to increase the time efficiency of overhead power line inspections, reducing working hours by 50% or more compared to the conventional method.



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Transmission line inspection drone under development