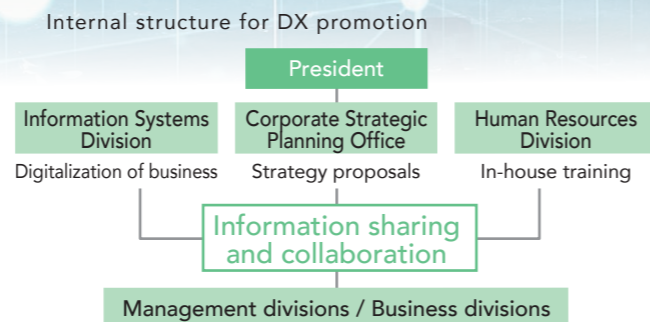


DX Promotion Initiatives

Our Group started efforts toward DX promotion around 2018, beginning with the introduction of AI/IoT, and began human resource development in FY2021. Since FY2023, we have been implementing measures such as establishing a DX promotion structure and considering the digital human resources and roles that should be assigned to each department and the Information Systems Division. We are also considering the establishment of a DX human resource training system.



Purpose of Promoting DX

- Improving productivity**
 - We will build a DX foundation to improve competitiveness in all business areas and achieve operational efficiency along with increased labor productivity.
- Creating new value**
 - We will strive to create new businesses by leveraging digital technology to discover new value, thereby further reinforcing the competitive advantage of the Group.

Roadmap for DX Promotion Initiatives

In FY2022, we distributed educational content on DX to all GS Yuasa employees to promote the internal development of DX human resources on a full scale with the aim of raising DX literacy by having employees take the course. In addition, we opened a "DX Training Dojo" from FY2023 and conducted specialized training for 49 employees who were recommended by their divisions. In FY2024, in addition to continuing the initiatives from FY2023, we have newly established an external AI consultation desk for DX Training Dojo graduates. We are also receiving advisory services for AI development using internal data. In FY2025, we will refine the initiatives of FY2024 and promote those that make more active use of graduates of the DX Training Dojo.

In promoting DX, we are implementing initiatives divided into three phases: Start-up Phase, Transition Phase, and Maturity Phase. During the Start-up Phase commencing from FY2023, we focused on developing DX human resources, promoting the training of intermediate learners through the DX Training Dojo for selected members and providing beginner-level education to all employees. During the Transition Phase of FY2024 and FY2025, we continue to support the promotion of DX in each business division together with graduates of the DX Training Dojo, while also building a system to further promote DX initiatives. In the Maturity Phase from FY2026 onward, we will assign DX leaders to each business division, transfer responsibility for promoting DX to the Information Systems Division and for developing DX human resources to the Human Resources Division, while working to maintain and improve the capabilities of the DX community.

	Up to FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026
	Promoting the use of AI in each division	Starting full-scale measures to implement DX promotion	Establishing awareness of DX promotion employees	Developing DX human resources and supporting implementation			
				Start-up Phase	Transition Phase		Maturity Phase
In-house training		● Officers took the DX Literacy Course	● All GS Yuasa employees took the DX Literacy Course	● Distributed educational content on DX to all employees ● At the DX Training Dojo, 30 to 40 employees per year acquire DX implementation skills			
Other initiatives	● Individual divisions promoted the use of AI	● DX Policy Planning Workshop '21 held and two proposals selected ● DX Case Study Presentation Conference held with 350 employees attending online	● Budgets established for the two proposals selected at the Workshop '21 and measures taken for implementation ● Workshop '22 held and one proposal selected	● Budget established for one proposal selected at the Workshop '22 and measures taken for implementation	● Promoting DX implementation centered on DX Training Dojo graduates in each business division		● Assigning graduates of the DX Training Dojo as DX leaders to each business division
				● Established an external AI consultation desk	● Added support from companies with expertise in utilizing DX human resources to the external AI consultation desk		

What is the DX Training Dojo?

Thirty to forty candidates recommended by each department are selected and divided into three classes: Business Designers & Architects, Engineers/Programmers, and Data Scientists. Over the course of one year, participants attend lectures for an average of 10-20% of their working hours. They take e-learning courses and engage in group work to develop ideas for in-house projects and deliver presentations within the Company, acquiring skills to support the promotion of DX. We also offer a Producers class for supervisors of recommended candidates from each department.

TOPICS

Examples of Our Group's DX Initiatives

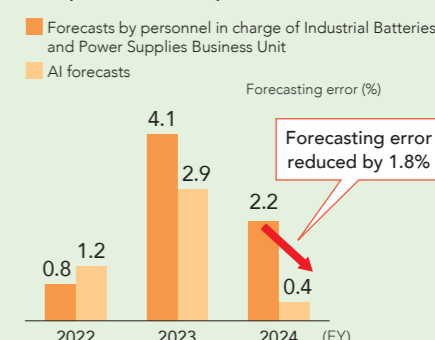
~Constructing AI that can predict deviations of 4% or less from actual sales profits~

Our Industrial Batteries and Power Supplies Business Unit experienced a significant deviation of 4.1% in its sales profit forecast for FY2023, indicating issues with the accuracy of its performance forecasts. Members of the DX Training Dojo worked on the subject of demand forecasting for the Industrial Batteries and Power Supplies Business Unit and achieved certain results. This led to a request from the Industrial Batteries and Power Supplies Business Unit to use AI to forecast sales profits, and graduates of the DX Training Dojo worked on constructing the AI.

Overview of the AI we constructed

We used the programming language Python to construct a time series model called SARIMA* based on monthly financial data on past sales profits for the Industrial Batteries and Power Supplies Business Unit. The forecast error for the current FY, based on data from the end of November 2024, was 0.4%. This is 1.8 points lower than the 2.2% error in the previous forecast given by the person in charge of the Business Unit.

Comparison of sales profit forecasting errors



Future prospects

The AI we constructed on this occasion was designed with a simple structure and its uses are versatile, making it a model that can be easily rolled out to other business units. Going forward, we are looking to expand this initiative to other business units and have it utilized as a tool for disclosing appropriate management information.

* Abbreviation for Seasonal Autoregressive Integrated Moving Average, a statistical model used to analyze and predict time series data with periodicity

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Group II, Advanced Analysis Promotion Division, R&D Center, GS Yuasa International Ltd.
Kazunari Kobayashi

Comments from the AI development staff who graduated from the DX Training Dojo

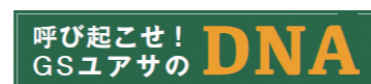
In addition to this topic, I am actively promoting the use of AI in various fields, such as test result analysis and the development of an internal RAG system. Previously, we mainly dealt with table data, such as developing inverse analysis models to derive optimal prototype conditions from test results, but at the DX Training Dojo, we undertook the challenge of analyzing image data and time series data for the first time. It is precisely because of this valuable experience that I feel that constructing AI using time series data proceeded smoothly this time around. By generating wider interest and familiarity with AI within the Company on the back of these results, we hope to expand the impact of DX beyond research and development to the entire Company.

Efforts Toward New Business Creation — New Business Creation Challenge Project "Biz-Challenge"

Toward New Business Creation

Under our long-term vision, Vision 2035, the Group is actively promoting activities for new business creation aimed at mid-to-long term growth. Starting December 2022, we launched "Biz-Challenge," a company-wide open call for new business creation projects, and this year marks its third year. This project is soliciting ideas from employees under the theme of "Businesses that leverage GS Yuasa's strengths to solve social issues." To date, we have received over 200 ideas, and we are working to clarify customer issues and realize solutions by carefully selecting promising proposals in stages using a stage-gate approach, with the aim of commercialization. In FY2025, carefully selected members continue their activities and keep striving to create promising businesses.

In addition to this activity, we are actively working to expand our existing businesses and generate new business ideas in derivative fields that utilize our existing assets. We are promoting the creation of businesses in new areas using two approaches: "Biz-Challenge," which solicits a wide range of ideas, and "Focused Examination (task force style)," which aims to expand existing businesses, thereby boosting corporate value.



New business creation seminar

Desired Concept of New Businesses

New businesses include not only those created from scratch, but also derivative areas that utilize the customer base, business foundation, and technology of existing businesses. Also, utilizing digital technology to add value to existing products, which leads to selling "Koto," or combining existing products to add new value, is considered a new business. GS Yuasa Membrane, one of our Group companies, manufactures and sells membranes for water treatment, leveraging the technology it has cultivated in the manufacture of separators for lead-acid batteries—its original business. In recent years, as part of its efforts to address environmental issues, GS Yuasa Membrane has been developing CO₂ removal modules. In addition to this, the Group is continuing to adopt challenges in new fields by utilizing membrane and membrane modularization technologies. We will continue to aim to solve social issues by leveraging GS Yuasa's strengths and contributing to people, society, and the global environment.

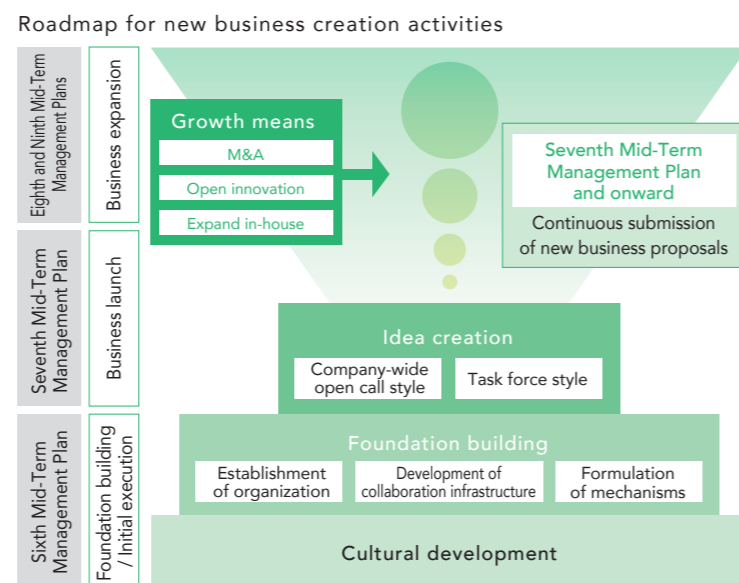


Time Schedule Towards Commercialization of New Businesses

To commercialize new businesses, we will build a structure that nurtures the foundation of our activities—a culture full of challenging spirit—and fosters new business seeds during the Sixth Mid-Term Management Plan.

Through activities such as brainstorming sessions, training curriculums for new business development, and lectures by external practitioners, we are spreading fundamental knowledge and fostering a proactive atmosphere that encourages challenges. We are working on creating frameworks, collaboration bases, and more.

From the Seventh Mid-Term Management Plan onward, we will proceed with the full-scale launch and expansion of new businesses, accelerating our efforts in new business development. In order to grow the business with a sense of urgency, we will broadly consider various approaches, such as open innovation and M&A.



● : New business (size based on sales estimate)

TOPICS

Participating in the storage battery business as the first full-scale verification of Biz-Challenge

The Company has decided to invest in Hokkaido Sapporo Battery Energy Storage LLC, which was established mainly by the Shikoku Electric Power Group (Yonden Group)'s Yonden Engineering Co., Inc. and Asunaro Aoki Construction Co., Ltd. This project, initiated through the first Biz-Challenge, stemmed from the recognition that while the Group excels in Japanese electric grid storage battery sales, some competitors offer not only storage batteries but also an extensive range of business-oriented solutions. This prompted a sense of urgency and led to this proposal as part of our effort to expand our business domain. The project originated from an employee's insight, which gained support through an internal open call for ideas. This project is an important challenge to expand our business domain by leveraging the strengths of our existing businesses, and since it will contribute to the achievement of Vision 2035, we are taking it on as a project that is independent from Biz-Challenge.

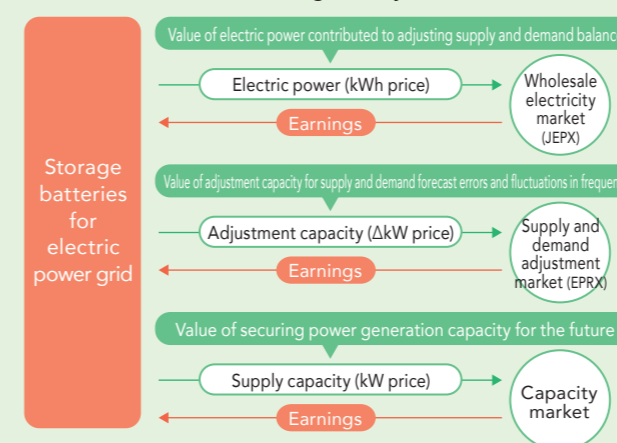
Although renewable energy is prone to instability due to weather conditions, we aim to secure revenue through electricity sales by connecting battery storage containers (storage batteries for electric power grid) to the power grid and trading electricity, adjustment capacity, and supply capacity through charging and discharging.

Until now, the Industrial Batteries and Power Supplies Business Unit has been engaged in the sale of storage batteries and power conditioners, as well as O&M (operation and maintenance). However, this project will enable us to consider expanding into the energy storage business and making a full-scale entry into this field. In addition, we will continue to accumulate knowledge so that we can determine whether to fully enter the energy storage and service market in 2028.

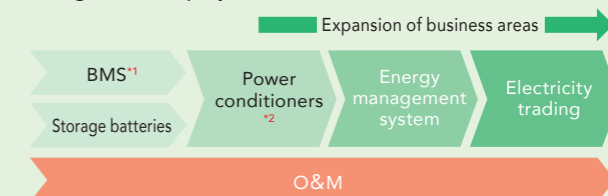
Overview

Construction site	Sapporo, Hokkaido
Purpose of introduction	Storage batteries for electric power grid (Multi-use of wholesale electricity market, supply and demand adjustment market, and capacity market)
Date of commencing operations	From April 2027
Storage battery type	LEPS-2-14
Output	Approx. 10 MW
Storage battery capacity	Approx. 30 MWh (2.1 MWh × 15 containers) Equivalent to the annual electricity consumption of approx. 10,000 households Note: Calculated based on Tokyo Electric Power Company Holdings' average model electricity rates

Revenue forecast for the storage facility



The goal of this project



*1 BMS (battery management system): An electronic circuit board that monitors battery usage and controls the safe operation of the battery.
 *2 Power conditioners: Devices for converting DC power stored in a storage battery into AC power.
 See here for details
<https://newsroom.gs-yuasa.com/en/news-release/307>

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Energy storage facility project team

Comments from the energy storage facility project team

This project aims to expand our business domain into solutions and services as outlined in Vision 2035, while leveraging our strengths in the sale of storage batteries for the electric power grid. We will actively pursue new opportunities in the energy storage business while maximizing the technical capabilities and assets we have cultivated through our battery sales business to date, with the aim of contributing to enhanced value for the entire Group. In the rapidly changing modern era, we will continue our pursuit of innovation and growth over the next 100 years, while striving to enhance sustainable corporate value through new business ventures.