



# Using GX to Help Achieve Carbon Neutrality

**New organization will promote GX in multiple business areas (including cooperation with other companies) to expand Azbil's solutions and solve problems faced by society**

With the aim of achieving carbon neutrality by 2050, Azbil has set up a new organization dedicated to green transformation (GX) in three areas with promise for business growth: the new automation business, the environment and energy business, and the life-cycle solutions business. Through alliances and collaboration with other companies, the azbil Group aims to make contributions leading "in series" to a sustainable society.

## **New organization specializes in promoting GX across boundaries of existing businesses**

Countries around the world are accelerating their efforts to address global climate change. The Japanese government has made a "carbon neutral declaration," stating its goal to achieve net zero greenhouse gas (GHG)\*<sup>1</sup> emissions by 2050, and has encouraged various measures to achieve a decarbonized society. GX,\*<sup>2</sup> which aims to transform society to achieve carbon neutrality, is therefore an important business issue in a wide variety of industries and areas, as well as a significant opportunity for business and for addressing societal problems.

With the philosophy of "human-centered automation," the azbil Group has worked for many years to save energy at customers' sites, and is committed to business operations like CO<sub>2</sub> reduction that are indispensable for human activities. Approaching new social issues like the advanced use of energy and a declining labor force, as business opportunities, we are working actively to develop new business areas and achieve our long-term

business plans, aiming for 400 billion yen in sales and 60 billion yen in operating income by fiscal 2030. Toward these aims, the GX Solutions Department was founded in April 2022 to advance GX beyond the boundaries of our existing businesses, such as the Building Automation (BA), Advanced Automation (AA), and Life Automation (LA) businesses. The department puts special focus on the new automation business and environment and energy business among the three business growth areas, and has applied and promoted various measures as the responsible organization in these areas.

## **Active cooperation with external organizations to expand new areas of business**

In the field of new automation, we are acquiring and researching elemental technologies and implementing them in our products to achieve autonomy in manufacturing processes at factories and plants. The aim is to replace traditional automation systems, which have helped to improve efficiency and quality at production sites and in building management through automation and optimi-

zation, with autonomous systems capable of tasks that are still done by people, such as investigating the cause of problems and deciding on countermeasures. The autonomous and stable operation of plants through the application of autonomous functions and advanced controls, as well as maintenance done at the optimal time through IoT use, will also lead to energy efficiency and decarbonization. Furthermore predicting plant behavior through AI and developing systems that can respond accordingly will help reduce the mental burden on operators. Additionally, accumulated long-term data on plant operation and control-related operating data collected in real time will be used to achieve advanced control over batch processes,\*<sup>3</sup> which has been difficult in the past, as well as greater energy conservation, yield, efficiency, and quality.

In the field of environment and energy, we will accelerate business development by investing in external organizations and companies that aim to achieve carbon neutrality, and by business alliances. Azbil Corporation has already been actively involved in reforming the electric power

## ■ Business development initiatives involving alliances and investments with other companies

Investments and alliances	Partner or Investment
● GX solutions to reduce CO <sub>2</sub> emissions from office buildings and other large facilities	Four NTT Group companies, Daikin Industries
● Creating partnerships, etc. with businesses engaged in decarbonization	Japan Green Investment Corp. for Carbon Neutrality
● Developing a business model combining our energy-saving solutions and CEC's green power solutions	Clean Energy Connect, Inc. (CEC)
● Acquiring market information in new business areas as well as information on innovative technology; building relationships with portfolio companies; business discovery	JAFECO Group (JAFECO SV7 fund)
● Business alliance with KEPCO for the introduction and utilization of a facility anomaly detection system using AI—joint launch of “BiG EYES plus™”	Kansai Electric Power Co., Inc.
● Business alliance with X1Studio to expand the foreign data center business	X1Studio Co., Ltd.
● Capital alliance with Forest Energy to expand solutions in the renewable energy field	Forest Energy Inc.

system by using demand response (DR),<sup>\*4</sup> participating in virtual power plant (VPP)<sup>\*5</sup> initiatives, and by serving as an aggregator.<sup>\*6</sup> We are also participating in an initiative to reduce CO<sub>2</sub> emissions from office buildings and other large-scale facilities through collaboration with NTT and four other companies. In addition, we are working to procure and effectively utilize renewable energy whose output fluctuates widely. To achieve these goals, we have invested in and partnered with Clean Energy Connect, Inc., a company that is a leader in green electricity solutions. Through this alliance, we will improve renewable energy usage in buildings and help our customers achieve carbon neutrality. In addition, we have invested in Japan Green Investment Corp. for Carbon Neutrality (JICN), which operates a fund business under Japan's revised Act on Promotion of Global Warming Countermeasures in order to create new business opportunities that contribute to decarbonization, including decarbonization in fields that we have not entered thus far. We plan to forge new partnerships with businesses engaged in these areas.

In addition to verifying markets

and fields in which Azbil's technology can contribute to advanced energy use and energy transformation, we will also collaborate beyond company and industry boundaries to explore new areas for our technology and products. We believe that this kind of expansion will help to promote GX.

### What's needed to solve social issues and transform society: co-creation, not competition

Azbil is also an active member of the GX League Basic Concept, which was announced by Japan's Ministry of Economy, Trade and Industry in February of 2022. This initiative provides a forum for companies working on GX to discuss reform of the entire socio-economic system and the creation of new markets. Carbon neutrality is too large an issue for individual companies to tackle alone, necessitating alliances of a wide variety of companies beyond the fields and markets in which each company operates. Thus we believe that co-creation is more important than competition, and we intend to address such issues by sharing technology and know-how with partners as necessary. We will continue to make con-

tributions leading “in series” to a sustainable society by promoting active coordination and cooperation with an even wider circle of external organizations and companies, strengthening the capabilities of our products and their value for customers, and expanding our contribution to our customers' businesses and to society as a whole.

#### \*1▶Greenhouse gas (GHG)

A general term for gases in the atmosphere that cause a “greenhouse effect” by absorbing part of the infrared radiation emitted from the Earth's surface.

#### \*2▶Green transformation (GX)

An initiative that recognizes the achievement of carbon neutrality (reducing greenhouse gas emissions to net zero) as an opportunity for economic growth and aims to reform the socio-economic system to reduce emissions and improve industrial competitiveness.

#### \*3▶Batch process

A method in manufacturing in which processes are divided into blocks of time or blocks of operation, with the workpieces changed in each process.

#### \*4▶Demand response (DR)

A method of balancing the supply and demand for electricity by controlling consumer energy resources and adjusting the demand for electricity.

#### \*5▶Virtual power plant (VPP)

A concept aimed at making renewable energy, energy resources owned by consumers, and other new energy resources act as a single power plant that satisfies demand.

#### \*6▶Aggregator

A business intermediate between consumers and electric power companies that works to control the balance of supply and demand for electricity and to maximize the utilization of each consumer's energy resources.

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