

Medium- to Long-Term Visions and Targets Focused on Climate Change Issues

# The Fujitsu Group Medium/Long-term Environmental Vision

## FUJITSU Climate and Energy Vision

The Fujitsu Group has established the “FUJITSU Climate and Energy Vision,” a medium- to long-term environmental vision with the goal of bringing the Fujitsu Group’s CO<sub>2</sub> emissions to zero by 2050, as well as contributing to the achievement of a decarbonized society and the adaptation to climate change, through provision of technologies and services supporting digital transformation.

### The Importance of Responding to Climate Change

Climate change, which will have a significant long-term impact on countries and regions around the world, is an important issue for us as a global company. Disasters caused by climate change will disrupt procurement, logistics and energy supply networks, making it difficult to procure parts and energy for our business sites. Tighter regulations on greenhouse gas (GHG) emissions will affect our operations, and the ICT products and services we provide to our customers will also need to be made more energy-efficient. If we fail to provide products and services with excellent energy efficiency in response to regulatory and market demands, we could suffer business losses and a decline in our corporate reputation. At the same time, through innovations in AI, IoT, and other advanced technologies, it is a great business opportunity for us to form ecosystems with customers and various stakeholders, contribute to the decarbonization of society—by taking actions such as reducing the power consumption of customers and society and expanding the use of green power—and provide services and solutions which facilitate adaptation to climate change.

The Fujitsu Group considers climate change to be a serious issue (materiality) that must be addressed, and we have been actively working to meet the goals we previously set in our Environmental Action Plan. Furthermore, in order to contribute to addressing the issue as a leading company, we recognized the need for the Fujitsu Group to have a long-term vision and tackle the issue as a united group. We gathered knowledge and engaged in dialogue with various stakeholders through interviews with outside experts and the activities of external organizations. Taking these into account, the Environmental Management Committee\*, led by the President, formulated the Fujitsu Climate and Energy Vision, our medium- to long-term environmental vision with regard to climate change, and we made it public in May 2017.

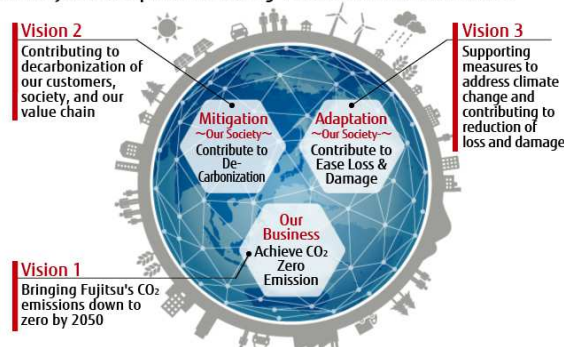
In addition, in April 2021, we revised the emissions reduction targets in FY 2030 shown in Vision 1 from 33% to 71.4% in order to accelerate our own moves toward decarbonization.

\* Its name in 2017. Now the Sustainability Management Committee.

### Concept

As an international framework of measures against global warming starting in 2020, the Paris Agreement, which sets a goal of limiting the rise in global average temperature to less than 2°C above the average temperature prior to the industrial revolution, came into effect in November 2016. In order to achieve this, the goal to “achieve a balance between emissions and removals of greenhouse gases (GHG) in the second half of this century” has been set, and a shift to a decarbonized society will be necessary beginning in 2050. Various change are taking place in the global market as well, and it is expected that regulations on CO<sub>2</sub> emissions will be tightened, carbon taxes and other carbon pricing will be applied to more countries, and

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carbon tax will rise sharply. In addition, investment taking into account Environmental, Social and Governance (ESG) factors is expanding, which is also exerting a significant influence on market rules.

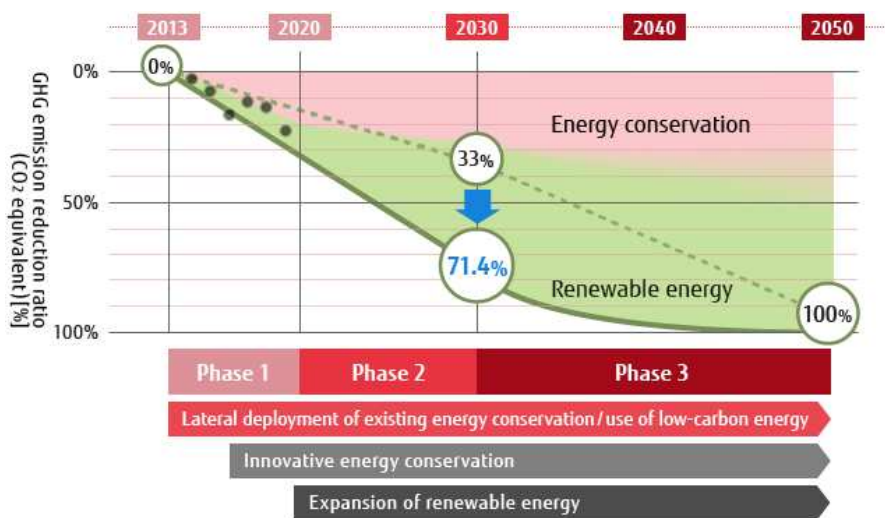
This vision has three pillars, namely, "Our Business: Achieve Zero CO<sub>2</sub> Emissions", "Mitigation: Contribute to a Decarbonized Society" and "Adaptation: Contribute to Measures in Society to Adapt to Climate Change". The Fujitsu Group aims to use ICT effectively to accelerate its own efforts to shift away from carbon, and by providing the knowledge gained from such efforts to customers and society as solutions, leverage its own business activities as a way to mitigate and adapt to climate change.

Note) Paris Agreement: New framework adopted by the 21st Session of the Conference of the Parties to the UN Framework Convention on Climate Change for measures to combat climate change starting in 2020.

## Vision1 Achieving Zero CO<sub>2</sub> Emissions in the Fujitsu Group

The Fujitsu Group established a roadmap for reducing CO<sub>2</sub> emissions where it would gradually reduce them to zero in three phases by 2050, with its intention to take the initiative as a global ICT company to strive to create a decarbonized society. The roadmap has been certified at 1.5 °C by the Science Based Targets initiative (SBTi) \*1 that recommend setting scientifically consistent targets.

\*1 An initiative jointly established by the United Nations Global Compact, the World Resources Institute (WRI: World Resources Institute), and other organizations in 2015. It encourages companies to set GHG emission reduction targets consistent with science-based evidence to the level required by the Paris Agreement, validating targets that comply with criteria including indirect emissions not only within the company but also in the supply chain.



The Roadmap to reduce the Fujitsu Group's CO<sub>2</sub> Emissions to Zero by 2050

### Phase I

In Phase I (until 2020), from the perspective of usability and economic efficiency of the technology, in Japan, we will horizontally deploy energy conservation technologies that already exist, verify new energy conservation technologies that use AI, etc. and move forward with the use of low-carbon energy. Overseas, we will proactively implement renewable energy, focusing on the EU.

### Phase II

In Phase II (until 2030), the Fujitsu Group will work to establish and spread a transition to AI and ZEB\*2, etc. to accelerate the reduction of emissions. Further, we will expand strategic implementation of renewable energy, which is expected to be easier to use in Japan as well, with consideration given to local characteristic and economic efficiency.

\*2 ZEB: Zero Energy Building. A building with significantly reduced yearly energy consumption achieved through conservation of energy in its structure and facilities, and thorough creation of energy by using solar power generation, etc.

## Phase III

In Phase III (2030 and after), we will accelerate implementation of increasingly easy-to-use renewable energy, while supplementing with offsets from carbon credits, with an eye towards deploying and deepening innovative energy conservation technologies and shifting away from carbon.

The Fujitsu Group intends to increase the use of renewable energy in the electricity consumed at Fujitsu Group locations to at least 40% by 2030 and to 100% by 2050 with the membership gained in July 2018 to RE100.

## Vision 2 and 3 “Contributing to a Decarbonized Society” and “Contributing to Measures in Society to Adapt to Climate Change”

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The Fujitsu Group believes that ICT has the potential to contribute to the mitigation of and adaptation to climate change. To that end, we have established “Mitigation: Contribute to a Decarbonized Society” and “Adaptation: Contribute to Measures in Society to Adapt to Climate Change” as pillars of Fujitsu's medium/long-term environmental vision, and are utilizing advanced ICT to create social innovation that contributes to resolving global environmental issues.

### Vision 2 Contributing to a Decarbonized Society

The Fujitsu Group contributes to the decarbonization of society by creating ecosystems with customers in a variety of industries and business types. The key point of mitigation measures is the utilization of AI and other advanced digital technologies to maximize energy efficiency. We will achieve optimal usage of energy for the overall societal system by incorporating those technologies into a mechanism that crosses the boundaries between businesses, industries, and regions.

### Vision 3 Contributing to Measures in Society to Adapt to Climate Change

The key point of measures to adapt to the impact of climate change is advanced measuring technology using AI, big data, and simulations through sensing technology and high-performance computing (HPC), etc. Fujitsu will utilize these to create solutions to enable creation of a resilient societal infrastructure and stable supply of agricultural products, as well as solutions to minimize food product loss, thereby contributing to the minimization of damage to our customers and society caused by climate change.

## Medium- to Long-Term Visions and Targets Focused on Climate Change Issues

# Medium- to Long-Term Targets

The Fujitsu Group participates in the following initiatives with the aim of making the Fujitsu Climate and Energy Vision—its medium- to long-term environmental vision—a reality.

## Approval by Science Based Targets (SBT) Initiative

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In August 2017, the reduction targets of greenhouse gas (GHG) emissions from its business facilities and a part of value chain, set by Fujitsu Group, was approved by Science Based Targets (SBT) initiative as being at science based level. The SBT initiative was established in 2015 jointly by a number of organizations, including the World Resources Institute (WRI) and UN Global Compact. It encourages companies to set GHG emission reduction targets consistent with science-based evidence to the level required by the Paris Agreement, validating targets that comply with criteria including indirect emissions not only within the company but also in the supply chain.



### Targets

- To reduce GHG emissions from our business facilities by 71.4% by FY 2030 and 80% by FY 2050 in comparison to FY 2013.
- To reduce GHG emissions from our business value chain (purchased goods and services, and the use of sold products) by 30% by FY 2030 in comparison to FY 2013.

## Joining RE100 as Japan's First Gold Member

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In July 2018, Fujitsu joined RE100, which strives to significantly expand the adoption of renewable energy at a global scale, as Japan's first Gold Member. RE100 is an international initiative led by The Climate Group in partnership with CDP and consists of companies committed to source 100% of the electricity they use from renewable sources.

The Fujitsu Group will consider the appropriate steps for each region and expand its procurement of electricity from renewable sources at locations in Japan and around the world, starting with data centers outside Japan. The Group will concurrently continue its work on R&D and technology trials for energy management and storage, and contribute to the spread of renewable energy in society as a whole.

### Renewable Energy Electricity Usage Goals at Fujitsu Group Locations

- Goal : 100% by 2050
- Intermediate Goal : 40% by 2030



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# TCFD-Based Information Disclosure

The Task Force on Climate-Related Financial Disclosures (TCFD) was established by the Financial Stability Board at the request of G20 with the objective to reduce the risk of instability in the financial market due to climate change. The task force announced its recommendations in June 2017 asking companies and organizations to gain understanding of and disclose the risks and opportunities arising from climate change. The Fujitsu Group announced its support for the TCFD recommendations in April 2019 and strives to disclose information in line with the recommendations, including responding to CDP (\*1).

\*1 CDP:

An international nonprofit organization which offers the only global system for measuring, disclosing, managing and sharing important environmental information of companies and cities. CDP is working together with the world's leading institutional investors to encourage companies to disclose their impact on the environment and natural resources, and to take steps to mitigate that impact.

Item	Response Status	Reference
Governance	<p>Under our system for promoting environmental management, we have established the Sustainability Management Committee chaired by the Representative Director. This committee deliberates on medium- and long-term issues, makes policies, shares the risks and opportunities arising from climate change, determines measures to tackle them and manages the progress of these activities. It also reports the results of these activities to the Board of Directors at the meetings of the Management Council.</p> <p>Furthermore, under the supervision of the Board of Directors, the Risk Management and Compliance Committee, chaired by the Representative Director, analyzes and responds to risks throughout the Group, including those related to climate change, in the company-wide risk management system. The Committee is the highest decision-making body for risk management, and regularly reports to the Board of Directors on important risks that have been identified, analyzed, and evaluated. The Representative Director, who serves as committee chairperson, and other officers in charge, serve as members on these committees.</p> <p>In addition, the Fujitsu Group has established an environmental management system (EMS) based on ISO 14001, and the results of EMS activities are reported to the Board of Directors through the Management Committee.</p>	<ul style="list-style-type: none"> <li>• <a href="#">Sustainability Management in the Fujitsu Group</a></li> <li>• <a href="#">Environmental Management System</a></li> <li>• <a href="#">Risk Management</a></li> <li>• <a href="#">Corporate Governance</a></li> </ul>
Strategy	<p>The Fujitsu Group has conducted scenario analyses using the 2°C scenario, considering the period up to the year 2050. The results show risks and opportunities, as shown in the table below. ICT products and services which can contribute to the mitigation of and adaptation to climate change will provide sales growth opportunities, while physical and regulatory risks will affect our operating expenses and supply chain costs. For more details on how to deal with risks and other issues, please refer to "Handling Environmental Risks" on the right.</p> <p>Based on these analyses of risks and opportunities arising from climate change in the medium to long term (2030-2050), we have formulated the FUJITSU Climate and Energy Vision, a medium- to long-term environmental vision through 2050. As the world strives for decarbonization, we recognize that any delay in action can lead to risks. Therefore, this vision aims to promote zero CO<sub>2</sub> emissions from our company using ICT and contribute technology services that support digital innovation to build a decarbonized society and cope with climate change, including turning know-how gained into services. By responding to our medium- and long-term environmental vision, we assessed that we are resilient in our strategy.</p>	<ul style="list-style-type: none"> <li>• <a href="#">Response to Environmental Risks</a></li> <li>• <a href="#">Medium- to long-term environmental vision</a></li> </ul>

	Risks/opportunities	Content
	Policy and regulatory risks	The risk of increased costs which are associated with stricter laws and regulations (such as a carbon tax) related to greenhouse gas emissions and energy use, as well as decreased corporate value in the event of non-compliance
	Technology risks	The risk of unrecovered investments and loss of market share if we are outperformed in the fierce competition to develop technologies for a decarbonized society (such as energy-saving performance and low-carbon services)
	Market risks	The risk of losing business opportunities if we do not meet the energy-saving performance needs for products and services
	Reputation risks	The risk of a decline in corporate value or an increase in response costs due to a negative assessment by stakeholders regarding the status of climate change measures (such as the percentage of renewable energy adoption)
	Opportunities for products and services	Increased sales through the provision of low-power consumption products (e.g., high-performance computers) and services that contribute to climate change mitigation and adaptation (such as Efficiency improvement using mathematical optimization technology and AI-based river level predictions)
	Marketplace opportunities	The acquisition of new market opportunities for climate change countermeasures created through the use of ICT (such as improved energy efficiency using AI and various simulations using supercomputers, as well as energy supply and demand adjustment using blockchain technology)
Risk Management	<p>As part of our company-wide risk management system, we have established the Risk Management and Compliance Committee to identify, assess and manage risks across the Group, including those related to climate change. In order to conduct company-wide risk assessments on a regular basis, the committee prepares tools, distributes them to each employee responsible for risk management and compliance, and gathers responses. The departments in charge of each risk across the entire company utilize these tools to conduct assessments on items such as the impact and likelihood of occurrence related to risk threats and the status of countermeasures, and provide answers to risk threats. Climate change-related risk assessments are conducted by all relevant departments, using information collected from across the company, based on the expertise of each department in areas such as policy, reputation, natural disasters, the supply chain, and products and services. The Risk Management and Compliance Committee conducts a centralized matrix analysis of the results of the assessments answered by each department in terms of impact and likelihood of occurrence, then identifies high-priority risks at the company-wide level. The results of this analysis are reported to the Board of Directors.</p> <p>The Sustainable Management Committee shares business risks, opportunities and countermeasures which are due to climate change, and manages progress. In addition, the Fujitsu Group has established an environmental management system based on ISO 14001. Under this system, we monitor compliance and other risks.</p>	
Indicators & Targets	<p>The Fujitsu Group recognizes the importance of reducing GHG emissions and adopting renewable energy sources in addressing climate-related risks. We also believe that the deployment of innovative energy-saving technologies implemented by our company will lead to the acquisition of climate-related opportunities. We therefore use GHG emissions and the percentage of renewable energy adoption as indicators. We have set SBTi certification targets and RE100</p>	

- [Response to Environmental Risks](#)
- [Environmental Management System](#)
- [Risk Management](#)

- [Medium- to long-term environmental vision](#)
- [Fujitsu Group Environmental Action Plan](#)

targets as medium- and long-term goals, and established the "Environmental Action Plan" for short-term goals, and we are monitoring those indicators, managing the progress of our strategies, and conducting risk management. The table below shows the Fujitsu Group's targets for reducing GHG emissions and our actual results, while the figure below shows our roadmap and measures for achieving our own zero CO<sub>2</sub> emissions, which is one of the items in our medium- to long-term environmental vision.

Item	GHG Emissions Performance (FY 2020)
Scope 1	75 ktons-CO <sub>2</sub>
Scope 2 (Location-based)	583 ktons-CO <sub>2</sub>
Scope 2 (Market-based)	540 ktons-CO <sub>2</sub>
Scope 3 (Category 1)	1,104 ktons-CO <sub>2</sub>
Scope 3 (Category 11)	3,094 ktons-CO <sub>2</sub>

Items		Targets		Achievements (FY 2020)
Reducing the volume of our own GHG emissions*1	Short-term	Reduction of 14% by 2020*2	Environmental Action Plan	32.7% reduction
	Medium-term	Reduction of 71.4% by 2030*2	SBT1.5°C certification	
	Long-term	Reduction of 80% by 2050*2*3	SBT2.0°C certification	
Reducing the volume of the value chains' GHG emissions*1	Medium-term	Reduction of 30% by 2030*4	SBT 2.0°C certification	48.7% reduction
Percentage of renewable energy adoption	Medium-term	40% adoption by 2030	RE100 membership	10.1% adoption
	Long-term	100% adoption by 2050	RE100 membership	

\*1 vs. 2013, \*2 Scope 1 + Scope 2, \*3 Excluding carbon credits, \*4 Scope3 Category 1 + Category 11

### The Roadmap to Reduce the Fujitsu Group's CO<sub>2</sub> Emissions to Zero by 2050

