Climate-Related Information Disclosure (based on TCFD

In June 2018, Hitachi announced its endorsement of the Task Force on Climate-related Financial Disclosures (TCFD). The TCFD, established by the Financial Stability Board (FSB), published its final report on information disclosure in June 2017 noting that investors needed more clarity in corporate disclosures on climate-related risks and opportunities and governance measures. The following contains key climate-related information in line with the TCFD's recommendations.

Governance

Hitachi sees climate change and other environmental issues as important management issues. In September 2016, after discussions at the Board of Directors, we established and announced long-term environmental targets called Hitachi Environmental Innovation 2050 containing CO₂ reduction targets for 2030 and 2050 that are in line with our Environmental Vision defining the goals of environmental management from a broader perspective.

In April 2017, we established the Executive Sustainability Committee, chaired by the president and CEO and staffed by other top executives, as the highest-ranking body to discuss and reach decisions on the Group's sustainability strategy in accordance with our management and business strategies. Members meet twice a year to discuss material environment-related policies and measures, including those in response to climate change, to share progress reports and achievements, and to set the course for further improvements and new initiatives.

We have adopted a committee system to separate the responsibilities for management oversight from the execution of business operations. Under this system, the Audit Committee of independent directors conducts an audit of sustainability-related operations once a year. Reports on climate-related material issues are made to the committee by Hitachi executive officers.

Strategy

Wishing to fulfill our responsibilities as a global company in achieving a low-carbon society and taking note of the total CO₂ reductions required globally, we have set in our long-term environmental targets called Hitachi Environmental Innovation 2050 CO₂ reduction targets for the entire value chain of 50% by fiscal 2030 and 80% by fiscal 2050, compared to fiscal 2010.

Our 2021 Mid-term Management Plan, meanwhile, calls for reducing CO_2 emissions throughout the value chain by more than 20% by fiscal 2021, compared to fiscal 2010.

Climate-Related Risks and Opportunities

As for climate-related risks, we have followed TCFD classification in considering (1) risks related to the transition to a low-carbon economy in the 2°C scenario and (2) risks related to the physical impacts of climate change in the 4°C scenario, which assumes that efforts to reduce global CO₂ emissions have failed. Risks are categorized into short term (over the next three years from fiscal 2019 to 2021),

medium term (through fiscal 2030), and long term (through fiscal 2050), according to when the risks may materialize.

(1) Risks related to the transition to a low-carbon economy (mainly 2°C scenario)							
Category	Major risks	Time span	Main initiatives				
Policy and legal	Increased business costs from the introduction of carbon taxes, fuel/ energy consumption taxes, emissions trading systems, and other measures	Short to long term	Avoid or mitigate increases in business costs, such as from carbon taxes, by further enhancing production and transport efficiency and promoting the use of non- or low-carbon energy sources				
Technology	Loss of sales opportunities due to delays in technology development for products and services	Medium to long term	Contribute to reducing CO ₂ emissions by developing and marketing innovative products and services that lead to the achievement of long-term environmental targets and expanding the decarbonization business				

(2) Risks related to the physical impacts of climate change (4°C scenario)							
Category	Major risks	Time span	Main initiatives				
Acute and chronic	Climate-related risks to business continuity, including increased severity of typhoons, floods, and droughts (acute risks) as well as rising sea level and chronic heat waves (chronic risks)	Short to long term	Take into account the possibility of flood damage when deciding on the location or equipment layout of a new plant. Measures tailored to the water risks of each manufacturing site will be strengthened in the future based on the results of a water risk assessment now being conducted.				

CO₂ emissions during the use of our products and services by our customers account for 90% of total emissions in our value chain. This represents a business opportunity for us in the short, medium, and long-term, since developing and providing products and services that emit zero or very little CO₂ during their use can satisfy customer needs and also help address social issues.

Climate-related opportunities						
Category	Major opportunities	Main initiatives				
Products/ services and markets	Increased market value and revenue from expanded sales of products and services with innovative technology that can contribute to the mitigation and adaptation of climate change	Expand the decarbonization business, develop and market products and services that contribute to a low-carbon society, and promote the development of innovative devices and materials that contribute to reducing the environmental burden				

recommendations)

Responding to the Business Risks and Opportunities of Climate Scenarios

We are examining the impact of the 2°C and 4°C scenarios for five businesses that have a relatively high likelihood of being affected by climate change.

Strategies for 2°C/4°C Scenarios Based on TCFD Recommendations (abridged)

Target businesses	Railway systems	Automotive systems	Water systems	Power generation and power grids	IT systems
Responses to future business risks and opportunities	Continue to strengthen the railway business, as global demand for railways will increase under either scenario	Enhance response to new markets, such as for electric vehicles, under the 2°C scenario, and also to existing technologies like internal combustion engines under the 4°C scenario	Strengthen provision of seawater desalination facilities and other water generation systems in response to increased water demand from global economic growth, urbanization, and population growth under either scenario	Continue to enhance responses to relevant markets in view of expected higher demand for non-fossil energy under either scenario	Continue to develop innovative digital technologies and enhance digital service solutions that generate new value in view of expected market expansion under either scenario

Our Social Innovation Business contributes to improving people's quality of life and enhancing the value of our business customers. Utilizing our strengths in OT and IT as well as in energy technologies, we seek to help users of our products and services to reduce their CO_2 emissions. Because we pay close attention to market trends and develop our business flexibly and strategically, we believe we have high climate resilience in the medium to long term under either the 2°C or 4°C scenario.

Risk Management

The Hitachi Group is engaged in many different businesses, with each having its own set of risks and opportunities. The impact of those pertaining to climate change is evaluated for each business unit and Group company in accordance with the Environmental Action Plan, updated every three years. The results are tabulated by the Sustainability Promotion Division of Hitachi, Ltd., and their importance is checked at Sustainability Promotion Meetings. Those risks and opportunities perceived as being particularly important for the Group as a whole are deliberated by the Executive Sustainability Committee, chaired by the president and CEO of Hitachi, Ltd.

Metrics and Targets

Our environmental activities are managed through the Environmental Action Plan, for which the indicators and targets are updated every three years, including those to measure and manage climate-related risks and opportunities.

The 2021 Mid-term Management Plan cites a reduction target of at least 20% for CO₂ emissions across our value chain by fiscal 2021 compared to fiscal 2010. To achieve this goal, targets for each business unit and Group company were established in line with the 2021 Environmental Action Plan, and progress is being monitored on a Group wide basis. Total greenhouse gas emissions (Scope 1, Scope 2, and Scope 3) across the value chain are calculated based on GHG Protocol standards and have been published in the Hitachi

Sustainability Report since fiscal 2013.

Total CO_2 emissions can fluctuate greatly due to the restructuring of our operations, but given the nature of our business, some 90% of our emissions come from the use of sold products in Scope 3. Among our products and services featuring equivalent value, therefore, we give priority to providing customers and society with those that emit less CO_2 . At the same time, we will seek to further reduce CO_2 emissions during production.

This section on "Climate-Related Information Disclosure (based on TCFD recommendations)" has been abridged due to space considerations. For a full discussion of our initiatives, refer to the Hitachi Sustainability Report 2019.

https://www.hitachi.com/sustainability/download/index.html