

INFORMATION DISCLOSURE BASED ON TCFD

RECOMMENDATIONS

June 20, 2022 SCSK Corporation

SCSK Group's Policy on Climate Change

SCSK Group's Sustainability Management

SCSK Group (below, "our Group") promotes "sustainability management" as a mid-to-long-term growth strategy. Our Group believes that sustainability management contributes to the sustainable development of society through faithful and fair business activities under the Group's corporate philosophy, "Create Our Future of Dreams". In addition to continually evaluating the impact of the Group's business activities on the environment and society and improving the Group's activities, we will contribute to addressing a variety of social issues together with our clients and society, leveraging our core competence of digital technology, and work to achieve continued growth with society while creating new value required by society. (Creation of social and economic value)

Seeking to achieve its corporate philosophy of "Create Our Future of Dreams", we evaluate a range of issues faced by society from a business perspective, and formulate materialities, which are issues that we regard as particularly important and give priority to in order to grow together with society.





The Group's Basic Approach to Climate Change

In our Group, "global environment contribution" is defined as a material issue, and the response to climate change is considered as an important and prioritized management challenge.

The Group has conducted environment-conscious business activities through energy saving in data centers and offices, etc.; in addition, we have created values using digital technologies to contribute to more efficient society and mitigate environmental impacts.

In addition to the previous efforts, our Group set medium-to-long-term greenhouse gas emissions reduction goals in June 2021 and obtained accreditation by SBT Initiative^{*1}.



Along with strongly motivated environment-conscious business activities toward reduction of greenhouse gas emission, we consider transition to decarbonized society as a business opportunity; thus we will contribute, through co-creation with a wide circle of customers and partner companies, to realization of decarbonized society and sustainable society development.

(*1) SBT (Scientific based Targets) Initiative aims to set scientifically grounded reduction targets for companies so as to limit increase of global average temperature.

Response to TCFD Recommendations

In April 2021, the Group joined the Task Force on Climate-related Financial Disclosures (TCFD)^{*2} Recommendation. In accordance with our Group's policy on climate change, we will aim at enhancing the corporate value through continuous consideration and information disclosure of the four items recommended by TCFD, and constructive dialog with various stakeholders.

Information Disclosure Recommended by TCFD			
1. Governance	Disclose the organization's governance around climate- related risks and opportunities.		
2. Strategy	Disclose impacts of climate-related risks and opportunities on businesses, strategy, and financial planning.		
3. Risk Management	Disclose how climate-related risks are identified, assessed, and managed.		
4. Metrics and Targets	Disclose the metrics and targets used to assess and manage climate-related risks and opportunities.		

(*2) Task Force on Climate-related Financial Disclosures:

TCFD was established by the Financial Stability Board to mitigate the risk of instability in financial markets related to climate change,

TCFD presents a climate-related information disclosure framework to be adopted voluntarily by companies.



1 Governance

1.1 Governance Related to Climate Change

As regards the material issue of the Group's global environment contribution and response to climate change, Sustainability Committee, an advisory committee chaired by the Chairman and Chief Executive Officer and President and Chief Operating Officer, considers and confirms corporation-wide issues and measures related to climate change and other sustainability aspects.

The content of consideration is passed over from the Sustainability Committee to Management Committee to be further discussed in the context of corporation-wide management; after that, the Sustainability Promotion Committee regularly reports to the Board of Directors for appropriate supervision.

Governance System Related to Climate Change and Structure of Committees



1.2 Functions and Meetings of Bodies Related to Climate Change

Body	Function	Meetings (FY2021)
Board of Directors	Receives regular reports and supervises important issues related to climate change and other sustainability aspects as well as content of consideration by Management Committee	1 time
Management Committee	Receives regular reports and supervises important issues related to climate change and other sustainability aspects, and discusses policies and measures related to corporation- wide management	4 times
Sustainability Committee	Considers and confirms corporation-wide issues and initiatives related to climate change and other sustainability aspects, and regularly reports results of consideration to Management Committee and Board of Directors	5 times



2 Strategy

2.0 Assumptions of Scenario Analysis

Our Group recognizes response to climate change as an important management issue that determines the company's long-term value, and attaches great importance to strategy and flexibility in dealing with uncertain situation changes. To evaluate the impact of climate change on business based on this approach, our Group's operations vulnerable to the impact of climate change were identified, and climate change scenarios recommended by TCFD were used for prediction and analysis of external circumstances in FY2050.

■ Target business: data center operation

The share of data center business in our Group's sales is relatively small as compared to systems development and other business lines, but it makes up approximately 80% of the Group's greenhouse gas emissions in Scope 1+2, and the impact (ex. carbon tax, environmental regulations) of climate change is assumed significant; thus, data center operation was selected as the analysis target.

Selected scenarios (and parameters): 4°C scenario/1.5°C scenario
 Parameters of 4°C scenario:
 Based on IPCC Fifth Assessment Report, IEA WEO 2018, IEA WEO 2021, various government reports, etc.

Parameters of 1.5℃ scenario:

Based on IPCC Mitigation Pathways Compatible with 1.5℃ in the Context of Sustainable Development, Below 1.5℃ pathway, IPCC Fifth Assessment Report , Special Report on Global Warming of 1.5℃, IEA WEO 2018, IEA WEO 2021, various government reports, etc.

2.1 Risks and Opportunities of Climate Change

As regards data center operation, physical and transition risks and business opportunities related to climate change were identified.

■ Risks of climate change risks (summary)

With introduction of carbon tax and tightening of energy-saving regulations, one can expect higher costs of switching to renewable energy equipment and energy-saving equipment as well as of purchasing green electricity. In addition, operating costs of data centers are likely to increase due to operation recovery costs after natural disasters, air-conditioning costs and power consumption caused by temperature rise, etc.



Opportunities of climate change (summary)
One can expect increase in demand for decarbonized or resilient data centers based on energy saving and reuse, and demand for large data storage with growing communication traffic boosted by spread of Smart X toward the future digital society. In addition, one can assume demand for ancillary services for utilization of big data accumulated in data centers.

Please refer to the table "Impact of Risks and Opportunities" for risks and evaluation items as well as impact of risks and opportunities.

Evaluation Item			Impact				
	valuatio	n Item	Risks	Opportunities			
		Carbon Price	 DC*1 operation costs increase due to introduction of a carbon tax Carbon taxes vary by country, so this could lead to cost fluctuations if the business is being operated globally 	There is increased demand for cloud services due to increased demand for IT services which contribute to reducing GHG emissions			
	Regulations	Carbon emission targets/policies of each country	 Costs increase for measures such as renewable energy/energy-saving facilities and purchasing green electricity 	Measures against climate change are called for, and there is increased demand for DCs that use renewable energy or are energy-saving			
		Energy-saving Measures	 Increase in costs of in-house facilities to address tightening energy-saving regulations 	Competitive advantages can be gained by acting preemptively to introduce standards and rules for decarbonization leveraging new technologies			
Transition Risks	Products and Services In Important Products		 The price of semiconductors rises due to increased demand from the spread of EVs, etc. If the unit cost of electricity is raised to curb electricity demand, electricity costs will increase 	 Demand for processing/storing large amounts of data increases due to increased communication volume from the spread of SmartX*² Demand emerges for peripheral services for utilizing big data stored in DCs 			
	Technologies	Introduction of Next-generation Technologies	 Costs increase due to the introduction of new decarbonization technologies 	There is potential for obtaining and retaining customers by acting ahead of other companies to address ICT energy-saving standards			
	Markets	Change in Customer Awareness	Sales decline as customers become more environmentally aware and avoid using DCs with poor environmental performance	 Demand for decarbonized DCs increases in response to increased awareness of decarbonization and environmental friendliness Business opportunities are created for new services that take customer needs for decarbonization and environmental friendliness into account 			
		Change in Investors' Reputation and Awareness	 ESG investment ratings may drop and stock prices may fall if information disclosure measures are inadequate 	 Corporate value improves by utilizing/issuing green bonds Reputation with investors improves through business that contributes to the environment 			
	Increase in Average Temperature		 Air conditioning costs and electricity consumption for air conditioning increase 	 Demand increases for ICT services that contribute to more efficient energy consumption 			
	Acute	Acute	Change in Rainfall and Weather Patterns	 Costs increase for addressing changes in building performance requirements 	 Extreme weather increases demand for DCs that are safe from disasters Increased demand for DCs due to usage of big data analysis, etc., for climate analysis 		
Physical Risks		Rising water levels	 There is new costs for flood control measures and relocation costs incurred by DCs located close to rivers 	-			
	Chronic	Increasing Severity of Extreme Weather	 DC operation/recovery costs increase because of natural disasters Risk of DC facility shutdowns increases due to power supply disruptions caused by natural disasters, etc. 	 Demand increases for highly DCs with high resilience^{*3} Demand increases for shift to DC use from on- premise data management from the perspective of damage prevention and business continuity 			

(*1) DC: Data Center

(*2) Smart X: the collective term for next generation technologies, such as smart cities, smart cars, smart homes, and smart machines, which integrate the IoT and AI.

(*3) Resilience: a capability to promptly recover from troubles caused by natural disasters etc.



2.2 World View of Each Scenario and Impact Assessment

World views for 4℃ scenario and 1.5℃ scenario were defined based on scientific grounds provided by IEA, etc. Thus, major impacts of risks and opportunities of climate change that were analyzed for data center operation on our Group were figured out.

Please refer to the table "World View and Impact Items of Each Scenario" for a summary of world views and impacts. Please refer to the table "Evaluation Results for Major Impact Items" for influence exerted on profit by major impacts in each scenario.

<World view and impact assessment in 4°C scenario: summary>

World view

Temperature rise and aggravation of natural disasters will gain momentum if economic activities are favored over active measures against global warming. The government promote a system of compensation for damages caused by rising sea levels as well as measures for disaster prevention and BCP measures; on the other hand, higher carbon tax and use of renewable energies are not encouraged. The use of renewable energies will make no progress, and electricity prices will be changing on their own.

(Market environment of DC business)

With the temperature rise, air-conditioning load will increase in data centers, which adds to power consumption and cost.

In addition, sales decline and recovery insurance costs will increase in case of shutdowns due to aggravation of extreme weather events.

On the other hand, the aggravation of extreme weather events contributes to demand for resilient data centers, and the presence and quality of BCP measures will gain importance as a criterion for customers to select data centers.

Impact evaluation

Although air-conditioning costs grow with the temperature rise, its impact on business is restrained by continuous efforts toward efficiency and labor saving. In addition, building plots for data centers are chosen after a preliminary survey to identify regions not strongly affected by heavy rains, floods, and other natural disasters. Thus, in this scenario analysis, the influence of heavy rains, floods, etc. was evaluated as low.

On the other hand, business opportunities in terms of BCP are expected to increase due to aggravation of natural disasters, and profit enhancement through providing resilient DC services to respond to business opportunities was evaluated as possible.

<World view and impact evaluation in 1.5°C scenario: summary>



World View

Climate change countermeasures toward decarbonization will progress dramatically under a global agreement. The government encourages higher carbon tax, restriction of fossil fuels usage, expansion of smart cities. Use of renewable energies will be promoted, the utilization rate will be maintained at a high level, and electricity prices will increase. Demand for technologies related to energy efficiency will grow, smart cities and other Smart X elements will expand, and communication traffic will intensify.

(Market environment of DC business)

With higher carbon tax, costs of in-house carbon emission will increase; besides, due to restriction on fossil fuels usage, renewable energies will be promoted, and electricity prices will increase. On the other hand, demand will grow for environment-friendly and decarbonized data centers and services related to decarbonization contributing to customers' decarbonization and energy efficiency; carbon emission and environmental consciousness will gain importance as a criterion for customers to select data centers.

Impact evaluation

With higher carbon tax, strengthening of carbon emission regulations, and global penetration of renewable energies, carbon prices and electricity prices rise steeply, thus causing increase of business costs. As regards carbon prices, impact of their growth may be mitigated through efforts toward targets of greenhouse gas emission reduction accredited by SBT Initiative.

In addition, increase in costs is expected due to rising electricity prices, but its influence on business was not evaluated as heavy.

On the other hand, global decarbonization trends will contribute to customers' environmental awareness, and demand for decarbonized data centers was evaluated to grow.

Our company has long improved operational efficiency of data centers (e.g., advanced AI-based airconditioning control) and energy efficiency performance. In addition to the previous efforts, we are considering active use of renewable energies and decarbonization of data centers. Future profit enhancement was evaluated as possible through promotion of environment-conscious, decarbonized data center services.



World View and Impact Items of Each Scenario

4°C scenario	Outside Circumstances	1.5℃ scenario
Economic activities are prioritized, carbon controls and use of renewable energies are not promoted and change <u>on their own</u> . natural disasters aggravate. (Government) Responds to aggravation of natural disasters, promotes disaster prevention and BCP measures (Customers/Market) Resilience and presence of BCP measures become criteria for service selection (Business perspective) Demand for resilient businesses to respond to aggravation of extreme weather events	World View (government, customers/market, business perspective)	Higher efficiency of decarbonization, strengthening of carbon controls, and other measures are adopted globally. active shift toward decarbonization is promoted (Government) Promotes restriction of fossil fuels usage and other climate change countermeasures under global agreement (Customers/Market) Low greenhouse gas emissions, efficient use of renewable energies, and other factors of environmental performance become criteria for data center selection (Business perspective) Demand for environment-conscious sustainable businesses
Impact Overview	Impact Item	Influence Overview
Demand increases for resilient DCs and BCP measures due to increasingly extreme weather	Resilient DCs	Impact is slight
Impact is slight	Decarbonized DCs/related services	Consumer environmental awareness (decarbonization / energy conservation trends) and demand for new services rises
There are no government-promoted initiatives, etc.; the transition continues in line with current trends	Communication volume/data processing volume	Data traffic and data processing volume increase due to the government's "smart city development initiatives", etc., aimed at improving energy supply and infrastructure efficiency
Prices shift in line with current trends (use of renewable energy does not advance)	Electricity prices	Electricity prices rise due to promotion of renewable energy use
Air conditioning load increases due to rising temperatures, resulting in increased energy consumption	Energy consumption	Impact is slight
The cost for addressing physical risks increases due to an increase in natural disasters	Costs for addressing physical risks	Impact is slight
Impact is slight	Carbon cost	Carbon cost for carbon emissions rises due to higher carbon taxes



Evaluation Results for Major Impact Items

	Summary	We foresee increased air condition costs due to rising average temperatures, costs incurred to address natural disasters, and increased demand for resilient DCs due to increasingly severe natural disasters				
		Category	Major Impact Items	Level of impact on revenue ^{*1}		
	Impact Evaluation		Major Impact Items	As of 2030	As of 2050	
4°C .		Sales	Increased demand for resilient DCs *2	++	+++	
scenario			Increased DC demand due to larger data traffic and data processing volume	+	+	
		Expenses	Fluctuations in electricity prices *3	-	++	
			Rising electricity consumption (air conditioning costs)	-		
			Rising costs for addressing physical risks	_		

	Summary	In regard to the increased costs from higher carbon taxes: we can reduce carbon tax costs by taking initiatives to reduce GHG emissions. We also foresee increased demand for decarbonized DCs				
	Impact Evaluation	Category	Major Impact Items	Level of impact on revenue*1		
1 500			Major Impact Items	As of 2030	As of 2050	
1.5℃ scenario			Increased demand for decarbonized DCs and new services that take changes in the social environment into account	++	+++	
			Increased demand for DCs due to larger data traffic / data processing volume	+	+	
		Expenses	Fluctuation in electricity prices	_		
			Higher carbon taxes ^{*4}	()	()	

(*1) Level of impact on revenue: The impact of the major business impact items in each scenario on earnings is indicated by "+/-." Evaluated on a relative basis by three levels

- (*2) Increased demand for resilient DCs: Costs of installation and operation of new resilient DCs were not considered in this calculation. The cost impact may increase depending on the assumed scenario.
- (*3) Fluctuations in electricity price: In 4℃ scenario, electricity cost will increase by 2030 according to IAE reports and other sources, but decrease is expected by 2050.
- (*4) Higher carbon taxes: With reduction of greenhouse gas emissions, impact of cost increase due to carbon tax boost is expected to be mitigated.

2.3 Actions Related to Risks and Opportunities of Climate Change

We identified risks and opportunities in each scenario, and considered policy directions as well as perspectives

of countermeasures.

In future, we will continue consideration of measures to avoid or mitigate risks and to seize opportunities; we will also aim at enhancing resilience of business activities through implementation of designed measures.



Scenario	Direction of Initiatives	Perspectives of Countermeasures	Examples of Countermeasures
4℃ scenario	Creation of new services	Expansion of resilient DCs	 Building of new DCs designed to withstand severe disasters Selection of DC sites taking into account the impact of natural disasters Mutual backup between DCs
Both	Energy saving	Restriction of electricity cost	 Procurement of cheap electricity by using night-time power and new technologies
scenarios	Creation of new	Restriction of electricity usage Effective use of DC waste	 Air-conditioning control and power consumption management using IoT and AI or new technologies Use of DC waste heat for urban development and
	services	heat	 expansion to other business fields Virtual PPA through purchase of renewable energy
1.5℃	Energy saving	Introduction of renewable energies	 certificates Direct purchase of renewable energy-derived power (PPA) Establishment and acquisition of renewable energy-based power plants
scenario	Creation of new services	Creation of new services related to carbon-free DCs	 Creation of new services in view of changes in legal system and social environment

In 2030 or 2050, transition to global decarbonized society will be actively promoted for alleviation of climate change risks, and companies may need to respond to social transformation. On the other hand, there are concerns that with continuous prioritization of economic activities, aggravation of natural disasters will have an enormous effect on social and business activities, and more advanced response to physical risks may prove necessary.

In future, one can expect rapid changes in social environment and remarkable growth of uncertainties. However, our Group will timely revise these scenarios toward strategies of flexible response and adaptation, thus aiming at sustainable growth together with society. Particularly, we are going to contribute to customers' response to social transformation and business continuity through co-creation of new services, etc. in view of changes in social environment.

3. Risk Management

3.1 Risk Management System

SCSK has established the Risk Management Regulations and the Risk Management Department as a dedicated department in charge of risk management, so that we can appropriately manage risks that could have a serious adverse effect on the SCSK Group's business.

Risk Evaluation

Based on these regulations, we take stock of risks for all organizations including Group companies inside and outside of Japan regularly on an annual basis. In addition, the departments responsible for risk and



the Risk Management Department jointly gather information on risks both internal and external to identify and evaluate risks facing the Group.

Identified risk items are evaluated comprehensively, in both qualitative and quantitative terms, along the two axes of "degree of influence" and "occurrence probability" from the viewpoint of corporation-wide management.

Risks that may require more focused countermeasures are defined as "important risk management items", and the Risk Management Department works together with other relevant departments toward corporationwide measures.

Risk Management System

Each division of the Group Corporate is responsible for risks related to their individual operations and duties, and after implementing risk countermeasures based on evaluation, these divisions engage in monitoring of the situation and review of their countermeasures. The heads of all organizations including Business Groups carry out risk management for their own respective organization through risk management processes.

The Risk Management Department identifies and evaluates the risk management situation for the entire company so that these risk management activities function appropriately. It also makes reports to the President and Chief Operating Officer regularly to receive instructions on risk response policy as needed. The Risk Management Department also reports on the overall situation of its activities first to the Management Committee and then to the Board of Directors. SCSK is working to enhance risk management through the above risk management activities in order to adapt to the changing business environment. Please refer to "Risk Management System Diagram" for details of the risk management system.





3.2 Integration of Climate-related Risks into Corporation-wide Risk Management System

In our Group, departments responsible for risks (Sustainability Promotion Department, Business Groups, etc.) jointly with the department in charge of risk management (Risk Management Department) collect risk items related to climate change based on external reports and advice from outside experts.

The collected risk items are integrated into the Group's risk management system to be evaluated and managed from the entire company.

4 Metrics and Targets

4.1 Metrics Used to Manage and Evaluate Risks and Opportunities of Climate Change

The Group set medium-to-long-term greenhouse gas reduction targets in June 2021 and obtained accreditation by SBT Initiative. Along with strongly motivated environment-conscious business activities toward reduction of greenhouse gas emissions, we consider transition to decarbonized society as a business opportunity; thus we will



contribute, through co-creation with a wide circle of customers and partner companies, to realization of decarbonized society and sustainable society development.

SCSK Group's GHG Reduction Target



(*1) Scope 1: Direct emissions of greenhouse gases from a company's own business activities Scope 2: Indirect emissions associated with the use of electricity, heat and steam, etc., supplied by other companies.

(*2) Scope3: Indirect emissions not included in Scope 1 and Scope 2 (emissions of other companies related to a company's own business activities).

4.2 Efforts toward Reduction of Greenhouse Gas Emission

<Efforts toward Reduction in Scope1+2 (as regards company's own emissions)>

Efforts at Data Centers

Power consumption by data centers accounts for approximately 80% of our Group's greenhouse gas emissions in Scope 1+2.

Recently, power consumed by data centers is on increase due to expanding deals with customers and fullscale operation of SANDA Center 2 built in FY2018. Moreover, further increase in power consumption is expected after completion and commissioning of Chiba Center 3.

With this situation in mind, efficient utilization of energy and further reduction of power consumption at data centers toward alleviation of environmental load are promoted through adoption of high –efficiency equipment and managerial improvement.

In addition, reduction of greenhouse gas emissions is promoted via utilization of renewable energies and non-fossil fuel certificates.

In FY2021, emissions of CO_2 were reduced by approximately 21,043 ton by using FIT non-fossil fuel certificates. As a result, green electricity ratio in the same fiscal year is over 30%.

<Efforts toward Reduction in Scope 3 (as regards emissions by supply chains)>

■ Joint Efforts with Partner Companies

Our Group has established Supply Chain Sustainability Policy. This policy determines our concern for human rights and working environment as well as approach to environmental issues including climate change; the policy is explained, together with particular measures, via Core Partner Conferences, explanatory meetings for subcontractors, etc.

In FY2021, all core partners^{*1} were provided with explanations about efforts of the Group aimed at reduction of greenhouse gas emissions. In order to promote specific measures for further emission



reduction, we ask our partners for understanding and cooperation in opinion exchange, providing data on

- carbon dioxide emissions, etc.
- (*1) Core partners: main partner companies that contribute to higher quality and productivity, and engage in continuous and stable transactions

4.3 Status of Greenhouse Gas Emissions (Scope 1/2/3)

Greenhouse Gas Emissions of SCSK Group

				FY2019 (SBT reference year)			FY2021		
				Emission volume (t-CO2)	Ratio to total emission	Scope 3 breakdown	Emission volume (t-CO2)	Ratio to total emission	Scope 3 breakdown
То	otal emission volume (Scope 1+2+3)			621,897	100.00%	-	533,778	100.00%	-
	Scope 1		ct emissions of greenhouse gases from a any's own business activities		0.03%	-	307	0.06%	-
	Scope 2	Indirect emissions associated with the use of electricity, heat and steam, etc., supplied by other companies		46,597	7.49%	-	39,537	7.41%	-
	Scope 1+2	subtotal		46,781	7.52%	-	39,844	7.46%	-
	Scope 3	Scope 2 (emiss	ions not included in Scope 1 and sions of other companies related s own business activities)	575,116	92.48%	-	493,934	92.54%	-
		Category 1	Purchased goods and services	259,173	41.67%	45.06%	231,542	43.38%	46.88%
		Category 11	Use of sold products	274,735	44.18%	47.77%	222,592	41.70%	45.07%
		Other		41,208	6.63%	7.17%	39,800	7.46%	8.06%