Toshiba Group's Risks and Opportunities by Business

With respect to risks by business, mainly transition risks under the 1.5℃ scenario are described. For physical risks under the 4℃ scenario, please refer to Risks and Opportunities Common to Toshiba Group.
Opportunities are also described mainly under the 1.5℃ scenario. However, these also include some opportunities under the 4℃ scenario (increase in demand for disaster management solutions, disaster-resistant elevators, and emergency storage battery systems).

	Main risks	Main opportunities	Related products, services, and initiatives (Links)
Energy Systems & Solutions Business	• Increase in response costs and missing out on sales opportunities due to regulations on the sale of equipment that uses sulfur hexafluoride (SF_6) such as gas insulated switchgears, for which regulations are increasingly restrictive • Missing out on sales opportunities for products due to delayed development of new technologies related to renewable energy • Missing out on sales opportunities due to the shortage or difficulty in procuring renewable energy-related components • Increase in product development and production costs due to changes of the materials of energy related products for low carbonization or decarbonization • Costs for design changes to wind power generation facilities in the case of winds exceeding expectations due to extreme weather	• Increase in demand for renewable energy-related technologies • Increase in demand for virtual power plants (VPP) • Increase in demand for hydrogen solutions • Increase in demand for SF_6 gas-free equipment • Spread and expansion of CCUS (Carbon dioxide Capture, Utilization and Storage) • Spread and expansion of Direct Current Power Transmission grids	Renewable Energy & VPP Hydrogen Energy Toshiba and Meidensha to develop GIS jointly using natural origin gases (News Release) Efforts for CO_2 emission reduction-CO_2 capture technology Development Project of Integrated Demonstration Facility and Supply Chain for Sustainable CCUS Adopted by Ministry of the Environment (News Release) The Renaissance of Direct Current Power Transmission: Why Now and What Makes It Special?
Infrastructure Systems & Solutions Business	• Increase in development costs as a result of introducing low carbon technologies or next-generation technologies to social infrastructure products, industrial equipment, etc. • Increase in response costs and missing out on sales opportunities due to regulations on the sale of equipment that uses sulfur hexafluoride (SF_6) such as cubicle gas insulated switchgears (C-GIS) for which regulations are increasingly restrictive • Increase in procurement costs due to price hikes in steel, copper, aluminum, magnets, etc. • Increase in product development and production costs as a result of changing the materials for low carbonization and decarbonization in social infrastructure facilities, etc.	• Increase in demand for railway systems using batteries that contribute to reducing environmental impacts • Increase in demand for automotive products (motors, etc.) due to increased sales of electric vehicles • Increase in demand for products with low CO_2 emissions and systems linked to such products • Increase in demand for disaster management solutions	Railway Systems Automotive Motors Automotive Motors（U.S. manufacturing site) Disaster Management Solutions Stormwater Drainage Solutions Renewable Energy Power Generation Systems (Japanese only) Phased Array Weather Radar Robotics, Logistics System Solutions
Building Solutions Business	**[Lighting Business]** • Missing out on sales opportunities for next-generation solutions to achieve carbon neutrality due to delayed development • Increase in procurement costs due to price hikes in main materials, including steel sheets, aluminum, copper, glass, resin, etc. **[Elevator & Escalator Business]** • Missing out on sales opportunities due to delayed development of energy-saving technologies for elevators and escalators • Increase in product costs due to increased procurement costs as a result of improved energy-saving functions of elevators and escalators	**[Lighting Business]** • Increase in demand for high efficiency LED lighting due to increased upgrading to equipment with high energy-saving performance • Increase in demand for automotive high efficiency LED products due to a greater number of vehicles with high environmental performance (hybrid vehicles, electric vehicles, etc.) **[Elevator & Escalator Business]** • Increase in demand for elevators and escalators with high energy-saving performance • Increase in demand for renewal to the latest control systems due to the acceleration of energy-saving initiatives for existing buildings • Increase in demand for disaster-resistant elevators, such as those that resist flood damage	**[Lighting Business]** General Lighting LED lighting with camera ViewLED (Japanese only) Industrial Lighting　An eco-friendly light source Environmental Initiatives (Environmentally Conscious Products (ECPs)) (Japanese only) **[Elevator & Escalator Business]** Toshiba Machine-Room-Less Elevators　SPACEL Energy-saving Type Toshiba Machine-Room-Less Elevators　SPACEL SDGs Initiatives Toshiba Escalators Standard/Space-saving Type TG Series (Japanese only) Toshiba Escalators Standard/Space-saving Type TG Series SDGs Initiatives (Japanese only)
Retail & Printing Solutions Business	• Missing out on sales opportunities for retail & printing related products* and solutions due to failing to meet the standards required by the market and customers • Missing out on sales opportunities for retail & printing related products and solutions due to delayed development of energy-saving technologies • Missing out on sales opportunities due to a lack of emphasis on energy-saving and renewable energy effects of solutions to customers • Increase in costs due to price pass-through to procured items and distribution costs as a result of accelerated response to climate change by suppliers and distribution partners * POS products, Auto ID products and MFP products	• Increase in demand for POS products with high energy-saving performance, auto ID products, MFP products, linerless label printers, MPS/MDS (optimization of customer printing costs) solutions, etc. • Increase in demand for data services, including retail media (advertisement distribution service) due to the spread of smart receipts and also data sales due to increased collection of ID-POS data • Increase in demand for products and services that contribute to limiting food disposal loss and the resulting reduction in energy consumption	The following links are all in Japanese. Data Use Services Distribution Headquarters/Store System POS Registers/Store Equipment Label Printers/Automatic Recognition System MFPs/Office Equipment
Electronic Devices & Storage Solutions Business	• Increase in costs as a result of installing detoxifying equipment or changing to alternative gases due to tightened regulations on wafer-etching process gas • Increase in amount of capital investment for reducing greenhouse gas emissions • Increase in response costs due to an expanded information disclosure obligation regarding climate change response • Missing out on sales opportunities due to being unable to develop products that contribute to carbon neutrality including power semiconductors at an appropriate time • Increase in raw material costs due to increased demand for products and technologies that contribute to carbon neutrality (electric vehicles, etc.)	• Increase in demand for energy efficiency products, including power semiconductors and high-efficiency semiconductors • Increase in demand for semiconductor products that are adapted to demand for energy-saving products • Increase in demand for products related to electric vehicles due to the expansion of their market • Increased in demand for low power-consumption helium-filled HDDs	Power Semiconductors Toshiba to Expand Power Semiconductor Production Capacity with 300-millimeter Wafer Fabrication Facility (News Release) Automotive Devices Storage Products Epitaxial Reactors with High Growth Rate Parts Materials (Silicon nitride bearing ball, Silicon nitride ceramic substrate)
Digital Solutions Business	• Missing out on sales opportunities due to delayed development of innovative digital technologies and ICT solutions that contribute to carbon neutrality • Missing out on sales opportunities due to a lack of human resources who support the advancement of digital technologies that contribute to the achievement of carbon neutrality; increase in costs for securing and developing human resources	• Increase in demand for ICT solutions (manufacturing IoT solution “Meister Factory series,” manufacturing IoT cloud service “Meister ManufactX™,” etc.) that contribute to reducing greenhouse gas through improved productivity and streamlining of operations • Increase in demand for co-creation and collaboration with partners who are developing decarbonization businesses (strategic procurement solution “Meister SRM™,” etc.) • Increase in demand for maintenance, operation, and recurring businesses for reducing environmental impacts • Increase in demand for co-creation and data utilization businesses (human resource management solution “Generalist®,” etc.) that involve customers and the industry	Factory IoT Platform Manufacturing IoT Cloud Service Strategic Procurement Solution "Meister SRM™" (Japanese only) Toshiba Succeeds in CO_2 Data Calculation and Data Linkage in Demonstration Test Phase 2 of "CO_2 Data Linkage on the Virtual Supply Chain" Hosted by "Green x Digital Consortium (Secretariat: JEITA)" ～Demonstrating Data Linkage/Exchange Using Meister SRM Portal and Asset Administration Shell Technology～ (News Release) (Japanese only) Human Resource Management Solution "Generalist®" (Japanese only)
Other (Battery Business)	• Increase in costs for automotive batteries due to tightening of automobile fuel consumption regulations • Price hikes in raw materials due to export controls in rare metal-producing countries • Increase in costs and price pass-through to procured products due to compliance with EU battery regulations • Increase in R&D expenses for the development of materials and establishment of manufacturing technologies with less greenhouse gas emissions to reduce carbon footprint • Increase in procurement costs that are associated with changes in materials due to advanced energy-saving technologies for batteries • Missing out on overseas sales opportunities due to delayed investment decisions in response to increasing demand for automotive batteries, etc.	• Increase in demand for automotive batteries as a result of the shift to hybrid and electric vehicles • Increase in demand for stationary and industrial batteries with high energy-saving performance for railways, vessels, industrial equipment, etc. • Increase in demand for storage battery systems due to accelerated introduction of renewable energy • Increase in demand for products that meet adaptation needs, such as emergency storage battery systems	SCiB™ Toshiba's SCiB™ rechargeable battery used in various fields SCiB™ Topics Sustainability of SCiB™ Expansion of the Facilities of Yokohama Battery Operations for Increasing Production of Lithium-ion Batteries