

List of Materialities, initiatives, and KPIs

	Materiality	Issue	Reason for selection	Risks and opportunities	Specific initiatives	KPI	Progress (FY2023)
E	Helping combat climate change	1. Promoting renewable energy (non-fossil energy) 2. Improving energy efficiency	We will help alleviate the global problem of climate change using the technology and expertise we have accumulated over more than 80 years.	【Risks】 ●Accommodation of policies and regulations intended to realize a decarbonized society ●Changes in customer requirements, for example additional improvements in energy efficiency ●Reduction in support from policies, for example as a result of the review of the FIT program 【Opportunities】 ●Growth in the market for renewable energy and environmental businesses due to strengthening of environmental regulations ●Growth in energy usage demand for biomass (including waste, sewage sludge, and other resources) in order to alleviate climate change	●Supply of biomass power plants ●Supply of fuel conversion (biomass, RPF, etc.) boilers ●Supply of renewable energy and CO ₂ -free power ●Reduction in CO ₂ emissions (energy consumption) by Takuma ●Improvement in energy efficiency at facilities Takuma operates on a contractual basis ●Proposal of energy efficiency improvements for customer facilities and equipment	1. Magnitude of potential reduction in CO₂ emissions due to newly delivered power plants(*1) ●FY2023 800,000 tons per year ●FY2026 1.25 million tons per year ●FY2030 2.5 million tons per year 2. In-house CO₂ emissions reduction targets(*2,*3,*4,*5) ●FY2023 Zero effective CO ₂ emissions from Scope 1 and Scope 2 at the Takuma Head Office and Harima Factory ●FY2026 Zero effective CO ₂ emissions from Scope 1 and Scope 2 at the Takuma Head Office and Harima Factory and branches. ●FY2030 Zero effective CO ₂ emissions from Scope 1 and Scope 2 at all Takuma domestic worksites (Head Office, branch companies, branches, factories, and construction sites)	1. Magnitude of potential reduction in CO ₂ emissions due to newly delivered power plants: 806,000 tons per year(*6) 2. In-house CO ₂ emissions: 0 tons per year(*7)
	Conserving resources and protecting the environment	1. Conserving resources and reducing environmental impacts 2. Making effective use of unutilized resources	We will contribute to the effective use of unutilized resources and to the conservation of resources with Takuma technologies while helping make it possible to reduce environmental impacts and realize a Sound Material-Cycle Society.	【Risks】 ●Reduction in domestic waste volume due to the shrinking of the population 【Opportunities】 ●Growth of appropriate treatment of waste and growth in demand for use of energy from waste in emerging nations ●Growth in expectations towards resource-saving and low-environmental-impact systems and the effective use of unutilized resources	●Supply of high-efficiency, low-environmental-impact Energy from Waste plants ●Supply of sewage sludge-fueled power plants ●Supply of advanced treatment sand filter systems ●Establishment of combustion technology for unutilized biomass ●Development of technology for reusing incineration ash ●Development of technology for recovering and using CO ₂		
S	Strengthening relationships of trust with customers and communities	1. Pursuing customer satisfaction 2. Ensuring the stable, continuous operation of plants and equipment 3. Recycling local resources and creating new value for communities	We will help resolve issues facing customers and communities and strengthen relationships of trust by providing safe, high-quality products and services and undertaking initiatives that address local resource recycling.	【Risks】 ●Loss of trust in the event Takuma fails to provide safe, high-quality products and services ●Shrinking budgets of local governments 【Opportunities】 ●Growth in demand for biomass power generation as a type of energy that can be produced and consumed locally ●Growth in expectations toward the creation of new value for communities, for example through disaster prevention facilities and energy centers ●Additional growth in the use of private-sector entities to provide government services	●Supply of products and services that satisfy customers ●Improvements in the quality of Takuma's operation and O&M businesses ●Increasing sophistication of maintenance service ●Initiatives addressing the Regional Circular and Ecological Sphere (Regional CES), regional use, and decentralized power supplies ●Initiatives such as PPP that address additional use of private-sector entities		
	Pursuing partnerships and innovation	1. Utilizing digital technologies (AI, IoT, robots, etc.) 2. Developing open partnerships 3. Pursuing innovation	We will facilitate the supply of highvalue- added products and services by introducing digital echnologies and expanding partnerships with outside companies.	【Risks】 ●Opportunity loss due to lag in accommodating new technologies such as Artificial Intelligence (AI) and the Internet of Things (IoT) 【Opportunities】 ●Growth in demand for efficiency-boosting and labor-saving technologies in plant operation (remote monitoring and operation, data analysis, maximization of amount of power sold, etc.) ●Creation of revolutionary technologies and services as well as new business opportunities through the expansion of partnerships	●Increases in the added value of facilities and plants ●Strengthening of competitiveness in EPC operations, operation management, and maintenance service ●Pursuit of open innovation ●Pursuit of new businesses that contribute to the enhancement of existing businesses and services ●Development of technologies and products that are sought by society and customers	●Customer satisfaction: Highest rating 60% or more(*8) ●Number of main career track and management positions filled by women: At least 35 (cumulative total for FY2021 to FY2025) ●Utilization of parenting support programs: At least 25% (average for FY2021 to FY2025)	●Customer satisfaction: Newly established from FY2024 ●Number of main career track and management positions filled by women: 29 (cumulative total for FY2021 to FY2023) ●Utilization of parenting support programs: 44% (average for FY2021 to FY2023)
	Promoting activities of human resources	1. Securing, and training human resources 2. Promoting diversity 3. Improving employee satisfaction	Putting in place an environment in which all employees can make the most of their abilities is essential in order to facilitate the company's growth and strengthen its competitiveness.	【Risks】 ●Reduction in competitiveness due to a shortage of employees with specialized skills ●Discontinuity in the passing down of skills as highly experienced employees reach retirement age and leave the workforce 【Opportunities】 ●Strengthening of competitiveness through human resources development and management that promotes diversity	●Hiring of new graduates and mid-career employees ●Development of optimal human resources programs in response to social changes ●Development of an effective training system ●Active hiring of diverse human resources and development of career support programs	●Employee engagement: Highest rating 50% or more(*9) ●Number of fatal accidents: 0	●Employee engagement: Newly established from FY2024 ●Number of fatal accidents: 0 (FY2023 Actual)
	Ensuring safety and health	1. Ensuring occupational safety and health 2. Managing employee health 3. Creating a comfortable working environment	Safeguarding the physical and mental health of workers and building a comfortable working environment helps create a stable foundation for Takuma's value creation activities.	【Risks】 ●Reduction in productivity and social trust due to problems involving the safety and health of employees and affiliates (loss of order opportunities due to the occurrence of serious occupational accidents, etc.) 【Opportunities】 ●Improvement in productivity and strengthening of competitiveness through improvements in the workplace labor environment	●Reduction in the occurrence of occupational accidents ●Prevention of health problems and rectification of overwork ●Implementation of workstyle reforms		
G	Strengthening corporate governance	1. Strengthening corporate governance 2. Strengthening risk management 3. Ensuring compliance	Strengthening corporate governance both supports companies' stable growth and helps avoid and reduce losses and other adverse events by making possible the organizational management of risk.	【Risks】 ●Reduction in business sustainability due to a lack of appropriate decision-making ●Cessation of business due to violations of competition or environmental law or regulations on conduct such as corruption, and associated reduction in social trust 【Opportunities】 ●Improvement in the ability to create value along with avoidance and reduction of risk as a result of strengthened corporate governance	●Sustained improvement through practices such as evaluations of the effectiveness of the Board of Directors ●Continued conduct of appropriate internal audits ●Additional improvement in the effectiveness of risk management activities ●Even more thorough project risk management ●Implementation and ongoing reassessment of Business Continuity Planning (BCP) ●Ongoing implementation of compliance education	●Number of serious compliance violations: 0	●Number of serious compliance violations: 0 (FY2023 Actual)

(*1) Biomass power plants and Energy from Waste plants delivered from FY2021 to FY2030
(*2) The Scope 1 target includes offsets using environmental value such as J-credits.
(*3) The Scope 2 target is calculated using post-adjustment emission factors.
(*4) FY2030 targets including group companies remain under consideration.
(*5) CO₂ emissions from procured products and use of Takuma products by customers (Scope 3) also remain under consideration.
(*6) Calculated based on the amount of electricity (renewable energy) that can be generated at plants delivered in FY2021-2023 (four waste treatment, two sewage sludge, and fifteen biomass plants) from the month following delivery.
(*7) Purchase J-credits equivalent to Scope 1 emissions in FY2023, achieving the FY2023 target of zero actual CO₂ emissions for Scope 1 and Scope 2 at the Takuma Head Office and Harima Factory.
(*8) The percentage of respondents giving the highest rating for questions (on a 4-point scale) about customer service and overall product quality in the Customer Satisfaction Survey.
(*9) The percentage of respondents giving the highest rating for each question (on a 5-point scale) on job satisfaction and pride in the company in the Employee Attitude Survey.