Quantity & Quality-Related Water Risks

Physical risk factor : Drought	
Impact forecast	Water shortage or insufficient volume of usable water for power generation, affecting the Company Group's business activities and the main source of income.
Impact period	Short and medium terms
Assessment result	Australia's drought timescale tends to lengthen the most under Scenario RCP2.6, 8% in 2030 and 8.5% in 2050
Response measures	• Invest in supplementary water sources and secure emergency supply in light of insufficient raw water from the primary water sources of operational controlled entities. • Consider shifting to less water-intensive power generation patterns or shifting to renewable energy like wind and solar power in Australia, given the high level of drought risk in both short and long terms from 2030 onwards. • Prepare an emergency plan for small power plants in the Eastern region of Thailand to tackle emergency shortage of raw water for the production process and prevent damage to machinery and equipment. The plan involves retrieving water from storm water ponds, steam consumption of heat exchangers and water cycling of cooling system. It requires the power plants to coordinate with EGAT's National Control Center for production adjustment and secure raw water from external suppliers. • Impose extra measures and new water use targets concerning cooling tower water cycles. • Study rainfall records (100-year statistics) and make rainfall forecasts to assess risks and impacts, while preparing EIA/selecting project sites.

Physical risk factor : Floods	
Impact forecast	Damage to high-value assets and machinery, causing impacts on production and transmission system.
Impact period	Short and medium terms
Assessment result	Maximum number of days with heavy rainfall in Thailand, Vietnam and Indonesia tends to increase the most under Scenario RCP 8.5 in 2050.
Response measures	• Build rainfall retention ponds and drainage system, to retain rainfall or tackle foods or water shortage. • Connect with the rainfall-monitoring network. • Study rainfall records (100-year statistics) and make rainfall forecasts to assess risks and impacts, while preparing EIA or selecting project sites.