



USE OF RESOURCES

The Group aims to promote low carbon culture in the industry by setting as an example to effectively use natural resources including fuel oil, natural gas and water. In order to enhance energy saving in our WTE plants and maximise electricity generation efficiency, we follow the Group's *Implementation Measures for Energy Saving of Power Plant*, which stipulates specific requirements and implementation measures to achieve annual energy saving targets. Comprehensive resource utilisation strategies are also implemented by adhering to our *Resource Control Procedure* and *Social Responsibility Guidelines — Requirements on the Use of Electricity and Requirements on the Use of Water*. In addition, we strongly encourage our employees to practise sustainable measures to reduce energy consumption in daily operations.

Total Fuel Consumption Management

Optimising resource and material use enable us to play our part in the circular economy. In order to effectively manage our long-term fuel consumption, detailed records of resources and material consumption for all of our WTE projects are well documented. The quantity of fuel and electricity consumed by major equipment are collected and analysed to monitor the energy efficiencies of our WTE projects. To further reduce the risk of equipment failure or decline in energy efficiency, regular inspection and maintenance are carried to ensure our equipment is in good operating conditions. Nevertheless, we strive to achieve better energy efficiency through actively exploring solutions for higher energy efficiency and technological advancement.

Direct Energy Consumption of Operating Projects in 2020*		
Fuel Consumption	Energy Consumption	Total Energy Consumed:
Fuel oil: 54,736 GJ	Electricity: 1,170,571 GJ	1,252,625 GJ
Natural gas: 27,318 GJ	+	= Energy intensity:
		0.180 GJ/tonne of MSW processed

* Energy consumption is calculated based on the conversion factors provided in *China Energy Statistical Yearbook 2020*.

Key Materials Consumption of Operating Projects in 2020 (tonne)			
Lime	Activated Carbon	Urea	Ammonia Water
41,377	3,312	5,532	4,770
PNCR Material	Hydrochloric Acid	Sodium Bicarbonate	Coagulant and Flocculant
202	697	78	163



Sustainable Water Management

Water consumption is essential for Canvest’s operation and while our business is rapidly expanding, we have kept in mind the finite nature of water resources. The Group strictly follows the statutory requirement to carry out environmental impact assessment on the local water resources and take water stress, water conflicts and water supply risks into consideration for sustainable water management. Wastewater generated from the WTE processes are collected and treated on-site based on the standards of *The Reuse of Urban Recycling Water — Water Quality Standard for Industrial Uses (GB/T19923–2005)* and the *Integrated Wastewater Discharge Standard (GB8978–1996)*. Treated wastewater can be reused in our operations as cooling water, irrigation water for landscaping or water for garbage truck washing. Through increasing recycling rate of treated wastewater and reduction in overall water consumption, we aim to achieve improvement in our water management performance in the long-term.



REDUCTION OF GHG EMISSIONS

Waste-to-energy is an important part of the overall sustainable waste management approach to combat climate change as it reduces our reliance on fossil-based energy and reduces GHG emissions relative to landfilling, which emits methane that has high global warming potential. To measure our performance in GHG emission and reduction, we adopt the methodology as stated in Clean Development Mechanism (CDM) of the United Nations Framework Convention on Climate Change (UNFCCC) to calculate and offset GHG emissions from our Operating Projects. The GHG emission calculation methodologies account for CO₂ equivalent emitted from fossil fuels used for electricity generation, emissions from the combustion of MSW, and methane released from the wastewater treatment process. Nonetheless, to expand GHG accountability, transparency and management across our value chain, we have expanded the reporting scope this year by including emissions from downstream transportation and distribution activities (e.g. delivering of bottom ash to downstream contractors for utilisation, delivering of stabilised fly ash to designated landfill for safe disposal, etc.).