# Environmental, Social and Governance Review

# Managing Sustainability

Sembcorp has long held a strong commitment to sustainability. We believe that responsible corporates can play a role as agents of transformation for a sustainable future. We see sustainability at our company as inextricably linked to our ability to deliver long-term value and growth to all our stakeholders.

Our board of directors oversees the business affairs of the Group and is collectively responsible for our long-term success. The main duties of the board include providing leadership on Sembcorp's overall strategy, which takes into consideration sustainability issues. Following our last materiality review in 2016, our management, with guidance from the board, has determined the environmental, social and governance (ESG) issues that are material to the Group's long-term sustainability. These 10 ESG issues are presented on page 84 of this annual report.

### **Board Statement**

Sembcorp's board of directors is collectively responsible for the long-term success of the company. The board considers sustainability issues as part of its strategy formulation. It has determined Sembcorp's material ESG factors, and exercises oversight in the management and monitoring of its material ESG factors.

We are a signatory to the United Nations Global Compact (UNGC), and our key sustainability principles are set out in our Sustainability Policy. These principles are applied throughout our management systems and processes. We adopt a precautionary approach to avoid or minimise negative impacts. A list of our policies, certified facilities as well as memberships and participation in external initiatives is available in the Sustainability section of our website. We participate in the annual Dow Jones Sustainability Index and respond to the CDP (formerly known as the Carbon Disclosure Project) climate change programme.

In 2017, Sembcorp was once again selected as an index component of the Dow Jones Sustainability Asia Pacific Index, and the SGX Sustainability Leaders Index. We were conferred the Sustainability Award and named runner-up for the Singapore Corporate Governance Award (Industrials) by the



Dow Jones Sustainability Indices Securities Investors Association (Singapore), and were ranked sixth in the Singapore Governance and Transparency Index. At the Singapore Corporate Awards 2017, Sembcorp took home the silver awards for both the Best Annual Report and Best Investor Relations in the category for companies with market capitalisation of S\$1 billion and above. We were also named one of Asia's Top Green Companies at the Asia Corporate Excellence & Sustainability Awards, and were ranked 21<sup>st</sup> out of 100 global renewable power generators in Energy Intelligence's Top 100 Green Utilities.

#### Sustainability governance

Sembcorp's Sustainability Steering Committee (SSC) provides strategic direction for managing sustainability-related risks and opportunities. The SSC directs the preparation of Sembcorp's ESG Review, and provides recommendation to the board's Risk Committee for its approval. It also guides the development and improvement of frameworks, policies, guidelines, processes and initiatives to ensure that sustainability issues are effectively managed. The SSC is chaired by our Group Chief Financial Officer, and comprises senior executives who are accountable for the management of Sembcorp's material issues.



A separate climate change strategy working committee was set up in 2017 to review and manage climate-related risks and opportunities, and to develop our climate change strategy and look into its implementation. This committee is led by the head of our Renewables & Environment business.

As an initial but significant step, in 2018, we revised the performance scorecard for our leadership team to include specific ESG components. With this, our award of senior executives' performance incentives will specifically take into account ESG performance and key ESG indicators. This underscores the importance we place on addressing ESG risks and opportunities.

#### Sustainability contact

Sembcorp welcomes feedback on our sustainability issues and reporting at sustainability@sembcorp.com.

#### **Sustainable Development Goals**

The Sustainable Development Goals (SDGs) and their accompanying targets were ratified by 193 states at the historic United Nations (UN) Summit in September 2015. The SDGs set out a plan of action needed to address areas of critical importance for humanity and the planet by 2030. The scale and ambition of the SDGs mean that they cannot be achieved by governments alone. Businesses and other organisations also play an important role in addressing the sustainable development agenda.



The Sustainable Development Goals offer businesses an invaluable opportunity to transform communities, society and economies for the better.

The framework set out by the SDGs aligns with our vision to support development, improve the quality of life and deliver long-term value and growth. We have reviewed the SDGs against our material issues to identify the most significant positive and negative impacts of our operations. We have also considered opportunities where we can make the biggest contribution towards the SDGs while growing our business sustainably.

Having defined our priorities, the next step for Sembcorp is to integrate these into our business strategy and set targets aligned to our priority SDGs. In order to make significant progress on our priority SDGs, we will have to engage in partnerships with stakeholders across our value chain including governments, civil society and other businesses.

#### **Priority SDGs**

We have identified SDG 6 (Clean Water and Sanitation) and SDG 7 (Affordable and Clean Energy) as having the strongest links to our core business areas. These goals represent the greatest opportunity for Sembcorp to contribute towards the sustainable development agenda. We will develop specific commitments on these goals, and report on our progress in our next ESG Review.

#### Supporting SDGs

We have identified the following goals as our supporting SDGs that align with our material issues:

- SDG 3 (Good Health and Well-being)
- SDG 8 (Decent Work and Economic Growth)
- SDG 9 (Industry, Innovation and Infrastructure)
- SDG 11 (Sustainable Cities and Communities)
- SDG 12 (Responsible Consumption and Production)
- SDG 13 (Climate Action) and;
- SDG 16 (Peace, Justice and Strong Institutions)

We will continue to actively manage these areas to reduce negative impacts while enhancing positive impacts, and continue to report on our performance and plans related to these goals.

#### Underlying SDGs

The remaining SDGs do not have such a direct link to our current material issues. However, as a company we believe that we have some impact across all 17 SDGs in different ways. The SDGs are a holistic framework; having an impact in one area will often impact other goals as well.

We will ensure that our sustainability strategy considers our broader impact across all 17 SDGs. While we will not report directly against the underlying SDGs, our ESG Review will cover many topics relevant across these SDGs.

#### **Our Material ESG Issues**

Through engagement with our stakeholders, and our materiality identification and review process, the issues presented in the table below have been identified to be material to us. Mitigating the risks and pursuing the opportunities presented by these issues, as well as the related SDGs, is part and parcel of how we drive success for the Group.

Our	Material	ESG	Issues	

	Material Issues	Relevant Sustainable Development Goals
ENVIRONMENTAL	Climate Change	3 minuter 6 minuter 7 minuter 9 minuterer
To responsibly manage and reduce our impact on the environment as well as to effectively manage environmental risks to our operations	Local Environmental Protection	
environmental risks to our operations	Energy and Water Efficiency	
SOCIAL	Health and Safety	3 metanin 6 metanin 6 metanin 7 metanin 7 metanin 6 metanin 7 metanin 6 metanin 7 metanin
To be a responsible business that ensures the health and safety of our people, and makes a positive	Our People	
impact on our people and communities	Community	
GOVERNANCE	Corporate Governance	16 Sect and the sector of the
To maintain high standards of behaviour and integrity and be best in class for governance practices	Risk Management	
	Compliance	
	Ethical Business Practices	

#### Key performance indicators

#### Environmental

#### **Climate Change**

Direct greenhouse gas (GHG) emissions<sup>1</sup> (million tonnes of CO<sub>2</sub> equiva GHG emissions intensity<sup>1</sup> (tonnes of CO<sub>2</sub> equivalent per megawatt hour) Local Environmental Protection Water withdrawal (million cubic metres) Waste generated<sup>4</sup> (thousand tonnes) Hazardous waste (thousand tonnes) Non-hazardous waste (thousand tonnes) Social Health and Safety<sup>5</sup>

## Number of fatalities6 Lost time injury rate per million man-hours7 Accident severity rate per million man-hours<sup>8</sup> **Our People** Employee turnover<sup>9</sup> (%) Average training hours per employee<sup>10</sup> (hours) Community

Community contributions<sup>11</sup> (S\$ million)

More performance data, including Governance data and qualitative data on each of our material issues, is available in this ESG Review, as well as in the Sustainability section of our website.

- Notes: Please refer to the Reporting Practice section on page 86 for details on our reporting scope <sup>1</sup> Emissions data covers entities that produce GHG from the combustion of fossil fuels consumed in our Utilities business' assets. It excludes emissions from anaerobic The time horizon applied is a 100-year time horizon. Commentary on our performance can be found on page 94 of this report
- <sup>2</sup> Data presented here is calculated using an operational consolidation approach. Data by equity share can be found on page 94 of this report
- <sup>3</sup> The GHG emissions intensity figure for 2015 has been estimated. A small proportion of data on energy attributed to steam production in 2015 was not available and was estimated based on data from 2016
- <sup>4</sup> Data for waste generated excludes waste that is collected and incinerated for our customers
- <sup>5</sup> Health and safety data reflects group-wide performance within the reporting scope stated for each respective year. Data covers both assets in operation and under construction. A detailed breakdown of health and safety data is available in the Sustainability section of our website
- <sup>6</sup> Data covers employees and contractors as well as members of the public. Details of fatalities are reported on page 103
- <sup>7</sup> The lost time injury rate covers fatalities of employees and contractors only
- Sustainability section of our website. We record lost time due to one fatality as 6,000 lost work days, in line with guidelines by the US National Institute for Occupational Safety and Health
- <sup>9</sup> Data covers both voluntary and involuntary turnover of permanent employees of Sembcorp and its subsidiaries, excluding Sembcorp Marine
- <sup>10</sup> Data covers permanent and contract employees
- <sup>11</sup> Data from 2017 covers assets under construction

	2017	2016	2015
valent)	23.0 <sup>2</sup>	15.4	6.9
)	0.53 <sup>2</sup>	0.45	0.28 <sup>3</sup>
	1782.3°	1874.0 <sup>r</sup>	1823.1
	1452.7°	927.1	39.3
	10.0	11.9	10.4
	1442.7	915.2	28.9
	3	3	3
	1.1	1.2	1.3
	15.3	17.2	12.9
	10.1	11.4	11.0
	23.8	28.2ª	20.6
	5.5	4.2	3.3

wastewater treatment plants, and maintenance and servicing equipment. Only CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O emissions are included in the calculation of direct GHG emissions. Global warming potential factors used are from the IPCC Fourth Assessment Report for 2015 and 2016 data, and the IPCC Fifth Assessment Report for 2017 data.

<sup>8</sup> The accident severity rate excludes fatalities. The accident severity rate including fatalities is reported as part of detailed performance data, available in the

<sup>7</sup> Indicates restated figure. Details can be found in the Performance and Data Commentary Report of the respective year, in the Sustainability section of our website e Indicates data is based on management's best estimates; we look to further refine the accuracy and consistency of the data

#### Stakeholder engagement

Stakeholder engagement is the first key step in determining issues that are material to us. It gives us insight into perspectives of our stakeholders, and what they deem important in the context of their partnership with us. We engage and receive feedback from a diverse range of stakeholders with the intention to improve our performance and drive long-term sustainability. Stakeholders are identified in accordance with the AA1000 Stakeholder Engagement Standard and they include customers, employees, financial institutions, governments and regulators, industry and academic groups, the investment community, the local community, and suppliers. Our stakeholders are managed by various departments at the corporate as well as market level.

(<sup>b</sup>) For more information on our stakeholder engagement platforms, please visit the Our Approach page in the Sustainability section of our website.

### **Reporting Practice** Materiality process

Materiality analysis enables Sembcorp to define sustainability issues that are of greatest significance to our businesses and stakeholders over the long term.

We conducted our first materiality analysis in 2012, where we invited external stakeholder feedback on our material issues. In 2016, we conducted a review of our material issues, which included a stakeholder engagement survey, inviting input from internal and external stakeholders globally. Over 300 stakeholders were invited to provide feedback on our material issues. Following the review, we streamlined our areas of focus to 10 material ESG issues. These material issues were approved by our board and senior management. In 2017, the SSC reviewed the material issues and validated their continued relevance. As part of the review, Security was highlighted as an emerging issue. The Group Health, Safety, Security and Environment (GHSSE) department will oversee the management of the issue. For each material issue, we report its importance in the context of sustainability and its relevance to Sembcorp, as well as our management approach and performance.

Sustainability issues have been identified in line with the Global Reporting Initiative (GRI) Standards for sustainability reporting. The materiality review took into account GRI G4's Electric Utilities Sector Supplement Disclosure, the Dow Jones Sustainability Asia Pacific Index and other relevant frameworks and peer reviews. We prioritised issues using a materiality matrix, taking into account their significance to Sembcorp and our stakeholders.

#### **Reporting framework**

Our ESG Review has been prepared in accordance with the GRI Standards: Core option. It is guided by the SGX Sustainability Reporting Guide as well as the Ten Principles of the UNGC. Our climate-related disclosures are guided by the recommendations by the Task Force on Climate-related Financial Disclosures (TCFD). Our previous report was published in March 2017.

We report on our key ESG indicators in our ESG Review. A complete set of information, including our GRI content index, is available in the Sustainability section of our website.

#### Reporting scope and assurance

Our report provides information on Sembcorp's subsidiaries and covers the period from January 1 to December 31, 2017. It excludes joint ventures, partnerships and associates for which Sembcorp does not have management and / or operational control, with the exception of GHG emissions data. In line with the methodology used for the development of our carbon emission targets, we now report our GHG emissions and GHG emissions intensity using an equity share approach. Our Marine business is excluded from our report as it is separately listed in Singapore and reports its activities independently. New acquisitions and subsidiaries are given one to two years upon the completion of construction or agreement to integrate their reporting systems with that of the Group. Thereafter, their sustainability data will be reported externally once a full calendar year of data is collected. Data on health and safety, and community investments from our Utilities assets under construction is included. Data pertaining to entities divested during the year are excluded from our report.

#### Our key ESG data has been independently reviewed by PricewaterhouseCoopers LLP. Please refer to pages 134 and 135 for their assurance statement and scope of assurance.

For more information on the assurance coverage, please visit the GRI Content Index in Our Performance page in the Sustainability section of our website.

The table on the right shows our reporting scope by business line and material issue.

#### Data measurement and guality

All data measurements are in line with GRI Standards requirements for our chosen indicators. GHG emission factors are based on the 2006 Intergovernmental Panel for Climate Change (IPCC) guidelines, except for those relating to our

**Reporting Scope by Business Line and Material Issue** 

	ENVIRONMENTAL		
MATERIAL ISSUES	Climate Change	Local Environmental Protection	Energy and Water Efficiency
UTILITIES			
Existing assets	~	~	~
Assets under construction			
MARINE		Our Marin	e busine
URBAN DEVELOPMENT			
OTHER BUSINESSES			

Information provided in the ESG Review relates to the subsidiaries of Sembcorp, excluding Sembcorp Marine. With the exception of GHG emissions data, it excludes joint ventures, partnerships and associates for which Sembcorp does not have management and I or operational control

operations on Teesside, UK, which uses the stoichometric basis of calculation. Global warming potential factors used are from the IPCC Fourth Assessment Report for 2015 and 2016 data. and the IPCC Fifth Assessment Report for 2017 data. The time horizon applied is a 100-year time horizon. In 2017, we have changed our accounting basis for GHG emissions from an operational consolidation to an equity share approach.

Occupational health and safety indicators follow standards set out by the US National Institute for Occupational Safety and Health and the International Association of Oil and Gas Producers.

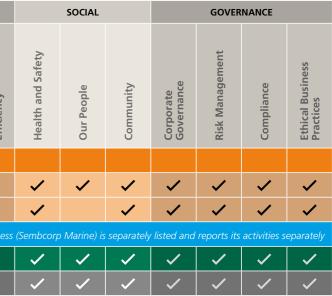
While there are inherent limitations to the accuracy of data, we seek to minimise any errors and irregularities by strengthening our internal controls.

#### Our Supply Chain

We recognise the importance of evaluating our suppliers to ensure supply chain risks and negative impacts are minimised.

Sembcorp's main suppliers consist of original equipment manufacturers (OEMs), material suppliers, and engineering, procurement and construction (EPC) contractors.

OEMs supply us with large scale equipment such as gas turbines and desalination units as well as process equipment



such as switchgears and control systems. Material suppliers supply fuel and chemicals needed to run our plants. EPC contractors provide detailed engineering, procurement and construction services for our greenfield plants.

Our plants are designed and built to international codes and standards, and it is with this perspective that we procure our equipment. We seek to procure high-quality and technologically-advanced equipment that is durable. We have stringent requirements for quality and expect our suppliers to abide by our Code of Business Conduct. Our Group Procurement Policy provides guidelines and control principles for various stages of the procurement process.

Our key operations carry out an annual evaluation of vendor performance for our top suppliers. Through this process, we rate these suppliers on health, safety and the environment (HSE), as well as quality assurance and service level criteria. We also review their audited financial reports. In addition, for all our EPC contracts, contractors are assessed based on their track records with respect to safety, project type, size and location experience, among other evaluation criteria. We value the opportunity to positively influence our service providers and suppliers towards greater HSE awareness and social responsibility. We believe that securing a pool of suppliers that share our commitment to sustainability will mitigate risks to our operations and reputation.

87

## Supplier diversification

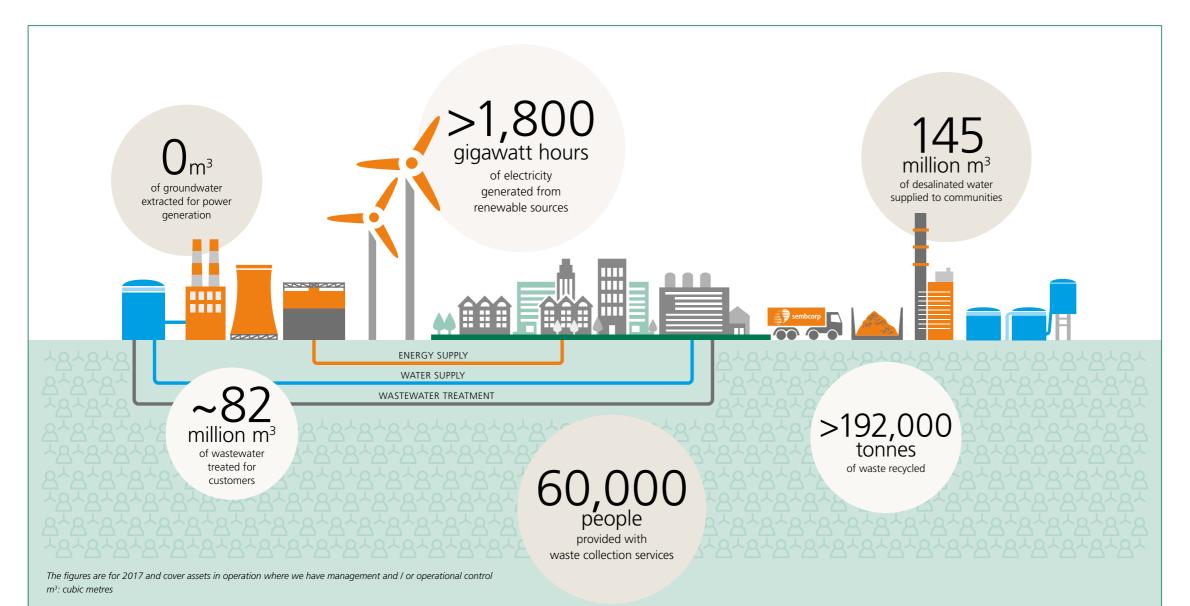
Our efforts to ensure supply chain security include diversifying supply to mitigate concentration risk. Coal supply is managed via a portfolio of suppliers and country sources. In Singapore, Sembcorp's operations maintain at least one primary and one secondary supplier for critical spare parts and consumables, where possible.

#### Fuel management

Fuel is a significant cost component for Sembcorp's power and steam generation operations. Therefore, managing our various fuel sources, along with their supply chains, is a key focus. Our fuel management teams look into issues such as fuel contract management, fuel hedging / trading and fuel procurement, as well as fuel logistics such as transportation and shipping, to ensure the security and reliability of our fuel supply. We secure long-term contracts for coal and gas supply with reliable counterparties who have reserves that can sustain the useful life of our assets. To further diversify our fuel mix and tap on sustainable sources, Sembcorp has increased our use of renewables and alternative fuels.

## Sembcorp's Unique Utilities Business

The challenge facing industries and communities today is one of balancing development with resource scarcity and environmental concerns. At Sembcorp, we believe that we have a part to play in contributing to a sustainable future. Our Utilities business uniquely offers both energy and water solutions. We leverage group capabilities and strengths to limit the impact of our activities on the environment and to create innovative solutions for our customers.



# Environmental, Social and Governance Review Our Material

# ESG Issues

# Environmental

To responsibly manage and reduce our impact on the environment as well as to effectively manage environmental risks to our operations

#### HIGHLIGHT Growing our Renewable Energy Business

Sembcorp currently has a growing renewable energy portfolio in India, China and Singapore. The International Energy Agency expects India and China to increase renewable energy capacity rapidly, with a combined forecast growth of 475 to 600 gigawatts over the next five years. In Singapore, solar energy is considered the main viable renewable energy source. The Singapore government aims to grow installed solar capacity in the country to 350 megawatts peak by 2020.

2017 marked another year of good progress of renewables growth for Sembcorp. Our renewable energy capacity in India grew to over 1,400 megawatts with our winning of combined 500 megawatts in two nationwide wind power tenders. We also continued to expand

### Why this is material

Climate Change

As an energy producer, our power and steam generation activities release greenhouse gas (GHG) emissions that contribute to climate change. Events and actions by governments in response to climate change pose potential regulatory, technological, physical and reputational risks to our businesses. One such significant development was the 2015 Paris Agreement on climate change, which countries accounting for over 85% of global GHG emissions have ratified. However, we recognise that in spite of these challenges, we are also uniquely positioned to leverage opportunities that have arisen from action in response to climate change.

As part of Sembcorp's new Climate Change Strategy, we have identified the climate-related risks and opportunities material to our Utilities business as follows:

• Changes in policy and regulation: Increasingly, governments are adapting their policies and regulations as part of country-level strategies to reduce emissions and support the transition to a low-carbon economy. The global increase of cap-and-trade schemes and carbon taxes will accelerate current trends favouring renewables, which in turn can significantly impact the future profitability of our assets and investments. our solar power capacity in Singapore with the addition of three projects, including new grid-tied rooftop solar energy systems at ST Aerospace's facilities in Changi and Seletar. Within our own operations, we are taking steps to partially power our assets on Jurong Island and our Sembcorp Changi NEWater plant with solar energy by 2018. In total, we grew our global renewable energy capacity from 248 megawatts in 2012 to 2,182 megawatts in 2017. We target to double our renewables portfolio to approximately 4,000 megawatts by 2022 to become one of the region's leading independent renewable energy players.

This demonstrates Sembcorp's commitment to Sustainable Development Goal 7, which aims to ensure access to affordable, reliable, sustainable and modern energy for all.

- Changes in technology and customer demand: Falling costs and improved performance of new and emerging technologies such as photovoltaic, energy storage, smart grids and downstream technologies, including electric vehicles and decentralised generation are bringing about significant changes in the energy landscape. As a result, the needs of our markets and customers will change.
- **Physical disruption**: Physical environmental risks, such as weather extremities linked to climate change, may pose disruption to our assets and operations, and to the economic value chains and communities in which we operate. Exposure to physical risks vary widely across our operating geographies and across our businesses, from our power assets to our desalination plants.
- Stakeholder management and reputation: Our stakeholders are increasingly focused on the impact of climate change and how the company responds to climate-related risks and opportunities. As a responsible corporate citizen, we recognise our obligations towards our stakeholders. Maintaining our stakeholder relationships is critical to our licence to operate and essential to protect our business reputation.

For more information on our key climate-related risks and opportunities, please refer to page 111.

#### Key Highlights of Sembcorp's Climate Change Strategy

	5 57
	BALANCED LOW-CA
- REDUCE NE	EGATIVE IMPACT
<ul><li>Restricting investments in coa</li><li>Improving our energy efficien</li></ul>	
	ENABL
ACCOUNTABILITY	COLLABORATION
Climate risk and performance management embedded into strategy, incentives and decision making	Engaging and collaborating with stakeholders to protect the climate, deliver sustainable solutions
7 APPREARING 13 CURATE	OUR TARGETS
	Carbon emission intensity* 0.42 tCO <sub>2</sub> e/MWh by 2022 (close to 25% <0.40 tCO <sub>2</sub> e/MWh by 2030 (>27% redu
* Refers to GHG emissions intensity of	of our Litilities business' assets that produce

Our climate change public disclosures are guided by the recommendations of the G20 Financial Stability Board's Taskforce on Climate-related Financial Disclosures (TCFD). These recommendations were developed with the aim of providing a framework to report voluntary, consistent climate-related financial disclosures that would be useful to investors, lenders, and insurance underwriters in understanding material risks.

(\*) For more information on Sembcorp's full Climate Change Strategy, please visit the Reports & Policies page in the Sustainability section of our website.

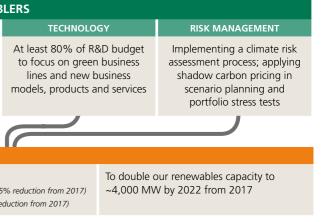
#### Local Environmental Protection

As a result of the products and services we provide, our operations have varying direct and indirect impacts on the environment such as water, land and air pollution. These include the discharge of effluent and the disposal of waste, as well as the release of  $NO_x$ ,  $SO_x$  and particulate matter to the atmosphere. Improper or non-compliant emission, discharge or disposal not only results in harm to the environment and public health, but also threatens our long-term viability and goes against our Statement of Commitment to Environmental Protection.



#### + ENHANCE POSITIVE IMPACT

- Focusing on growing gas and renewables portfolio
- Growing green business lines: Renewables, Water and Wastewater Treatment and Waste-to-resource
- Exploring new business models, products and services that focus on energy efficiency, digitalisation and new energy solutions



\* Refers to GHG emissions intensity of our Utilities business' assets that produce GHG from the combustion of fossil fuels

## **Our Position on Coal-fired Power Plants**

As a global company operating in emerging markets, we face the conflicting challenge of constraining GHG emissions in the face of a pressing demand for electrification. In this context, we believe that efficient thermal energy continues to be relevant, especially in developing economies. For this reason, while we have taken a stand to not invest in subcritical coal-fired power plants, we will align with guidelines set by the Organisation for Economic Co-operation and Development<sup>\*</sup> and are open to opportunities to invest in supercritical and ultra-supercritical coal-fired power plants in countries that are eligible for International Development Association financing. By moving towards a balanced low-carbon portfolio which includes renewable assets, Sembcorp targets to reduce our carbon emission intensity to 0.42 tCO<sub>2</sub>e/MWh by 2022 and less than 0.40 tCO<sub>2</sub>e/MWh by 2030.

\* Sector Understanding on Export Credits for Coal-fired Electricity Generation Projects, 11/ 2015

#### **Energy and Water Efficiency**

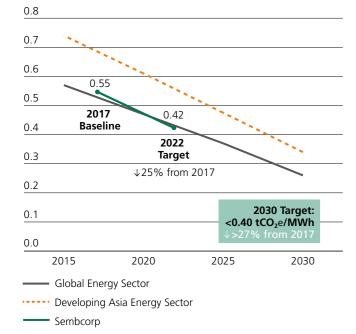
Achieving optimal energy and water efficiency is a business driver for us. Maximising our efficiency and optimising our operations reduces our consumption of natural resources and impact on the environment while enhancing our returns. In the face of rising energy costs and water scarcity, energy and water efficiency are becoming increasingly critical to ensure the long-term sustainability of our business.

#### Our approach

**Climate Change** 

The management of climate change issues is led by the head of our Renewables & Environment business and executed across several departments: Group Strategy, Group Risk, Group Performance Management, Group Digital & Technology, Group Health, Safety, Security & Environment (Group HSSE), Group Strategic Communications & Sustainability and Group Human Resources & Organisational Development. We have set emission intensity targets to be in line with the scale of reductions required to keep the increase in global average temperature to below 2°C above pre-industrial levels as per projections in the International Energy Agency's (IEA) World Energy Outlook 2016. Our target is to reduce our carbon emission intensity\* from 0.55 tonnes of carbon dioxide equivalent per megawatt hour (tCO<sub>2</sub>e/MWh) in 2017 to 0.42 tCO<sub>2</sub>e/MWh by 2022 and to less than 0.40 tCO<sub>2</sub>e/MWh by 2030.

Carbon Emission Intensity (Current and Targeted) Compared with that of IEA's 2°C Scenario (tCO<sub>2</sub>e/MWh)



\* Refers to GHG emissions intensity of our Utilities business' assets that produce GHG from the combustion of fossil fuels We plan to achieve this target through two key thrusts. The first is to reduce negative impact through reducing emissions; the second is to move towards a balanced portfolio of low-carbon energy assets through growing our renewables capacity.

#### Local Environmental Protection

Group HSSE is guided by the principles and practices set out in our Statement of Commitment to Environmental Protection and Environmental Protection Management Guidelines.

(<sup>b</sup>) For a copy of our Statement of Commitment to Environmental Protection, please visit the Report & Policies page in the Sustainability section of our website.

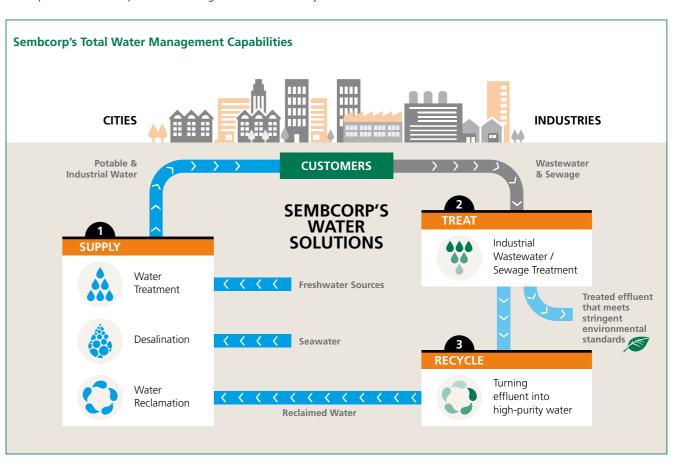
We aim to comply fully with all regulations and requirements and consume resources prudently, focusing on reduction at source. We assess the impact of environmental risks and apply appropriate control measures to manage them. These cover energy efficiency, atmospheric emissions, water management, waste management, management of contaminated sites and environmental noise. We apply stringent controls in the management of waste generated by our operations, strive at all times to adhere to discharge and emission limits set by local authorities and implement containment measures to minimise any direct impact to the environment and the surrounding community. We are committed to continually reducing our waste generated. As a wastewater treatment service provider, we are able to treat multiple streams of industrial wastewater from our customers. We also have a comprehensive water sampling and testing regime that helps us ensure compliance with such standards. Our Group HSE Management System's Incident Investigation and Reporting Requirements allow us to take systematic steps and actions in response to HSE incidents and near misses to prevent recurrence. GHSSE conducts internal audits to check for site compliance to our Group HSE management system. As part of their audit scope, GHSSE will check for each site's non-compliance and environmental incident records and also if our contractors are licensed by the local authority to dispose of hazardous wastes.

We aim to minimise our environmental impact through prevention, reduction, reuse and recycling, and seek innovative ways to adopt a circular economy approach to waste. We actively develop capabilities to recover energy from waste. For example, at our Sembcorp Woodchip Boiler Plant in Singapore, woodchips processed from waste wood collected by our solid waste management operations are used to produce steam. Also, we use treated effluent from our wastewater treatment facilities as feedwater to produce demineralised water at our water reclamation facilities. In addition, our design and construction business utilises fly ash, a by-product of coal combustion in power plants, as a material to produce blended cement, mosaic tiles and hollow blocks.

We conduct environmental assessments in accordance with national and / or international standards and methodologies. These include environmental and social impact assessments, environmental baseline studies and pollution control studies. Recommendations from these assessments form part of our management of HSE risks and these recommendations are incorporated into the planning, designing, construction and operation of new plants.

#### Energy and Water Efficiency

Where viable, we invest in the latest technologies and utilise our capabilities as an industry leader to achieve better energy and water efficiency, including the reduction of heat rate and auxiliary power in our power plants, and the reduction of water consumption through water reuse. Energy and water efficiency parameters are embedded in our plant operation management systems and are monitored daily. These parameters are reported to management on a monthly



basis where deviation and performance gaps are reviewed and improvement plans are discussed for implementation. Our Group Digital and Technology team spearheads various innovations and initiatives to improve operational efficiency. The team collaborates with institutes of higher learning, research institutes as well as private sector players to explore solutions which enhance our energy and water efficiency. For example, we are looking into identifying suitable waste heat recovery solutions to be applied to our operations. We also utilise the Sembcorp Global Asset Management System, a data and predictive analytics tool, to help us optimise our operations and improve efficiency.

#### Water availability

We leverage Sembcorp's total water management capabilities for better efficiency and resource conservation for our own operations as well as our customers. By integrating wastewater treatment, water reclamation and water supply into a "closed loop", we aim to minimise liquid discharge, reducing environmental impact while conserving water resources. Our energy-efficient large scale integrated power and desalination plants use multi-stage flash distillation and reverse osmosis to provide high-quality water to industries and households in water-scarce areas such as Oman and the UAE. We do not draw groundwater for our power generation operations, but rely on seawater to meet our cooling water needs. In some of our power plants, we employ closed-loop cooling water systems to further minimise water drawn from the ocean.

Our energy and water efficiency efforts also apply to our office and administrative buildings and we actively seek to reduce our consumption of energy and water through responsible use and equipment upgrades.

#### Our performance

In 2017, Sembcorp was ranked 21<sup>st</sup> in Energy Intelligence's 'Top 100 Green Utilities' ranking. The Group is the only company from Singapore on the list, which ranks the world's leading electric utilities based on their renewable energy portfolios and GHG emissions. The 100 companies represent about 55% of the world's power generating capacity.

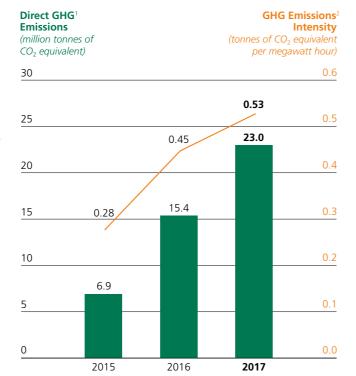
A Climate Change Strategy Working Committee was set up in 2017 to formally identify, review and manage climate change-related risks and opportunities. We developed a Climate Change Strategy, including carbon emission intensity and reduction targets.

We continue to pursue GHG emission mitigation initiatives through our asset optimisation programme. Deployed at all our energy plants globally, these help us to effectively pursue reductions in energy consumption and GHG emissions. In one of our cogeneration plants in Singapore, we were able to reduce the energy consumption of a natural gas compressor resulting in savings of 3,450 megawatt hours of electricity in 2017, or almost 1,500 tonnes of CO<sub>2</sub> equivalent of emissions avoided<sup>\*</sup>. Such initiatives allow us to mitigate the impact of current and potential carbon taxes in the countries in which we operate.

In line with the methodology used for the development of our carbon emission targets, we now report our GHG emissions and GHG emissions intensity using an equity share approach. Our GHG emissions and GHG emissions intensity by equity share approach was 22.7 million tonnes of  $CO_2$  equivalent and 0.55 tonnes of  $CO_2$  equivalent per megawatt hour respectively. For the purpose of comparison, the operational consolidation data is presented on the right.

# Direct GHG Emissions and GHG Emissions Intensity

(Scope 1) (applying operational consolidation approach)



Emissions data covers entities that produce GHG from the combustion of fossil fuels consumed in our Utilities business' assets. It excludes emissions from anaerobic wastewater treatment plants, and maintenance and servicing equipment. Only CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O emissions are included in the calculation of direct GHG emissions. Global warming potential factors used are from the IPCC Fourth Assessment Report for 2015 and 2016 data, and the IPCC Fifth Assessment Report for the 2017 data. The time horizon applied is a 100-year time horizon

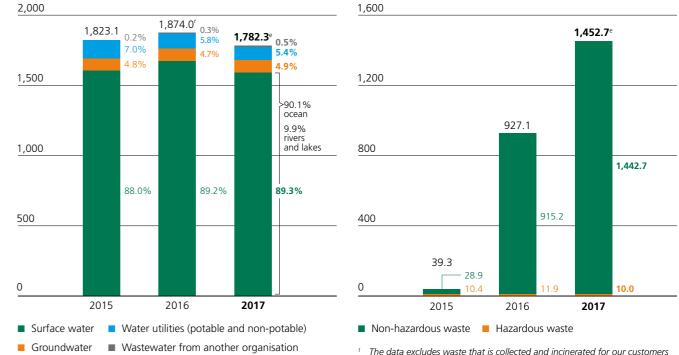
GHG emissions intensity data for 2015 has been estimated. A small proportion of energy attributed to steam production in 2015 was not available and was estimated based on data from 2016

The increase in direct GHG emissions and GHG emissions intensity in 2017 was largely due to the inclusion of data from our second supercritical coal-fired power plant in India.

We report emissions from the combustion of biomass separately, in accordance with GRI Standards. These emissions amounted to approximately 442,000 tonnes of  $CO_2$  equivalent in 2017 compared to approximately 566,000 tonnes in 2016. This decrease was due to both planned and unplanned downtime of our biomass plant in the UK.

\* Emissions avoided are calculated using 2016 Energy Market Authority of Singapore published grid emission factor

Water Withdrawal<sup>1,2,3</sup> (million m<sup>3</sup>)



<sup>1</sup> Data is collected from meters

- <sup>2</sup> Water that is withdrawn during plant commissioning for a closed-loop cooling system is excluded from the reporting scope
- <sup>3</sup> Percentages may not add up to 100% as they are rounded to the nearest one decimal place
- <sup>r</sup> Indicates restated figure. Water withdrawal for 2016 has been restated to 1,874.0 million cubic metres after an internal verification exercise, instead of 1,873.9 million cubic metres as previously reported
- Indicates data is based on management's best estimates; we look to further refine the accuracy and consistency of the data

In 2017, 89.3% of our total water withdrawn was abstracted The significant increase in non-hazardous waste in 2017 was from surface sources, of which 90.1% of surface water largely due to the inclusion of data from our second withdrawn was water abstracted from the ocean. More than supercritical coal-fired power plant in India. The non-hazardous half of this water abstracted from the ocean was desalinated waste comprised mainly fly ash, a by-product of coal combustion into potable water for the community, and the rest was used in power plants. Our India operations have memoranda of as cooling water for Sembcorp's power plant operations and understanding to sell up to 90% of their fly ash to be reused for our customers' plant processes. 9.9% of surface water as a partial replacement for Portland cement in the production of concrete, although the uptake of the ash is dependent on withdrawn was from rivers and lakes, of which, 97.0% was market demand. used for the production of potable water for the community, and the remaining 3.0% was for internal use. Groundwater abstraction remained steady. 100% of groundwater abstracted was treated to produce potable water for the community. 73.9% of water we obtained from water utilities was treated non-potable industrial and domestic wastewater, which we reclaimed to produce high-grade industrial and potable water. The remaining 26.1% of water obtained from water utilities was potable water. "Wastewater from another organisation" represents wastewater we treated for our customers. 10.1% of wastewater treated for customers was reclaimed and reused.

#### Waste Generated<sup>1,2</sup> (thousand tonnes)

<sup>1</sup> The data excludes waste that is collected and incinerated for our customers <sup>2</sup> Hazardous and non-hazardous waste are defined by relevant country

regulations in each market
<sup>e</sup> Indicates data is based on management's best est

 Indicates data is based on management's best estimates; we look to further refine the accuracy and consistency of the data

# Environmental, Social and Governance Review Our Material **ESG** Issues

#### Going forward

As part of our Climate Change Strategy, we have identified several initiatives that will help us manage our climate-related risks and opportunities, including the development of a low-carbon growth roadmap. Climate-related risks will also be included in our risk management processes. Performance incentives linked to the achievement of our key targets will be developed to ensure accountability.

We are in the process of creating an Environmental Management Policy and Framework to supplement our existing Group Health, Safety and Environment Policy and Framework. This will provide more clarity and focus on environmental risks across the asset life cycle. We will continue to invest in technology to improve the environmental performance of our facilities. The progressive implementation of the Sembcorp Global Asset Management System is expected to improve our energy efficiency.

#### **Climate Change**

To have a business portfolio that balances the economic expectations of our stakeholders and our businesses' impact on the climate

#### Local Environmental Protection

To fulfil our duty to protect the environment and conserve resources, while providing competitive and reliable solutions for our stakeholders

#### **Energy and Water Efficiency**

To improve energy and water efficiency through good and economically viable environmental practices

## Social

To be a responsible business that ensures the health and safety of our people, and makes a positive impact on our people and communities

#### HIGHLIGHT Striving Towards a Safer Sembcorp

In response to the higher exposure to safety risks at our project sites, we mandated the set-up of Health, Safety and Environment (HSE) steering committees for individual projects.

Each steering committee is led by the project's manager and comprises representatives from the engineering, procurement and construction company, as well as senior management from the corporate office. They meet quarterly to review and analyse safety performance, and to pre-plan key project activities with a view to pre-empt critical risks related to specific project activities. This initiative has significantly improved our project safety performance.

#### Why this is material

Health and Safety

Sembcorp develops and operates power and water plants as well as other facilities, where extensive health and safety precautions are required. The expansion of our business into developing economies also means we face challenges in building a local workforce that is attuned to our global health and safety standards. It is our priority to ensure that globally, all our employees and contractors are competent and equipped to work safely. We recognise our duty of care to provide a safe workplace for those who step into our premises, and we work hard to fulfil that duty. The health and safety of our customers is also a key priority, especially in our municipal water operations, where any lapse in health and safety protocols could result in a direct impact on people in the community.

#### **Our People**

Our employees play a vital role in ensuring we achieve our business strategy and goals. The nature of our business requires specialised technical expertise. However, some of the markets in which we operate lack a qualified labour force with the necessary technical skill sets that our business demands. In other markets, these skill sets are highly sought after across several industries. In addition, the commercial and regulatory

Our total recordable injury rate fell from 1.67 in 2016 to 1.2 in 2017.

An annual workshop for all HSE officers across our global operations was conducted at our Phu My 3 power plant in Vietnam. On-site demonstration of the plant's behavioural-based safety programme, as well as discussions on HSE practices encouraged engaging and fruitful crosscultural interaction and learning.

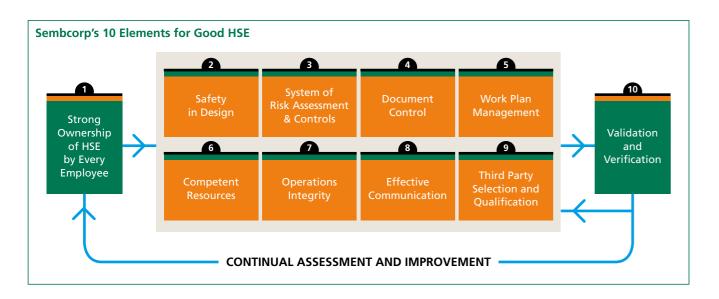
These initiatives have contributed towards the cultivation of an interdependent HSE culture, where employees adopt a collective and anticipatory approach to recognise and act upon hazardous work conditions.

environments we operate in are also becoming increasingly complex. There is therefore a critical need to retain and develop a capable and motivated workforce that possesses a deep understanding of the company and its industry sectors. Of the issues relating to our people, our materiality review process has identified employee development, employee compensation and benefits, labour standards, human rights and diversity, as well as employee wellness to be important areas of focus.

#### Community

Sembcorp's long-term success is premised upon being a valued partner to the communities we are in, and we aim to contribute positively to these local communities. While Sembcorp's businesses play an important role in supporting economic development and improving the standard of living in our communities, we recognise that there are social and environmental impacts on the communities around us as a result of the development and operation of our plants. Therefore, we view our integration with, support of and contribution to our host communities as part of our licence to operate.

97



#### Our approach

Health and Safety

Occupational health and safety

Our vision is to be an organisation with a proactive health and safety culture. We are committed to working towards the goal of zero injuries in our workplace, with a workforce that puts safety first. We benchmark the health and safety performance of our operations against relevant global industry safety statistics, such as the International Oil and Gas Producers Global Safety Performance Indicators, and aim for progressive improvement. As our operations grow in developing markets, the concern of security has become an emerging issue for us to manage. In response to this, we have adopted a phased approach in the development of our security management programme, starting with a focus on projects under development.

We have put in place structures and processes to meet our goal, including:

- Board review
- Oversight by the board's Risk Committee
- Leadership by our Group President & CEO
- A Group HSE management system framework comprising:
   Group HSE Policy
  - Group HSE management system guidelines and standards

The Group HSE management system framework provides guidelines and standards detailing expectations and principles relating to different aspects and activities that take place at a plant or site. It is further supported by Sembcorp's 10 Elements for Good HSE.

#### Assurance

HSE assurance is supported by an on-site validation and verification process which evaluates the effectiveness of the plants' or sites' HSE controls. On an annual basis, a validation and verification schedule is formulated using an internal risk-based assessment to ensure that the assurance exercise will focus on higher risk areas. Plants or sites with higher risk ratings will be given priority in the assurance exercise. The results of the assurance form the basis for the development of improvement plans.

#### Training

Providing our employees with relevant HSE and technical capability development ensures that we have competent safety practitioners and safety-conscious line managers that support safe operations. Training is specific to the operations' or sites' risk profile and local conditions, and is conducted on an ongoing basis. Examples of operations-specific training include defensive driving at our solid waste management unit as well as project commissioning and construction orientations for project development teams. An annual global HSE workshop is held as a platform for the learning and sharing of corporate initiatives and best practices from our different operations. Product responsibility: safety and quality

Sembcorp is committed to designing, building, operating and maintaining facilities in a manner that safeguards our people, property and the environment.

Product safety and compliance is a priority, as non-compliance can result in serious health, safety and operational issues for our customers, many of whom depend on us for basic utilities or require our products for their industrial processes. Compliance testing of our products is done during various stages, from manufacturing to distribution and supply. We have a robust maintenance and monitoring regime in place, which includes stringent inspections and the installation of meters and sensors at both our and our customers' facilities. We also conduct regular laboratory tests to meet regulatory requirements and ensure that the water we produce is safe for our customers and end users.

#### **Our People**

Our operations span 15 countries across five continents where labour laws, regulations, employment codes and practices differ widely. All our local human resource policies comply with the local laws.

Our human resource practices are guided by the following:

- Oversight by the board's Executive Resource & Compensation Committee
- Oversight by the Senior Management Committee
- Talent Development Committees
- The Sembcorp Leadership Framework
- Our Code of Business Conduct
- Our Employee Code of Conduct
- Our Grievance Handling Policy

Human capital risk is also monitored as part of our key risk indicators and reported bi-annually to the board's Risk Committee.

Through our memberships and participation in events conducted by external organisations, we stay abreast of the latest developments and best practices for human resource management.

Our participation in human resource-related organisations includes membership in the following:

- Singapore Business Federation, Singapore
- Singapore National Employers Federation, Singapore
  - Temasek Human Resource Council, Singapore
- The Corporate Executive Board Leadership Council, USA
- Employment Conditions Abroad International, UK

#### Employee development

Employee development at Sembcorp is managed through the Sembcorp Leadership Framework, which comprises three components with distinct yet interrelated objectives to drive employee development. Workforce Planning supports organisational growth and ambition. The Core Competency component assesses employees' competencies and identifies capability gaps while setting performance expectations. Learning and Development programmes are then put in place to close the gaps identified.

Localisation is an important part of our strategy to grow our overseas businesses. When we begin operating in a new market, employees who are seconded from Singapore and other locations to start up the operations are given a clear responsibility to develop local talent. As the capabilities of local employees grow, the team is gradually localised, and the number of secondees progressively reduced.

#### Employee compensation and benefits

To attract, motivate and retain employees, Sembcorp's remuneration and reward system is market competitive and performance-based. To determine salary levels and benefits, regular reviews and benchmarking are conducted against local standards and data from global market surveys and consultancy firms. In countries where there is a minimum wage policy, Sembcorp pays above the minimum wage.

Sembcorp adopts an equal pay policy where rewards are based entirely on merit and performance. Salary increases are based on individual performance and relative placement against the external market as well as negotiations with employee unions and guidelines issued by the local government. Annual variable bonuses are based on the Group's performance as well as employees' performance against individual targets set jointly with their supervisors.

We recognise that managing performance and development is a continuous process. Performance appraisals are done through informal feedback sessions and online systems where performance, expectations, training needs and targets are discussed and agreed upon by the employee and supervisor. As part of the performance appraisal, employees are assessed against Sembcorp's Core Competency Framework. Going through the appraisal process helps inculcate core values in employees, and clearly articulates the competencies and functional skills needed for their development.

#### HIGHLIGHT **Equipping Employees to be Leaders**

Following the successful pilot trial of the Sembcorp Leaders' Programme in Singapore in 2016, we officially launched the programme in 2017, starting with a wider group of employees in Singapore. The SLP was developed as a mainstay Sembcorp programme for all employees of executive rank and above. Its aim is to equip participants with a common set of skills and tools for problem solving, communication, innovation and managing change. The programme has been extended across the organisation, from junior employees to senior management, and provides specific leadership training relevant to the employees'

design thinking, as well as communication and presentation skills. Within a year of its roll-out in Singapore, the programme has been attended by close to 44% of eligible employees. Participants were also required to provide feedback to evaluate the guality of the training and applicability of skills learnt, and the average feedback rating was 4.5 out of 5. The SLP was the first enterprise-wide programme administered through our online Learning Management System, which improved efficiency and reach during the running of the programme.

seniority and corresponding responsibilities. Topics include

#### Labour standards

We abide by local laws wherever we operate. Sembcorp employees are entitled to practise freedom of association and to be covered by collective bargaining agreements in the workplace, within the regulatory boundaries of each of the jurisdictions. We hold constructive ongoing engagement with employee unions in our various operations. In countries where our operations are covered by collective agreements, we abide by the terms stated in said agreements, including those relating to minimum notice periods. Procedures for grievance handling are also specified in the agreements. Our Grievance Handling Policy seeks to manage employee grievances in a fair and reasonable manner, with an escalation path to the Group President & CEO where necessary. Where collective agreements do not exist, we abide by the terms stated in employment contracts.

#### Human rights and diversity

We are committed to uphold and respect the spirit of the United Nations Universal Declaration of Human Rights and the International Labour Organization's Declaration on Fundamental Principles and Rights at Work. Sembcorp is a signatory to the UNGC, and has made a public commitment to respect the Ten Principles of the UNGC, one of which is human rights. We are also guided by the United Nations Guiding Principles on Business and Human Rights. We abide by the Employers' Pledge of Fair Employment Practices under Singapore's Tripartite Alliance for Fair and Progressive Employment Practices. Our Code of Business Conduct sets out our stance on fairness, opportunity, non-discrimination, dignity, respect and harassment. We do not hire forced or child labour in our operations.

#### **Employee wellness**

We recognise the impact of wellness on our employees' overall effectiveness, and have set aside a dedicated wellness budget in countries of major operation such as Singapore, China, Oman and the UAE. The budget is available for department heads to use towards activities that encourage employee well-being and team bonding. Sembcorp was a founding member of the iCare Mental Health Alliance, which made efforts to improve the mental health of workers in Singapore. In addition, we specifically include coverage of treatment for mental health issues in our employee insurance cover. Besides mandatory medical screenings for employees potentially exposed to occupational health hazards, voluntary annual health screenings are available free of charge to all employees in Singapore, China, India, Oman and the UAE.

Around the world, employee-led committees within our operations organise a range of recreational activities as well as nutrition and stress management programmes to support employees' physical and mental well-being.

#### Community

As we build successful and sustainable businesses, societies and communities benefit. Our operations generate employment, contracts for local suppliers and tax revenues for governments and result in infrastructure development in our host communities.

However, we recognise that our operations also contribute to social and environmental impacts that may affect the community.

As a company with operations across five continents, we understand first-hand how the needs of one community can be very different from another. We believe that our local operations are best placed to not only understand the needs of the community, but also to forge partnerships with local stakeholders. Therefore, while the Group provides the strategic framework, tools and guidelines to ensure consistency and acceptable standards, community assessments and engagements as well as contributions are managed at the local level.

#### We are committed to fostering environmental stewardship in our

contributions to

ENVIRONMENT

standards and quality of community through life of the community. such as through providing sustainability and access to water, social welfare environmental initiatives and education

8

A<u>r</u>a

COMMUNITY

We are committed to

improving the living

#### Assessment and engagement

Our assessment and engagement of the community is guided by our Group Stakeholder and Community Engagement Policy as well as our Group Community Grievance Management Policy. Environmental and social impact studies are carried out in accordance with international and / or national standards for major new projects and expansions. These studies typically include social management plans that are implemented by the operations teams through the various stages of the site's development.

#### Investing in Education to Uplift Communities HIGHLIGHT

The Sembcorp Gayatri Power Complex operates in the Sembcorp implemented a host of initiatives to holistically Nellore district of the state of Andhra Pradesh, India, where address the community's educational needs, one of which it is surrounded by 42 villages comprising over 31,000 was the provision of free transportation to schools. This residents. These communities face multiple challenges, initiative was implemented to counter high dropout rates ranging from illiteracy, unemployment and poverty to due to the inaccessibility of the schools. Four years on, this gender inequality and poor health. Girls, in particular, initiative has benefited at least 470 students, including 300 contribute to a large proportion of the school dropout rate girls. This has significantly improved the percentage of girls completing higher secondary education from 76% to 98%, because public transport is infrequent and deemed unsafe for them. Following extensive engagement with members of and helped close the gender gap in school attendance. To date, we have invested close to S\$300.000 in education the community, education has been identified as a key enabler for the long-term improvement and development of initiatives for the communities in the vicinity of the power complex, benefitting 19 schools and over 1,600 students. the communities.

#### Community contribution

Sembcorp's global corporate social responsibility (CSR) framework provides a strategic and consistent approach for our charitable contributions and community investments. We focus on fostering environmental stewardship and improving the quality of life of the communities we are in.

Our CSR framework aligns the tracking and reporting of our community contributions with guidelines set by the London Benchmarking Group. This allows us to account for our total community giving using standard definitions and valuations, and helps us ensure that the contributions recorded are meaningfully spent on community investment activities.

#### Our performance

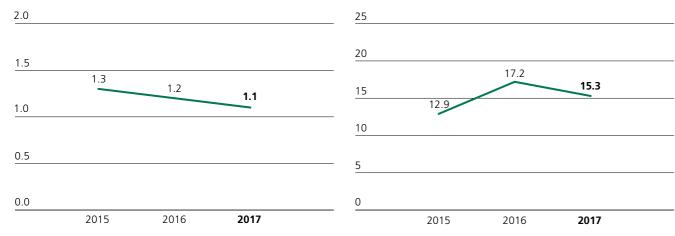
Health and Safety

In line with our growing international footprint, we continued to focus on aligning our practices with our global standards. We placed an emphasis on implementing initiatives across Group, country and site working levels in 2017. Key initiatives included:

#### Group initiatives

- Conducting our company's first HSE workshop outside of Singapore, in Vietnam
- The rolling out of safety standards to improve and standardise our safety protocol. A taskforce was set up in 2016 to review our Permit-to-Work (PTW) system and evaluate areas for improvement and standardisation. This year, our Global PTW Standard was approved by the board's Risk Committee and launched for group-wide implementation, and our Singapore utilities assets have been verified for compliance to the standard. The Safe Lifting Operations and Working At Height standards are presently being developed and formalised
- The establishing of regular push communications, alerts and case studies from serious incidents. Besides the dissemination of information, every site is required to review their internal procedures based on lessons learnt

#### Lost Time Injury Rate per Million Man-hours<sup>1,2,3</sup>



<sup>1</sup> Group health and safety performance is reported and recorded in accordance to the reporting requirements defined in the Group HSE Health and Safety Performance Reporting Standards. The principles adopted by the Standard are consistent with the general principles of the GRI Standards, the International Oil and Gas Producers Association Reporting Standards, and the US National Institute for Occupational Safety and Health (NIOSH). Occupational health and safety data includes employees and contractors. All injuries incurred involved male employees and contractors

<sup>2</sup> Figures are based on scope included in the reporting year

<sup>3</sup> Lost time injury rate is defined as the number of fatalities and lost work day cases per million man-hours worked. It excludes first aid cases

<sup>4</sup> Accident severity rate is defined as the number of lost work days per million man-hours worked. It has been charted excluding fatalities. Accident severity rate including fatalities is reported in our detailed performance data online. We record lost time due to one fatality as 6,000 lost work days, as per guidelines by the US NIOSH

from the case studies, and update their procedures where appropriate

 The updating of our Group HSE policy and management system to ensure that our management approach remains relevant and effective. Security management has been included as an element in our management system to ensure that our people, assets and reputation are protected against security risks and site vulnerabilities

#### Country initiatives

• Establishing our Plant Performance and Compliance Assurance (PPCA) regime. The PPCA has been spearheaded by the asset management team in China, with HSE being a key component in the review scope. The assurance exercise consists of an operational plant review, technical integrity reviews, safety management as well as ensuring compliance with local regulatory requirements. The PPCA has been rolled out to all our water plants in China

#### Site initiatives

 Implementing a site HSE self-evaluation process against applicable legal requirements and corporate policies. This self-evaluation is done on a quarterly basis, and the outcome of the assessment is discussed and reviewed during the HSE Committee meeting



 Conducting site assessments at all our solid waste management depots, where we have identified three key areas for improvements: safety engagement with workers, leadership and safety culture, and enhancing safety competency

Despite our best efforts, it is with deep regret that we report two work-related fatalities and one fatality involving a member of the public in 2017. Every life lost is one too many. No effort will be spared in ensuring that all incidents are thoroughly investigated and preventive actions implemented to address root causes. Two of these incidents involved contractors, one at a water operation in China and another at a factory in Malaysia operated by our design and construction business. The third case, which is currently undergoing investigation by the authorities, involved a member of the public and one of our waste collection trucks. We are determined to step up efforts to engage our workforce on the importance of building a proactive health and safety culture.

We are closely monitoring our safety statistics to ascertain the impact of our initiatives, and recognise that a change in health and safety culture will require sustained effort over a longer time frame. In 2017, we were encouraged by some positive results in both our operating assets as well as projects under construction. We believe that our promotion of near miss investigations and reporting have improved our operations' and sites' ability to identify and address unsafe conditions or actions.

#### **Our People**

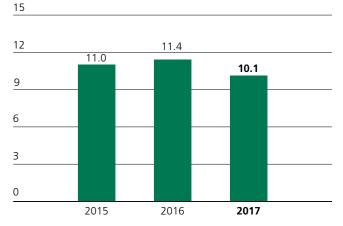
We undertook a global employee engagement survey in 2017, and are pleased to report an 81% response rate. The survey provided valuable insights into issues that were of key concern to our employees, and gave us the impetus to work on areas for improvement. Findings of the survey were cascaded to all employees through briefing sessions and workshops facilitated by Group Human Resources & Organisational Development. Cross-functional focus group engagement sessions are currently underway to help prioritise and plan the next steps.

The roll-out of the Sembcorp Leaders' Programme (SLP) in Singapore was well-received, with close to 44% of eligible employees having signed up within the first year of its roll-out.

We expanded our online Learning Management System (LMS) to Oman and the UAE, and have observed improved productivity in training administration and increased accessibility of training materials.

Employee turnover rate was stable, decreasing slightly from 11.4% in 2016 to 10.1% in 2017. The voluntary turnover rate was 8.4% in 2017.

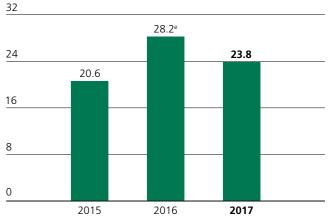
The average number of training hours per employee was 23.8 hours in 2017, which represented a 16% decrease from 28.2 hours 2016. The relatively higher average training hours in 2016 was due to the roll-out of various one-time training programmes.



#### Employee Turnover\* (%)

\* The data covers both voluntary and involuntary turnover of permanent employees of Sembcorp and its subsidiaries, excluding Sembcorp Marine

#### Average Training Hours per Employee\* (hours)



\* Training data covers both permanent and contract employees of Sembcorp and its subsidiaries, excluding Sembcorp Marine. Other indicators in the People section relate to permanent employees of Sembcorp and its subsidiaries, excluding Sembcorp Marine

 Indicates data is based on management's best estimates; we look to further refine the accuracy and consistency of the data

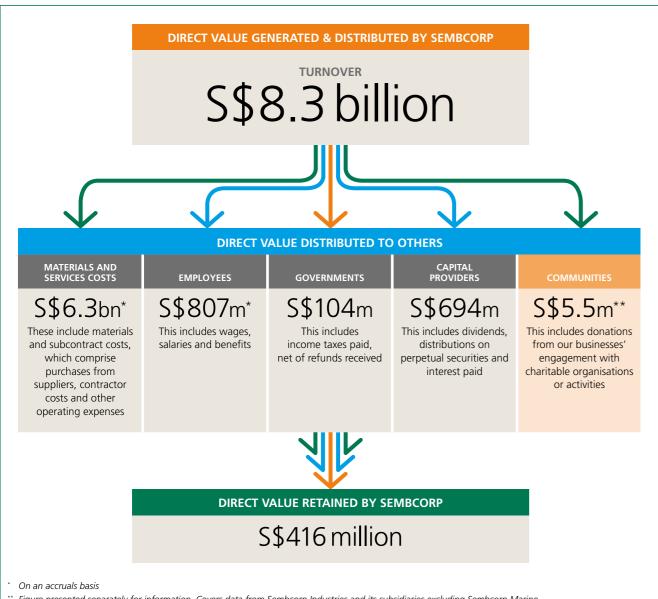


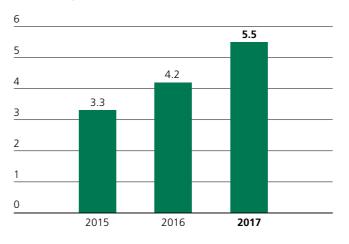
Figure presented separately for information. Covers data from Sembcorp Industries and its subsidiaries excluding Sembcorp Marine

#### Community

In line with our commitment to manage our impact on the community responsibly and to better mitigate the environmental and social impact of our businesses, key community investments and programmes are designed in consultation with local communities as guided by our CSR Framework. In 2017, we conducted community needs assessments for the communities surrounding our assets under construction in Myanmar and Bangladesh, and are in the process of identifying programmes for implementation.

In 2017, Sembcorp contributed close to S\$5.5 million in cash and organisation's success. and in kind to charities and community initiatives globally. Over S\$900,000 comprised mandatory contributions and close to We aim to roll out the SLP programme to our overseas S\$3,000 comprised leveraged contributions. These contributions operations. We will also bring the LMS to our UK operations supported programmes relating to providing potable water as well as our design and construction operations. and infrastructure works, as well as youth development and job training. Total volunteer man-hours amounted to more Community than 19,000 hours, of which approximately 12% were spent Following the community needs assessments we have outside of working hours due to event requirements. conducted in 2017 for our assets under construction in

#### **Community Contributions** (S\$ million)



Going forward

Health and Safety

The two interlinked themes we will focus on in 2018 are adherence to Sembcorp Global Standards, and behavioural safety. We will continue our pursuit of safety excellence with our 10 Elements for Good HSE as the cornerstone of our safety management system. Our operations reviews for our global sites will place increased emphasis on sites' adherence to our standards and process safety. Lastly, we will also focus on developing our security management programme.

#### Our People

Change management will be an area of focus as Sembcorp embarks on organisational changes to support its strategic direction. We recognise that our employees will have to navigate changes on various fronts, hence managing any resulting impact on them will be our priority in the coming year. Our two-pronged approach will be to first ensure that employees with new roles receive adequate functional competency training for new requirements of the job. Second, we will work with newly formed departments and teams to cultivate mindsets and values that will contribute to the team

Myanmar and Bangladesh, we will set out to identify and implement community initiatives in line with stakeholder feedback. In Myanmar, we will be improving the infrastructure of educational institutions as well as installing water treatment systems to provide potable water to villages in the immediate vicinity of our site.

Our investment towards the enhancement of The Cool House at Singapore's National Orchid Garden is on track, and we look forward to the topping out of the new Sembcorp Cool House in 2018. The full enhancements are targeted to complete in 2019.

#### **Health and Safety**

To make health and safety management an integral part of everyday business and culture

#### **Our People**

To offer a compelling employment experience for our people to develop and excel

#### Community

To be a responsible business that makes a positive impact on our communities

# Governance

To maintain high standards of behaviour and integrity and be best in class for governance practices

#### HIGHLIGHT Developing a Strong Compliance Culture

As part of our strong commitment to conduct our business honestly, responsibly and ethically, a dedicated Ethics and Compliance department was set up in 2017. The responsibilities of the Group Ethics and Compliance department, previously

jointly undertaken by the Group Risk and Group Governance departments, include driving Sembcorp's internal ethics and compliance programme to meet our regulatory obligations and ethical standards.

#### Why this is material

**Corporate Governance** 

We define corporate governance as the structures and processes in place for the transparent and accountable control and governance of our organisation. Well-defined corporate governance processes are essential in enhancing corporate accountability and long-term sustainability to preserve and maximise shareholder value.

#### **Risk Management**

Managing risk is an integral part of our business activities. As we continue to grow and expand globally, we are exposed to diverse risks, including strategic, financial, operational, compliance and fraud risks. Besides helping to preserve our bottom line by reducing the likelihood and impact of potential losses, risk management provides a common basis to evaluate new business opportunities. It also assures our board and shareholders that key enterprise and business risks faced by the organisation have been identified, assessed and managed with appropriate risk mitigation and controls.

#### Compliance

Sembcorp provides essential services which are highly regulated. We are committed to comply with all laws and regulations in the countries that we operate in. Non-compliance may subject us to statutory and regulatory fines and sanctions, including losing our licence to operate and material litigation. It may also result in damage to our reputation and credibility, thereby limiting future growth opportunities.

#### **Ethical Business Practices**

Responsible business conduct and ethical business practices ensure the long-term viability of our businesses and build trust and confidence with our stakeholders. We are committed to high standards of behaviour and integrity in everything we do. We believe in conducting our business legally, fairly, honestly and with integrity, and expect the same of those whom we do business with. Sembcorp has zero tolerance for fraud, bribery and corruption.

### Our approach

Corporate Governance

Sembcorp is led by an effective board mainly comprising independent non-executive directors. The board is collectively responsible for providing overall strategic direction and ensuring the long-term success of the Group. Several board committees have been established with clear terms of reference, both to assist the board in fulfilling its responsibilities and to provide an independent oversight of management.

Furthermore, the board and management of Sembcorp recognise that well-defined corporate governance processes are essential in enhancing corporate accountability and long-term sustainability, and are committed to high standards of governance to preserve and maximise shareholder value. We comply with the principles and guidelines set out in the Code of Corporate Governance 2012 issued by the Monetary Authority of Singapore, and our corporate governance practices are set out in the Corporate Governance Statement in this annual report.

To facilitate the effective execution of both our internal processes and business needs, we have in place a clearly defined organisational structure which includes detailed roles and responsibilities for key appointment holders. This is further supported by an established matrix for delegation of authority

#### **Risk & Governance Ecosystem**

#### **AUDIT & RISK COMMITTEES**

- Oversee risk management and internal controls of the Group, and advise the board on such matters
- Determine the Group's overall risk appetite and tolerance
- Review and approve risk management and governancerelated frameworks and policies

#### **RISK & COMPLIANCE**

- Develop the Group's overall risk management programme
- Design and own group-level risk management and governance frameworks and policies
- Monitor the status of implementation across entities within the Group
- Adopt industry best practice and communicate this to businesses and employees

#### **INTERNAL AUDIT**

- Audit the adequacy and effectiveness of our risk management and internal controls, using a risk-based methodology
- Provide independent assurance of compliance to relevant Group policies

as well as financial authority limits, which have been approved by the board. A comprehensive set of group-wide governance and functional policies that ensure entity-level controls are also implemented across the Group. The Group's internal controls policy and manual, which adopts principles of the Committee of Sponsoring Organizations of the Treadway Commission, provides a framework for what constitutes an effective and adequate system of internal controls. It also provides guidelines on the appropriate segregation of duties and a checklist of recommended internal controls for operations in our various markets to put in place.

We have also put in place a Governance Assurance Framework to provide a holistic and robust basis of assurance for the adequacy and effectiveness of our risk management and internal control system.



### • Hold accountability for respective risks and controls

- Provide source information and assessment of risks and controls
- Develop operating procedures and manuals aligned with the Group's governance policies, to ensure legal, regulatory and contractual compliance
- Provide management assurance of compliance and adequacy of internal controls, backed by comprehensive self-review and certification

#### a. Management assurance

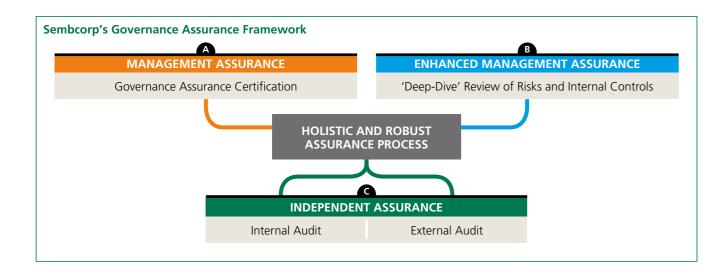
The Governance Assurance Certification is a management certification process that is submitted quarterly by each market to certify that its risk management and internal controls system is adequate and effective. This certification is supported by regular internal risk management processes, including Risk Management Committee meetings and review of risk registers.

#### b. Enhanced management assurance

Key markets are required to perform a 'deep-dive' review of risks and internal controls, together with a risk control self-assessment by management.

#### c. Independent assurance

Internal audit provides independent assurance with a focus on operational risks and the general control environment. External audit considers internal controls relevant to the preparation of financial statements to ensure they give a true and fair view.



#### **Risk Management**

The Group manages risk under an overall strategy, determined by the board of directors and supported by the board's Risk Committee and Audit Committee. The Risk Committee reviews and enhances the effectiveness of the Group's risk management and HSE plans, systems, processes and procedures. It also regularly reviews group-wide risks including significant risk exposures relating to foreign exchange rates, commodity prices and major investment projects as well as corresponding risk mitigation plans. HSE policies, guidelines and limits are also regularly reviewed. Oversight for risk management within the Group's listed entities lies with their respective boards.

#### Risk appetite framework

The board has determined a risk appetite framework for Sembcorp that forms a common understanding among both our board and management to execute the Group's strategy and objectives. Under this framework, the board has approved risk appetite statements with respect to the following areas. These are aligned with how the Group categorises its material issues for the management and the reporting of its overall sustainability performance:

#### a. Economic

Sembcorp actively pursues global strategies to deliver sustainable long-term value and growth. We will continue to invest in and develop our capabilities and expand our assets in both existing and new markets. Investing in such markets inevitably carries with it inherent risks; however, the Group is a disciplined investor with a robust investment approval process that calls for the necessary due diligence and risk management to be done. The Group has a defined set of country limits that categorises high, medium and low risk countries and has set appropriate limits for investment exposure in such countries to manage concentration risk.

The Group commits to maintaining a strong financial position and targets to achieve an investment grade equivalent credit rating to ensure access to funding and protect shareholder value. The Group will not take part in any form of transaction that is deemed speculative in nature, under any circumstances.

#### b. Environmental

Sembcorp is committed to responsibly managing and reducing our impact on the environment as well as to effectively managing environmental and climate-related risks to our operations.

Besides complying with all prescribed environmental standards and requirements through our established internal policies and processes, we assess the impact of environmental and climate-related risks, and apply appropriate control measures to manage them. Where viable, we also invest in the latest technologies and utilise our capabilities as an industry leader to achieve better energy and water efficiency, including reduction of water consumption through water reuse.

#### c. Social

Sembcorp is committed to being a responsible business that ensures the health and safety of our people, and makes a positive impact on our people and communities.

In our pursuit of operational excellence and business growth, Sembcorp will not compromise the health and safety of both its internal and external stakeholders. The health and safety of all our employees is of paramount importance to the Group. We take a serious view of any breach in health and safety standards and regulations across all our operations and facilities.

Sembcorp also recognises the need to have in place a strong and competent workforce that is committed to our core values and ethical standards. The Group will also continue to attract, develop and retain employees with the relevant skill sets and competencies to meet our business needs and growth plans and ensure leadership continuity.

In addition, Sembcorp believes that as an integral part of our communities, we should conduct our business in a responsible manner and make a positive contribution to the communities in which we operate. The Group is therefore committed to high standards of business conduct, to engaging our stakeholders and to managing our environmental and social impact on local communities responsibly.

#### d. Governance

As a listed company on the Singapore stock exchange that has both responsibility and accountability to a wide range of stakeholders, Sembcorp commits to maintaining high standards of behaviour and integrity and aims to be best in class for governance practices. The Group will strive to comply with all applicable laws and regulatory requirements in the countries where it operates, including adopting a zero tolerance stance towards any form of fraud, bribery or corruption, and expects all employees to adhere to the guidelines set forth in the Code of Business Conduct.

Our risk appetite statements are also supported by key risk indicators, which are monitored and reported to the board's Risk Committee on an ongoing basis.

#### Enterprise risk management

The Group is committed to ensuring that an effective and practical enterprise risk management (ERM) framework is in place. Our framework aims to safeguard our people and assets, protect shareholders' interests, facilitate informed decisions for value creation and ultimately enhance our brand and reputation. In designing our ERM framework, the Group has adapted and made reference to various industry risk management standards, such as ISO 31000 and the Enterprise Risk Management – Integrated Framework of the Committee of Sponsoring Organizations of the Treadway Commission. This ensures that we are in line with best practice. To sustain a successful ERM programme, we believe in having the right processes and tools as well as instilling the right risk awareness culture. Our ERM framework specifically sets out a systematic and structured approach towards risk management through the following activities:

- Awareness trainings and workshops
- Risk identification and assessment
- Formulation of key risk management strategies
- Design and implementation of risk mitigation controls (preventive, detective and responsive controls)
- Monitoring and timely reporting of risk management performance and risk exposure levels
- Continuous improvement of risk management mitigation measures and capabilities

Our ERM framework is supported by the following key pillars:

#### a. Fraud Risk Management

The possibility of fraud is an inherent risk in any organisation. To manage this, the Group has established a fraud risk management policy, which has been approved by our board's Risk Committee. The policy provides a framework and comprehensive guidance on anti-fraud measures to proactively manage the risk of fraud, bribery and corruption. This includes a whistle-blowing policy. All subsidiaries are required to have a fraud control plan in place. We actively influence and encourage our joint ventures and associates to adopt our fraud risk management framework. The Group maintains a zero tolerance policy for fraud, which we take to include corruption and bribery. This stance is regularly communicated to employees through awareness trainings and e-learning programmes. The following key activities and complementary policies and procedures are part of our holistic approach towards fraud risk management, and also address the risk of bribery and corruption:

#### Preventive anti-fraud measures

- Code of Business Conduct
- Employee code of conduct
- Conflict of interest policy
- Corporate gift policy ٠
- Fraud risk assessments ٠
- Employee and third party due diligence

#### Detective anti-fraud measures

- Whistle-blowing policy
- Forensic data analysis
- Compliance and monitoring ٠
- Pre-employment screening

#### Responsive anti-fraud measures

- Fraud reporting procedures
- Fraud investigation procedures
- Grievance handling procedures

#### Whistle-blowing policy

Sembcorp has a whistle-blowing policy and procedure in place. We provide employees with well-defined and accessible channels within the Group through which they may, in confidence, raise concerns regarding possible improprieties in the conduct of business activities, financial reporting or other matters to the Audit Committee. This facilitates independent investigation of such matters for appropriate resolution. The policy is communicated to all employees and is subject to review on a regular basis.

A whistle-blower may submit his / her allegations or concerns either by telephone, email or through other written forms or existing communication channels. The company will protect the confidentiality and anonymity of the whistle-blower. The whistle-blowing case will be received by the head of Group Internal Audit and an investigation will be conducted in compliance with the requirements set out in the company's whistle-blowing policy. If an employee who uses whistle-blowing channels is found to have wilfully done so in bad faith, disciplinary action will be taken against him / her.

For a copy of our whistle-blowing policy, please refer to the Report & Policies page in the Sustainability section of our website.

#### b. Operational Risk Management

The Group's management of operational risk is focused on the following areas:

#### Crisis management and business continuity

A robust and effective crisis management framework is put in place with the Group's crisis management, emergency response and business continuity procedures and plans. These procedures and plans are regularly tested and finetuned. The Group also addresses crises and emergencies through the implementation of appropriate prevention, preparedness, and response and recovery programmes.

#### Health, safety and the environment

A group-wide HSE management system which is aligned with international standards and industry best practice sets the standard for operations in the various markets to actively manage HSE risks.

As part of Sembcorp's Climate Change Strategy development, climate-related risks were evaluated. The tools and methodologies we utilised for the evaluation will be embedded into the ERM framework.

#### Insurance

The Group actively reviews its insurable and uninsurable risks, and identifies comprehensive and cost-effective risk management tools to manage such risks. As a risk transfer mechanism, the Group has purchased a comprehensive set of insurance policies to protect its business operations against financial loss arising from property damage, machinery breakdown, business interruption and / or third party liability. The Group has also engaged a panel of top-tier insurance consultants, leveraging their technical expertise and resources to negotiate for competitive pricing and comprehensive coverage with insurance companies. To balance the cost of risk transfer, the Group focuses on insuring catastrophic events while maintaining its emphasis on improving internal controls over operations and maintenance. Sembcorp Captive Insurance, a whollyowned captive insurance subsidiary, provides first-layer coverage against property damage and business interruption losses for the Group's power and utilities operations in Singapore and the UK. Sembcorp Captive Insurance serves not only as an internal risk transfer mechanism, but also showcases the Group's efforts to promote greater accountability and responsibility in operations and maintenance within its markets. Over the years, Sembcorp Captive Insurance has successfully built up a strong capital surplus, allowing it to extend its

#### Managing our Climate Change Risks and Opportunities HIGHLIGHT

In formulating Sembcorp's new climate change strategy, the Group identified climate-related risks and opportunities for our Utilities business by evaluating four key risk factors: physical environmental impacts to our assets, brand and reputation risks, requirements for regulatory compliance, and product and market risks. We evaluated these climaterelated risks and opportunities using near-term (2017 to 2022) and medium-term (2030) lenses, and also considered long-term (2050) trends such as a science-based target for the utility sector by 2050. When evaluating our markets from a climate-based scenario lens, we use International Energy Agency scenarios such as the New Policies Scenario and the 450 Scenario. These scenarios provided Sembcorp with a holistic view of how the global response to climate change can impact our industry and our specific assets; from changes in power demand, carbon prices and overall capacity projections, to profitability of thermal versus renewable plants and other considerations. We then mapped these risks onto a risk matrix to give the Group a clear view of the short- and long-term risks.

In the short term, we observed uncertainty in the regulatory environment. There exists a patchwork of conflicting regulations, from carbon taxes and cap-and-trade schemes to various supportive policies and regulations for renewables in some markets, with policy support for traditional power in other markets. In Singapore, for example, the government announced a carbon tax of S\$5 per tonne of GHG emissions from 2019 to 2023. The tax amount will increase to between S\$10 to S\$15 per tonne by 2030. Our assets in Singapore are built with best in class technology that generate

\* Refers to GHG emissions intensity of our Utilities business' assets that produce GHG from the combustion of fossil fuels

insurance reach to other operations and broaden its scope of coverage should the need arise.

#### c. Financial, Market and Credit Risk Management

Sembcorp's financial, market and credit risk exposure is managed via established policies, including treasury policies, financial authority limits and Governance Assurance Certification.

#### Financial and market risk

The Group defines and utilises approved financial instruments to manage exposure to foreign exchange, commodity prices and interest rate fluctuations arising from operational, financing and investment activities. Under the Group's overall treasury policy, transactions for speculative purposes are strictly not allowed.

lower emissions. We actively implement GHG mitigation and energy efficiency initiatives to further reduce our carbon footprint.

Over the long term, however, both the Paris Agreement and the trend in pricing of carbon emissions suggest that the regulatory market for renewable power generation will become increasingly favourable. Our scenarios evaluated the impacts of an increasingly strong shift in consumer demand and affordability of renewable power, combined with technology breakthroughs in battery storage. Our assessments also considered the impacts of decentralisation of power generation and the shifting demands of customers due to these changes. The findings from our climate-related scenario analysis have impacted our overall business strategy by helping us to define a carbon emission intensity\* goal that aligns with these trends.

To ensure that these risks and opportunities are addressed and mitigated going forward, they will be incorporated into our Governance Assurance Framework and form part of the risk management process for existing assets. For upcoming and new investments, the Group will embed climate considerations in our investment approval process through our Environmental and Social screening toolkit. Climate-related financial impacts will also be included in stress-testing, as well as short- and long-term strategic planning. Embedding the management of these risks in our processes will ensure that this guides our strategy and business decisions, and help us build a sustainable future for the company.

#### Default and counterparty credit risks

A group-wide credit risk policy has been put in place to ensure that we transact with creditworthy counterparties as much as possible. We also screen for material concentrations of credit risk to ensure that no single counterparty or group-related counterparties has excessive credit exposure that may result in material impact on the Group in the event of a default.

#### d. Investment Risk Management

The Group has in place an investment approval process to ensure a prudent and disciplined approach to all investment decisions, including a country risk framework that sets appropriate country risk limits.

As at December 31, 2017 the countries outside of Singapore in which the Group has the largest investment exposure are India (S\$3.9 billion), China (S\$1.9 billion) and Brazil (S\$1.6 billion). Investment exposure comprises invested capital, including reserves, and committed contingent support for projects and assets.

#### e. Tax Risk Management

It is our policy to comply with all relevant taxation laws, regulations and regulatory disclosure requirements.

For more details on our ERM framework and a full description of our approach to managing the above risks, please refer to the Sustainability section of our website.

#### Compliance

Full compliance to all legal and regulatory requirements is the minimum expectation we prescribe for all our businesses. As part of our Governance Assurance Framework, our Governance Assurance Certification process requires all heads of markets to certify that they have complied with all relevant legal and regulatory requirements in their respective entities and country of operation. Any monetary fines and non-monetary sanctions imposed on the markets are also to be reported.

Regular audits are conducted by Group Internal Audit and Group HSSE departments to ensure compliance and also to identify gaps and lapses in compliance. They will also work closely with management to develop action plans to prevent future recurrences of gaps and lapses.

#### **Ethical Business Practices**

Sembcorp's core values of Insight, Integrity and Integral define our approach to sustainable growth, and form the foundation of Sembcorp's Business Principles and Code of Business Conduct (CBC). Employees are required to comply with the requirements of the CBC, which addresses Sembcorp's stance in the following key areas:

- Fairness and opportunity, harassment, information protection and insider trading, and protection of company assets
- Integrity of information, gifts and entertainment, conflict of interest, corruption and bribery, facilitation payments, anti-competition and anti-trust laws, money laundering prevention, and prohibition of political contributions
- Contribution to our communities, health, safety and the environment

Requirements of the CBC are communicated to employees globally through an e-learning course delivered in multiple languages. Employees are required to complete an annual declaration to acknowledge that they have read and understood the principles and requirements of the CBC and agree to comply with its principles and requirements and to promptly report any violation through available reporting channels. Suppliers and contractors who work with Sembcorp are expected to respect and follow the CBC as well.

The CBC also provides for escalation procedures in the event of a breach of the CBC as well as feedback channels for employee clarification and queries.

#### Our performance

We undertook a successful roll-out of our new online risk management system to our key markets in Singapore and China. These markets utilised the system to perform their risk and internal controls assessment as part of our Governance Assurance Framework requirements. The new system has helped sharpen our risk management and governance process by providing a centralised database of risk information, and enabled us to perform active management and monitoring of key risks and controls. This has enhanced our reporting and analytics capabilities, and promotes greater accountability and ownership. We will progressively roll out this online risk management system to other key markets in 2018.

In recognising the growing importance of environmental and social risks and as part of our overall risk appetite, we have also developed a set of environmental and social 'no go' criteria as well as a list of 'red flags' that will provide a first-line guidance for our business development team to consider and appraise before we embark on any new investments or acquisitions.

Our ongoing efforts to build in-house capabilities, readiness and resilience in crisis and emergency response situations requires us to regularly conduct and participate in crisis simulation exercises and awareness trainings. In 2017, this included simulation exercises in our operations in Singapore, the UK, China and in the UAE. The exercise in the UAE was conducted in partnership with customers, local authorities and external agencies. We have also made significant enhancements to our internal policies relating to data protection. In doing so, we established higher standards that govern the collection, use, disclosure and care of business and personal data. We also conducted a group-wide bribery and corruption risk assessment to identify areas of improvement for our Group's anti-bribery and corruption programme.

During the year, our operations in China, Chile, Singapore and the UK incurred significant<sup>\*</sup> fines amounting to S\$3.9 million. This included a S\$2.5 million fine incurred by our operation in the UK for a work-related accident in 2013 involving a subcontractor's employee. Remediation actions have been taken, including the enhancement of the training of personnel undertaking pressure testing activities, as well as the strengthening of the contractor assessment process for competency to undertake hazardous activities. In China and Chile, we incurred significant<sup>\*</sup> fines related to environmental non-compliance amounting to S\$885,200. These fines were in relation to environmental non-compliance on wastewater discharge and odour control. In Singapore, the fines were imposed for non-compliance with performance standards on fuel changeover as well as a health and safety accident.

#### Going forward

We plan to perform a detailed review of our risk appetite framework to ensure that it remains relevant and aligned to our overall business model as we embark on our new strategy. This will also include reviewing our existing risk assessment and scoring process for new investments and existing assets. Following the roll-out of our online risk management system in Singapore and China, we will be progressively introducing this online risk management system to our operations in other markets. Additionally, we will focus on driving compliance improvements by adopting a series of measures which include:

- Ensuring the adequacy and practicality of internal policies
- Improving compliance awareness through training, e-learning and other internal communication tools
- Improving our testing and monitoring programme to identify opportunities for continued improvement

#### **Corporate Governance**

To have an effective governance and decisionmaking structure

## Risk Management

Compliance

To ensure effective identification and management of all material risks

# To comply with all legal and regulatory requirements

**Ethical Business Practices** To ensure we conduct our businesses legally, fairly, honestly and with integrity