

## About this Report

### Reporting Framework

Our Sustainability Report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option. It is guided by the Singapore Exchange Sustainability Reporting Guide as well as the Ten Principles of the United Nations (UN) Global Compact. Our climate-related disclosures are guided by the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) as well as CDP's (formerly Carbon Disclosure Project) Climate Change programme. Our previous report was published in March 2019. There are no significant changes from previous reporting periods in the list of material sustainability issues and boundaries.

### Materiality

Material sustainability issues have been identified in line with the GRI Standards for sustainability reporting. In our 2016 materiality assessment, stakeholders were identified in accordance with the AA1000 Stakeholder Engagement Standard. Our material sustainability issues are reviewed and endorsed by our Sustainability Steering Committee and the board annually.

[For more information on our approach to stakeholder engagement and materiality, please visit Our Approach page in the Sustainability section of our website.](#)

### Reporting Scope

- Our report provides information on Sembcorp as well as its subsidiaries and covers the period from January 1 to December 31, 2019
- It excludes operations, joint ventures, partnerships and associates where Sembcorp does not have management and / or operational control, with the exception of greenhouse gas (GHG) emissions data. In line with the methodology used for the development of our carbon emission targets, we report our GHG emissions and GHG emissions intensity using an equity share approach
- Our Marine business, Sembcorp Marine, is separately listed and reports its activities in a separate Sustainability Report
- New acquisitions and subsidiaries are given one year 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 as well as community investments from our Energy assets under construction is included
- Data pertaining to entities divested during the year is excluded from our report

### Assurance

Our key sustainability data is independently assured by PricewaterhouseCoopers LLP.

Changes in reported data could occur arising from areas such as changes in material sustainability issues, boundaries or information, including the design, definitions and use of disclosures in the report. Upon such occurrences, current disclosures are presented alongside the appropriate restated comparative or historic data.

[For the Independent Limited Assurance Report, please refer to Our Performance: 2019 Performance Data and Commentary report in the Sustainability section of our website.](#)

### 2019 Highlights

Generated **\$899 million** of revenue from the Renewables and Environment business

Generated over **4.5 million MWh** of renewable electricity in 2019, equivalent to powering over one million households<sup>1</sup> in Singapore

Avoided over **3.9 million tonnes** of carbon dioxide equivalent emissions with energy generated by our renewable assets

Reclaimed around **74 million m<sup>3</sup>** of wastewater for industrial use. This was a higher than usual volume, driven by stronger customer demand

Provided over **39,000 people** with access to potable water for their daily needs through our community investment programme, the Sembcorp Water Initiative

Achieved **74%** recycling rate for fly ash produced by our coal-fired power plants in India

Converted over **360,000 tonnes** of waste into energy in Singapore

Planted over **800,000 trees** to help absorb air pollutants from the environment

Contributed over **8,500 volunteer hours** in local communities

### Participation in sustainability ratings

- CDP (formerly known as the Carbon Disclosure Project)
- Dow Jones Sustainability Asia Pacific Index
- Energy Intelligence's Top 100 Green Utilities Report
- FTSE4Good Index Series<sup>2</sup>
- MSCI ESG Ratings<sup>3</sup>
- Sustainalytics



### Sustainability Contact

We welcome feedback on our sustainability issues and reporting at [sustainability@sembcorp.com](mailto:sustainability@sembcorp.com).

<sup>1</sup> Based on the average energy consumption of a four-room public housing unit in Singapore. Source: Energy Market Authority, Singapore, 2017

<sup>2</sup> FTSE Russell (the trading name of FTSE International Limited and Frank Russell Company) confirms that Sembcorp Industries has been independently assessed according to the FTSE4Good criteria, and has satisfied the requirements to become a constituent of the FTSE4Good Index Series. Created by the global index provider FTSE Russell, the FTSE4Good Index Series is designed to measure the performance of companies demonstrating strong environmental, social and governance practices. The FTSE4Good indices are used by a wide variety of market participants to create and assess responsible investment funds and other products

<sup>3</sup> The use by Sembcorp Industries of any MSCI ESG Research LLC or its affiliates (MSCI) data, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement, recommendation, or promotion of Sembcorp Industries by MSCI. MSCI services and data are the property of MSCI or its information providers, and are provided 'as-is' and without warranty. MSCI names and logos are trademarks or service marks of MSCI

## About this Report

### Key Performance Indicators

	2019	2018	2017
<b>Environmental</b>			
<b>Climate Change</b>			
Direct GHG emissions <sup>1</sup> (Scope 1) (million tCO <sub>2</sub> e)	26.0	23.6	22.2
GHG emissions intensity <sup>1</sup> (tCO <sub>2</sub> e/MWh)	0.54	0.55	0.54
Renewable energy generation capacity (MW)	2,601	2,569 <sup>f</sup>	2,181 <sup>f</sup>
<b>Resource Management</b>			
Water withdrawal <sup>2</sup> (million m <sup>3</sup> )	1,971.3	1,856.2	1,856.4
Net water consumption <sup>3</sup> (million m <sup>3</sup> )	46.1	54.3	49.3
Water discharge <sup>2</sup> (million m <sup>3</sup> )	1,925.3	1,801.9	1,807.1
Waste generated <sup>4</sup> (thousand tonnes)	1,894.3	1,713.3	1,452.7 <sup>e</sup>
Hazardous waste	51.3	39.9	10.0
Non-hazardous waste	1,843.0	1,673.4	1,442.7
<b>Local Environmental Protection</b>			
Significant spills <sup>5</sup>	0	0	0
<b>Social</b>			
<b>Health and Safety<sup>6</sup></b>			
Number of fatalities <sup>7</sup>	2	1	3
Lost time injury rate <sup>8</sup> (number per million man-hours)	1.1	0.5	1.1
Accident severity rate <sup>9</sup> (number per million man-hours)	473.1	137.0 <sup>f</sup>	263.4 <sup>f</sup>
<b>People</b>			
Employee turnover <sup>10</sup> (%)	12.1	11.6	10.1
Training hours <sup>11</sup> (average hours per employee)	29.4	25.2	23.8
<b>Community</b>			
Community contributions (S\$ million)	1.4	1.1	5.5

[Commentary on the data and other performance data, is available in this report, as well as in the Sustainability section of our website.](#)

[Notes: Please refer to the Reporting Scope section on page 54 for details on our reporting coverage.](#)

<sup>1</sup> Emissions data covers entities that produce GHGs from the combustion of fossil fuels consumed by our Energy business' assets. It excludes emissions from our anaerobic wastewater treatment plants, chemical waste and maintenance and servicing equipment. Emission factors used are from the IPCC Guidelines for National Greenhouse Gas Inventories for 2006. 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 Fifth Assessment Report. A 100-year time horizon is applied

<sup>2</sup> Water withdrawal includes all water we extract from the sea, surface, ground or third party sources such as wastewater from customers or treated water from water utilities. The calculation methodology for water withdrawal and discharge was updated to align to the GRI 303: Water and Effluents 2018 Standard

<sup>3</sup> Net water consumption is defined as water consumed by our own sites and administrative offices

<sup>4</sup> Data for waste generated excludes waste that is collected and incinerated for our customers

<sup>5</sup> A significant spill refers to an accidental release of a hazardous substance which results in severe and / or persistent environmental damage, and is classified as having major or massive impact in our Group HSE Hazard Identification and Risk Management Standard. Significant spills are reported upon occurrence of the incident

<sup>6</sup> Health and safety data covers both assets in operation and under construction

<sup>7</sup> Data covers employees and contractors as well as members of the public. [Details of fatalities are reported on page 70](#)

<sup>8</sup> The lost time injury rate is defined as the number of fatalities and lost work day cases per million man-hours worked. It includes high-consequence work-related injuries, which refer to injuries that result in permanent disability and / or injuries that require long term follow up such as physiotherapy treatment and where the individual is not expected to recover fully to pre-injury health status within six months

<sup>9</sup> The accident severity rate is defined as the number of lost work days per million man-hours worked. 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>10</sup> Data covers both voluntary and involuntary turnover of permanent employees

<sup>11</sup> Data covers permanent and contract employees

<sup>f</sup> Indicates restated figure. Adjustments were made to 2017 and 2018 renewable energy generation capacity figures for conversion of capacity in Singapore from MWp to MW. Accident severity rate was revised to include fatalities

<sup>e</sup> Indicates data based on management's best estimates; we have since refined the accuracy and consistency of the data

## Managing Sustainability

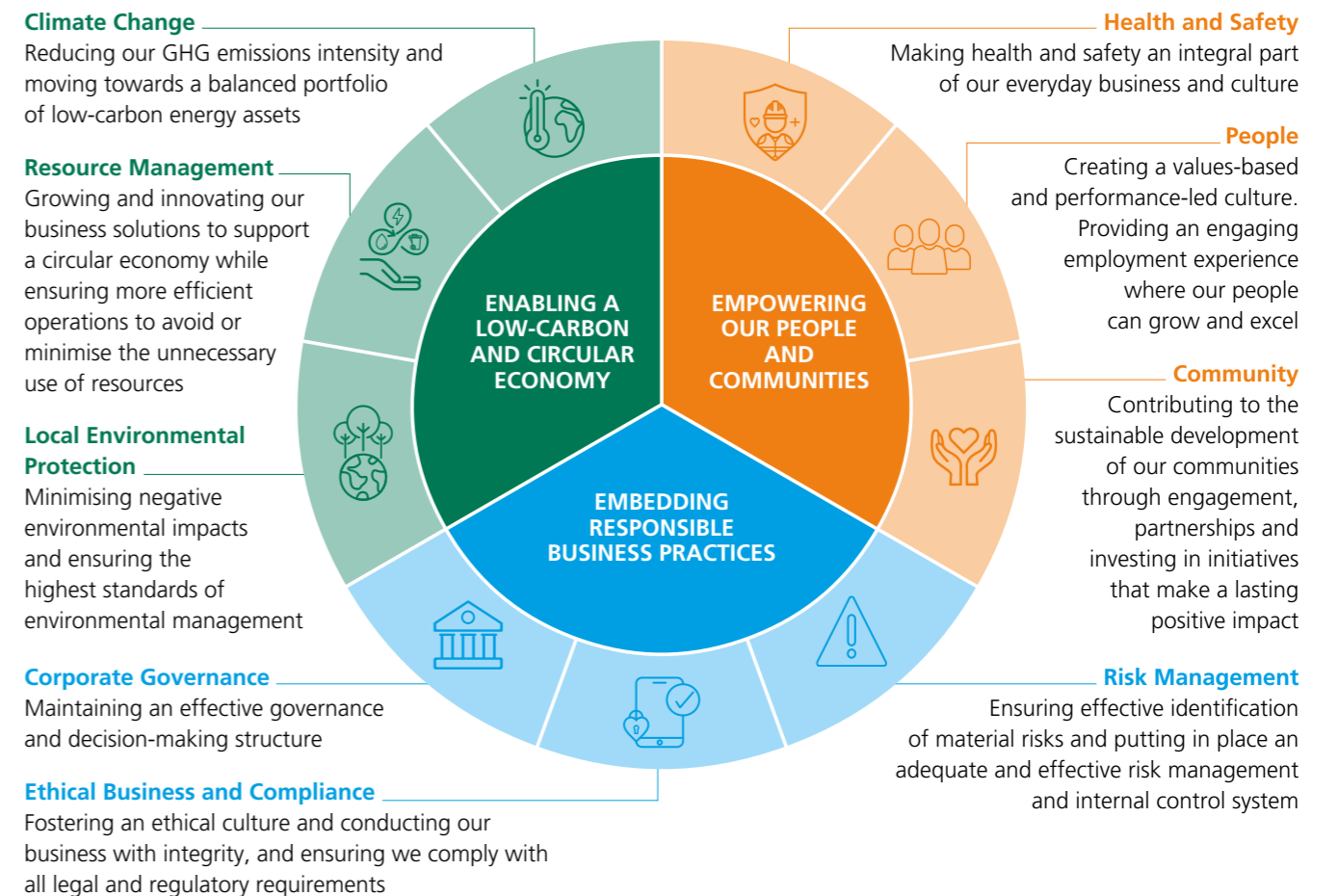
Sembcorp has long held a strong commitment to sustainability. We believe that responsible corporates can play a role as agents of transformation for a sustainable future. We see sustainability in our company as inextricably linked to our ability to deliver long-term value and growth to our stakeholders.

### Our Sustainability Framework

Sustainability is one of the key pillars of our business strategy that underpins our value creation process.

As a Group, we want to enable a low-carbon and circular economy, empower our people and communities, and embed responsible business practices throughout our organisation.

These ambitions in turn support the UN Sustainable Development Goals (SDGs).



#### Driven by Our Purpose

Our purpose and passion is to do good and play our part in creating a sustainable future. We deliver energy and innovative solutions that support development and create value – for our stakeholders and communities.

#### Underpinned by Our Values



**Creative Insight**  
We innovate and solve complex problems



**Committed**  
We walk the talk, do the right thing and deliver on our promises



**Connected**  
We value our people, forge strong partnerships and care for our communities and the environment

## Managing Sustainability

### Supporting the SDGs

The SDGs and their accompanying targets were ratified by 193 states at the UN Summit in September 2015. The scale and ambition of the SDGs mean they cannot be achieved by governments alone, and require the collective effort of businesses, organisations and all levels of society. Sembcorp believes in playing its part to help meet these goals. We have identified SDG 6 and 7 as priority SDGs to focus on. These encapsulate areas that our businesses have significant impact on and can make the greatest contributions to sustainable development by 2030.

#### Goal 6: Clean Water and Sanitation

Our suite of water solutions for industrial customers helps to reduce the use of freshwater and potable water

**Target:** We aim to grow our water reclamation volume to 63 million m<sup>3</sup> by 2022

#### Goal 7: Affordable and Clean Energy

As an integrated energy player, we aim to help advance the global energy transition. We are committed to increasing our share of renewable assets, while managing existing thermal assets to operate at optimal efficiency

**Target:** We aim to grow our renewable energy capacity to 4,000MW by 2022

[For more information on our support of the SDGs, please visit Our Approach page in the Sustainability section of our website.](#)

### Sustainability Governance

Sembcorp's board of directors oversees the business affairs of the Group. The main duties of the board include providing leadership on Sembcorp's overall strategy which takes into consideration our material sustainability issues. Sembcorp also has a Sustainability Steering Committee that provides strategic direction for managing sustainability-related risks and opportunities. The committee is chaired by our group chief financial officer, and comprises senior executives who are accountable for the management of Sembcorp's material sustainability issues.

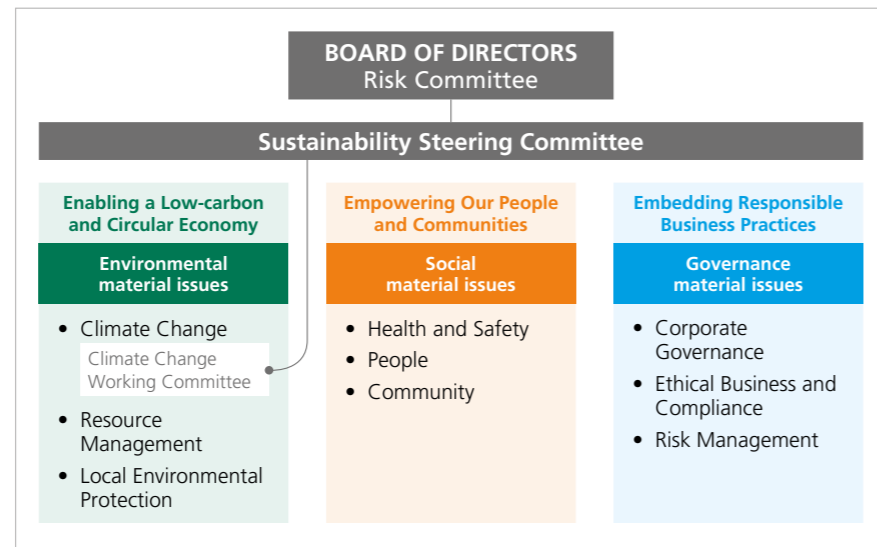
To ensure sustainability is embedded into the business, environmental, social and governance (ESG) components are included in the performance scorecard of our leadership team, who are responsible for cascading action for these components throughout the

#### 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 our material ESG factors.

organisation. With this, the performance incentives of our senior executives specifically take into account ESG performance and the achievement of set targets.

[For more information on our sustainability-related policies, please visit the Reports & Policies page in the Sustainability section of our website.](#)



### Memberships and Associations



## Our Material ESG Issues

### Enabling a Low-carbon and Circular Economy

#### Climate Change

**Our Priorities**  
Reducing our greenhouse gas (GHG) emissions intensity and moving towards a balanced portfolio of low-carbon energy assets



**How We Did in 2019**  
Our renewables capacity in 2019 was 2,600MW  
Our GHG emissions intensity was slightly lower than in 2018. We are committed to meeting our targets by 2022

> Pages 59–61

#### Resource Management

**Our Priorities**  
Growing and innovating our business solutions to support a circular economy while ensuring more efficient operations to avoid or minimise the unnecessary use of resources



**How We Did in 2019**  
We reclaimed around 74 million m<sup>3</sup> of water

> Pages 61–66

#### Local Environmental Protection

**Our Priorities**  
Minimising negative environmental impacts and ensuring the highest standards of environmental management



**How We Did in 2019**  
We registered zero significant spill incidents in 2019  
We paid significant fines totalling S\$10.5 million in 2019. Details of fines and sanctions can be found on page 78 of this report

> Pages 66–67

### Climate Change

#### Why this is material

Climate change poses an enormous threat to the safety and well-being of entire populations as well as the global economy. In particular, as an energy producer, our energy generation activities release GHG emissions that contribute to climate change. In addition, climate change also poses potential regulatory, technological, physical and reputational risks to our business. However, we recognise that in spite of these challenges, we are also uniquely positioned to leverage opportunities that have arisen from actions in response to climate change.

[For more information on our Climate Change Strategy, please visit the Reports & Policies page in the Sustainability section of our website.](#)

#### Our approach

In 2018, we launched our Climate Change Strategy, which outlines megatrends in the global energy transition, why

climate change matters to Sembcorp and how we are addressing climate-related risks and opportunities.

Our climate-related disclosures are guided by the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). TCFD is a market-driven initiative, which articulates a set of voluntary climate-related financial risk disclosures for use by companies.

[Our TCFD disclosure is available in the Our Focus Areas: Environment page in the Sustainability section of our website.](#)

#### Performance

**Progress on Our Renewables Growth**  
Our total renewables capacity accounts for over 20% of our total energy capacity.

We improved our CDP Climate Change score from C to B- in 2019. We were the only Singaporean company to feature in the global Top 100 Green

Utilities ranking by Energy Intelligence, and were placed 60<sup>th</sup> in the list.

#### Managing Our Emissions

Direct GHG emissions (Scope 1) are from sources owned or controlled by the company. Our GHG emissions data is reported using an equity share approach. Our Scope 1 GHG emissions and GHG emissions intensity was 26 million tonnes of CO<sub>2</sub> equivalent (tCO<sub>2</sub>e) and 0.54 tonnes of CO<sub>2</sub> equivalent per megawatt hour (tCO<sub>2</sub>e/MWh), respectively. The increase in absolute emissions was due to the inclusion of data from our gas-fired power plants in Bangladesh and Myanmar, our small-scale power generation assets in the United Kingdom (UK), as well as an increase in electricity generation at our Indian thermal power plants. The slight decrease in our overall GHG emissions intensity was due to higher renewable energy generation and gas-fired electricity production. We remain committed to meeting our 2022 GHG emissions intensity target of 0.42 tCO<sub>2</sub>e/MWh.

## Our Material ESG Issues

### Supporting Singapore's Solar Ambition



Sembcorp Solar staff inspecting our rooftop solar panels

Sembcorp is greening its portfolio and helping to drive the adoption of renewables by partnering industry leaders to lead the charge together. This is in line with our strategy to enable a low-carbon future and support Singapore's target to produce enough solar energy to power about 350,000 homes annually by 2030. In 2019, we expanded our solar business in Singapore, securing an additional 63MWp of solar capacity. This brings our total solar capacity in operation and under development in Singapore to 180MWp.

We report emissions from the combustion of biomass separately, in accordance with the Global Reporting Initiative (GRI) Standards. Our global biogenic emissions amounted to approximately 531 thousand tCO<sub>2</sub>e in 2019, compared

to approximately 446 thousand tCO<sub>2</sub>e the year before.

Indirect GHG emissions (Scope 2) are from purchased electricity, steam, heating and cooling. We report Scope 2

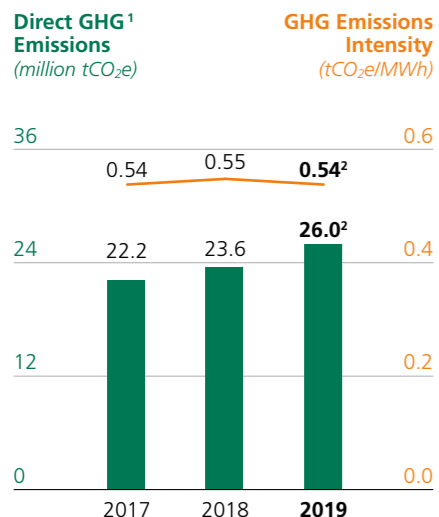
GHG emissions from the majority of our plants. Our Scope 2 emissions amounted to over 303 thousand tonnes or 0.3 million tCO<sub>2</sub>e. The increase in our Scope 2 emissions is largely due to the expansion in our reporting scope.

Other indirect GHG emissions (Scope 3) are generated as a result of the company's activities but are not derived from sources controlled or owned by Sembcorp. We began measuring Scope 3 GHG emissions in 2019, starting with the emissions from the use of natural gas sold to our customers. Our Scope 3 emissions amounted to 3.8 million tCO<sub>2</sub>e<sup>1</sup>.

<sup>1</sup> Emissions are calculated using the Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories for 2006 emission factors. Data is calculated on the assumption that all gas sold is combusted

<sup>2</sup> Includes data from our Urban business

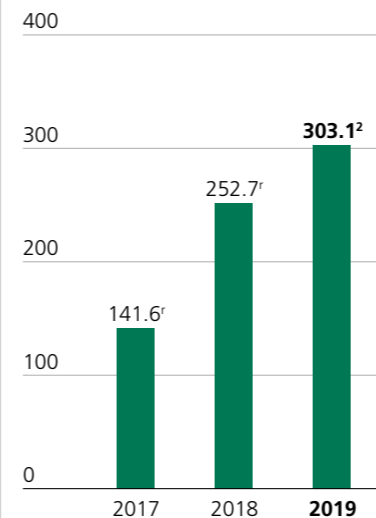
### Direct GHG Emissions (Scope 1) and GHG Emissions Intensity



<sup>1</sup> Emissions data covers entities that produce GHGs from the combustion of fossil fuels consumed in our Energy business' assets. It excludes emissions from our anaerobic wastewater treatment plants, chemical waste and maintenance and servicing equipment. Emission factors used are from the IPCC Guidelines for National Greenhouse Gas Inventories for 2006. 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 Fifth Assessment Report. A 100-year time horizon is applied. Base year is set to 2017 to compare our Scope 1 GHG emissions intensity over time. Our base year reflects the year we developed our Climate Change Strategy and correspondingly set our GHG emissions intensity targets

### Indirect GHG Emissions<sup>1</sup> (Scope 2)

(thousand tCO<sub>2</sub>e)



<sup>1</sup> Indirect GHG emissions include location-based data for all Energy business' assets. In Singapore our operations purchase energy from our own assets; to avoid double counting, the emissions resulting from these have been accounted for under Scope 1 GHG emissions. CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O emissions are included in the calculation of indirect GHG emissions, except for India where their grid emission factor only takes into account CO<sub>2</sub>. Emission factors are taken from the International Energy Agency, Ministry of Energy of Chile, Central Electricity Authority of India, and the UK Department for Environment, Food & Rural Affairs. Emissions relating to heating have been excluded. We are in the process of setting the base year for Scope 2 emissions to compare our performance over time

<sup>2</sup> Includes data from the import of steam, our municipal water businesses in Southeast Asia, our administrative offices in key markets, as well as our Urban business

<sup>1</sup> Indicates restated figure. The reason for the restatement is provided in our 2019 Performance Data and Commentary report in the Sustainability section of our website

### Resource Management

#### Why this is material

Global population growth coupled with rapid urbanisation and industrialisation have led to an unprecedented demand for critical resources. This has underscored the need for us to reduce

the unnecessary use of resources while pursuing innovations that support a circular economy. As an integrated energy and urban player, Sembcorp is uniquely positioned to help others on the journey towards sustainable development.

We have identified three key areas under resource management:

- Energy management
- Water and wastewater management
- Waste management

In each area, we seek to optimise resource use for our customers and in our own operations.

#### Our approach

##### Energy Management

The challenge for the energy sector is to meet growing energy needs, with fewer emissions. While we are taking steps to green our portfolio, this process takes time. In the meantime, we are optimising the efficiency of our power assets.

The Sembcorp Global Asset Management System enables process optimisation, troubleshooting and predictive analytics, and consolidates real-time operational data from our global assets. The system shortens the lead time required to identify and resolve complex issues, leverages digital solutions to improve cost-effectiveness and enables best practice sharing across the Group.



In 2019, Sembcorp planted 19 species of flora around our thermal operations in India with a total of over 130,000 saplings across some 180 acres. To date, we have contributed a total of 32 flora species and over 800,000 saplings across nearly 750 acres, which is equivalent to approximately 416 football fields. This has helped to create a "green belt" to restore land degradation while absorbing air pollutants from the atmosphere

## Our Material ESG Issues

### Innovative Technology as a Key Differentiator for Sembcorp



Innovative and practical technologies are key differentiators for our business. For example, Sembcorp Solar employs the use of an online monitoring system that tracks the performance of its solar assets across Southeast Asia. The system enables the identification and measurement of real-time performance indicators to ensure that its assets are operating optimally. Sembcorp Solar customers can also access an online application, which provides them with a visual representation of the performance of their rooftop solar panel installations.

Sembcorp Solar's online monitoring system



In India, we introduced our Virtual Brain platform, an analytics-based digital asset management platform that enables the business to monitor data remotely. It provides information from our renewable energy sites across seven states, supporting our operations with performance monitoring, forecasting, real-time condition monitoring and anomaly detection.

Virtual Brain platform for wind assets in India

Energy efficiency parameters are embedded in our plant operation management systems and monitored daily. Monthly technical forum discussions are conducted by our operations teams to facilitate knowledge sharing of best practices on operational and efficiency issues.

In addition to managing our own assets, Sembcorp seeks to empower customers to achieve their own sustainability targets, through the application of technology and integrated solutions.

#### Water and Wastewater Management

Water is a precious resource. Our aim is to ensure that all our interactions with, and the usage of, water resources are responsibly managed. We are committed to integrating environmental protection and stewardship into our operations to help mitigate environmental risks and support water conservation.

As a water solutions provider, Sembcorp uses water for a number of purposes. In addition to consuming water in our own operations, we also supply water and associated water services to our customers. We withdraw water from a variety of sources including the sea, water bodies on the surface such as rivers and lakes, ground and third party sources such as wastewater from our customers or treated water from water utilities. We are committed to ensuring that any effluent is treated in line with regulatory discharge standards.

Where required, environmental impact assessments are conducted in accordance with national and / or international standards and methodologies, to understand the effect our activities have on the local environment, including water bodies. Recommendations from these assessments are then incorporated into the design, construction and operation of new plants.

Power plants use large amounts of water for cooling purposes. Almost 99% of the water we withdraw for such purposes is seawater, which minimises the need for freshwater and groundwater. In some of our power plants, we employ closed loop cooling water systems to further minimise the need for seawater.

Our specialised water solutions for industries enable us to treat multiple streams of industrial wastewater directly from source, without the need for pre-treatment on the part of our customers. This helps customers to focus on their core business, and allows us to leverage different wastewater influent profiles to further optimise the wastewater treatment process. In some cases, a proportion of treated water is channelled for reclamation and re-supplied to customers for their industrial processes – thus forming a closed loop which minimises liquid discharge and helps to conserve water.

### Supporting the UK's Transition to Renewables



Sembcorp Energy UK's flexible gas-fired generation plants (top) and battery energy storage system (above)

In August 2019, over one million people in the UK were left without electricity for up to 45 minutes, after a lightning strike caused two large generators that power the national grid to trip which led to a plunge in grid frequency. Within minutes of the blackout, Sembcorp Energy UK's fleet of rapid response gas-fired power plants swung into action to make over 600MW of electricity available, which supported the restoration of power to the grid.

We operate the UK's largest distributed energy portfolio that comprises 813MW of small-scale, fast-ramping power generation assets and rapid response batteries in operation and under construction. In 2019, the first 60MW of our battery energy storage system commenced operations in the UK. These are used by the national grid electricity system operator to dynamically manage the system in real-time. Our batteries function like the cruise control in a car, automatically increasing or decreasing their output to ensure that the system frequency remains consistently within safe limits, thus reducing the risk of a power cut.

With the growth of renewables in the UK's energy mix, flexible rapid response gas engines and battery energy storage systems will play increasingly important roles to help address the intermittency of renewables by bridging supply gaps and ensuring the reliability of power supply.

In water-stressed regions such as Oman and the United Arab Emirates, our large-scale integrated power and desalination plants use multi-stage flash distillation and reverse osmosis to provide high-quality water to meet municipal and industrial needs.

#### Waste Management

Tackling the challenge of waste management requires a circular economy approach, including reduction in waste generation and exploring opportunities to reuse resources.

For example, Sembcorp operates energy-from-waste plants in Singapore and the UK, where waste is used as feedstock for power generation. In Singapore, this waste is collected by our solid waste management business. In addition, the majority of fly ash generated as a by-product in our coal-fired power plants in India is recycled into cement and bricks.

We actively seek to reduce the volume of sludge generated in our industrial

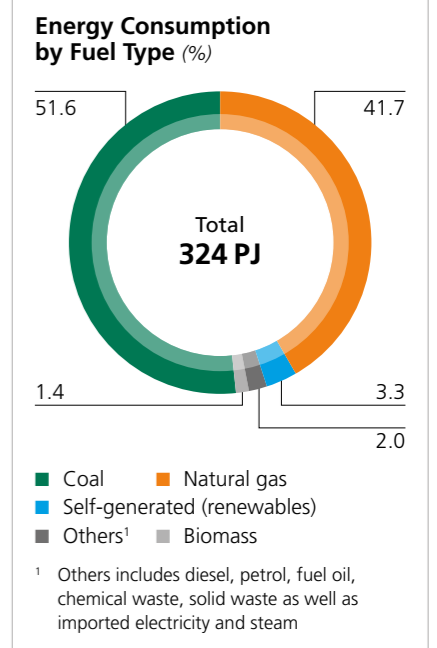
wastewater treatment operations. Methodologies include anaerobic sludge digestion which involves a series of biological processes that breaks down sludge and reduces sludge volume, while also generating biogas which is channelled towards the production of steam and electricity. In addition, non-hazardous sludge is converted into useful products such as bricks or plant fertiliser where possible.

#### Performance Energy Management

We consumed 324 petajoules (PJ) of energy in 2019. We set internal targets for our plants to improve operational performance and efficiency.

This year, our global energy and water facilities undertook a total of 22 energy optimisation projects that resulted in the reduction of nearly 29,000MWh of electricity<sup>1</sup>.

<sup>1</sup> Based on projected annualised energy savings



## Our Material ESG Issues

### Water and Wastewater Management

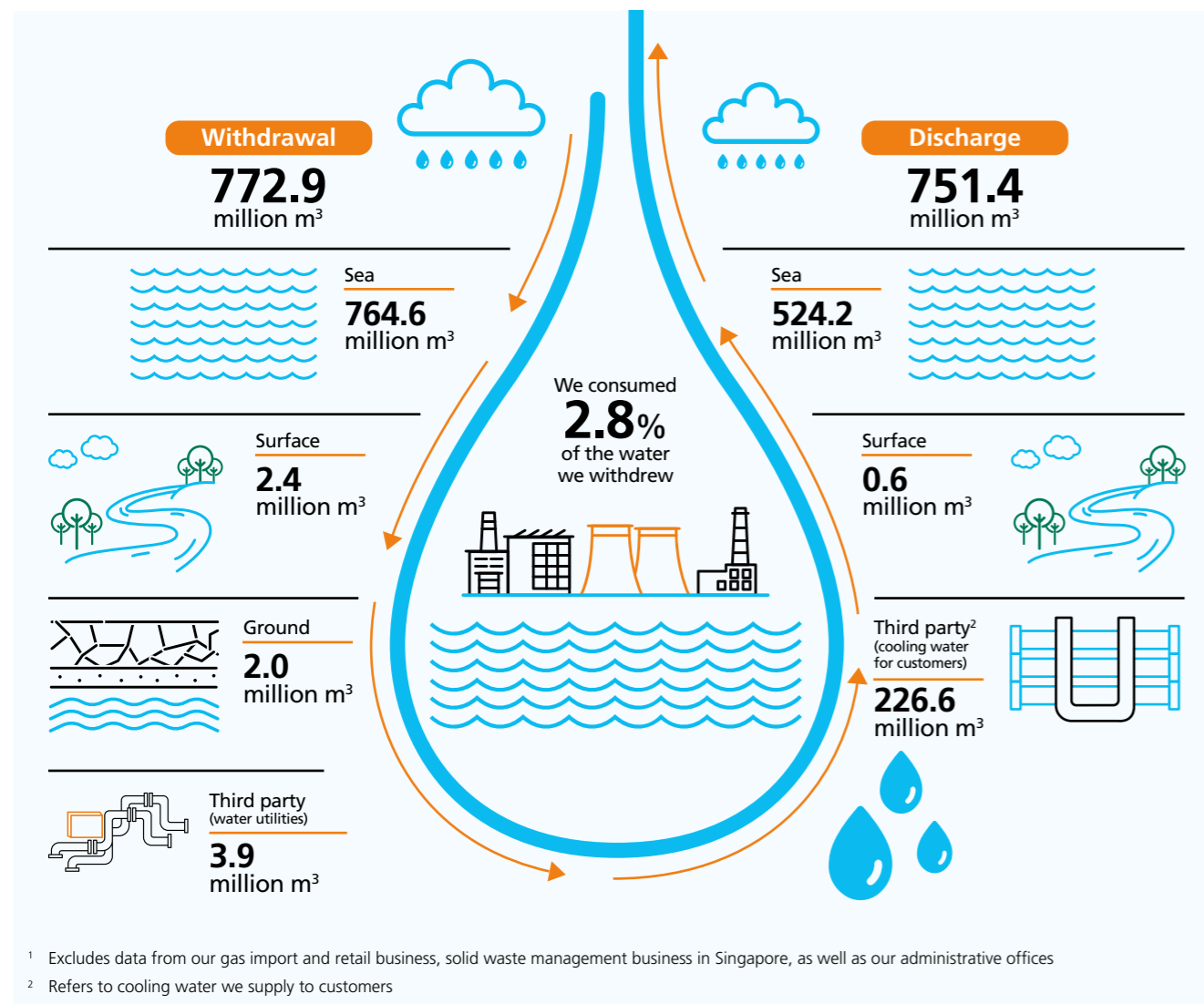
We revised our disclosures for water to begin aligning with the new GRI 303: Water and Effluents 2018 Standard.

[For the GRI-compliant disclosure, please refer to Our Performance: 2019 Performance Data and Commentary report in the Sustainability section of our website.](#)

The infographics that follow provide a summary of our water interactions across our Energy businesses and markets. In adopting the GRI Standards, we have defined the terms as follows:

- **Water discharge:** includes all water that is discharged from our operations to various destinations including the sea, surface and third parties such as customers
- **Water consumption:** comprises the water we use in our own operations and administrative buildings. It excludes water that we withdraw and treat for supply to customers
- **Water withdrawal:** includes all water we extract from the sea, surface, ground or third party sources such as wastewater from our customers or treated water from water utilities

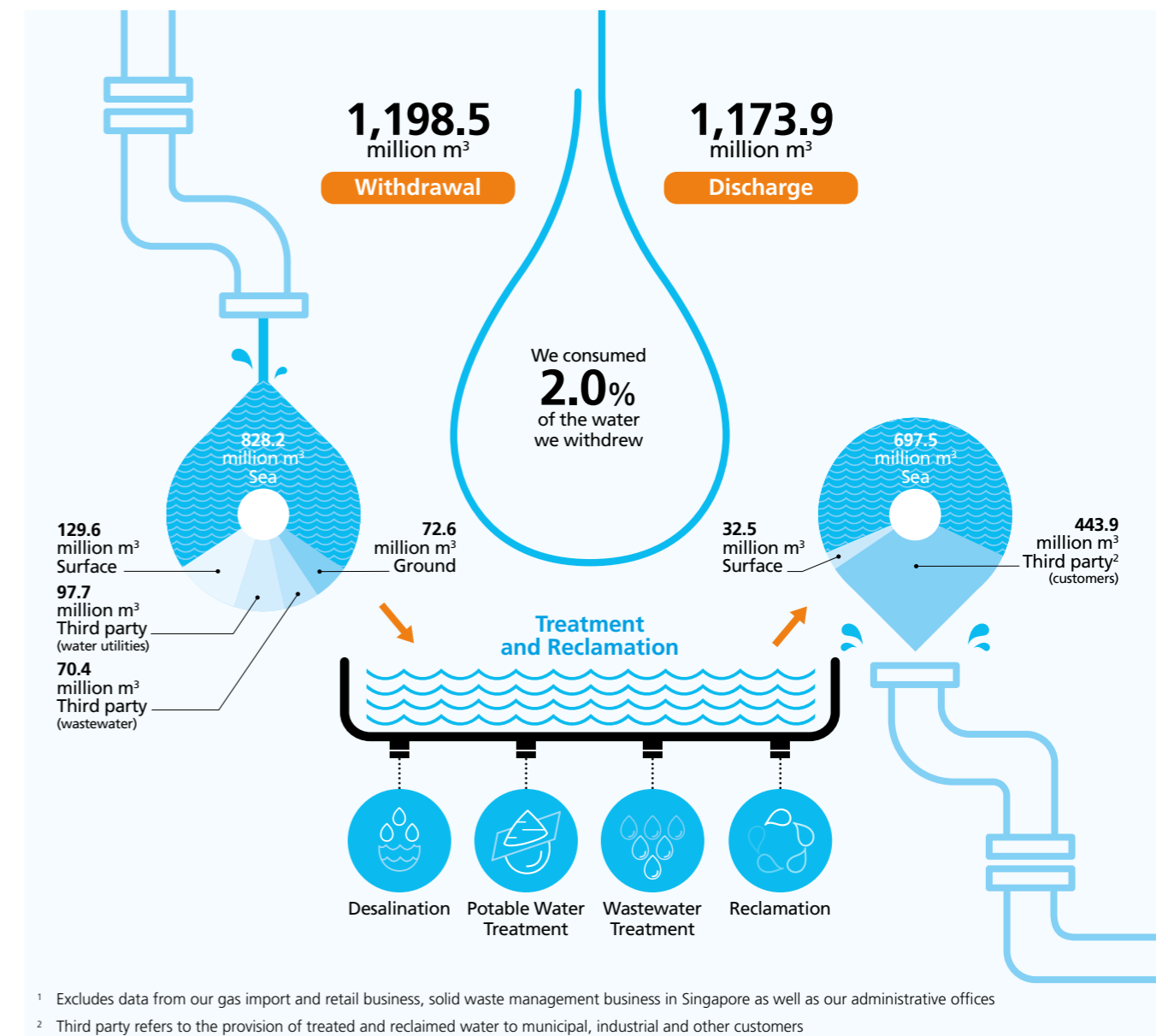
### Water Flow of Our Energy Generation Assets<sup>1</sup>



Our energy generation assets withdrew nearly 773 million m<sup>3</sup> of water in 2019:

- 98.9% was seawater that was used for plant cooling purposes
- 0.3% was surface water that was used for plant cooling purposes
- 0.3% was groundwater that was used for cooling purposes. Moving forward we are developing new water intake infrastructure to withdraw surface water instead of groundwater
- 0.5% came from water utilities and was used for our operations

### Water Flow of Our Water Assets<sup>1</sup>



Our water assets withdrew over 1,198 million m<sup>3</sup> of water in 2019:

- 69.1% was seawater and was used to produce desalinated water
- 10.8% was surface water, the majority of which was used to produce water for municipal customers
- 8.1% was water from water utilities, of which more than half was treated wastewater that we reclaimed and supplied to customers
- 5.9% was wastewater from our customers. Out of the total volume of wastewater we treated, we reclaimed approximately 16% which was supplied to customers
- 6.1% was groundwater, 100% of which was treated and supplied to municipal customers

We reclaimed around 74 million m<sup>3</sup> of water in 2019, driven by stronger customer demand.

In 2019, we undertook a water optimisation project that led to improved efficiency and a projected annualised reduction of 35,000m<sup>3</sup> of water used.

We also provided access to drinking water to over 39,000 people in India and Myanmar through our community investment projects.

## Our Material ESG Issues

### Helping to Make Recycling in Singapore 'ezi'



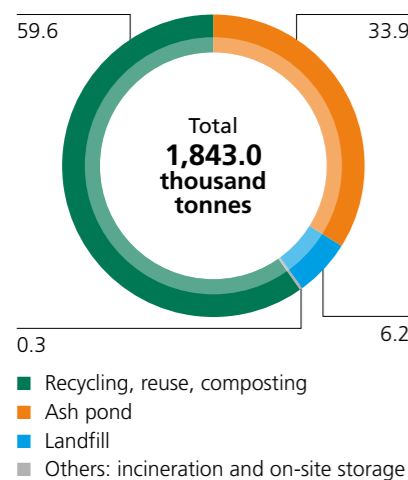
Dr Amy Khor, Senior Minister of State, MEWR (centre) with Mr Neil McGregor, Group President and CEO of Sembcorp Industries, and other dignitaries at the official launch of the 'ezi' app in November 2019

In November 2019, Sembcorp launched the 'ezi' recycling mobile application. The initiative aimed to improve recycling in Singapore and was part of a nationwide push towards reducing waste. A recent survey conducted by the Ministry of Environment and Water Resources (MEWR) highlighted the need to better educate residents on the different types of recyclable items and the need to make recycling more convenient.

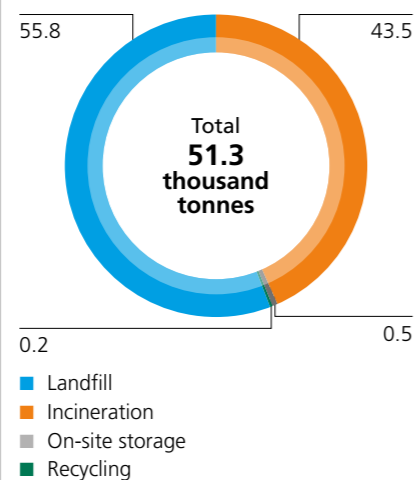
To help address these gaps, the 'ezi' mobile app adopted a two-pronged approach to recycling. Using the app, residents could arrange for their recyclables to be collected at their doorstep, in exchange for a cash incentive. The app also included an interactive educational module on recycling.

The pilot programme was rolled out to selected households in the Woodlands zone in the north of Singapore. As of end 2019, the app was downloaded nearly 7,500 times and had helped to facilitate the collection of over 10,000 kilogrammes of recyclable waste.

#### Disposal Method for Non-hazardous Waste<sup>1,2</sup> (%)



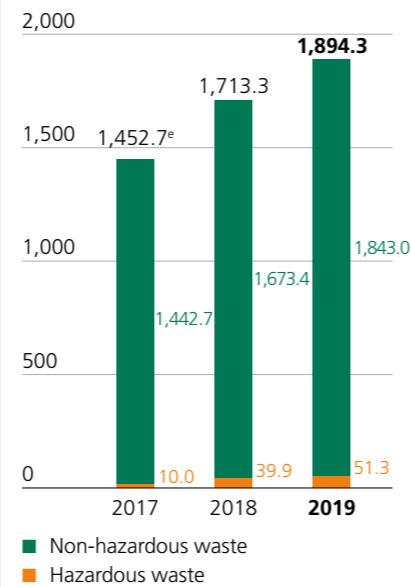
#### Disposal Method for Hazardous Waste<sup>1</sup> (%)



<sup>1</sup> We do not dispose of waste through deep-well injection. The respective disposal methods are in some cases dependent on the availability of the disposal sites at our operational facilities

<sup>2</sup> Coal ash is directly disposed by Sembcorp in line with local regulations. We have added ash pond as a non-hazardous category to more accurately show our non-hazardous waste disposal methods

### 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 materials are defined by the relevant country regulations in each market
- <sup>e</sup> Indicates data based on management's best estimates

### Waste Management

In 2019, total waste generated increased due to more fly ash produced as a result of higher energy output by our thermal power plants in India. About 74%, or approximately 1.1 million tonnes, of fly ash was recycled. To further improve recycling rates, we aim to install a fly ash classification and segregation plant at our thermal assets in India by the second half of 2020. The plant will help process the fly ash into fine quality ash, for which there is greater market demand.

### Local Environmental Protection

**Why this is material**  
As a result of the products and services we provide, our operations may have varying degrees of impact on the environment, in direct or indirect ways. These may include the discharge of effluent, disposal of waste, and the emission of air pollutants. Any improper or non-compliant discharge, disposal or emissions may result in harm to the environment and



Members of the Sembcorp Virtual Brain platform for water team receiving the 2019 Operating Model Master Award for Singapore at the IDC Digital Transformation Awards ceremony

### Technology-enabled, Real-time Monitoring

Since 2018, Sembcorp deployed the Virtual Brain (VB) platform for water, which allows real-time, round-the-clock automated monitoring of our 26 water and wastewater facilities globally. VB is a control system which collects and monitors thousands of data points, including the influent and effluent of the plant. Using custom built algorithms, it detects problems before they occur and recommends solutions to the operator. VB also features an enhanced alert management system, notifying users of issues and creating an auditable trail of the responses to any issues detected. This facilitates a more dynamic and timely response to issues with the process, ensuring water discharge that consistently meets regulatory standards. The innovation won the Operating Model Master Award at the IDC Digital Transformation Awards in October 2019.

public health, as well as threaten the long-term viability of our business.

### Our approach

Environmental protection and stewardship are integrated into our operations, guided by our Group Health, Safety, Security and Environment (HSSE) management system comprising:

- Group HSSE Policy
- Group HSSE rules, standards and procedures
- All applicable environmental regulations

Our Group HSSE standards, such as the environmental protection and hazardous substances handling standards, set out the principles and requirements which support the Precautionary Principle in managing environmental risks. We seek to take all possible preventive action to minimise our impact on the environment. Our aim is to avoid pollution from effluents or disposal of waste and hazardous substances, prevent spills or other environmental incidents, keep our atmospheric emissions within legally acceptable levels, as well as monitor and minimise boundary noise.

Environmental considerations are integrated into the planning for all existing and new operations, products and services. Where required, environmental assessments are conducted in accordance with national and / or international standards and methodologies, which

include environmental and social impact assessments, environmental baseline studies as well as pollution control studies. Recommendations based on study findings then inform our management of HSSE risks, and are incorporated into the design, construction and operation of new plants.

Our Group HSSE Incident Reporting and Investigation Requirements set out systematic steps and actions in response to HSSE incidents and near misses, with the aim of preventing a recurrence. Our Integrated Assurance Framework (IAF) sets out the three lines of defence that ensure compliance to our operating standards.

[For more information on our IAF, please visit Our Focus Areas: Governance page in the Sustainability section of our website.](#)

### Performance

In 2019, we enhanced our Environmental Protection Management Standard on hazardous material handling. We tightened the requirements around hazard analysis and identification, spill prevention, inspection of process equipment and safe transfer of hazardous substances. These enhanced requirements are focused on the early identification of environmental risks, and prioritises the mitigation and management of such risks as well as the maintenance of the integrity and operability of our assets. Training programmes were conducted to support the implementation of the enhanced Standard.

In 2019, we registered zero significant spill incidents<sup>1</sup> across our global operations. We paid significant fines totalling S\$10.5 million in 2019, mainly in relation to the discharge of off-specification wastewater that took place prior to early 2017. Details of the fines can be found on [page 78](#) of this report.

<sup>1</sup> A significant spill refers to an accidental release of a hazardous substance which results in severe and / or persistent environmental damage, and is classified as having major or massive impact in our Group HSSE Hazard Identification and Risk Management Standard. Significant spills are reported upon occurrence of the incident

### Atmospheric Emissions<sup>1,2</sup> (thousand tonnes)

	2019
Nitrogen oxides (NO <sub>x</sub> )	30.6
Sulfur oxides (SO <sub>x</sub> )	74.6
Particulate matter (PM)	2.5

<sup>1</sup> Emission figures are derived from direct measurement and estimation

<sup>2</sup> Estimations for flue gas flow are based on operational conditions

Our atmospheric emissions are largely from our thermal energy assets. Material air pollutants are nitrogen oxides, sulfur oxides, and particulate matter. Persistent organic pollutants, volatile organic compounds and hazardous air pollutants emissions are not considered significant and therefore not monitored.

## Our Material ESG Issues

### Empowering Our People and Communities

#### Health and Safety

##### Our Priorities

Making health and safety an integral part of our everyday business and culture

##### Relevant SDG



##### How We Did in 2019

We continued to implement training and tools to nurture a proactive health and safety culture, including the Behaviour-based Safety programme and the 360 Safety Check tool. We suffered two fatalities in 2019. We are deeply saddened by the loss and are working closely with our stakeholders across the Group to improve our health and safety practices, and prevent injuries

> Pages 68–71

#### People

##### Our Priorities

Creating a values-based and performance-led culture. Providing an engaging employment experience where our people can grow and excel

##### Relevant SDGs



##### How We Did in 2019

We began a comprehensive employee benefits review in our key markets. Recommended changes based on our findings are being implemented, starting with our home base in Singapore. We also saw an increase in training hours from 2018, registering an average of 29.4 hours of training per employee

> Pages 71–74

#### Community

##### Our Priorities

Contributing to the sustainable development of our communities through engagement and partnerships, and investing in initiatives that make a lasting positive impact

##### Relevant SDGs



##### How We Did in 2019

We made community investments totalling S\$1.4 million. Some 91% of our global operations engaged in local community and / or development programmes

> Pages 74–75

#### Health and Safety

##### Why this is material

A healthy and safe work environment is a fundamental right of every employee. As Sembcorp develops and operates power and water plants as well as other facilities, we understand that the nature of our business operations means that any lapse in health or safety protocols can result in direct or indirect impact on our people, customers and communities. Therefore, it is our responsibility to ensure that our employees and contractors at all levels are equipped with training and the right tools to work safely.

##### Our approach

##### Occupational Health and Safety

Health and safety form an integral part of our daily business operations. We aim

to be an organisation with a proactive health and safety culture. We are committed to working towards the goal of zero fatalities and injuries in our workplaces, with a workforce that puts safety first.

Achieving a safe work environment is a responsibility shared by all employees across the organisation. To incentivise positive behaviour and practices, health and safety key performance indicators are embedded into relevant employees' scorecards. Performance incentives for all employees also take into account the Group's overall health and safety performance for the year.

We aim for progressive improvement in our health and safety performance,

which is benchmarked against global industry safety statistics such as the International Oil and Gas Producers Global Safety Performance Indicators. To meet our goals we have in place structures and processes including:

- Board review
- Oversight by the board's Risk Committee
- Leadership by our Group President & CEO, supported by our Senior Leadership Council (SLC)
- A Group Health, Safety, Security and Environment (HSSE) management system comprising:
  - Group HSSE Policy
  - Group HSSE rules, standards and procedures

The Group HSSE management system details expectations and principles relating to different aspects and activities of stakeholders across the entire Group, including contractors, vendors and suppliers working within or at project sites outside our facilities. Our management approach and elements are aligned with the relevant OHSAS and ISO Standards, and ensures that we comply with the legal requirements relating to HSSE in all respective jurisdictions of our operations. In addition, the framework is supported by Sembcorp's 10 Elements for HSSE Excellence.

[For more information on our health and safety certifications, please visit the Initiatives, Memberships & Certifications page in the Sustainability section of our website.](#)

The Group HSSE management system covers key processes for effective health and safety management including:

- Hazard Identification and Risk Assessment
- Incident Investigation and Reporting
- Occupational Health Management
- Consultation and Communication

[For more information on our Group HSSE management system, please refer to Our Performance: 2019 Performance Data and Commentary report in the Sustainability section of our website.](#)

##### Training

Equipping our people with the relevant HSSE and technical capabilities ensures the presence of competent safety practitioners and line managers across our operations. Training plans are tailored according to the particular operation or site's risk profile and local conditions. Examples of operations-specific training include defensive driving at our solid waste management unit as well as project commissioning and construction orientation for project development teams. An annual global HSSE workshop also provides a platform for learning as well as the sharing of

corporate initiatives and best practices by different operations.

##### Product Safety and Quality

Our customers depend on us to deliver safe, reliable products and services for their municipal or industrial needs. Quality assurance and compliance testing of our products are done at various points in the value chain, from manufacturing to distribution and supply. To minimise the

risk of non-compliance, our stringent monitoring and control regime includes detailed inspections as well as preventive maintenance of all critical instruments, including meters and sensors, for us and our customers. We also conduct regular quality checks to comply with regulatory requirements and to ensure that the water we produce is safe for our customers and end users, including our potable water products.

#### Prioritising Safety Excellence in Our Solar Business Growth



Sembcorp Solar safety personnel demonstrating the use of safety equipment

Since 2016, our solar business arm in Singapore, Sembcorp Solar, has grown to become one of Singapore's largest renewable energy players. While Singapore's target to produce enough solar energy to power about 350,000 homes annually by 2030 has presented business opportunities, this rapid growth has also highlighted new risks including exposure to pool price fluctuations, lower solar specific yields and safety risks. To ensure the necessary risk controls were put in place, our solar operations needed to take a proactive approach to risk identification. As such, Sembcorp Solar adapted the Group HSSE management system and was certified with ISO 45001 for its occupational health and safety management system. Our solar operations also undergo regular internal and external site safety audits.

To support the upskilling of the solar industry workforce in Singapore, Sembcorp Solar also conducted safety trainings and briefings to build the safety awareness and capabilities of our contractors. In addition, Sembcorp Solar developed customised programmes to verify and monitor the implementation of our contractors' safety management system to promote health and safety at the workplace.

As at the end of 2019, all our solar sites in Singapore have maintained a record of zero demerit points under the single-stage Demerit Points System for the construction industry.



## Our Material ESG Issues

To optimise and ensure consistent quality output of our products, we use digital technology to augment our processes and reduce the risk of human error in the monitoring and control functions of our operations. For example since 2018, our water facilities in Singapore and China have implemented Sembcorp's Virtual Brain platform for water, which allows round-the-clock automated monitoring.

### Physical Security

The global operating landscape is becoming increasingly complex and challenging. As our businesses grow across different markets, we must stay current in the way we safeguard the security of our people and assets. In line with our responsibility to provide a secure working environment, we closely monitor and assess security threats and risks to our operations.

Our Group Security Management System adopts a holistic approach to safeguarding the long-term security of our operations – by aligning physical security measures with international practices. The management system includes standards such as the Physical Access Control Standards and Recommended Practices which are benchmarked against relevant international security management protocols.

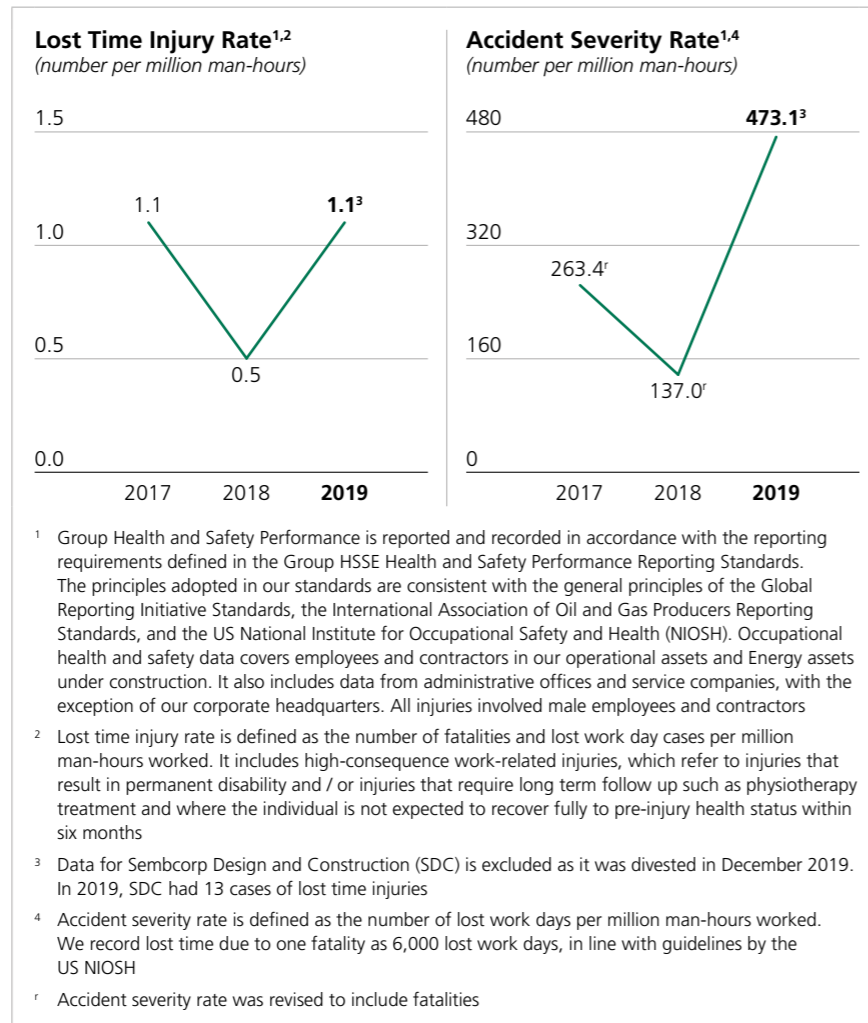
### Assurance

Our Group HSSE assurance is aligned with the Integrated Assurance Framework (IAF). The IAF adopts a three lines of defence (LOD) approach that sets in place a robust accountability system to enable effective controls for identified risks and to promote continual improvement.

[For more information about how HSSE is managed through our three LOD model, please refer to Our Performance: 2019 Performance Data and Commentary report in the Sustainability section of our website](#)

### Performance

We revised our disclosures for occupational health and safety to begin aligning with the new GRI 403:



Occupational Health and Safety 2018 Standard. In line with our aim to be an organisation that puts safety first, we continued to implement training and tools that nurture a proactive health and safety culture:

- We began train-the-trainer sessions on our Behaviour-based Safety (BBS) programme that we rolled out to all our operating assets globally starting in 2018. To foster greater ownership of safety practices across the group, employees are encouraged to conduct regular BBS observations and record them in a web-based mobile application. By the end of 2019, we completed all train-the-trainer sessions
- We ran a campaign to promote the adoption of our 360 Safety Check, a 30-second visual self-check tool

designed to help employees be more vigilant in their work environments. By applying this tool, workers are able to identify and correct risky behaviour or potential hazards in their workplaces. This in turn facilitates more prompt rectification of unsafe conditions, which contributes to a reduction of incident occurrences

There was an increase in both our lost time injury rate and accident severity rate since 2018. We remain committed to health and safety as an integral part of our business, and have implemented targeted initiatives to improve the ability of our operations and sites to identify and address unsafe conditions or actions.

With great regret, we report that there were two fatalities concerning our contractors in India in 2019. We are

deeply saddened by these incidents. Thorough investigations were carried out, following which preventive measures have been implemented to prevent recurrence. We are working closely with our stakeholders to further improve safety and prevent injuries.

### People

#### Why this is material

The unprecedented energy transition has led to significant risks and business model disruption. In this fast-changing climate, our people play a vital role in ensuring our business stays relevant by delivering on our transformation strategy and goals. Developing and retaining a capable, highly motivated and performance-led workforce will be key to our shared success. Of the issues relating to our people, our materiality review process has identified the following areas of focus:

- Employee development
- Employee compensation and benefits
- Employee engagement
- Employee wellness
- Diversity and equal opportunities
- Human rights and labour standards

#### Our approach

We have more than 4,500 employees across our operations spanning multiple markets worldwide, where labour laws, regulations, employment codes and practices differ widely. All our local human resource policies comply with local laws.

Our human resource practices are guided by the following governing frameworks and policies:

- Oversight by the board's Executive Resource & Compensation Committee
- Oversight by the SLC
- The Sembcorp Mindset and Leadership Competencies
- Code of Conduct
- Human Rights Policy
- Harassment Policy
- Grievance Handling Policy and Consequence Management Framework

### Employee Development

The Sembcorp Mindset encapsulates the five Cs – Creative Insight, Committed, Connected, Courageous and Curious – and defines who we are and how we conduct ourselves. Building on this foundation, we add our Leadership Competencies which mark key behaviours unique to Sembcorp employees. Together these represent our promise to internal and external stakeholders, to drive organisational excellence and play our part in creating a sustainable future.

We are committed to equipping our people with the capabilities and know-how to achieve their fullest potential, while enabling them to remain relevant in an evolving operating landscape. We have in place several organising frameworks to facilitate talent management and enhance our employees' experience.

To enhance talent management, we launched a new talent review and succession planning framework in 2019 that will allow a more consistent approach to talent identification and development. This talent review and succession planning process has been integrated into our existing LeAD (Lead, Appraise, Develop) and Learn online platform, which allows us to more effectively review our talent pool from a global perspective.

Leadership development is another key focus. In addition to deepening our bench strength, our leadership development programmes facilitate more comprehensive learning and development across different job grades. These programmes include priority learning areas such as effective communication skills.

As a global company, local talent is key to helping us understand market conditions, while supporting local communities in meaningful and effective ways. We strive to identify the best possible local talent for senior management roles in our markets,

so that Sembcorp can continue to support capability building in the communities in which we operate.

We also see effective performance management as a critical component of Sembcorp's business transformation. This is facilitated through our performance management system LeAD, which takes a structured approach by aligning employee performance with the Sembcorp Mindset, Leadership Competencies and key performance indicators needed to create a values-based, performance-led culture, with integrity at our core.

### Employee Compensation and Benefits

To attract, motivate and retain talent, we have in place a competitive remuneration and reward system based on key principles of equity and meritocracy. Our salary levels are reviewed regularly and benchmarked against local standards, as well as data from global market surveys and consultancy firms. Where applicable, they also undergo negotiations with employee unions.

Annual variable bonuses for all staff are based on Group and individual performances which are measured against personal targets that were agreed upon with their supervisors. Employee share plans that foster greater ownership of the Group's shared success are also available. For example, under the Restricted Share Plan, managerial participants of the Group are awarded restricted shares, while non-managerial participants receive their awards in an equivalent cash value, known as the Sembcorp Challenge Bonus.

[For more information on our employee share plans, please see the Share-based Incentive Plans section of the Directors' Statement on pages 109 to 114.](#)

## Our Material ESG Issues

### Engaging Employees to Build a Dynamic Organisation

Our people play a vital role in ensuring the success of our business, as we transform to meet the challenges of industry disruption. To build a dynamic organisation able to thrive in this fast-changing climate, we focused on developing a values-based, performance-led culture underpinned by purpose and integrity.

As part of our ongoing culture-building exercise, we enhanced our global employee engagement survey to gain a deeper understanding of our employees. Survey results were above industry average, with encouraging scores in the areas of satisfaction with the company as a purpose-driven and socially responsible organisation.

The results also identified key drivers of employee satisfaction which included talent engagement and change management. We will be focusing our efforts on these areas as we continue on our transformation journey.

To foster stronger engagement with our people, we introduced the "60 seconds with 60 people" campaign. The series featured 60 different internal stakeholders in 60-second long videos designed to educate employees on various initiatives across the Group. We also launched an employee video contest for staff. The winning entries were chosen by popular vote, with over 80% of global staff participating.

Our employee engagement efforts also include encouraging volunteerism. In October 2019, we launched Sembcorp Gives Back Week (SGBW). Over 1,000 staff volunteers across nine countries came together to give back to local communities, with a host of employee-led activities centred on the theme of "Zero Waste". Together, the Sembcorp family clocked approximately 5,000 volunteer hours. In a post-event survey, over 80% of respondents agreed that the programme allowed them to engage fellow colleagues and senior management in a more meaningful way.

Staff in Singapore after a beach clean-up during SGBW



### Employee Engagement

Effective employee engagement is fundamental to any organisation's long-term success, as a key driver to increase job satisfaction and performance.

We continue to grow our employee engagement platforms. For example, senior management conducts quarterly face-to-face staff communication sessions which are webcast to all markets. Market-specific engagement sessions are also organised to keep employees up to date on current happenings and upcoming projects. Both platforms incorporate question-and-answer segments for employees to share their

views. In addition, employees can also engage senior management directly in virtual chat sessions via an internal online platform.

Over the course of the year, organisational updates, internal campaigns as well as business milestones are communicated to staff via channels such as briefings and workshops, emails, the intranet and other internal digital platforms.

### Employee Wellness

Workplace wellness and health promotion are key elements of an employee's overall well-being. We have set aside a dedicated budget in major markets like

Singapore, China and India which is available for department heads to use for activities that encourage employee well-being and team bonding. Around the world, employee-led committees organise a range of recreational activities as well as nutrition and stress management programmes to support employees' physical and mental well-being.

We also provide Group Term Life and Group Personal Accident coverage in all our key markets. Besides mandatory medical screenings for employees who might be potentially exposed to occupational health hazards,

voluntary annual health screenings are available free of charge to all employees in most markets.

### Diversity and Equal Opportunities

Sembcorp is committed to promoting a fair and equitable work environment for all employees. We believe all employees should have the opportunity to thrive in a workplace free from harassment and prejudice. Recruitment, promotion, rewards and career development opportunities are based on merit, without discrimination against age, race, gender, sexual orientation, religion, family or marital status, or any other status protected by the laws or regulations in the locations where we operate. Our SLC is represented by more than five different nationalities and our global workforce includes people from over 35 nationalities.

### Human Rights and Labour Standards

Our Human Rights Policy defines our responsibility to ensure the highest respect for human rights and the company's expectations of our workers and business partners. Our Code of Conduct also sets out our stance on fairness, opportunity, non-discrimination, dignity, respect and harassment. We are committed to honouring and safeguarding the spirit of the following international declarations as well as the relevant reinforcing instruments:

- United Nations (UN) Guiding Principles on Business and Human Rights
- UN Universal Declaration of Human Rights
- International Labour Organization's Declaration on Fundamental Principles and Rights at Work
- The Employers' Pledge of Fair Employment Practices under Singapore's Tripartite Alliance for Fair and Progressive Employment Practices

[Our Code of Conduct, Human Rights Policy and Whistle-blowing Policy are available in the Reports & Policies page in the Sustainability section of our website.](#)

### Performance

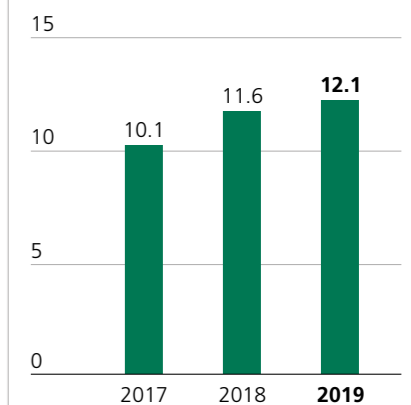
In line with our aim to create a purpose-driven, values-based and performance-led culture, we continued to implement initiatives to provide an environment where our people can grow and excel:

- In 2019, nine new leadership development programmes were introduced. These included priority learning areas following recommendations from a 2018 review of our training curriculum, such as effective communication skills
- In Singapore, we piloted courses in the Sembcorp technical leadership academy, an internal training arm that aims to equip technical workers with relevant functional skills
- To equip our senior leaders with skills needed to operate in an increasingly complex global environment, we also piloted courses on an e-platform in partnership with top business schools such as Yale and University of California Berkeley to provide our senior leadership with convenient access to executive education
- We brought together 100 global seniors leaders at our inaugural three-day Global Leadership Conference. The conference gave participants an opportunity to co-create and develop solutions to further business objectives in line with the Group's strategic direction
- We extended the roll out of LeAD to other markets. The system provides a more holistic approach to performance and development, laying a stronger foundation for us to manage talent development across the Group
- In 2019, we conducted an employee benefits review in our key markets. Recommendations from survey findings, together with benchmarking against industry peers, will be implemented in phases. For example in Singapore, we introduced an increase in paid time-off. The changes

were applicable to all executive staff and took effect on January 1, 2020. A more formal flexible benefits programme will be implemented later in 2020

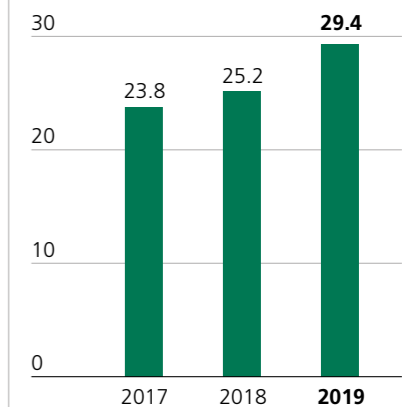
Employee turnover rate was stable, increasing slightly from 11.6% in 2018 to 12.1% in 2019. The voluntary turnover rate increased from 9.3% in 2018 to 10.1% in 2019. We recognise the potential impact that our transformation efforts may have on our people, and remain committed to engaging employees

### Employee Turnover<sup>1</sup> (%)



<sup>1</sup> The data covers both voluntary and involuntary turnover of permanent employees of Sembcorp and its subsidiaries, excluding Sembcorp Marine

### Training Hours<sup>1</sup> (average hours per employee)



<sup>1</sup> The data covers both permanent and contract employees of Sembcorp and its subsidiaries, excluding Sembcorp Marine

## Our Material ESG Issues

and equipping them with the right skills and capabilities as we continue on our transformation journey.

The average number of training hours per employee grew approximately 17% to 29.4 hours in 2019 from 25.2 hours the year before. The increase

has been in line with group-wide efforts to better equip our staff, develop new capabilities, and support building a values-based, performance-led culture. We are committed to developing a robust training curriculum to support capability building of our employees.

### Community

#### Why this is material

Sembcorp's long-term success is based on being a valued partner to the communities we operate in. While our businesses play a role in supporting economic development and improving the quality of life in these communities,

we also recognise that the nature of our business means we can have varying degrees of economic, social and environmental impact, in direct or indirect ways, on the communities in which we operate. As such, as part of our licence to operate, we aim to contribute to the sustainable development of local communities through engagement, by investing in meaningful partnerships and programmes that can have a lasting positive impact.

#### Our approach

Our operations support local development by providing employment and revenue that contribute towards economic growth as well as the infrastructural development of our host communities.

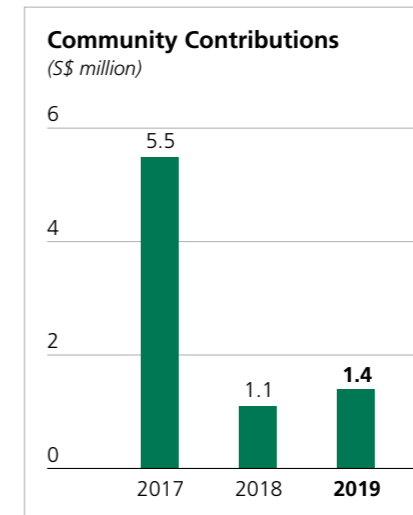
With operations across multiple markets worldwide, we understand first-hand how the needs of one region can vary greatly from another. We believe our local operations are best placed to understand the unique needs of the community and forge partnerships with local stakeholders. As such, markets manage community assessments, engagement programmes and contributions, while aligning to group-level strategic frameworks and guidelines.

#### Assessment and Engagement

Our community assessment and engagement practices are guided by our Group Stakeholder and Community Engagement Policy, and the 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 as required. These studies typically include social management plans which are implemented by the operations team at various stages of project development.

#### Community Investment

Our revamped Community Investment Guidelines provide a more strategic approach to our charitable contributions and community investments. The updated



youth development, apprenticeships and job training programmes.

As part of our commitment to SDG 6, one of our priority SDGs, we invested in programmes to secure access to safe drinking water for communities living in the vicinity of our plants. To date, we have installed a total of 27 community water treatment plants that serve over 39,000 people in India and Myanmar. Some 91% of our global operations engaged in local community and / or development programmes. We plan to grow this coverage to 100% by 2022.

Total volunteer hours was more than 8,500 hours, of which over 10% was spent outside of working hours.

guidelines aim to achieve a greater proportion of investments in long-term initiatives which integrate community needs with our business objectives, core competencies or assets. Our efforts currently focus on supporting the following five Sustainable Development Goals (SDGs):



The LBG (formerly London Benchmarking Group) Guidance Manual guides the tracking and reporting of our community contributions. This uses standardised definitions and valuations to account for our total community giving.

[For more information on our programmes, please visit Our Approach: Feature Stories section on our website.](#)

#### Performance

In 2019, Sembcorp contributed S\$1.4 million through cash and in-kind donations to charities and community initiatives globally, of which over S\$350,000 comprised mandatory contributions. Some of the causes we support include environmental and water conservation education, as well as

### Empowering Women in India to Secure Their Own Livelihoods



Women observing a demonstration as part of the beauty therapy course offered by SEDC

Ms Shyamala, 31, is a mother of two. She wants to give her children the best she can and hopes that a good education will help them find well-paying jobs in the future. Up until recently, those dreams seemed a distant reality as she struggled to put food on the table for her family. To make ends meet, she did odd jobs in the agricultural fields near her village, earning less than INR3,000 (S\$57) a month.

Last year, she enrolled in a free three-month training programme offered by the Sembcorp Entrepreneurship Development Centre (SEDC) to become a certified beautician. The Centre is a community initiative by Sembcorp Energy India Limited, which

has been investing in education and healthcare related programmes to support communities across India since 2012.

Established in 2018, SEDC provides training and development courses to women and youth in the surrounding villages of Nellore, Andhra Pradesh. It aims to reduce high unemployment rates among these target groups, especially young mothers.

Since its establishment, SEDC has trained over 450 women and youth. Of the five courses on offer, tailoring and beauty therapy have proven to be the most popular and account for over 70% of enrolment. A significant number of participants who completed the training and received certification




from SEDC have been able to improve their livelihood with their newly acquired skills.

Since graduating from the programme, Ms Shyamala now runs a small cosmetics and beauty parlour in her village of Varkaipudi. Her income has more than doubled compared to what she earned in the fields.

"I never imagined that as a housewife, I would be able support my children's education with my own earnings," she said. "With more income, I am now much more confident about our future."

## Our Material ESG Issues

### Embedding Responsible Business Practices

Corporate Governance	Ethical Business and Compliance	Risk Management
<p><b>Our Priorities</b></p> <p>Maintaining an effective governance and decision-making structure</p>	<p><b>Our Priorities</b></p> <p>Fostering an ethical culture and conducting our business with integrity while ensuring we comply with all legal and regulatory requirements</p>	<p><b>Our Priorities</b></p> <p>Ensuring effective identification of material risks and putting in place an adequate and effective risk management and internal control system</p>
<p><b>Relevant SDG</b></p> 	<p><b>Relevant SDG</b></p> 	<p><b>Relevant SDG</b></p> 
<p><b>How We Did in 2019</b></p> <p>We continue to be placed in the top 10 of the Singapore Governance &amp; Transparency Index</p> <p style="text-align: right;"><a href="#">&gt; Pages 76–77</a></p>	<p><b>How We Did in 2019</b></p> <p>In 2019, we enhanced and updated our Anti-bribery and Corruption Policy and programme, and also enhanced our Third Party Due Diligence compliance programme</p> <p style="text-align: right;"><a href="#">&gt; Pages 77–78</a></p>	<p><b>How We Did in 2019</b></p> <p>We made good progress in transitioning from our Governance Assurance Framework (GAF) to an Integrated Assurance Framework (IAF) which puts greater emphasis on the three lines of defence (LOD) model</p> <p style="text-align: right;"><a href="#">&gt; Pages 78–82</a></p>

#### Corporate Governance

##### Why this is material

We define corporate governance as the structures, practices and processes in place by which our organisation is controlled, operated, directed and accountable for. Well-defined corporate governance processes are essential to enhancing corporate accountability and long-term sustainability to preserve and maximise shareholder value.

##### Our approach


Sembcorp is led by an effective board. In 2019, 82% were independent non-executive directors. Our Board Diversity Policy sets out principles to maintain diversity on the board's composition. 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 independent oversight of management.

We comply with the principles and guidelines set out in the new Singapore Code of Corporate Governance 2018 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 the delegation of authority as well as financial authority limits, which has been approved by the board. A comprehensive set of governance and functional policies ensure entity-level controls have been 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.

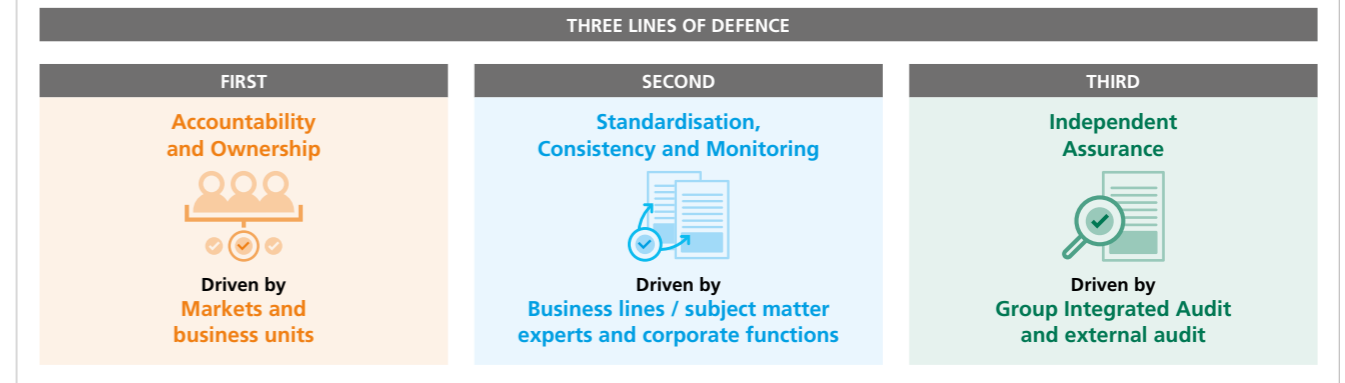
We are in the midst of transitioning from our GAF to an IAF to provide a more holistic and robust basis of assurance for the adequacy and effectiveness of our risk management and internal control system. The process identifies risk from strategic top-down and bottom-up perspectives from each key market, putting greater emphasis on the three LOD model.

 [For more information on our three LOD model, please visit Our Focus Areas: Governance page in the Sustainability section of our website.](#)

##### Performance

We maintained sixth position in the Singapore Governance and Transparency Index, the leading index for assessing the corporate governance practices of Singapore-listed companies. As part of our ongoing efforts towards best practice,

#### Sembcorp's Integrated Assurance Framework



we developed a Board Diversity Policy that sets out our principles on board composition. In the appointment of its directors, Sembcorp considers directors with different skillsets, experience, age, gender, educational and professional background, length of service, as well as other relevant attributes.

#### Ethical Business and Compliance

##### Why this is material

Responsible business conduct and ethical business practices ensure the long-term viability of our businesses by building trust and confidence with our stakeholders. We are committed to high standards of behaviour and integrity in everything we do and expect the same of those whom we do business with. We have zero tolerance for fraud, bribery and corruption. Our businesses operate in highly regulated environments where 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, limiting future growth opportunities.

##### Our approach

Our Group Ethics & Compliance (GEC) function holds the charter to:

- Foster and promote an organisational culture of integrity, ethical decision-making and compliance that is in line with our values and with the law and regulations

- Promote appropriate risk assessment and due diligence to prevent, detect and respond to unlawful and unethical conduct or non-compliance

The goals, initiatives and key performance indicators of the GEC function are tied to its charter. The outcomes and effectiveness of the GEC function are reported quarterly to the Senior Leadership Council and Audit Committee as part of our governance and accountability structure. The policies under the ownership and management of the department include the Code of Conduct (CoC), the Anti-bribery and Corruption (ABC) Policy and the Data Protection Policy. The GEC function continuously looks to implement and enhance other relevant policies relating to the CoC and regulatory compliance to ensure we remain up-to-date and relevant to industry and regulatory practices.

The bonus payments of senior managers and above are tied to the completion of mandatory compliance training which comprises the CoC, ABC Policy, Gifts, Entertainment and Travel Policy as well as the Data Protection Policy.


##### Code of Conduct

All employees are required to comply with the requirements of the CoC, which is endorsed by the board. Requirements of the CoC are communicated to employees globally through a message from the Group President & CEO, via face-to-face training sessions, e-learning and in other

forms of communication such as compliance newsletters and email.

Employees are required to complete an annual declaration form to acknowledge that they have read and understood the principles and requirements of the CoC, agree to comply with its principles and requirements, and will promptly report any violation through available reporting channels. Suppliers and contractors who work with Sembcorp are also expected to follow the Supplier CoC.

The CoC also provides a channel for employees to raise concerns or seek guidance in the event of a breach or if they encounter difficult choices in the course of their work. The whistle-blowing channel was established for this purpose and the organisation does not tolerate any retaliation against employees who raise concerns about a violation of the law, the CoC or any company policy in good faith.

 [Our Code of Conduct is available in the Reports & Policies page in the Sustainability section of our website.](#)

##### Anti-bribery and Corruption

Our ABC Policy sets out the standards and principles on conducting business with integrity and the highest ethical standards expected of every employee. Our employees are trained on our policy and principles via e-learning or face-to-face training sessions. Our Third Party Due Diligence compliance programme helps us better manage and mitigate the

## Our Material ESG Issues

risk of bribery and corruption that may arise through an intermediary or third party acting on behalf of Sembcorp.

### Data Protection

The Group Data Protection Policy sets out the framework and principles which govern the collection, use, disclosure and retention of confidential personal and business data. Our businesses globally are expected to abide by the policy, subject to local laws and regulations on data protection. We also respect the privacy of individuals and we protect personal information whenever personal data is collected, used and processed by us.

Adherence to the above policies is accounted for and monitored with the following approach: the second LOD and policymakers will train and educate employees, as well as monitor, review and perform a gap analysis and use data analytics to identify trends or anomalies. The outcomes of these analyses are reported to senior management for accountability and action. In addition, audits are also conducted by Group Integrated Audit (GIA) to provide an independent assurance to management, and to ensure follow up action plans are implemented to mitigate future lapses.

### Performance

In 2019, employee acknowledgement of compliance to the CoC was 100%, and a total of 94% of employees underwent mandatory compliance training.

As part of our continuous improvement efforts, we have updated and enhanced our ABC Policy and supporting programmes to ensure that these are relevant and up to date with current regulations and best practices in addition to being compliant with the US Foreign Corrupt Practices Act and UK Bribery Act. We have also enhanced our Third Party Due Diligence compliance programme to strengthen our controls around intermediary and third party relationships. In 2019, we conducted a

total of 29 face-to-face ABC training workshops with over 800 employees globally, and covered topics including gifts, entertainment, travel and third party due diligence.

A total of 22 data protection and cyber security awareness training workshops were conducted for over 700 employees globally. We regularly review our data protection policies, processes, practices and controls to identify any gaps or lapses which may result in non-compliance. We seek to ensure that all identified gaps are addressed in a timely fashion.

### Fines and Sanctions

We are committed to complying with statutory and regulatory requirements. As part of our IAF, all heads of markets must certify compliance with all relevant legal and regulatory requirements in their respective entities and countries of operation. These certifications are reported to the senior management and the Audit Committee quarterly. In instances where there has been evidence of non-compliance, the case undergoes review or investigation. We report significant monetary fines incurred upon the payment of the fine.

In 2019, we paid significant\* fines totalling S\$10.5 million in Chile and China. Of this, S\$522,000 was for three fines incurred by our operations in Chile, while S\$10 million was for a fine imposed on a joint venture company in China. In Chile, two fines amounting to S\$400,000 were for incidents that occurred in 2015 and 2016 for delays in the construction of wells, water and sewage networks that were committed under a regulatory development plan. In addition, a S\$122,000 fine was imposed due to the discharge of untreated sewage to the ocean in 2016. The sewage lifting system was improved to better manage the sewage water discharge.

In China, legal proceedings related to the discharge of off-specification wastewater by a joint venture wastewater treatment

company in Nanjing, China, concluded in February 2020. The Group's share of fines and cash settlement for both the criminal and civil claims was a total of S\$54 million. This amount included a S\$10 million fine for the criminal case in 2019. In addition, there was a S\$44 million settlement for the civil claim.

The isolated incident had resulted from the illegal and criminal activities of some former employees of the joint venture company for a period prior to early 2017. The involved employees have since been charged, tried and sentenced in their individual capacities by the local courts. The employment of those individuals found guilty was also terminated.

Following this incident, we took all necessary steps to further strengthen our internal controls and processes in our water operations in China. We implemented a proprietary technology platform, Virtual Brain platform for water, in wastewater facilities to track and monitor plant performance and compliance, and established a Country Centre of Excellence in Shanghai. The Centre of Excellence centralises all technical resources, implements Group water business standard operating procedures and oversees project management and controls for all new projects. The Group has also committed to new investments worth approximately S\$45 million over the next four years to develop projects and initiatives to support environmental protection in the country.

### Risk Management

#### Why this is material

The global energy transition and technological advances have led to significant risks and business model disruptions. As a diverse company with a presence in multiple markets, we are exposed to risks including financial, operational, compliance and information technology threats. Risk management is an integral part of our business as it minimises the likelihood and impact of potential financial losses, as well as

provides a framework of evaluation for 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 measures and controls.

### Our approach

The Group has an overall risk management strategy, as set in place 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 health, safety, security and environment (HSSE) 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. HSSE 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 which guides the board and management in the execution of the Group's strategy and objectives. Under this framework, the board has approved risk appetite statements with respect to economic, environmental, social and governance areas in line with our material issues for the management and reporting of our overall sustainability performance.

#### a. Economic

Sembcorp actively pursues global strategies to deliver sustainable long-term value and growth. This includes developing new capabilities and expanding our business in both existing and new markets. Though this carries inherent risks, the Group aims to be a disciplined investor with an investment approval framework that integrates robust due diligence and risk management. The Group has set appropriate limits for investment

exposure in each country to further manage concentration risk.

The Group is committed 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 has a defined set of risk management policies to manage our financial risks. The Group will not take part in any form of transaction that is deemed speculative in nature, under any circumstance.

#### b. Environmental

Sembcorp is committed to operating in a socially responsible manner to manage our impact on the environment, as well as provide high quality products and services that contribute to the sustainable development of the communities in which we operate.

In addition to being committed to complying with all applicable environmental standards and requirements through our established internal policies and processes, we assess the impact of environmental and climate-related risks on our business, and apply appropriate control measures to manage them. Where viable, we also invest in the latest technologies and utilise our capabilities to achieve better operational efficiencies and promote environmental sustainability.

#### 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 stakeholders and communities. In our pursuit of operational excellence and business growth, Sembcorp will not compromise the health and safety of our internal and external stakeholders. The health and safety of all our employees, contractors, customers and the public is of paramount importance to the Group. We take a

serious view of any breach of health and safety standards and regulations across all our operations and facilities.

Sembcorp recognises the need to have in place a strong and competent team that is committed to our values for transformation and growth. Sembcorp will continue to equip our employees with the relevant capabilities and competencies, and provide an engaging employment experience, thereby creating a purpose-driven, values-based and performance-led culture to ensure a sustainable business.

Sembcorp is also committed to building our digital capabilities to improve the efficiency of our businesses and to maintain an effective control environment to manage the cyber risk exposure of our and our customers' data as well as our assets and operations.

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

#### d. Governance

As a listed company on the Singapore Exchange with the responsibility and accountability to a wide range of stakeholders, Sembcorp is committed to maintaining high standards of behaviour and integrity, and aims to be the best in class for governance practices. The Group strives to comply with all applicable laws and regulatory requirements in the countries where we operate, including adopting a zero tolerance stance towards any form of fraud, bribery and corruption. We expect all employees to adhere to the guidelines set forth in the company's CoC.

\* A significant fine refers to a monetary sanction equal to or above S\$50,000 that was paid during the financial year

## Our Material ESG Issues

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 decision-making 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. Our ERM framework specifically sets out a systematic and structured approach towards risk management through the following activities:

- Awareness training 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
- Continual improvement of risk management capabilities and mitigation measures

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 prevention 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. 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 is regularly communicated to employees through awareness training and e-learning programmes.

The following key activities and complementary policies and procedures are part of our holistic approach towards fraud risk management, and to address the risk of bribery and corruption:

#### Preventive anti-fraud measures

- Code of Conduct
- Conflict of Interest Policy
- Gifts and Entertainment Policy
- Fraud risk assessments
- Third party due diligence

#### Detective anti-fraud measures

- Whistle-blowing Policy
- Compliance and monitoring
- 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 in place. We provide employees and external parties with well-defined and accessible channels 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 an independent investigation of such matters for appropriate resolution. The policy is available on our website and is reviewed regularly.

A whistle-blower may submit his / her allegations or concerns via telephone, email, our online

whistle-blowing portal or other communication channels.

The company will take reasonable steps to protect the identity of the whistle-blower. The company does not condone retaliatory action against the whistle-blower. The whistle-blowing case will be received by the Head of GIA and an investigation will be conducted in compliance with the requirements set out in the company's Whistle-blowing Policy.

 [Our Whistle-blowing Policy is available in 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 fine-tuned. The Group also addresses crises and emergencies through the implementation of appropriate prevention, preparedness, as well as response and recovery programmes. Some of these material operational risks include natural disasters, terrorism, cybersecurity attacks, epidemic outbreak and failure of critical equipment.

With operations across the globe, the Group monitors for emerging threats that may disrupt our operations, and formulates and updates our strategies and mitigation measures accordingly. Focus is placed on establishing a robust and effective crisis management framework that is relevant to the current business environment and risk landscape. The Group aims to

enhance and improve existing emergency response protocols and business continuity plans across our business entities, and to strengthen operational readiness. Crisis communication procedures are also embedded as part of the Group's crisis management framework. The Group's crisis management, emergency response and business continuity plans are regularly tested and fine-tuned to ensure that the Group can respond effectively to crises and emergencies, while ensuring that critical business functions can recover and continue in a timely manner. In addition, the Group adopts key standards and practices set out by ISO 22301:2012 under Societal Security – Business Continuity Management Systems – Requirements. This approach enables us to build resilience and enhances our ability to manage and respond to emergencies. It also helps to minimise the impact of incidents on people and the environment, prevent loss of assets and mitigate disruption to business operations, while safeguarding the company's reputation.

##### Health, Safety, Security and the Environment (HSSE)

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

The Group HSSE department is guided by our Group President & CEO and the board's Risk Committee, reflecting the high priority accorded to HSSE issues at Sembcorp. The department has formalised a group-wide HSSE management system and promotes global HSSE efforts to ensure effective and timely management of HSSE issues across the Group. This management system is aligned with ISO 14001 and OHSAS 18001 Standards and provides guidance to business units in actively

managing HSSE risks associated with our activities and services in a systematic manner.

##### Insurance

As a risk transfer mechanism, the Group has in place a comprehensive insurance programme to protect our worldwide 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 insurance consultants, leveraging their technical expertise and resources to negotiate competitive pricing and comprehensive coverage with insurance companies. To balance the cost of risk transfer, the Group focuses on insuring catastrophic events while maintaining our emphasis on improving internal controls for operations and maintenance. Sembcorp Captive Insurance, a wholly-owned captive insurance subsidiary, provides first-layer coverage against property damage and business interruption losses for the Group's energy operations in Singapore and Teesside in 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. Over the years, Sembcorp Captive Insurance has successfully built up a strong capital surplus, allowing it to extend its insurance reach to other operations and broaden its scope of coverage should the need arise.

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

The Group actively manages our financial, market and credit risk exposures with respect to foreign exchange rates, commodity prices and interest rates via established policies, including treasury policies, financial authority limits and Governance Assurance Certification. These policies

set out the parameters for managing the Group's exposure to counterparty, liquidity, foreign exchange and other material transaction risks.

##### Financial and market risks

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 prohibited. The commodities include fuel oil, coal and natural gas. Transactions such as foreign exchange forwards, interest rate swaps, commodities swaps, purchase of options and contracts for differences are used to manage these risks as appropriate. Transactions are only allowed for hedging purposes based on the underlying business and operating requirements. Exposure to foreign currency risk is also hedged naturally, where possible. In addition, the Group has financial authority limits, which seek to limit and mitigate operational risk by setting out the threshold of approvals required for entering into contractual obligations and investments.

##### Default and counterparty credit risks

Our default and counterparty credit risks arise from varied counterparties such as customers, vendors, joint venture partners and financial institutions who may fall short of their payment and / or performance obligations. As such, a group-wide credit risk policy has been put in place to ensure that we transact with creditworthy counterparties as much as possible. This is achieved via thorough credit analysis and limit setting prior to entering into any business contract. After entering into business contracts, we perform periodic credit reviews and monitor credit exposures closely to detect signs of credit deterioration. In the event that we have to deal with

## Our Material ESG Issues

counterparties who do not meet our minimum credit criteria due to commercial reasons, approval from the relevant authorities according to the credit risk policy has to be obtained before proceeding. Risk mitigation measures such as parental and banker's guarantees, letters of credit, deposit securities and collateral may be deployed on a case-by-case basis as credit enhancements. Last but not least, we also screen for material concentrations of credit risk to ensure that no single counterparty or group of 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

To ensure that prudence is exercised in all investment decisions, the Group has in place an investment approval process, under which a disciplined approach is taken to review the key risks and opportunities presented by potential investments. As part of our investment approval process, all new investments and transactions are reviewed by a cross-functional project team that provides risk assessments, mitigation measures and recommendations to the respective authorised persons for approval in accordance with the applicable financial authority limits.

In addition, to ensure that Sembcorp maintains appropriate diversification across different geographies, the Group has put in place a country risk framework to monitor and report our investment exposure globally. Furthermore, our investment exposure to each country is regularly reported to the board's Risk Committee. This framework also defines limits that have been approved by the board and stipulates that any deviation from these country limits requires prior board approval according to a set procedure. In reviewing any request for deviations from the

country limits, the board will consider the key risk drivers at hand, in terms of investment size, duration and economic life of the project, as well as the level of residual risk after the implementation of mitigation plans.

As at December 31, 2019, the countries outside of Singapore in which the Group has the largest investment exposure are India (\$3.8 billion), China (\$1.7 billion), Brazil (\$1.7 billion) and the UK (\$1.1 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.

In 2018, Singapore implemented Country-by-Country (CbC) Reporting for Singapore multinational enterprise (MNE) groups. As a Singapore-headquartered MNE, Sembcorp is required to file a CbC Report for financial years beginning on or after January 1, 2017. During the financial year, we filed the CbC Report in compliance with the submission requirements of the Inland Revenue Authority of Singapore.


With regard to our approach to tax risk management, our policy stipulates the following:

- Comply with relevant taxation laws and regulations and other regulatory disclosure requirements
- Apply diligent professional care and judgement to arrive at well-reasoned recommendations, supplemented by advance rulings from tax authorities, written advice and confirmation from external tax advisors / experts, as appropriate

- Ensure that all decisions are taken at an appropriate level and supported by a business purpose / commercial rationale and the appropriate documentation
- Establish and maintain adequate documentation of the Group's tax risk evaluation and tax risk management, and update the Group's tax risk management policies including internal controls, as and when appropriate
- Develop respectful professional relationships with all tax authorities, government bodies and other related third parties

### Performance

We made good progress in transitioning from our GAF to an IAF to put greater emphasis on the three LOD model.

 For more details on our IAF, please refer to [page 95 of the Corporate Governance Statement and Our Focus Areas: Governance page in the Sustainability section of our website.](#)