Embracing Change
Enabling the Future
About Sembcorp

Sembcorp Industries is a leading energy, urban development and marine group, operating across multiple markets worldwide.

As an integrated energy player, Sembcorp is poised to benefit from the global energy transition. With a strong track record in developing and developed markets, we provide solutions across the energy and utilities value chain, with a focus on the Gas & Power, Renewables & Environment, and Merchant & Retail sectors. We have a balanced energy portfolio of over 12,500 megawatts, including thermal power plants, as well as renewable wind and solar power assets. In addition, Sembcorp is an established brand name in urban development, as well as a world leader in offshore and marine engineering.

At A Glance

GLOBAL PRESENCE

15 countries in 4 continents

SHAREHOLDERS*

Temasek Holdings: 49.5%
Public: 50.5%

MARKET CAPITALISATION*

S$4.5 billion

TOTAL ASSETS*

S$23.3 billion

STAFF STRENGTH

>7,000 employees

INDEX COMPONENT

- Straits Times Index (STI)
- MSCI Singapore, other MSCI indices
- FTSE Developed Asia Pacific ex Japan Index, FTSE4GOOD Index and other FTSE indices
- SGX Sustainability Leaders Index
- Dow Jones Sustainability Asia Pacific Index

LISTING

Singapore Exchange (SGX)

ENERGY

An integrated energy player with a balanced energy portfolio of over 12,500 megawatts of power and over 8.7 million cubic metres of water and wastewater treatment capacity per day

URBAN

A leading Asian developer with a strong track record in transforming raw land into sustainable urban developments, delivering the economic engine to support growth

MARINE

A leading industry player providing innovative engineering solutions to the global offshore, marine and energy industries, drawing on more than 50 years of proven track record

Key businesses

Sembcorp’s purpose and passion is to do good and play our part in creating a sustainable future.

With creative insight, we innovate to provide integrated energy and urban, as well as marine solutions that empower countless people and businesses, improve lives and support development.

*As at December 31, 2018
Shareholding figures are calculated based on the number of issued ordinary shares excluding treasury shares.

The information in this booklet is correct at the time of printing. More information may be found at www.sembcorp.com
As a multi-business energy and urban development player, Sembcorp is uniquely positioned to provide innovative integrated solutions to meet our stakeholders’ needs.

From governments, both large and small enterprises to local communities, we draw on our deep understanding across our businesses and global track record to provide a suite of integrated energy and urban solutions that support the energy transition and sustainable development.
Our Sustainability Framework

Sembcorp’s Sustainability Framework articulates three ambitions for the future and demonstrates our support for the United Nations Sustainable Development Goals (SDGs). It directs our approach to integrate sustainability and manage our material environmental, social and governance issues within our business strategy.

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

**Resource Management**
Growing and innovating our business solutions to support a circular economy and ensuring we manage our operations efficiently to avoid or minimise the use of resources

**Local Environmental Protection**
Minimising negative environmental impacts and ensuring the highest standards of environmental management

**Corporate Governance**
Maintaining an effective governance and decision-making structure

**Ethical Business and Compliance**
Fostering an ethical culture and conducting our business with integrity, and ensuring we comply with all legal and regulatory requirements

**Risk Management**
Ensuring effective identification of material risks and putting in place an adequate and effective risk management and internal control system

**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.

To read more on our Sustainability Framework, please refer to [www.sembcorp.com](http://www.sembcorp.com)
Driving Digitalisation and Innovation

Sembcorp continues to innovate and is embracing digital technologies to create competitive advantage and strengthen our position as a leading energy, urban development and marine group. We are actively broadening and deepening our digital capabilities around four themes.

Establishing a Strong and Secure IT Foundation

Enhancing cybersecurity and improving the flexibility and reliability of our information technology (IT) infrastructure by building a future-ready IT foundation and architecture.

Embedding Innovation in Our Business

Innovation is key to the success of digitalisation. We are developing differentiated solutions to improve plant and business operations through a team of experienced data scientists and engineers. We are also incubating cutting-edge technologies by partnering with tertiary institutions, research institutes and government agencies.

Managing Our Digital Journey and Change

Creating a digital workplace of the future by introducing advanced digital solutions and investing in employee upskilling.

Digitising the Business

Improving efficiency, productivity and the customer experience with investments in business process engineering, optimisation and robotic process automation.

To read more about our digitalisation journey, please refer to www.sembcorp.com
ENERGY
A Global Integrated Energy Player
Sembcorp aims to be a global integrated energy player, with focus on growth along three business lines. With our proven track record and capabilities, our distinctive business models deliver value and sustainable growth.

Competitive Edge
Creating Value through the Sembcorp O⁴ Model
Global track record as an originator, owner or investor, operator and optimiser (O⁴) of thermal and renewable energy as well as water assets with strong operational, management and technical capabilities

Proven Integration Expertise
Track record in providing energy, water and on-site logistics to multiple industrial site customers

Integrated Energy Player
Well-positioned across developing and developed markets and focused on three business lines: Gas & Power, Renewables & Environment, and Merchant & Retail

Total Water Solutions
Solid track record in providing total water and wastewater treatment solutions for industries and water-stressed regions

Three Business Lines

Gas & Power

Renewables & Environment

Merchant & Retail

The Value We Create
Providing integrated energy solutions across the energy and utilities value chain.

- **12.5 GW** in power capacity, supplying electricity to businesses and homes in nine countries
- **2.6 GW** in renewable wind and solar power capacity
- **8.7 million m³/day** in water and wastewater treatment capacity, serving the needs of industrial and municipal customers

The Sembcorp O⁴ Model
- Originator, owner or investor, operator and optimiser of large-scale energy and utilities assets
- Focus on maximising value and enhancing return through asset optimisation, leveraging integration and innovation opportunities

Underpinned by competitive advantages
- Strong track record in developing and operating thermal and renewable energy and water assets
- Deep integration expertise
- Strong foothold in high-growth developing markets and experience in developed markets

HSSE: Health, Safety, Security and Environment  GW: gigawatts  m³/day: cubic metres per day
ENERGY
Integrated Energy Platforms
Providing customers with compelling value propositions across the energy and utilities value chain by integrating multiple energy offerings around anchor assets.

Feature
Centralised Utilities Model on Jurong Island, Singapore

- The 3,200-hectare Jurong Island is Singapore’s energy and chemicals hub
- Sembcorp is the pioneer and leader in the provision of one-stop centralised utilities to customers in the energy-intensive industrial cluster
- Serving over 40 multinational petrochemical and chemical companies
- By outsourcing on-site utilities needs to Sembcorp, customers are able to lower capital investment, better manage risk and focus on their core businesses

Jurong Island, Singapore
Operating since 1997

**1 SAKRA**
- Multi-utilities facilities
- Gas onshore receiving facility
- Cogeneration power plant
- High pressure boilers
- Integrated industrial wastewater treatment plant
- Woodchip boiler
- Energy-from-waste facility

**2 SERAYA**
- High grade industrial water and chemical waste incineration facilities

**3 BANYAN**
- Industrial wastewater treatment plant
- Cogeneration power plant

Supported by our service corridor and steam grid networks
GAS & POWER

Reliable, Competitive Solutions across the Gas Value Chain

Gas Importation, Retail and Regasification Infrastructure

Capabilities include gas sourcing and importation, gas trading, regasification infrastructure and LNG-to-power integrated projects.

Feature

A Pioneer in the Singapore Gas Market

• First commercial importer and retailer of natural gas in Singapore
• First to import LNG cargo under Singapore’s Spot Import Policy
• Reliable piped natural gas supplier supplying 431 billion British thermal units per day
• Leader in Singapore gas market with around 35% of gas import market share

Natural gas pipeline

Energy

Efficient Power Generation from a Diversity of Fuels

Thermal Power

• Ability to generate energy from a diversity of fuels
• Strong track record and proven capabilities in executing large-scale brownfield and greenfield thermal projects
• Strong capability to apply technologies for greater efficiency and lower emissions

Gas-fired

CAPACITY
Singapore, China and Southeast Asia:
2,886 MW
UK:
763 MW
Bangladesh and Middle East:
1,851 MW

CAPABILITIES
• Combined cycle gas turbine (CCGT)
• Cogeneration
• Combined power & desalination
• Rapid response, flexible generation

Coal and Diesel-fired

CAPACITY
India:
2,640 MW
China:
1,620 MW
UK:
65 MW

CAPABILITIES
• Supercritical technology

MW: megawatts
Innovative Renewable Energy and Environmental Solutions

Renewables
- Project development and operations & maintenance expertise for wind and solar projects
- Strong positions in Singapore, China, India and the UK

Renewable Power Capacity
> 2,600 MW

Key Highlights of Sembcorp’s Climate Change Strategy

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

Our Targets
GHG emissions intensity*
- 0.42 tCO₂e/MWh by 2022 (approximately 22% reduction from 2017)
- <0.40 tCO₂e/MWh by 2030 (>26% reduction from 2017)

Relevant SDGs
7 Affordable and Clean Energy
9 Industry, Innovation and Infrastructure
13 Climate Action

*Refers to GHG emissions intensity of our Energy business’ assets that produce GHG from the combustion of fossil fuels

tCO₂e/MWh: tonnes of carbon dioxide equivalent per megawatt hour
Offering a Suite of Solutions to Support a Renewable Future

Sembcorp believes that we have a part to play in contributing to a sustainable future with our innovative renewable energy offerings. Our wide range of renewable energy solutions helps to meet the needs of large corporates, government agencies, medium-sized enterprises, business and community organisations who wish to achieve growth while managing their impact on the environment.

Utility-scale
- Onshore wind farms
- Ground-mounted solar systems
- Floating solar photovoltaic systems
- Stand-alone battery systems

Commercial & Industrial
- Rooftop solar energy systems
- Co-located solar energy systems
- Battery storage integration
- Microgrids (solar, wind, batteries)

Distributed Energy Solutions
- Frequency support
- Tri-generation (power, cooling and heating solutions)
- Battery storage integration

Feature
Providing Renewable Power to Support India’s Growth
- High-quality wind and solar power projects across seven renewable resource-rich states in India
- Combined renewable power of over 1,700 megawatts
- One of the country’s leading wind power developers, according to CRISIL
- Success in nationwide wind power tenders a clear testament to our capabilities

Feature
Leading Solar Energy Player in Singapore
- Over 160 megawatt peak of capacity in operation and under development
- Sembcorp’s solar power assets are located on top of public housing blocks, schools, government sites, as well as private commercial and industrial facilities

Feature
One of Europe’s Largest Developers of Battery Storage
- A 120-megawatt portfolio, which represents one of Europe’s largest battery-based energy storage projects
- Battery storage solutions will provide much-needed flexibility for the UK’s grid as it modernises to accommodate increasing levels of renewable generation

Green Attributes
To help corporates and consumers play their part for the environment, Sembcorp offers Green Attributes in the form of Carbon Offsets and Renewable Energy Certificates (RECs).

Carbon Offsets:
- Represent the act of reducing, avoiding, destroying or sequestering the equivalent of a metric tonne of GHG in one place to “offset” an emission taking place somewhere else
- Help to reduce or “offset” an organisation’s Scope 1, 2, or 3 emissions

Renewable Energy Certificates:
- Contractual instruments that certify that the origin of energy is renewable
- Generated through renewable electricity generation
- Help to lower an organisation’s gross market-based Scope 2 emissions from purchased electricity
Feature
Leveraging Artificial Intelligence and Machine Learning in Asset Operations

Virtual Brain Renewables
- Virtual Brain Renewables is an analytics-based digital asset management platform that enables the operations team to monitor and manage wind turbine assets from one centre.
- Currently deployed in India, Virtual Brain Renewables provides monitoring over 30 wind energy sites and provides real-time data and indicators on wind speed, temperature, power output, rotor diameter, blade position, plant load factors as well as wind versus power generation efficiency curves.
- The digital platform provides information that helps in performance monitoring, forecasting, real-time condition monitoring and anomaly detection which will then give the operations team insights into predictive maintenance.

ENERGY RENEWABLES & ENVIRONMENT

Water and Wastewater Treatment
Specialised solutions for industries
Industrial Wastewater Treatment
- Specialised capabilities in treating multiple streams of complex industrial wastewater.
- Capabilities to treat high concentration and high salinity industrial wastewater.

Total Water Management
- Comprehensive suite of water solutions from supply and wastewater treatment to water reclamation.
- Enhancing water productivity and protecting the environment through solutions promoting water reuse and minimising liquid discharge.

Specialised solutions for water-stressed regions, including desalination and water reclamation.

Water and Wastewater Treatment Capacity
>8,700,000 m³/day
Sembcorp’s Total Water Management Capabilities

Sembcorp is able to integrate water supply, wastewater treatment and water reclamation in a closed “loop”. This minimises liquid discharge and conserves water resources.

---

**CITIES**

**INDUSTRIES**

---

**Sembcorp’s Water Solutions**

1. **Supply**
   - Potable & Industrial Water
     - Water Treatment
     - Desalination
     - Water Reclamation

2. **Treat**
   - Industrial Wastewater/ Sewage Treatment

3. **Recycle**
   - Reclaimed Water
     - Turning effluent into high-purity water

---

**Energy Renewables & Environment**

Strong technology and innovation capabilities

**Driving Technology and Innovation**

- Created Virtual Brain Water which is an intelligent operations management system for process prediction and troubleshooting, allowing for centralised monitoring and control of water facilities across the world
- Implemented a zero liquid discharge model which provides total water management solutions to industries by incorporating a complex combination of water technologies and processes
- Set up the Sembcorp Technology & Innovation Centre in Singapore, as a focal point for the development of new processes and test-bedding of emerging technologies
- Invest in strategic partnerships with tertiary institutions and government agencies to strengthen technological edge and develop innovative solutions

**Applying Advanced Technologies**

- Successfully applied the best available technologies to meet the needs of customers from a wide range of industries, including anaerobic wastewater treatment systems, membrane bioreactor technology and advanced membrane systems

**Waste-to-resource**

- Integrated waste management and recycling solutions
- Provide customised solutions and utilise advanced technologies to treat a wide variety of waste streams
- Ability to harness energy from waste, including wood waste, as well as industrial, commercial and municipal waste

**Biomass & Energy-from-waste**

**UK**
- 85MW power
- 330tph steam
- 527,000 tonnes per year of household and wood waste diverted from landfills

**Singapore**
- 255tph steam
- 366,000 tonnes per year of industrial and commercial waste diverted from Singapore incineration plants

Tph: tonnes per hour
ENRERGIES & ENVIRONMENT

Feature

Leveraging Digital Capabilities to Strengthen Competitive Edge in Wastewater Treatment

Virtual Brain Water

- Using sensors to collect data from Sembcorp’s water and wastewater treatment plants, Virtual Brain Water is able to conduct round-the-clock automated monitoring of our water facilities around the world
- Data in Virtual Brain Water is stored in Sembcorp’s data lake – a highly secure and single source of truth repository of operational data, ensuring integrity and accountability in data collection
- Through data analytics, Virtual Brain Water can rapidly process huge volumes of data such as water balance, mass balance and discharge specifications, aiding plant engineers and operators to make timely and proactive decisions to enhance plant performance
- Virtual Brain Water has the potential to apply artificial intelligence to automatically process public research on wastewater treatment plant designs and processes which can be tapped on to optimise plant design and operations

MERCHANT & RETAIL

Providing Differentiated Services in Merchant & Retail

Full range of merchant energy capabilities including merchant & retail power sales, gas and power trading & optimisation, flexible distributed energy resources as well as energy services & storage.

Feature

UK’s Largest Flexible Distributed Energy Generator

- Own and operate a portfolio of highly flexible distributed energy generation projects across 40 locations in England and Wales
- 693MW in operation with a further 120MW of battery storage under development
- Assets are able to respond quickly to bridge supply gaps in the power system, compensating for the intermittency of renewable sources
- High-value ancillary services balance the system and add resilience to the grid

Feature

Delivering Value to Retail Customers in Singapore

Commercial and Industrial Customers

- One-stop provider of power, gas, as well as waste and recyclables collection to more than 5,000 commercial and industrial customers in Singapore
- With our own generation facilities and efficient green technologies, we are able to offer cost savings, greater value and a reduced carbon footprint

Residential Customers

- Electricity: Offering competitively priced and greener electricity price plans to more than 60,000 households in Singapore under the Open Electricity Market Scheme
- Waste and recyclables: Deep experience in serving the needs of more than 500,000 households in Singapore
- Providing a rich digital experience for customers to monitor their bills, manage energy consumption and subscribe to a wide range of value-added services
## CAPABILITIES WORLDWIDE

### Energy

#### Capacity by Fuel

<table>
<thead>
<tr>
<th>Location</th>
<th>Gas</th>
<th>Coal &amp; Diesel</th>
<th>Wind</th>
<th>Solar</th>
<th>EfW*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Thermal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Renewable &amp; EfW</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td><strong>Gas</strong></td>
<td><strong>Coal</strong></td>
<td><strong>Wind</strong></td>
<td><strong>Solar</strong></td>
<td><strong>EfW</strong></td>
<td><strong>Total</strong></td>
</tr>
<tr>
<td><strong>POWER (MW)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sembcorp Cogen (Sakra)</td>
<td>815</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>815</td>
</tr>
<tr>
<td>Sembcorp Cogen (Banyan)</td>
<td>404</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>404</td>
</tr>
<tr>
<td>Sembcorp Solar</td>
<td></td>
<td>168</td>
<td></td>
<td></td>
<td></td>
<td>168</td>
</tr>
<tr>
<td><strong>Myanmar</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Myingyan IPP</td>
<td>230</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>230</td>
</tr>
<tr>
<td><strong>Vietnam</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phu My 3</td>
<td>746</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>746</td>
</tr>
<tr>
<td><strong>China</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shanghai Cao Jing</td>
<td>691</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>691</td>
</tr>
<tr>
<td>Chongqing Songzao Sembcorp</td>
<td></td>
<td>1,620</td>
<td></td>
<td></td>
<td></td>
<td>1,620</td>
</tr>
<tr>
<td>Guohua Sembcorp</td>
<td></td>
<td>725</td>
<td></td>
<td></td>
<td></td>
<td>725</td>
</tr>
<tr>
<td><strong>India</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sembcorp Energy India Limited</td>
<td>2,640</td>
<td>1,692</td>
<td></td>
<td></td>
<td>35</td>
<td>4,667</td>
</tr>
<tr>
<td><strong>Bangladesh</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sirajganj Unit 4</td>
<td>440</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>440</td>
</tr>
<tr>
<td><strong>Oman</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salalah IWPP</td>
<td>518</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>518</td>
</tr>
<tr>
<td><strong>UAE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fujairah 1 IWPP</td>
<td>893</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>893</td>
</tr>
<tr>
<td><strong>UK</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wilton Power Station</td>
<td>135</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>135</td>
</tr>
<tr>
<td>Sembcorp Biomass Power Station</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>35</td>
</tr>
<tr>
<td>Wilton 11 EfW Plant</td>
<td></td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>UK Power Reserve</td>
<td>628</td>
<td>65</td>
<td></td>
<td></td>
<td></td>
<td>693</td>
</tr>
<tr>
<td><strong>Total (MW)</strong></td>
<td>5,500</td>
<td>4,325</td>
<td>2,417</td>
<td>203</td>
<td>85</td>
<td>12,530</td>
</tr>
</tbody>
</table>

*Includes biomass

Bbtud: billion British thermal units per day; EfW: energy-from-waste; IPP: Independent Power Plant; IWPP: Independent Water and Power Plant; MW: megawatts; tph: tonnes per hour

Note: Capacity refers to total gross installed capacity of facilities in operation and under development.
### CAPABILITIES WORLDWIDE

#### Water

**INDUSTRIAL, DESALINATION AND RECLAMATION (m³/ day)**

<table>
<thead>
<tr>
<th>Location</th>
<th>Industrial Water</th>
<th>Industrial Wastewater Treatment</th>
<th>Desalinated Water</th>
<th>Reclaimed Water</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singapore</td>
<td>4,484,552</td>
<td>16,320</td>
<td>40,000</td>
<td></td>
<td>4,768,872</td>
</tr>
<tr>
<td>China</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,786,020</td>
</tr>
<tr>
<td>Shanghai</td>
<td>37,680</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nanjing</td>
<td>240,000</td>
<td>46,200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zhangjiagang</td>
<td>52,500</td>
<td>24,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qidong</td>
<td>10,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changzhi</td>
<td>1,267,200</td>
<td>35,040</td>
<td>38,400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tianjin</td>
<td>10,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jingmen</td>
<td>10,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qinzhou</td>
<td>15,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oman</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>72,950</td>
</tr>
<tr>
<td>Salalah</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UAE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>590,900</td>
</tr>
<tr>
<td>Fujairah</td>
<td>590,900</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>241,400</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teesside</td>
<td>241,400</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10,370</td>
</tr>
<tr>
<td>La Negra</td>
<td>10,370*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total (m³/ day)</strong></td>
<td>6,281,202</td>
<td>195,060</td>
<td>663,850</td>
<td>330,400</td>
<td>7,470,512</td>
</tr>
</tbody>
</table>

*Includes treated effluent

m³/ day: cubic metres per day

Note: Capacity refers to total gross installed capacity of facilities in operation and under development.

#### MUNICIPAL (m³/ day)

<table>
<thead>
<tr>
<th>Location</th>
<th>Municipal Water</th>
<th>Sewage Treatment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>465,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shenyang</td>
<td>160,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qitaihe</td>
<td>100,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yanjiao</td>
<td>80,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuzhou</td>
<td>125,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>331,774</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Batam Island</td>
<td>311,904</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talang Kelapa</td>
<td>19,870</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td>97,161</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subic Bay</td>
<td>86,961</td>
<td>10,200</td>
<td></td>
</tr>
<tr>
<td>Chile</td>
<td>276,018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antofagasta</td>
<td>140,486</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Santiago</td>
<td>99,532</td>
<td>36,000</td>
<td></td>
</tr>
<tr>
<td>Panama</td>
<td>75,700</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lake Gatun</td>
<td>75,700</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total (m³/ day)</strong></td>
<td>1,058,967</td>
<td>186,686</td>
<td><strong>1,245,653</strong></td>
</tr>
</tbody>
</table>

**TOTAL WATER CAPACITY (m³/ day)**

8,716,165

---

*Includes treated effluent
URBAN
A Leading Asian Developer
A strong track record in transforming raw land into sustainable urban developments, delivering the economic engine to support growth.

Competitive Edge

Strong Track Record
Over 25 years of track record in undertaking master planning, land preparation and infrastructure development to transform raw land into urban developments

Supporting Industrialisation and Urbanisation
A valued partner to governments, with the ability to deliver the economic engine by attracting local and international investments

Significant Land Bank
Integrated urban developments comprising industrial parks as well as business, commercial and residential space in Vietnam, China and Indonesia

Building Better Cities
People-centric approach to urban planning, incorporating green solutions and smart technologies to enhance the liveability and sustainability of the developments

The Value We Create
Delivering the economic engine to support industrialisation and urbanisation

• 13 projects in Vietnam, China and Indonesia
• ~1,000 customers comprising multinational corporations and leading local enterprises
• US$29 billion in direct investments attracted to our integrated developments

Suite of Developments
Integrated Townships and Industrial Parks

Master Planning and Urban Design
Strategic and detailed planning of land to optimise the industry, commercial and residential components, as well as conservation and development

Infrastructure and Land Development
Construction of power plants, power distribution networks, wastewater treatment plants and water distribution network, drainage, earthworks and roads

Property Development
Property development that includes factories, warehouses, commercial and residential buildings

Asset, Facilities and Operational Management
Long-term investment with active management

Permits and Licencing
Liaison with local authorities to obtain permits and licences and observe regulatory guidelines

Capabilities

Industry Positioning and Investment Promotion
Identification of industry clusters and international marketing to attract foreign direct investment and create employment

High-tech Parks
Ready-built/Built-to-suit Factories
Business Hubs
Warehouses
Residential Developments
Vietnam Singapore Industrial Park (VSIP): A brand name in integrated townships and industrial parks in Vietnam

**VSIP Southern Economic Zone**
An established manufacturing supply chain, supporting industries and regional transport networks close to Ho Chi Minh City

VSIP Binh Duong I – 500 ha
Maiden industrial park and integrated township established in 1996

VSIP Binh Duong III – 1,000 ha
Serves the Binh Duong-Dong Nai key manufacturing cluster in Vietnam’s Southern Economic Zone

VSIP Binh Duong II – 2,045 ha
Located within the New Binh Duong City, developed as the second largest city in Southern Vietnam and administration city of the province

VSIP Bac Ninh I – 700 ha
VSIP Bac Ninh II – 273 ha
A major industrial centre close to Hanoi

VSIP Hai Phong – 1,600 ha
Close proximity to Vietnam’s deep-sea ports

VSIP Hai Duong – 150 ha
Strategically located between Hanoi and Hai Phong

**VSIP Central / Northern Central Economic Zone**
Central location linking the northern and southern economic zones of Vietnam

VSIP Quang Ngai – 915 ha
Central location for distribution to north and south of Vietnam as well as external markets of Laos, Cambodia and eastern Thailand

VSIP Nghe An – 750 ha
Opportunity to tap the large labour force for labour-intensive manufacturing

**VSIP Northern Economic Zone**
Close proximity to China and along the Hanoi-Hai Phong economic route

**Residential Developments by Sembcorp**

The Habitat Binh Duong – Gross Floor Area: 145,148 sqm (Phase 1 to 3)
Within VSIP Binh Duong

Lakeside Gardens Hai Phong – Gross Floor Area: 145,204 sqm (Phase 1 to 3)
Within VSIP Hai Phong

ha: hectares

sqm: square metres
URBAN
China
Innovative and high-tech developments that attract high-value technology investments and modern services

Sino-Singapore Nanjing Eco Hi-tech Island – 1,500 ha
An eco-friendly and low-carbon island developed to be a world-class showcase for artificial intelligence (AI) and water science research and development (R&D) design and application

Jiangdao Technology and Innovation Centre – Gross Floor Area 23,490 sqm
Exhibition centre and offices

Jiangdao Intelligent Cube – Gross Floor Area 62,097 sqm
Business hub for AI companies

Riverside Grandeur – Gross Floor Area 41,124 sqm
Residential development

International Water Hub – Gross Floor Area 34,183 sqm
The International Water Hub developed by Sembcorp is located on the Sino-Singapore Nanjing Eco Hi-tech Island. Equipped with office spaces, laboratories and shared exhibition and meeting facilities, International Water Hub is a collaborative ecosystem for the international eco-technology and water industry players.

The multiple platforms in International Water Hub bring together incubators, accelerators, regulators, researchers, start-ups, investors and companies to accelerate the innovation process for new water technologies, from R&D and test-bedding to commercialisation.
Indonesia

Access to world’s fourth most populous nation and Southeast Asia’s largest economy

Kendal Industrial Park Phase 1 – 860 ha
A cost-competitive waterfront modern integrated township and industrial park in Central Java featuring themed industrial clusters including a Fashion City, Food City, Furniture Hub and Building Materials Zone targeting companies in various stages of the industry value chain

Singapour-Sichuan Hi-tech Innovation Park – 1,000 ha
A gateway for innovative and entrepreneurial companies with platforms for the biomedical sciences, information and communications technology industries

Singapore Innovation Centre – Gross Floor Area 26,000 sqm
Platform for Singapore startups and SMEs looking to enter West China

Wuxi-Singapore Industrial Park – 330 ha
An established industrial park for the electronics, electrical and photovoltaic industries. It is one of the first parks in China to have its own micro-grid, battery storage facilities and solar panels

ha: hectares  sqm: square metres
MAINE

A Global Leader in Integrated Offshore and Marine Engineering Solutions

Sembcorp Marine provides innovative engineering solutions to the global offshore, marine and energy industries, drawing upon more than 50 years of track record. We focus on four key capabilities, namely, Rigs & Floaters; Repairs & Upgrades; Offshore Platforms; and Specialised Shipbuilding.

Competitive Edge

Over 50 Years of Proven Track Record

A global leader in integrated offshore, marine and energy solutions with more than 50 years of experience

Enhanced Capabilities

Established abilities in rigs & floaters, repairs & upgrades, offshore platforms and specialised shipbuilding, and enhanced capabilities to serve the gas value chain

Global Network

Strategically located shipyards and other facilities in Singapore, Indonesia, Norway, the UK and Brazil

The Value We Create

Offering innovative engineering solutions across the offshore, marine and energy value chains

- <b>50 years</b> of proven track record in providing quality solutions to customers
- <b>296 vessels</b> repaired or upgraded in 2018
- <b>5 countries</b> with strategically located shipyards and other facilities

Four Key Capabilities

RIGS & FLOATERS

REPAIRS & UPGRADES

OFFSHORE PLATFORMS

SPECIALISED SHIPBUILDING

The Value We Create

Offering innovative engineering solutions across the offshore, marine and energy value chains

- <b>50 years</b> of proven track record in providing quality solutions to customers
- <b>296 vessels</b> repaired or upgraded in 2018
- <b>5 countries</b> with strategically located shipyards and other facilities

Diversified and Innovative Solutions

Across the offshore, marine and energy value chain.

Sevan SSP: Innovative circular hull as a cost-effective alternative to traditional ship-shaped, turret moored designs

LMG Marin: Advanced ship design and engineering

Gravifloat: Modularised liquefied natural gas and liquefied petroleum gas terminals
## Facility Highlights

The Sembcorp Marine Tuas Boulevard Yard is equipped to accommodate a wide range of vessels and rigs, including very large crude carriers (VLCCs), new generations of mega containerships, LNG carriers, passenger ships, drillships as well as semi-submersible and jack-up drilling rigs. When fully completed, the yard will cover a total of 206 hectares.

- **Natural deep waters**
  - Enables installation of semi-submersible thrusters without having to tow the rig to sea

- **Reinforced load-out areas for offshore platforms of up to 20,000 tonnes**
  - Enables direct lifting and deployment of topside modules onto hulls without requiring the hulls to be towed out to sea

- **Four finger piers and a basin ranging from 210m to 400m with maximum draft from 9m to 21m**
  - Enables ultra-deepwater semi-submersible rigs and cruise vessels to be berthed without restrictions

## Legend for Drydocks

<table>
<thead>
<tr>
<th>Docking Facilities</th>
<th>Size</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>350m x 66m x (-8.5m)</td>
<td>350,000 dwt</td>
</tr>
<tr>
<td>2</td>
<td>360m x 89m x (-8.5m)</td>
<td>500,000 dwt</td>
</tr>
<tr>
<td>3</td>
<td>412m x 66m x (-11.0m)</td>
<td>350,000 dwt</td>
</tr>
<tr>
<td>4</td>
<td>350m x 66m x (-8.5m)</td>
<td>350,000 dwt</td>
</tr>
<tr>
<td>5</td>
<td>255m x 52m x (-8m)</td>
<td>150,000 dwt</td>
</tr>
<tr>
<td>6</td>
<td>255m x 52m x (-8m)</td>
<td>150,000 dwt</td>
</tr>
<tr>
<td>7</td>
<td>255m x 110m x (-12m)</td>
<td>Offshore drydocking</td>
</tr>
</tbody>
</table>

## Steel Fabrication Workshop

- 120,000 sqm of covered area
- Equipped with automated cutting and assembly machinery for the construction of large tubular structures and pipe spools
- Produces up to 144,000 tonnes of steel components annually
- Capable of constructing steel structures for different market segments such as building and bridge construction
- Fabricates components for hull assembly and topside modules capability for customising shapes and dimensions
- Integrated engineering and fabrication services
Energy
Semcorp Utilities Pte Ltd
Tel: (65) 6723 3113
Fax: (65) 6822 3254
Email: utilities@sembcorp.com

Marine
Semcorp Marine Ltd
Tel: (65) 6265 1766
Fax: (65) 6710 3182
Email: investor.relations@sembmarine.com

Urban
Semcorp Development Ltd
Tel: (65) 6723 3900
Fax: (65) 6822 1578
Email: development@sembcorp.com

Semcorp Industries Ltd
30 Hill Street #05-04
Singapore 179360
Tel: (65) 6723 3113
Fax: (65) 6822 3254
www.sembcorp.com
Co Regn No. 199802418D