

# Gas and Related Services

## Competitive Edge

Established player with 6.1GW of gas-fired power portfolio comprising installed and under construction assets

Global track record as an originator, owner, investor, operator and optimiser of energy assets with strong technical, operational and management capabilities

One of the largest natural gas players in Singapore and the nation's first commercial importer and retailer of natural gas, offering a comprehensive suite of gas and related services

The Gas and Related Services portfolio comprises 6.1GW of gas-fired power capacity across various geographies including Bangladesh, China, Myanmar, Oman, Singapore, the UK, the United Arab Emirates and Vietnam. In Singapore, Sembcorp is one of the largest natural gas players and provides a comprehensive suite of gas and related services such as gas sourcing, importation and trading.

## High Contracted Position Underpins Strong Operating Cash Flow and Earnings Stability

In Singapore, we were the first in the market to secure multiple long-term power purchase agreements (PPAs) with our customers in 2023. These include an 18-year PPA to supply up to 450MW of power to Micron Semiconductor Asia Operations, a 10-year PPA with Singapore Telecommunications with an annual contract value of approximately S\$180 million and PPAs to supply up to 100MW of power to subsidiaries of ST Telemedia Global Data Centres over a period of between eight and 10 years. As of end 2023, our gas-fired power portfolio in Singapore is 99% contracted, an increase from 80% as of end 2022 and the proportion of contracts with a tenure of more than five years increased substantially to 74% from 1% of the portfolio the year before. These contracts have an average tenure of 12 years, transforming our merchant-centric portfolio into one that yields a stable, recurring income. The high level of contracted capacity also insulates the business from the impact of regulatory interventions on our Singapore portfolio.

## Key Developments

First gas-fired power generator in Singapore to secure multiple long-term PPAs with industrial and commercial customers

Diversified our gas supply in Singapore with a gas sales agreement with Medco E&P Natuna for a contract value of approximately S\$1.9 billion for four years starting from 2024

Commenced construction of a new multi-utilities centre on Jurong Island in Singapore including a 600MW hydrogen-ready combined cycle power plant

## Operational Indicators (MW)

	2023 <sup>1</sup>	2022
Gross gas-fired and diesel-fired power capacity	6,119	5,517
– Gas	6,059	5,457
– Diesel	60	60
Contracted gas-fired and diesel-fired capacity with long-term agreements <sup>2</sup>	3,782	3,114

<sup>1</sup> 2023 capacity included a 600MW hydrogen-ready power plant currently under construction in Singapore. The project is expected to be operational by 2026

<sup>2</sup> Long-term agreements refer to agreements with a tenure of at least five years from the contract effective date. The stated contracted capacity refers to the maximum contracted load by customers

As one of the largest importers of piped natural gas (PNG) and liquefied natural gas (LNG) into Singapore with established long-term gas supply, Sembcorp is able to offer long-term agreements to customers. Leveraging our reliable gas access and cost visibility, our customers are able to benefit from the predictability and the stability in managing their electricity cost for their operations.

Besides Singapore, our gas-fired power plants in Bangladesh, Myanmar, Oman, the United Arab Emirates and Vietnam

are also contracted under long-term PPAs. The contract for the Phu My 3 power plant in Vietnam expired in February 2024 and the plant has been transferred back to the government. Phu My 3 is Vietnam's first build-operate-transfer power project and the transfer marks a successful collaboration between Sembcorp and its joint venture partners, and the Vietnam government, which spanned two decades. Excluding Phu My 3, contracted capacity accounted for 97% of the Group's gas-fired power portfolio as of end 2023.

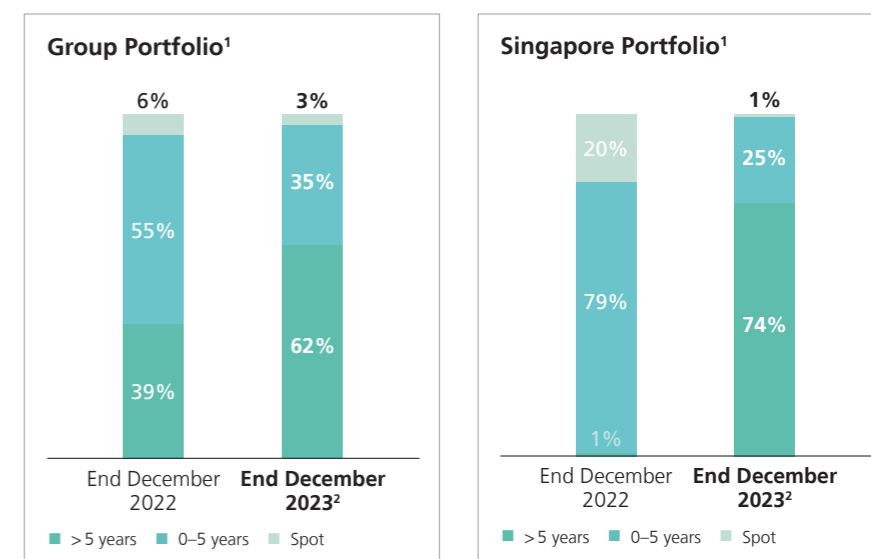
Going forward, we expect a stable stream of operating cash flow from our gas-fired assets, which can be channelled into funding green and energy transition investments.

## Enhancing Energy Security through Diversified Gas Supply

Natural gas will continue to play a crucial role in maintaining energy security for Singapore as the country pursues its decarbonisation goals. During the year, we continued to diversify our gas sources to support the energy needs of the nation.

In June 2023, we entered into a gas sales agreement with Medco E&P Natuna, a wholly-owned subsidiary of PT Medco Energi Internasional, to import PNG from the West Natuna gas fields in Indonesia. The agreement is valued at approximately S\$1.9 billion, and gas deliveries are expected to commence in the later part of 2024, with a tenure of four years.

We subsequently inked a non-binding term sheet with West Natuna Exploration, a wholly-owned subsidiary of Conrad



<sup>1</sup> Based on generation capacity of gas-fired power plants and maximum contracted load

<sup>2</sup> Group portfolio excludes Phu My 3 in Vietnam which reached its end of Term of Operation on February 29, 2024

Asia Energy. The term sheet outlines the key terms and framework for a binding gas sales agreement for the Mako gas field in Indonesia.

These initiatives will supplement Sembcorp's existing natural gas supply from both piped and liquefied sources,

reinforcing our position as one of Singapore's leading natural gas importers.

As Singapore progresses through its energy transition, Sembcorp, as the only player capable of offering our customers a comprehensive suite of diversified products across gas,



Sembcorp Gas Receiving Terminal on Jurong Island, Singapore

## Gas and Related Services



Sembcorp Cogeneration Plant, Sakra on Jurong Island, Singapore

utilities and renewables, is able to provide not only competitive and reliable energy solutions but also a pathway for them to achieve their decarbonisation goals.

### Decarbonising our Gas-fired Assets

Sembcorp will actively manage its gas portfolio to support Asia's transition to a clean and responsible energy future and to meet its carbon commitment. In May 2023, we announced the development of a new multi-utilities centre on Jurong Island in Singapore which will supply power, steam, firewater and demineralised water to customers. This facility will include a new 600MW hydrogen-ready combined cycle power plant. The hydrogen-ready power plant is designed to allow for a potential blending of up to 30% hydrogen by volume with natural gas. Construction of the facility has commenced and is expected to be fully operational by 2026. In addition, we will explore technologies for a potential pathway towards achieving 100% hydrogen firing.

In collaboration with our partners, we are actively exploring the utilisation of hydrogen and ammonia as a fuel source in the energy and industrial sectors. In October 2023, we signed a

Memorandum of Understanding (MOU) with IHI Corporation (IHI) and GE Vernova's Gas Power business to jointly explore the retrofitting of Sembcorp's existing Sakra power plant in Singapore with ammonia-firing capabilities. This is an extension of our earlier MOU between Sembcorp and IHI in 2022 to explore decarbonisation pathways, particularly ammonia direct combustion systems.

Looking ahead, these initiatives will put us ahead of the learning curve and position us for faster adoption of low-carbon technologies as they advance towards commercial viability and maturity. To achieve our climate action commitments, we will continue to monitor opportunities to manage certain assets in the portfolio for value through possible divestments, as well as recycling of capital.

### Maintaining High Standards of Operations

In 2023, our gas-fired assets continued to deliver reliable essential power to the communities we serve.

We strive to enhance our asset efficiency through optimising our operations, implementing predictive maintenance to minimise unplanned outages and

deploying digital solutions to monitor and improve asset performance. Our asset management system enables the gathering and consolidation of operational data for data analytics to enhance overall performance and achieve operational excellence.

### Outlook

The Gas and Related Services segment performed well in 2023, on the back of better performance in the Singapore power market. Earnings of the segment are expected to remain robust in 2024, underpinned by our significantly contracted position. Contribution will be offset by a planned major maintenance in Singapore to ensure continued efficiency and high reliability of our asset. Income contribution from the Phu My 3 power plant in Vietnam has ceased in end February 2024.

We remain committed to managing our gas assets efficiently to aid the transition towards a clean energy future for economies, while exploring ways to further decarbonise and manage our gas portfolio for value.