# Renewables Review

## Competitive Edge

Leading Pan-Asian provider of innovative renewable energy solutions with 6.1GW of renewable energy capacity installed and under development globally, including a 658MW acquisition pending completion

One of the largest solar energy providers in Singapore, managing a full spectrum of solar capabilities across rooftop, ground-mounted and floating solar projects

Independent power producer in India with one of the highest wind capacity portfolios under self-operations and maintenance

Leveraging established partnerships to grow presence in key markets

## Performance Scorecard

**Financial Indicators** *(S$ million)*

| | 2021 | 2020 | Change *(%)* |
|---|---|---|---|
| Turnover[1] | **354** | 281 | 26 |
| Earnings before interest, tax, depreciation and amortisation (EBITDA)[2] | **251** | 225 | 12 |
| Share of results: Associates & JVs, net of tax | **27** | 27 | – |
| Adjusted EBITDA[3] | **278** | 252 | 10 |
| Net profit | **56** | 46 | 22 |
| – Net profit before exceptional items | **56** | 46 | 22 |
| – Exceptional items | **–** | – | – |
| Return on equity before exceptional items *(%)* | **4.6** | 4.2 | 10 |
| Return on equity *(%)* | **4.6** | 4.2 | 10 |

[1] Turnover figures are stated before inter-segment eliminations

[2] EBITDA excludes major non-cash items such as the effects of fair value adjustments, re-measurements, impairments and write-offs

[3] Adjusted EBITDA = EBITDA + Share of results: Associates & JVs, net of tax

The Sembcorp Tengeh Floating Solar Farm, one of the world's largest inland floating solar photovoltaic systems

## Key Developments

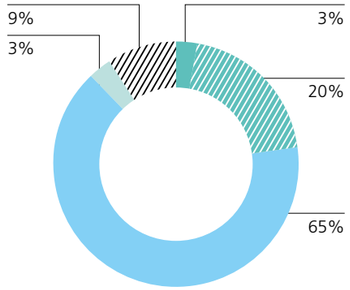
Announced acquisitions of 2.5GW of operational wind and solar photovoltaic (PV) assets in China

Completed the 60MWp Sembcorp Tengeh Floating Solar Farm, one of the world's largest inland floating solar PV systems

Awarded 180MW wind power project in India, underpinned by a 25-year long-term power purchase agreement

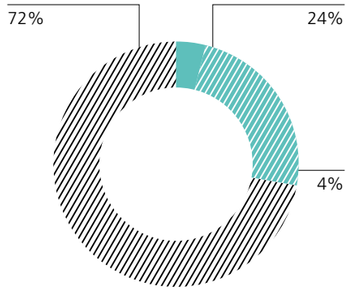
Commenced operations for 10MWh of battery storage in the UK, bringing total operational capacity to 70MWh

## Gross Renewables Capacity by Country




As at December 31, 2021

## Gross Renewables Capacity by Technology Type




Sembcorp's renewables portfolio comprises wind, solar and energy storage assets in China, India, Singapore, the UK and Vietnam.

Turnover for the Renewables segment was S$354 million, 26% higher compared to turnover of S$281 million registered in 2020. Net profit was S$56 million, an increase of 22% from S$46 million in 2020, driven mainly by higher contribution from the wind business.

In India, the operational wind capacity as at end 2021 was 1.7GW. Wind generation was higher at 3.6TWh in 2021 compared to 3.5TWh in 2020 as there was full year contribution from 193MW of power that commenced operations in 2020. There was also contribution from sale of green attributes. Contribution from wind assets in China remained steady, with operational wind capacity remaining unchanged at 725MW. Net electricity generated was 1.5TWh, 5% higher compared to 2020.

Solar contribution in Singapore improved and operational capacity as at end 2021 was 240MWp, compared to 110MWp as at end 2020. Net electricity generated increased to 205GWh from 120GWh in 2020. This was offset by higher development costs for solar projects in the rest of Southeast Asia.

In the UK, a further 10MWh of our battery energy storage portfolio was commissioned, bringing our operational battery fleet to 70MWh. The energy storage portfolio turned in a profit for the year, despite higher deferred tax provision arising from the increase in corporate tax from 19% currently to 25% with effect from 2023.

**Executing our strategy to transform our portfolio from brown to green**

In May 2021, as part of our strategic plan to transform our portfolio from brown to green, we set a target to quadruple our gross installed renewables capacity to 10GW by 2025.

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## Operational Indicators[1]

| | 2021 | 2020 |
|---|---|---|
| Gross renewables capacity *(MW)* | **3,598** | 3,218 |
| – Wind | **2,599** | 2,419 |
| – Solar | **875** | 679 |
| – Energy storage | **124** | 120 |
| Gross renewables capacity *(MW)* | **3,598** | 3,218 |
| – Installed | **2,751** | 2,616 |
| – Under development | **847** | 602 |

[1] Figures refer to total gross capacity of facilities as at December 31, 2021 and December 31, 2020. As at February 2022, the Group has 6.1GW of gross renewables capacity installed and under development, including a 658MW portfolio acquisition pending completion

Sembcorp's solar power business in Singapore is growing well, with rooftop assets that generate renewable energy for the land-scarce city state

We gained momentum in the execution of our strategy with 2.9GW of renewable energy projects secured during the year.

**Growing portfolio in Southeast Asia**
We continued to make strides as a leading solar energy provider in Singapore, having secured 26% of Singapore's 2025 solar target. We have established capabilities in managing a full spectrum of solar capabilities ranging across rooftop, ground-mounted and floating solar projects. During the year, solar projects installed and under development in Singapore grew from 280MWp to 384MWp. Some of the notable projects include the SolarRoof Phase 2 project awarded by JTC Corporation to build a 17MWp solar rooftop system and a 60MWp solar energy project by the Housing & Development Board and the Singapore Economic Development Board.

130MWp of solar capacity was completed during the year, including the Sembcorp Tengeh Floating Solar Farm on Tengeh Reservoir, which commenced operations in July 2021. With 122,000 solar panels spanning across 45 hectares, the 60MWp solar photovoltaic (PV) farm is one of the world's largest inland floating solar PV farms. We implemented new and innovative ways of working and were able to complete the project on time with safe management measures in place despite the manpower and supply chain constraints due to COVID-19. With this project, the Tengeh Reservoir doubles up as a source for renewable energy, in addition to being an area for water catchment. This project serves as a showcase for Singapore, and we will look at opportunities to implement similar projects in other countries where there are large water bodies or land scarcity constraints.

Sembcorp's wind power assets in Gujarat, India

In Vietnam, solar capacity installed and under development grew from 23MWp to 108MWp as at end 2021. Amid prolonged movement curbs due to the pandemic, 16MWp of solar power was completed during the year.

**New contract secured in India, endorsement of competitiveness**
In India, we were the first independent power producer to deliver on all its projects awarded in the first three wind tenders held by Solar Energy Corporation of India (SECI). We also have one of the highest wind capacity portfolios under self-operations and maintenance of any independent power producers in India.

During the year, we secured 210MW of renewables contracts, including a 180MW wind power project in the 11th nationwide wind power auction held by SECI. Upon completion of the project, the power output will be sold to SECI under a 25-year long-term power purchase agreement.

Including the 400MW solar power project secured in 2020, we have 610MW of projects currently under development in India. The projects are expected to be completed between 2022 and 2023. This brings our gross renewables capacity installed and under development in India to 2.3GW.

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Wind assets in Yunnan province, China, jointly owned by Sembcorp and SDIC New Energy

**Well-positioned for significant growth in China**

China is the world's largest renewables market, and a priority growth market for Sembcorp. During the year, we announced two acquisitions totalling 2.5GW of operational wind and solar assets in China.

In December 2021, we announced the acquisition of a 35% interest in SDIC New Energy for an equity consideration of approximately RMB1.5 billion (approximately S$320 million). The portfolio of SDIC New Energy consists of 30 operational wind and solar PV assets with a total gross installed capacity of about 1.9GW located across seven provincial regions in China. The acquisition was completed at the end of January 2022.

In November 2021, we signed a sale and purchase agreement to acquire a 98% interest in a portfolio of operational wind and solar PV assets for approximately RMB3.3 billion (approximately S$700 million). The portfolio of wind and solar assets with a total gross installed capacity of 658MW will provide Sembcorp with a scalable renewables platform to drive further growth in China. This scalable platform will boost our growth in China and support the building of our operational and technical capabilities. The acquisition is expected to be completed in the first half of 2022.

When the acquisition is completed, our Group renewables portfolio comprising wind, solar and energy storage is expected to reach a gross capacity of 6.1GW installed and under development, bringing us a step closer to achieving our Group target of 10GW of gross installed renewables capacity target by 2025. These achievements are testament to our multipronged approach of leveraging our capabilities, platforms and partnerships to grow our renewables presence and enhance our capabilities.

**Focused on growing our renewables pipeline**

We have made good progress during the year and we will continue to focus on securing more opportunities in our countries of focus. Increasingly, regional collaboration will be needed to enhance energy resilience and sustainability. In Southeast Asia, we gained traction on our targets with multiple partnerships formed across various energy opportunities that aim to advance energy transition in both the host country and Singapore. We continue to explore importation and utility-scale renewables development partnerships, in addition to various collaborations around energy transition capabilities.

We have signed an exclusive joint development agreement with Batam's utility company PT PLN Batam and Indonesian renewable energy developer PT Trisurya Mitra Bersama to develop a large-scale integrated solar and energy storage project in Indonesia's Batam, Bintan and Karimun region. The renewable power generated onsite will supply the clean energy needs of the local communities and is proposed to be transmitted via subsea cables into Singapore. This will support the clean energy needs of Indonesia and Singapore.

We also signed a collaboration agreement with BCG Energy, a wholly-owned subsidiary of the Bamboo Capital Group (BCG), for the development of renewables projects in Vietnam. BCG is one of the pioneers in Vietnam's renewable energy industry. We have built up our presence in the country through our integrated townships and industrial parks businesses. Vietnam is a key growth market for Sembcorp in the region and the collaboration will seek to identify and jointly develop a pipeline of up to 1.5GW of wind and solar projects in the country. The first phase will involve an initial funding of US$30 million for the development of a 550MW portfolio of utility-scale nearshore and onshore wind assets across three provinces in Vietnam.

Our energy storage portfolio is well-positioned to take advantage of the evolving needs of the UK power market and plays an important role in helping to stabilise the grid as renewables penetration increases. As part of our growing energy storage portfolio, we announced in December 2021 plans to construct a 360MW battery at Wilton International on Teesside. This development will further support the UK's net-zero targets, helping to ensure the resilience of the electricity network and further enable the increasing growth of renewables. We currently operate 70MWh of batteries, with a further 50MWh of batteries due to be operational in 2022. As one of the UK's largest battery portfolios, the units can supply power and other services to the national grid in milliseconds. Such rapid response time is crucial to maintaining a secure and stable energy system that will aid the UK's low-carbon transition.

## Outlook

We completed the acquisition of the 35% stake in SDIC New Energy in January 2022 and expect completion of the 98% stake in 658MW of operational wind and solar assets in China within the first half of 2022. This will bring gross renewables capacity installed and under development to 6.1GW, almost double from the 3.2GW as at end 2020.

The rapid growth in renewables continues. According to the International Energy Agency, almost 290GW of new renewable energy generation capacity was installed globally in 2021, setting a new record for new installations. With stronger policy support and ambitious climate targets announced for COP26, the growth of renewables capacity is forecast to accelerate in the next five years, accounting for almost 95% of the increase in global power capacity through 2026. We remain focused on achieving our Group target of 10GW of gross installed renewables capacity by 2025 and will continue to innovate and deepen our capabilities to be a leading provider of sustainable solutions.


The remaining 50MWh of our 120Wh battery storage system in the UK will commence operations in 2022