

### ESG Country Updates

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#### Singapore

- Singapore is expanding its study nationwide to assess the potential for geothermal energy to be a renewable energy source for the country. Past studies were launched in the northern and eastern parts of the country as they were identified to hold geothermal potential based on higher surface temperature measurements.
- Singapore could start importing 2 GW of renewable energy annually from Indonesia within 5 years, which would constitute the country's largest cross-border electricity contract to date. This contributes to Singapore's target to import up to 4 GW of low-carbon electricity by 2035, making up around 30% of Singapore's electricity supply.

#### China

- At the Africa Climate Summit in Nairobi, China announced that it will launch an Africa Solar Belt programme as part of the South-South cooperation on climate change to advance US\$13.7 million for solar projects in regions currently not served by main power grids. The US also committed US\$30 million to accelerate food security efforts across the continent.

#### Malaysia

- Malaysia's National Energy Transition Roadmap (NETR) was published in two parts in the last two months, detailing the country's energy transition levers, emissions reduction targets and initiatives needed for the energy transition. The NETR is estimated to require an investment of RM1.2 trillion – RM1.3 trillion by 2050. In this decade, 18% of funding is required primarily in renewable energy power generation and green mobility e.g. strengthening grid infrastructure and domestic electric vehicle production capacities.
- Sarawak and Singapore are in advanced negotiations regarding supplying hydropower to Singapore via subsea cables. Sarawak Energy, Singapore Power Group and Sembcorp Industries have completed technical studies on the linking cables. Sarawak generates about 75% of its electricity from hydropower, with great potential for the export of hydropower to other neighbouring states and countries.

#### Indonesia

- Indonesia's financial regulator is considering making coal-fired power plants that supply electricity to industries that make products considered sustainable (e.g. batteries for electric vehicles) eligible for green financing. However, this has drawn criticism because it would mean that coal-fired power plants can also be seen as sustainable, which may be criticised as greenwashing.

- To speed up the adoption of renewable energy, Indonesia's state utility Perusahaan Listrik Negara (PLN) is planning to add 32 GW of renewable energy capacity and renew its grid to connect to more renewable power sources. This is part of efforts to accelerate renewable energy adoption and reduce reliance on coal. It is planning to use the funds under the Just Energy Transition (JETP) to finance PLN's grid installation.

### Rest of the world

- India has increased the use of coal for electricity generation to stop outages caused by lower hydroelectricity output in dry weather. Renewable energy is also struggling to keep pace with high power demand. This highlights the struggles countries can face in their net-zero journey, while ensuring the sustainable livelihoods of people.
- At a United Nations committee meeting, developed countries including those in Latin America, Asia-Pacific and small island states proposed that the climate "loss and damage" fund agreed upon at COP27 should programme at least US\$100 billion by 2030. Countries will attempt to discuss the details of the fund at COP28 this year.
- G20 leaders agreed to pursue tripling renewable energy capacity globally by 2030 and acknowledged the need to phase down unabated coal power, but had disagreements on commitments to reduce fossil fuel use and reduce greenhouse gas emissions ahead of COP28 discussions.

## **Special Coverage: Geothermal potential and low-carbon electricity imports for Singapore**

### **Diversifying the renewable energy mix in Singapore**

- The EMA issued a request for proposal for a nationwide study to assess Singapore's deep geothermal resource potential (up to 10km) for power generation. This follows localised exploratory studies conducted in northern and eastern Singapore, which were identified to hold geothermal potential based on higher surface temperatures.
- Exploratory studies near the Sembawang hot spring (northern Singapore) found that the temperature 1.1km underground was 60 – 90 °C, with water temperatures at the hot spring range from 40 – 70 °C. It was estimated that the temperature at the site could go up to 200 °C at a 4 - 5km depth, making geothermal energy a possibility as a clean energy source.
- Geothermal energy, if successfully harnessed, will diversify Singapore's renewable energy mix and bolster the country's energy resilience. It is also a more constant energy source, and not dependent on weather

conditions e.g. wind and sun. Potential concerns include groundwater pollution from deep drilling operations depending on the location.

### **Importing energy needs as an alternative energy disadvantaged country**

- Sarawak and Singapore are in advanced negotiations to supply hydropower via subsea cables to Singapore. Sarawak Energy, Singapore Power Group and Sembcorp Industries have completed technical studies on the cables linking Borneo to Singapore.
- There are also plans to import 1GW of hydropower, solar and potentially wind power from Cambodia via subsea cables, and 2GW of renewable energy from Indonesia. These projects will contribute to Singapore's target to import 4GW of low-carbon electricity by 2035 (30% of Singapore's electricity supply).

## OCBC Weekly ESG Report



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### Carbon Markets Analysis

#### Global Carbon Market Prices

ETS Markets	Price	Weekly Change	Week High	Week Low
EU (EUR/ton)	81.52	-4.4%	85.27	81.52
China (CNY/ton)	72.22	5.5%	72.22	66.21

Voluntary Carbon Markets	Price	Weekly Change	Week High	Week Low
Nature-based	2.35	-17.8%	3.03	2.34
CORSIA	0.87	0.0%	0.88	0.87

Market	Description	Trend
EU ETS	EU ETS prices saw a weekly decline of 4.4% to €81.52, which is a 3-month low even while gas prices increased amid the start of industrial activity at LNG exporting facilities in Australia.	 <p><b>EU ETS</b></p>
China ETS	The China ETS prices climbed back above the 70 CNY/ton level last week. Trading volumes also increased with the ETS compliance deadline approaching.	 <p><b>China ETS</b></p>

Market	Description	Trend
Voluntary Carbon Markets (VCM)	<p>Low demand and inactivity persisted in the VCMs last week, with most sectors unchanged and some weakness observed in renewable energy credits.</p> <p>Some Gold Standard-certified CORSIA eligible cookstove credits from India, Somalia and Uganda with 2021 – 2022 vintages were offered at \$6.75/t, \$8.15/t, and \$8.30/t, respectively. These are considered to be high offers and they may not trade at these prices unless there is specific interest. Moreover, there is an abundance of cookstove credits in the market at present.</p>	<div style="text-align: center;"> <b>Nature-based credits</b> </div>  <div style="text-align: center;"> <b>CORSIA credits</b> </div> 

Source: Refinitiv Eikon, Carbon Pulse, Platts Dimensions Pro

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