

MEDIA RELEASE

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EMA to Seek Proposals for Electricity Imports

The Energy Market Authority (EMA) intends to issue two Requests for Proposal (RFP) for up to a total of 4 gigawatts (GW) of low-carbon electricity imports into Singapore by 2035, as part of Singapore's efforts to decarbonise our power sector and enhance energy security by diversifying energy supply sources. This is expected to make up around 30% of Singapore's electricity supply in 2035. The remaining supply will continue to come from various sources, ranging from the current natural gas-fired power plants to solar and waste-to-energy sources. The first RFP will be launched in November 2021, while the second RFP is expected to be issued in the second quarter of 2022.

2 Climate change is a global existential threat and Singapore is doing its part to reduce emissions for a more sustainable future. The power sector has a key part to play as it accounts for about 40% of Singapore's carbon emissions. We are transitioning to greener energy sources and harnessing the four Switches – natural gas, solar, regional power grids and low-carbon alternatives – to transform our energy supply. These will allow us to reduce the power sector's emissions and ensure that our power system remains secure, reliable and sustainable.

3 Today, natural gas, which is the cleanest-burning fossil fuel, is our first "switch" and is used to produce around 95% of Singapore's electricity. EMA will continue to work with the power generation companies to improve the efficiency of their power plants. Solar is our second "switch" – Singapore is maximising solar deployment and is on track to achieving our target of 1.5 gigawatt-peak (GWp) by 2025 and at least 2 GWp by 2030. However, Singapore is land-constrained. Despite our best efforts, solar will likely constitute only about 3% of the country's total electricity demand in 2030.

4 Regional power grids are our third "switch", and will enable Singapore to access low-carbon energy beyond our shores, while supporting regional decarbonisation efforts. We will also develop our fourth "switch" – low-carbon alternatives like hydrogen

and technologies such as carbon capture, utilisation and storage which can reduce carbon emissions from using fossil fuels for power generation.

5 EMA will conduct the first RFP to import up to 1.2 GW of electricity. This will begin by 2027, while the second RFP will be for the remaining quantities of electricity imports by 2035 (Refer to [Annex](#) for frequently asked questions on electricity imports). Mr Ngiam Shih Chun, Chief Executive of EMA, said, “To maintain energy reliability, EMA will work with potential importers to ensure that sufficient safeguards are put in place to mitigate against any prolonged supply disruptions. EMA will also look into diversifying the sources of imports to mitigate potential risks.”

6 The RFPs for electricity imports will allow Singapore to further our efforts in developing regional power grids and supporting regional decarbonisation, while supporting our climate action and diversifying our energy sources.

7 To prepare for future electricity imports, EMA has been working with various partners over the last two years on trials to import electricity. The trials allow EMA to assess and refine the technical and regulatory frameworks for importing electricity into Singapore. EMA has appointed YTL PowerSeraya Pte Ltd (YTLPS) for a two-year trial to import 100 megawatts (MW) of electricity from Peninsular Malaysia, following a RFP process initiated in March 2021. YTLPS was selected as its proposal was best able to meet EMA’s requirements to trial electricity imports via the existing interconnector. This is expected to commence in early 2022.

8 EMA is also embarking on a pilot with a consortium led by power generation company PacificLight Power Pte Ltd (PLP) to import 100 MW equivalent of non-intermittent electricity from a solar farm in Pulau Bulan, Indonesia. Electricity will be supplied via a new interconnector that directly connects a solar farm in Pulau Bulan to PLP’s power station in Singapore. The pilot is expected to be commissioned by around 2024.

9 Singapore is also working on the Lao PDR-Thailand-Malaysia-Singapore Power Integration Project (LTMS-PIP) to import up to 100 MW of power from Lao PDR to Singapore via Thailand and Malaysia using existing interconnections from 2022 to 2023. In September 2021, the four countries issued a Second Joint Statement to reaffirm their commitment towards the project, welcome the good progress of discussions and look forward to the early finalisation of all agreements underpinning LTMS-PIP to commence cross-border power trade in 2022. The project will serve as a pathfinder towards realising the broader ASEAN Power Grid vision of multilateral electricity trading in the region.

10 The two RFPs will outline the requirements, including how electricity imports should be from low-carbon sources. Proposals for electricity imported from coal-fired generation sources will not be accepted. Companies which are interested may visit

the EMA website at www.ema.gov.sg in November 2021 and Q2 2022 for the details and submission process of the first and second RFP respectively.

Annex: Frequently Asked Questions on Electricity Imports

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About the Energy Market Authority

The Energy Market Authority (EMA) is a statutory board under the Singapore Ministry of Trade and Industry. Through our work, we seek to forge a progressive energy landscape for sustained growth. We aim to ensure a reliable and secure energy supply, promote effective competition in the energy market and develop a dynamic energy sector in Singapore. Visit www.ema.gov.sg for more information.

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FREQUENTLY ASKED QUESTIONS ON ELECTRICITY IMPORTS

1. Why do we need to import electricity?

A regional power grid will accelerate the development of renewable energy in the region. These projects will facilitate greater interconnectivity between countries in the region, and provide greater resilience and stability for all parties involved. Today, some Southeast Asian countries have an abundance of renewable energy sources. Singapore could also in turn access low-carbon energy such as wind, large-scale solar and hydropower that are unavailable here. Tapping on regional power grids will allow us to diversify our energy sources that are cost-competitive and meet our climate change commitments, while ensuring continued energy security. Many other regions also make use of regional grids, for example, in the European Union, and between USA and Canada.

2. How can EMA ensure that Singapore's energy security will not be at risk when importing electricity as an essential utility?

We are mindful of the need to maintain our energy security with the introduction of electricity imports. We will continue to maintain supply security and reliability through measures such as diversifying our sources, capping the amount of imports per source grid and ensuring sufficient backup capacity. Furthermore, importing electricity is similar to how we have been importing natural gas from overseas sources.

3. Will the electricity imports come from renewable sources only?

The imported electricity should preferably be from low-carbon sources. EMA recognises that non-renewable sources may be needed as a start to make the imports commercially viable or available as baseload power. For example, some thermal generation may be needed to smoothen intermittency from solar generation. Nonetheless, proposals for electricity imported from coal-fired generation sources will not be accepted.

The importer will need to submit Renewable Energy Certificates (RECs) to EMA annually for verification purposes. These RECs will need to adopt a recognised standard, and be verified by accredited platforms or providers, e.g., International RECs (I-REC), Tradable Instrument for Global Renewables (TIGR) by APX.

4. Which countries are we looking at importing electricity from?

The trials that EMA are conducting to assess and refine the technical and regulatory frameworks for electricity imports will come from Malaysia, Lao PDR and Indonesia. Beyond these projects, EMA has received proposals from companies for imports from countries in the region and beyond. While projects that are from sources closer to Singapore could be more competitively priced, diversity of supply sources is also one of our key considerations to maintain our energy security.

5. Will electricity imports lower electricity costs for consumers?

Electricity imports may or may not be more expensive than gas-generated power. It depends on the distance of their source location, technology used and resilience measures for imports. It also depends on the price of gas, which can vary widely. An RFP process will ensure that we select the bids which provide the best value for money. More information will be provided during the launch of the RFPs for imports.