

# SUBMISSION REQUIREMENTS FOR ELECTRICITY IMPORTS PROPOSALS

18 Feb 2024 Version 1.0

ENERGY MARKET AUTHORITY 991G Alexandra Road #01-29 Singapore 119975 www.ema.gov.sg

## **CONTENTS**

SECTION 1: Introduction	3
SECTION 2: Cardinal Requirements	4
SECTION 3: Other Requirements	6
SECTION 4: Instructions for Submission	20
SECTION 5: Mode of Submission	31
Form of Submission	37
FORM A	38
FORM B	39
FORM C	40
FORM D	41
ANNEX A: Potential Sites for Electricity Imports	42
ANNEX B: Proposal Bond Agreement	43

#### **SECTION 1: INTRODUCTION**

- 1.1 Singapore is on track to achieving its target of 4 gigawatts (GW) of electricity imports by 2035. The Energy Market Authority ("**EMA**") continues to welcome interested companies to submit their proposals to import and sell low-carbon electricity in Singapore (each a "**Proposal**").
- 1.2 This document describes the requirements for competent entities ("Participants") who are interested to import and sell electricity in Singapore. Participants should demonstrate their supply reliability, credibility, track record, cost-competitiveness and ability to supply and manage the carbon output of their power generation supply.
- 1.3 Proposals can be submitted at any time for discussion with the EMA. EMA may jointly further develop and facilitate credible proposals with key stakeholders. After Participants submit a binding Proposal ("Final Proposal"), EMA may consider awarding Conditional Approval to such Final Proposals that are sufficiently attractive and suitable. Thereafter, EMA may subsequently issue a Conditional Licence and/or full Importer Licence to those who meet our specific obligations and condition precedents.
- 1.4 In addition to this document, EMA has also published a Guide to Electricity Imports 1 ("**Guide**") that governs how electricity imports may enter Singapore, to provide regulatory clarity on how electricity imports will be treated in Singapore's electricity market.

<sup>1</sup> The guide is available at <a href="https://www.ema.gov.sg/content/dam/corporate/our-energy-story/energy-supply/Electricity-Imports-Guide v1 1 1Jul2022.pdf">https://www.ema.gov.sg/content/dam/corporate/our-energy-story/energy-supply/Electricity-Imports-Guide v1 1 1Jul2022.pdf</a>

#### **SECTION 2: CARDINAL REQUIREMENTS**

1.5 Cardinal Requirements are imposed on Proposals to ensure that they meet essential legal and regulatory requirements, credibility requirements and project design requirements. Failure to comply with the Cardinal Requirements may result in rejection of the Proposals.

#### Legal & Regulatory Requirements

- 1.6 Each Participant must be a **Singapore-incorporated company** that will be granted and hold the Licence if granted a full Importer Licence by EMA. Where the Participant is a consortium, the consortium can meet this requirement through the incorporation of a special purpose vehicle company in Singapore.
- 1.7 EMA has established a cap of 25% on the generation capacity market share ("25% Market Share Cap") to prevent structural increase in electricity generation market concentration in respect of Keppel Merlimau Cogen Pte Ltd, SembCorp Cogen Pte Ltd, PacificLight Power Pte Ltd, Tuaspring Pte Ltd. With regard to Senoko Energy Pte Ltd, Tuas Power Generation Pte Ltd and YTL PowerSeraya Pte Ltd, EMA has imposed the higher of either the 25% Market Share Cap or their respective MWac licensed capacity cap, until the current expiry date of their respective Generation Licence. Beyond the current expiry dates, their respective MWac licensed capacity cap will be terminated and the 25% Market Share Cap will apply². Electricity imports by these gencos or related parties will be counted towards these gencos' market share for the purposes of determining if they are compliant with their respective Market Share Cap³.
- 1.8 Proposals shall comply with the Section 4.8 and 6.8 of the Transmission Code<sup>4</sup>.

<sup>&</sup>lt;sup>2</sup> Refer to Final Determination Paper on Review of the Vesting Contract Regime dated 30 September 2016: <a href="https://www.ema.gov.sg/partnerships/consultations/2016/review-of-vesting-contract-regime">https://www.ema.gov.sg/partnerships/consultations/2016/review-of-vesting-contract-regime</a>

<sup>&</sup>lt;sup>3</sup> The import capacity being proposed will be added to the numerator and denominator for the calculation of whether the Participant's market share would breach the 25% generation market share cap. Actual market share would be calculated at the time of issuance of licence. If the Genco is part of a Consortium, the full capacity will be counted towards the Genco's market share.

<sup>&</sup>lt;sup>4</sup> This includes any subsequent updates to the Transmission Code.

## **Technical and Professional Credibility**

1.8.1 The Participant (or entities related to the Participant) must demonstrate its organisational capability in the management and delivery of power generation or transmission projects by providing project examples of similar scale and complexity in the past five years. Relevant experience may be drawn from other sectors, in which case similarities and differences in approach should be explicitly explained and expected mitigation strategies set to cope with significant differences should also be highlighted for EMA's consideration. For avoidance of doubt, the Participant may enter into partnership(s) with experienced entities to meet this requirement.

## **Project Requirements**

- 1.9 **Import Capacity shall be not less than 0.6 GW**, unless otherwise approved by EMA, if the Proposal seeks to use the landing sites stated in **Annex A**. Import Capacity shall not be less than 0.3 GW if the Participant proposes to use its own private landing sites in its Proposal.
- 1.10 **Imported electricity shall be non-intermittent**. This means that imported electricity shall be constant and stable during each half-hourly dispatch period. Dispatched supply can change from one period to another in accordance with the market dispatch schedule as per Electricity Market Rules. See **Figure 1** below for an illustration of non-intermittent supply.

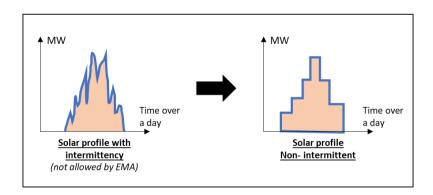


Figure 1. Illustration of non-intermittent supply

#### **SECTION 3: OTHER REQUIREMENTS**

#### Ability to Supply

- 1.11 Ability to Supply refers to the Proposal's ability to deliver on time, within specifications, with no adverse impact to security and reliability of Singapore's grid when connected and to provide consistently reliable electricity supply.
- 1.12 **The Proposal shall fully comply with the Transmission Code**<sup>5</sup>. If the Proposal is unable to fully comply with the Transmission Code, Participants must provide strong technical justifications and propose alternative solutions or mitigation measures. EMA will only decide on any exemption request from the Transmission Code on a case-by-case basis after the Final Proposal submission.
- 1.13 The technical design of the Proposal shall cover the following areas:
  - a. <u>Generation Specifications</u>: This covers the technology and capacity of the generation units that produce the imported electricity. The parameters will include address of generation unit, generation efficiency, lifespan, planned and unplanned outage rates. For renewable and/or intermittent generation, this shall also include the expected renewable resource potential, proposal on how to ensure non-intermittency is met (e.g. use of energy storage solutions, and specifications of such energy storage solutions, etc).
  - b. <u>Transmission Specifications</u>: This covers the technology and capacity of the transmission infrastructure used to transmit the imported electricity. This covers both onshore grid infrastructure and offshore interconnectors, for HVAC or HVDC infrastructure (if applicable). The parameters will include landing point and HVDC location, route of interconnectors, proposed technology, capacity of infrastructure, relevant design specifications, expected lifespan, relevant grid connection studies, planned and unplanned outage.

<sup>5</sup> This includes any subsequent updates to the Transmission Code, which will include a requirement for an Importer with a solar PV project to control its ramp rate within the limit stipulated by the Power System Operator.

- c. If the generation and transmission capacity is contracted from third parties, instead of newly built as part of this Proposal, technical parameters of such capacity should also be stated. The Importer is expected to demonstrate that there is clear commercial intent by the third-party capacity owner to allow this capacity to be used for the Proposal.
- d. <u>Supply Profile</u> This is the expected quantity of electricity that is generated throughout the day and over the project life. Proposals must include information on the expected quantity of electricity generated and supplied to Singapore on a half-hourly basis. EMA notes that during initial years, the cost of generation and storage technology may make it too costly for projects from low-carbon sources (e.g. solar, wind) to produce electricity on a constant basis. Hence, EMA may consider Proposals that have a lower load factor in its initial years, with a firm commitment to ramp-up in later years. **EMA will require projects to achieve a quarterly load factor of 75% five years after commencement of commercial operations** <sup>6</sup>, unless otherwise approved by EMA. This helps ensures that Singapore will enjoy a consistent supply of imported low-carbon electricity.
- 1.14 The Proposal shall also demonstrate its ability to secure the funds necessary for this project through the following:
  - a. <u>Financing strategy:</u> This covers the Participant's description of their intended financing strategy for the project and the steps that the Participant has taken to progress this strategy at the time of submitting their Proposals. For example, the latter may include the extent of engagement with providers of debt and/or equity funding. Consideration will also be given to any supporting analysis of the intended financing strategy that the Participant has conducted. For example, this may include analysis of alternative approaches that the Participant has considered in order to arrive at its intended approach.

<sup>&</sup>lt;sup>6</sup> For avoidance of doubt, this means that a 1000MWac project will need to generate at least 1.656TWh of electricity in a quarter with 92 calendar days. (i.e. 1000MWac x 24 hours x 92 days x 75% load factor). EMA reserves the right to revise the enforcement interval from quarterly periods to a more frequent interval (e.g. monthly).

- b. <u>Implementation of the financing strategy:</u> This considers the Participant's ability to implement the intended financing strategy, with reference to the quality of their planning. In particular, consideration will be given to:
  - (i) The Participant's understanding of the key milestones required to implement their intended financing strategy. To demonstrate their understanding, Participants will be required to submit a description of the conditions precedent required to reach a final investment decision (FID) and financial close (FC), the required timing for these conditions to be achieved, and how these conditions align with the project design and construction phases' schedule. Examples of conditions precedent include financial approvals, regulatory approvals, contractual agreements, and other key milestones.
  - (ii) The Participant's plan to achieve FID/FC. This should describe how Participant will ensure that the identified conditions precedent will be achieved by the proposed dates. The plan should also identify and address the key risks and uncertainties related to the implementation of this plan.
  - (iii) Evidence of the Participant's ability to successfully implement the plan to achieve FID/FC. For example, this may include evidence of the Participant's track record of securing finance for projects of similar size and complexity.
- c. <u>Insurance strategy:</u> This considers whether the Participant has a satisfactory understanding of the insurance requirements for its project and how to put these in place. Participants should describe the proposed insurance arrangements for the import project and provide a high-level explanation of the process to be followed to procure this.

#### Carbon Emissions

1.15 Under Carbon Emissions, Proposals are assessed based on the expected annual carbon emissions output (tCO<sub>2</sub>e/MWh) of their supply sources, with substantiation and assumptions. To calculate the annual carbon emissions output, the tCO<sub>2</sub>e is measured at the source, while the MWh is measured at the point of injection

- (i.e. the Importer's SP Power Assets meter) into Singapore's grid cumulatively on an annual basis. Proposals shall, for each year in its project life, state and substantiate the expected annual carbon emissions of their project using methodologies that are commensurate with international standards for the respective energy source. Proposals with cleaner sources of generation types will be assessed favourably.
- 1.16 Renewable Energy Certificates ("**RECs**") or equivalent forms of proof of generation, will be required by the EMA to verify that electrons imported in Singapore come from low-carbon sources. The Importer shall submit relevant RECs in respect thereof annually to the EMA for verification. The RECs submitted must be in accordance with the Singapore REC standard <sup>7</sup> or an internationally recognised standard that is verified by accredited platforms or providers and approved by the EMA. Separately, it is expected that consumers buying low-carbon electricity from importers will also buy the RECs (or equivalent proof) associated with the electrons to justify that their purchased electricity is from a low-carbon source.
- 1.17 EMA will only consider the carbon emissions arising from direct production of electricity for the electricity imported under the Proposal. As most renewables do not produce electricity on a 24/7 basis, supply can be considered to have zero carbon emissions if the Participant demonstrates that sufficient RECs are produced by the import project over a year, such that the total electricity (in MWh) imported can be considered to have zero net carbon emissions. EMA is not prepared to consider the use of RECs purchased from other sources of generation that do not supply electricity to Singapore via this Proposal.
- 1.18 Proposals seeking to use non-standard low-carbon generation sources (e.g. use of biofuels, waste heat) must include a report from a credible expert that explains why this aspect of their Proposal is zero-carbon according to internationally accepted standards. EMA has the right to reject these sources as zero-carbon if EMA does not deem the report to be sufficiently credible, or if the Proposal does not align with the objectives of our electricity import strategy.

<sup>&</sup>lt;sup>7</sup> Visit Singapore Standards webpage for more information on RECs.

- 1.19 EMA will prefer Proposals that achieve an annual emission factor of zero tCO<sub>2</sub>e/MWh. EMA notes that during initial years, some Proposals may need to rely on carbon-emitting technology to complement the generation of low-carbon electricity, to provide reliable and competitive supply to Singapore. As EMA's longer-term vision is for electricity imports to only come from low-carbon sources, imports projects are expected eventually to fully come from low-carbon sources. EMA will require Proposals to minimally achieve an annual emission factor that is no higher than 0.15tCO<sub>2</sub>e/MWh within five years of commercial operations. For avoidance of doubt, Proposals that achieve an annual emission factor that is lower than 0.15tCO<sub>2</sub>e/MWh will receive a better score in this selection criteria.
- 1.20 For avoidance of doubt, REC ownership and trade will be determined on a commercial basis, unless otherwise stated by EMA. Participants should note that EMA has the right to require the RECs of electricity receiving Revenue Support (see paragraphs below for more details), to be transferred to EMA or an EMA-designated entity.

## Competitiveness of supply

- 1.21 Many potential Participants have indicated to EMA that they are confident of selling some of their imported quantities directly to interested buyers via commercial PPAs ("Commercial PPAs"). Such Commercial PPAs refer to the retail contracts that the Participants' retail business or retail partner have executed to sell imported electricity to consumers. For the avoidance of doubt, contracts signed with a retailer will not be considered as a Commercial PPA. EMA encourages such Commercial PPAs to take place as it allows willing buyers and sellers to commercially agree on the terms of supply. Commercial PPAs that are firm will serve as a strong signal that a Participant has secured the confidence of consumers.
- 1.22 EMA will require Participants that claim to have the support of consumers, to demonstrate this show of support in the form of binding commercial PPAs that are submitted to EMA for review. Beyond the quantities of electricity sales specified in the Commercial PPAs, other contractual details in the Commercial PPAs are not being evaluated under the Competitiveness criterion. Nonetheless, the EMA requires Participants to submit a complete and unredacted copy of the Commercial PPAs for EMA's reference and verification.

## Request for Revenue Support

- 1.23 EMA may consider providing revenue support ("**Revenue Support**") upon request, for attractive and suitable proposals. Participants may state their requests for Revenue Support within the parameters defined by the EMA, if they consider that this is required to develop their project.
- 1.24 Notwithstanding the above, all Participants should seek to develop their Proposals independently of Revenue Support. All things being equal, proposals that do not request for Revenue Support, or Revenue Support with a lower cost, quantity and duration relative to other Proposals, will be considered more favourably. Proposals which request for Revenue Support for quantities exceeding the quantities sold via Commercial PPAs, and/or which are proposing a higher Revenue Support Price than that in the Commercial PPAs, will be viewed less favourably.
- 1.25 EMA will allow Participants to submit requests for two forms of Revenue Support: A two-way Contract-for-Differences ("**CfD**") or a Performance Contract ("**PC**").
- 1.26 Revenue Support in the form of CfD: The CfD will enable the Importer to be paid at a specified fixed strike price expressed in \$/MWh ("CfD Strike Price"), for a committed amount of electricity delivered each half-hourly dispatch period ("CfD Quantity"). Participants may request for a CfD contract duration of up to 25 years, but should provide a base option of a contract duration of 15 years. Specifically, the CfD will pay the difference between the strike price and the Importer's nodal price for each half-hourly period, on the amount of delivered electricity.
- 1.27 Proposals seeking this support shall provide a range of CfD Strike Prices for varying CfD Percentage Quantities, in the form of **Table 1** below. Participants that seek CfD support must provide a CfD Strike Price for the 50% CfD Percentage Quantity option. Participants may also suggest other combinations of CfD Strike Price and CfD Percentage Quantity for EMA's consideration. Participants should also state their nominated CfD duration, up to the maximum duration of 25 years, with 15 years as a base option (this applies to all CfD Strike Price and CfD Percentage Quantity combinations).

Table 1. Table of requested CfD strike prices and quantities

CfD Percentage Quantities (expressed as %)  This % will be applied on the Importer's prevailing maximum Import Capacity, to determine the CfD Quantity for each half-hourly dispatch period.	0%	50%	Others, please specify: x%, y% etc
Strike Price for such Quantities (\$/MWh)	$S_0$ (see footnote $^8$ )	S <sub>50</sub>	$S_x, S_y$
CfD contract duration (years) (15 years as base option, capped at 25 years)	Duration in years		

1.28 For each half-hourly dispatch period, the CfD settlement formula will be applied on the Importer's delivered quantities for that half-hour dispatch period ("**Metered Electricity Quantities**"):

CfD payment[\$] = (CfD Strike Price – Nodal Price)[\$/MWh] x CfD Quantity[MWh]

CfD Quantity[MWh] = Min{(Metered Electricity Quantities [MWh] x CfD Percentage Quantities[%]), (CfD Percentage Quantities[%] x Import Capacity[MWac] x 30min[h])}

- 1.29 If the settlement formula results in a negative value, the Importer will pay its CfD counterparty instead.
- 1.30 Revenue Support in the form of Performance Contract ("PC"): Under the PC arrangement, the Importer will receive support payments ("PC Payment") expressed in \$/MWh ("PC Price") for a committed amount of electricity delivered each half-hourly dispatch period ("PC Quantity"). Participants may request for a PC contract duration of up to 25 years, but should provide a base option of a contract duration of 15 years. The PC payment will supplement the revenues earned by the importer when it sells into the electricity market (typically the nodal price for each half-hourly period), regardless of changes in nodal price. Note that PC Quantities will still bear the price risk arising from changes in nodal price.

-

<sup>&</sup>lt;sup>8</sup> For CfDs or PCs with 0% quantities, no quantities of electricity are covered under the CfD/PC contract, hence the contract price is not enforceable. This means that the price S<sub>0</sub> or P<sub>0</sub> should reflect the Proposal's view of its future sales price into Singapore when bearing merchant risk.

- 1.31 Participants will be required to nominate a nodal price beyond which no PC support payment is required ("**Nodal Price Cap**").
- 1.32 Proposals seeking PC support shall provide a range of PC prices for varying PC Percentage Quantities, in the form of **Table 2** below. Proposals shall also state the Nodal Price Cap for each PC Price and PC Percentage Quantity combination. Participants that seek PC support must provide a PC Price for the 50% PC Percentage Quantity option. Participants may also suggest other combinations of PC Strike Price and PC Percentage Quantity for EMA's consideration. Participants should also state their nominated PC duration up to the maximum duration of 25 years, with 15 years as a base option (this applies to all PC Price and PC Percentage Quantity combinations).

Table 2. Table of requested PC prices and quantities

PC Percentage Quantities (expressed as %)  This % will be applied on the Importer's prevailing maximum Import Capacity, to determine the PC Quantity for each half-hourly dispatch period.	0%	50%	Others, please specify: x%, y% etc
PC Price for such Quantities (\$/MWh)	$P_0$ (see footnote 7)	P <sub>50</sub>	$P_x, P_y$
Nodal Price Cap, beyond which PC Price does not apply (\$/MWh)	N.A.	N <sub>50</sub>	$N_x$ , $N_y$
PC contract duration (years) (15 years as base, capped at 25 years)	Duration in years		

1.33 For each half-hourly dispatch period, the PC settlement formula will be on the Importer's Metered Electricity Quantities:

If Nodal Price ≤ Nodal Price Cap,

PC Payment [\$] = PC Price[\$/MWh] x PC Quantity[MWh] x Scaling Factor

$$Scaling\ Factor = Min\{1, \frac{(Nodal\ Price\ Cap[\$/MWh] - Nodal\ Price[\$/MWh])}{PC\ Price[\$/MWh)}\}$$

PC Quantity[MWh] = Min{(Metered Electricity Quantities [MWh] x PC Percentage Quantities[%]), (PC Percentage Quantities[%] x Import Capacity[MWac] x 30min[h])}

Or

If Nodal Price > Nodal Price Cap, PC Payment = \$0

- 1.34 The CfD and PC settlement formula only applies on metered electricity quantities that are delivered into Singapore, capped at the respective CfD quantity or PC quantity<sup>9</sup>. For Proposals that cannot reasonably generate at maximum capacity at all times (e.g. a solar farm), the settlement formula can be adjusted to accommodate a reasonably expected supply profile.
- 1.35 All CfD Strike Prices and PC Prices should account for the right of EMA to require the RECs of electricity receiving Revenue Support, to be transferred to EMA or an EMA-designated entity. Participants should indicate the assumed price of RECs.
- 1.36 Proposals may provide EMA with requests for Revenue Support in the form of CfDs and/or PCs. The two forms of support shall not be commingled, hence a request for CfD support is mutually exclusive from a request for PC support. A Proposal seeking both methods of Revenue Support must accept that EMA may only choose one method.

<sup>&</sup>lt;sup>9</sup> Example: Assume an Importer with 600MWac import capacity, that has sold 100MWac via Commercial PPAs, and seeks 50% CfD support (i.e. 300MWac of CfD quantity.) If the Importer's Metered Electricity Quantities is only 150MWac throughout a half-hourly period, then the CfD support will only apply to 75MWac for that half-hourly period.

- 1.37 For each awarded Proposal, EMA has the discretion to choose a single pricequantity combination of any Revenue Support method that results in the best outcome for Singapore. EMA may choose combinations that differ between awarded Proposals. Awarded companies shall have the right to enter into the relevant contracts to secure such Revenue Support with a counterparty that EMA will appoint. EMA does not intend to consider requests for other forms of Revenue Support.
- 1.38 EMA reserves the right not to award any Revenue Support, even if the price offers with Revenue Support are lower.
- 1.39 EMA also reserves the right to reduce the quantity of Revenue Support during commercial operations if a Participant fails to fully deliver on its Proposal.

#### Cost uncertainty – Local backup costs

- 1.40 The Guide describes how the reliability of electricity imports will be ensured through the use of local backup capacity. Such backup capacity is required to be on standby, and activated to generate replacement electricity if an imported supply is disrupted. Importers do not need to provide their own backup supply, as EMA will procure a centralised pool of backup from the market.
- 1.41 EMA is consulting the industry on the specific technical solutions that can be used to provide such backup in a reliable and cost-effective manner. The expected capacity and cost of such backup is not known at this stage, as it depends on (i) the specific backup technologies that will be adopted, (ii) the finalised portfolio of imports, and (iii) the cost of procuring such backup supply.
- 1.42 EMA intends for the fixed cost of local backup capacity to be borne by Importers to be charged on an upfront basis, based on the projected MWh output of the project. This is on top of the prevailing cost to procure reserves based on the Modified Runway Model for the first 600MWac of imports <sup>10</sup>. Hence, Participants are advised to assume that the cost of backup is a fixed rate of \$15/MWh. The final rate will be advised when the backup capacity is procured from the market, which may be near the Delivery Date of various electricity imports projects. Participants are also advised that the fixed cost of backup may change over time due to changes in the cost of

<sup>&</sup>lt;sup>10</sup> Please refer to the Guide to Electricity Imports available at <a href="https://www.ema.gov.sg/electricity-imports.aspx">https://www.ema.gov.sg/electricity-imports.aspx</a> for more information.

backup solutions, as well as changes in the total quantities of backup required, amongst other factors.

- 1.43 Proposals that seek Revenue Support should state their requested CfD Strike Price and/or their requested PC Price with the fixed backup cost of \$15/MWh. During commercial operations, EMA will automatically incorporate the actualised fixed backup cost into the CfD Strike Price and/or PC Price, such that CfD or PC Quantities receiving Revenue Support are isolated from changes in the fixed backup cost.
- 1.44 For quantities of electricity proposed to be sold under Commercial PPAs, Participants are advised to negotiate with their consumers to ensure that changes in the fixed cost of backup is adequately accounted for. For quantities proposed to be sold under the Baseline Offer (see paragraph 4.49), Participants shall itemise the fixed backup cost separately from its price offer, and allow the all-in price to be adjusted to incorporate changes in the fixed cost of backup.
- 1.45 For the variable cost of local backup that is incurred by backup providers when they are activated during an imports supply disruption, EMA intends for such cost to be recovered from the wholesale market in the first instance. To the extent that such providers are unable to recover their variable costs from the wholesale market, the unrecovered portions will be charged to the Importer(s) that caused the shortage event that led to the backup capacity being activated.

#### Cost uncertainty – Other costs

- 1.46 The Participant is expected to be responsible for all of its project costs and for managing these costs such that the project remains viable under the CfD or PC Revenue Support requested in its Final Proposal. Nonetheless, EMA notes the feedback from some industry players that there may be uncertainty in certain project costs components that may be challenging to estimate at the time of submission. Proposals may therefore:
  - a. State the cost components for which the Participant wishes to seek a future adjustment to the CfD Strike Price and/or PC Price if the actual value of cost component differs from the estimated value reflected in the CfD Strike Price and/or PC Price requested in the Proposal.
  - b. State the estimated range of value for these cost components.

- c. Include the estimated value of these cost components in the requested CfD Strike Prices and PC Prices.
- d. Set out a justification for why a future adjustment to the CfD Strike Price and/or PC Price is reasonable. The justification should focus on the benefit to Singapore for putting in place such an adjustment mechanism.
- 1.47 If adequate justification is provided, EMA may choose to allow such costs to be separately itemised, such that the Revenue Support price proposals offered by the Proposal do not have to account for these uncertainties. Once such cost components are made more certain, a reconciliation shall be conducted to ensure that the actual cost is incorporated. Such cost uncertain components may be either partially or wholly recovered via Revenue Support, if EMA deems it reasonable to do so.
- 1.48 For the purpose of evaluating the Proposals, EMA may include the maximum value of the respective cost component(s) in the requested revenue support which require future adjustments. All things being equal, a Proposal with less cost components that require future adjustments would be considered more favourably to a Proposal which has more.

## Quantities that take Merchant Risk and Requirement for Baseline Offer

- 1.49 Electricity that is not covered by Revenue Support nor sold through Commercial PPAs, are assumed to be sold through the wholesale market and paid the relevant nodal price for each half-hourly period. As the nodal price may change between each half-hourly period, such quantities are deemed to be bearing merchant risk ("**Merchant Risk**"). Quantities that are sold under Commercial PPAs, or receiving Revenue Support, may also eventually become Merchant Risk quantities once these Commercial PPAs or Revenue Support expire.
- 1.50 The Importer is solely responsible for the commercial risk arising from either Commercial PPAs or Merchant Risk quantities.

- 1.51 As part of the Proposal submission, Participants will be required to make a standing offer for their Merchant Risk quantities to interested customers, which shall be sold via future Commercial PPAs. EMA will require such Merchant Risk quantities to be offered to the market in the form of a competitive Baseline Offer ("**BO**"). The BO will be in the form of a term sheet for the sale and supply of imported electricity made available to customers.
- 1.52 The Importer (through its retail arm/partners) shall offer to sell electricity to interested customers at the terms stated in their prevailing BO. For avoidance of doubt, Importers will be able to enter into bespoke terms with customers that differ from the BO terms, provided that customers have been made aware of deviations from the BO terms (including where these are less favourable).
- 1.53 The BO shall minimally comprise the following:
  - a. Sales price of electricity This sales price should be all-encompassing, inclusive of all price components and surcharges, including RECs that may be bundled with the electricity, which should be listed clearly. There shall be no further add-on price components and / or surcharges for consumers who select the BO;
  - b. Quantities of RECs to be bundled with the quantities offered;
  - c. Contract duration (e.g. minimum contract duration); and
  - d. Quantity requirements (e.g. minimum quantities).
- 1.54 The BO may also include other terms that the Participant deems relevant (e.g. credit support required from consumers, termination charges etc).
- 1.55 Revisions to the BO shall be subject to EMA's approval. Prices shall be reasonably competitive, taking into account market conditions and prevailing project costs. All terms shall be equal to or comparatively better than the prevailing BO.

## Robustness of assumptions

- 1.56 To support the evaluation, the Proposal shall provide sufficient information to demonstrate that the assumptions underpinning the commercial proposal are robust. The information should include:
  - a. <u>Project financial model</u>: Provide an editable financial model (in Excel format) that models all project cash flows, funding requirements and key metrics to assess the project's economic and financial viability. The financial model should clearly and transparently show how the underlying input assumptions flow through to the relevant outputs.
  - b. <u>Project lifecycle cost breakdown:</u> Either separately, or as part of the project financial model, a detailed breakdown of the development, construction, operation and decommissioning phase costs. The project cost breakdown should include a three-point estimate for the cost assumptions, reflecting the range of uncertainties around project costs.
  - c. <u>Assumptions book:</u> A detailed assumptions book, setting out the rationale and supporting data sources for the assumptions applied in the project financial model, including the annual forecast for Uniform Singapore Energy Price (USEP).

## **Diversity of Supply**

1.57 EMA has consistently adopted a policy for our energy sources to be diversified, to ensure a resilient supply of energy for Singapore. EMA will award a combination of proposals based on the strong consideration of source diversity. EMA may reject Proposals that do not meet our diversification objective due to concentration risk.

#### **SECTION 4: INSTRUCTIONS FOR SUBMISSION**

- 1.58 For the purpose of submission of Final Proposals, the official email contact of EMA is: Regional Grids@ema.gov.sg.
- 1.59 Participants are to provide their official contact details via email to EMA using **Form A**. This is to provide an official contact point between Participants and EMA, such that any official information or notification with regard to this document will be disseminated to the relevant official contact points. Should there be any change to such official contact point, the Participant is to submit an updated Form A via email to EMA.
- 1.60 Participants should indicate if they agree for their official contact details to be listed on EMA's website, for the reference of potential buyers of imported electricity that may be interested to contact the Participants on their proposals.

## PROCESS FOR SEEKING INFORMATION ON LANDING SITES

- 1.61 Participants that seek to learn about the landing sites (stated in **Annex B**) are allowed to request for information for each source of supply that it is proposing. Participants shall submit the following information to EMA in its request:
  - a. The Participant's information as stated in *Forms A, B, and C*. EMA recognises that the Participant may not have decided on its commercial structure and/or partners if the development of its Proposal is at its early stage.
  - b. The Proposal's indicative Import Capacity (in MWac), annual import energy (in MWh), supply source location, generation technology and construction timeline (from start of construction to delivery date).
  - c. The landing sites that it intends to seek information on.
  - d. Proof of Technical Experience and Capacity
    - (i) Compilation of relevant projects, including information on scope, cost and timescales; and

- (ii) Description of the Participant's organisation, covering industry presence/sectors and the range of skills/capabilities available.
- 1.62 Upon receipt of the complete information stated in the paragraph above, EMA will review this information and respond to the Participant with its requested site information within two (2) weeks.
- 1.63 Prior to the release of the site information, the Participant shall enter into a non-disclosure agreement ("NDA") with EMA and the Urban Redevelopment Authority of Singapore ("URA"). The form of the NDA shall be prepared by the EMA and URA, and no suggested amendments to the NDA shall be entertained.
- 1.64 EMA reserves the right not to disclose further site information to a Participant under the following circumstances:
  - a. The Participant's submission is incomplete; or
  - b. EMA reasonably assesses that the Participant is not a bona fide applicant to be a future Electricity Importer.

## SUBMISSION OF FINAL PROPOSAL

- 1.65 The Final Proposal shall minimally comprise the following sections:
  - a. An <u>Entity Section</u> that specifies the Participant's identity, relationships, experience and capabilities.
  - b. A Technical Section that describes the technical aspects of the Proposal;
  - c. A <u>Commercial Section</u> that describes the commercial aspects of the Proposal;
  - d. A <u>Carbon Section</u> that describes the carbon emissions aspects of the Proposal;
  - e. Submission of Proposal Bond and relevant supporting documents.

- 1.66 The Final Proposal's **Entity Section** shall contain the following:
  - a. <u>Structure and organisation of Participant</u>, including information and details of all members of any consortium (collectively "Consortium Members", and each a "Consortium Member") using the format given in the *Form of Submission*, including *Form A, B and C*.
  - b. Participants comprising Consortium Members will need to satisfy the following requirements:
    - i. A consortium refers to a single entity, as in the form of a joint venture company incorporated in Singapore;
    - ii. Participant shall include copies of the consortium agreements duly signed by all Consortium Members;
    - iii. The consortium agreement must clearly stipulate which member/entity will be providing overall management of the Importer ("**Principal Member**"); the legal relationship among the Consortium Members; and each individual Consortium Member's responsibilities under the consortium agreement;
    - iv. The consortium agreement shall state the respective equity/shareholding percentage of each Consortium Member;
    - v. The Principal Member shall submit the Proposal on behalf of the consortium. Documentary proof must be provided that the Principal Member is authorised by the Consortium Members to submit the Proposal, receive instructions, give any information, accept any contract and act for and on behalf of all the Consortium Members; and
    - vi. Any change proposed to the structure of Consortium after submission of Proposals shall be subject to EMA's approval.
  - c. Participants and all Consortium Members shall provide more information on persons empowered to act in *Form D*.

- d. <u>Project team structure</u> with identification of key members involved in the financing, development, implementation and operation/maintenance of the project, and their respective roles (including a description of relevant experience and curriculum vitae) of each member.
- e. Proof of Singapore-incorporated Company (Cardinal Requirement) Details of the Participant to be licensed as an Importer if appointed by
  EMA, namely: (i) a certified true copy of the entity's Certificate of
  Incorporation; and (ii) certified true copies of relevant ownership
  documents, including documents lodged with the Accounting &
  Corporate Regulatory Authority ("ACRA") showing the shareholder
  structure, names and addresses of significant shareholders and the
  composition of the board of directors.

## 1.67 The Final Proposal's **Technical Section** shall contain the following information:

- a. All the deliverables listed in **Table 3** correspond to project information that the EMA would expect competent developers to create to progress their projects, independently of this procurement process requirements.
- b. Studies that demonstrate that the Proposal's potential socioenvironmental impact at its production source and along its transmission route is mitigated and complies with the requirements of the relevant local jurisdiction. This includes relevant Environmental Impact Assessments ("EIAs") that demonstrate compliance with the source country's laws. If detailed studies are not available, then a high-level assessment shall be submitted, together with a plan for detailed assessment if appointed as an Awarded Proposal.
- c. Proof that the Proposal is compliant with the cardinal requirement on capacity size requirements (Cardinal Requirement). This includes the project's generation and transmission capacity, transmission loss and the expected production of such capacity, accounting for the renewable resource availability (e.g. considering best/average/worst case irradiance data in the case of solar PV production). Substantiating data, calculations and assumptions shall be provided.

- d. The Proposal's ability to achieve the <u>non-intermittency requirement</u> (Cardinal Requirement). In the case of intermittent generation sources, the Proposal shall provide substantiating data, calculations and assumptions to demonstrate the expected intermittency of generation before and after mitigation measures, and how the mitigation measures will be designed and operated (e.g. size and control of Battery Energy Storage Systems).
- e. The Proposal's ability to achieve the quarterly load factor requirement with substantiating data, calculations and assumptions, as well as any firm commitments to expand its future production capacity (if applicable). This should include remedial actions in the event that the annual load factor cannot be imminently met during commercial operations.
- f. Proof of compliance with the Transmission Code (Cardinal Requirement for Sections 4.8 and 6.8 of the Transmission Code) that demonstrates that the design of the project and the system design parameters and associated data comply with the technical and regulatory requirements stipulated in the Transmission Code.

## Expected approach

- 1.68 To counter optimism bias and maximise the understanding of the proposed project's potential outcomes, EMA requires Participants to undertake scenario planning. This involves the definition of three scenarios: a reference case (most likely), an upward case (credible ideal scenario) and a downward case (credible worst-case scenario). Participants are asked to consider this approach whilst planning their projects and will be asked to provide details and assumptions associated to these scenarios both in terms of cost and schedule submissions.
- 1.69 Participants' responses for their Proposal shall be specific to their proposed projects, ensuring that the data provided is always contextualised around their proposal. If the maturity of the proposed project limits the extent of information that can be provided, Participants shall ensure that an adequate narrative outlining next steps and demonstrating consistency with their design phase plan is provided.

Table 3. List of Deliverables to demonstrate Ability to Supply (Technical Section)

L2 S	L2 Sub-Criteria L3 Sub-Criteria List of deliverables (non-exhaustive)			liverables (non-exhaustive)	
A1	Singapore	A1.1	Previous Experience	A1.1.1	Compilation of Relevant Projects
	Deliverability Expertise	A1.2	Capabilities	A1.2.1	The Participant's Organisation
A2	Technical	A2.1	Overall System Design	A2.1.1	Overall Project Summary
	Feasibility			A2.1.2	Single Line Diagram
				A2.1.3	Non-Intermittency Management
				A2.1.4	Energy Availability Analysis
				A2.1.5	Design Philosophy
				A2.1.6	Grid Connection Timeline
		A2.2	Constructability	A2.2.1	Route Options
				A2.2.2	List of Surveys
				A2.2.3	Key Construction Activities
				A2.2.4	Major Construction Constraints
		A2.3	Technologies	A2.3.1	Equipment Datasheets
				A2.3.2	Technology Readiness
		A2.4	Transmission Code Compliance	A2.4.1	Transmission Code Compliance Capability
А3	Design Phase	A3.1	Planning & Permitting	A3.1.1	List of Required Permits
				A3.1.2	Land Access Strategy
		A3.2	Regulatory	A3.2.1	Regulatory Requirement Overview
		A3.3	Design Phase Project Management	A3.3.1	Organisational Structure
				A3.3.2	Project Lifecycle
				A3.3.3	Governance Structure
				A3.3.4	Design Phase Key Risks
				A3.3.5	Lessons Learnt
				A3.3.6	Stakeholder Management
		A3.4	Design Phase Plan	A3.4.1	Design Phase Schedule

L2 S	Sub-Criteria	L3 Sub-Criteria		List of deliverables (non-exhaustive)	
				A3.4.2	Design Phase Schedule Uncertainty Analysis
		A3.5	Procurement & Contract Strategy	A3.5.1	Supply Chain Analysis
				A3.5.2	Procurement & Contract Strategy
A4	Construction	A4.1	Construction Phase Project Management	A4.1.1	Delivery Model/Strategy
	Phase			A4.1.2	Construction Phase Key Risks
		A4.2	Construction Phase Plan	A4.2.1	Construction Phase Schedule
		A4.3	Safety, Health, Environmental & Quality (SHEQ)	A4.3.1	SHEQ Competence
A5	Operation &	A5.1	O&M Strategy	A5.1.1	O&M Strategy
	Maintenance	A5.2	Energy Availability	A5.2.1	Asset Failure Causation
	(O&M)			A5.2.2	Mean Time to Repair
		A5.3	Decommissioning Strategy	A5.3.1	Decommissioning Assumptions
A6	Financial	A6.1	Financing Strategy	A6.1.1	Financing Strategy & Supporting Analysis
	Deliverability	A6.2	Implementation of the Financing Strategy	A6.2.1	Participant's Financing Track Record
				A6.2.2	FID/FC Requirement & Plan
		A6.3	Insurance Strategy	A6.3.1	Insurance Strategy

- 1.70 The Final Proposal's <u>Commercial Section</u> shall contain the following information:
  - a. The <u>requested duration of the Electricity Importer Licence</u>, and the relevant justification for this duration.
  - b. <u>Proof of Commercial PPAs</u> These are the Commercial PPAs executed between the Participant and its customers, inclusive of pricing terms, to demonstrate to EMA the show of support from consumers. These shall be in the form of full-fledged retail contracts or term sheets, with any other necessary supporting document. A summary table of the Commercial PPAs is required.
  - c. <u>Request for Revenue Support</u> This shall comprise the information necessary to substantiate the Cost of Revenue Support. The information shall include the form(s) of Revenue Support, and the information stated in **Table 1** and **Table 2** (where applicable).
  - d. Merchant Risk Quantities This shall state the quantities that are not sold under Commercial PPAs, nor seek any form of Revenue Support. The Proposal should also state the BO as a separate term sheet that shall be made available to parties interested to purchase such electricity via a new commercial PPA.
  - e. <u>Underlying assumptions</u> This shall comprise the information necessary to substantiate the Robustness of Assumptions. If the Proposal shares any resource with other project(s) of EMA relating to electricity import or generation, Participants shall reflect the costs of the other project(s) and indicate how the costs are allocated between the Proposal and the project(s). The information shall include:
    - i. <u>Project financial model</u>: Provide an editable financial model (in Excel format) that models all project cash flows, funding requirements and key metrics to assess the project's economic and financial viability. The financial model should clearly and transparently show how the underlying input assumptions flow through to the relevant outputs.

- ii. Project lifecycle cost breakdown: Either separately, or as part of the project financial model, a detailed breakdown of the development, construction, operation and decommissioning phase costs of the project. For the Proposal, the project cost breakdown should include a three-point estimate for the cost assumptions, reflecting the range of uncertainties around project costs.
- iii. Levelised cost of energy: Either separately, or as part of the project financial model, a breakdown of the average sale price defined as calculated as total net present revenue from selling imported electricity considering the levelised cost of energy, hurdle rate and other revenue adjustments (e.g. risk premia) divided by the total imported energy measured at the point of injection into Singapore's grid over the requested duration of the electricity importer licence that the Participant would require to develop the project.
- iv. <u>Assumptions book:</u> A detailed assumptions book, setting out the rationale and supporting data sources for the assumptions applied in the project financial model, including the annual forecast for USEP.
- 1.71 The Final Proposal's **Carbon Section** shall contain the following information:
  - a. The expected annual carbon emissions of their project for each year of the project life. This should be substantiated with data, calculations and relevant assumptions, including information stated in the Technical Section. This information shall be used to assess the Proposal's <u>annual</u> emissions factor requirement of Carbon Emissions.
  - b. How the Participant will comply with EMA's approach to RECs as stated in this document, including how the Licensee will submit relevant RECs in respect thereof annually to the EMA for verification.

## General requirements

- 1.72 Participants are encouraged to provide concise information and minimise the quantity of information contained within any supporting evidence presented, for example by only including relevant extracts where appropriate.
- 1.73 Participants are required to provide a completed document checklist accompanying their submissions using the attached template (*Submission Register.xls*). The completed Submission Register should not be password encrypted/protected nor contain the passwords to other documents.
- 1.74 The EMA reserves the right to request supporting detail in regard to the contents of any document provided within a Participant's Proposal submission in order to support its evaluation.

Proposal Submission – Technical, Commercial and Carbon Sections

- 1.75 Attachment A (*Attachment A\_Submission Requirements.pdf*) contains further details on the requirements for the Technical, Commercial and Carbon sections of Participants' Final Proposal submissions. Participants shall review this in detail to ensure they fully understand the requirements set out. Participants are reminded to consider the quantity of information requested, the stated length limits associated with each deliverable, and the format that the information is to be provided in.
- 1.76 Attachment A includes reference to the following attached templates that Participants must use when submitting the relevant part of their Final Proposal.
  - Template\_A111.doc
  - Templates\_A222\_A311\_A334\_A412\_A521\_A621\_A622.xls
  - Templates\_B21\_B31.doc
  - Template B51.xls
- 1.77 Participants are to provide the following substantiating documentation:
  - a. <u>Submission of Proposal Bond (for Final Proposal only)</u> The proposal shall submit this Proposal Bond in favour of EMA, in the form of a bank guarantee.

- b. Any other information, plans or proposals that the Participant may deem relevant.
- 1.78 The Final Proposal and any other documents provided shall be in the English language. All monetary values shall be clearly specified and denominated in Singapore Dollars.

## **SECTION 5: MODE OF SUBMISSION**

- 1.79 Participants may submit their proposals via email to <a href="mailto:regional\_grids@ema.gov.sg">regional\_grids@ema.gov.sg</a> for further discussions with EMA before the submission of a binding Final Proposal.
- 1.80 Participants are required to submit their Final Proposals through softcopy submissions via the following:

Mode of	Information or document in	Steps		
Submission	Proposal			
From 1 Jan 2	From 1 Jan 2024 onwards			
Email	<ul> <li>a. Submission Register.xls</li> <li>b. Passwords to access encrypted documents</li> <li>c. Reference number of submission</li> </ul>	Email regional grids@ema.gov.sg with email title – "[Participant's short name] Final Proposal – Passwords and Submission Register"  Each email shall be below 25 MB. Participants must clearly indicate the references to the Proposals if multiple emails are submitted.		
USB thumbdrive	Submission Register.xls     All other documents     (password encrypted for commercial documents only)	Email regional grids@ema.gov.sg to make an appointment to hand over USB thumbdrive(s) contained in a sealed envelope labelled with the Participant's name, company and reference number (as reference for proposal bond agreement).		

1.81 Participants shall adhere to the following information and confidentiality management for submission:

Document	• [Participant's short name]_[Section <sup>11</sup> ]_[Document Name] <i>e.g.</i>	
Name	EMA_Entity_Forms A to D	
	Number of characters in document name shall not exceed 100.	
Document	Only the Commercial section must be password	
Encryption	encrypted/protected.	
	Please avoid including commercially sensitive information in	
	other sections of the proposal.	

- 1.82 The soft copies shall be submitted in both native and PDF format.
- 1.83 EMA will acknowledge receipt of all submissions electronically by 4pm Singapore time within 2 business days. Please promptly contact us if you have not received an acknowledgement of your submission by then.

#### **Allowance for Clarifications**

- 1.84 Participants may engage EMA for clarifications on this document. All clarifications must be formalised in writing to EMA and sent via email to EMA from the email address specified in *Form A*. Formal clarifications by EMA will be in writing only.
- 1.85 Notwithstanding the above, EMA is open to meet with Participants on a one-toone basis to clarify any aspects of this documents. These meetings serve only as informal discussions, and nothing said or communicated by EMA during such meetings shall be taken as a formal response or be binding upon EMA.
- 1.86 EMA may invite Participants to make presentations to EMA with regard to their Proposals, if necessary. Such presentations will be arranged by EMA. In the event EMA requests for written clarification with regard to any aspect of the Participant's Proposal, the Participant shall use reasonable endeavours to provide full and comprehensive responses within seven (7) business days of such request.

<sup>&</sup>lt;sup>11</sup> (Default) Sections include (i) Entity, (ii) Technical – A1 to A5, (iii) Technical – A6, (iv) Commercial, (v) Carbon, (vi) Contingent Capacity.

1.87 After submission of the Proposals, EMA may engage the Participants to clarify on various aspects of their Proposals. During such engagements, EMA may require the Participants to confirm their clarifications or replies in writing.

## **Validity of Proposals**

1.88 All Final Proposals submitted shall remain valid and binding, and may not be withdrawn until a date mutually agreed with EMA. Unless expressly provided for, Final Proposals may not be modified unless approved by EMA.

#### **Conditional Approval and Conditional Licence**

- 1.89 EMA may provide Conditional Approval to Final Proposals that are sufficiently attractive and suitable. Prior to EMA's issuance of the Conditional Approval, the Participant and EMA shall enter into a Proposal Bond Agreement, as set out in **Annex B**.
- 1.90 Following the issuance of a Conditional Approval, EMA may also issue a Conditional Licence and/or full Importer Licence to those who meet our specific obligations and condition precedents.

#### **Compliance with Instructions**

- 1.91 Participants shall submit their Proposals in accordance with all the requirements set out in this document. Incomplete submissions could be deemed invalid and may not be considered by EMA.
- 1.92 EMA shall not be liable to any Participant for any information in this document which is incomplete or inaccurate. It is the Participant's responsibility to acquaint itself with the information contained in this document and all other information that it may need to know to prepare its Proposal or to subsequently function and operate as an Importer if appointed by EMA.
- 1.93 All expenses incurred in the preparation and submission of any Proposals, including discussions with EMA and other relevant stakeholders, shall be borne by the Participants and no claims for any reimbursement of costs or expenses incurred, direct or indirect damages or losses, lost profits, will be considered by EMA, regardless of the acceptance or rejection of any Proposals.

- 1.94 Participants shall not make use of any information or material obtained directly or indirectly from EMA, without the prior written consent of EMA, other than for the purposes of submitting a proposal to EMA.
- 1.95 Participants shall not disclose any information or material obtained directly or indirectly from EMA, without the prior written consent of EMA, to any third parties.
- 1.96 EMA is not obligated to disclose any information with regard to any Participant's Proposal.
- 1.97 Participants shall recognise that EMA may publicly disclose the identities of the Participants that submit their Proposals. EMA may also disclose material aspects of the Participants' proposed supply and interconnector locations to relevant Singapore and overseas government authorities, so as to verify and determine that the Proposals are executable.
- 1.98 EMA reserves the right to accept or reject any or all Proposals and its decision shall be final and shall not be subject to any appeal. EMA will not entertain any correspondences concerning the acceptance or rejection of any Proposal (including but not limited to the reasons for the acceptance or rejection of any Proposal). This includes the rejection of any Proposals from Participants that EMA deems to have made use of privileged information due to their prior work with EMA.
- 1.99 The validity, interpretation and performance of this document and any Proposals submitted by Participants in response to this document shall be governed by and construed in accordance with the laws of the Republic of Singapore without regard to the principles of conflicts of law thereof. By submitting a Proposal, the Participant hereby irrevocably submits to the exclusive jurisdiction of the courts of the Republic of Singapore.
- 1.100 A waiver by EMA of any term, requirement, or condition of this document in any instance shall not be deemed or construed as a waiver of such term or condition for the future, or of any subsequent breach of the process thereof.

- 1.101 EMA reserves the right to make revision to this document via updating of this document or issuing any other publication (e.g. corrigendum or addendum). Where EMA issues a revision, EMA and the Participants shall execute such further documents and take such further steps as may be reasonably necessary or desirable to effectuate the purposes of this document.
- 1.102 All information related to this document shall remain the property of EMA. All documents submitted by the Participant in response to this document shall become the property of EMA. However, any intellectual property in the information contained in the Proposal submitted by the Participant shall remain vested in the Participant. EMA will keep the details of all Proposals confidential unless it is required by law to disclose any information related to a Proposal.
- 1.103 This document is furnished solely for the purpose of assisting Participants in making their own independent evaluation of the roles and requirements of an Importer. It is not meant to be all-inclusive or to contain all the information that a Participant may require to submit a Proposal, and/or to subsequently perform the role of an Importer if appointed by EMA. Participants should make their own assessment regarding the relevance and adequacy of the information contained in this document and should carry out their own due diligence to assess/determine whether to submit a Proposal and/or subsequently perform the role of an Importer if appointed by EMA.
- 1.104 No part of this document shall be construed as forming part of or used to interpret any subsequent contracts entered into by the Participant, whether with downstream retail customer or any other party.
- 1.105 EMA does not make any representation or warranty, express or implied, as to the accuracy, completeness or reasonableness of the information contained in this document or any modification, corrigendum or addendum issued thereto, or any other written statement which is otherwise communicated or made available to the Participants, whether by or on behalf of EMA, nor does EMA accept any liability in relation to any such information or statement for any lack of accuracy, completeness or reasonableness.

- 1.106 Nothing said, written or done by EMA shall be construed as fettering or restricting EMA's powers or discretion in relation to any power or obligation it has under any written law that may apply to the Conditional Approval, Conditional Licence, Importer Licence, any regulatory approvals or any licence. For avoidance of doubt, such written law includes the Energy Market Authority of Singapore Act 2001 and the Electricity Act 2001.
- 1.107 Nothing said, written or done by EMA purports to be or shall be construed as a grant by EMA of Conditional Approval or any electricity licence under the Electricity Act 2001 (including any Conditional Licence), or as any representation or commitment by EMA of the same.
- 1.108 EMA reserves the right to terminate or suspend the proposal submission process at any point in time for any reason before the appointment of any Importer(s) and shall not be liable for any expenses or costs incurred by any Participant or any other person as a result thereof.
- 1.109 EMA may use the information provided in the Final Proposal to conduct due diligence checks on the entities and/or persons related to the project, via third-party service providers.

## FORM OF SUBMISSION

Having examined the Submission Requirements for Electricity Imports Proposals issued by the Energy Market Authority ("EMA"), we attach our Final Proposal comprising the following items for EMA's consideration:

- i. Form of Submission.
- ii. **Submission Register**

Whereas it is understood that the EMA reserves the right to accept or reject this Final Proposal without divulging any reason, we: (a) warrant that the information provided in this Final Proposal is valid and correct; and (b) acknowledge and agree to all the terms and conditions set out in the Submission Requirements for Electricity Imports Proposals and the application thereof to our Final Proposal.

Dated this _	day o	of	2024.
Authorised Signature of Participant		Authorised Signature of Witness	
Name		Name	
Designation		Designation	
Company Address		Company Address	
Company Stamp		Company Stamp	
NOTICE			pany every Final Proposal. Any ler the submission liable to

# FORM A

# OFFICIAL POINT-OF-CONTACT OF PARTICIPANT

Please submit Form A to EMA via email (**Regional Grids@ema.gov.sg**) as soon as practicable.

Participant Name:	
Name of Contact Point:	
Designation:	
Email:	
Contact Number:	
Agreement for name and email of	Yes / No
Contact Point to be listed on EMA's	
website	
[Mandatory] Agreement for name of	Yes / No
Participant to be listed on EMA's	
website with Final Proposal submission	

# **FORM B**

# STRUCTURE AND ORGANISATION OF PARTICIPANT

Item	Details
Full Name of Participant	
(Note 1)	
Registered Address	
Contact Person's name	
Telephone	
Email	
Facsimile	
Legal Form (Note 2)	
Memorandum and Articles	
of Association and Joint	
Venture Agreement Attached	
(Note 3)	
Structure / Organisational	
Charts Attached	
	(Note 1)  Registered Address  Contact Person's name Telephone Email Facsimile Legal Form (Note 2)  Memorandum and Articles of Association and Joint Venture Agreement Attached (Note 3)  Structure / Organisational

## Notes:

- (1) In case of a consortium, names of all Consortium Members MUST be included.
- (2) E.g. company, partnership, cooperative, consortium, joint venture, etc.
- (3) Or similar agreement (e.g. shareholders agreement, consortium agreement, etc.)

# FORM C

# **PARTICIPANT MEMBERS**

No	Item	Lead Member	Member 1	Member 2	Member 3
1	Name				
2	Country of Registration				
3	Registered Address				
4	Name, Position and Designation of Contact				
	Person				
5	Value of Contribution (Share of Total Equity)				
6	Description of Company				
7	Ultimate beneficial owners (if not listed) or listed				
	parent company/companies				

Note: The Participant shall produce additional forms for additional members, as necessary.

# FORM D

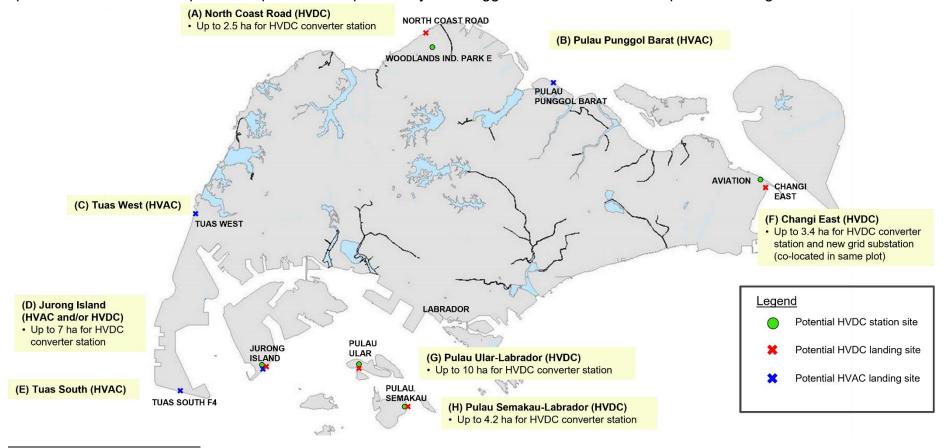
# PERSONS EMPOWERED TO ACT

The following persons are empowered to sign contract documents and act on the Participant's behalf for this project:

Full name	Nationality / identification number	National	Position project	Held	for	this

#### ANNEX A: POTENTIAL SITES FOR ELECTRICITY IMPORTS

The diagram below shows the potential sites that may be reserved for the purposes of electricity imports<sup>12</sup>. Participants may write to EMA to express interest in these sites, via the process specified in **Section 4**. As landing sites are scarce and may not suit the specific needs of a Participant's Proposal, Participants may also suggest the use of their own private landing sites<sup>13</sup>



<sup>&</sup>lt;sup>12</sup> The allocation of the sites to the Participant is subjected to the approval of the relevant planning and technical agencies.

<sup>&</sup>lt;sup>13</sup> The use of the private landing sites for landing electricity imports will be subject to the approval of the relevant planning and technical agencies.

<sup>&</sup>lt;sup>15</sup> Singapore Power will be responsible for the connection of the HVDC converter station to the grid substation on the mainland.

#### ANNEX B: PROPOSAL BOND AGREEMENT

#### PROPOSAL BOND AGREEMENT

This Proposal Bond Agreement ("Agreement") is entered into between:

(1)	<b>ENERGY MARKET AUTHORITY</b> , a body corporate established under and by virtue
	of the Energy Market Authority of Singapore Act 2001 and having its principal office at
	991G Alexandra Road #01-29 Singapore 119975 ("Authority"); and

(2)	[NAME OF F	PARTICIPANT	] incorporated	and regist	ered in Singa	pore with	comp	any
	registration	number		whose	registered	office	is	at
		,	("Participant")	,				
(indivi	dually a " <b>Party</b>	", and collecti	vely "Parties").					

# WHEREAS:

- A. A participant's proposal to import and sell low-carbon electricity in Singapore shall comprise of a finalised proposal (after discussion with the Authority) which shall be binding for the Authority's evaluation;
- B. Having reviewed the final proposals submitted, the Authority will grant conditional approval to selected final proposals of selected participants ("Conditional Approval"), which sets out certain conditions and conditions precedent to be fulfilled. Upon being granted Conditional Approval, the selected participants will be required to provide a proposal bond in the form of a performance bond issued in favour of the Authority for the sum equivalent to the total of \$\$0.5 million per each 100MWac (or part thereof) of the Import Capacity that is proposed in the Participant's final proposal ("Proposal Bond");
- C. Subject to the Authority's satisfaction that the selected participants have fulfilled all conditions and conditions precedent set out in the Conditional Approval, the Authority intends to subsequently award them each with a conditional electricity import licence on the basis of their respective final proposals ("Conditional Licence"), and require them to furnish a performance bond on terms specified ("Performance Bond"). The Authority may then subsequently grant an electricity importer licence ("Importer Licence") to each of the selected participants, upon the Authority's satisfaction that they have, amongst other things, fulfilled all relevant obligations and conditions precedent; and

D.	The Participant has sub	mitted a final pro	oposal to import and	I sell electricity in Singapore
	reference	dated	("Final Proposal");	and

E. The Parties agree to comply with the following terms set out therein, for the Participant to provide the Proposal Bond as aforementioned.

#### NOW IT IS HEREBY AGREED AS FOLLOWS:

#### 1. Issuance of Proposal Bond

- 1.1 In consideration of the Authority's review and consideration of the Final Proposal and the Authority granting Conditional Approval to the Participant on the basis of the Final Proposal, the Participant agrees to provide the Proposal Bond as security for the due and faithful performance by the Participant in relation to its submission of the Final Proposal.
- 1.2 The Proposal Bond shall be in the form of an irrevocable on-demand performance bond for a sum equivalent to the total of S\$0.5 million per each 100MWac (or part thereof) of the Import Capacity that is proposed in the Final Proposal ("Maximum Amount"), to be issued in favour of the Authority by a local bank, wholesale bank, qualifying full bank or full bank or insurance company approved by Monetary Authority of Singapore in the prescribed form as set out in APPENDIX A (or in any other form that may be expressly agreed upon in writing by the Parties).

## **1.3** The Participant undertakes:

- (a) to procure that the validity of the Proposal Bond shall be for at least from the date of submission of its Final Proposal until the date of award of the Conditional Licence to the Participant (if it is so awarded) or for any period as may be expressly agreed upon in writing by the Parties; and
- (b) to promptly procure any necessary extension(s) and/or replacement(s) of the Proposal Bond where necessary and/or where so reasonably requested by the Authority, and to promptly provide the Authority with the relevant documents evidencing the same.
- 1.4 The Participant expressly agrees that the Authority shall, at any time and at its sole and absolute discretion, be entitled to call on the Proposal Bond for the Maximum Amount (or any part thereof), should the Authority be of the view that the Participant has failed to carry out its due and faithful performance in relation to its submission of the Final Proposal. This includes, but is not limited to:
  - (c) the Participant withdrawing its Final Proposal;
  - (d) the Participant amending the terms of its Final Proposal without the Authority's written approval, before the date of the award of the Conditional Licence or on a date mutually agreed between the Parties, whichever is later;
  - (e) unless otherwise expressly stated, the Participant having, in full or in part, and for any reason due to the Participant, refused or failed to carry out any obligation or condition precedent required by the Authority in order for the Participant to be awarded the Conditional Licence or the Importer Licence (if the Participant is so awarded the Conditional Approval); or

- (f) the Participant having, in full or in part, and for any reason whatsoever, rejected or failed to accept the terms or conditions of the Conditional Licence or Importer Licence awarded by the Authority.
- 1.5 The Proposal Bond shall be returned to the Participant on its expiry date or on a date mutually agreed between the Parties unless the Participant is awarded the Conditional Licence in which case the Proposal Bond shall be retained by the Authority and returned only upon the Participant having furnished the Performance Bond as required. Notwithstanding the above, and for the avoidance of doubt, the Participant shall ensure the continual furnishment of a valid Proposal Bond until the Participant is awarded the Conditional Licence (if it is so awarded) and the Participant furnishes the required Performance Bond, unless there is mutual agreement between Parties for the Proposal Bond to be returned earlier.
- 1.6 This Agreement shall commence upon due execution by the Parties and shall expire on a date to be mutually agreed by Parties, unless the Participant is awarded the Conditional Licence in which case the Agreement shall expire only upon the Authority's receipt of the Performance Bond required to be furnished by the Participant.

#### 2. General

- **2.1 Interpretation.** Capitalised terms in this Agreement shall bear the same meaning as those defined in the Submission Requirements for Electricity Imports Proposals, save where otherwise expressly defined herein.
- **2.2 Assignment and other dealings.** Neither Party shall assign, transfer, mortgage, charge, subcontract, declare a trust over or deal in any other manner with any of its rights and obligations under this Agreement.

## 2.3 Entire agreement.

This Agreement constitutes the entire agreement between the Parties with respect to the Participant's obligation to provide the Proposal Bond as required, and supersedes and extinguishes all previous agreements, promises, assurances, warranties, representations and understandings between them, whether written or oral, relating to its subject matter.

- **2.4 Variation.** No variation of this Agreement shall be effective unless it is in writing and mutually agreed upon by Parties.
- 2.5 Waiver. No failure or delay by a Party to exercise any right or remedy provided under this agreement or by law shall constitute a waiver of that or any other right or remedy, nor shall it prevent or restrict the further exercise of that or any other right or remedy. No single or partial exercise of such right or remedy shall prevent or restrict the further exercise of that or any other right or remedy.

#### 2.6 Notices

(a) Any notice or other communication given to a Party under or in connection with this agreement shall be in writing and shall be sent by way of e-mail to the following:

## **The Authority:**

E-mail address: <a href="mailto:regional\_grids@ema.gov.sg">regional\_grids@ema.gov.sg</a>

Attention: Energy Connections Office

#### The Participant:

E-mail address: [E-MAIL]

Attention: [NAME]

- (b) Save as otherwise provided for in this Agreement, any notice or communication sent by way of e-mail shall be deemed to have been received at the time of transmission of the e-mail.
- (c) If deemed receipt under Clause 2.6(b) occurs outside of Business Hours, it shall be deferred until Business Hours resume. For the purposes of this Clause 2.6(c), Business Hours shall mean 9.00am to 5.00pm and shall exclude Saturdays, Sundays and public holidays in Singapore.
- (d) This clause does not apply to the service of any proceedings or other documents in any legal action or other method of dispute resolution.

## 2.7 Third party rights

This Agreement does not give rise to any rights under the Contracts (Rights of Third Parties) Act 2001 to enforce any term of this Agreement.

#### 3. Governing law

This Agreement and any dispute or claim (including non-contractual disputes or claims) arising out of or in connection with it or its subject matter or formation shall be governed by and construed in accordance with the laws of the Republic of Singapore.

#### 4. Jurisdiction

Each Party to this agreement irrevocably agrees that the courts of Singapore shall have non-exclusive jurisdiction to hear, settle and/or determine any dispute, controversy or claim (including any non-contractual dispute, controversy or claim) arising out of or in connection with this Agreement, including any question regarding

its existence, validity, formation or termination. For these purposes, each Party irrevocably submits to the non-exclusive jurisdiction of the Singapore courts.

Signed by

[NAME OF AUTHORISED SIGNATORY] [title]	
for and on behalf of	
ENERGY MARKET AUTHORITY	
	Date:
Witnessed by	
[NAME OF WITNESS]	
[title]	
Signed by	
[NAME OF AUTHORISED SIGNATORY]	
[title]	
for and on behalf of	
[PARTICIPANT]	Date:
Witnessed by	
[NAME OF WITNESS]	
[title]	

# APPENDIX A: SPECIMEN OF PROPOSAL BOND

To:	Energy Market Authority (hereinafter called "Authority").
Participand the and fait irrevocus \$0.5	Whereas on the day of a Proposal Bond Agreement nafter called "Agreement") was made between (name of pant) of (address) (hereinafter called "Participant") of the one part e Authority of the other part, whereby the Participant agreed that, as security for its due ithful performance in relation to its submission of the Final Proposal, it would provide an cable on-demand bond in favour of the Authority for the sum equivalent to the total of million per each 100MWac (or part thereof) of the Import Capacity that is proposed in rticipant's Final Proposal.
	We (at the request of the Participant) hereby agree as follows:
1.	We shall unconditionally pay to the Authority any sum or sums up to a maximum aggregate of Singapore Dollars (S\$) ("Proposal Bond Sum") upon receiving your first written demand for payment made pursuant to Clause 4 of this Proposal Bond without any proof of actual default on the part of the Participant and without need to satisfy any other condition.
2.	We shall not be discharged or released from this Proposal Bond by any arrangement between the Authority and the Participant with or without our consent, or by any other or further arrangement between the Participant and us with or without the Authority's consent, or by any alteration in the obligations undertaken or to be undertaken by the Participant or by any forbearance on the Authority's part whether as to payment, time, performance or otherwise.
3.	Our liability under this Proposal Bond shall continue and this Proposal Bond shall remain in full force and effect from [insert effective date:] until [insert initial expiry date:] (the "Expiry Date").
4.	This Proposal Bond is conditional upon a claim being made by the Authority at any time and as many times as the Authority may deem fit by way of a notice in writing addressed to us and the same being received by us at [insert address of Bank's notification office: ] before the end of 3 months from the expiry of this Proposal Bond.
5.	We shall be obliged to effect the payment required under such a claim within <b>14</b> business days of our receipt of the written notice from the Authority. We shall be under no duty to inquire into the reasons, circumstances or authenticity of the grounds for such claim and shall be entitled to rely upon the Authority's written notice received by us as final and conclusive. For the purposes of this Proposal Bond, "business day" means a day other than a Saturday, Sunday, or public holiday in Singapore.
6.	The Authority may make more than one claim on this Proposal Bond so long as the aggregate amount specified in all such claims does not exceed the Proposal Bond Sum.
7.	This Proposal Bond is issued subject to the laws of the Republic of Singapore and the jurisdiction of the Singapore courts.

Dated this day of	
AS WITNESS our hand	
Signed by: (Name and designation of officer)	
for and on behalf of the	
(Name of Bond Issuer)	(Signature)
in the presence of	
Name	
Designation	
	(Signature of Witness)