

29 November 2021



To : All Applicants

Dear Sir/Mdm,

JTC21T0092 – JURONG ISLAND RENEWABLE ENERGY REQUEST FOR PROPOSAL

CORRIGENDUM NO. 2

1. Applicants shall note that the Clarification No. 2 is attached as Appendix 1 in this Cover Letter.

Yours faithfully,

Tan Chee Kiat
Director
Future of Building & Infrastructure Division
<This is an electronic document. No signature is required>

JURONG ISLAND RENEWABLE ENERGY REQUEST FOR PROPOSAL

QUERIES AND RESPONSES

S/N	Query	Response
Proposal Submission		
1	<p><u>Applicant and Project Team</u></p> <ul style="list-style-type: none"> Should the proposal be industry or IHL driven? Is IHL/RI considered as "non-SME awardees" i.e. they can also lead the project? Does EMA/JTC govern or stipulate any criteria regarding who can be considered as a partner in the joint application? For non-local SMEs, are they allowed to participate in this RFP? What about overseas state-owned companies? Any residency requirement for project team members? Must they be 100% based in SG? 	<p>The Applicant shall be led by a private sector company, and can partner other private sector companies, Institutes of Higher Learning (IHLs), Research Institutes (RIs), public sector agencies and/or not-for-profit organisations. IHLS and RIs are not allowed to be lead applicants.</p> <p>For non-local-SME-led Applicant, local SME(s) should be involved in a substantive and meaningful way (e.g. core technology coming from/or co-developed with local SME(s)).</p> <p>Overseas companies are welcome to participate in this RFP. They should illustrate how they intend to partner local SMEs and/or IHLs/RIs, as well as clearly stating the roles of the consortium members.</p>
2	<ul style="list-style-type: none"> If Company A is a provider of the demonstration site and works with the solution provider to incorporate Terminal requirements (e.g. in terms of technical, operational, safety etc.) when they design the solar installations for the Terminal, can they be considered a partner (and hence submit the proposal in a consortium with the solution provider)? 	<p>EMA and JTC will defer to Company A to negotiate and finalise with its solution provider(s) on the collaboration arrangement for the purpose of submitting the proposal.</p>

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3	<ul style="list-style-type: none"> Can we have more than 2 companies to form a consortium? Must a formal consortium agreement be signed between companies for them to jointly apply under this RFP? Can SMEs be part of more than 1 consortium each of which may be proposing a different end solution for the RFP which incorporates the SME's technology? On the topic of collaborations - What would an ideal consortium structure that JTC & EMA are looking out for a comprehensive RFP submission? Can the consortium be without any IHL? Can 3rd party technical consultants be part of a consortium to help support the deployment of the technology? 	<p>There is no limitation on the size of the project team. There is no requirement for formal consortium agreement for the purpose of participating in the RFP. Nevertheless, JTC and EMA strongly encourage the consortium to work out the arrangement as soon as possible, and to finalise the arrangement prior to project award.</p> <p>Companies can be part of more than one consortium. However, the end solution for the RFP should not be replicated.</p> <p>JTC and EMA will defer to the Applicant to decide on the consortium structure, as long as the consortium members are agreeable on their respective roles and responsibilities, and their contribution to the project.</p>
4	<p><u>Facilitation of Collaboration with Partners</u></p> <ul style="list-style-type: none"> Will JTC/ EMA be sharing the details of the industry participants of the briefing? Can JTC/EMA consider collating potential end users to assess the technology and be committed to accept solutions instead of having the proposal submission companies to approach the JI Company? Can we get the list of industry in Jurong Island and their activities for choosing the suitable development partner? What is the distribution of the industrial companies in Jurong island and what are their energy requirements? On the topic of end user engagement - Are we allowed to engage the existing infrastructure owners at Jurong Island to study commercial feasibility? Can we get the list of industry in Jurong Island and their activities for choosing the suitable development partner? Can we visit Jurong Island in order to find out more realizable solution in our proposal. 	<p>Interested companies may list their contacts and company information at https://www.form.gov.sg/6191de786761d90013028dbf by 29 Nov 2021, 12pm. This list will subsequently be circulated to facilitate potential tie-ups. No late submissions will be entertained.</p> <p>Jurong Island houses more than 100 companies in the Energy and Chemical sector. The energy requirements differ across the companies. Interested Applicants might wish to approach their potential end users directly for relevant information.</p> <p>JTC and EMA will not facilitate any site visits to Jurong Island. That said, interested Applicants are encouraged to engage their potential end users regarding their problem statements.</p>

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5	<p><u>Testbed Location for RFP</u></p> <ul style="list-style-type: none"> • Is there any JTC space allocated for this RFP beyond JI companies' spaces? • Will JTC/ EMA be sharing specifications of the spaces that the solutions can be deployed on? • Would JTC be open to support the successful project with "kind", such as available land on JI, aside from the \$6M? • Are the projects limited to Jurong Island only or can be installed at HDB all over Singapore? 	<p>Testbeds/trials should be relevant to the Energy and Chemical (E&C) sector and are encouraged to be carried out within the premises of an E&C company on Jurong Island or mainland Singapore. This is to facilitate subsequent commercialisation and scaling up of the solution.</p> <p>Notwithstanding, for innovative projects that are assessed to be of high relevance, JTC may consider allocating space for the testbed. However, the Applicant should clearly articulate in the proposal why a space cannot be provided by an industry end-user.</p>
6	<ul style="list-style-type: none"> • There were land parcels, rooftops and dead sea spaces available in RFI. None of these were mentioned in this RFP. Is JTC still looking to tap onto these spaces? 	<p>These spaces are dedicated for commercial purposes and will be launched separately. More details will be shared once ready.</p>
7	<p><u>Fund Eligibility and Criteria</u></p> <ul style="list-style-type: none"> • What is the maximum project cost? • Who will fund the remaining 30% of project costs after 70% is funded for the SME? Do IHL/RI have to bear the remaining 30% of project costs for their own portion? Can this 30% cost be in-kind and not in cash? • What is the allowable grant support for MNC, and grant support for IHL budget in the consortium? • On the funding support, if it is a joint partnership between a SME and a non-SME, what is the % of the subsidy? 	<p>There is no fixed cap on the project cost. JTC and EMA have set aside S\$6 million for this RFP.</p> <p>SME-led awardees will qualify for up to 70% funding support of the approved project budget. Non-SME-led awardees (e.g. MNCs, large local enterprise) will qualify for up to 50% funding support of the approved project budget.</p> <p>The remaining 30%/50% of the approved project budget will be borne by the project team. The approved project budget excludes in-kind contribution from project team. Please refer to Annex A of the Information Letter for the list of supportable cost.</p> <p>For partnerships and consortia, the funding support will be dependent on the Applicant (i.e. if a SME is the Applicant, the support shall be up to 70%. If MNC is the Applicant, the support shall be up to 50%). There shall be only one Applicant per proposal.</p>

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8	<ul style="list-style-type: none"> Are IHL partners eligible for the direct funding or just eligible to consultancy fees payable from the company? If the proposal is submitted in a consortium, which party will the funds be disbursed? If the Awardee cannot find an End User by 12 months after the Award, does it have to refund back the funding that have been provided thus far? 	<p>JTC and EMA will reimburse the supportable project costs to the Applicant via a milestone achievement, reimbursement model. Applicant shall negotiate and determine the funding arrangement with its project partners.</p> <p>As the project is on a reimbursement basis, with the funding disbursed upon successful completion of each milestone, JTC and EMA will not seek to recover any funding disbursed.</p>
9	<ul style="list-style-type: none"> Is there any restriction or % allocation to research, equipment purchase, construction, consultants etc? If an IHL/RI partners up with an SME, can the IHL/RI claim 100 % of its required funding? Will overhead be claimable? Is IHL overheads funded? Does the funding support CAPEX and OPEX costs during the project? 	<p>Please refer to Annex A of the Information Letter on the supportable costs and the respective caps on the cost items (where relevant). Applicant shall clearly state the required funding for each cost item and provide justifications. Please note that funding will be disbursed via a reimbursement model.</p> <p>For projects involving IHLs/RIs, the overheads of IHLs/RIs may be factored into the project budget. However, the project's funding support will remain at 70% of the approved project budget for SME-led Applicant and 50% for non-SME-led Applicant.</p>
10	<p><u>Project Duration</u></p> <ul style="list-style-type: none"> 2 years seem to be very short for anyone to develop any RE assets and allow for power generation. How can we tackle this? Are the 2 years purely for development? Or is the time allowed for the technologies to be located on JI and after the 2 years, all commercial arrangements end? 	<p>The stipulated project period is two years, with a maximum extension of not exceeding six (6) months.</p> <p>If Applicant assesses that two years is too short, the Applicant may consider submitting a proposal that covers the technology development stage within the two years period. Please note the supportable project stages of this RFP in Information Letter, para 4.1.</p>
11	<p><u>Scope of RFP</u></p> <ul style="list-style-type: none"> Are participants required to fulfil all 3-problem statements or 1 of them? Will there be preference for participants who can fulfil all? What type of proposals are JTC/EMA most interested to award? Can proposals be related to: <ol style="list-style-type: none"> Renewable energy solutions coupled with on-island solutions Energy Storage solutions that is newly commercialized (beyond TRL metrics), 	<p>The proposal shall address at least one of the three problem statements listed in the Information Letter. Applicant may choose to submit separate proposals to address different problem statements.</p> <p>Applicants are required to clearly articulate the innovation in their proposal and how it addresses the problem statements.</p> <p>EMA and JTC welcome both hardware and software solutions, so long as they address at least one of the problem statements.</p>

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	3. Regenerating industrial waste from Jurong Island 4. Material innovation or energy management solutions 5. Solutions that will reduce Air conditioning consumption 6. Projects in relation to Hydrogen Carrier (such as LOHC, NH3)? 7. Solutions which are beyond Jurong Island company applications? <ul style="list-style-type: none"> • This RFP seems very skewed towards hardware solutions. Does a solution like Electrify's P2P energy trading have a place to play in this? • The challenge statements are prone to hardware. How is software appreciated in the RFP? 	
12	<ul style="list-style-type: none"> • Solar and BESS are quite mature technologies. What are the innovations JTC is looking for? 	While there are mature solar and BESS solutions, there are also other renewable and energy storage solutions that are being developed and may have improved features over existing technologies. These would be the technologies that JTC and EMA are interested in.
13	<ul style="list-style-type: none"> • What are the carbon storage options in Singapore? 	Applicants may explore carbon storage options if their solution/technology has a strong commercial viability potential and is applicable in Singapore's context.
14	<ul style="list-style-type: none"> • What is the starting TRL for the technologies to be proposed for this RFP? 	This RFP generally targets solutions and technologies with TRL between 6 to 9. However, we are open to assess and fund high potential proposals which are in the TRL of 4 to 6 for prototyping.
15	<ul style="list-style-type: none"> • Are there any testing, inspection and certification requirements? • What are the critical safety issues around Jurong Island? 	Testing, inspection and certification requirements and safety considerations should be discussed by the Applicant with the potential Jurong Island company/ end-user company supporting the development of the project.
Project Evaluation		
16	<u>Project Assessment</u> <ul style="list-style-type: none"> • Is there any difference in the assessment or evaluation process if (i) Company A applies 	There may be a difference in terms of assessing the track record and expertise of the project team,

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	as a joint partner together with the solution provider, versus (ii) if Company A chooses to provide a letter of intent instead to support the solution provider's application?	among others. Please refer to the "Information" document, Para 1.5 for the Selection Criteria.
17	<ul style="list-style-type: none"> If the submission for a particular technology in this RFP gets deployed independently during the course of this RFP, will it get disqualified from the grant? 	<p>The scope of the proposal must not have commenced at the time of RFP application. Applicant shall declare in its proposal if the same or similar scope is being developed outside of the RFP application.</p> <p>Proposal may be disqualified if the abovementioned declaration is found to be untruthful.</p>
18	<ul style="list-style-type: none"> Is JTC able to sign NDA for technology shared? Or will it be open to all? 	No, JTC and EMA will not sign any NDA for technology shared. Applicants may choose the level of details which they are comfortable to share to allow JTC and EMA to make the necessary assessment of their proposal.
19	<ul style="list-style-type: none"> How long will the assessment of the proposals take? 	EMA and JTC target to evaluate and award the proposals by July 2022.
20	<p><u>Project Milestones</u></p> <ul style="list-style-type: none"> It is stipulated in the information letter that the funds will only be disbursed on a project-milestone basis. Can we confirm that the project milestones will be something that have to be agreed by EMA/JTC as well as all partners involved in the joint application? How will project milestones be assessed? 	<p>Yes, the Applicant should discuss and seek consensus on the project milestones within the project team. EMA and JTC would liaise with the Applicant on the project milestones.</p> <p>Project milestones proposed by the Applicant shall be relevant, reasonable and meaningful to the project. The milestones would be assessed according to the evaluation criteria stipulated in Information Letter para 1.5.</p>
21	<ul style="list-style-type: none"> For submissions, do interested parties need to submit 1 proposal at a time or can it be 1 big project consisting of multiple smaller sub initiatives? 	There are no stipulations with regard to how the proposal should be structured. Applicants may consider submitting proposal(s) that best illustrates their solutions' level of innovativeness and commercial adoptability.
Project Award		
22	<ul style="list-style-type: none"> How many awardees will be selected for this programme? 	The number of awardees is not fixed and will be subject to the quality of the proposals submitted.
23	<ul style="list-style-type: none"> What is the likelihood of non-SME companies participating and getting awarded in this RFP? 	All proposals will be assessed based on its merits according to the assessment criteria listed in the Information Letter, para 1.5. Supportable project

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	<ul style="list-style-type: none"> Is it true that a solution that is technically viable but yet to prove commercial viability, the RFP will support submission that prove commercial viability? 	stages of this RFP are given in the Information Letter, para 4.1.
24	<ul style="list-style-type: none"> Is the grant/funding subject to taxes in Singapore? 	All necessary prevailing taxes are to be included in the project budget (e.g. GST for equipment to be bought). Subsequently, the total funding support will be 70% of the project budget for SME-led applicants and 50% for non-SME-led applicants.
Post Project Arrangements		
25	<p><u>Asset Arrangements</u></p> <ul style="list-style-type: none"> After the testbed period, what will happen to the installed hardware? Post Project Duration, can the assets acquired through the funding be removed from the End Users site? Who owns the asset at the end of the 2 years? What happened to the setup and deployed technologies after the testbed periods? 	<p>Companies are encouraged to explore scaling up and commercialising the deployed solution after the project implementation period.</p> <p>JTC and EMA will defer to the project team to negotiate with the end-user on the arrangements for the installed hardware after the project has concluded, including asset ownership. No additional funding will be provided for the equipment removal.</p>
26	<p><u>IP Arrangements</u></p> <ul style="list-style-type: none"> Will the solution IP developed have to be public or can the solution IP be kept private as long as it helps with Singapore's sustainability goals? 	JTC and the awardee will co-own foreground IP developed through the project.