

Project Idea Note for JCM Project **(Provisional Draft)**

環境省水素等新技术導入事業の記入指針及び記入例

PIN reference number	(For the secretariat use only)
-----------------------------	--------------------------------

All the information described in this document is at the pre-implementation stage and may change as the project develops. (入力フォントは **Times New Roman** をお願いします。)

1. Basic project information	
1.1. Date of Submission	25/08/2023 (公募提案書の提出日形式は dd/mm/yyyy)
1.2. Partner country (A host county where the planned project is located)	Republic of Indonesia (パートナー国名は正式国名を確認の上記載する。) 別資料(パートナー国名一覧表)参照のこと。
1.3. Title of the planned project (Should be self-explanatory and clearly indicate the activity leading to GHG emissions reductions / removals)	3MW Hydrogen Power Generation Project at Medan, North Sumatra (公募提案書の英語事業名と一致すること、なお、事業名に国名は入れないでください。)

The Joint Committee makes the result publicly available, including the PIN reference number, the name of the planned project, the date of submission in the above, and the reason for objection when the Joint Committee objects to the planned project described in the PIN through the JCM website.

2. Project participants and contact information	
2.1. Representative Japanese participant for the project and its roles in the project (For identification of the person in charge for the project in terms of communication) (代表事業者の主な窓口担当に関する情報)	
Name of the entity (Company, etc.):	ABC Corporation (事業者名)
Roles of the entity in the project:	<ol style="list-style-type: none"> 1. Project Administration 2. Submission of Monitoring Result to MOEJ 3. Submission of the demonstration results to MOEJ 4. Design of the equipment and facilities 5. Outsourcing management (事業者の役割(事業の実施責任、MRVの報告等)を記入)
Address of the contact entity:	3-19-4, Hongo, Bunkyo-ku, Tokyo (代表事業者住所)
Website of the contact entity:	http://www.abc.corp.jp/english/ (英語のウェブサイトのアドレス)
Name and position of the main contact person in the entity:	Last name: Chikyu (姓) First name: Midori (名) Position: Manager (役職) Department: Environmental products (所属部署) (窓口担当者名及び役職、所属部署を記入)
E-mail of the main contact person:	Midori.chikyu@abccorp.jp (窓口担当者のメールアドレス)
Phone number of the main contact person:	+81-3497-0125 (窓口担当者の電話番号)
2.2. Japanese participant(s) for the project and their roles in the project except for the entity in 2.1. (If possible, please indicate the contact person of each entity involved in the project) (日本の事業者に関する情報)日本の共同事業者がいる場合はご記入ください。複数いる場合は欄を追加して全ての共同事業者をご記入ください。)	
Name of the entity (Company, etc.):	(日本の共同事業者がいる場合に記入する。いなければ N/A としてください。)

(本様式はJCM パートナー国と調整中のものであり最新様式はJCM ホームページの各パートナー国ページを参照する必要がある。)

Roles of the entity in the project:	N/A
Address of the entity:	N/A
Website of the entity:	N/A
Name and position of the contact person in the entity:	Last name: N/A First name: N/A Position: N/A Department: N/A
E-mail of the contact person:	N/A
Phone number of the contact person:	N/A
2.3.1 Participant(s) of partner country for the project and their roles in the project (If possible, please indicate the contact person of each entity involved in the project) (パートナー国の共同事業者に関する情報 複数の場合は、欄を追加してすべての事業者分を記入する。)	
Name of the entity (Company, etc.):	PT Medan Power Supply (共同事業者名)
Roles of the entity in the project:	1. Project management as facility owner 2. Procurement of the equipment 3. Instruction of O&M 4. Provision of Monitoring Data to Representative Participant (共同事業者の役割(事業の実施責任、MRVの報告等)を記入)
Address of the entity:	1234 Jalan Ache, Medan, North Sumatra, Indonesia (共同事業者の所在地)
Website of the entity:	http://www.medan.power.supply.id/english/ (英語ウェブサイトアドレス)
Name and position of the contact person in the entity:	Last name: Alam (姓) First name: Hijau (名) Position: Deputy Director (役職) Department: Renewable Energy (所属部署) (共同事業者の担当者の名前と役職、所属部署を記入)
E-mail of the contact person:	Alam.Hijau@medan.power.supply.co.id (担当者のEメールアドレス)
Phone number of the contact person:	+62 815 95000087 (担当者の電話番号)
2.3.2 Participant(s) of partner country for the project and their roles in the project (If possible, please indicate the contact person of each entity involved in the project)	
Name of the entity (Company, etc.):	PT Energy Development (共同事業者名)
Roles of the entity in the project:	1. Facility operation and maintenance 2. Monitoring of GHG emissions and data collection (共同事業者の役割(事業の実施責任、MRVの報告等)を記入)
Address of the entity:	675 Yogatama, Medan, North Sumatra, Indonesia (共同事業者の所在地)
Website of the entity:	http://www.energy.development.id/english/ (英語ウェブサイトアドレス)
Name and position of the contact person in the entity:	Last name: Ahim (姓) First name: Nusdua (名) Position: Manager (役職) Department: New Energy Development (所属部署) (共同事業者の担当者の名前、役職、所属部署を記入)
E-mail of the contact person:	Ahim.Nusdua@energy.development.co.id (担当者のEメールアドレス)
Phone number of the contact person:	+62 815 2863740 (担当者の電話番号)

2.4.1 Relevant ministry or governmental agency of partner country <i>(If possible, please indicate the contact person)</i> (本事業に関する情報を共有したパートナー国の政府に関する情報を記入する。複数の場合は欄を追加して全ての省庁をそれぞれ記載、特に情報共有をしていなければ空欄)	
Name of the entity:	Coordinating Ministry for Economic Affairs (パートナー国側担当部署)
Address of the entity:	5678 Jalan Java, Jakarta, Indonesia (所在地)
Website of the entity:	http://www.coordinating.ministry.id (英語ウェブサイトアドレス)
Name and position of the main contact person in the entity:	Last name: Yogatama (姓) First name: Seldon (名) Position: Director (役職) Department: Office of the Deputy VI (所属部署) (主担当者の姓、名、役職、所属部署を記入)
E-mail of the main contact person:	Ayam.seldon@CMEA.gov.id (主担当者のEメールアドレス)
Phone number of the main contact person:	+62-1234-5678 (主担当者の電話番号)
Is the project information already shared with the entity?	<input checked="" type="checkbox"/> Yes (<i>Briefly explain the status below</i>) <input type="checkbox"/> No On July 14, 2023, a meeting with the Coordinating Ministry was held in Jakarta and project information was shared to the ministry. Their response to the project was very positive. (事業に関する情報は既にパートナー国側政府に共有されているか。されている場合は「Yes」、されていない場合は「No」のいずれかにチェックがされていること) (原則として、事業に関する情報を既に共有した省庁のみを記載するため、Yesの場合は詳細を記載してください。Noの場合は空欄で構いません。情報を共有した政府機関が複数ある場合は適宜欄を追加して記入してください)
2.4.2 Relevant ministry or governmental agency of partner country <i>(If possible, please indicate the contact person)</i> (本事業に関する情報を共有したパートナー国の政府に関する情報を記入する。複数の場合は欄を追加して全ての省庁をそれぞれ記載、特に情報共有をしていなければ空欄)	
Name of the entity:	Ministry for Mineral Resources (パートナー国側担当部署)
Address of the entity:	5678 Jalan Java, Jakarta, Indonesia (所在地)
Website of the entity:	http://www.mineral.resources.ministry.id (英語ウェブサイトアドレス)
Name and position of the main contact person in the entity:	Last name: Salute (姓) First name: Muhanmad (名) Position: Manager (役職) Department: Office of the renewable energy (主担当者の姓、名、役職、所属部署を記入)
E-mail of the main contact person:	Muhanmad.Salute@MMR.gov.id (主担当者のEメールアドレス)
Phone number of the main contact person:	+62-1234-8945 (主担当者の電話番号)
Is the project information already shared with the entity?	<input checked="" type="checkbox"/> Yes (<i>Briefly explain the status below</i>) <input type="checkbox"/> No On July 17, 2023, a meeting with Ministry for Mineral Resources was held in Jakarta and project information was shared to the ministry. Their response to the project was very positive. (事業に関する情報は既にパートナー国側政府に共有されて

	<p>いるか。されている場合は「Yes」、されていない場合は「No」のいずれかにチェックがされていること) (原則として、事業に関する情報を既に共有した省庁のみを記載するため、Yesの場合は詳細を記載してください。Noの場合は空欄で構いません)</p>
--	---

3.1 欄には地図や写真は貼らないでください。地図・写真を貼る場合には5.に入れて下さい。

3. Project information	
3.1. Summary of the planned project	
<p>Description of the project: (Project implementation scheme, role of each participant, etc. Insert an image of the implementation structure in section 5)</p>	<p><u>This is a project to construct a 3MW Hydrogen Power Plant in Medan, North Sumatra.</u> <u>ABC Corporation serves as the representative participant of this project and administers the entire project including MRV reporting.</u> <u>PT Medan Power Supply, a partner participant, one of the power generation companies in Indonesia, will own and operate the new hydrogen power plant that consists of a water electrolyzer, hydrogen storage unit and fuel cells.</u> <u>The generated power will be sold to PLN, which will replace the fossil-fuel based power and reduce greenhouse gas (GHG) emissions.</u></p> <p><u>The objective of this project is to solve the technical and the operational issues in implementing the 3MW Hydrogen Power Plant in Medan and to understand the regulations and laws related to the hydrogen power plant. These results will pave the way for the JCM model project and the commercialization of the compact and excellent durable hydrogen power plant system in North Sumatra.</u></p> <p><u>The issues and the methods of demonstration are as follows,</u></p> <p><u>1. Water quality</u> <u>To ensure stable operation for the water electrolyzer, analyze the local water and identify the appropriate water treatment method.</u></p> <p><u>2. Storage capacity</u> <u>To ensure the stable operation for the fuel cells, the optimum hydrogen storage capacity will be identified by collecting the data throughout the demonstration period.</u></p> <p><u>3. Identify the local regulations and laws for hydrogen production and storage.</u> <u>To understand the notification process and regulations related to the hydrogen power plant, make consultants study the local regulation and laws.</u> (実証事業の目的や課題、実証方法など事業の内容、各参加者の役割等を具体的に説明ください。)</p>
<p>Location of the project</p>	<p><u>Medan, North Sumatra, Indonesia</u> (事業の実施場所)</p>
<p>Technologies, products, systems, services, infrastructure, or implementation of mitigation actions to be adopted for the project, and a brief description of them:</p>	<p><u>Compact and excellent durability hydrogen power plant system (3MW) will be adopted.</u></p> <p><u>(1) Water Electrolyzer</u> <u>An electrolyser is a device capable of splitting water molecules into their constituent oxygen and hydrogen atoms. The state-of-</u></p>

	<p>the-art technology is applied in order to achieve longer continuous reliable operation of the hydrogen power plant.</p> <p>(2) Fuel Cell Hydrogen produced by the water electrolysis system is fed into fuel cells to generate electricity and supply heat.</p> <p>(導入技術及び設備の概要を記入すること。導入技術がわかりやすく説明された図解などを添付する。添付箇所は PIN の最終頁でもよく、その場合はどこに掲載しているかをこの欄に示す)</p>
<p>Status and progress of the project (<i>Feasibility study, license application status, etc.</i>):</p>	<p>A Special Land Use Permit has been granted by the Indonesian government in 2020 to occupy and manage leasehold and public forest lands for this purpose, and a 5-year use permit has been secured starting in 2023 (power plant, transmission lines). Grid connection permit approved, local government approval obtained, non-duplication certification verified, environmental compliance certificate approved.</p> <p>(事業の進捗状況(許認可の取得状況等)を記入する)</p>
<p>3.2. Expected scale of investment</p>	<p>Total project costs: IDR26,797,500,000.00 (Total Investment Cost)* In project currency: IDR26,797,500,000.00(本事業使用通貨額) (In Japanese Yen: 270,000,000 (日本円換算額)) Breakdown (in project currency):(費用内訳)</p> <ol style="list-style-type: none"> 1. Water Electrolyzer Unit: IDR8,932,500,000.00 2. Fuel Cells Unit: IDR7,940,000,000.00 3. Hydrogen storage unit : IDR2,000,000,000.00 4. Transformers, Switchboards, Electric modules, DC, UPS : IDR1,970,000,000.00 5. Installation: IDR5,955,000,000.00 <p>(見積書のうち、別添の「PIN チェック方針」に示す Total Investment Cost*(=Total Project Cost)の対象となる項目を網羅すること)</p>
<p>3.3. Applicable JCM methodology(ies)</p>	<p><input type="checkbox"/> Existing methodology(ies) (<i>Please specify below</i>) (本事業では、その国で JCM 化した実績のない技術が対象となりますので、適用できる方法論は原則無いことになります。)</p> <p><input checked="" type="checkbox"/> New methodology(ies) needed (<i>Briefly explain the status below</i>)</p> <p>The development of a new methodology will start in parallel with the facility installation. The monitoring will be conducted from the start of operation to the completion of the project. Emission reductions are calculated by multiplying electricity generated by the hydrogen power plant and emission factor in Medan area.</p> <p>(方法論の開発が新たに必要なのでチェックする。提案済み方法論(Proposed Methodology)がある場合でも「New methodology(ies) needed」をチェックし、現在の状況を説明ください。例えば「PM030 は現在パートナー国の承認待ち」等。また、GHG 排出削減量はどのように算出されるのかを簡単に説明する。)</p>
<p>3.4. Expected GHG emission reductions / removals (unit: tCO₂)</p>	<p>2,000 t-CO₂ (実証中の想定 GHG 排出削減/吸収量(CO₂ 以外の各 GHG の量は CO₂ 換算とする)を記入する。)</p>
<p>3.5. Expected schedule up to the commercial operations date and the project registration under the JCM</p>	<p>01/07/2024: Completion of installation of the system 01/08/ 2025: Operation start and start of Measurement 30/11/2025: Completion of Draft of the methodology 01/04/2026: Application for Registration of the project</p> <p>(稼働開始予定年月までの予定及び JCM プロジェクト登録予定年月を記入する。形式は(dd/mm/yyyy))</p>

(本様式はJCM パートナー国と調整中のものであり最新様式はJCM ホームページの各パートナー国ページを参照する必要がある。)

3.6. Contribution to Partner Country's NDC (Nationally Determined Contributions)	<p><u>Indonesia's NDC commits to reducing emissions by 29% (unconditional) up to 41% (conditional) against the 2030 business as usual scenario. In this project, the GHG emission reductions will be monitored for 6 months, and the accumulated reduction amount will be issued as the JCM credits. These credits will be shared between the Republic of Indonesia and Japan, contributing to the emission reduction target of the partner country. In addition, the Indonesian government has set a renewable energy target of 31% of total electricity generation. As this project aims to replace fossil fuel based electricity with renewable energy, the results of this project will contribute to the replacement of the energy source.</u></p> <p>(パートナー国 NDC への貢献、NDC の記載との整合について記載する)</p>
3.7. Contribution other than GHG emissions reductions or removals <i>(Financial contribution should be explained in section 4)</i>	<p><u>Personnel of the partner country will be able to acquire sufficient hydrogen power plant knowledge and practical capability for the reliable operation and proper maintenance of the Systems. Classroom training and On-the-Job training will be implemented at the Site during the project.</u></p> <p>(GHG排出削減/吸収以外の貢献について記載する)</p>
3.8. Credit allocation (この部分は空欄で提出ください。)	
<p>Select one of the following:</p> <p><input type="checkbox"/> Credit allocation is still under discussion among project participants.</p> <p><input type="checkbox"/> Project participants propose a preliminary percentage of credit allocation as below, <i>understanding the condition that numbers will be decided by the Joint Committee at the time of project registration:</i></p> <p>*In case the project expects to receive financial support from the Government of Japan, the Government of Japan determines a preliminary percentage of credit allocation.</p>	
Partner country (Government and project participants)	
Japan (Government and project participants)	
The reason for the above credit allocation:	

4. Financial contribution <i>(Please indicate which government support is expected; otherwise, explain in the "Other" section.)</i>	
<input type="checkbox"/> Financial support from the Government of Japan: Select one of the following	Fiscal Year of Japan
<input type="checkbox"/> Financing Programme for JCM Model Project by Ministry of the Environment, Japan (MOEJ)	
<input type="checkbox"/> JCM Support Programme administered by the United Nations Industrial Development Organization (MOEJ)	
<input type="checkbox"/> F-gas Recovery and Destruction Model Project by MOEJ	
<input type="checkbox"/> Japan Fund for the JCM administered by the Asian Development Bank (MOEJ)	
<input type="checkbox"/> JCM Demonstration Project by New Energy and Industrial Technology Development Organization (Ministry of Economy Trade and Industry, Japan)	
<input checked="" type="checkbox"/> Other <i>(Please explain how the project will be financed and what financial contribution or economic incentive will make the project viable.):</i>	2023 (水素等新技術導入事業採択年度)

(本様式はJCM パートナー国と調整中のものであり最新様式はJCM ホームページの各パートナー国ページを参照する必要がある。)

**Demonstration Project for Application of New Decarbonizing Technology
founded by the Ministry of the Environment, Japan**

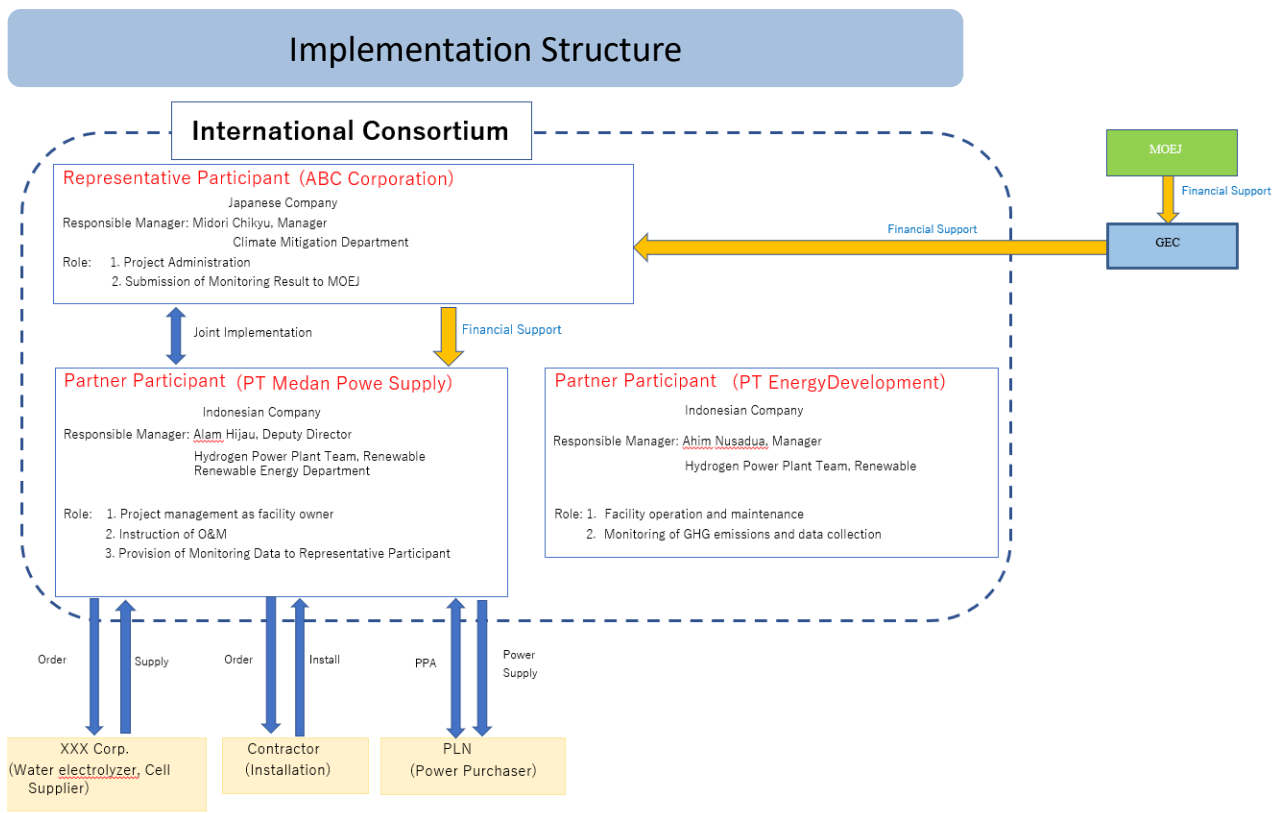
水素等新技術導入事業では「Others」を選択し、欄内のおりに事業名、事業年度を記載してください。

5. Implementation structure

Please insert an image of the implementation structure including financial flows below:

英語の事業実施体制図を貼ってください。

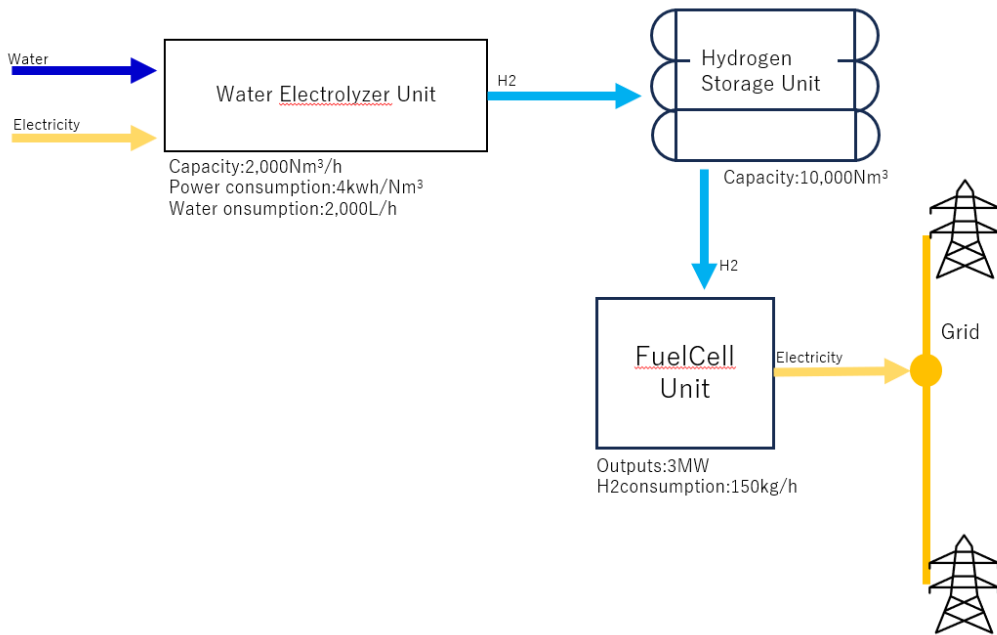
表中に代表事業者、共同事業者の役割を明示してください。



(本様式はJCMパートナー国と調整中のものであり最新様式はJCM ホームページの各パートナー国ページを参照する必要がある。)

Outline of the Hydrogen Power Generation Plant

技術の概要図を貼ってください



Revision history of PIN		
Version	Date	Contents revised
1.0	25/08/2023	First version
	dd/mm/yyyy	
	dd/mm/yyyy	

*Project participants fill in this section when they submit a revised PIN to the Joint Committee.

*Rows may be added, as needed

公募提案書提出日
形式 dd/mm/yyyy