

# Specialised Workforce Development to Support Energy Transition in Indonesia (Indonesia)



## Terms of Reference | 18 December 2023

The project will develop a national roadmap to fulfil the required skilled workforce to support energy transition in Indonesia. It will develop the nationally accredited Certificate of Competences (COCs) for renewable energy (RE) and energy efficiency (EE) professions, and identify other necessary certifications to be developed and institutionalised. The project assists the Government of Indonesia in developing a cohesive and holistic approach to guide development partners in their efforts to complement existing initiatives such as Patriot Energi, GREEN, and Gerilya by the Ministry of Energy and Mineral Resources (MEMR) and Education, Culture, Research, and Technology (MECRT), and the Renewable Skills Development (RESK) initiatives.

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## I. Introduction

1. The Southeast Asia Energy Transition Partnership (ETP) brings together governments and philanthropies to work with partner countries in the region. ETP supports the transition towards modern energy systems that can simultaneously ensure economic growth, energy security, and environmental sustainability. Contributing to the achievement of the UN's Sustainable Development Goals (SDGs) and the Paris Climate Agreement objectives, ETP works in Southeast Asia, with a focus on three priority countries, namely Indonesia, the Philippines, and Vietnam. ETP works through four interrelated Strategic Objectives. These are (i) policy alignment with climate commitments, (ii) de-risking energy efficiency (EE) and renewable energy (RE) investments, (iii) extending smart grids, and (iv) knowledge, awareness, and capacity building.

## II. Summary

2. Indonesia lacks the skilled workforce required for sectors responsible for implementing the energy transition. This both hinders progress and results in resistance from civil society. This project develops a roadmap and implementation plan for skilled workforce development in energy transition, in consultation with the Ministry of Energy and Mineral Resources (MEMR) and other relevant ministries stakeholders. The Project will serve as a pillar to energy transition by fulfilling the demand for competent workers thus ensuring the quality and timeliness of the energy infrastructure that is projected to be built.
3. The project will develop the Certificate of Competences (COCs), accredited by the National Professional Certification Agency (BNSP) and/or Training and Education Accreditation Body under the Human Resources Development Agency of MEMR for renewable energy (RE) and energy efficiency (EE) related professions. Additionally, it will identify other required certifications to be developed by the government. It will support the Government of Indonesia in developing a cohesive approach to guide development partners in their efforts to complement existing initiatives such as Patriot Energi, GREEN (Global Renewable Energy and Electricity Knowledge), and Gerilya by the Ministry of Energy and Mineral Resources (MEMR) and Education, Culture, Research, and Technology (MECRT), and the Renewable Skills Development (RESK) initiatives.

## III. Project Details

### A. Rationale

4. The rationale for this project is rooted in the urgent need to address the severe shortage of a skilled workforce critical for advancing Indonesia's transition to cleaner and more sustainable energy sources. This deficiency not only obstructs progress in the energy transition but also gives rise to resistance from civil society. Such resistance often arises due to concerns about job security, economic implications, and the overall feasibility of the transition. Therefore, this initiative is propelled by the imperative to bridge the workforce gap and ensure the effective

implementation of Indonesia's energy transition goals. It aligns with global climate objectives, including the Paris Climate Goals, the Just Energy Transition Partnership's (JETP) emission reduction target, and Indonesia's Net Zero Emissions (NZE) target by 2060, emphasizing its significance in advancing climate action and sustainability.

## **B. Impact**

5. The project is expected to create a substantial number of jobs in low-carbon industries by addressing the workforce shortage through skill development in renewable energy (RE), energy efficiency (EE), and other related sectors. This will diversify employment opportunities and enhance job security.
6. This workforce empowerment will accelerate clean energy projects, and align with climate targets, thus increasing the share of RE in the total primary energy supply (TPES). A skilled workforce ensures the efficient deployment of RE, and high-quality infrastructure improves RE system reliability, making them competitive compared to fossil fuels. Additionally, a skilled workforce will likely drive innovation and cost-effective RE solutions, further boosting RE's share in TPES.

## **C. Outcomes and Outputs**

7. The outcomes of this project are:
  - a. **Workforce Reskilling and Upskilling:** The project will result in the reskilling and upskilling of the Indonesian workforce, with a particular focus on facilitating a just energy transition. This will ensure that workers are equipped with the necessary skills to adapt to the changing energy landscape.
  - b. **Development of a Strong Human Capacity Pipeline:** A significant outcome will be the establishment of a robust pipeline of skilled professionals capable of meeting the increasing demand for workers in the renewable energy (RE) and energy efficiency (EE) sectors. This will help address the workforce shortage in critical areas.
  - c. **Enhanced Government Capacity and Coordination:** The project will strengthen the capacity and coordination of key ministries, including the Ministry of Energy and Mineral Resources (MEMR), Ministry of Education, Culture, Research, and Technology (MECRT), Ministry of Manpower (MOM), and Ministry of Industry (MOI). This enhanced capacity will support a net-zero future through effective educational delivery for energy transition.
  - d. **Increased Public Interest in RE and EE:** As a result of a more skilled workforce in the RE and EE sectors, the project anticipates a rise in public interest in these areas. The increased competence in the workforce is likely to inspire greater awareness and enthusiasm for clean energy solutions.

8. The outputs of this project are:

- a. Review of Institutional Roles and Governance Mechanisms: The project will conduct a review of institutional roles and governance mechanisms, which includes identifying championing organisations. This process ensures that the right entities are leading and coordinating efforts to develop the skilled workforce needed for the energy transition.
- b. Comprehensive National Roadmap: The project will deliver a comprehensive national roadmap aimed at guiding the Ministry of Energy and Mineral Resources (MEMR) Ministry of Education, Culture, Research, and Technology (MECRT) in developing a skilled workforce to support a just energy transition. This roadmap will provide a clear direction for educational and training initiatives.
- c. Creation of a minimum of 10 New Professional Certification Programs: The project will establish a minimum of 10 new professional certification programs in energy transition through the development of a minimum of 3 new Indonesia National Standard of Indonesian National Work Competency Standards (SKKNI) or Standard of Competencies for Electrical Engineering Personnel, Competency Standards for Electrical Engineering Professionals (SKTTK). These certifications are essential for ensuring that individuals possess recognised qualifications for their roles in the energy transition. Priority areas are to be determined from the result of the roadmap and the guidance of the ministries.
- d. Development of a minimum of 30 Training modules to support the implementation of the revised and newly established training and educational curricula in the energy transition sector. The modules may come from the newly developed curricula or existing curricula. The prioritisation and chosen topic will depend on the findings during the roadmap development and guidance and priorities of the ministries.
- e. Capacity Building Program to Enhance Government Capacity: The project aims to enhance the government's capacity, including accreditations and educational delivery. This capacity-building effort will result in the government being better equipped to provide upgraded educational opportunities to prepare Indonesia's workforce for the energy transition.

#### **D. Sustainability, Gender Equality and Social Inclusion Mainstreaming**

9. ETP is committed to promoting and supporting gender equality and social inclusion (GESI) through its project implementation. The implementing partner is expected to conduct a contextual gender quality and social inclusion gap analysis to understand the gaps in the

Indonesian workforce and institution and governance mechanism. In designing the roadmap, GESI mainstreaming shall be taken into consideration. The Project shall be inclusive of the invited stakeholders during the consultation and seek a balanced representation of women and other identified groups in project activities. The implementing partner should identify the implications, outputs and contributions to gender equality and social inclusion in the project activities and promote equal opportunities in Indonesia's workforce reskilling and upskilling. This task shall be accomplished through a clear methodology and approach which must be identified as part of the inception report.

## IV. Project Deliverables

10. In line with the outputs and outcomes expected from this project (see Project Background), this section provides additional information on specific deliverables that will be required in order to accomplish the above project outputs.
11. Table 1 outlines the key deliverables that are expected in this project. Additional details on associated activities for each deliverable follow Table 1.
12. Given the effort required to review the deliverables, it is recommended for the Implementing Partner to submit the deliverables in stages well before the indicated target delivery date, especially for deliverable 4.

**Table 1.** Key activities and milestones

#	Deliverables	Target delivery and payment date	% of payment
1	Inception Report, including a communication plan	Month 1	10%
2	Review of institutional roles and governance mechanisms to strengthen skills development for energy transition, including identifying championing organisations.	Month 3	15%
3	A comprehensive national roadmap for the MEMR and MECRT to drive the development of skilled workforce to support energy transition	Month 4	15%
4	Report covering minimum 10 new professional certification programs in energy transition for RE and EE jobs aligned with industry needs through establishment of 3 standards, SKTK or SKKNI.	Month 13	25%
5	Minimum 30 training modules and educational curricula for RE and EE jobs aligned with industry needs.	Month 21	25%

#	Deliverables	Target delivery and payment date	% of payment
6	Final completion report	Month 24	10%
7	<b>Coordination meetings, dissemination workshops, and capacity building workshops</b> to enhance the government's capacity, including accreditations and educational delivery, to upgrade educational opportunities to develop Indonesia's workforce readiness for energy transition. <sup>1</sup>	See section V. Table 4.	<b>Reimbursable.</b> Budget to be proposed based on the requirements on the logistic organisations that are listed in the TOR's section IV. Project Activities and Expected Deliverables.
8	Minimum 6 Stakeholder workshops and post-workshop	See section V. Table 4.	<b>Reimbursable.</b> Budget to be proposed based on the requirements on the logistic organisations that are listed in the TOR's section IV. Project Activities and Expected Deliverables.
9	<b>Contract monitoring monthly progress report:</b> In addition to the listed deliverables, the consultant will need to provide monthly progress reports as per the provided template. Failure to submit this report will result in the payments being withheld.	Monthly	n/a

13. **Deliverable 1: Inception Report:** The Implementing Partner must develop and submit a detailed inception report detailing the work plan, ensuring the expectations of ETP are aligned with the understanding of the project from the Implementing Partner.

14. The inception report should contain, as a minimum:

<sup>1</sup> Deliverables 7-8 are non-personnel costs which will be paid on a reimbursable basis against the actual expenses. The financial proposal must include non-personnel costs expected to be incurred to execute these workshops, separate from the personnel lumpsum costs required to deliver the deliverable. The Consultant should include in the non-personnel costs all associated costs for the events organizations including, venue, organization, and other travel and logistics expected.



- a. Introduction and project background
- b. Scope of Services
- c. Methodology and Workplan, with details on the approach and project Gantt chart
- d. A detailed approach as to how each deliverable will be met and what each submission will contain, including how gender equality and social inclusion will be mainstreamed throughout the project
- e. Audience mapping and communication plan
- f. Identification of suitable media channels to be used for communicating the project and rationale for choosing them
- g. A donor coordination strategy
- h. Project management inclusive of organisational chart detailing key personnel, their roles, and responsibilities, as well as their locations (strong in-country team and project management is expected)
- i. Risks, mitigations, and assumptions
- j. Monitoring and Evaluation Framework, presented in the form of the ETP Results Based Monitoring Framework (RBMF)
- k. Communications Plan as described in the below table.
- l. The Implementing Partner is responsible for drafting a detailed communications plan which will be embedded in the Inception Report and executing the communications materials. The bidder is required to budget the pricing for the execution of these communication materials in the non-personnel costs to be disbursed as per actual. The minimum requirements for the communications materials are as follows:

**Table 2: The Minimum Requirements of the Communications Plan**

Item	Communications materials	Minimum quantity
1	Social media posts	30
2	Press releases	1 per public workshop/ event
3	Newspaper articles (online) The Implementing Partner is required to connect with at least five relevant news agencies. The news will be based on the press release prepared (item 2)	1 per public workshop/ event in 5 publications
4	Op-ed articles The Implementing Partner must write and place opinion articles for UNOPS or the beneficiary, ensuring they support project goals and engage the target audience effectively.	4
5	Online presentations of project progress and highlights to the ETP Secretariat, ETP Funders, and/or ETP stakeholders.	3 (1-hour maximum/ each)



6	Maintain/develop a database of photographs/ videos/ vox pops from events/ activities	4 high-quality images per workshop/event Minimum 2 high-quality short raw video footage (2-3 mins) per workshop/event (ideally, key speeches and/or highlights reel)
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15. **Deliverable 2: Review of institutional roles and governance mechanisms to strengthen skills development for energy transition, including identifying championing organisations.** This component of the project is designed to bolster the development of skills needed for the energy transition, with a specific emphasis on recognizing leading organisations. The deliverables for this task include

- a. Comprehensive Governance Assessment: The Implementing Partner shall conduct an in-depth assessment of the existing institutional roles and governance structures related to skills development for the energy transition. This assessment shall encompass the following elements:
  - i. Institutional Mapping: Identify and catalogue all relevant institutions, governmental and non-governmental, involved in skills development for the energy transition. This should include educational institutions, regulatory bodies, industry associations, and any other pertinent entities.
  - ii. Roles and Responsibilities: Clearly outline the roles and responsibilities of each identified institution in the context of skills development for the energy transition. This should encompass their current functions, objectives, and areas of influence.
  - iii. Strengths and Weaknesses: Conduct a comprehensive analysis of the strengths and weaknesses of each institution's involvement in skill development. Assess factors such as resources, capacity, effectiveness, and alignment with energy transition goals.
  - iv. Stakeholder Engagement: Evaluate the level of stakeholder engagement and collaboration among these institutions. Identify any gaps or areas where coordination can be improved.
  - v. Best Practices: Research and present international and national best practices in institutional roles and governance mechanisms for skills development in the context of energy transition. This can serve as a benchmark for improvement.

b. Identification of Championing Organisations:

In this phase, the Implementing Partner shall identify and recommend organisations or entities that will assume a leadership role in championing and coordinating skills development efforts. This process will involve the following steps:

- i. Stakeholder Consultation: Engage in consultations with relevant stakeholders, including government agencies, industry representatives, educational

institutions, and civil society, to gather insights and nominations for championing organisations.

- ii. **Criteria for Selection:** Develop clear criteria for selecting championing organisations. Consider factors such as expertise, commitment, capacity, and alignment with the goals of the energy transition.
  - iii. **Recommendations:** Based on the assessment and stakeholder consultations, make specific recommendations for championing organisations. Provide a rationale for each recommendation, highlighting their potential contributions and how they can enhance their capacity and mandate.
  - iv. **Capacity Enhancement:** Propose strategies and mechanisms for enhancing the capacity of these championing organisations to effectively lead and coordinate skills development efforts. This may include capacity-building programs, resource mobilisation, and governance improvements.
16. These detailed preparations ensure that the Implementing Partner conducts a thorough evaluation of existing institutional roles and identifies championing organisations equipped to drive skills development for Indonesia's energy transition effectively.
17. **Deliverable 3: A comprehensive national roadmap for the MEMR and MECRT to drive the development of a skilled workforce to support energy transition and resource allocation plan:** This deliverable serves as a roadmap or guide for the MEMR and MECRT to build a highly skilled workforce ready to support Indonesia's energy transition. The roadmap will consist of the following essential components, with an added focus on workforce projections:
  - a. **Strategic Framework:** This framework will provide an overarching vision and direction for workforce development in support of the energy transition. It includes:
    - i. A clear articulation of the long-term objectives and goals of workforce development.
    - ii. Identification of key priorities, both immediate and long-term, aligned with the energy transition's phases and milestones.
    - iii. Milestones and targets for workforce development, including the Year-on-Year (YoY) skilled workforce projection up to 2060, based on the government and international organisations' Indonesia Net Zero Emissions (NZE) scenario. This projection will detail the anticipated growth in skilled workers in renewable energy, energy efficiency, and related fields, allowing for better planning and resource allocation.
    - iv. A timeline outlining when specific workforce development goals and milestones are expected to be achieved.
  - b. **Policy Recommendations:** This component focuses on providing specific policy recommendations and actions that are essential to align educational and training programs with the evolving needs of the energy transition. It includes:
    - i. An analysis of existing policies and their relevance to workforce development.

- ii. Recommendations for policy enhancements or changes to address identified gaps or challenges.
    - iii. Proposed policy actions to ensure that educational institutions and training programs adapt to the evolving demands of the energy transition.
    - iv. A clear policy implementation plan that outlines responsible agencies, timelines, and performance indicators.
  - c. Resource Allocation Plan: To effectively implement the roadmap, a comprehensive resource allocation plan is crucial. This plan will outline how resources, including budgets, personnel, and infrastructure, will be allocated to support workforce development. It includes:
    - i. A budget allocation strategy that specifies the financial resources required for various workforce development initiatives.
    - ii. Infrastructure development plans, including the establishment or expansion of educational facilities and training centres.
    - iii. A monitoring and evaluation framework to assess the utilisation and impact of allocated resources.
18. **Deliverable 4: Establishment of 3 SKTTK/SKKNi and creation of at least 10 new professional certification programs for energy transition jobs aligned with industry needs through the standards.** This deliverable is focused on building the educational framework required to prepare individuals for careers in renewable energy (RE) and energy efficiency (EE) sectors, including the just sector of energy transition. This includes creating certification programs that validate individuals' competence, structuring curricula that provide a coherent path for skill development, and specifying the level of institutions best suited for delivering these educational programs. These serve as the structured blueprints and official endorsements for educating future RE and EE professionals. The Implementing Partner will take a lead role in the design, development, and official endorsement of these programs with the guidance from MEMR.
19. **Deliverable 5: Development of 30 comprehensive training modules and curricula customised to the unique requirements of the RE and EE job market.** These curricula will delineate the precise content of each course. It is estimated that at least 3 training modules will be needed for professionals to pass each certification program. The Implementing Partner shall develop the following for each training module:
- a. Learning Outcomes: Explicitly specify the learning outcomes that participants should achieve upon completing each curriculum. This helps establish clear expectations for their knowledge and skill acquisition.
  - b. Assessment and Evaluation: Methods to assess and measure students' understanding, progress, and achievement of the learning objectives. This can include exams, projects, presentations, and other assessment tools.
  - c. Materials and Resources: Textbooks, readings, multimedia, tools, and other resources used to support the learning process.

- d. Sequence and Structure: The organisation and order in which topics are presented and the overall structure of the course or program.
- e. Instructional Methodologies: Describe the methodologies and resources necessary for delivering these curricula effectively. This ensures that the teaching approaches align with the subject matter and learning objectives.

20. **Deliverable 6: Final Report** The Final Report is the document that serves as a comprehensive summary of the entire project. It provides stakeholders, including the MEMR, MECRT, and other relevant government agencies, with a detailed account of the project's objectives, processes, outcomes, and recommendations. The document should also provide a roadmap for future initiatives in energy transition and workforce development. It should be well-structured, evidence-based, and accessible to a wide range of stakeholders to ensure its impact and usefulness.

21. At a minimum, it should encompass:

- a. Executive Summary: A concise overview of the project, highlighting its purpose, key findings, and recommendations. This section should provide a quick understanding of the project's significance.
- b. Project Background and Rationale:
  - i. Background: A detailed description of the project's background, including the context in which it was initiated, the need it addresses, and the goals it aims to achieve.
  - ii. Rationale: An explanation of why the project is essential, focusing on its alignment with national energy transition goals, the Just Energy Transition Partnership target, and the Indonesian Net Zero Emissions (NZE) target by 2060.
- c. Methodology: A description of the methodologies, tools, and approaches used during the project's execution. This should include information on data collection, analysis, and stakeholder engagement.
- d. Project Activities and Outputs:
  - i. Training and Workshops: Details about the training sessions, workshops, and capacity-building events conducted as part of the project. Include information on topics covered, duration, number of participants, and outcomes.
  - ii. Educational Materials: A summary of any educational materials or resources developed during the project, such as curricula, certification programs, and accreditation frameworks.
- e. Stakeholder Engagement: An overview of how stakeholders were engaged throughout the project, including their roles and contributions.
- f. Findings and Recommendations:
  - i. Key Findings: A presentation of the project's key findings, including insights gained from training sessions, stakeholder feedback, and data analysis.

- ii. Recommendations: Concrete recommendations for further actions, improvements, or policy changes based on the project's findings. These recommendations should be actionable and specific.
  - g. Impact Assessment: An assessment of the project's impact on energy transition, workforce development, and educational quality. This should include data on jobs created, increased RE/EE share in the energy sector, and improved skills among participants.
  - h. Lessons Learned: Reflection on the lessons learned during the project's execution, including what worked well and areas for improvement in future initiatives.
  - i. Sustainability and Future Steps:
    - i. Sustainability Plan: A discussion of how the project's outcomes and initiatives will be sustained beyond its completion, including plans for ongoing training and capacity building.
    - ii. Future Steps: Recommendations for the next steps or follow-up actions that can build upon the project's achievements.
22. The Final Report serves as a comprehensive document that not only records the project's progress but also provides a roadmap for future initiatives in energy transition and workforce development. It should be well-structured, evidence-based, and accessible to a wide range of stakeholders to ensure its impact and usefulness.
23. **Deliverable 7<sup>2</sup>: Coordination meetings, dissemination, and capacity building workshops to enhance the government's capacity to deliver new training to develop Indonesia's workforce readiness for the energy transition.** The Implementing Partner's responsibilities include organising meetings for the following:
24. The coordination meetings are intended to help the implementing partner in producing deliverables 2, 3, and 4. The actual number of meetings and participants may vary depending on the progress and requirements of the beneficiary. The Implementing Partner shall prepare the logistics of the workshop with the following logistic information:
- a. Minimum 40 in-person participants
  - b. At least 10 half-day meetings, inclusive of coffee breaks
  - c. All meetings shall be organized in the MEMR Office or in other ministerial buildings within the Greater Jakarta area.
25. The dissemination meetings are intended to share project findings, outcomes, and key information with stakeholders, partners, and the wider community. It aims to effectively communicate the project's achievements, lessons learned, and impact, fostering transparency, awareness, and collaboration among relevant entities. For this type of meetings, the

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<sup>2</sup> The associated costs for logistic organization of the meetings and capacity building workshops will be reimbursed against the actual expenses. The bidder is expected to propose a ceiling budget to deliver the meetings and capacity building workshops in a venue within the Greater Jakarta area. The financial proposal for this task should be budgeted separately from the personnel lump sum costs. All meetings and workshops shall be conducted in bilingual with live-interpreter through Zoom or similar software. The bidder should include in the non-personnel costs all associated costs to organize the event including, venue, organization, and other travel and logistics expected.

Implementing Partner shall prepare the logistics of the workshop with the following logistic information:

- a. Hybrid modality, with minimum 40 in-person participants
  - b. At least 25 full day meetings, inclusive of coffee breaks and lunch
  - c. Honorarium<sup>3</sup> for at least 5 speakers per event, if applicable
  - d. All meetings shall be organized either in the MEMR Office or in a conducive venue within the Greater Jakarta area.
26. The capacity-building workshops are intended to enhance the expertise of government officials on the following skills:
- a. Roadmap Creation: Develop a detailed roadmap that identifies the training and capacity-building requirements of government personnel directly involved in educational delivery and accreditation processes. This roadmap should outline specific training programs, skill development initiatives, and key milestones.
  - b. Training for trainers specifically designed for government personnel involved in educational delivery and on how to formulate a well-structured plan to enhance the delivery of educational programs. This plan should encompass strategies for improving teaching methodologies, curricula updates, and accessibility.
27. For the capacity-building workshops, the Implementing Partner shall prepare the logistics of the workshop with the following logistic information:
- a. Minimum 40 offline participants
  - b. At least 30 capacity training workshops
  - c. 1.5 hours per each capacity training workshop
  - d. 4-5 trainings can be delivered in one day
  - e. Delivery of all workshops shall be completed in 7 days
  - f. All workshops shall be organized in a conducive venue within the Greater Jakarta area.
28. Table 3 below provides a summary of minimum number of meetings required for each category.

**Table 3. Summary of meeting categories**

Type of meetings	Quantity, minimum	Duration per each
Coordination meetings	10	Half-day
Dissemination meetings	25	Full-day
Capacity building workshops	30	1.5 hours

29. The detailed agenda on the dissemination meetings and capacity building workshops needs to be discussed with ETP and beneficiaries. Gender consideration has to be taken into consideration in organising the consultation workshops. The minimum percentage of women

<sup>3</sup> The rate of honorarium for speakers shall not exceed the rates given in the UN Harmonized Rate

participants is 35%. All key stakeholders related to the topic, particularly governmental entities, should be engaged. Journalists should be invited also to promulgate the findings of the workshop. Implementing Partner to prepare the logistics of the workshop, e.g. hybrid meeting facilitation, recording, and photo documentation, as well as live interpretation through Zoom or other software.

30. One week after the dissemination meeting and workshop, the Implementing Partner is required to submit a meeting/workshop report that includes the following components:
  - a. Description of the workshop (e.g., background, objective, organisation)
  - b. Workshop agenda and participant components
  - c. Workshop proceedings (e.g., a summary of presentations, key points raised, important insights, significant outcomes or decisions)
  - d. Gender considerations
  - e. Stakeholder engagement
  - f. Monitoring and implementation
  - g. Media and communication
  - h. Conclusion and next steps
  - i. Annexes (supporting materials such as slides of the presentations, workshop handouts, participant list, list of comments, etc.)
31. **Deliverable 8: Stakeholder workshops and post-workshop report** The goal of the stakeholder workshop is to disseminate the outputs delivered by the Implementing Partners and gather input and feedback from relevant stakeholders to be incorporated into the final version of the outputs.
32. Implementing Partner to prepare the logistics of the workshop with the following logistic information:
  - a. Hybrid, with live interpretation through Zoom or other software
  - b. At minimum 6 half-day workshops or equivalent
  - c. All workshops must be located in the Jabodetabek area or nearby cities
  - d. minimum 50 offline participants per workshop, where the first workshop will be for at least 100 offline participants, intended for the roadmap launching event.
33. The detailed agenda needs to be discussed with ETP. Gender consideration has to be taken into consideration in organising the consultation workshop. The minimum percentage of women participants is 35%. All key stakeholders related to the topic, particularly governmental entities, should be engaged. Journalists should be invited also to promulgate the findings of the workshop.
34. The Implementing Partner is expected to handle all tasks related to the workshop including organising the logistics, inviting participants and speakers, booking the venue, and executing the actual workshop.
35. One week after the workshop, the Implementing Partner is required to submit a workshop report that includes the following components:
  - a. Description of the workshop (e.g., background, objective, organisation)
  - b. Workshop agenda and participant components



- c. Workshop proceedings (e.g., a summary of presentations, key points raised, important insights, significant outcomes or decisions)
  - d. Gender considerations
  - e. Stakeholder engagement
  - f. Monitoring and implementation
  - g. Media and communication
  - h. Conclusion and next steps
  - i. Annexes (supporting materials such as slides of the presentations, workshop handouts, participant list, list of comments, etc.)
36. **Monthly Progress Report:** In addition to the listed deliverables, the consultant will need to provide monthly progress reports as per the provided template which will be shared during the kick off stage. Failure to submit this report may result in the payments being withheld. The monthly progress report includes a concise narrative of the activities completed and next steps.
37. The monthly progress report serves as the mentoring report and is an internal facing between the consultant and the ETP team. The monthly progress report must also include the following standard items:
  - a. Updated Gantt Chart
  - b. Updated Results Based Monitoring Framework (RBMF) in a provided template, must be gender-disaggregated, where applicable
  - c. Risks and mitigations
  - d. Minutes of meetings, if relevant
  - e. Minutes of interviews and consultations, if relevant
  - f. Meetings and workshops reimbursable claims, if applicable. All supporting documents e.g. invoices and receipts must be provided.
38. The final monthly progress report will include the above items and the following:
  - a. Summary of lessons learned from the project
  - b. Recommendations on the project's next steps

### Other key information

- All public-facing reports should be presented to a professional standard. It is required that once the content is approved, the public-facing reports will undergo professional desktop publishing. A graphic designer and copy editor will be required in the project team.
- A public-facing, publishable Executive Summary (approximately 2 pages) in professional English must be submitted with each deliverable.
- A public-facing, catchy PowerPoint presentation highlighting key information must be submitted with each deliverable.
- All project deliverables and presentations must be submitted in English and the local language.

- All deliverables are subject to review by ETP, and beneficiary entity(ies) where applicable, before approval. If there are comments and suggestions, the deliverables need to be revised accordingly before payment is released.
- The Implementing Partner is required to update the results and achievements of the project in accordance with the agreed project-level Results-Based Monitoring Framework, as per the approved template. All results, where applicable, must be gender disaggregated
- The Implementing Partner is required to organise and execute all aspects of the workshops, including organisation and logistics.
- The Implementing Partner must consider and highlight specific gender considerations in their proposal.
- The Implementing Partner must be available to attend 1 in-person workshop with the ETP secretariat in the region. The costs for this will be covered outside the financial scope of this proposal.
- The Implementing Partner, or an active organisation within the applying consortium, must have an in-country presence.

## V. Timeline for the Project

39. The project will require 24 months. The actual project timeline will be presented by the Implementing Partner and agreed upon in the Inception Report.

**Table 4.** Proposed timeline of the project's deliverables

No.	DELIVERABLES	Month																							
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	Inception Report, including a communication plan																								
2	Review of institutional roles and governance mechanisms																								
3	A comprehensive national roadmap																								
4	Creation of 10 new professional certification programs																								
5	30 training modules and educational curricula																								

No.	DELIVERABLES	Month																														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
6	Final Report																															
7.1.	Coordination meetings and dissemination workshops (indicative)																															
7.2	Capacity building program to enhance the government's capacity (indicative)																															
8	Stakeholder workshops and post-workshop (indicative)																															
Milestone		1	2	3											4											5						6

## VI. Key Beneficiaries

40. The key beneficiaries of this project are provided in Table 4.

**Table 4.** List of beneficiaries of this project

Beneficiary	Benefit	Explanation
Direct Beneficiary: MEMR	Enhanced workforce for energy transition	The Ministry of Energy and Mineral Resources (MEMR) directly benefits from a skilled workforce to drive energy transition initiatives, ensuring the successful implementation of renewable energy and energy efficiency projects.
	Improved capacity in educational delivery	MEMR gains an improved capacity to deliver educational and training programs related to energy transition, enabling better alignment between workforce development and the evolving energy landscape.
Indirect Beneficiary: MECRT	Strengthened educational quality	The Ministry of Education, Culture, Research, and Technology (MECRT) indirectly benefits from the project by enhancing the quality of education and training in the field of energy transition. This leads to a more skilled workforce graduating from educational institutions, ready to contribute to Indonesia's energy goals.
Indirect Beneficiary: Ministry of Manpower (MoM)	Increased employability in the energy sector	The Ministry of Manpower (MoM) benefits indirectly through a more employable workforce in the energy sector. Skilled individuals are more likely to secure employment, contributing to the overall economic development of the country.

Beneficiary	Benefit	Explanation
Indirect Beneficiary: Ministry of Industry (MoI)	Enhanced industrial growth	The Ministry of Industries (MoI) indirectly benefits from the project by having access to a skilled workforce that can support the growth of energy-related industries. This contributes to industrial expansion and economic development in Indonesia.

41. A donor mapping was conducted to prevent duplication of efforts between ETP and other development partners in the same areas, as well as to identify areas where ETP could provide support for energy transition that had not yet been addressed. See Annex 1.
42. The contractor is expected to identify and engage with other relevant stakeholders as part of this project.

## VII. Results-Based Monitoring Framework and Risks

### A. Results-Based Monitoring Framework

43. The Results of the Project are monitored through the following Framework in Table 5. All reports will update the achievement of the indicators.

**Table 5. Results-Based Monitoring Framework Outline**

## Roadmap for Skilled Workforce Development to Support Energy Transition in Indonesia

### IMPACT

- Energy transition jobs in low-carbon industries added
- Share of RE in the total primary energy supply (TPES)

### OUTCOME

Strategic Objective 4. Knowledge and Awareness Building

### OUTPUT

4.1. Stakeholders (relevant Government entities, Public sector companies, Financial institutions, Private entities, Academia, and Consumers) involved in the RE/EE value chain, are knowledgeable and better informed to advance the energy transition agenda

INDICATORS	TARGETS
IN 1.1-02.1 - No. of RE and EE policies, laws, regulations, and/or technical standards developed/revised and presented to/by the government entities	IN 1.1-02.1 - minimum <b>10</b> of RE and EE certification programs developed/revised and presented to/by the government entities
IN 4.1-01 – No. of studies, research, new evidence gathered and published, for raising awareness, improving knowledge base, driving decisions, and dissemination	IN 4.1-01 – <b>3</b> studies, research, new evidence gathered and published, for raising awareness, improving knowledge base, driving decisions, and dissemination
IN 4.1-02 - No. of trainings, knowledge sharing events, and/or awareness workshops organised at national and regional levels building institutional capacity and knowledge networks	IN 4.1-02 - <b>30</b> RE and EE training modules and educational curricula, and 20 trainings for trainers to be able to teach and assess the certification program organised at national and regional levels building institutional capacity and knowledge networks
IN 4.1-04 - No. of articles, press-releases on social-media, and mass-media, for outreach	IN 4.1-04 - <b>10</b> news articles, press-releases on social-media, and mass-media, for outreach

### ACTIVITIES

- Conduct a comprehensive assessment of the current status and future needs
- Identify the key stakeholders and partners involved
- Analyze the current trends worldwide.
- Develop a roadmap for human resources development on energy transitions in Indonesia, outlining required expertise and the numbers of talents needed in each expertise and key strategies and initiatives to achieve it
- Disseminate and validate the roadmap with relevant stakeholders and partners
- Provide technical assistance and capacity-building support to effectively implement and monitor the

progress of the upskilling and reskilling programs and update the roadmap in the future.

44. The results are reported with additional supporting information and evidence where applicable and necessary.

## VIII. Qualification and experience of the service provider and evaluation criteria

### A. Qualification and Experience of the Service Provider

45. The Implementing Partner's project team should demonstrate the capacity to execute the works and should include all essential roles filled with personnel with relevant experience. CV's of the personnel proposed should be used to verify this information.
46. The following are the minimum positions that should be included on the team. Bidders should make an assessment of the additional positions needed (if any) to complete the assignment as per the Terms of Reference:
  - a. Team Lead
  - b. Stakeholder Engagement Specialist
  - c. Policy Analyst
  - d. Curriculum Development Expert
  - e. Monitoring and Evaluation Specialist
  - f. Gender and Social Inclusion Specialist
47. Considering the importance of close coordination with stakeholders in INDONESIA, it is expected that the team proposed consists of Implementing Partner(s) who understand the local context in Indonesia. In addition, at minimum, the Stakeholder Engagement Specialist and Curriculum Development Expert should be **based in Jakarta** to enable closer coordination with the beneficiaries.
48. The bidder should also assign a Contract Manager who would liaise on the non-technical part of the contract implementation, including coordination, liaising with key counterparts, and liaising with UNOPS on submission of invoice and payment-related documents.

### B. Evaluation Criteria

#### Eligibility and Formal Criteria

44. The *criteria contained in the table below will be evaluated on **Pass/Fail** basis and checked during Preliminary Examination of the proposals.*

Criteria	Documents to establish compliance with the criteria
1. Offeror is eligible as defined in Instructions to Offerors, Article 4. In the case of JV, all JV members should fulfil this requirement	<ul style="list-style-type: none"> <li>Form A: Joint Venture Partner Information Form, all documents as required in the Form, in the event that the Proposal is submitted by a Joint Venture.</li> <li>Form B: Proposal Submission Form</li> </ul>
2. Completeness of the Proposal. All required Questionnaires (if any), Returnable Bidding Forms, and other documentation requested under the Document Checklist section have been provided and are complete	<ul style="list-style-type: none"> <li>All documentation as requested under Instructions to Offerors Article 10, Documents Comprising the Proposals</li> </ul>
3. Offeror accepts UNOPS General Conditions of Contract as specified in Section IV: Contract Forms	<ul style="list-style-type: none"> <li>Form B: Proposal Submission Form</li> </ul>

### Qualification Criteria

45. The criteria contained in the table below will be evaluated on a Pass/Fail basis and checked during the Qualification Evaluation of the proposals.

Criteria	Documents to establish compliance with the criteria
1. The company should have a minimum of 3 years of continuous experience in delivering similar projects in the past with a track-record of success.  In case of JV, at least one of the JV members should fulfil this criteria	<ul style="list-style-type: none"> <li>Certification of incorporation of the Offeror</li> <li>Form F: Performance Statement Form</li> </ul>
2. Offeror must provide a minimum of two (2) customer references from which similar services have been successfully provided, within any of the last 3 years.  In case of JV, the customer references of JV members can be combined	<ul style="list-style-type: none"> <li>Form F: Performance Statement Form</li> </ul>

### Technical Criteria



46. Technical evaluation will be carried out on bids that pass the eligibility, formal and the qualification criteria, with requirements as follows:
- The maximum number of points that a bidder may obtain for the Technical proposal is 80. To be technically compliant, Bidders must obtain a minimum of 56 points
  - Minimum pass score: 70% of maximum 80 points = 56 points

47. Technical proposal points allocation

Section number/description		Points Obtainable
1.	Offeror's qualification, capacity and expertise	20
2.	Proposed Methodology, Approach and Implementation Plan	35
3.	Key Personnel proposed and Sustainability Criteria	25
Total Technical Proposal Points		80

**Section 1: Offeror's qualification, capacity and expertise**

Section 1: Offeror's qualification, capacity and expertise		Points	Sub-points
1.1	Brief description of the organisation, including the year and country of incorporation, and types of activities undertaken, including relevance of specialised knowledge and experience on similar engagements done in the past.	15	
	Bidders partnering up with a local entity to provide for strategic consultation, and translations; as well as the communications expertise is considered a valuable asset.		
	1. Experience in projects of comparable size, type, complexity and technical specialty		5
	2. Experience in providing similar services in the region, especially Indonesia		5
	3. Understanding of local context, and partnering up with an Indonesian entity to provide for the strategic consultation, translations; as well as the communications expertise		5

Section 1: Offeror's qualification, capacity and expertise		Points	Sub-points
1.2	General organisational capability which is likely to affect implementation: management structure, and project management controls. (Max 4 pages written text)	5	
	1. Management structure, management controls, and the extent to which any part would be subcontracted		3
	2. Financial Capacity/financial stability: Bidder should have a minimum annual turnover of 150,000 USD in any of the past 2 years.  In case of a joint venture, annual turnover is calculated based on the total annual turnover of the JV members.		2
Total points for section		20	

## Section 2: Proposed Methodology, Approach and Implementation Plan

Section 2: Proposed Methodology, Approach and Implementation Plan		Points	Sub-points
2.1	Description of the Offeror's approach including risk(s) and mitigation measure(s), and methodology for meeting or exceeding the requirements of the Terms of Reference	25	
	1. Description of the offeror's approach to identification of data sources, scenarios, issues for the deep-dive in the analysis and providing guidance to the government policy makers		5
	2. Description of the offeror's approach to the assessment of Skilled Workforce Development to Support Energy Transition		12
	3. Description of the offeror's approach to development of policy and technical recommendations including the number/type of actions that needs to be taken to support Skilled Workforce Development to Support Energy Transition		8
2.2	Quality Assurance Plan	5	
	1. A plan outlining how the bidder intends to ensure oversight and quality assurance throughout the		5

Section 2: Proposed Methodology, Approach and Implementation Plan		Points	Sub-points
	assignment. Quality Assurance plan should include discussion on risk assessment and its mitigation plan		
2.3	Implementation Timeline	5	
	1. Bidder submits a detailed implementation timeline which includes detailed activities to be undertaken during this assignment, and is completed with Gantt chart		5
Total points for section		35	

### Section 3: Key personnel proposed and Sustainability Criteria

Section 3: Key personnel proposed and Sustainability Criteria		Points	sub-points
	Qualifications of key personnel proposed aligned with the Terms of Reference	20	
3.1	<b>Team Lead</b>  <b>Education:</b> a Master's Degree in Renewable Energy, Energy Engineering, or a closely related field. A Bachelor's Degree with 2 years of similar experience with a Bachelor Degree is considered equivalent.  <b>Experience:</b> <ul style="list-style-type: none"> <li>A minimum of 7 years of relevant experience in a similar role, with a minimum 2 years of leadership experience.</li> <li>Experience focusing on workforce development and capacity building is essential, preferably in Southeast Asia.</li> <li>Experience in managing multi-stakeholder projects and a strong understanding of project management methodologies is essential</li> <li>Experienced or currently involved in developing a SKKTK/SKKNI</li> </ul>		4
	<b>Stakeholder Engagement Specialist</b>  <b>Education:</b> A Bachelor's Degree in Communication, Public Relations, or a related field is necessary. Additional qualifications in stakeholder engagement and public relations are advantageous.		3

	<b>Experience:</b> <ul style="list-style-type: none"> <li>• Candidates should possess at least 8 years of experience in stakeholder engagement, especially in the context of government projects or initiatives within the energy sector or workforce development.</li> <li>• Strong communication skills and the ability to build and maintain relationships are crucial.</li> <li>• Experience working with the ministries in similar projects is a must</li> </ul>		
	<b>Policy Analyst</b>  <b>Education:</b> A Master's Degree in Public Policy, Environmental Policy, or a closely related field is required.  <b>Experience:</b> <ul style="list-style-type: none"> <li>• A minimum of 6 years of experience in policy analysis, with a specific focus on energy transition policies, is essential.</li> <li>• Candidates should demonstrate a strong understanding of policy development processes and their implications for the energy sector.</li> </ul>		4
	<b>Curriculum Development Expert</b>  <b>Education:</b> Candidates must hold a Master's Degree in Education, Curriculum Development, or a related field.  <b>Experience:</b> <ul style="list-style-type: none"> <li>• A minimum of 5 years of experience in curriculum development is necessary, including in professional certification for SKKNI/SKTTK</li> <li>• Knowledge of energy transition-specific training and educational needs is highly preferable.</li> </ul>		4
	<b>Monitoring and Evaluation Specialist</b>  <b>Education:</b> Candidates should have a Master's Degree in Monitoring and Evaluation, Statistics, or a closely related field.  <b>Experience:</b> <ul style="list-style-type: none"> <li>• A minimum of 6 years of experience in designing and implementing monitoring and evaluation frameworks for development projects is required.</li> <li>• Candidates should have a proven track record in data analysis and reporting.</li> </ul>		3
	<b>Gender and Social Inclusion Specialist</b>		2

	<b>Education:</b> A Master's Degree in Gender Studies, Social Work, or a related field is necessary.  <b>Experience:</b> <ul style="list-style-type: none"> <li>• Candidates must have a minimum of 5 years of experience in mainstreaming gender equality and social inclusion in development projects.</li> <li>• Familiarity with gender-sensitive approaches and practices is essential.</li> </ul>		
3.2	The bidder shall provide a clear statement, approach and methodology that demonstrates its commitment to support and mainstream gender equality and social inclusion through its operations and project implementation activities.	5	
<b>Total points for section</b>		<b>25</b>	

### Financial Criteria (20 maximum points)

48. The financial part of those proposals that are found to be technically compliant will be evaluated as follows.
49. The maximum number of points that a bidder may obtain for the Financial Proposal is 20. The maximum number of points will be allocated to the lowest evaluated price bid. All other prices will receive points in reverse proportion according to the following formula:
50. Points for the Financial Proposal of a bid being evaluated =
$$\frac{[\text{Maximum number of points for the Financial Proposal}] \times \{\text{Lowest price}\}}{[\text{Price of the proposal being evaluated}]}$$
51. Financial proposals will be evaluated following the completion of the technical evaluation. The bidder with the lowest evaluated cost will be awarded (20) points. Financial proposals from other bidders will receive prorated points based on the relationship of the bidder's prices to that of the lowest evaluated cost.

### Formula for computing points: Example

Points = (A/B) Financial Points
Bidder A's price is the lowest at \$20.00. Bidder A receives 20 points
Bidder B's price is \$40.00. Bidder B receives (\$20.00/\$40.00) X 20 points = 10 points

52. The total score obtained in both Technical and Financial proposals will be the final score for the proposal, with 80% allocated to the Technical proposal and 20% to the Financial proposal. The proposal obtaining

the overall highest score will be considered as the winning proposal. This proposal will be considered to be the most responsive to the needs of UNOPS in terms of value for money.

53. The selection of the preferred bidder will be based on a cumulative analysis, analyzing all relevant costs, risks, and benefits of each proposal throughout the whole life cycle of the services and in the context of the project as a whole. The lowest-priced proposal will not necessarily be accepted.

## Annex 1

### Donor mapping

Name of organisation	Topic and detailed activity
<b>ADB</b>	Together with AFD (Agence Française de Développement), they plan to support PLN in assessing the human resource capacity in energy transition. Early outreach to AFD and ADB is necessary to ensure the projects will become complementary.
<b>ASEAN Centre for Energy (ACE) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH</b>	Together with Siemens AG, assisted PLN in systematically and strategically planning and implementing smart grid technology in their existing infrastructures. This training is organised by the ASEAN Plan of Action for Energy Cooperation (APAEC) that runs through 2016 – 2025. This program trained 26 participants from PLN Headquarters, PLN Smart Grid Team, and various divisions and regions. The capacity-building curriculum and participants must be updated and scaled to support the ambitious smart grid in the National Medium Term Development Plan (RPJPM) 2020-2024 in Java and Bali.
<b>GIZ's REEP 1000 Islands</b>	Supported by Energynautics from 2017 through 2020, conducted numerous training in 2019 and 2020 in several locations across Indonesia. The training was delivered at PLN's training centre in Makassar and PLN headquarters in Jakarta, focusing on power system planning and operation, grid code development, blackouts, and system restoration. The training included power system planning with renewable energy and power system operation with high shares of variable renewable energy.
<b>AIIB and World Bank</b>	co-financed PLN's development of the Upper Cisokan Pumped Storage (UCPS) Hydropower Plant. Aside from supporting Indonesia's first large-scale pumped storage hydropower in the Java-Bali grid, it also aims at strengthening PLN's capacity for hydropower development and management. The financing started in 2022 and will close in 2028.
<b>USAID - SINAR Project</b>	The United States Agency for International Development (USAID) assists SINAR in advancing Indonesia's objective to increase equitable and reliable energy services to promote inclusive economic growth and sustainable development. USAID supported A 6 MW Bayang Nyalo Hydro Power Project in West Sumatra and a 98.4 MW Rantau Dedap Geothermal Power Project in South Sumatra; both received \$14.6 million. Therefore, more than 1.2 million people have benefited from better energy services. There has been a decrease in greenhouse gas emissions of more than 58,000 metric tonnes.
<b>Indonesia Clean Energy Development II (ICED II)</b>	For local governments, PLN, and banks, ICED II (2015-2020) offered seven training sessions on solar PV feasibility standards, geographic electrification, and energy planning. 352 males and 135 women out of 487 participated in ICED II training. Two



	<p>employees from PLN's Load Dispatch Center (P2B) began a 3-month (June–August 2018) internship program with the California Independent System Operator (CAISO) as a follow-up to the reverse visit of the Utility Executive Exchange Program in March. The internship focused on the utility-scale renewable energy power plants' operational facets in the transmission infrastructure.</p>
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