



**TERMS OF REFERENCE (TOR) FOR  
TECHNICAL EXPERTS / CONSULTANT**

**PROJECT NAME:**

**DEVELOPMENT OF REGIONAL RENEWABLE ENERGY CERTIFICATE (REC)  
FRAMEWORK TO ADVANCE RENEWABLE ENERGY DEPLOYMENT IN ASEAN,  
EMPHASISING THE ROLE OF ASEAN POWER GRID**

**Ref. No: ID-ACE-493578-CS-CQS**



## REQUEST FOR EXPRESSIONS OF INTEREST (CONSULTING SERVICES – FIRMS SELECTION) INDONESIA

Clean Energy and Power Trade Development in Southeast Asia Project of the Multi-Phase Programmatic Approach Accelerating Sustainable Energy Transition (MPA ASET)

Project/Grant No: P181555 / IDA -E3430

Technical experts for the Development of Regional Renewable Energy Certificate (REC) Framework to Advance Renewable Energy Deployment in ASEAN, Emphasizing the Role of ASEAN Power Grid (ID-ACE-493578-CS-CQS)

1. The ASEAN Centre for Energy has received financing from the World Bank toward the cost of the Clean Energy and Power Trade Development in Southeast Asia Project of the Multi-Phase Programmatic Approach Accelerating Sustainable Energy Transition/MPA ASET (P181555) and intends to apply part of the proceeds for the Development of Regional Renewable Energy Certificate (REC) Framework to Advance Renewable Energy Deployment in ASEAN, Emphasizing the Role of ASEAN Power Grid.

2. The consulting services ("the Services") include Team of experts for the Development of Regional Renewable Energy Certificate (REC) Framework to Advance Renewable Energy Deployment in ASEAN, Emphasizing the Role of ASEAN Power Grid. The objective of this consulting service is to develop a regional REC framework at ASEAN that highlights the ASEAN Member States' (AMS) commitment to standardized cross-border REC transactions and demonstrates alignment with international leading practices

3. The ACE- MPA ASET now invites eligible institutions/consulting firms ("Consultants") to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services.

4. The ASEAN Centre for Energy now invites eligible consulting firms ("Consultants") to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services. The shortlisting criteria are:

a. The firm shall demonstrate proven records of delivery for similar tasks/products delivered in the ASEAN region over the most recent five years.



b. The firm is expected to mobilize a multidisciplinary team with the appropriate qualifications and experience to carry out the assignment effectively. The proposed key experts shall, at a minimum, include the: Team Leader/Project Manager, 1 Subject Matter Expert related to a regional REC governance body, 1 REC market expert with experience in analyzing multiple ASEAN country markets, and 1 (one) ASEAN renewable energy regulation and policy analyst.

c. The firm needs to demonstrate the competency as mentioned in the accompanying Terms of Reference (TOR)

Key Experts will not be evaluated at the shortlisting stage. The works are expected to be fully remote with exception of in-person facilitation role during the workshop arrangements as indicated in the TOR

5. The approximate duration of the contract will be 30 months from the date of the contract signing. This timeline is an estimate and may be subject to adjustment.

6. The detailed TOR for the assignment is attached to this Request for Expression of Interest or can be found at the following website: Procurement - ASEAN Centre for Energy

7. The attention of interested Consultants is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers" July 2016, revised in sixth edition dated February 2025 ("Procurement Regulations"), setting forth the World Bank's policy on conflict of interest.

8. Consultants may associate with other firms to enhance their qualifications but should indicate clearly whether the association is in the form of a joint venture and/or a sub-consultancy. In the case of a joint venture, all the partners in the joint venture shall be jointly and severally liable for the entire contract, if selected.

9. The institution/consulting firm will be selected in accordance with the Consultant Qualification Selection (CQS) method set out in the Procurement Regulations under Investment Project Financing (IPF) dated July 1, 2016, revised February 2025 (6th Edition).

10. Expressions of interest must be delivered in a written form to the address below (by e-mail) by 25 June 2025, 23:59 (GMT+7) to:



ASEAN CENTRE FOR ENERGY

Attn: Procurement Specialist

E-mail: [asetprocurement@aseanenergy.org](mailto:asetprocurement@aseanenergy.org)

11. The Procuring Entity (PE) reserves the right to accept or reject any or all EOIs without assigning any reason whatsoever. All decisions by the PE are final.



## **I. PROJECT NAME**

Development of Regional Renewable Energy Certificate (REC) Framework to Advance Renewable Energy Deployment in ASEAN, Emphasising the Role of ASEAN Power Grid

## **II. POST TITLE**

Technical expert on ASEAN Renewable Energy Certificate (REC)

## **III. BACKGROUND**

The ASEAN Centre for Energy (ACE) is an intergovernmental organisation that independently represents the 10 ASEAN Member States (AMS) interests in the energy sector. The Centre serves as a catalyst for the economic growth and integration of the ASEAN region by initiating and facilitating multilateral collaborations and collective energy activities. It is guided by a Governing Council composed of Senior Officials on Energy from each AMS and a representative from the ASEAN Secretariat as an ex-officio member. The ACE office is based in Jakarta, hosted by Indonesia's Ministry of Energy and Mineral Resources.

As part of the efforts to fulfil its function as a regional centre of excellence that builds a coherent, coordinated, focused and robust energy policy agenda and strategy for ASEAN, ACE conducts joint studies, policy dialogues and capacity buildings for AMS to support the implementation of the ASEAN Plan of Action for Energy Cooperation (APAEC) 2016-2025. APAEC is the blueprint for enhancing energy connectivity and market integration in ASEAN to achieve energy security, accessibility, affordability, and sustainability for all AMS.

Concerning the above and alignment with the ASEAN Plan of Action for Energy Cooperation (APAEC) to increase renewable energy deployment in the region, ACE will conduct the development of a technical framework for a cross-border renewable energy certificate (REC) system in ASEAN. Supported by the World Bank, this assessment will address issues on renewable energy development by identifying opportunities associated with the movement of REC from cross-border green electricity trade in driving clean energy projects and helping to meet the regional renewable energy (RE) targets.

The study aims to develop a regional REC framework at ASEAN that highlights the ASEAN Member States' (AMS) commitment to standardised cross-border REC transactions and demonstrates alignment with international leading practices. By drawing insights from global best practices and an in-depth assessment of the region's status quo of REC practices, the regional framework will establish harmonised rules for cross-border REC issuance, trade, and tracking across ASEAN— while also addressing the unique country-specific circumstances of each REC and power market in the region.

## **IV. DURATION OF ENGAGEMENT**

The consultant hired with the assignment will be hired up to 30 months from July 2025 until December 2027, obliged to work within the required deadlines, and available for calls or meetings, virtually and in person, as needed.



The consultant will undertake this project for a period in line with **Table 1 of clause VI**, which can be continuous or intermittent due to further discussion between ACE and the consultant.

## **V. TASK TO BE UNDERTAKEN**

The consultant will assist ACE in developing the report on the technical framework for the cross border Renewable Energy Certificate (REC) trading in ASEAN. The structure of the end report is indicated in **Annex A**. The final content is subject to change based on the discussion and agreement between ACE and the consultant.

The objective of the assignment is to assess:

1. Existing green electricity attribute tracking and certification systems of 10 (ten) AMS to identify common principles, best practices, and gaps with the global best practices.
2. The ways in which REC contributes to renewable energy (RE) financing and bankability. Including considering the relevant policies and incentive mechanisms that influence REC-driven financing in the context of ASEAN Power Grid (APG) planned interconnections.
3. Opportunities and benefits for AMS from engaging in the cross-border RE electricity trade with bundled RECs.
4. The detailed functions, requirements, mechanisms, key roles and tasks, workplan, source of financial stream, and structure of a convening dialogue platform for ASEAN REC stakeholders within the national and regional energy regulatory framework as a precursor to establishing the ASEAN REC Taskforce.
5. The importance and benefits associated with developing the ASEAN REC Taskforce.
6. The required technical and regulatory mechanisms to track physical cross-border clean electricity flows. Including analysing the credible monitoring system to track clean electricity exports and imports.
7. Approaches to align and harmonise technical enabling requirements for ASEAN cross-border RE electricity trade, including but not limited to the regionally contextualised adoption of existing residual mix calculation methodology.
8. Coordination of REC-related data protocols and long-term data governance and information sharing across AMS.
9. The consolidation of technical enabling requirements, REC contribution to RE financing (including in the context of APG), as well as the ASEAN REC Taskforce structure, functions, and workplan, into a regional framework that enables the recognition of cross-border REC trade within APG.

The scope of the assignment for the technical experts are:

1. Collect relevant data, analysis, and references to build the analysis.
2. Structure the reports as a reference for multiple stakeholders, including areas in policy, financing and technologies.
3. Together with ACE to prepare the concept note and guiding questions for discussion, presentation and summary for knowledge-sharing/focus group discussions (FGD).



4. Prepare the meeting report of the activities.
5. Develop the final framework based on the conducted studies as well as insights gained from meetings. The technical expert is also required to ensure the synchronicities of the final report flow, with the conducted studies.

## VI. EXPECTED DELIVERABLES

The technical experts are required to deliver the following studies and documents over the duration of engagement:

*Table 1. List of Studies and Documents to be Delivered by the Technical Expert*

No.	Activity	Document / Output
1.	Research (1.1.a)	Study for establishing the ASEAN REC Taskforce (10 – 15 pages).
2.	Research (1.1.b)	Terms of Reference (ToR) for establishing the ASEAN REC Taskforce (10 – 15 pages).
3.	Research (1.1.c)	Workplan (manual) of ASEAN REC Taskforce for 2026 – 2027 (20 – 25 pages).
4.	Research (1.2)	Study on REC market assessment and cross-border REC transactions framework in ASEAN (20 – 25 pages)
5.	Research (1.3)	Study on the financial role of REC in ASEAN (25 – 30 pages).
6.	Research (2.1)	Study on tracking and verifying the ASEAN cross-border REC (25 – 30 pages).
7.	Research (2.2)	Study on the harmonisation of cross-border ASEAN REC market enabling requirements (25 – 30 pages).
8.	Research (3.1)	Regional ASEAN REC Framework (50 – 75 pages).

Expected outputs and deliverables, including timelines for the submission by the technical experts, are:

*Table 2. Activity and Deliverables of the Consultant*

Activity	Deliverable	Deadline*
Research (1.1.a); Research (1.1.b); Research (1.1.c)	Propose outline for the 1. <b>Study on Regional REC Market Assessment and Cross-Border REC Transaction Framework in ASEAN</b> 2. <b>Study on the Financial Role of RECs in ASEAN</b>	1 July 2025



Research (1.2); Research (1.3);	<p>3. <b>ASEAN REC Taskforce establishment documents:</b> TOR draft, study, and manual (workplan)</p> <p>Workplan improvement for agreement: make adjustments to include relevant research areas and aspects for the report.</p>	
Research Research (1.1.a); Research (1.1.b); Research (1.1.c)	<p>Report of the:</p> <ol style="list-style-type: none"> <li>1. First stage draft (<i>initial research findings or 25% completion of the total work</i>) for the <b>Study for the Establishment of the ASEAN REC Taskforce</b></li> <li>2. 1<sup>st</sup> draft (<i>75% completion of the total work</i>) of <b>Terms of Reference (TOR) of the ASEAN REC Taskforce</b></li> <li>3. 1<sup>st</sup> stage (<i>25% completion of the total work</i>) for the <b>Workplan (Manual) of the ASEAN REC Taskforce</b></li> </ol>	14 July 2025
Research (1.1.a); Research (1.1.b); Research (1.1.c)	<p>Report of the:</p> <ol style="list-style-type: none"> <li>1. Interim draft (<i>50% completion of the total work</i>) for the <b>Study for the Establishment of the ASEAN REC Taskforce</b></li> <li>2. Final draft (<i>100% completion of the total work</i>) <b>Terms of Reference (TOR) of the ASEAN REC Taskforce</b></li> <li>3. 1<sup>st</sup> stage (<i>50% completion of the total work</i>) for the <b>Workplan (Manual) of the ASEAN REC Taskforce</b></li> </ol>	28 July 2025
Event (1.1)	Submission of event concept note draft and list of guiding questions for the <b>3<sup>rd</sup> ASEAN REC Taskforce Consultation Meeting</b>	30 July 2025
Research (1.1.a); Research (1.1.c)	<p>Report of the:</p> <ol style="list-style-type: none"> <li>1. Final draft submission (<i>100% completion of the total work</i>) for the <b>Study for the Establishment of the ASEAN REC Taskforce</b></li> <li>2. First draft submission (<i>100% completion of the total work</i>) for the <b>Workplan (Manual) of the ASEAN REC Taskforce</b></li> </ol>	18 August 2025
Research (1.2); Research (1.3);	<p>Report of the</p> <ol style="list-style-type: none"> <li>1. 1<sup>st</sup> stage study draft (<i>25% completion of the total work</i>) for <b>Study on REC Market Assessment and Cross-Border REC Transaction Framework in ASEAN</b></li> </ol>	19 September 2025





	2. 1 <sup>st</sup> stage study draft (25% completion of the total work) for <b>Study on the Financial Role of REC in ASEAN</b>	
Research (1.2); Research (1.3);	Report of the: 1. Interim study draft submission (50% completion of the total work) for <b>Study on REC Market Assessment and Cross-Border REC Transaction Framework in ASEAN</b> 2. Interim study draft submission (50% completion of the total work) for <b>Study on the Financial Role of REC in ASEAN</b>	24 October 2025
Research (1.2); Research (1.3);	Submission of the: 1. First draft study submission (75% completion of the total work) for <b>Study on REC Market Assessment and Cross-Border REC Transaction Framework in ASEAN</b> 2. First draft study submission (75% completion of the total work) for <b>Study on the Financial Role of REC in ASEAN</b>	24 November 2025
Research (1.2); Research (1.3);	Submission of the: 1. Final draft submission (100% completion of the total work) for <b>Study on REC Market Assessment and Transaction Framework in ASEAN</b> 2. Final draft submission (100% completion of the total work) for <b>Study on the Financial Role of REC in ASEAN</b>	22 December 2025
Research (2.1); Research (2.2)	Propose outline for the 1. <b>Study on Tracking the Physical Flow of Green Electrons from Cross-Border RE Trading in ASEAN</b> 2. <b>Study on the Harmonisation of Residual Mix Calculations and EAC Recognition in ASEAN</b> Workplan improvement for agreement: make adjustments to include relevant research areas and aspects for the report.	16 January 2026
Research (2.1)	Submission of the: 1 <sup>st</sup> stage draft submission (25% completion of the total work) for the <b>Study on Tracking the Physical Flow of Green Electrons from Cross-Border RE Trading in ASEAN</b>	16 February 2026



Event (2.2)	<p>Preparation of the study visit to the existing <b>Association of Issuing Bodies and related cross-border REC trade infrastructures or platforms</b>, as well as organisations related to REC practices in another region.</p> <p>In supporting the activity, the submission of the following deliverables is expected:</p> <ul style="list-style-type: none"> <li>Proposed itinerary</li> </ul> <p>Concept note of activities, including the guiding questions</p>	9 March 2026
Research (2.1)	<p>Submission of the:</p> <p>Interim study draft (<i>50% completion of the total work</i>) for the <b>Study on Tracking the Physical Flow of Green Electrons from Cross-Border RE Trading in ASEAN</b></p>	16 March 2026
Event (2.1)	<p>Submission of event concept note draft and list of guiding questions for the <b>4<sup>th</sup> ASEAN REC Taskforce Meeting</b></p>	6 April 2026
Event (2.1)	<p><b>4<sup>th</sup> ASEAN REC Taskforce Meeting</b>. In supporting the event, the following deliverables are expected:</p> <ul style="list-style-type: none"> <li>Technical presentation</li> <li>Moderation of discussion</li> <li>Post-event report</li> <li>Data and information collection from the event for study purposes</li> </ul>	19 May 2026
Research (2.1)	<p>Submission of the:</p> <p>First study draft (<i>75% completion of the total work</i>) for the <b>Study on Tracking the Physical Flow of Green Electrons from Cross-Border RE Trading in ASEAN</b></p>	22 May 2026
Event (2.2)	<p><b>Study visit to the existing Association of Issuing Bodies and related cross-border REC trade infrastructures or platforms</b>, as well as organisations related to REC practices in another region.</p> <p>In supporting the activity, the submission of the following deliverables are expected:</p> <ul style="list-style-type: none"> <li>Technical presentations and moderation</li> <li>Post-activity report</li> </ul>	1 – 6 June 2026
Research (2.1)	<p>Submission of the:</p> <p>Final draft (<i>100% completion of the total work</i>) for the <b>Study on Tracking the Physical Flow of Green Electrons from Cross-Border RE Trading in ASEAN</b></p>	3 July 2026
Research (2.2)	<p>Submission of the:</p>	10 July 2026



	1 <sup>st</sup> stage draft (25% submission of the total work) of the <b>Study on the Harmonisation of Residual Mix Calculations and EAC Recognition in ASEAN</b>	
Event (2.3)	Submission of event concept note draft and list of guiding questions for the <b>5<sup>th</sup> ASEAN REC Taskforce Meeting</b>	10 August 2026
Research (2.2)	Submission of the: Interim study draft (50% completion of the total work) for the <b>Study on the Harmonisation of Residual Mix Calculations and EAC Recognition in ASEAN</b>	8 September 2026
Event (2.3)	The <b>5<sup>th</sup> ASEAN REC Taskforce Meeting</b> . In supporting the workshop, the following deliverables are expected: <ul style="list-style-type: none"> <li>• Technical presentations</li> <li>• Moderation of discussion</li> <li>• Post-event report</li> <li>• Data and information collection from the event for study purposes</li> </ul>	2 October 2026
Research (2.2)	Submission of the: First study draft submission (75% completion of the total work) for the <b>Study on the Harmonisation of Residual Mix Calculations and EAC Recognition in ASEAN</b>	2 November 2026
Research (2.2)	Submission of the: Final draft (100% completion of the total work) for the <b>Study on the Harmonisation of Residual Mix Calculations and EAC Recognition in ASEAN</b>	8 December 2026
Research (3.1)	Propose outline for the <b>Regional Renewable Energy Certificate (REC) Framework to Facilitate the ASEAN Cross-Border Power Trade and Renewable Energy Deployment</b>	18 February 2027
Research (3.1)	Submission of the: 1st stage draft submission (Chapter 1 - 2 or 25% of the total work) of the <b>Regional ASEAN REC Framework</b>	3 April 2027
Event (3.1)	Submission of event concept note draft and list of guiding questions for the <b>6<sup>th</sup> ASEAN REC Taskforce Meeting</b>	12 May 2027
Research (3.1)	Submission of the: Interim study draft (50% completion of the total work) for the <b>Regional ASEAN REC Framework</b>	23 May 2027
Event (3.1)	<b>6<sup>th</sup> ASEAN REC Taskforce Meeting</b> . In supporting the event, the following deliverables are expected: <ul style="list-style-type: none"> <li>• Technical presentations</li> <li>• Moderation of discussion</li> </ul>	30 June 2027



	<ul style="list-style-type: none"> <li>• Post-event report</li> <li>• Data and information collection from the event for study purposes</li> </ul>	
Research (4.1)	Submission of the: First study draft ( <i>75% completion of the total work</i> ) for the <b>Regional ASEAN REC Framework</b>	12 July 2027
Event (4.2)	Submission of event concept note draft and list of guiding questions for the <b>7<sup>th</sup> ASEAN REC Taskforce Meeting</b>	7 August 2027
Research (4.1)	Submission of the: Final draft ( <i>100% completion of the total work</i> ) for the <b>Regional ASEAN REC Framework</b>	14 September 2027
Event (4.2)	<b>7<sup>th</sup> ASEAN REC Taskforce Meeting</b> In supporting the workshop, the following deliverables are expected: <ul style="list-style-type: none"> <li>• Technical presentations</li> <li>• Moderation of discussion</li> <li>• Post-event report</li> <li>• Data and information collection from the event for study purposes</li> </ul>	28 September 2027

\* Actual deadline may be adjusted based on the agreement and approval by ACE.

## VII. WORK MECHANISM

The implementation of the project is arranged as below:

- Led by the Sustainable Renewable Energy (SRE) Department and the World Bank's Project Management Unit (World Bank PMU), ACE is responsible for the project's full implementation. It will manage and facilitate the work and communication with government officials from ASEAN (RE-SSN focal points), SOME, and AMEM, including with other official parties, if needed.
- External Consultant to provide technical expertise and support as described in this TOR. The consultant is responsible for communicating with external parties required under this project, particularly private sectors or companies. During the work period, the consultant must have regular check-in call meetings with ACE to discuss progress in every step of the work. Any interaction with the external parties to support the project by the consultant must be approved by ACE.

## VIII. CONSULTANT QUALIFICATION

ACE requires a consulting service provider or technical experts with proven experience and capacity to provide the necessary tasks, outputs/deliverables as described above.



- The expertise of the firm/organisation: The consulting service provider or technical experts should demonstrate proven records of delivery for similar tasks/products delivered in the ASEAN region or one of the ASEAN countries, over the most recent five years. Bidders to attest their expertise by submitting, e.g. reports, studies, analysis, consultancy products, research analyses and data management related to the aim of the consultancy.
- Team composition: The consultant is expected to mobilize a multidisciplinary team with the appropriate qualifications and experience to carry out the assignment effectively. The proposed team shall, at a minimum, include the:
  - Team Leader/Project Manager,
  - 1 (one) Subject Matter Expert related to a regional REC governance body,
  - 1 (one) REC market expert with experience in ASEAN, and
  - 1 (one) ASEAN renewable energy regulation and policy analyst

The consultant may propose additional experts or personnels as needed to meet the objectives of the assignment.

- Team capabilities: The team involving a senior consultant/technical staff with more than ten years of experience in renewable energy certificates (REC) in ASEAN and the cross-border green power trade in ASEAN, with the support of an adequately skilled team. Bidders to submit CVs.
  - Extensive expertise and knowledge in the market dynamics of renewable energy certificate (REC) in ten ASEAN countries.
  - Extensive expertise, familiarity, and knowledge related to the policymaking and regulation of renewable energy certificate (REC) in ASEAN countries.
  - Expertise, experience, and familiarity with the renewable energy certificate (REC)/energy attribute certificate (EAC) from other regions, such as the European Union Guarantees of Origins (GOO) market or the North American EAC market.
  - Familiarity with the setup of regional REC governance, such as the European Association of Issuing Bodies.
  - Expertise and knowledge in existing national governmental policies related to RE and the RE electricity market in ASEAN.
  - Extensive knowledge in the RE cross-border power trade, including the international level and the ASEAN Power Grid (APG).
  - Network with international REC standard setting bodies and the international sustainability frameworks such as the RE100, CDP, SBTi, or the GHG Protocol.
- Excellent command of English and the capacity to write high-quality reports in the language; the ability to deliver high-quality workshops and discussions in English is also required.



- If the Proposer is a group of legal entities that will form or have formed a joint venture, consortium, or association at the time of the submission of the Proposal, all of the members of the joint venture/consortium/association shall submit, along with the Proposal, a duly notarised agreement confirming that they have designated one member to act as the lead entity duly vested with the authority to bind the members of the joint venture/consortium/association jointly and severally and that if their Proposal is selected, the Contract shall be negotiated and entered into between ACE and the designated lead entity who shall be acting for and on behalf of all the members of the joint venture/consortium/association.
- After the Proposal has been submitted to ACE, neither the lead entity nor the composition or constitution of the joint venture/consortium/association shall be altered without the prior consent of ACE.
- The organisation of the joint venture/consortium/association must clearly define the role of each of its component/member entities in the course of performing the Services.

## IX. PAYMENT

This is a Lumpsum contract. The financial proposal will include all expected costs of the assignment.

- **1<sup>st</sup> payment:** 15% upon signing of the contract.
- **2<sup>nd</sup> payment:** 15% of the contract's cost, paid after final draft submission of the deliverable **Research 1.1.c. Workplan (Manual) of the ASEAN REC Taskforce** upon acceptance and approval of the final version by the Project Management Team.
- **3<sup>rd</sup> payment:** 10% of the contract's cost, paid after final draft submission of the deliverable **Research 1.2 Study on REC Market Assessment and Cross-Border REC Transaction Framework in ASEAN** and **Research 1.3. Study on the Financial Role of REC in ASEAN** upon acceptance and approval of the final version by the Project Management Team.
- **4<sup>th</sup> payment:** 20% of the contract's cost, paid after the final submission of the deliverable **Research 2.1 Study on tracking and verifying the ASEAN cross-border REC** upon acceptance and approval of the final version by the Project Management Team.
- **5<sup>th</sup> payment:** 20% of the contract's cost, paid after the final submission of the deliverable **Research 2.2 Study on the harmonisation of cross-border ASEAN REC market enabling requirements** upon acceptance and approval of the final version by the Project Management Team.
- **6<sup>th</sup> payment:** 10% of the contract's cost, paid after submitting the interim study draft of deliverable **Research 3.1 Regional ASEAN REC Framework** upon acceptance and approval of the final version by the Project Management Team.



- **7<sup>th</sup> payment:** 10% of the contract's cost, paid after the final submission of the deliverable **Research 3.1 Regional ASEAN REC Framework** upon acceptance and approval of the final version by the Project Management Team.

## **X. REQUIRED DOCUMENT**

Interested Consultants or Technical Experts are invited to submit an Express of Interest (EOI) in response to these Terms of Reference (Max 10 pages, excluding CV).

1. The EOI should demonstrate capacity and qualification of the Interested Consultants or Technical Experts, which include but not limited to:
  - Provide a brief description of the organisation/firm submitting the Proposal, its legal mandates/authorised business activities, the year and country of incorporation, types of activities undertaken, and approximate annual budget. Include reference to reputation or any history of litigation and arbitration in which the organisation/firm has been involved that could adversely affect or impact the performance of services, indicating the status/result of such litigation/arbitration.
  - Track record and experiences: Provide the following information regarding corporate experience within the last five (5) years, which are related or relevant to those required for this Contract.
2. The eligible and most responsive bidder will be asked to submit a standardized proposal, which consists of the Approach and Implementation Plan component, and Financial component. The proposal templates and level of details will be informed in this communication.

## **XI. ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT FOR TECHNICAL ASSISTANCE**

An Environmental and Social Management Framework (ESMF) has been prepared to ensure that the ACE ASET Project addresses environmental and social risks and impacts - associated with technical assistance supported under the Programme - in accordance with the ACE legal requirements and the World Bank's ESF. The ESMF ensures that Programme investments do not create or result in downstream impacts to the environment and society through its technical assistance output.

As the outputs of this assignment will help to inform deliverables under the ACE ASET Project, the outputs, covering the environmental and social aspects, should be consistent with the Project's ESMF and this may require coordination with the Environmental and Social specialists of the Project and the World Bank.





The selected firm shall also comply with the World Bank Group's Environmental, Health, and Safety Guidelines (ESHG), specifically regarding Occupational Health and Safety (OHS) and potential downstream risks and impacts emanating from the assignment outputs.

## **XII. SUSTAINABILITY AND GENDER EQUALITY**

The Project is committed to the sustainability of its trainings, studies and knowledge products. A sustainability strategy will be prepared to this end, which will be followed by all Project implementers. It is expected that the activities implemented under this consultancy will take sustainability aspects into account where applicable.

The Project further ensures that gender concerns and women's empowerment strategies are mainstreamed throughout the project activities in order to address gender inequalities and foster women's increased participation in decision-making, including the creation of economic opportunities for women, inclusivity, and the emphasis of gender equality.

The consultant will ensure that gender equality considerations are mainstreamed in all above listed activities. To this end, the trainings and study tours will ensure the fair participation of women and to introduce the plastic management initiatives that are initiated by women.

## **XIII. CONFIDENTIALITY STATEMENT**

All data and information received by the consulting firm from the ASEAN and ACE to support this assignment are to be treated confidentially and are only to be used in connection with the execution of this ToR. The contents of written materials obtained and used in this assignment may not be disclosed to any third parties without the expressed advance written authorization of the ACE.

All deliverables and intellectual property rights arising from this assignment shall belong exclusively to ACE. The Consultant shall not claim copyright or use the materials beyond this assignment without ACE's written approval. While the Consultant may be acknowledged as a contributor, the copyright and content of the report shall be attributed to ACE.

## **XIV. ACE GOVERNANCE POLICIES ON FRAUD AND CORRUPTION**

ACE takes a zero-tolerance approach to fraud and corruption involving ACE Staff Members and third parties concerning their work with ACE. ACE encourages the use of the Whistle-Blower Policy to report any identified cases of fraud and/or corruption in ACE operations.





## **ANNEX A – DEVELOPMENT OF REGIONAL RENEWABLE ENERGY CERTIFICATE (REC) FRAMEWORK TO ADVANCE RENEWABLE ENERGY DEPLOYMENT IN ASEAN, EMPHASISING THE ROLE OF ASEAN POWER GRID**

### **Chapter 1 – Introduction**

1. *Background:*

This background section outlines the background of ASEAN renewable electricity demand and supply, as well as the potential role of the ASEAN Power Grid (APG) in increasing renewable energy deployment in the region. It also provides an overview of the international best practices, as well as the functions of the REC framework In serving the APAEC 2026 – 2030.

2. *Objectives:*

This section succinctly outlines the study's goals as described in this concept note.

3. *Methodology:*

This section expands the study's methodology, which must correspond to the achievement of objectives and outcomes.

### **Chapter 2 – Financial Role of REC in ASEAN**

1. *Role of REC in RE Project Bankability and Contribution to Increasing Domestic RE Electricity Supply*

a. *National Overview of Available Financing Models in ASEAN:*

This subsection summarizes financing mechanisms available for renewable energy in the national energy policies, including incentive instruments relevant to REC-driven investments.

b. *Overview and Status of National REC Market in ASEAN:*

This subsection reviews the current development and implementation of REC markets across ASEAN Member States, highlighting each market status quo, opportunities and challenges, and progress made.

c. *Financial Contribution of REC in National RE Projects*

This subsection draws the findings from utilities and IPPs on the ways in which revenue streams from REC contribute to the construction of new RE projects.

2. *Potential Role of REC in the Power Interconnection Projects within APG*

a. *Value Proposition of Cross-Border REC in Contributing to the Financial Viability of RE Projects in APG*

Estimate the value of revenue from cross-border REC within the framework of APG and demonstrate how REC contribute to the financial feasibility of constructing new RE projects in APG interconnection.

b. *REC Integration to RE Financing Structures for APG Interconnection Projects:*

Discusses how RECs can be embedded into financing models to enhance the bankability and attractiveness of renewable energy projects within APG.



- c. *Policies and Regulatory Framework for REC-driven Financing for RE Projects:*  
Analyses policies and regulations that facilitate the use of RECs in mobilising capital for clean energy, highlighting opportunities for policy improvements.

### **Chapter 3 – Tracking and Verifying REC from Cross-Border RE Trade in APG**

1. *Technical Requirements for Tracking the Cross-Border Electricity Flows*  
This section will assess existing standards and best practices in tracking and certifying the movement of physical green electrons across borders. The analysis will also encompass the metering, verification, and reporting methods to ensure a credible tracking and certification system.
2. *National-Level Policies and Regulatory Frameworks Considerations in Aligning Tracking and System Across ASEAN*  
This section explores the policy and regulatory adjustments required to harmonise tracking mechanisms across countries in ASEAN for cross-border RE transactions.
3. *ASEAN's Approach to Track and Verify Power Movement*  
This section proposes a regional strategy or framework for ASEAN to effectively track physical RE electricity movement, ensuring transparency and accountability.

### **Chapter 4 – Harmonisation of Cross-Border REC Trade Enabling Requirements in ASEAN**

1. *Overview of Existing Technical Enabling Requirements in ASEAN*  
This section will centre around the existing technical requirements to enable the acknowledgement of cross-border RE trade bundled with REC in ASEAN (or the lack thereof). In addition, the assessment of this section will provide the theoretical ground on the importance of the technical requirements (e.g. residual mix calculation) for ASEAN's cross-border REC.
2. *Consideration of Residual Mix Harmonisation Methodologies in ASEAN Context*  
Departing from the findings of the previous section, the assessment will examine the institutional requirements, stepwise pathways, as well as the barriers and challenges of the harmonisation.
3. *Adoption of a Regional Residual Mix Calculation in*  
This section will offer the potential solutions to the challenges of having a harmonised regional residual mix calculation and pathways for adopting the methodology for ASEAN.

### **Chapter 5 – Data Coordination Protocol for Cross-Border REC in APG**

1. *Key Data and Information Flows for Cross-Border*  
This section identifies critical data points and flows necessary to support reliable cross-border REC issuance and verification.
2. *Guidance of Cross-Border REC Data Governance and Coordination*



This section provides recommendations on data governance structures and coordination mechanisms to enable trust and accuracy in cross-border REC systems.

3. *Long-Term Data and Information-Sharing Governance*

This section outlines the pathway for sustainable and secure data-sharing protocols to underpin regional REC markets over the long term.

**ANNEXE – STRUCTURE AND 2-YEAR WORKPLAN OF ASEAN REC TASKFORCE**

This section will outline the roles and functions of the ASEAN REC Taskforce in facilitating the pathways to fulfil the:

- a) financial role of REC in contributing to RE projects in APG;
- b) tracking and verifying REC from cross-border REC trade in APG;
- c) harmonisation of technical enabling requirements for cross-border REC trade in APG;
- d) data coordination and information sharing related to REC.