



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

PROJECT NAME:

**“Preliminary Framework and Guideline for Power Data Sharing to Accelerate the
Expansion of Multilateral Electricity Trading in ASEAN”**

DEADLINE:

19 April 2024



I. PROJECT NAME

“Preliminary Framework and Guideline for Power Data Sharing to Accelerate the Expansion of Multilateral Electricity Trading in ASEAN”

II. POST TITLE

Individual Expert Consultant on Data Sharing in Power Sector

III. OBJECTIVE

The objectives of the project are:

1. Drafting the preliminary framework and guideline for power data sharing to accelerate the expansion of multilateral power trading in ASEAN.
2. Delivering the 3rd Data Sharing Workshop for APG Stakeholders to seek feedback for the proposed framework and guideline, to determine the roles of stakeholders, and to seek approval and recommendation for the first stage of data-sharing implementation.

IV. 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 joint 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 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) 2016-2025 Phase 2: 2021-2025¹ to accelerate the completion of ASEAN Power Grid projects and initiate the expansion of multilateral electricity trading (MPT), the region has identified that to expand the MPT, ASEAN needs to develop data-sharing guidelines and best practices.

Realizing the importance of Data Sharing to increase the likelihood of new power trade arrangements, ASEAN Energy Regulatory Network (AERN) has initiated the work around the data sharing topic by drafting a discussion paper titled “First draft guidance on data to be shared”

¹ <https://aseanenergy.org/asean-plan-of-action-for-energy-cooperation-apaec-phase-ii-2021-2025/>



in 2022. Apart from this, several initiatives to increase the capacity of the Head of Power Utilities/Authorities in ASEAN (HAPUA) on the data-sharing topic have been facilitated by the ASEAN Centre for Energy (ACE) by conducting the 1st Data Sharing Training (virtual) on 29-30 November 2022, supported by UNESCAP. The training discussed two modules which are “Module 1 - The Value of Data Sharing and Transparency in Power Trading for ASEAN Context” and “Module 2 – Technical and Practical Aspects of Data Sharing in Power Trading”. This training was aimed to introduce the high-level concept of data sharing for MPT.

Meanwhile, the 2nd Data Sharing Training for ASEAN Stakeholders (i.e HAPUA, ASEAN Energy Regulatory Networks (AERN), and ASEAN Power Grid Consulting Committee (APGCC)) was held as part of the ASEAN Power Grid (APG) Meeting Series on 30 November 2023 in Jakarta, Indonesia. The training was hosted by the ASEAN Centre for Energy and supported by UNESCAP in collaboration with other development partners such as International Energy Agency (IEA) and USAID Smart Power Program (USAID SPP). The topic of this workshop was surrounding the data-sharing concept and requirements for different stages of MPT (i.e., bilateral cross-border, unidirectional MPT, and complete MPT model), identification of roles between utility and regulator and the governance of data sharing, consideration and potential issue relating to data sharing practices in ASEAN.

Based on the recommendation from previous trainings/workshops, it is necessary to continue increasing the capacity of APG stakeholders (i.e., HAPUA, AERN and APGCC) on data sharing best practices in order to expand the implementation of data sharing in the attempt to catalyse the acceleration of multilateral power trade and to establish a clear framework and guidelines to systematically share power related data that:

1. Determine the category and level of data to be shared
2. Purpose of data to be shared
3. Methods and possible mechanism to share data
4. Stakeholders to be involved (data owner and approval grantor)
5. Data sharing roadmap/plan

The proposed data sharing framework and guidelines as a result of the work under this project will be consulted for feedback in the 3rd Data Sharing Workshop for APG Stakeholders which aim for: 1) feedback for the proposal, 2) to determine the roles of stakeholders and 3) approval and recommendation for first stage of data-sharing implementation (pilot project).

Therefore, ACE seeks individual consultancy services to support the project activities to deliver 1) the Proposed Data Sharing Framework and Guidelines draft and 2) Content material and preparation of consultation in the 3rd series of Workshop on Data Sharing for APG Stakeholders.

V. DURATION OF ENGAGEMENT

The consultant awarded with the assignment will be hired for up to two (2) months from May until June 2024, 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.



VI. TASK TO BE UNDERTAKEN

The consultant is expected to develop the framework and guidelines for power data sharing that will be later proposed to be implemented within ASEAN through a pilot data-sharing platform. The individual consultant will be required to engage and closely with ACE to deliver the work to make it fit into ASEAN context. The individual consultant is expected to deliver the following:

- Develop the Preliminary Framework and Guideline for Data Sharing to accelerate the expansion of multilateral electricity trading in ASEAN, considering the available information from the 1st and 2nd Data sharing workshop materials and outcome as well as the available reference provided by ACE. This work is expected to result in a **short report** and a **slide deck** which will be presented and discussed with the participants during the 3rd workshop. The draft shall include but not limited to this following analysis and mapping:
 - Category and level of data to be shared (for each of this classification: historical data, operation data, planning data) – **What**
 - Purpose of data (proposed list) needs to be share – **Why**
 - Methods to share data (i.e. grid-to-grid/ substation to substation/ circuit to circuit, annually/ monthly/ daily or hourly) – **How & When**
 - Mechanism (i.e. approval) & potential proposed platform for sharing, including the related consideration/ needs to establish the platform – **How**
 - Involved stakeholders/bodies for sharing the data – **Who**
 - Potential challenges, issues, & gaps
 - Stepwise data sharing roadmap/plan (i.e. agreement, guidelines & protocols, roles of each bodies, stage)
- Develop materials/ discussion points for consultation during the workshop with the stakeholders
- Support ACE to present the proposed preliminary data-sharing governance/frameworks and mechanism for ASEAN Stakeholders to seek their inputs and endorsement (buy-in).
- Develop the preliminary design of the data sharing platform for pilot implementation for ASEAN stakeholders approval
- Produce a workshop outcome report in English
- Accommodate the feedback from the workshop to fine-tune the final framework and guidelines.
- Design and co-deliver a one-day workshop on Preliminary Framework and Guideline for Data Sharing in the Effort to Accelerate the Expansion of Multilateral Electricity Trading in ASEAN, including developing agenda, format of the discussion and discussion points to be discussed during the workshop (Target participants: APG stakeholders (i.e., HAPUA, AERN and APGCC) 20-30 person)

VII. EXPECTED DELIVERABLES

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



Table 1. Activity and Deliverables of the Consultant

Activity	Deliverable	Deadline*
Data-sharing Framework and Guidelines draft	Submit first draft of analysis and mapping for the framework and guidelines	31 May 2024
	Submit final draft of analysis and mapping for the framework and guidelines	10 June 2024
Workshop work plan	Submit first draft of workshop outline, agenda, interactive discussion format and list of facilitators	20 May 2024
	Submit final workshop outline, agenda, interactive discussion format and list of facilitators	31 May 2024
Workshop materials	Submit the workshop materials, including the presentation, handbook (if any), discussion point/question lists.	20 June 2024
Workshop delivery	Successfully complete the delivery of one-day workshop	25 or 26 June 2024
Workshop report	Submit the final report to ACE, include synthesizing the discussion and proposed plan for data sharing pilot project	28 June 2024

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

** The workshop delivery will be in person in Luang Prabang, Lao PDR. The workshop arrangement will be covered by ACE including the logistics, venue, invitation for participant. The travel cost for consultant will be covered and arranged by ACE to travel to the workshop venue.

VIII. WORK MECHANISM

The implementation of the project is arranged as below:

- Led by the Power, Fossil Fuel, Alternative Energy and Storage (PFS) Department, ACE is responsible for the project's full implementation. It will manage and facilitate the work and communication with the APG Stakeholders, including Head of ASEAN Power Utilities/Authorities (HAPUA), ASEAN Energy Regulatory Networks (AERN), ASEAN Power Grid Consulting Committee (APGCC), Senior Officer Ministry of Energy (SOME), and ASEAN Ministry on Energy Meeting (AMEM), including with other official parties if needed.
- An Individual Consultant to provide the technical expertise and support as described in this TOR. During the work period, the consultant must have a regular conference call meeting with ACE to discuss progress in every work step. Any interaction with the external parties to support the project by the consultant must be approved by ACE.



IX. CONSULTANT QUALIFICATION

ACE requires an individual consulting service provider with proven experience and capacity to provide the necessary tasks, outputs/deliverables as described above.

- The expertise of an individual consultant: The consulting service provider should demonstrate proven records of delivery for similar tasks/products over the most recent five years. Bidders are to attest their expertise by submitting, e.g., reports, studies, consultancy products, and data management related to the aim of the consultancy.
- Consultant should demonstrate a proven records of 10 years of experience in either global and/or ASEAN policy experts and/or data sharing best practices in power sector.
- Individual expert who has international experience on assisting / establishing/ involve in the development of the framework/governance of data sharing in the international level or more than two countries in different regions where data sharing enables the multilateral electricity trading is preferable. Experience in technical assistance to develop data sharing platforms is greatly valued.
- 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.
- Capacity and flexibility to complete the assignment within the required time frame.

X. SERVICE FEE

The compensation for the entire performance is arranged according to the project budget.

- For the satisfactory performance of the assignment, the consultant needs to deliver the work for approximately 100 – 120 person working hours.
- Payment will be made to the consultant's nominated bank account.
- ACE is an intergovernmental organisation and is not liable for any taxes. Consultant shall file and settle any payment for income tax arising from the income from ACE. ACE shall not be responsible for any consequences of the failure to fulfil obligations relating to the income tax laws of the respective country.
- The disbursement timeline shall be proposed by the consultant under the proposal and the mechanism will be agreed between ACE and the consultant within the contract signing process.
- The consultant must submit a report on the person-days usage and timesheet to ACE for each disbursement.

XI. REQUIRED DOCUMENT

Interested individual consultant or Technical Expert is invited to submit a proposal in response to these Terms of Reference (Max 10 pages, excluding CV).



1. The Technical component should present the following information (80% weight):

1.1 Expertise of the Individual Organization

- Provide a brief description of the Individual Consultant's organisation/firm (if any) which includes 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 the Individual Consultant within the last five (5) years, which are related or relevant to those required for this Contract.

1.2 Approach and Implementation Plan

- Provide a detailed description of the methodology for how the individual consultant will achieve the Project's Terms of Reference, considering the appropriateness to local conditions and the project environment.
- Provide the Proposer's internal technical and quality assurance review mechanisms.
- Submit a Gantt chart or Project schedule indicating the detailed sequence of activities undertaken and their corresponding timing.
- Describe the potential risks for implementing this Project that may impact the achievement and timely completion of expected results and their quality. Describe measures that will be put in place to mitigate these risks.
- Provide a brief description of the mechanisms proposed for this project for reporting to ACE, including a reporting schedule.
- A discussion on how measures to ensure the future sustainability of the project outcomes will be addressed.

1.3 Personnel

- Provide a spreadsheet to show the activities of Individual Consultant and the time allocated for his/her involvement.

(Note: This spreadsheet is crucial, and no substitution of personnel will be tolerated once the contract has been awarded except in extreme circumstances. Any substitution shall be made only with ACE's approval of the justification for the substitution and with ACE's approval of the replacement, who shall be of either equal or superior credentials to the one being replaced, and which shall not involve any additional cost to ACE. No cost increase will be considered as a result of any substitution)

- Provide the CV for the Individual Consultant that will be provided to support the implementation of this project. CV should demonstrate qualifications in areas relevant to the Scope of Services.



2. The Financial component should specify the following information (20% weight):

The Financial Proposal must provide a detailed cost breakdown. The format shown on the following pages is suggested for use as a guide in preparing the Financial Proposal. The format includes specific expenditures, which may or may not be required or applicable but are indicated to serve as examples.

Table 2. Format of Man-days proposed by the Consultant and Cost

Description of Deliverable (referring to Table 1)	Cost per person day – per expert as indicated in the ToR	Number of Man-days	Total cost USD

XII. SUBMISSION OF APPLICATION

The proposal should be submitted to procurement@aseanenergy.org and cc pfs@aseanenergy.org and dwiky.syarief@aseanenergy.org by 19 April 2024 (GMT+7).

Technical and Financial proposals are to be submitted as two (2) separate electronic files. The proposals are to be submitted in pdf format.

Please indicate the subject heading: Document for Data Sharing Consultant.

XIII. AMENDMENT TO TERMS OF REFERENCE

These Terms of Reference may be amended in writing only, subject to the agreement of both parties.

XIV. CONFIDENTIALITY AGREEMENT

Without written permission from ACE, the consultants shall not disclose any data or information to external parties.

XV. 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.

XVI. COPYRIGHT AND INTELLECTUAL PROPERTY

All material produced under this assignment will belong to ACE and remain the property of ACE. The consultants will not have any control over copyright claims and intellectual property.



XVII. CONTACT PERSON

All communications and queries related to this ToR shall be submitted in writing through email to pfs@aseanenergy.org and cc procurement@aseanenergy.org and dwiky.syarief@aseanenergy.org