



Request for Proposal (RFP)

RFP Title: ASEAN Energy Transition Modelling Towards 100% Renewables by 2050

RFP Number: 992/IESR/VII/PM-SEA/ADM-RFP/2025

Issue Date: 28 July 2025

Proposal Due Date & Time: Wednesday, 06 August 2025, 10.00 PM Western Indonesia Time (GMT+07)

Anticipated Award Date: 15 August 2025

Contact Person/Department:

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Section 1: Introduction and Executive Summary

- **1.1 Purpose of the RFP:**

This RFP seeks to commission a high-resolution regional energy modelling study to chart credible, cost-effective pathways for ASEAN to achieve a 100% renewable energy and industrial system by 2050. The study will inform national and regional decision-making by simulating least-cost decarbonization scenarios across power, transport, and industrial sectors: integrating technical, economic, and policy dimensions. It aims to provide a shared scientific foundation for ASEAN's energy transition planning, aligned with climate goals, regional cooperation, and energy security.

- **1.2 Background of the Procuring Entity:**

Institute for Essential Services Reform (IESR) is a leading energy and climate policy think tank based in Indonesia, dedicated to accelerating a just, inclusive, and sustainable energy transition in Indonesia and Southeast Asia. Since 2007, IESR has worked at the intersection of research, policy advocacy, and multi-stakeholder engagement to promote equitable access to essential services; particularly clean energy, sustainable mobility, and climate resilience.

Recognizing ASEAN's growing energy demand, fossil fuel dependence, and vulnerability to climate impacts, IESR is advancing regional collaboration to chart a credible pathway toward a 100% renewable energy system by 2050. With experience in national deep decarbonization studies (e.g., Indonesia's Deep Decarbonization Pathways), IESR leads this regional initiative to provide scientific, transparent, and actionable insights to guide ASEAN's transition. Through robust modelling and policy analysis, IESR aims to support informed decision-making for an energy future that is affordable, secure, and aligned with climate goals.

- **1.3 Project Overview:**

IESR seeks a qualified consultant or consortium to conduct a regional energy systems modelling study that will outline credible and actionable pathways for ASEAN to transition to a 100% renewable energy and industrial system by 2050. The study will use high-resolution, hourly modelling to simulate least-cost scenarios across electricity, transport, heating/cooling, and industrial fuels, while incorporating cross-border cooperation and sector coupling. It will assess ASEAN's potential for energy sovereignty by minimizing fossil fuel dependence and optimizing indigenous renewable resources.

Three core scenarios (Best Policy, Delayed Policy, and Current Policy) will be developed to reflect varying levels of ambition and policy intervention. Optional themes such as ocean energy, agrivoltaics, and energy storage will further contextualize trade-offs and land/resource constraints. The study will culminate in

actionable policy recommendations for ASEAN governments and institutions, supporting informed planning and cooperation toward a just and climate-aligned energy future.

- **1.4 Key Dates and Milestones (Summary):**

- Proposal submission period: 28 July – 06 August 2025, 10.00 PM Western Indonesia Time (GMT+07)
- Proposal evaluation and clarification (if necessary): 07 – 09 August 2025
- Winning bid announcement: 11 August 2025
- Contract award date: 15 August 2025

Section 2: Scope of Work and Deliverables

• 2.1 Detailed Project Description:

This project aims to develop a scientifically rigorous and regionally relevant roadmap for ASEAN's transition to a 100% renewable energy and industrial system by 2050. It will combine detailed energy systems modelling with policy analysis to support evidence-based decision-making across national and regional levels.

Goals:

- To identify credible, least-cost, and technically feasible pathways for ASEAN to achieve a fully renewable energy system by 2050.
- To provide policy-relevant insights that support greater regional energy cooperation, energy security, and climate alignment.
- To serve as a foundational reference for regional initiatives such as APAEC Phase II, ASEAN Power Grid, and Just Energy Transition Partnerships.

Objectives:

- Develop a high-resolution energy model for ASEAN that integrates electricity, transport, heating/cooling, industrial energy use, and cross-border infrastructure.
- Simulate three core policy scenarios (Best Policy, Delayed Policy, and Current Policy) to reflect different levels of climate and energy ambition.
- Conduct optional scenario analyses on emerging technologies and resource trade-offs (e.g., ocean energy, agrivoltaics, storage, green hydrogen/e-fuels).
- Translate technical findings into actionable policy and investment recommendations.
- Disseminate the results through clear reporting and high-level stakeholder engagement.

Project Components:

Component	Description
Data Collection and Harmonization	Compile and align national-level data on energy supply and demand, economic indicators, technology costs, and sectoral trends. Apply transparent assumptions to address data gaps and inconsistencies.
Model Development and Calibration	Develop or adapt a high-resolution, hourly energy system model for ASEAN. Include cross-border electricity flows, seasonal/daily demand patterns, and calibrate against recent historical data for accuracy.

Scenario Development and Simulation	Design and run three core scenarios (Best Policy, Delayed Policy, Current Policy), estimating demand, technology deployment, emissions, investment needs, and system costs.
Optional Scenario Exploration	Explore additional themes such as ocean energy, agrivoltaics, green hydrogen/e-fuels imports, and energy storage systems. Conduct sensitivity analyses to test key assumptions and system resilience.
Policy Analysis and Recommendations	Analyze scenario outcomes to identify policy, regulatory, and investment implications. Provide actionable recommendations and assess enabling conditions and institutional barriers across ASEAN.
Reporting and Stakeholder Engagement	Produce a full technical report and a policy synthesis brief with visuals (charts, maps). Present findings at a high-level regional event to ASEAN policymakers, utilities, and development partners.

- **2.2 Specific Services/Products Required:**

No.	Category	Description
1	Project design and coordination	Develop a detailed workplan and timeline; maintain regular coordination with IESR and provide timely progress updates.
2	Data services	Collect, review, and harmonize energy, economic, and demographic data across ASEAN countries; document assumptions and sources.
3	Model development	Build or adapt a high-resolution (hourly) energy system model covering power, transport, heating/cooling, and industrial energy sectors.
4	Model calibration	Calibrate model with the latest available baseline data and trends to ensure reliability and validity.
5	Core scenario simulation	Design and simulate three core scenarios: BPS (net-zero by 2050), DPS (delayed action), CPS (business-as-usual).
6	Optional scenarios and sensitivity analysis	Explore scenarios such as ocean energy, agrivoltaics, storage solutions, and green hydrogen/e-fuel imports; test assumptions through sensitivity runs.
7	Policy and investment analysis	Derive policy implications, investment requirements, and institutional recommendations from modelling results.

8	Documentation and reporting	Produce technical report, executive summary, and policy brief; include visuals (maps, charts) to enhance accessibility and impact.
9	Stakeholder engagement	Participate in regular meetings and present findings at a regional dissemination forum hosted by IESR.
10	<i>Optional: Capacity Building</i>	Conduct technical workshop/training on model use and interpretation for IESR or regional partners (if proposed).

• **2.3 Deliverables and Milestones:**

No.	Deliverable	Format	Deadline
1	Inception Report (including workplan, modelling framework, and data request list)	PDF report	End of Month 1
2	Harmonized ASEAN Energy Dataset	Excel/CSV, Documentation	End of Month 2
3	Calibrated Energy System Model (including model files, documentation, and user guide)	Software package with PDF documentation	End of Month 4
4	Scenario Report (BPS, DPS, CPS) with visualizations and system-level outputs	PDF report + slides	End of Month 8
5	Optional Scenarios & Sensitivity Analysis Summary	Briefing paper (PDF)	End of Month 10
6	Final Technical Report (full documentation of methodology, results, and insights)	PDF report	End of Month 11
7	Executive Synthesis Report (non-technical summary for ASEAN policymakers)	PDF + slide deck	End of Month 12
8	Technical report (including assumptions and parameters), will be used for replication if necessary	Folder	Upon project completion

- **2.4 Performance Standards and Service Level Agreements (SLAs) (if applicable):**

Category	Metric/Standard
Timeliness	All deliverables submitted within agreed deadlines, with no more than 5 working days' delay without prior approval.
Technical quality	Modelling is peer-reviewable, uses high-resolution (hourly) simulation, and reflects ASEAN-wide dynamics with clear assumptions.
Clarity and usability	Reports include clear executive summaries, data visualizations (charts, maps), and actionable insights; suitable for both technical and policy audiences.
Transparency	All assumptions, data sources, and methodologies are documented. Model files are shareable and replicable.
Engagement	Active participation in coordination calls and regional dissemination events. Responsiveness to feedback within 5 working days.

- **2.5 Roles and Responsibilities:**

Procuring Entity (IESR) Responsibilities:

- Provide strategic direction, data support, and access to stakeholders.
- Facilitate coordination and regional engagement (e.g., events, policy dialogues).
- Review deliverables and provide timely feedback.
- Ensure alignment with ASEAN and national energy agendas.
- Manage contracts, payments, and overall project oversight.

Successful Bidder Responsibilities

- Lead data collection, model development, calibration, and scenario simulation.
- Deliver core and optional scenario analyses with clear documentation.
- Translate modelling output into actionable policy and investment recommendations.
- Submit high-quality deliverables (reports, model files, visuals) on time.
- Participate in coordination meetings and present results at regional events.

Section 3: Proposal Requirements and Submission Instructions

- **3.1 General Instructions:**

Item	Requirement
Language	English (all sections, including annexes and supporting documents)
Font	Arial or Calibri, size 11
Line Spacing	1.15 spacing, single-sided
Margins	2.5 cm (1 inch) on all sides
Page Limit	Maximum 15 pages for the main proposal (excluding annexes and CVs)
File Format	PDF (for official submission); Excel for budget details
Number of Copies	1 electronic copy (via email or secure link); hard copy optional upon request
Submission Label	Email subject or file name should read: <i>"Proposal – ASEAN Energy Modelling – [Organization Name]"</i>

- **3.2 Proposal Content Outline:**

Follow this outline for the proposal:

- **Executive Summary:** A high-level overview of bidder's proposed solution.
- **Company Profile:** Background, experience, additional information on legal structure, financial stability.
- **Understanding of the Project:** How bidder interprets the RFP's requirements.
- **Proposed Solution:** Detailed approach, methodology, and proposed technology/tools.
- **Project Plan/Timeline:** Detailed work breakdown structure, key phases, and milestones.
- **Team and Resources:** Key personnel, their qualifications, and assigned roles.
- **Experience and References:** Relevant past projects, client testimonials, and contact information for references.
- **Pricing Proposal:** Detailed breakdown of costs (see 3.3).
- **Assumptions and Dependencies:** Any assumptions made.
- **Risk Management Plan:** How bidder plans to mitigate potential risks.
- **Appendices:** Supporting documents (resumes, certifications, etc.).

- **3.3 Pricing Proposal Requirements:**

Please submit a detailed and transparent budget. This should include:

- A breakdown of costs by work package or deliverable (e.g., modelling, reporting, events).

- Estimated personnel time (e.g., by role or seniority level).
- Any anticipated software or data licensing costs.
- Travel and stakeholder engagement costs, if applicable.
- A proposed payment schedule tied to milestone delivery.

Estimated total contract value is US\$ 45,000 – 50,000.

- **3.4 Submission Method:**

All proposals must be submitted electronically to the following email address:

- citra@iesr.or.id with cc to agung@iesr.or.id and turas@iesr.or.id

Kindly ensure that all required documents are complete and submitted as a single email or download link (e.g., Google Drive or Dropbox, with open access settings).

No hard copies are required unless specifically requested by IESR.

- **3.5 Late Submissions:**

- Late submissions will not be considered. Please confirm receipt by email after submission.

Section 4: Evaluation Criteria and Selection Process

- **4.1 Evaluation Committee:**

All submitted proposals will be reviewed and evaluated by a selection committee appointed by IESR. The committee will assess proposals based on technical quality, relevance, team qualifications, methodology, and cost-effectiveness. Only shortlisted candidates may be contacted for further clarification or interviews.

- **4.2 Evaluation Criteria:**

IESR employs multicriteria assessment to evaluate the proposal as follows:

- Administration completion (10%)
- Organization profiling (30%), including capacity, experience, and past performance with IESR (if any)
- Technical proposal (40%), including understanding of required services, methodology used, transparent work allocation, and additional value offered
- Reasonable proposed value with competency and offer (20%), including team members experience level and contract value offered

- **4.3 Evaluation Process:**

Step	Stage	Description
1	Initial screening	Check for completeness, eligibility, and compliance with formatting and submission requirements.
2	Detailed technical review	Evaluate methodology, technical approach, team qualifications, past experience, and relevance.
3	Shortlisting	Identify top candidates based on technical and strategic fit.
4	Interviews	Invite shortlisted bidders to present proposals and answer questions (if applicable).
5	Reference checks	Verify past performance and experience through listed references.
6	Final selection	Select the most suitable bidder based on cumulative evaluation scores and notify officially.

- **4.4 Award Decision:**

The contract will be awarded to the most qualified bidder whose submission is deemed to be in the best interest of IESR. The selection will be based on the stated evaluation criteria, considering technical merit, relevance, team capacity, and overall value. The evaluation is NOT solely based on the lowest price offered.

Section 5: Terms and Conditions

- **5.1 Standard Contract Terms:**

The selected contractor will enter into a formal agreement with IESR based on standard terms and conditions. The contract will cover the scope of work as outlined in the proposal and agreed upon deliverables. The contract period will run from the commencement date specified in the agreement and continue until project completion, unless terminated earlier by either party with prior written notice.

The contractor will receive payment according to a predefined schedule tied to milestone delivery, as detailed in the payment annex. All outputs and deliverables developed under the contract will be the property of the procuring entity, unless otherwise agreed in writing. Both parties are expected to maintain the confidentiality of sensitive information shared during the engagement.

The contract will be governed by the laws of the Republic of Indonesia, and any disputes will be resolved through amicable negotiation or appropriate legal channels.

- **5.2 Confidentiality and Proprietary Information:**

All proprietary or confidential information submitted by bidders will be treated with strict confidentiality and used solely for the purposes of evaluating the proposal. Such information should be clearly marked as “Confidential” or “Proprietary” in the relevant sections of the proposal.

The procuring entity (IESR) will not disclose any marked proprietary content to third parties without the bidder’s prior written consent, except as required by law or internal audit. Unmarked information may be treated as non-confidential.

- **5.3 Right to Reject/Modify:**

IESR reserves the right to reject any or all proposals, to waive any informalities or minor irregularities in the submission process, and to enter into negotiations with one or more selected bidders as deemed necessary.

- **5.4 Disclaimers:**

This RFP does not commit IESR to award a contract or pay any costs incurred in the preparation or submission of proposals.

- **5.5 Governing Law:**

This Request for Proposal (RFP) and any resulting contract shall be governed by and construed in accordance with the laws of the Republic of Indonesia. Any disputes arising in connection with this RFP or the subsequent contract shall be subject to the exclusive jurisdiction of the courts of the Republic of Indonesia.

Section 6: Inquiries and Communications

- **6.1 Questions and Clarifications:**

Prospective bidders may submit questions or requests for clarification regarding this Request for Proposal (RFP) to ensure a clear understanding of the scope, requirements, and expectations. All inquiries must be submitted in writing via email to citra@iesr.or.id with cc to agung@iesr.or.id and turas@iesr.or.id with the subject line: “*Question – ASEAN Energy Modelling RFP – [Your Organization Name]*”.

To allow sufficient time for review and response, all questions must be received no later than 03 August 2025, 10.00 PM Western Indonesia Time (GMT+0700).

Responses to all inquiries will be compiled and distributed to all parties who have expressed interest in the RFP, maintaining fairness and transparency in the process. Please note that verbal inquiries or questions submitted after the deadline will not be addressed.

- **6.2 Q&A Session/Conference (if applicable):**

N/A.

- **6.3 Addenda/Amendments:**

Any changes, updates, or clarifications to this Request for Proposal (RFP) will be issued as formal addenda. These addenda will be distributed via email to all bidders who have registered their interest or submitted questions and will form an official part of the RFP documentation.

It is the responsibility of all prospective bidders to ensure they have received and acknowledged any such addenda. Failure to do so may result in disqualification due to non-compliance with updated requirements.

Section 7: Appendix

- **Forms and Certifications:**

- Bidder are required to sign all necessary documents listed in this link:
<https://s.id/3vDCP>.