

Request for Proposal (RFP)

**Baseline Energy Consumption in the Built
Environment in Kota Batam**

Institute for Essential Services Reform

Tebet Timur Dalam No. 48B

Jakarta Selatan

Indonesia

17 April 2025

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2. Background

In Indonesia, buildings account for 30 percent of the country's total energy consumption and are expected to increase to 40 percent by 2030 (IFC 2019). Therefore, energy transition in the building sector is crucial for reducing emissions in Indonesia. The Institute for Essential Services Reform (IESR), through the Sustainable Energy Transition in Indonesia (SETI) project, supports Indonesia's energy transition by assisting Kota Batam in implementing energy efficiency (EE) and renewable energy (RE) measures in the built environment sector.

Our organization is tasked with determining the baseline energy consumption of the built environment sector in Kota Batam. The built environment is a human-made space that includes buildings and public infrastructure. The baseline energy consumption of the sector in the city refers to the energy usage of buildings and infrastructures that use energy in a business-as-usual condition (BAU) or before any implementation of additional efficiency measures. Understanding the baseline energy consumption is crucial for stakeholders in the city/region, including policymakers, city planners, and energy managers, to develop and implement sustainable energy transition activities. Therefore, obtaining reliable data to estimate the baseline value in the city is essential for effective energy management and planning.

This work will support the next phase of the SETI project, such as developing a future energy demand estimate for the built environment sector, creating energy models in the Low Emissions Analysis Platform (LEAP), and performing integrated energy planning to reach Net Zero Emissions (NZE) for the sector in Kota Batam. Furthermore, several buildings surveyed in this task will also be selected for the energy audit and pre-feasibility study for building retrofitting.

3. Objective

Our organization is looking for a consultancy service to find the estimates of energy sources (total and breakdown), energy consumption (total and breakdown based on end-use), energy consumption indexes, the potency of renewable energy technology applications, and greenhouse gas (GHG) emissions from the built environment sector in Kota Batam. We will follow [categories from PLN](#) in the grouping of building and infrastructure. Refer to the link at PDF page 9. The built environment sector consists of:

1. Residential group
2. Business group
3. Social group
4. Government office building group
5. Public street lighting group
6. Other infrastructure which consumes energy

Batam consists of multiple islands. The geographical layout may influence variations of buildings and infrastructures energy consumption and distribution. Therefore, the analysis should consider these factors when estimating energy use and emissions across the region.

4. Responsibilities of the Consultant

For the above Objectives, the chosen surveyor will do the below for Kota Batam:

1. Find all types of buildings and infrastructures for each group in the city, i.e. in Kota Batam, the Business group will consist of shopping malls, hotels, data centres, etc, while the Social group will consist of private hospitals, private schools/universities, hospitals owned by central or local government agencies, etc.
2. Calculate the number of sample buildings in each group. Samples must represent all regions (thus satisfy variability requirement). The number of samples must give a confidence level of 95% or above.
3. Gather relevant monthly data for 2020, 2021, 2022, 2023, 2024, and 2025. Refer to the Methodology section in the Proposal Guidelines. We expect to primarily collect data through surveys of the samples. Secondary data, i.e., existing datasets from reputable institutions, will help fill the gap.
4. Gather data on the potency of renewable energy (RE) technology applications in the built environment sector.
5. Gather information on each building owner or manager's understanding, perspectives, and strategies (if any) concerning energy efficiency, renewable energy, energy management, green building, and interests in energy management and green building certification.
6. Compile the data gathered in spreadsheets. There will be spreadsheets for raw and clean data. The spreadsheets with clean data will have sufficient descriptions for ease of understanding.
7. Conduct bi-weekly meetings during the agreed-upon working period to present updates and submit the progress report to the SETI project team.
8. Produce deliverables:
 - a. Clean data in Google spreadsheet format.
 - b. Preliminary reports.

- c. Two final reports. Each report must be in Bahasa Indonesia and English.
 - i. An unabridged report containing all results and processes in Microsoft Word/Google Docs format.
 - ii. A presentation report containing only important points.
9. Participate in the relevant SETI project activities, including but not limited to,
 - a. Event of kick-off of the SETI project in Kota Batam. This is an important event to coordinate with government representatives and local stakeholders who can assist with permits and other matters related to the survey.
 - b. Dissemination event of the study results to stakeholders in the city.

5. Selection Criteria

Selection Criteria	Weight (%)
A. Company/Institution/Organization Experiences in the last 10 years: <ul style="list-style-type: none"> • Experience in carrying out similar activities • Experience in carrying out activities in several regions or countries 	15
B. Technical Proposal <ul style="list-style-type: none"> • Understanding of the services listed in the proposal • The quality of the proposal presentation • Ideas proposed by the participant to improve the quality of the desired outputs in the RFP 	25
C. Team Qualifications and Price Reasonableness <p>Sub Criteria C-1: Experience Qualification</p> <ul style="list-style-type: none"> • Company experiences • Team leader experiences <p>Sub Criteria C-2: Price Qualification</p> <ul style="list-style-type: none"> • Additional package/benefit • Comparison of offers with a budget of the RFP 	60

6. Proposal Guidelines

Please submit the proposal via email to the Project Manager SETI at malindo@iesr.or.id and put dwi@iesr.or.id, faisal@iesr.or.id, and maharani@iesr.or.id in the CC.

Each bidder must:

- Submit a proposal. The proposal must be written in English and submitted in the PDF format with a bookmark for each content.
- State the validity period of your proposal.
- Ensure that your proposal follows the required structure outlined below. Failure to comply may result in a deduction of marks.

Proposal structure:

I. Cover

II. List of Content

III. Methodology

A. Please tell us:

1. Estimate of the total number of buildings and infrastructure (building stock) in the city.
2. Your method for determining such a number of building stock.
3. All types of buildings in each group stated in the Objectives.
4. Estimate number of buildings in each group.
5. Number of samples for each group to satisfy Point 2 of the Responsibilities of the Consultant.
6. Your method to determine such a number of samples.

B. Please tell us your methodology for the efficient and accurate collection of energy consumption data from the sample buildings for the period of 2020-2025 in Kota Batam.

The data will include:

1. Whole-building energy use per month.
2. Tenancy energy use per month (where applicable).

3. End-use energy consumption (e.g. lighting, HVAC, IT services, elevators, water heating, etc.) per month.
 4. Relevant parameters (e.g. purpose, location, floor area, number of seats/people, number of floors, energy services included in base building, etc.).
 5. All purchased and on-site energy sources, including Electricity, Gas, Solid Fuel, Liquid Fuel, and Renewable Energy (where applicable) per month.
- C. Please describe your approach to mapping out the potency of renewable energy (RE) technology applications in the city, especially in the built environment sector. This includes how you will gather roof area data suitable for solar photovoltaic (PV) module installation and other necessary information.
 - D. Please tell us your proposed model for collecting, collating, storing, and reporting the building energy consumption data, which can be applied to this and future data collection processes.
 - E. Please tell us your approach to calculating the energy consumption indexes of the buildings.
 - F. Please tell us your approach to calculating the greenhouse gas (GHG) emissions from the operations of buildings in the city.
 - G. Please tell us if you use Computer-Assisted Personalized Interview (CAPI) for the data survey.
 - H. Please tell us deliverables we have not included in the “Responsibilities of the Consultant” but deemed important for the study.

IV. Work Plan

- A. Please let us know in detail how you can execute the plan and your ability to follow the expected timeline below.

V. Risk Management

- A. Please let us know what could go wrong with the study (cannot follow the timeline, working in island areas, etc) and how we can minimize the risk. More points will be given for specifying **specific risks** in the city rather than general risks.

VI. Budget (Itemised)

Please include your detailed budget estimate, including but not limited to:

- A. Resources you will assign to this project (total number of people, role, title, experience).
- B. Equipment you will use (if any).

Note that your team will participate in some of the SETI-relevant activities as stated in the Responsibilities of the Consultant. Please consider those in your budgeting too.

VII. Appendix 1: Bidder Qualification.

Please **follow exactly the tables shown below**. By doing so, you help us grade your proposal accurately.

A. Company profile and experience

Show the relevant projects that **your organisation has done only**, not what a team member did or has done. Experience of individual team members can be inputted at the table in the Section C below.

Company Profile		
Please fill in accordingly.		
Company Experience		
Year	Reference	Duration of work
YYYY	<ul style="list-style-type: none"> Please note that without attaching a sample report(s) any valid proof, the work will not be counted. The sample report must clearly show that your organisation worked/ has worked on the project. Whenever possible, please attach the full report. 	(DD/MM/YYYY - DD/MM/YYYY) Total: M Months
Please add if necessary		

B. Team's Profile

Please include all the core team members in the table below. Due to our procurement limitation, we prefer non-civil servants (ASN).



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Name	Position and field of expertise	Status in the Organisation	Civil Servant / ASN	Education	Certification	Training	Research History
X	Team Lead - xx specialist	Permanent/ Non-Permanent	Yes/No				
Y	Team Member 1 - xx specialist						
Add							

C. Team's Experience

Team Leader: Name		
Year	Reference	Duration of work
YYYY	<ul style="list-style-type: none"> Please note that without attaching a sample report(s) or any valid proof, the work will not be counted. The sample report must clearly show the person worked/ has worked on the project. Whenever possible, please attach the full report. 	(DD/MM/YYYY - DD/MM/YYYY) Total: M Months.
Please add if necessary		
Team Member 1: Name		
YYYY		
Please add if necessary		

D. Team Leader's Data.

For our procurement purposes, please inform us of the below.

ID Card (KTP) No.	
Taxpayer ID (NPWP)	

E. Testimonials from previous clients.

VIII. Appendix 3: Procurement Administration

Please fill, sign, stamp, and attach the documents in the link below to your proposal when submitting. We will not be able to process your proposal when you do not submit the documents [Link](#).

7. Proposal Evaluation

This is a Public Invitation to Tender. Any market participant interested in the contract must submit a proposal document. Preference will be given to institutional consultants.

All our procurement processes follow the **principle of transparency, cost-effectiveness, competition, non-discrimination, and confidentiality**.

IESR may, at its discretion and without explaining to the prospective consultant, at any time decide to terminate this RFP process without any obligation to the prospective consultant. The awarding of contracts resulting from this RFP will depend on the suitability of the proposals received and the availability of funds.

8. Timeline

Tasks	Timing
Proposal Timeline	
Deadline for the Proposal Submission	9 May 2025
Winner Announcement	30 May 2025*
Project Timeline	
First Meeting between IESR SETI and the Selected Consultant	1st Week of June 2025*
SETI Pilot City Kick Off Event in Kota Batam	Mid of May 2025*
Preparation for Data Collection	1st Week of June - 4th Week of June 2025*

On-site Data Collection and Analyses Drafting Report	1st Week of July - 4th Week of August 2025*
Preliminary Report Presented to the SETI team	1st Week of September 2025*
Final Report Presentation	3rd Week of September 2025*
Final Report Submission	30 September 2025*

Note: * **Subject to change.**

9. Budget

The total cost proposed, **including tax**, should not exceed Rp 500.000.000 (five hundred million Rupiah). Costs should be stated as one-time or non-recurring costs (NRC). A more detailed proposal cost is required to ease the selection process. All costs and fees must be clearly described in each proposal and should be separated into each type stated in the objectives.

-End-