

*Request for Proposal (RFP)*

**Baseline Energy Consumption in the  
Building Sector (Government, Commercial  
and Residential) in Kota Surabaya**

**Institute for Essential Services Reform**

Tebet Timur Dalam No. 48B

Jakarta Selatan

Indonesia

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## 2. Background

In Indonesia, the building sector accounts for 30% of the country's total energy consumption. It is expected to rise to 40% by 2030 (IFC 2019). Thus, 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 Surabaya in implementing energy efficiency (EE) and renewable energy (RE) measures in the built environment sector.

Our organisation is tasked to find the baseline energy consumption of buildings in Kota Surabaya. Baseline energy consumption of buildings in the city refers to the energy usage of a building in a business-as-usual condition (BAU) or before any implementation of additional efficiency measures. Understanding the baseline energy consumption in buildings is crucial for stakeholders in the city/region, including policymakers, city planners, and energy managers, in developing and implementing sustainable energy transition activities in building sectors in the city. Therefore, obtaining reliable data on the baseline energy consumption of the building in Surabaya is essential for effective energy management and planning.

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

## 3. Objective

Our organisation 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 emissions from the built environment sector in Kota Surabaya, especially from each type of building shown below in the period of 2020 to 2025 (current month):

1. Government buildings
2. Residential buildings
3. Commercial buildings

## 4. Responsibilities of the Consultant

For the above Objectives, the chosen surveyor will:

1. Calculate the number of sample buildings in each type so each sample can represent each type with an agreed confidence level (e.g., 95% or above).
2. Gather relevant monthly data for 2025, 2024, 2023, 2022, 2021, and 2020. Refer to the Methodology section in the Proposal Guidelines. The data collection is expected to be through surveys combined with statistical analysis of historical data to help estimate typical energy consumption levels across different sectors.
3. Gather data on the potency of renewable energy (RE) technology applications in the city, especially in the built environment sector.
4. 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.
5. 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.
6. Analyse the data to produce insights about energy sources (total and breakdown), energy consumption (total and breakdown based on end-use), energy consumption indexes, the potency of renewable energy technology applications, greenhouse gas emissions, energy efficiency, energy management, green building, and interests of building owner/manager about energy management and green building certification.
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 important points only.
9. Participate in the relevant SETI project activities, including but not limited to,
  - a. The kick-off event of the SETI project in Kota Surabaya. 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 of the study results to stakeholders in the city.

## 5. Selection Criteria

Selection Criteria	Weight (%)
Qualifications: <ul style="list-style-type: none"> <li>• Previous relevant projects (More relevant projects are advantageous).</li> <li>• Profile of the team.</li> </ul>	40
Content of the proposal.	30
Cost-efficiency.	30

## 6. Proposal Guidelines

Each bidder must submit a proposal. The proposal must be submitted in PDF format with a bookmark for each content. Please submit the proposal via email to the Project Manager SETI at [malindo@iesr.or.id](mailto:malindo@iesr.or.id) and put [dwi@iesr.or.id](mailto:dwi@iesr.or.id) and [faisal@iesr.or.id](mailto:faisal@iesr.or.id) in the carbon copy (CC).

The proposal must follow the structure below:

- I. Cover
- II. List of Content
- III. Methodology
  - A. Please tell us your method for determining the population (building stock) and sample for a baseline energy consumption study.
  - B. Please tell us your methodology for the efficient and accurate collection of energy consumption data from a representative sample of buildings for the period of 2020-2025 in Kota Surabaya. 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 emissions from the buildings.
  - G. Please describe how you 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.
  - H. Please tell us if you use Computer Assisted Personalized Interview (CAPI) for the survey.
  - I. 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. Refer to the Timeline section below.

#### V. Risk Management

- A. Please let us know what could go wrong with the study (i.e., inability to follow the timeline, etc.) and how to minimise the risk.

#### VI. Budget (Itemised)

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

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

Note that your team will participate in some of the SETI-relevant activities as stated in the Responsibility of the Consultant section.

VII. Appendix 1: Bidders Qualification.

- A. Company/organization profile.
- B. Human resources for this project and their profile. Please include the CVs of the core team as a minimum.
- C. Testimonials from previous clients.

VIII. Appendix 2: Technical reports from similar/relevant projects. It is advantageous to attach a complete report.

## 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, the principle of cost-effectiveness, the principle of competition, the principle of non-discrimination, and the principle of 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
<b>Proposal Timeline</b>	
Deadline for the Proposal Submission	31 January 2025
Winner Announcement	17 February 2025*

<b>Project Timeline</b>	
First Meeting between IESR SETI and the Selected Consultant	3rd Week of February 2025*
Contract Signing	End of February 2025*
SETI Pilot City Kick Off Event in Kota Surabaya	1st Week of March*
Preparation for Data Collection	1st Week of March - 4th Week of March 2025*
Onsite Data Collection and Analyses	1st Week of April - 3rd Week of May 2025*
Preliminary Report Presented to the SETI team	1st Week of June 2025*
Final Report Presentation	3rd Week of June 2025*
Final Report Submission	30 June 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 encouraged to ease the selection process. All costs and fees must be clearly described in each proposal and should be separated into each building user type (government, commercial, and Residential).

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