

Research Intern for Green Energy Transition Indonesia (GETI) Project June 2025

Accelerating Low Carbon Energy Transition



Internship Opportunity

Position	: Hydrogen Research Intern
Nature of work	: Internship
Duty station	: Jakarta, Indonesia (hybrid mode)

Background

Indonesia has huge renewable energy potential, offering significant opportunities not only for power generation but also for the production of green hydrogen. Green hydrogen is strategically important to support the decarbonization of hard-to-abate sectors, enhance national energy security, and facilitate renewable energy integration by serving as a flexible load and energy storage medium. Furthermore, it presents opportunities to expand access to clean energy in remote areas. The Green Energy Transition Indonesia (GETI) Project aims to expand low-carbon energy investments through the Indonesia Green Hydrogen Accelerator initiative.

The Indonesia Green Hydrogen Accelerator aims to establish a green hydrogen market to support Indonesia's National Hydrogen Strategy (Strategi Hidrogen Nasional/SHN), recognizing green hydrogen and green ammonia as vital fuel for decarbonizing power, industry, and transport sectors and as export commodities. The initiative addresses key challenges in the hydrogen value chain, including production, storage, and distribution, by focusing on policy development, demand assessment, and stakeholder collaboration.

A detailed and comprehensive hydrogen demand mapping study is needed to support Indonesia's readiness in meeting the growing demand for green hydrogen. This study will project hydrogen demand across key sectors for the years 2030, 2040, 2050, and 2060, allowing alignment with the national energy transition strategy. It will also identify major demand centers, estimate regional demand volumes, and assess the readiness of infrastructure and distribution systems for green hydrogen.

To support the successful implementation of this study, we are seeking a highly motivated intern to assist in data collection, sectoral analysis, and spatial mapping related to hydrogen demand. The intern will play a key role in supporting the research team by gathering and organizing data across key sectors, conducting background research, and contributing to the development of a hydrogen demand study. This position offers a valuable opportunity to contribute to Indonesia's energy transition while gaining practical experience in a research or think tank environment.

About the Position

We are seeking a motivated and detail-oriented **Hydrogen Research Intern** to support analytical and data development work related to Indonesia's transition to a low-carbon hydrogen. The selected candidate will assist in mapping the spatial and temporal hydrogen demand across multiple sectors, with a particular focus on data extraction and structuring for use in hydrogen demand modeling.

The intern will be part of the GETI project team, which has two workstreams: 1) Accelerating policy reform listed in CIPP for JETP, 2) Establishing green hydrogen market. Intern will primarily collaborate with Workstream 2, which focuses on hydrogen-related study.



Duties and responsibilities

1) Development of Sectoral Hydrogen Demand Dataset

Create and organize a database filled with extracted and validated spatial and temporal data across the industrial, power, transportation, and residential/commercial sectors through desk research, literature review, and outreach to companies and institutions:

- a) Current/past data on energy and feedstock use pertaining hydrogen,
- b) Compiled future planned on energy and feedstock use pertaining hydrogen,
- c) Compiled current and future hydrogen demand drivers at the sectors and sub-sector levels above,
- d) Including the identification and mapping of major demand centers based on facility locations, industrial clusters, and infrastructure data from the above.
- 2) Technical Documentation and Analytical Support
 - a) Assist in documenting, cleaning, and preparing of datasets for modeling input into IESR's hydrogen demand model;
 - b) Develop supporting technical notes, data summaries, and visualizations;
 - c) Contribute to internal discussions through data progress updates and preliminary insights;
 - d) Provide other analytical assistance to researchers as required.

Detailed sector-specific information:

- a) Industrial Sector:
 - i) Facility and company profiles (e.g. no. of plants, production capacities and locations),
 - ii) Process-level feedstock and energy intensities,
 - iii) Production trends and growth projections (e.g. CAGR, demand drivers),
 - iv) Industrial clusters.
- b) Transportation Sector:
 - i) Heavy-duty vehicles, marine and aviation stock data;
 - ii) Relevant infrastructure.
- c) Power Sector:
 - i) Potential hydrogen integration power plants (e.g. capacity, location).
- d) Residential/Commercial Sector and Others:
 - i) Infrastructure data (e.g. natural gas infrastructure, for industry and city gas).

Qualifications

- Just recently completed a degree in Chemical Engineering, Industrial Engineering, Environmental Engineering, Energy Systems, Geography, Other Engineering, Natural Science, Economics, or a related field;
- Demonstrated academic or practical experience in energy systems analysis and industrial processes;
- Familiarity with energy or industrial data, preferably within the Indonesian context.
- Strong quantitative and analytical skills, with attention to detail and accuracy;



- Proficiency using Microsoft Excel; proficiency in data analysis software (e.g., Python, R, and GIS or other similar softwares) is considered an advantage;
- Understanding of hydrogen technologies and hydrogen use in energy transition pathways is very desirable.

Other Qualifications

- Strong data, research, organizational, and documentation skills;
- Ability to work independently and manage multiple tasks with minimal supervision;
- Proficient in English and Bahasa Indonesia, both written and oral;
- Commitment to the internship period and deliverables.

Duration

This internship will run for a period of **3 months**, starting from around **June 23 to September 26 2025**, with the possibility of extension based on project needs and intern performance. The intern is expected to commit to a full-time arrangement, to be agreed upon during onboarding. Work will be conducted in a hybrid/remote setting, with periodic check-ins and meetings with the program and research team as required.

Remuneration

The selected intern will receive a stipend of IDR 150,000 per day for a total of effective working days within a 3 months internship period. Payment will be paid on a monthly basis upon submission of a timesheet.

How to apply

- Download and fill out the <u>application form</u> from the IESR website.
- Please send the completed application form, an application letter, the latest CV/resume to <u>erina@iesr.or.id</u> and <u>rheza@iesr.or.id</u>.
- All documents must be sent before June 17, 2025.
- Only qualified candidates will be called for an interview.