

MUHAMMAD RAIHAN AZZAKY

Energy Business Graduate | Market Research & Business Development

+6282264387849 | MR175063@gmail.com | www.linkedin.com/in/muhraihana

Energy Business graduate with hands-on experience in **market research, business development, feasibility analysis** through internships at PLN Group companies. Experienced in analyzing **market opportunities, business risks, supply-demand dynamics, pricing mechanisms, and strategic growth potential**. Strong academic record with a **3.89/4.00 GPA**, supported by leadership experience in external relations, funded innovation projects, and professional research reporting.

AREA OF EXPERTISE

Market Research	Business Development	Energy Sector Analysis
Strategic Marketing Support	Stakeholder Engagement	

KEY ACHIEVEMENTS

- **Academic Excellence & Scholarship.** Awarded the **Prestasi PLN Scholarship** for outstanding academic performance, maintaining a **3.89/4.00 GPA** in Energy Business.
- **Market Research & Business Reporting.** Conducted research on **REC, carbon credit, and biomass business opportunities**, analyzing pricing mechanisms, regulatory frameworks, supply-demand dynamics, market potential, and business risks through PLN Group internships.
- **Stakeholder & External Relations Leadership.** Led external communication and relationship-building initiatives as **Head of Public Relations at SRE ITPLN**, contributing to media coverage and collaboration opportunities while managing a team of 10.
- **Project Leadership & Budget Management.** Led and managed multiple university-funded innovation projects with a combined budget of **IDR 51.25 million**, covering project execution, financial tracking, procurement,

PROFESSIONAL EXPERIENCE

Head of Public Relations | Society of Renewable Energy (SRE) ITPLN June 2024 – August 2025

- Built and maintained relationships with external organizations, resulting in positive media coverage and new collaboration opportunities.
- Led a team of 10 to manage all official social media channels and promotional materials for the organization.

Business Development Intern | PT. Energy Management Indonesia (EMI) February 2025 – March 2025

PLN GROUP

- Conducted comprehensive market analysis on the Indonesian Renewable Energy Certificate (REC) and Emission Reduction Certificate (Carbon Credit) markets.
- Analyzed key market drivers including pricing mechanisms, regulatory frameworks, and supply-demand dynamics to assess growth potential and identify risks.
- Synthesized findings into a detailed research report and presented a summary to the project team, providing insights for the company's strategic approach to environmental commodities.

Business Development Intern | PT. Adhi Guna Putera PLN GROUP October 2025 – December 2025

- Conducted market research on biomass business opportunities within the PLN Group to support national renewable energy co-firing initiatives.
- Developed business feasibility reports and strategic assessments to identify market potential and operational risks in the biomass sector.

PROJECTS

MONTOLEVA: Real-Time Monitoring for Hydro Power Plants

Jul 2023 - Dec 2023

- Managed a university-funded project budget of **IDR 20,000,000**, responsible for component procurement and financial tracking.
- Developed an innovative device in collaboration with PLN Persero to monitor water height at the intake of Micro Hydro Power Plants (PLTMH) in real-time.

HYDROFLOW: Smart Water Dispenser Application

January 2024 – July 2024

- Managed a campus-funded **IDR 5,250,000** budget digital transformation project to develop an IoT-based mobile application for consumption monitoring
- Improved database processing speed by 25% and achieved 90% data accuracy through optimized system architecture.

BRITOJA-ECA: IoT-Based River Pollution Control

January 2024 – July 2024

- Managed an **IDR 6,000,000** university-funded environmental innovation project focused on real-time water quality monitoring.
- Coordinated prototype development and field testing, demonstrating measurable improvements in water quality indicators.

BIOETHANOL EVO: Bioethanol from Waste Newspaper

June 2024 – December 2024

- Secured **IDR 20,000,000** in funding to lead a research project developing sustainable bioethanol from waste newspaper.
- Developed a business-oriented project case addressing urban waste management, alternative fuel potential.
- Assessed the project's strategic relevance to Indonesia's renewable energy transition and potential contribution to alternative fuel development

EDUCATION

Institut Teknologi PLN (ITPLN), Jakarta, Indonesia

Oct 2022 – May 2026

- Bachelor of Energy Business
GPA: 3.89/4.00
- Relevant Coursework: Risk Management, Energy Project Feasibility Analysis, Investment Analysis and Capitalization, Strategic Management

ADDITIONAL INFORMATION

Certifications:

- Risk Management, New York Institute of Finance (Nov 2024)

Languages:

- Indonesian (Native)
- English (Professional working proficiency)
- Javanese (Native)

Publications:

- Pengaruh Disiplin, Budaya Organisasi, Dan Motivasi Terhadap Kinerja Karyawan Pada PT. XYZ, Jurnal Minfo Polgan (Feb 2024)

Tools :

- Microsoft Excel, PowerPoint, Google Workspace, Canva, TradingView, Stockbit