

Methodology for Indonesia Datasets

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Overview

This document outlines the methodology for Indonesia power sector datasets covering electricity demand, transmission infrastructure, and fuel market indicators. The methodology is designed to support energy system analysis, market assessment, and long-term power sector research in Indonesia.

1. Indonesia Provincial Annual Electricity Consumption

Data Sources

The data is collected from 2021 and 2025 versions of [Rencana Usaha Penyediaan Tenaga Listrik \(RUPTL\)](#) prepared by *Perusahaan Listrik Negara* (PLN).

Data Fields

Field	Description
province	Province name
year	Reporting year
demand_gwh	Total electricity demand in Gigawatt-hours (GWh)

2. Indonesia Provincial Annual Electricity Projections

Data Sources

The data is collected from 2021 and 2025 versions of [Rencana Usaha Penyediaan Tenaga Listrik \(RUPTL\)](#) prepared by *Perusahaan Listrik Negara* (PLN).

Data Fields

Field	Description
province	Province name
year	Reporting year
demand_gwh	Total electricity demand in Gigawatt-hours (GWh)

3. Indonesia Transmission Lines for Major Islands

Data Sources

The data is compiled from the transmission network maps in the 2021 and 2025 versions of [Rencana Usaha Penyediaan Tenaga Listrik \(RUPTL\)](#) prepared by *Perusahaan Listrik Negara* (PLN). Line connections were cross-validated against [OpenStreetMap \(OSM\)](#).

Data Fields

Field	Description
province_a	The province at one end of the line
province_b	The province at the other end of the line
voltage	Nominal voltage level
capacity_mw	Transmission capacity

Notes

This applies to four datasets, covering transmission lines for major islands: Jawa-Bali, Sumatera, Kalimantan, and Sulawesi.

4. Indonesia Coal Price Indices

Data Sources

The data is collected from publicly available sources, including [PLN estimates](#) and [JETP CIPP projections](#).

Data Fields

Field	Description
<code>fuel_type</code>	Type of fuel covered by the index
<code>index_name</code>	Official name of the coal price index
<code>price_usd_per_ton</code>	Coal price in USD per metric ton
<code>year</code>	Reporting year