



BPS Statistics Indonesia

ENERGY BALANCE OF INDONESIA Coordination Issues

Presented by:

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Introduction

BPS Statistics of Indonesia is a national statistics office (NSO) of Indonesia. In the government organization structure, BPS is directly under the President of Republic of Indonesia. The main duties and responsibilities of BPS are as follows:

- a. Collecting, processing, and presenting basics statistics data and sectoral statistics.
- b. Formulating, designing, and performing any related activities in order to make point (a) can be implemented.
- c. Coordinating and assisting other government institutions and private agencies in carrying out any statistical activities.

In conducting statistics activities, BPS has branch offices in all 33 provinces, 465 regencies/municipalities, and one statistics officer in each of 6.131 sub districts (a smallest government administrative region).

Energy Balance Statistics is one of the statistics activities conducted by BPS. Energy Balance Statistics has been annually published by BPS since 2001. Concept and definition of the energy commodities used for making energy balance table apply UN Manual. Similarly, the conversion from various measurement units to the standard measurement also apply UN Manual.

Energy Balance Statistics is not only published by BPS, but it is also published by Ministry Energy and Mineral Resources (MEMR), a government technical institution.

In applying standard conversion factor, there is a different approach between BPS and MEMR in making energy balance table. BPS converts the various measurement units to Tera joule, while MEMR converts them to BOE (Barrel Oil Equivalent). However, both institution utilize the compiled data from the same sources.

The use of energy balance table of Indonesia, published by BPS and MEMR, is primarily for the government purposes in performing the activities of planning, monitoring, evaluating, and making decision which concern to the energy matters. Other users of energy balance table are international agencies from various countries.

Energy Commodities, Data Sources, and Data Conversion

Energy commodities which are used by both BPS and MEMR for making energy balance table consist of:

- solid energy: hard coal, brown coal, lignite,
- other solid energy: charcoal, fuel wood, bagasse, vegetable waste,
- crude petroleum: liquid natural gas,
- light petroleum: aviation gasoline, motor gasoline, natural gasoline, jet fuel, kerosene, naphtha, white spirit,
- heavy petroleum: gas diesel oil, residual fuel oil,
- other petroleum products: lubricant, feed stock, plant condensate, bitumen/asphalt, petroleum waxes, petroleum coke, others,

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- liquid petroleum gas: hydrocarbon extracted stripping of natural gas, hydrocarbon extracted by stripping of imported natural gas, hydrocarbon produced both in refineries and outside refineries,
- natural gas, includes both types of natural gas which is from hydrocarbons in gaseous form and from the mixture of liquid and gaseous hydrocarbons, and also methane,
- derived gas: gasworks includes gas produced by carbonization, coke-oven gas,
- blast furnace gas
- hydro and geothermal electricity: for commercial and non purposes, produced in electric power plant, such as: Hydro Power Plant, Geothermal Power Plant, Gas Power Plant, Gas Steam Power Plant, Coal Steam Power Plant, Diesel Power Plant.

Data of energy commodities used by BPS and MEMR for making energy balance table are obtained/collected from the related government institutions which manage and supervise the state owner enterprises and private companies producing energy materials. The state owner enterprises and establishments/companies producing energy commodities, under the government regulations, give report of their business activities to the related government institution to which they are supervised. These institutions are:

- Directorate General of Oil and Gas,
- Directorate General of Geology and Mineral Resources,
- Directorate General of Mineral, Coal, and Geothermal,
- Directorate General of Electricity and Energy Utilization.
- Ministry of Energy and Mineral Resources,
- State owner enterprise of electricity,
- State owner enterprise of city gas,
- State owner enterprise of water supply,

BPS also use the compilation data resulted by the surveys conducted by BPS its self, those are manufacturing, mining & quarrying, energy, and construction surveys.

Standard conversion factors applied by BPS Statistics Indonesia for making Energy Balance Table is Terajoule measurement unit. On the other hand, Ministry of Energy and Mineral Resources applies BOE (Barrel Oil Equivalent).

Presentation of Energy Balance Statistics

The statistics of energy balance is presented in a publication form containing:

- Energy Balance Table
An Energy system input-output, a table form containing rows and column. The rows indicate activities of an energy commodity which consists of four main elements, those are primary energy, transformation, own use and losses, and energy consumption. The columns indicate the types of energy commodities measured which are written above.
- Growth of Energy Balance for each energy commodity
- Installed Capacity of Power Plant, arranged by island, power plant types, and year
- Electricity Generated, arranged by island, power plant types, and year
- Electricity Purchased by electricity state company, arranged by island and year
- Electricity Supplied by electricity state company, arranged by island and year
- Electricity Sold by electricity state company, arranged by island, customer, year
- Electricity Used by Manufacturing Industry, arranged by type of industry and year
- Energy commodity consumed by household, arranged by island, commodity, year
- Energy commodity consumed by manufacturing industry, arranged by island, year
- Energy Consumption, arranged by commodities and year

- Energy Production, arranged by commodities and year
- Energy Exported, arranged by destination countries per-commodity, and year

The issues of Energy Balance Statistics

There are two main issues which occur in making and publishing energy balance statistics of Indonesia. The first issue is an ambiguity of the energy balance table published. BPS Statistics Indonesia and Ministry of Energy and Mineral Resources respectively make and publish the same object, that is Energy Balance Statistics.

It is obvious that the energy balance statistics resulted by BPS and MEMR are not the same. This is not a statistical error, it is nothing but an error of lacking coordination among government institutions. In the future, BPS and MEMR have to work together and discuss the methodology and data used.

The second issue is that there is no official regulation yet which clearly determines the unique institution which has an authority and responsibility in officially producing energy balance statistics of Indonesia.

BPS, under the statistics law, has an authority and responsibility in providing any statistics for government purposes and public use, includes in making, presenting, and publishing energy balance statistics. However, MEMR based on its technical functions, also has an obligation to report the performance of energy matters for the government purposes.

In order to be able to present a unique publication of the energy balance statistics of Indonesia, government has to create a regulation to determine the institution which has an authority in providing and presenting energy balance statistics for the government purposes and public use.

These two issues have to be solved. Currently, Energy Balance Statistics becomes a strategic information for evaluating production and consumption of energy commodity in order to get an optimal solution of the energy crisis.

F. Summary

Energy balance statistics of Indonesia has been presented since 2001. This statistics publication not only contains Energy Balance Table, but it also provides energy information in table forms, those are growth of energy commodity, production and consumption of energy, capacity of electricity generated, purchased, supplied, sold, and used, energy commodity consumed, imported and exported, and others.

Energy balance statistics is published not only by BPS Statistics Indonesia, a National Statistics Office (NSO), but it is also published by Ministry of Energy and Mineral Resources, a government technical institution. In term of data conversion, BPS applies terajoule to convert various measurement units, while MEMR uses BOE.

Two main issues occur in this given situation. Firstly, there are two different energy balance statistics publication, which is respectively published by BPS Statistics Indonesia and Ministry of Energy and Mineral Resources. Secondly, there is no regulation which determines a unique institution which officially has an authority to provide and publish energy balance statistics.

In order to be able to present a single and unique publication of energy balance statistics, it is suggested that BPS and MEMR work together to discuss the methodology and data used for making, presenting and uniquely publishing energy balance statistics. It is also suggested that government has to create a strict regulation which determines BPS as the unique institution which has an official authority and responsibility to make, present, and publish Energy Balance Statistics for government purposes and public use.

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