Challenges in Monthly Oil and Gas Data Reporting System in Chinese Taipei

Jen-Yi HOU
Taiwan Research Institute
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I. Energy Statistical Organization

- Bureau of Energy, MOEA
  - Planning Division
    - Energy Statistics & International Cooperation Section
      - Data Submission
        - Energy Supplier & Major Energy User
          - Enterprise Level Energy Statistics
  - Taiwan Research Institute
    - Energy Statistics Group
      - National Level Energy Statistics
II. Legal Basis

- **Energy Administration Act § 7**
  - Energy supply enterprise
  - Operation data, security stockpile *(monthly)*

See also: Regulations for Implementing the Energy Management Law § 4 & Announcement on Reporting Items and Periods for Energy Enterprise

- **Petroleum Administration Act § 27-28**
  - Oil refinery operators, importers, exporters, and wholesalers
  - Production, import, export, and sales, security stockpile *(monthly)*

- **Natural Gas Business Act § 53**
  - Natural gas utilities
  - Amount of sales, type of users, and number of installed households *(monthly)*

- **Energy Administration Act § 12**
  - Major energy user
  - Type, amount of energy consumption, and its efficiency *(annually)*

See also: Announcement on Reporting Energy Categories, Quantities, Items, Efficiency, Period And Methods for Energy User
III. Data Coverage

**Crude Oil and Petroleum Products**
- Crude Oil
- Refinery Feedstocks
- Additives/Oxygenates
- Refinery Gas
- LPG (Propane Air)
- Natural Gasoline
- Naphtha
- Motor Gasoline (Unleaded Gasoline)
- Aviation Gasoline
- Jet Fuel (Gasoline Type/Kerosene Type)
- Kerosene
- Diesel Oil
- Fuel Oil
- White Spirits
- Lubricants
- Asphalts
- Solvents
- Paraffin Waxes
- Petroleum Coke
- Other Petroleum Products

**Natural Gas**
- Indigenous Natural Gas
- Imported LNG

**Supply, Transformation, and Consumption**
- Production
- Import
- Export
- Stock
- Transformation input and Output
- Energy sector own use
- Total final Consumption: 5 sectors (by industries) and non-energy use

**Transformation Equipment**
- (capacity)

**Energy Prices**
- Import
- Wholesale
- retail

**Energy Balance Table**
- JODI
IV. Data Reporting Scheme

1. Oil Data Source

**Supply**
- Indigenous crude oil
- Imported crude oil and oil products
  - Customs Administration (lubricants, solvents, petroleum coke, etc.)
- LPG importers-2 (before 2010)

**Transformation**
- Input: Crude oil
  - Output: petroleum products
- Input: petroleum product
  - Output: electricity and heat
- Inter-product Transfer

**Consumption**
- Sales Data
- End Use Data
- CPC
- Formosa
- LPG importers

- CPC & Formosa
- TPC, IPP & CHP plants
- CPC-Shell Lubricants (before 2014)
- Cement and cement product industry -8
- Iron and steel industry -2

CHP plants • • •
IV. Data Reporting Scheme

2. Gas Data Source

Supply

Indigenous Natural Gas
Imported LNG

Transformation

Inter-product Transfer:
LNG Gasification & Blending

Input:
Natural Gas
Electricity and heat

Consumption

CPC
Sales Data:
CPC & natural gas utilities-27

End Use Data:
Iron and steel industry -2
IV. Data Reporting Scheme

3. Integrated Energy Data Reporting Platform
BOE conducted a review on energy data collection scheme in 2015, and following challenges were identified:

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V. Challenges on Oil and Gas Statistics

**Challenge 1: Establish legal binding reporting requirement for energy enterprise/users**

**Solutions:**
- Identify data needed for energy statistical purpose, and negotiate with data holders.
- Issue Ministerial Announcement:
  - Announcement on Reporting Items and Periods for Energy Enterprise
  - Announcement on Reporting Energy Categories, Quantities, Items, Efficiency, Period And Methods for Energy User
- Establish the integrated energy data reporting platform

**Challenge 2: Harmonize the definition of reporting items and scope**

**Solutions:**
- Provide the definition of energy products, and identify their equivalent terminology applied in practice.
- Provide the definition and scope of reporting items.
- Communicate with data providers to understand their statistical practice, and check its consistency with national definition.
V. Challenges on Oil and Gas Statistics

**Challenge 3: Update the industrial classification of energy users**

**Solutions:**
- Encourage energy enterprises to update the industrial classification of their customers, and make this requirement legal binding.
- Negotiate with DGBAS to provide assistance with industry, commerce and service census data.
- Check the data consistency, and negotiate with data providers to ensure the accuracy of data treatment.

**Challenge 4: Identify sales between energy enterprises**

**Solutions:**
- Identify the amount of sales between energy enterprises, and their recording in enterprise level statistics.
- Redesign the reporting format.
# V. Challenges on Oil and Gas Statistics

## Challenge 5: Identify heat content of petroleum product with unstable chemical property

**Solutions:**
- Conduct energy product heat content survey to collect information on the source and property of refinery gas and VOCs.
- Review the heat content of energy products, and modify the default setting.

## Challenge 6: Identify non-transport use of petroleum products sold by gas station

**Solutions:**
- Negotiate with COA to provide data on agriculture and fishery subsidy.
- Conduct survey to collect data on non-transport use of petroleum products sold by gas station, and estimate its proportion.

## Challenge 7: Minimize the gap between natural gas supply and consumption data

**Solutions:**
- Communicate with data providers to identify reasons for the data gap.
- Figure out possible data holders or estimation methods to collect related data.
Challenge 8: Modify EBT producing program according to the latest data property

Solutions:
Modify the EBT producing program according to cope with following situation:
- Change of reporting format.
- Provision new data:
  - stock
  - sales between energy enterprises
  - agriculture and fishery subsidy
Thank you for your attention!