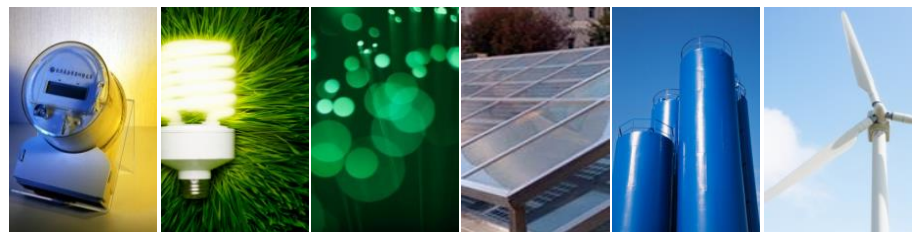




17<sup>th</sup> APEC Workshop on Energy Statistics  
11 – 13 June 2019



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

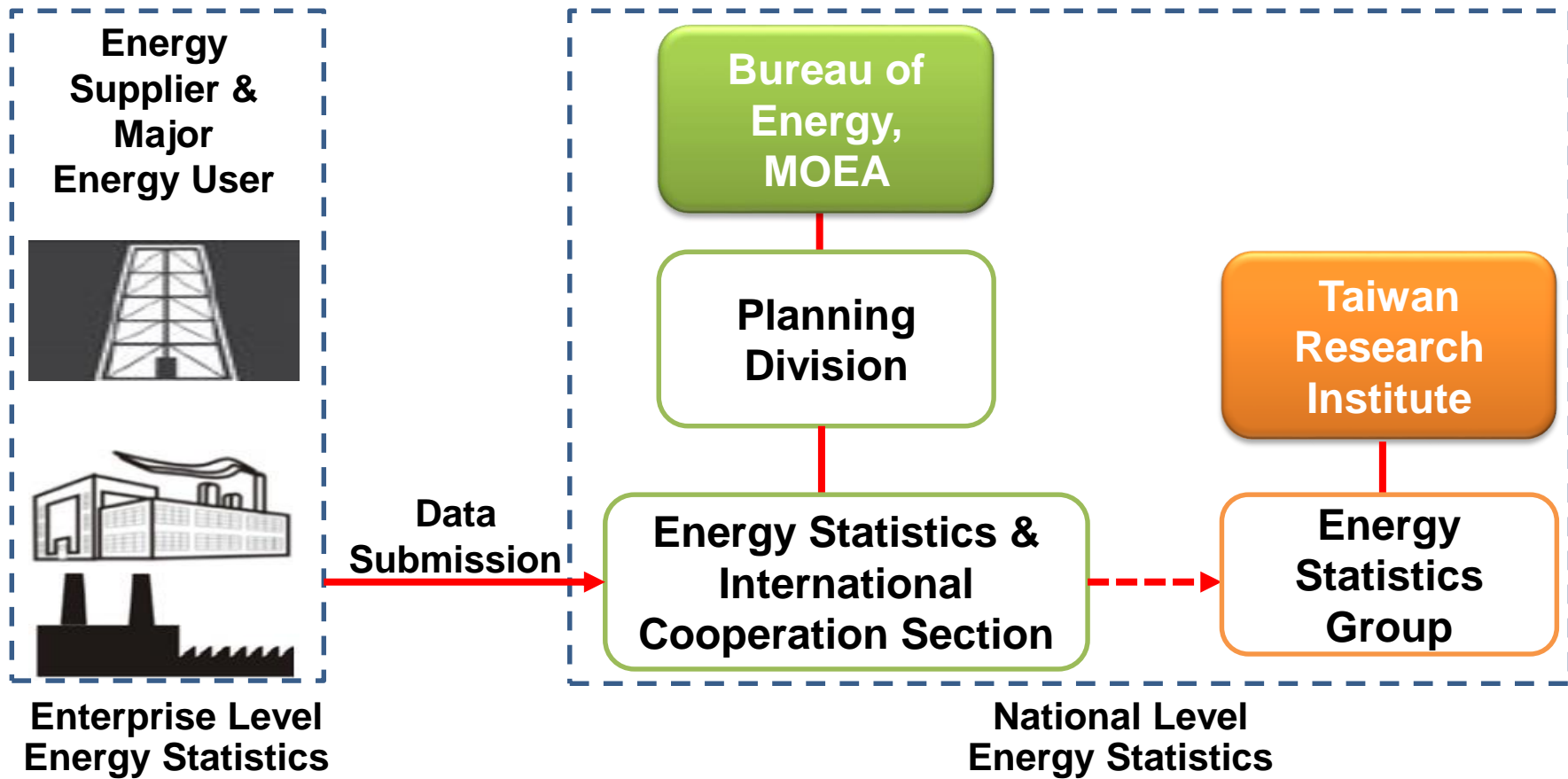


Jen-Yi HOU  
Taiwan Research Institute  
Date: 2019/6/12

# Content

- I. Energy Statistical Organization
- II. Legal Basis
- III. Data Coverage
- IV. Data Reporting Scheme
- V. Challenges

# I. Energy Statistical Organization



## II. Legal Basis

### Energy Data Reporting

#### Energy Supplier

##### 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 User

##### 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



Energy Balance Table



JODI

### ➤ Transformation Equipment

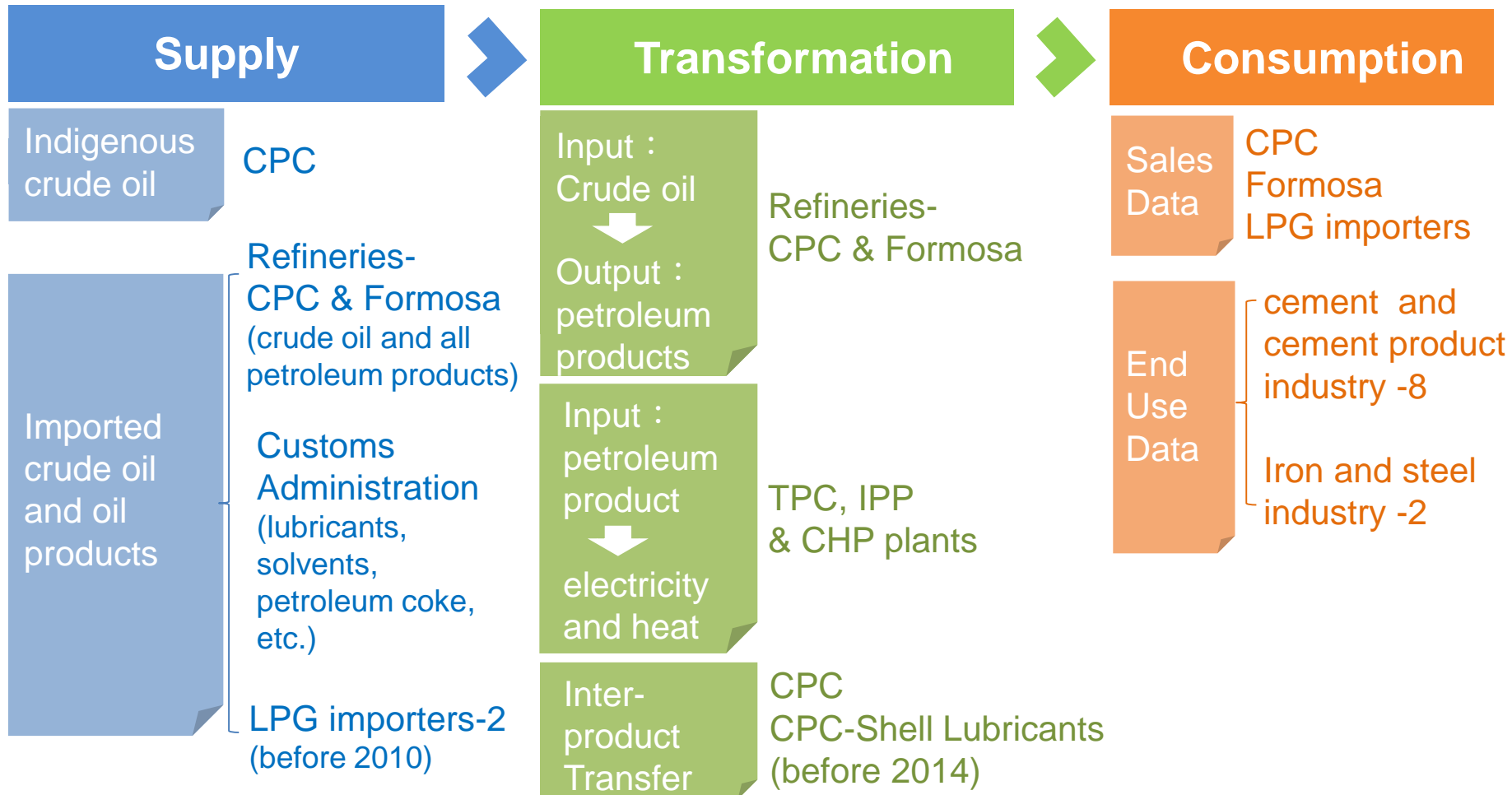
- ✓ (capacity)

### ➤ Energy Prices

- ✓ Import
- ✓ Wholesale
- ✓ retail

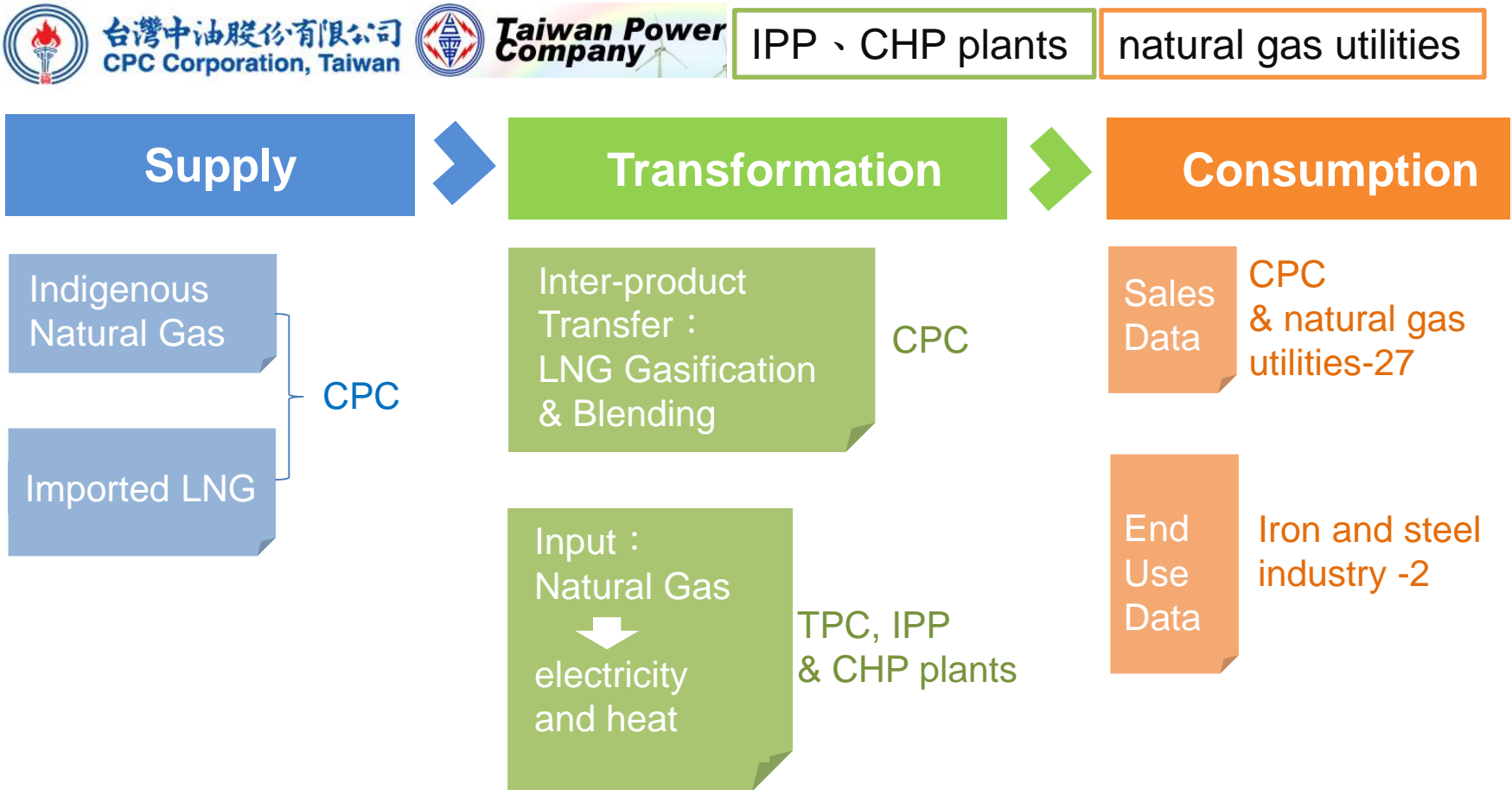
# IV. Data Reporting Scheme

## 1. Oil Data Source



# IV. Data Reporting Scheme

## 2. Gas Data Source



# IV. Data Reporting Scheme

## 3. Integrated Energy Data Reporting Platform

經濟部能源局-能源資料申報整合平臺

公告資訊 ▾ 能源資料申報 ▾ 檔案下載 法規及行政規則

**楊智晴 您好:**

本月應申報表單共計 565 件  
 目前已填報件數: 175 件  
 尚未填報件數: 390 件  
 其餘未完成填報件數: 1688 件  
 待審核業者筆數: 1 件


外部系統連結:  
[石油產業管理資訊系統](#)  
[汽電共生網路申報系統](#)


 煤炭  
441


 石油  
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 天然氣  
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 電力  
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 生質能及  
廢棄物  
126

 後臺管理  
系統

 結轉系統

石油業務經營統計表-八大油品	石油業務經營統計表-其它油品	行業別銷售與損耗-八大油品
行業別銷售與損耗-其它油品	進口原油統計表	進口石油產品明細統計表
燃料氣熱值統計表	外場生產流程	備註 附件
石油業務經營統計表-八大油品		

油品名稱	原油	液化石油氣	汽油	航空燃油	煤油	柴油	燃料油	輕油
單位	公秉	公噸	公秉	公秉	公秉	公秉	公秉	公秉
期初存量								
自產/煉成								
輸入								
購自國內								
來源合計								
投入								
自用								
輸出								
國際航運								
國內銷售								

用戶類別	NG1		NG2		其他		合計	
	用戶數 (戶)	供氣數量 (立方公尺)	用戶數 (戶)	供氣數量 (立方公尺)	用戶數 (戶)	供氣數量 (立方公尺)	用戶數 (戶)	供氣數量 (立方公尺)
煤礦業								
煉焦工場/煤製品業								
油氣礦業								
煉油廠								
石油及煤製品製造業								
石油煉製業								
發電廠	6	6,925					6	6,925
電力供應業	6	6,925					6	6,925
再生能源事業								
汽電共生廠								
氣體燃料供應業	15	59,824					15	59,824
小計(A)	21	66,749					21	66,749
礦業及土石採取業(不含煤、油及氣)								



# V. Challenges on Oil and Gas Statistics

BOE conducted a review on energy data collection scheme in 2015, and following challenges were identified:

## Aspect

## Challenges

### Institutional Environment

1. Establish legal binding reporting requirement for energy enterprise/users

### Statistical Process

2. Harmonize the definition of reporting items and scope
3. Update the industrial classification of energy users
4. Identify sales between energy enterprises
5. Identify heat content of petroleum product with unstable chemical property
6. Identify non-transport use of petroleum products sold by gas station
7. Minimize the gap between natural gas supply and consumption data

### Statistical Output

8. Modify EBT producing program according to the latest data property

# V. Challenges on Oil and Gas Statistics

Done

## 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

Work

## 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

**Work**

## 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.

**Done**

## 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

**Work**

## 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.

**Work**

## 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.

**Work**

## 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.

# V. Challenges on Oil and Gas Statistics

**Work**

## 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

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**Thank you for your attention!**