

# MALAYSIA ENERGY INFORMATION HUB (MEIH)

9<sup>th</sup> OSLO GROUP MEETING ABU DHABI, UAE 5 – 8 May 2014





## MEIH BACKGROUND





### INTRODUCTION

The Malaysia Energy Information Hub (MEIH) serves to establish a comprehensive national energy database to support the dissemination and distribution of energy statistics in Malaysia to local and international stakeholders and the public. MEIH is a portal undertaken and managed by the Energy Commission (EC) of Malaysia.





## INTRODUCTION



It was officially launched by Y.B Dato' Sri Peter Chin Fah Kui, Minister of Energy, Green Technology and Water on 28 February 2012 at Sime Darby Convention Centre, Kuala Lumpur, Malaysia





### **OBJECTIVES**

- To establish a comprehensive national energy database to provide timely energy statistics and support for National Energy Planning
- To help EC achieve its organisational objectives and to assist EC in building the necessary capabilities as to become a "one-stop energy statistics center" responding to enquiries and requests from the public and private sectors regarding the country's energy data
- To develop, maintain and update a computerised information system including an energy databank
- To establish a mechanism which ensures all data and information relevant to energy planning and energy indicators are deposited in the energy database system
- To co-ordinate, compile and assist in the publication of energy statistics and to undertake appropriate studies on its own or in collaboration with other energy centers
- To develop in-house capabilities/expertise in energy forecast and modeling system for the short and long-term energy outlook
- To undertake energy end-use forecasting, energy demand/supply planning and development and feasibility studies to assist both public and private sector organisations in formulating effective energy strategies and project implementation.

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## **TOPICS IN MEIH**

Energy data from National Energy Balance (NEB) publication

Data submission from NEB data providers

Electricity data on the performance of electricity supply industry in Malaysia

Statistics of piped gas distribution industry in Malaysia





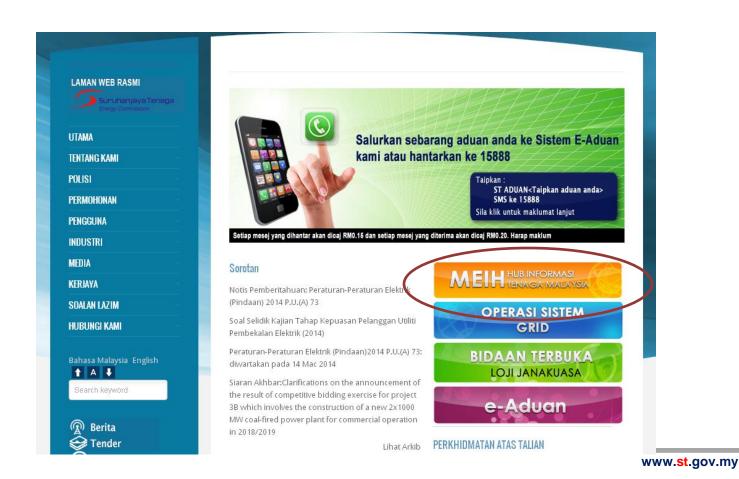


# HOW TO ACCESS MEIH

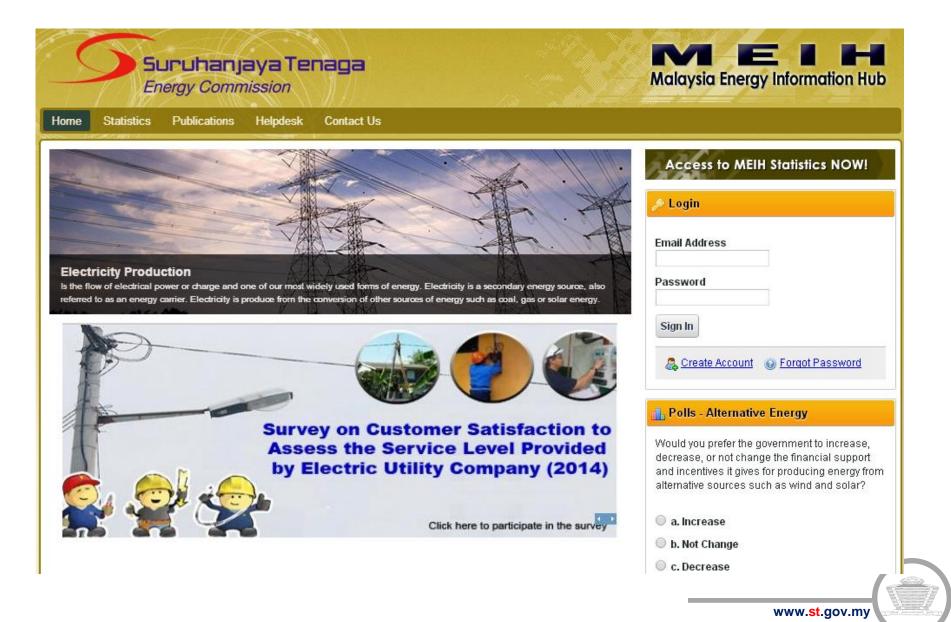




- Type in the URL for MEIH Portal in the address bar of the internet Browser (Internet Explorer / Mozilla Firefox / Chrome), <a href="www.meih.st.gov.my">www.meih.st.gov.my</a>
- Another option is to go to the official website of Suruhanjaya Tenaga, www.st.gov.my. Click on the MEIH icon located in the main page.











## DATA OUTPUT







#### Summary

- Primary Energy Supply
- Transformation Process
- Final Energy Demand

#### Crude Oil & Petroleum Products

- Reserves
- Production
- Import & Export
- Final Consumption

#### Natural Gas

- Reserves
- Production
- Import & Export
- Final Consumption

#### Coal & Coke

- Reserves
- Production
- Import & Export
- Final Consumption

#### Electricity

- Installed Capacity
- Electricity Generation
- Final Electricity Consumption



#### Economic Indicator

- GDP
- Population
- GDP per Capita

#### **Energy Indicator**

- Energy Intensity per Capita
- Energy Intensity per unit GDP



- Performance of Electricity Supply Industry
- Information on Electricity Supply Industry
- Independent Power Producers (IPPs)
- Electricity Distributors
- Co-Generators
- Renewable Energy Projects
- Electrical Competency Certificates Issued



#### **Energy Prices**

- Petroleum Products
- EPC
- Natural Gas
- Retail Petroleum
- Tariff



#### Gas Distribution Statistics

- Performance of Gas Distribution System
- Natural Gas Consumption
- Natural Gas Consumers
- Length of Natural Gas Distribution Pipeline
- 📒 Gas Competency Certificates Issued





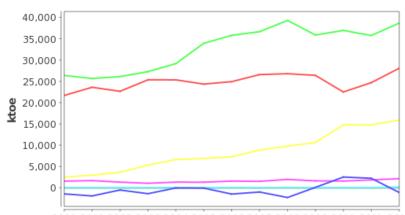
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				Primary Energ	y Supply (ktoe)			
Year	Crude Oil	Petroleum Products	Natural Gas	Coal and Coke	Hydropower	Biodiesel	Biomass	Biogas
2000	21,673	-1,431	26,370	2,486	1,560	-	-	-
2001	23,590	-1,917	25,649	2,970	1,687	-	-	-
2002	22,647	-521	26,101	3,642	1,329	-	-	-
2003	25,344	-1,391	27,257	5,316	1,056	-	-	-
2004	25,335	-37	29,145	6,631	1,329	-	-	-
2005	24,339	-75	33,913	6,889	1,313	-	-	-
2006	24,909	-1,474	35,776	7,299	1,568	-	-	-
2007	26,571	-995	36,639	8,848	1,510	-	-	-
2008	26,776	-2,282	39,289	9,782	1,964	-	-	-
2009	26,386	96	35,851	10,623	1,627	-	-	-
2010	22,487	2,521	36,936	14,777	1,577	-	-	-
2011	24,679	2,224	35,740	14,772	1,850	24	-	-
2012	28,054	-1,098	38,648	15,882	2,149	115	183	4



2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

#### Year

- Crude Oil — Petroleum Products — Natural Gas — Coal and Coke · Hydropower — Biodiesel — Biomass — Biogas





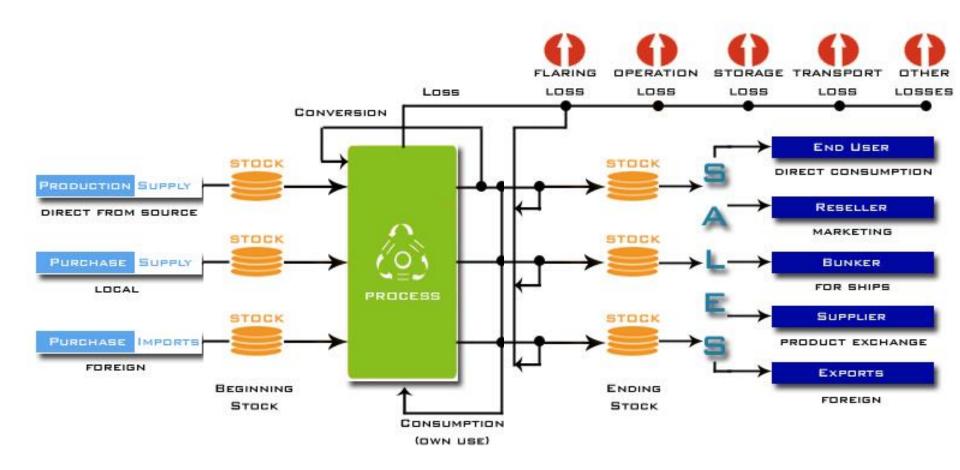


# DATA SUBMISSION





## **ENERGY BALANCE MODEL**





## **QUESTIONNAIRE**

Forms	Form Description	Parameters/Fields
F1	Stock of Energy Products	Open Stock
		Closing Stock
F2	Energy Intake into Plant/Process/Operation	<ul> <li>Local Purchase</li> </ul>
		<ul> <li>Production Supply/Electricity Generation</li> </ul>
		<ul> <li>Foreign Imports</li> </ul>
F3	Energy Own Consumption and Conversion/Operations	Own Use/Electricity Own Use
		<ul> <li>Conversion Process</li> </ul>
F4	Sales of Energy Products by Dsitribution Channels	<ul> <li>Sales End User</li> </ul>
		Sales Reseller
		<ul> <li>Sales Bunker</li> </ul>
		<ul> <li>Sales Intercompany</li> </ul>
		<ul> <li>Sales Exports</li> </ul>
F5	Losses of Energy Products	<ul><li>Loss Flaring</li></ul>
		<ul><li>Loss Storage</li></ul>
		<ul><li>Loss Operations</li></ul>
		<ul><li>Loss Others</li></ul>
		<ul> <li>Loss Transportation</li> </ul>





## **QUESTIONNAIRE**

	1	R	esid	lentia	I/Dai	mestic
ı	L			101 I I I I		HOSTIC

Retail - Residential Public Lighting

#### 2. Commerical

Retail - Commercial
Wholesale & Retail (Hotel /
Complexes)

Real Fatata & Sarriage

Real Estate & Services Government & Military

#### 3. Agriculture

Agriculture & Livestock

#### 4. Non Engery

Non Energy Use

#### 5. Industrial

Retail - Industry
Forestry & Logging

Fishing

Mining & Quarry

Construction

Refining

Ceramic

Food, Beverage & Tobacco

Glass & Glass Products

Rubber, Plastic & Non Metalic

Wood & Furniture

Textile Apparel & Leather

**Power Generation** 

Brick

Cement

Iron, Steel & Metal

Pulp, Paper Products & Printing

Chemical & Petrochemical

Other Oil Companies

General Manufacturing (Others)

#### 6. Transportation

Retail - Transportation

Road

Rail

Air

**Inland Water** 

#### 7. Utility

Utility Generation - TNB

**Utility Generation - SESCO** 

Utility Generation - SEB

**Utility Generation - Others** 

#### 8. Bunker

**International Shipping** 









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User Manual - National Energy Balance Data Submission Module



Data Submission » F1: Stock of Energy Products (Opening Stock & Closing Stock)

Term of submission: Quarter 1, 2014 Region: Peninsular Malaysia

	Product	Opening Stock Quantity	Closing Stock Quantity
1.	Aviation Turbine Fuel (ATF)	MT ▼	MT ▼
2.	Liquefied Petroleum Gas (LPG)	MT ▼	MT ▼
3.	Local Crude Oil	MT ▼	MT ▼
4.	Natural Gas	mmbtu ▼	mmbtu ▼
5.	Petrol (RON 97)	MT ▼	MT ▼

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Data Submission » F2: Energy Intake Into Plant / Process / Operation

Term of submission: Quarter 1, 2014 Region: Peninsular Malaysia

	Product	Local Purchases Quantity	Production Supply/ Elect Gen Quantity	Foreign Imports Quantity
1.	Aviation Turbine Fuel (ATF)	MT ▼	MT ▼	MT ▼
2.	Liquefied Petroleum Gas (LPG)	MT ▼	MT ▼	MT ▼
3.	Local Crude Oil	MT ▼	MT ▼	MT ▼
4.	Natural Gas	mmbtu ▼	mmbtu ▼	mmbtu ▼
5.	Petrol (RON 97)	MT T	MT ▼	MT ▼

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Data Submission » F3: Energy Own Consumption & Conversions / Operation

Term of submission: Quarter 1, 2014

Region: Peninsular Malaysia

	Product	Own Consumption Quantity	Conversion Process Quantity
1.	Aviation Turbine Fuel (ATF)	MT ▼	MT ▼
2.	Liquefied Petroleum Gas (LPG)	MT ▼	MT ▼
3.	Local Crude Oil	MT •	MT ▼
4.	Natural Gas	mmbtu ▼	mmbtu ▼
5.	Petrol (RON 97)	MT ▼	MT ▼

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Balancing Grid (KTOE)

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Data Submission » F4: Sales of Energy Products by Distribution Channels

Term of submission: Quarter 1, 2014 Peninsular Malaysia Region:

	Product	Sales - End User Quantity	Sales - Resellers Quantity	Sales - Bunker Fuel Quantity	Sales - Intercompany Quantity	Sales - Exports Quantity
1	Aviation Turbine Fuel (ATF)	MT ▼	MT ▼	MT ▼	MT ▼	MT ▼
2	Liquefied Petroleum Gas (LPG)	MT ▼	MT ▼	MT ▼	MT ▼	MT ▼
3	). Local Crude Oil	MT ▼	MT ▼	MT ▼	MT ▼	MT ▼
4	. Natural Gas	mmbtu ▼	mmbtu ▼	mmbtu ▼	mmbtu ▼	mmbtu ▼
6	i. Petrol (RON 97)	MT •	MT •	MT ▼	MT ▼	MT ▼

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Data Submission » F5: Losses of Energy Products

Term of submission: Quarter 1, 2014 Region: Peninsular Malaysia

	Product	Loss - Flaring Quantity	Loss - Storage Quantity	Loss - Operation Quantity	Loss - Transportation Quantity	Loss - Others Quantity
1.	Aviation Turbine Fuel (ATF)	MT ▼	MT ▼	MT ▼	MT ▼	MT ▼
2.	Liquefied Petroleum Gas (LPG)	MT ▼	MT ▼	MT ▼	MT ▼	MT ▼
3.	Local Crude Oil	MT ▼	MT ▼	MT ▼	MT ▼	MT ▼
4.	Natural Gas	mmbtu ▼	mmbtu ▼	mmbtu ▼	mmbtu ▼	mmbtu ▼
5.	Petrol (RON 97)	MT ▼	MT ▼	MT ▼	MT ▼	MT ▼

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Data Submission » C1 : Final Energy Consumption Sectors

Term of submission: Quarter 1, 2014 Region: Peninsular Malaysia

	Product	Cement	Chemical and Petrochemical	Food, Beverage and Tobacco	Non Energy Use	Reta
1.	Aviation Turbine Fuel (ATF)	MT ▼	MT ▼	MT ▼	MT ▼	
2.	Liquefied Petroleum Gas (LPG)	MT ▼	MT ▼	MT ▼	MT ▼	
3.	Local Crude Oil	MT ▼	MT ▼	MT ▼	MT ▼	
4.	Natural Gas	mmbtu ▼	mmbtu ▼	mmbtu ▼	mmbtu ▼	
5.	Petrol (RON 97)	MT ▼	MT ▼	MT ▼	MT ▼	

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## **BENEFITS**





### **USERS AND USES OF MEIH**

Users of MEIH	Uses of MEIH
Regulators	Energy policy development
Energy Professionals	Energy industry planning and development
Planners	Energy security risk management
Investor Analyst	Energy standards development
Industry Players	Environmental policy development
NGOs	Energy industry performance monitoring
General Public	Energy investment analysis
Researchers	General knowledge on energy sector
Energy Data Centre	Energy efficiency and conservation





## **INNOVATION OF MEIH**

ITEM	BEFORE	AFTER
1. Data collection	Through manual (email, fax and letters)	Through online
2. Data Quality	Manual checking	Automatic checking
3. Dissemination of Data	Publication	Online and interactive
4. Data Download	Need to be copy	Can be downloaded by excel and pdf
5. Report Preparation	Taking longer time	Saving time





### **ANALYSIS FROM MEIH**

- Energy supply mix
- Self-reliance in supply
- Share of renewable energies in supply (primary energy supply or electricity generation fuel mix)
- Efficiency of electricity generation
- Electricity generation mix
- Refining efficiency
- Overall energy transformation efficiency
- Per capita consumption of primary energy and final energy
- Energy intensity and elasticity



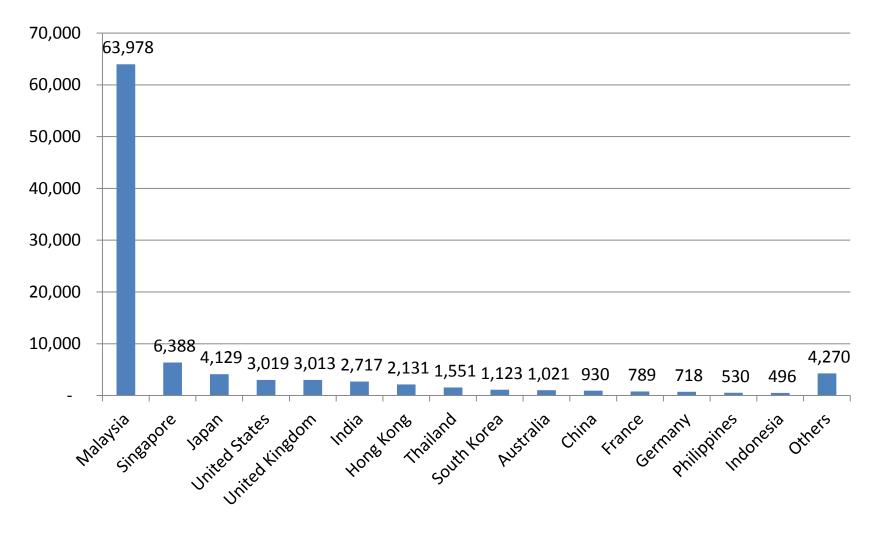




# MEIH PAGEVIEWS STATISTICS



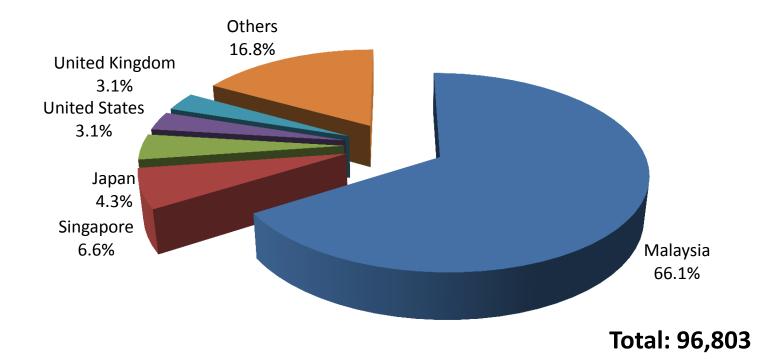




Total page views from 1<sup>st</sup> January 2013 until 31<sup>st</sup> December 2013 was 96,803



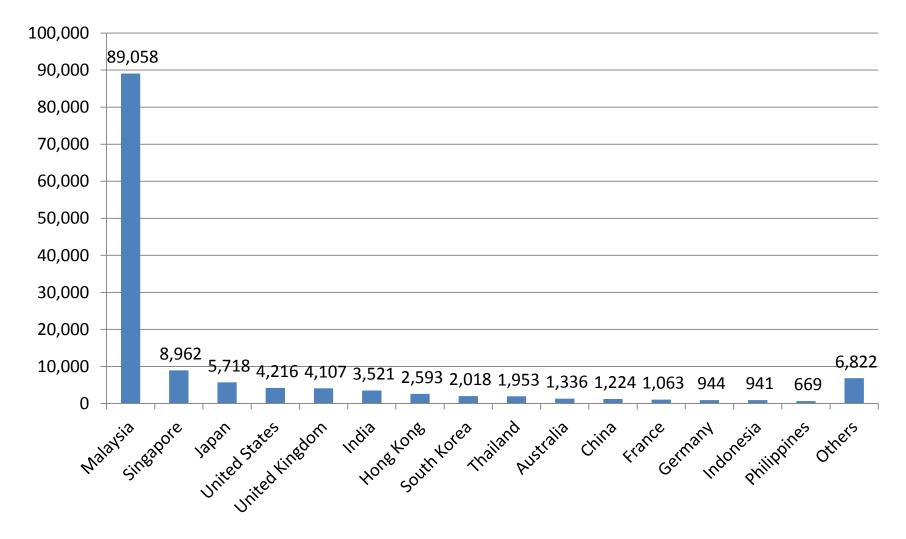




Total page views from 1<sup>st</sup> January 2013 until 31<sup>st</sup> December was 96,803



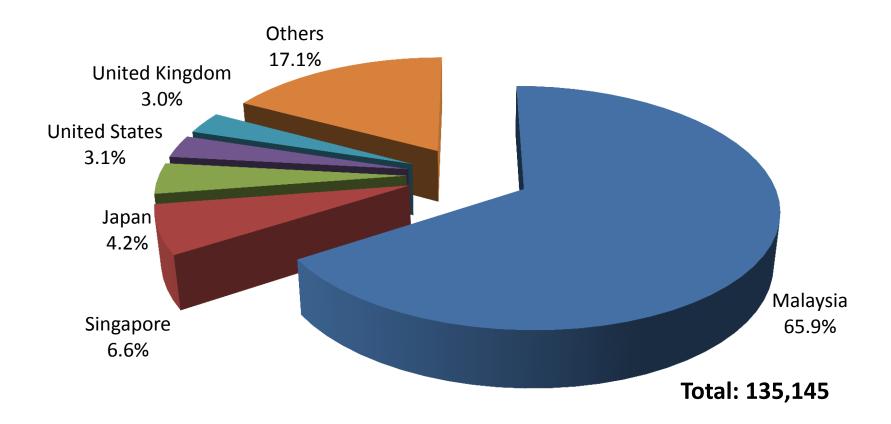




Total page views from 1<sup>st</sup> January 2013 until 28<sup>th</sup> April 2014 was 135,145







Total page views from 1<sup>st</sup> January 2013 until 28<sup>th</sup> April 2014 was 135,145







## **THANK YOU**

