ENERGY STATISTICS

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Four Additional Questionnaires for IEA Member Countries

Joint Rosstat – IEA Energy Statistics Workshop
Moscow, 14-16 February 2012

International Energy Agency

Additional Reporting Requirements for IEA Countries

(on top of the 5 annual questionnaires and the monthly oil and gas questionnaire)

1. Quarterly end-use prices and taxes
2. Crude oil import register (SOM)
3. Energy balance forecasts (SLT)
4. Government energy RD&D budgets

Tariffs vs. Average Prices for End-Users

- **Tariff = price for a specific user**

  Annual consumption:

  <200 kWh = €x

  200 kWh – 600 kWh = €y

  >600 kWh = €z

Eurostat uses normalized tariffs

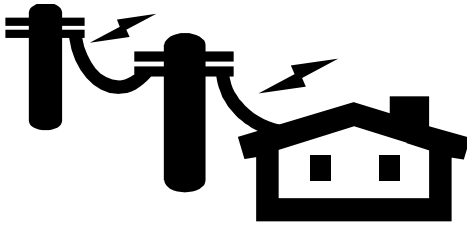
- **Average price = all users**

  Total revenues divided by total amount delivered

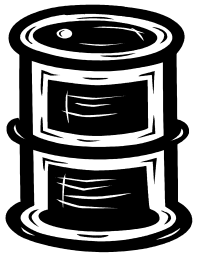
IEA uses average prices

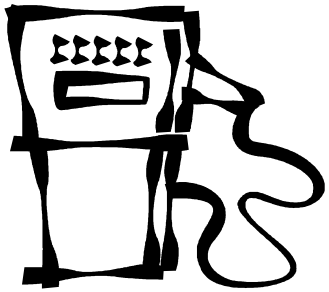
End-Use Prices

Electricity



LSFO,
HSFO,
LFO





Industry, electricity generation, households

Natural Gas

Steam Coal
Coking Coal

Premium Leaded Gasoline
Regular Leaded Gasoline
Premium Unleaded Gasoline (98 RON)
Premium Unleaded Gasoline (95 RON)
Regular Unleaded Gasoline
Automotive Diesel
Liquefied Petroleum Gas

Price Equations

- (ExTax Price + Excise Tax) x VAT% = VAT amount
- Excise Tax + VAT amount = Total Tax
- ExTax Price + Total Tax = Total Price

TAXES:

Per value: VAT = Value Added Tax (%)

e.g. GST = Goods and Services Tax (%)

(Often the VAT is refunded for industry)

Per volume: Excise Tax (per tonne, per kWh, etc.)

e.g. Emergency Stock Fee, CO_2 Tax, Mineral Oil Tax, Sulphur Tax, Lead Tax

Excel questionnaire (extract)

- All prices in national currencies
- MS Excel file
  - simple
  - user friendly
  - easy to fill out
- Always accompanied by a country notes file in MS Word
- Quarterly

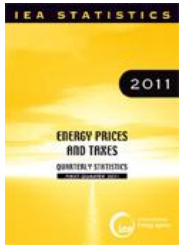
	AUTOMOTIVE DIESEL price for **COMMERCIAL USERS** per **litre**					
	Ex-Tax Price	Excise Tax	VAT %	VAT Amount	Total Tax	Total Price
2009	0.4095	0.428	0	0	0.428	0.8375
2010	0.529	0.428	0	0	0.428	0.957
2011	..	..	..	..	..	..
2Q2009	0.395	0.428	0	0	0.428	0.823
3Q2009	0.425	0.428	0	0	0.428	0.853
4Q2009	0.44	0.428	0	0	0.428	0.868
1Q2010	0.483	0.428	0	0	0.428	0.911
2Q2010	0.544	0.428	0	0	0.428	0.972
3Q2010	0.528	0.428	0	0	0.428	0.956
4Q2010	0.561	0.428	0	0	0.428	0.989
1Q2011	0.663	0.437	0	0	0.437	1.1
2Q2011	0.682	0.437	0	0	0.437	1.119
3Q2011	0.67	0.437	0	0	0.437	1.107
4Q2011	..	..	..	..	..	..
1Q2012	..	..	..	..	..	..

End-use prices published:

OIL MARKET REPORT

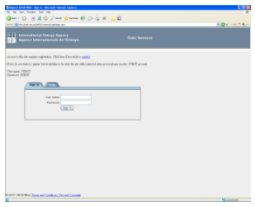
monthly

annual statistical supplement



ENERGY PRICES & TAXES

quarterly publication



IEA On-Line Data Service

general access: http://data.iea.org

Crude Oil Import Register (SOM)

Why do we need this?

- Obtain reliable crude oil price information
- Increase government knowledge of pricing aspects of the international oil market
- Capture development in import prices for particular crude streams in one country vs. another.
- Identify changes in volume over time among crude streams including trends in average API gravities.
- Observe trends in price differentials between crude streams imported into respective countries
- Capture the true costs of the end-use
  - CIF price = (Cost, Insurance & Freight) the price of a good delivered at the frontier of the importing country, including any insurance and freight charges incurred to that point

Crude Oil Import Register (SOM)

- Highly confidential
- Government Reporting Form for Crude Oil Imports
- Started in 1975 (one of the founding objectives of the IEA)
- Collects information on oil imports (CIF prices) into IEA countries broken down by major crude stream
  - **reporting obligation** of **IEA member countries**
- **Collected MONTHLY**

Crude Oil Import Register (SOM)

- Number of importing companies
- Sulphur content [%]
- API gravity
- Volume [1000 bbl]
- Value [in 1000 USD]
- Average costs [in USD/bbl]

Monthly

Crude oil categories

Defined by

- physical attributes (API, sulphur content)
- country of origin
  - 8 regions
  - 45 countries
  - 105 crude streams

Excel price questionnaire (extract)

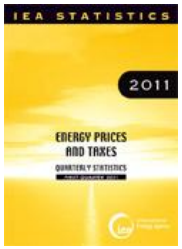
	Country of Origin	Crude Category	Typical API Gravity	Typical Sulphur % wt	Number of Companies	Reported API Gravity	Reported Sulphur % wt	Volume (1000 bbls)	Value ($ 1000)	Average Cost (CIF) ($/bbl)
MIDDLE EAST	Abu Dhabi	Murban	40.4	0.79						
		Umm Shaif	37.2	1.31						
		Upper Zakum	34.0	1.78						
		Lower Zakum	39.2	1.10						
		Other Abu Dhabi	44.6	1.06						
	Dubai	Dubai	31.0	2.04						
	Sharjah		50.0	0.08						
	Iran	Iranian Light	33.1	1.50						
		Iranian Heavy	30.2	1.77						
		Other Iran	31.8	2.21						
	Iraq	Basrah Light	33.7	1.95						
		Kirkuk	35.1	1.97						
		Other Iraq	36.1	1.90						
	Kuwait	Kuwait Blend	32.4	2.60						
	Neutral Zone	Offshore (Khafji/Hout)	28.5	2.85						
		Onshore	24.2	4.00						
	Oman	Oman	33.3	1.06						
	Qatar	Qatar Marine	36.2	1.60						
		Qatar Land	41.1	1.22						
	Saudi Arabia	Arab Light	34.0	1.78						
		Arab Medium	31.8	2.45						
		Arab Heavy	28.7	2.79						
		Berri (Extra Light)	38.4	1.16						
		Other Saudi Arabia	50.6	0.04						
	Syria	Syria Light	36.5	0.66						
		Souedie	24.0	4.05						
	Yemen	Marib Light	48.4	0.08						
		Masila Blend	30.5	0.62						
		Other Yemen	39.0	0.10						
	Other Middle East		43.0	1.17						

Crude oil import prices published:

Important:
SOM is considered commercially sensitive and is not released unless there are at least 3 reporting companies

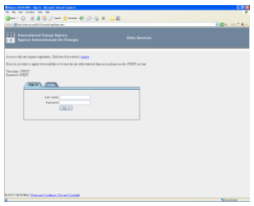
OIL MARKET REPORT

monthly
annual statistical supplement



ENERGY PRICES & TAXES

quarterly publication



IEA On-Line Data Service

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Energy Balance Forecasts (SLT)

For 2010P, 2020, 2030, 2035 and 2040:

- Coal (excluding peat), peat, oil, gas, nuclear, hydro, wind, geothermal, solar/etc., biofuels and waste, electricity, heat and total
- 21 flows for supply, transformation and final consumption
- GDP growth rates and population
- Detailed coal supply

Annual

Excel SLT questionnaire (summary balance)

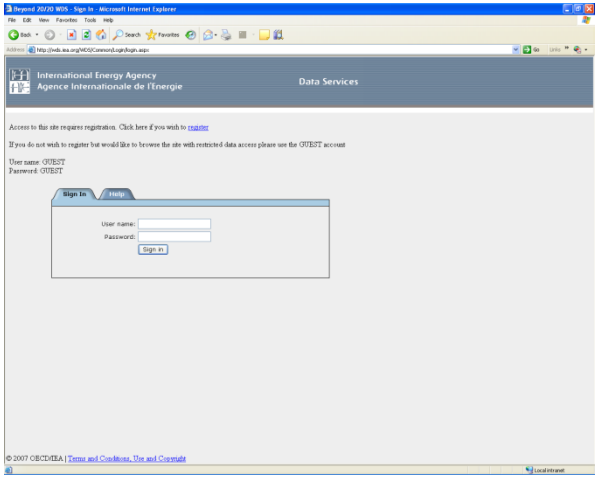
Mtoe (million tonnes of oil equivalent

		Coal (excl peat)	Peat	Oil	Gas	Nuclear	Hydro	Wind	Geothermal	Solar, etc.	Comb.Renew. & Waste
		A	B	C	D	E	F	G	H	I	J
Indigenous Production	A										
Imports	B										
Exports	C										
Marine Bunkers	D										
Stock Changes	E										
Total Primary Energy Supply	F										
Transformation & Energy Sector	G										
Electricity, CHP & Heat Plants	H										
Other transformation	I										
Own Use and Losses	J										
Statistical Differences	K										
Total Final Consumption	L										
Total Industry Sector	M										
Total Transport	N										
of which: Road	O										
Other Sectors	P										
of which: Residential	Q										
Non-Energy Use	R										
of which: Petrochem Feedstocks	S										
Electricity Generated (TWh)	T										
Heat Generated (PJ)	U										

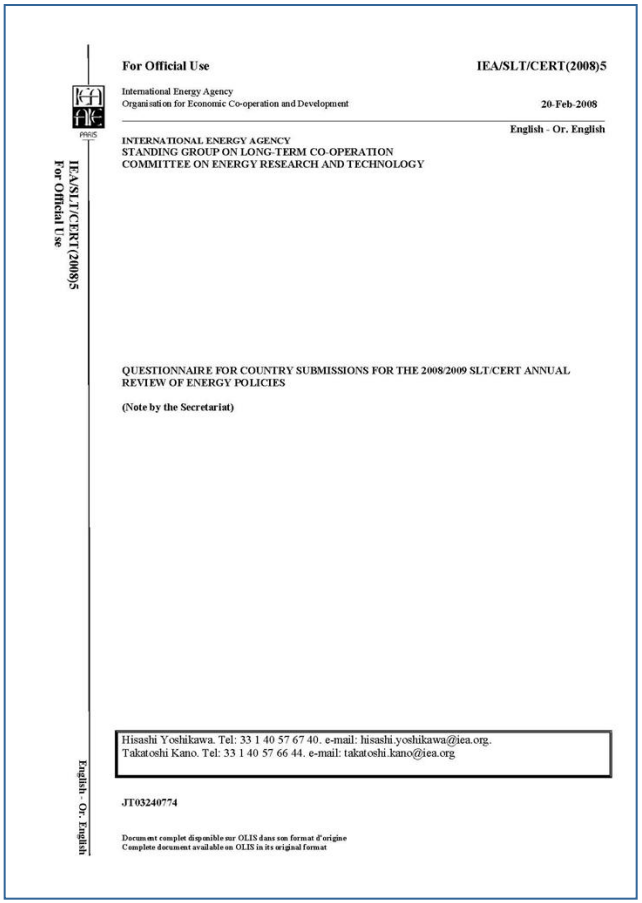
SLT forecasts published:

Energy Policies of IEA Counties, Country Reviews
yearly publications

IEA On-Line Data Service
general access: http://data.iea.org



Submission of RD&D budgets



For Official Use IEA/SLT/CERT(2008)5

International Energy Agency
Organisation for Economic Co-operation and Development 20-Feb-2008

English - Or. English

INTERNATIONAL ENERGY AGENCY
STANDING GROUP ON LONG-TERM CO-OPERATION
COMMITTEE ON ENERGY RESEARCH AND TECHNOLOGY

IEA/SLT/CERT(2008)5
For Official Use

QUESTIONNAIRE FOR COUNTRY SUBMISSIONS FOR THE 2008/2009 SLT/CERT ANNUAL REVIEW OF ENERGY POLICIES

(Note by the Secretariat)

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JT03240774

Document complet disponible sur OLIS dans son format d'origine
Complete document available on OLIS in its original format

English - Or. English

- Information about national RD&D activities are gathered by the Secretariat according to the schedule of In-Depth Reviews and Standard Reviews for IEA Countries

- Statistical information are collected with the SLT/CERT QUESTIONNAIRE & ANNUAL REVIEW OF ENERGY POLICIES

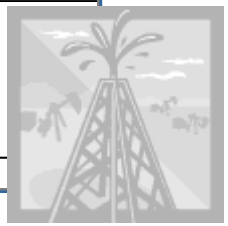
RD&D budget questionnaire

1. Energy Efficiency

- Industry
- Residential, Commercial
- Transportation
- Other
- **TOTAL ENERGY EFFICIENCY**

2. Fossil Fuels

- **Total Oil & Gas**
  - Enhanced Oil & Gas
  - Refining, Transp. & Stor.
  - Oil Shale & Tar Sands
  - Other Oil & Gas
- **Total Coal**
  - Coal Prod., Prep., & Trans.
  - Coal Combustion
  - Coal Conversion
  - Other Coal
- **TOTAL FOSSIL FUELS**



3. Renewable energy

- **Total Solar**
- Solar Heating & Cooling
- Solar Photo-Electric
- Solar Thermal-Electric
- **Wind**
- **Ocean**
- **Biomass**
- **Geothermal**
- **Total Hydro**
  - Large Hydro (>10 MW)
  - Small Hydro (<10 MW)
- **TOTAL RENEWABLE ENERGY**

4. Nuclear

- **Total Nuclear Fission**
  - Nuclear LWR
  - Other Converter Reactors
  - Nuclear Fuel Cycle
  - Nuclear Supporting Tech.
  - Nuclear Breeder
- **Nuclear Fusion**
- **TOTAL NUCLEAR FISSION/FUSION**

5. Hydrogen + fuel cells

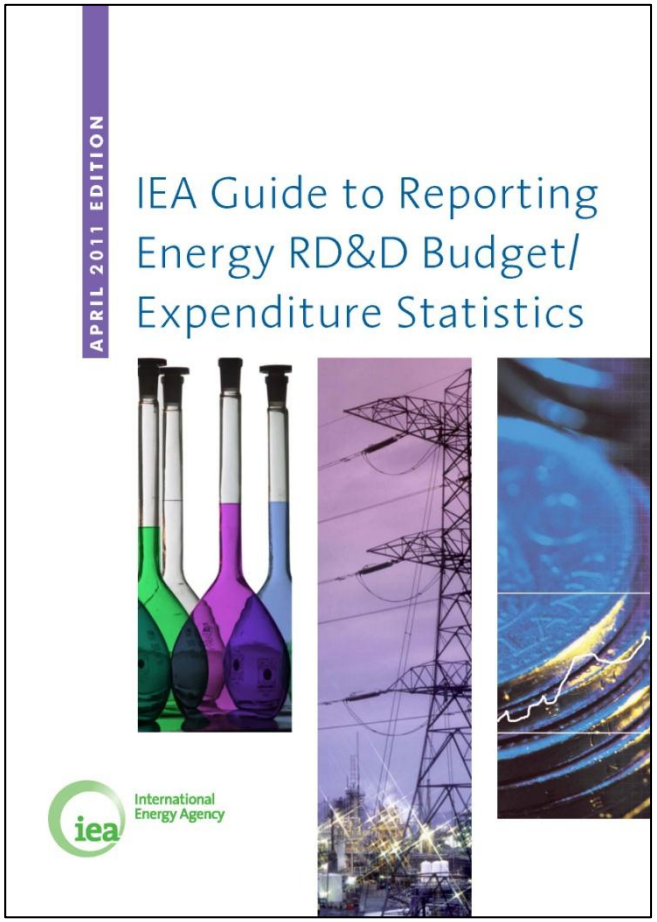
6. Other power + storage

- Electric Power Conversion
- Electricity Transm., & Distr.
- Energy Storage
- **TOTAL POWER & STORAGE TECH.**

7. Others

- Energy Systems Analysis
- Other Tech. or Research
- **TOTAL OTHER TECH./RESEARCH**

New manual to improve reporting



Group 1 • Energy Efficiency

Energy efficiency: Energy efficiency gathers efforts made along the production, transformation and consumption chain of all products either to deliver more services for the same energy input, or the same services for less energy input.

11 Industry

111 Industrial techniques and processes

Definition

Industrial techniques refers to procedures used to accomplish a specific activity or task within industry. Assembling a car in the automotive industry is a technique (or a series of techniques).

Industrial processes refer … s of mechanical or chemical operations, which modify, … oducts. Examples of processes are combustion, electrolys… elding and many more.

RD&D activities focus (i) on the improvement of the energy efficiency of industrial processes (e.g. thanks to insulation, recycling, continuous operations, etc.) and (ii) on the development of innovative and more efficient techniques or processes (e.g. process intensification, diversification, etc.).

Definition

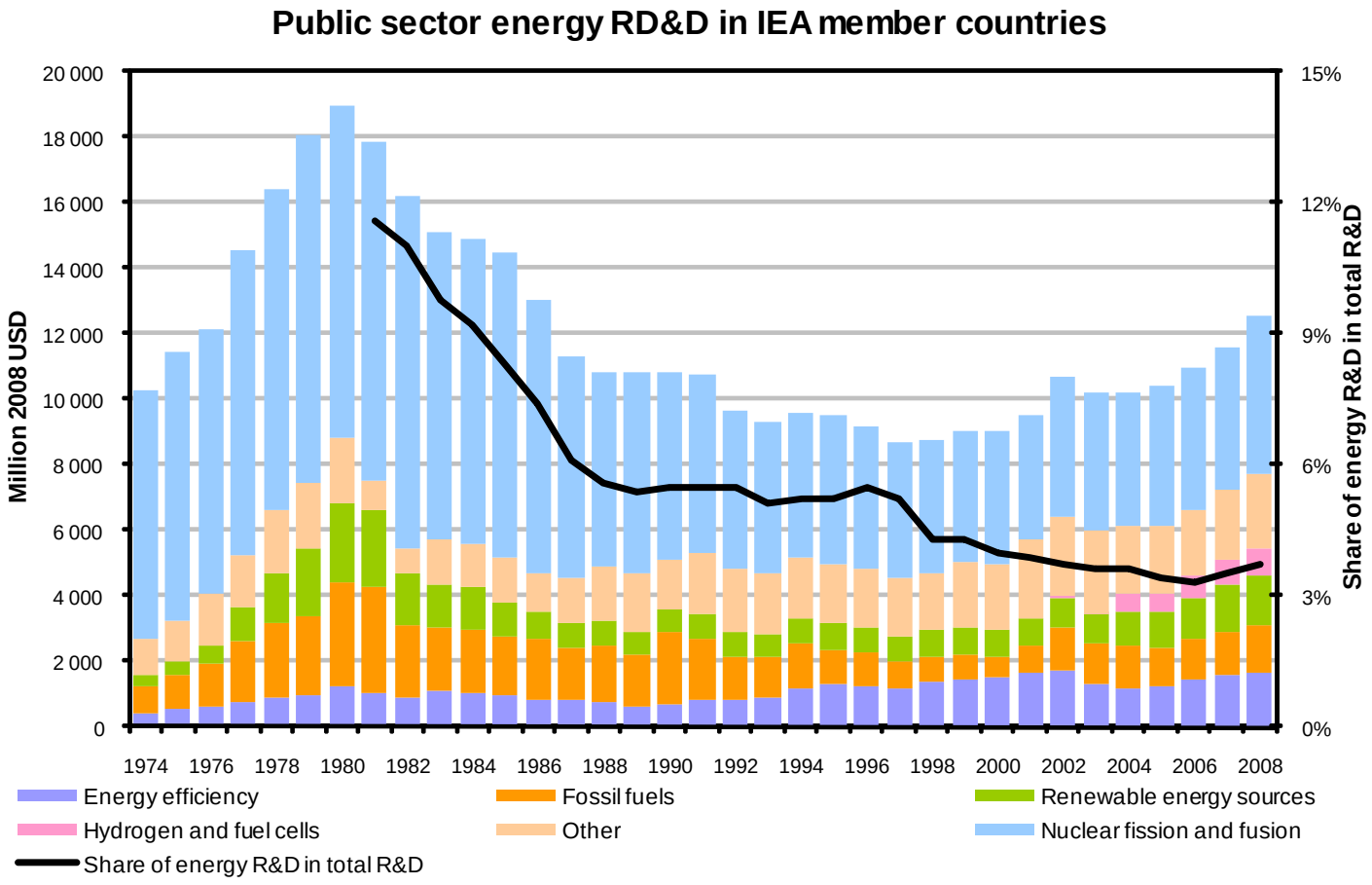
Including

Excluding

…bustion, when industry-specific

- …ecovery — *Ref. 141*
- Supporting measuring, monitoring and verifying technologies related to energy efficiency — *Ref. 145*
- Non industry-specific oil and gas combustion (e.g. steam generation) — *Ref. 214*
- Coal combustion — *Ref. 222*
- Biofuels — *Ref. 34*
- Energy storage — *Ref. 63*

RD&D budgets published:



RD&D budgets published:

Energy Policies of IEA Counties, Country Reviews

nominal and deflated national currencies, deflated USD & indicators

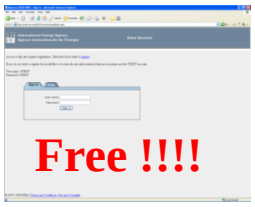
Various other publications and information papers

(ongoing)

IEA On-Line Data Service

general access:

http://www.iea.org/Textbase/stats/rd.asp



Thank you