

Modifications for the electricity instruction word document and excel file

Changes for the instruction document:

- Solar photovoltaic and solar thermal electricity plants were defined explicitly.
- Own use definition was modified.
- Road electricity use was included in the transport sector.
- Calorific values were modified for the coal products (anthracite, coking coal, other bituminous coal, sub-bituminous coal, and lignite).
- Combustible fuels were modified to align with oil, renewables, gas, and coal questionnaire:
 - Coal tar, blast furnace gas, peat, oil shale and oil sands, other recovered gases, and petroleum coke descriptions were modified.
 - Solid biofuels, biogases, biodiesels, and other liquid biofuels definitions were modified.
- In Table 7A, pure pumped storages capacity was added. Pure pumped storage and mixed plants are a subset of hydro.
- A new annex was added called List of abbreviations.
- Table EU-1 and Table EU-2 were removed.

Changes in the excel file

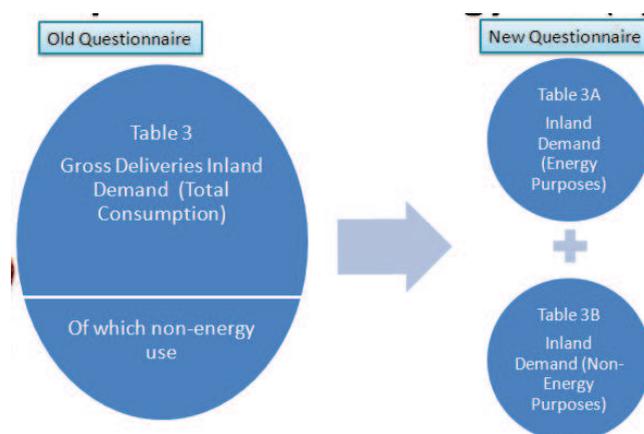
- Table 3: Road electricity use was included in the transport sector.
- Columns in Table 6A and 6D were modified to align with oil, renewables, gas, and coal questionnaire:
 - In Table 6A, peat products, oil shale and oil sands, and other recovered gases were added or modified.
 - In Table 6D, solid biofuels and biogases were added.
- In Table 7A, pure pumped storages and solar thermal capacity were added to table. Pure pumped storage and mixed plants are a subset of hydro.
- Table EU-1 and Table EU-2 were removed.

Changes Appearing in the 2012 Annual Oil Questionnaire

1. Separate Non-Energy use

The former Table 3 has been broken down into two separate tables – Table 3a (Gross Deliveries by Sector – Non-energy use) and Table 3b (Gross Deliveries by Sector – Energy use).

Before, non-energy use reporting is only by sector and not by subsector except for Petroleum coke and 'Other oil products' where non-energy use is reported in detail by subsector. With the new questionnaire, non-energy use reporting is now detailed by subsector.



2. Gas/diesel oil detail

The Transport diesel component of Gas/diesel oil was renamed and now appears as Road diesel. No change to the structure of the tables.

3. Biofuels: improved reporting

a. Additional columns

As a result of technological and market evolutions, Biofuels are now being blended with more fuels than before. To reflect these changes, new columns were added for the reporting of biofuel blending components.

For Motor gasoline, a new column was added for the Non-bio gasoline component.

For Gas/diesel oil, an additional column was equally added for non-bio gas/diesel oil blending component.

These changes reflect that Biofuels are now blended with products other than motor gasoline and diesel, such as jet kerosene.

b. Clearer reporting instructions

In the old questionnaire:

This category includes biodiesel and all other liquid biofuels which are added to, blended with or used straight as transport diesel.

For the new questionnaire:

This category includes biodiesel and all other liquid biofuels which are added to, blended with Gas/diesel oil.

c. Addition of bio jet kerosene

For Kerosene type jet fuel, two new columns were added – (i) Bio jet kerosene and (ii) Non-bio jet kerosene.

Bio jet kerosene is defined as liquid Biofuels derived from biomass and blended with Jet kerosene.

4. Refinery fuel for Heat only plants

An additional row was added in Table 2a for 'Heat Only plants'

STOCK LEVELS:				
Opening Stock Level (National Territory)	14			
Closing Stock Level (National Territory)	15			
MEMO:				
Refinery Fuel for Electricity Generation	16			
Refinery Fuel for CHP Plant	17			
Refinery Fuel for Heat Only Plant	18			
Stock Changes at Public Utilities	19			
MEMO:				
Net Calorific Value - Average	20			

Changes appearing in the 2013 Annual Gas Questionnaire

1. Natural Gas trade reporting

The current principle for reporting trade by ultimate origin and destination will remain but the instructions for this reporting are made more comprehensive and explicit to take account of various possibilities, including:

- Swap deals: Where a country has agreed to swap gas with another country then both countries are to report the import and origin of the gas physically imported for use within the country.
- Spot purchases: Please report the ultimate origin and ultimate destination of spot purchase. In the case of purchases from an exchange point or hub, please report amounts imported from each origin on the basis of the average supply to the hub or exchange point.
- Regasified LNG destined for a third country: This particular case may be handled by the reporting country as follows: Imported LNG which is regasified in your country and subsequently exported to another country should be considered as an import of LNG into your country and as an export of gas to the country of destination.

This change affects Table 3 *Imports by Origin* and Table 4 *Exports by Destination*. No change to the structure of the tables.

2. Gas Stocks

The current natural gas questionnaire only allows reporting stocks on national territory. However there are an increasing number of countries which are holding natural gas stocks abroad. Given the increased attention to natural gas security it is essential to make the distinction between natural gas stocks on national territory and those held abroad.

In the new version of the questionnaire, two lines were added in the annual gas questionnaire showing the opening and closing stocks abroad. The country where the stocks are held can be indicated on the Remarks page.

No change will be made to the definition of stock changes which will remain as stock changes on national territory.

This change affects Table 1 *Supply of Natural Gas*.

3. Gas Storage

The instructions and definitions for reporting gas storage and stock changes were improved to explicitly mention that liquefied natural gas (LNG) storage needs to be included.

Therefore the instructions for reporting stock changes were amended currently state that additions and withdrawals from LNG storage should be included. Furthermore, the possibility of reporting LNG storage units was added to the gas storage capacity table and the instructions for this table were updated accordingly.

This change affects Table 1 *Supply of Natural Gas* and Table 5 *Gas Storage Capacity*. No changes to the structure of these tables.

Changes to the Renewables Questionnaire

Changes to Documentation:

- Solid Biomass is now *Solid Biofuels*
 - Will include:
 - Charcoal
 - Solid biofuels excluding charcoal
 - Fuelwood, wood residues and by-products
 - “of which wood pellets”
 - Black liquor
 - Bagasses
 - Animal Waste
 - Other vegetal materials and residues
- Biogases
 - Other biogas will be split:
 - Other biogas from anaerobic digestion
 - Biogases from thermal processes
- Liquid biofuels
 - Biogasoline will include a new product line “of with bioethanol”
 - New product: Bio jet kerosene

Changes to tables:

- Table 1: Electricity and Heat Production
 - Wood/Wood waste/Other solid waste is now *Solid Biofuels*
 - Landfill gas, Sludge gas, and Other biogas have been replaced with one line *Biogases*
- Table 2: Supply, transformation, energy sectors and end use
 - Landfill gas, Sludge gas, and Other biogas have been replaced with one Column *Biogases*
 - Liquid Biofuels:
 - New Column for *Of which bioethanol* after Biogasoline
 - New column for *Bio jet kerosenes*
 - Reporting of consumption is now allowed in all products in all sectors
 - Blast furnaces (transformation) line has been added to the transformation sector
- Table 3: Technical characteristics of installations at the end of the year
 - Electrical capacity
 - Hydro breakdown now includes *Mixed plants* and *Pure pumped storage*
 - Wood/Wood waste/Other solid waste is now *Solid Biofuels*
 - Landfill gas, Sludge gas, and Other biogas have been replaced with one line *Biogases*
 - New line for *Biodiesels*
 - Liquid biofuels plants capacity
 - New line for *Bio jet kerosene*
 - Average net calorific value
 - New line for *Bioethanol*
 - New line for *Bio jet kerosene*
- Table 4: New Title: *Production of solid biofuels and Biogases*
 - This table has changed to incorporate the new products included in solid biofuels excluding charcoal listed in the definitions. It will now also include the biogases broken down into *Landfill gas, Sewage sludge gas, Other biogases from anaerobic fermentation, and Biogases from thermal processes.*
- NEW TABLE: Table 5: Imports by country or origin
 - imports of liquid biofuels (break down by fuel type) and wood pellets
- NEW TABLE: Table 6: Exports by country of destination
 - exports of liquid biofuels (break down by fuel type) and wood pellets

COAL (Solid fossil-fuels and manufactured gases)

ANNUAL QUESTIONNAIRE 2012

Changes to Definitions and Tables

February 2013

Definition changes: (significant changes in red, comments in blue italics.)

- **Hard coal:** *[SCOPE CHANGE!]* (Calorific classification changed from 23 865 kJ/kg to 24 000 kJ/kg. There is unlikely to be any significant effect. The vitrinite parameters and moist but ash-free basis remain unchanged.)

Hard coal refers to coal of gross calorific value equal to or greater than 24 000 kJ/kg on an ash-free but moist basis and with a mean random reflectance of vitrinite of at least 0.6 percent. Hard coal comprises:

- **Anthracite:** High rank coal used for industrial and residential applications. It has generally less than 10% volatile matter and a high carbon content (about 90% fixed carbon). Its gross calorific value is equal to or greater than 24 000 kJ/kg on an ash-free but moist basis.
- **Coking coal:** Bituminous coal with a quality that allows the production of a coke suitable to support a blast furnace charge. Its gross calorific value is equal to or greater than 24 000 kJ/kg on an ash-free but moist basis.
- **Other bituminous coal:** Coal mainly used for steam raising purposes and includes all bituminous coal that is not included under coking coal nor anthracite. It is characterized by higher volatile matter than anthracite (more than 10%) and lower carbon content (less than 90% fixed carbon). Its gross calorific value is equal to or greater than 24 000 kJ/kg on an ash-free but moist basis. If bituminous coal is used in coke ovens it should be reported as coking coal.

- **Sub-bituminous coal:** *[SCOPE CHANGE!]* (Calorific classification changed from an upper bound of 23 865 kJ/kg to 24 000 kJ/kg and a lower bound of 17 435 kJ/kg to 20 000 kJ/kg. The vitrinite parameters for hard coal still take priority and the dry mineral matter free basis of assessment remains unchanged. Some lower quality/rank sub-bituminous coal under the old classifications may now be classed as lignite. If historical revisions are required, but not possible, this should be communicated.)

Non-agglomerating coal with a gross calorific value equal to or greater than 20 000 kJ/kg and less than 24 000 kJ/kg containing more than 31% volatile matter on a dry mineral matter free basis.

- **Lignite:** *[SCOPE AND NAME CHANGE!]* (Calorific classification changed from 17 435 kJ/kg to 20 000 kJ/kg. Some lower quality/rank sub-bituminous coal under the old classification may now be classed as lignite. Oil shale and oil sands also used to be reported here. They now are a product in their own right. If historical revisions are required for either reason, but not possible, this should be communicated.)

Non-agglomerating coal with a gross calorific value less than 20 000 kJ/kg and greater than 31% volatile matter on a dry mineral matter free basis.

- **BKB (Brown coal briquettes):** *[SCOPE AND NAME CHANGE!]* (This was previously called BKB/Peat briquettes. Peat products also used to be reported here. They now are a product in their own right. If historical revisions are required, but not possible, this should be communicated.)

BKB is a composition fuel manufactured from lignite or sub-bituminous coal, produced by briquetting under high pressure without the addition of a binding agent.

- **Blast furnace gas:** *[SCOPE CHANGE!]* (Blast furnace gas now explicitly also covers similar off-gases from other related processes. If historical revisions are required, but not possible, this should be communicated.)

Produced during the combustion of coke in blast furnaces in the iron and steel industry. It is recovered and used as a fuel partly within the plant and partly in other steel industry processes or in power stations equipped to burn it. The quantity of recuperated fuel should be reported on a gross calorific value basis. **In addition, off-gases from all iron-production reduction processes utilising air as the oxygen source (such as Direct reduced iron) should be reported here.**

- **Other recovered gases:** *[NAME CHANGE!]* (There is a change to both long and short name, but not to scope – this product was always meant to collect more than just Oxygen Steel Furnace Gas.)

By-product of the production of steel in an oxygen furnace, recovered on leaving the furnace. The gases are also known as converter gas, LD gas or BOS gas. The quantity of recuperated fuel should be reported on a gross calorific value basis. Also covers non-specified manufactured gases not mentioned above, such as combustible gases of solid carbonaceous origin recovered from manufacturing and chemical processes not elsewhere defined.

- **Peat:** *[MOVED!]* (Peat used to appear after Lignite/Brown Coal. It has been moved to align with IRES product classifications, rather than primary, then secondary products. The milled peat reference is added for clarity to ensure it is not mistakenly included in peat products.)

A combustible soft, porous or compressed, fossil sedimentary deposit of plant origin with high water content (up to 90 percent in the raw state), easily cut, and of light to dark brown colour. Peat used for non-energy purposes should not included here. **Milled peat is included here.**

- **Peat products:** *[NEW!]* (Previously included under BKB/PB.)

Products such as peat briquettes derived directly or indirectly from sod peat and milled peat.

- **Oil shale and oil sands:** *[NEW!]* (Previously included under Lignite/Brown Coal.)

Oil shale and oil sands are sedimentary rock which contains organic matter in the form of kerogen. Kerogen is a waxy hydrocarbon-rich material regarded as a precursor of petroleum. Oil shale may be burned directly or processed by heating to extract shale oil. Shale oil and other products derived from liquefaction should be reported on the Annual oil questionnaire in Other hydrocarbons.

Table Changes:

Minor name changes to flows are not mentioned here, neither are inconsequential formatting changes.

[**CURRENT REFERENCES** – *CURRENT FLOWS* – **CURRENT PRODUCTS/COUNTRIES**]

TABLE 1 – SUPPLY AND TRANSFORMATION SECTOR, ENERGY SECTOR AND FINAL CONSUMPTION ENERGY END USE SPECIFICATION

1. Lignite/Brown Coal has been renamed to **Lignite** (column **E**). The shortname code, **LIGNITE** remains unchanged. **Oil shale and oil sands** that were extracted for further processing were reported here. They now have their own column (**Q**).
2. Oxygen Steel Furnace Gas has been renamed to **Other recovered gases** (now column **N**). The shortname code (OXYSTGS) changes to **OGASES**.
3. BKB/Peat Briquettes has been split into two products, **BKB** (now column **J**) and **Peat products** (column **P**). Note that *BKB/PB plants (Transformation)* (row **23**) and *BKB/PB plants (Energy)* (row **34**) have not split. The shortname code, **BKB** remains unchanged for **BKB**, while the shortname code for **Peat products** is **PEATPROD**.
4. **Peat** has been moved from column **F** to column **O**. **Patent Fuel, Coke Oven Coke, Gas Coke, Coal Tar, Gas works gas, Coke oven gas** and **Blast furnace gas** all move one column to the left, as does **Other recovered gases** in item 2 and **BKB** in item 3.
5. A new product, **Oil shale and oil sands** (shortname code **OILSHALE**) is added to column **Q**.

TABLE 2 – IMPORTS BY SOURCE

1. **India** (previously row 27) and **Indonesia** (previously row 26) have been interchanged.
2. Lignite/Brown Coal has been renamed to **Lignite** (column **E**). **Oil shale and oil sands** that were extracted for further processing were reported here. This is no longer the case.
3. BKB/Peat Briquettes has been split into two products, **BKB** (still in column **I**) and **Peat products** (column **K**).
4. **Peat** has been added as a product (column **J**). It previously existed, but trade data by country was not collected.

TABLE 3 – EXPORTS BY SOURCE

1. Lignite/Brown Coal has been renamed to **Lignite** (column **E**). **Oil shale and oil sands** that were extracted for further processing were reported here. This is no longer the case.
2. BKB/Peat Briquettes has been split into two products, **BKB** (still in column **I**) and **Peat products** (column **K**).
3. **Peat** has been added as a product (column **J**). It previously existed, but trade data was not collected.

TABLE 4 – CALORIFIC VALUES

1. Lignite/Brown Coal has been renamed to **Lignite** (column **E**). **Oil shale and oil sands** that were extracted for further processing were reported here. They now have their own column (**M**).
2. BKB/Peat Briquettes has been split into two products, **BKB** (now column **J**) and **Peat products** (column **L**).
3. **Peat** has been moved from column **F** to column **K**. **Patent fuel, Coke oven coke, Gas coke, and Coal tar** all move one column to the left, as does **BKB** in 2.
4. A new product, **Oil shale and oil sands** is added to column **M**.

TABLE 5a-5c INPUTS TO AUTOPRODUCER ELECTRICITY AND HEAT GENERATION (Eurostat countries only)

The collection of this information is being **discontinued** as of this cycle.

PRODUCT HISTORIES (for 1990-2011 data)

1. **India** (previously Excel row 120) and **Indonesia** (previously Excel row 119) have been interchanged for all 11 products which exist in Table 2.
2. **Other bituminous coal** [BituminousCoal] now appears before **Coking coal** [CokingCoal] in the spreadsheet order.
3. Lignite/Brown Coal [Lignite-BrownCoal] has been renamed to **Lignite** [Lignite]. **Oil shale and oil sands** that were extracted for further processing were reported here. They now have their own product sheet [OilShale&OilSands] – item 7. Historical data should be split if at all possible, and specified if this is not possible.
4. Oxygen Steel Furnace Gas [OxygenSteelFurnaceGas] has been renamed to **Other recovered gases** [OtherRecoveredGases].
5. **Peat** has been moved from after Lignite/Brown Coal [Lignite-BrownCoal] on the old questionnaire, to after **Other recovered gases** [OtherRecoveredGases] in the new version. **Peat** [Peat] also has been added to Tables 2 and 3, so itemised trade should be reported if known for all years. If unknown, *Not elsewhere specified* in Excel rows 165 and 246 should be used, and *Total imports* in row 12 should equal those in row 166, and *Total exports* in row 13 should equal those in row 247.
6. BKB/Peat Briquettes has been split into two products, **BKB** [BKB] and **Peat products** [PeatProducts]. **BKB** [BKB] exists where it previously did following **Coal tar** [Coal Tar], and **Peat products** [PeatProducts] has been inserted after **Peat** [Peat] which now exists after after **Other recovered gases** [OtherRecoveredGases]. Historical data should be split if at all possible, and specified if this is not possible.
7. A new product, **Oil shale and oil sands** [OilShale&OilSands] is added. Calorific data is required as applicable in Excel rows 77-92, but itemised trade data by partner country (Excel rows 93-247) is currently not. This data existed historically under Lignite/Brown Coal [Lignite-BrownCoal]. It would be advisable to retain this historical granularity outside of the questionnaire, and the capacity to collect it, as trade in **Oil shale and oil sands** can and does exist, and this requirement may be added to future questionnaire versions.

Product Changes:

(changes in red)

PRODUCT	CODE	STATUS	WORKSHEET	TABLE #, COLUMN			
				1	2	3	4
Anthracite	ANTCOAL	NEW DEF	[Anthracite]	A	A	A	A
Other bituminous coal	BITCOAL	NEW DEF	[BituminousCoal]	C	C	C	C
Coking coal	COKCOAL	NEW DEF	[CokingCoal]	B	B	B	B
Sub-bituminous coal	SUBCOAL	NEW DEF	[Sub-bituminousCoal]	D	D	D	D
Lignite	LIGNITE	SPLIT	[Lignite]	E	E	E	E
Patent fuel	PATFUEL	SAME	[PatentFuel]	F	F	F	F
Coke oven coke	OVENCOKE	SAME	[Coke_OvenCoke]	G	G	G	G
Gas coke	GASCOKE	SAME	[GasCoke]	H			H
Coal tar	COALTAR	SAME	[Coal Tar]	I	H	H	I
BKB	BKB	SPLIT	[BKB]	J	I	I	J
Gas works gas	GASWKSGS	SAME	[GasWorksGas]	K			
Coke oven gas	COKEOVGS	SAME	[CokeOvenGas]	L			
Blast furnace gas	BLFURGS	NEW DEF	[BlastFurnaceGas]	M			
Other recovered gases	OGASES	NEW DEF	[OtherRecoveredGases]	N			
Peat	PEAT	MOVED	[Peat]	O	J*	J*	K
Peat products	PEATPROD	SPLIT ^{BKB}	[PeatProducts]	P	K	K	L
Oil Shale and oil sands	OILSHALE	SPLIT ^{LIGNITE}	[OilShale&OilSands]	Q			M

* Detailed trade by partner country is a new requirement this cycle.