Table 1: Preliminary Energy Balance in 2005

Row description:

Indicator

PALEN classification codebook number

Natural energy resources

Imports

Exports

Stocks draw (+), stocks build (-) of suppliers

Stocks draw (+), stocks build (-) of consumers

Other sources

Total primary energy sources

Secondary and renewable energy sources

Production from energy processes

Total sources

Charge/Input

at fuels upgrading

for heat production

for electricity production

Working consumption

at fuels upgrading

for heat production

for electricity production

at fuels extraction, treatment and transport

Losses

Total final consumption

Column description

Rows number

Fuels: Solid

Liquid Gaseous Total

Energy: Heat

Electricity

Total fuels and energy

Electricity in GWh

Table 2: Total Balance of Energy Processes in 2004 and 2005 in TJ

Row description:

Indicator

Total primary energy sources

Total charge/Input

Including: Heat generation

Electricity generation Fuels upgrading

of which: Brown Coal(Sub-bituminous Coal) briquetting

High-temperature carbonization in coking plants

Gasification under pressure of coal

Liquid fuels production from crude oil and tars Blast-furnace gas production in blast furnaces Gasification in industrial generating stations

Total production

of which: see above-mentioned

Total working consumption

of which: see above-mentioned

Total losses including working consumption

of which: see above-mentioned

Table 3: Extraction of some Kinds of Fuels between 1995 and 2005

Row description:

Fuel

Coking Coal Steam Coal Brown Coal (Sub-bituminous Coal) and Lignite Natural (associated) Gas Natural (non-associated) Gas Crude Oil

 $a-data\ unit\ (\ thous.\ tons$ - solid and liquid fuels, mill. m^3 - gaseous fuels)

b – data unit - TJ (1TJ=1000 GJ)

 $c-n.c.v.\ (\ GJ/t\ \mbox{- solid}$ and liquid fuels, $GJ/thous.m^3$ - gaseous fuels)

Table 4: Production of some Kinds of Fuels between 1995 and 2005

Row description:

Fuel Kind

BKB Coke Oven Coke Motor Gasoline Gas Diesel Oil Total Fuel Oils

Kerosene

Coke Oven Gas

Town Gas

Energo-gas

a- see Table 3

b- see Table 3

c- see Table 3

Fuel and Energy			Row	Stat.	Physical	Amount in		GJ	N.c.v.
			Number	Fuel	Unit	Physical	GJ	in %	kJ/kg
				Number		Units			kJ/m3
а			1	2	3	4	5	6	7
Input					t				
Fuel									
Total Inputs				Х	х	х			х
Outputs									
Total Outputs (Production)				Х	х	Х			Х
Losses and Balance Differencies				Х	х	X			х
	Fuels								
		Total Fuels		Х	х	х			х
	Heat from Other Sources					х			х
Working	Waste Heat					x			x
Consum-	Utilized (Gained) Waste Heat					x			x
ption	Total Heat					x			x
	Electricity								х
	TOTAL			х	Х	х			Х
Total Losses (incl. Working Consumption)				х	Х	х			х
Energy Process Effectiveness			х	х	Х	х	Х		х

 $\frac{\omega}{\omega}$

Table 5: Brown Coal (Sub-bituminous Coal) briquetting

Row description:

Fuel and Energy

Charge/Input: Total Brown (Sub-bituminous) Coal

Total Charge/Input

Output: BKB

Total Output (Production)
Losses and Balance Differencies

Working Consumption:

Total Fuels

Heat from Other Sources

Waste Heat

Utilized (Gained) Waste Heat

Total Heat Electricity TOTAL

Total Losses (incl. Working Consumption)

Energy Process Effectiveness

Notes: Output BKB includes coal powder (17 348 t) - even N.c.v.

Table 6a: High-Temperature Carbonization in Coking Plants

Charge/Input: Coking Coal

Coke Dust

Total Charge/Input

Output: Coke (Foundry Coke)

Coke (Other Metallurgical Coke) Coke (Heating Separated Coke)

Coke Dust

High-temperature Crude Benzene High-temperature Crude Tar Other Non-energy Matters

Coke Oven Gas

Total Output (Production)

Losses and Balance Differencies

Table 6b: Continuation of the Table 6a

Working consumption: Fuels: Coke Oven Gas

Blast Furnace Gas Other Gaseous Fuels

Total Fuels

Heat from Other Sources

Waste Heat

Utilized (Gained) Waste Heat

Total Heat Electricity TOTAL

Total Losses (incl. Working Consumption)

Energy Process Effectiveness

Table 7: Gasification under Pressure of Coal

Charge/Input: Brown (Sub-bituminous) Coal and Lignite

Total Charge/Input

Output: Energo-Gas

Low-temperature Tar Other Gaseous Fuels Other Liquid Fuels

Total Output (Production)

Losses and Balance Differencies

Working consumption: Fuels: Natural (Associated) Gas

Low-temperature Tar

Total Fuels

Heat from Other Sources

Waste Heat

Utilized (Gained) Waste Heat

Total Heat Electricity TOTAL

Total Losses (incl. Working Consumption)

Energy Process Effectiveness

Table 8a: Liquid Fuels Production from Crude Oil

Charge/Input: Crude Oil

Other Liquid Fuels

Semi-products Stock Draw

Total Charge/Input

Output: Motor Gasoline

Aviation Gasoline

Diesel Oil Total Kerosene Extra Light Fuel Oil

Light Fuel Oil (Low Sulphur) Light Fuel Oil (High Sulphur) Heavy Fuel Oil (Low Sulphur) Heavy Fuel Oil (High Sulphur)

Other Liquid Fuels

Liquified Petroleum Gases (LPG)

Other Gaseous Fuels

Other Gasoline (including Naphta) Non-energy Products (without Naphta)

Total Output (Production)
Losses and Balance Differencies

Table 8b: Continuation of the Table 8a

Working consumption: Fuels: Natural (Associated) Gas

Other Gaseous Fuels

Heavy Fuel Oil (Low Sulphur) Heavy Fuel Oil (High Sulphur) Light Fuel Oil (High Sulphur)

Other Liquid Fuels

Total Fuels

Heat from Other Sources

Waste Heat

Utilized (Gained) Waste Heat

Total Heat Electricity TOTAL

Total Losses (incl. Working Consumption)

Energy Process Effectiveness

Table 9: Blast-furnace Gas Production in Blast Furnaces

Charge/Input: Total Coke Oven Coke

Total Charge/Input

Output: Blast Furnace Gas

Total Output (Production)
Losses and Balance Differencies

Working consumption: Total Fuels

Heat from Other Sources

Waste Heat

Utilized (Gained) Waste Heat

Total Heat Electricity TOTAL

Total Losses (incl. Working Consumption)

Energy Process Effectiveness

Table 10: Gasification in Industrial Generating Stations

Charge/Input: Total Brown (Sub-bituminous) Coal

Total Charge/Input

Output: Gas Works Gas (Producer Gas)

Total Output (Production)
Losses and Balance Differencies

Working consumption: Total Fuels

Heat from Other Sources

Waste Heat

Utilized (Gained) Waste Heat

Total Heat Electricity TOTAL

Total Losses (incl. Working Consumption)

Energy Process Effectiveness

Chart 1 Primary Energy Sources between 1995 and 2005

Solid Fuels Liquid Fuels Gaseous Fuels Heat and Electricity

Chart 2 Balance of Energy Processes between 1995 and 2005

Charge/Input Output/Production Working Consumption

Chart 3 Trend of Coal Extraction between 1995 and 2005

in 1000 tonnes

Brown (Sub-bituminous) Coal and Lignite

Hard Coal

Chart 4 Trend of Crude Oil and Natural Gas Extraction between 1995 and 2005

in 1000 tonnes, in mill. m³

Crude Oil

Natural (associated) Gas

Natural (non-associated) Gas

Chart 5 Trend of BKB and Coke Production between 1995 and 2005

in 1000 tonnes

Coke

BKB

Chart 6 Trend of Liquid Fuels Production between 1995 and 2005

in 1000 tonnes

Diesel Oil

Motor Gasolines

Fuel Oils

Chart 7 Trend of Gaseous Fuels Production between 1995 and 2005

in Million cubic metres

Town Gas

Energo-gas

Coke Oven Gas

Chart 8 Brown (sub-bituminous) Coal Briquetting in 2005

Working Consumption (8%)

Losses (3%)

Production (Output) (89%)

BKB (89%)

Chart 9 Coke Production in 2005

Working Consumption (10%)

Losses (3%)

Production (Output) (87%)

Coke (66%)

Coke Oven Gas (16%)

Others (5%)

Chart 10 Gasification under Pressure of Coal in 2005

Working Consumption (17%) Losses (7%) Production (Output) (76%)

> Energo-gas (54%) Low-temperature Tars (16%) Others (6%)

Chart 11 Liquid Fuels Production from Crude Oil and Tars in 2005

Working Consumption (6%)

Losses (0%)

Production (Output) (94%)

Motor Gasolines (20%)

Diesel Oils (32%)

Fuel Oils (12%)

Kerosene (2%)

Liquified Petroleum Gases (2%)

Others (26%)

Chart 12 Input into Transformation and Fuels Upgrading Processes in 2005

Electricity Production (52%)

Heat production (17%)

Fuels Upgrading Processes (31%)

Brown Coal (Sub-bituminous Coal) Briquetting (1%)

High-Temperature Carbonization in Coking Plants (9%)

Gasification under Pressure of Coal (including Carburation) (1%)

Liquid Fuels Production from Crude Oil (18%)

Blast-furnace Gas Production in Blast Furnaces (2%)

Gasification in Industrial Generating Stations (0,01%)

Chart 13 Production in Transformation and Fuels Upgrading Processes in 2005

Electricity Production (30%)

Heat production (22%)

Fuels Upgrading Processes (48%)

Brown Coal (Sub-bituminous Coal) Briquetting (1%)

High-Temperature Carbonization in Coking Plants (13%)

Gasification under Pressure of Coal (including Carburation) (2%)

Liquid Fuels Production from Crude Oil (29%)

Blast-furnace Gas Production in Blast Furnaces (3%)

Gasification in Industrial Generating Stations (0,01%)

Chart 14 Gasification in Industrial Generating Stations in 2005

Working Consumption (2%) Losses (30%) Gas Works Gas (68%)

Chart 15 Fuels Input into Fuels Upgrading Processes in 2005

Coking Coal (28%) Brown Coal (Sub-bituminous Coal) (6%) Coke (6%) Other Liquid Fuels (2%) Crude Oil (58%)