

»»» GAS PROCESSING

Processing and marketable product output at Gas-processing plants of LUKOIL Group

	2005	2006	2007	2008	2009
Processing of petroleum and fat gas, mcm	2,382.6	2,646.7	3,316.9	3,248.6	2,961.7
NGL processing, th. tons	478.8	628.5	881.7	866.2	718.1
<i>Marketable products</i>					
NGL, th. tons	362.5	427.3	653.4	639.1	624.9
LPG, th. tons	574.5	705.9	960.1	965.3	785.3
Stable gas naphta, th. tons	136.3	185.3	194.6	157.6	156.9
Acyclic hydrocarbons, th. tons	–	–	4.1	–	–
Stripped gas, mcm	1,890.1	2,038.3	2,595.2	2,567.9	2,345.5
Isopentane, th. tons	18.2	18.8	20.9	43.8	56.2
Sulfur, th. tons	0.4	–	–	–	–
Sodium bisulfite, th. tons	0.7	0.6	1.2	2.0	1.4

Processing and marketable product output at Korobkovsky Gas-processing plant

	2005	2006	2007	2008	2009
Petroleum gas processing, mcm	428.0	440.6	445.0	459.9	363.4
NGL processing, th. tons	41.7	44.9	59.7	62.8	70.2
<i>Marketable products</i>					
LPG, th. tons	72.5	74.1	86.3	89.4	95.8
Stable gas naphta, th. tons	47.8	48.9	57.3	55.0	51.6
Stripped gas, mcm	333.7	329.9	353.4	382.5	282.8

Processing and marketable product output at Permneftegazpererabotka

	2005	2006	2007	2008	2009
Petroleum gas processing, mcm	497.6	541.9	586.5	583.6	539.6
NGL processing, th. tons	437.1	583.6	822.0	803.4	647.9
<i>Marketable products</i>					
LPG, th. tons	500.5	629.8	871.4	873.6	687.6
Stable gas naphta, th. tons	79.4	98.5	95.1	59.3	65.8
Acyclic hydrocarbons, th. tons	–	–	4.1	–	–
Isopentane, th. tons	18.2	18.8	20.9	43.8	56.2
Stripped gas, mcm	347.8	374.0	417.2	418.6	387.5
Sulfur, th. tons	0.4	–	–	–	–
Sodium bisulfite, th. tons	0.7	0.6	1.2	2.0	1.4

Processing and marketable product output at Lokosovsky Gas-processing plant

	2005	2006	2007	2008	2009
Petroleum gas processing, mcm	1,214.5	1,399.2	2,038.1	1,993.9	1,860.5
<i>Marketable products</i>					
NGL, th. tons	362.5	427.3	653.4	639.1	624.9
Stable gas naphta, th. tons	5.5	34.5	38.9	39.6	36.0
LPG, th. tons	1.1	1.4	1.6	1.7	1.7
Stripped gas, mcm	973.4	1,088.7	1,669.6	1,570.6	1,487.2

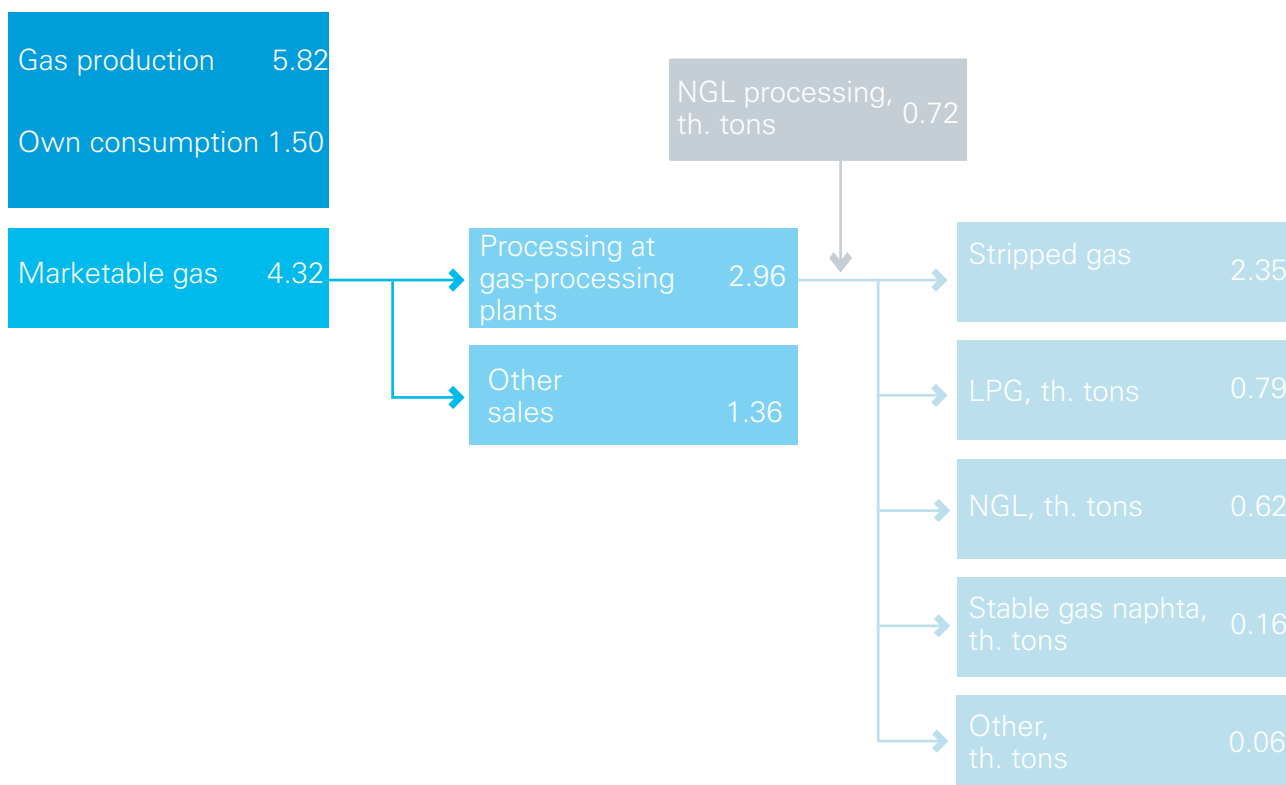
Processing and marketable product output at Usinsky Gas-processing plant

	2005	2006	2007	2008	2009
Petroleum gas processing, mcm	242.5	265.0	247.3	211.2	198.2
<i>Marketable products</i>					
Stripped gas, mcm	235.2	245.7	154.9	196.2	188.0
LPG, th. tons	0.4	0.6	0.8	0.6	0.2
Stable gas naphta, th. tons	3.6	3.4	3.4	3.7	3.5

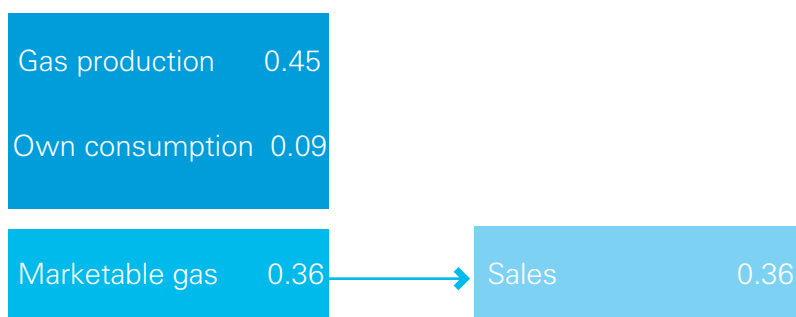
▶▶▶ GAS BALANCE OF LUKOIL GROUP (2009), BCM

ASSOCIATED GAS

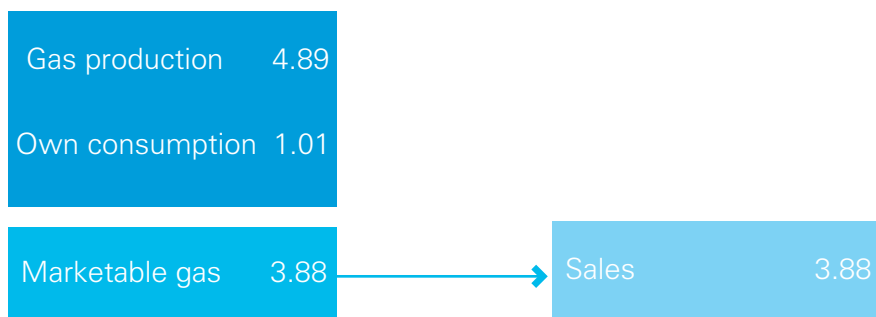
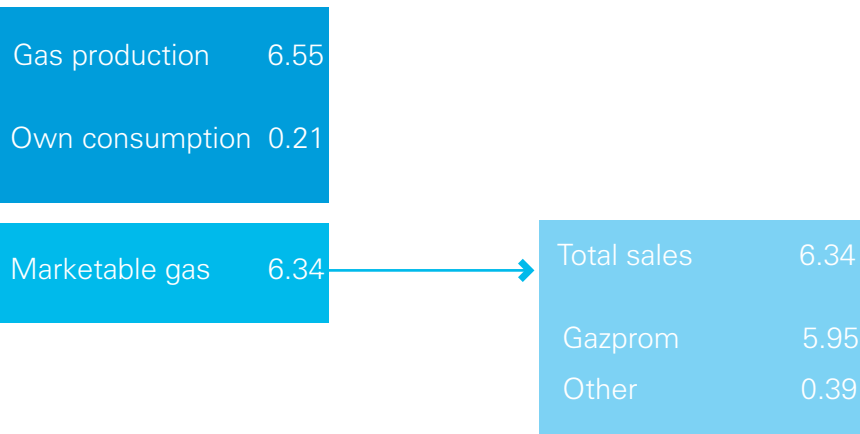
RUSSIA



INTERNATIONAL



NATURAL GAS



POWER GENERATION

General information

	2008	2009
Installed capacity of combined heating plants, MWh	3,009	2,967
Installed capacity of hydropower plants, MWh	297	297
Installed heating capacity, Gcal/h	10,237	9,819
Installed capacity of boiler plants, Gcal/h	2,007	2,027
Electricity output, mln KWh	14,660	13,137
Heat production, th. Gcal	15,488	15,072

LUKOIL-Volgogradenergo

	2008	2009
Installed capacity of combined heating plants, MWh	1,205	1,205
Installed heating capacity, Gcal/h	5,079	5,079
Power generation, mln kilowatt-hours	3,539	3,245
Heat production, th. Gcal	6,995	6,544
Equivalent fuel rate, g/KWh	329	329
Equivalent fuel rate, kg/Gcal	146	146

LUKOIL-Rostovenergo

	2008	2009
Installed capacity of combined heating plants, MWh	676	634
Installed capacity of hydropower plants, MWh	209	209
Installed heating capacity, Gcal/h	3,148	2,730
Installed capacity of boiler plants, Gcal/h	1,328	1,348
Power generation, mln kilowatt-hours	2,955	2,569
Heat production, th. Gcal	5,009	5,135
Equivalent fuel rate, g/KWh	324	316
Equivalent fuel rate, kg/Gcal	144	145

LUKOIL-Kubanenergo

	2008	2009
Installed capacity of combined heating plants, MWh	648	648
Installed capacity of hydropower plants, MWh	88	88
Installed heating capacity, Gcal/h	856	856
Power generation, mln kilowatt-hours	5,228	4,773
Heat production, th. Gcal	1,023	1,003
Equivalent fuel rate, g/KWh	374	382
Equivalent fuel rate, kg/Gcal	149	151

LUKOIL-Astrakhanenergo

	2008	2009
Installed capacity of combined heating plants, MWh	480	480
Installed heating capacity, Gcal/h	1,154	1,154
Installed capacity of boiler plants, Gcal/h	679	679
Power generation, mln kilowatt-hours	2,938	2,550
Heat production, th. Gcal	2,461	2,390
Equivalent fuel rate, g/KWh	368	368
Equivalent fuel rate, kg/Gcal	152	153

▶▶▶ PETROCHEMICALS

Processing and production of petrochemicals at LUKOIL Group petrochemical plants, th. tons

	2005	2006	2007	2008	2009
Processing*	2,355.5	2,187.7	2,190.3	1,568.2	1,036.3
Marketable products, total	2,178.7	2,038.3	2 040.5	1,461.6	901.9
Polymers and monomers	853.8	797.8	844.2	615.0	405.8
Polyethylene	469.9	447.3	477.8	425.5	292.1
Vinyl chloride	190.2	179.2	171.5	70.9	0.0
Polypropylene	67.9	70.2	82.9	67.4	100.5
Vinyl acetate	53.1	35.0	51.3	38.8	13.2
Synthetic fiber	31.8	30.9	25.3	2.8	0.0
Synthetic rubber	19.6	20.2	21.4	5.3	0.0
Latex	12.8	11.8	11.0	2.9	0.0
Alfamethylstyrene	2.7	3.0	2.9	0.7	0.0
Styrene	5.8	0.2	0.1	0.7	0.0
Polystyrene	0.0	0.0	0.0	0.0	0.0
Products of organic synthesis	690.6	647.5	578.3	462.9	292.1
Benzene	173.5	140.6	110.2	114.5	72.8
Acrylonitrile	149.3	138.2	143.2	157.8	138.6
Hydrate of sodium	100.6	91.6	47.0	20.2	0.0
Ethylene glycol	75.8	77.3	83.1	70.2	37.6
Ammonia sulphate	64.5	63.9	62.1	18.7	0.0
Phenol	38.9	38.2	37.7	8.8	0.0
Toluene	29.5	31.4	30.7	26.1	15.2
Methyl methacrylate	26.6	26.5	25.8	7.8	0.0
Xylene	18.1	18.0	18.3	14.3	9.3
Ethanol amines	4.5	13.4	12.7	11.8	2.4
Acetone	4.9	4.2	3.6	1.5	0.0
Acetonitrile	4.4	4.2	3.9	3.6	3.1
Sodium cyanide	0.0	0.0	0.0	7.6	13.1
Pyrolysis products and fuel fractions	622.8	584.2	611.4	365.8	200.3
Liquid pyrolysis fractions	247.2	210.2	251.6	149.8	121.3
Propylene	238.9	232.5	225.1	157.9	49.4
Heavy oil fuel	119.0	98.1	88.3	53.3	28.7
Ethylene	14.2	40.1	43.7	2.3	0.0
Pyrolene	3.5	3.3	2.7	2.5	0.9
Other	11.5	8.8	6.6	17.9	3.7

* Excluding Burgas Refinery.

Processing and production of petrochemicals at Stavrolen, th. tons

	2005	2006	2007	2008	2009
<i>Processing</i>	1,025.5	889.1	992.1	979.2	778.2
<i>Marketable product output</i>	787.8	672.9	752.9	724.1	581.5
Polyethylene	307.8	267.8	301.6	308.1	248.1
Liquid pyrolysis fractions	154.1	174.4	212.3	139.3	121.3
Propylene	146.9	126.9	121.4	120.1	40.0
Polypropylene	–	–	19.3	18.6	71.9
Benzene	83.6	36.3	14.0	64.4	57.4
Vinyl acetate	53.1	35.0	51.3	38.8	13.2
Heavy oil fuel	41.2	31.6	31.9	33.6	28.7
Other	1.1	0.9	1.1	1.2	0.9

Production of petrochemicals at Burgas Refinery, th. tons

	2005	2006	2007	2008	2009
<i>Marketable product output</i>	372.5	384.7	385.0	321.7	165.6
Ethylene glycol	75.8	77.3	83.1	70.2	37.6
Polyethylene	68.2	71.5	74.2	69.0	44.0
Polypropylene	67.9	70.2	63.6	48.8	28.6
Benzene	25.4	31.6	30.9	30.8	15.5
Toluene	29.5	31.4	30.7	26.1	15.2
Synthetic rubber	19.6	20.2	21.4	5.3	0.0
Acrylonitrile	21.0	18.4	20.7	25.1	0.0
Xylene	18.1	18.0	18.3	14.3	9.3
Ethanol amines	4.5	13.4	12.7	11.8	2.4
Latex	12.8	11.8	11.0	2.9	0.0
Synthetic fiber	9.7	10.7	10.0	0.0	0.0
Pyrolene	3.5	3.3	2.7	2.5	0.9
Acetonitrile	0.6	0.7	0.6	0.6	0.0
Ethylene oxide	1.2	0.3	0.0	0.0	0.0
Styrene	5.8	0.2	0.1	0.7	0.0
Ethylene	0.4	0.0	0.0	0.0	0.0
Propylene	0.3	0.0	0.0	0.0	9.4
Polystyrene	0.0	0.0	0.0	0.0	0.0
Other	8.2	5.7	5.0	13.6	2.7

Processing and production of petrochemicals at Saratovorgsintez, th. tons

	2005	2006	2007	2008	2009
<i>Processing</i>	436.6	411.8	392.3	287.7	258.1
<i>Marketable product output</i>	292.8	281.2	273.7	186.7	154.8
Acrylonitrile	128.3	119.8	122.5	132.7	138.6
Ammonia sulphate	64.5	63.9	62.1	18.7	0.0
Phenol	38.9	38.2	37.7	8.8	0.0
Methyl methacrylate	26.6	26.5	25.8	7.8	0.0
Synthetic fiber	22.0	20.1	15.3	2.8	0.0
Acetone	4.9	4.2	3.6	1.5	0.0
Acetonitrile	3.8	3.5	3.3	3.0	3.1
Alfamethylstyrene	2.7	3.0	2.9	0.7	0.0
Isopropylbenzene	0.0	0.8	0.0	0.0	0.0
Methyl acrylate	0.8	0.7	0.4	0.0	0.0
Acetone cyanohydrine	0.2	0.4	0.0	3.1	0.0
Sodium cyanide	0.0	0.0	0.0	7.6	13.1
Carbon fibre precursor	0.1	0.1	0.1	0.0	0.0

Processing and production of petrochemicals at Karpatneftekhim, th. tons

	2005	2006	2007	2008	2009
<i>Processing</i>	893.4	886.8	805.9	301.3	–
<i>Marketable product output</i>	725.6	699.5	628.9	229.1	–
Vinyl chloride	190.2	179.2	171.5	70.9	–
Polyethylene	93.9	108.0	102.0	48.4	–
Propylene	91.7	105.6	103.7	37.8	–
Hydrate of sodium	100.6	91.6	47.0	20.2	–
Benzene	64.5	72.7	65.3	19.3	–
Heavy oil fuel	77.8	66.5	56.4	19.7	–
Ethylene	13.8	40.1	43.7	2.3	–
Liquid pyrolysis fractions	93.1	35.8	39.3	10.5	–