

Annex A.1.1

OVERALL ENERGY BALANCE, 2005, Reference Case

(In Million Barrels of Fuel Oil Equivalent, MMBFOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	5.03	11.30	9.94	59.43	14.25	0.46	47.34	0.34	-	148.10
Net Imports	104.95	-	26.91	-	-	-	-	1.24	-	133.10
Total Primary Supply	109.99	11.30	36.86	59.43	14.25	0.46	47.34	1.58	-	281.20
Share	39.11	4.02	13.11	21.13	5.07	0.16	16.83	0.56	-	100.00
Oil Refining	(5.69)	-	-	-	-	-	-	-	-	(5.69)
Transmission & Distribution	-	-	-	-	-	-	-	-	(3.37)	(3.37)
Electricity Generation	(14.48)	(11.04)	(29.80)	(59.43)	(14.25)	(0.35)	-	-	33.41	(95.94)
Total Transformation	(20.17)	(11.04)	(29.80)	(59.43)	(14.25)	(0.35)	-	-	30.04	(105.00)
Industrial	15.35	0.24	6.63	-	-	0.01	9.75	-	9.53	41.51
Commercial	4.47	-	-	-	-	0.01	1.46	-	9.29	15.23
Transport	56.47	0.02	-	-	-	-	-	1.58	0.04	58.11
Agriculture	2.54	-	-	-	-	0.04	-	-	0.00	2.58
Residential	7.17	-	-	-	-	0.04	36.14	-	11.18	54.53
Final Energy Demand	85.99	0.26	6.63	-	-	0.11	47.34	1.58	30.04	171.96
Savings from Energy Efficiency and Conservation										11.64
Final Energy Demand with Savings										160.32
Self-Sufficiency, in percent										52.67

(In Thousand Tonnes of Oil Equivalent, KTOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	727.03	1,632.22	1,435.91	8,581.08	2,057.56	66.62	6,835.79	49.10	-	21,385.32
Net Imports	15,154.84	-	3,886.38	-	-	-	-	179.06	-	19,220.28
Total Primary Supply	15,881.87	1,632.22	5,322.29	8,581.08	2,057.56	66.62	6,835.79	228.15	-	40,605.60
Share	39.11	4.02	13.11	21.13	5.07	0.16	16.83	0.56	-	100.00
Oil Refining	(821.64)	-	-	-	-	-	-	-	-	(821.64)
Transmission & Distribution	-	-	-	-	-	-	-	-	(486.21)	(486.21)
Electricity Generation	(2,090.69)	(1,594.01)	(4,303.62)	(8,581.08)	(2,057.56)	(51.03)	-	-	4,824.26	(13,853.73)
Total Transformation	(2,912.32)	(1,594.01)	(4,303.62)	(8,581.08)	(2,057.56)	(51.03)	-	-	4,338.04	(15,161.58)
Industrial	2,208.04	0.03	1,054.40	-	-	0.71	1,407.32	-	1,376.19	6,046.70
Commercial	643.88	-	-	-	-	1.83	210.17	-	1,341.47	2,197.34
Transport	8,160.69	0.00	-	-	-	-	-	228.15	5.57	8,394.41
Agriculture	366.86	-	-	-	-	5.66	-	-	0.37	372.88
Residential	1,035.08	-	-	-	-	4.74	5,218.30	-	1,614.45	7,872.57
Final Energy Demand	12,414.54	0.04	1,054.40	-	-	12.93	6,835.79	228.15	4,338.04	24,883.90
Savings from Energy Efficiency and Conservation										1,680.82
Final Energy Demand with Savings										23,203.08
Self-Sufficiency, in percent										52.67

Annex A.1.1

OVERALL ENERGY BALANCE, 2006, Reference Case

(In Million Barrels of Fuel Oil Equivalent, MMBFOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	5.04	12.09	11.76	62.23	14.57	0.47	47.75	0.36	-	154.28
Net Imports	108.68	-	27.05	-	-	-	-	1.30	-	137.03
Total Primary Supply	113.72	12.09	38.81	62.23	14.57	0.47	47.75	1.66	-	291.31
Share	39.04	4.15	13.32	21.36	5.00	0.16	16.39	0.57	-	100.00
Oil Refining	(5.69)	-	-	-	-	-	-	-	-	(5.69)
Transmission & Distribution	-	-	-	-	-	-	-	-	(3.55)	(3.55)
Electricity Generation	(15.55)	(11.54)	(31.68)	(62.23)	(14.57)	(0.36)	-	-	35.19	(100.74)
Total Transformation	(21.24)	(11.54)	(31.68)	(62.23)	(14.57)	(0.36)	-	-	31.64	(109.98)
Industrial	15.73	0.48	6.71	-	-	0.01	10.32	-	9.94	43.19
Commercial	4.67	-	-	-	-	0.01	1.51	-	9.82	16.01
Transport	58.48	0.06	-	-	-	-	-	1.66	0.04	60.25
Agriculture	2.61	-	-	-	-	0.04	-	-	0.00	2.65
Residential	7.40	-	-	-	-	0.04	35.92	-	11.84	55.20
Final Energy Demand	88.89	0.55	6.71	-	-	0.11	47.75	1.66	31.64	177.31
Savings from Energy Efficiency and Conservation										12.65
Final Energy Demand with Savings										164.66
Self-sufficiency, in percent										52.96

(In Thousand Tonnes of Oil Equivalent, KTOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	728.22	1,745.87	1,698.52	8,986.14	2,104.14	67.85	6,895.66	51.98	-	22,278.38
Net Imports	15,693.62	-	3,906.12	-	-	-	-	187.72	-	19,787.46
Total Primary Supply	16,421.84	1,745.87	5,604.64	8,986.14	2,104.14	67.85	6,895.66	239.70	-	42,065.84
Share	39.04	4.15	13.32	21.36	5.00	0.16	16.39	0.57	-	100.00
Oil Refining	(821.64)	-	-	-	-	-	-	-	-	(821.64)
Transmission & Distribution	-	-	-	-	-	-	-	-	(512.39)	(512.39)
Electricity Generation	(2,246.02)	(1,667.06)	(4,573.96)	(8,986.14)	(2,104.14)	(51.89)	-	-	5,081.65	(14,547.55)
Total Transformation	(3,067.65)	(1,667.06)	(4,573.96)	(8,986.14)	(2,104.14)	(51.89)	-	-	4,569.26	(15,881.58)
Industrial	2,262.88	0.07	1,066.84	-	-	0.73	1,490.37	-	1,435.09	6,255.98
Commercial	672.75	-	-	-	-	1.88	217.99	-	1,418.43	2,311.05
Transport	8,451.92	0.01	-	-	-	-	-	239.70	5.87	8,697.51
Agriculture	376.87	-	-	-	-	5.72	-	-	0.39	382.98
Residential	1,068.27	-	-	-	-	4.88	5,187.30	-	1,709.49	7,969.94
Final Energy Demand	12,832.70	0.08	1,066.84	-	-	13.22	6,895.66	239.70	4,569.27	25,617.46
Savings from Energy Efficiency and Conservation										1,826.66
Final Energy Demand with Savings										23,790.80
Self-sufficiency, in percent										52.96

Annex A.1.1

OVERALL ENERGY BALANCE, 2007, Reference Case

(In Million Barrels of Fuel Oil Equivalent, MMBFOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	17.13	13.64	12.95	64.79	14.59	0.61	48.20	0.38	-	172.29
Net Imports	95.85	-	33.02	-	-	-	-	1.37	-	130.24
Total Primary Supply	112.97	13.64	45.96	64.79	14.59	0.61	48.20	1.75	-	302.53
Share	37.34	4.51	15.19	21.41	4.82	0.20	15.93	0.58	-	100.00
Oil Refining	(5.69)	-	-	-	-	-	-	-	-	(5.69)
Transmission & Distribution	-	-	-	-	-	-	-	-	(3.71)	(3.71)
Electricity Generation	(12.21)	(12.35)	(38.74)	(64.79)	(14.59)	(0.50)	-	-	36.73	(106.45)
Total Transformation	(17.90)	(12.35)	(38.74)	(64.79)	(14.59)	(0.50)	-	-	33.02	(115.85)
Industrial	16.25	0.56	6.79	-	-	0.01	10.93	-	10.29	44.82
Commercial	4.99	-	-	-	-	0.01	1.57	-	10.28	16.84
Transport	60.18	0.74	-	-	-	-	-	1.75	0.04	62.71
Agriculture	2.68	-	-	-	-	0.04	-	-	0.00	2.72
Residential	7.62	-	-	-	-	0.04	35.71	-	12.41	55.78
Final Energy Demand	91.71	1.30	6.79	-	-	0.11	48.20	1.75	33.02	182.88
Savings from Energy Efficiency and Conservation										13.80
Final Energy Demand with Savings										169.08
Self-sufficiency, in percent										56.95

(In Thousand Tonnes of Oil Equivalent, KTOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	2,473.00	1,970.04	1,869.34	9,355.08	2,107.49	88.63	6,960.71	54.87	-	24,879.17
Net Imports	13,840.52	-	4,767.68	-	-	-	-	197.83	-	18,806.03
Total Primary Supply	16,313.52	1,970.04	6,637.02	9,355.08	2,107.49	88.63	6,960.71	252.70	-	43,685.20
Share	37.34	4.51	15.19	21.41	4.82	0.20	15.93	0.58	-	100.00
Oil Refining	(821.64)	-	-	-	-	-	-	-	-	(821.64)
Transmission & Distribution	-	-	-	-	-	-	-	-	(535.29)	(535.29)
Electricity Generation	(1,762.92)	(1,782.91)	(5,594.17)	(9,355.08)	(2,107.49)	(72.29)	-	-	5,303.36	(15,371.50)
Total Transformation	(2,584.56)	(1,782.91)	(5,594.17)	(9,355.08)	(2,107.49)	(72.29)	-	-	4,768.07	(16,728.43)
Industrial	2,337.60	0.08	1,079.44	-	-	0.75	1,578.32	-	1,485.19	6,481.39
Commercial	718.64	-	-	-	-	1.94	226.10	-	1,484.11	2,430.78
Transport	8,696.62	0.11	-	-	-	-	-	252.70	6.17	8,955.60
Agriculture	386.88	-	-	-	-	5.79	-	-	0.41	393.07
Residential	1,100.41	-	-	-	-	5.03	5,156.29	-	1,792.18	8,053.91
Final Energy Demand	13,240.14	0.19	1,079.44	-	-	13.51	6,960.71	252.70	4,768.06	26,314.76
Savings from Energy Efficiency and Conservation										1,992.72
Final Energy Demand with Savings										24,322.04
Self-sufficiency, in percent										56.95

Annex A.1.1

OVERALL ENERGY BALANCE, 2008, Reference Case

(In Million Barrels of Fuel Oil Equivalent, MMBFOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	14.06	14.52	13.71	66.98	14.95	0.62	48.69	1.83	-	175.35
Net Imports	101.97	-	34.53	-	-	-	-	-	-	136.50
Total Primary Supply	116.03	14.52	48.24	66.98	14.95	0.62	48.69	1.83	-	311.85
Share	37.21	4.65	15.47	21.48	4.79	0.20	15.61	0.59	-	100.00
Oil Refining	(5.69)	-	-	-	-	-	-	-	-	(5.69)
Transmission & Distribution	-	-	-	-	-	-	-	-	(3.86)	(3.86)
Electricity Generation	(11.97)	(13.14)	(40.94)	(66.98)	(14.95)	(0.50)	-	-	38.26	(110.22)
Total Transformation	(17.66)	(13.14)	(40.94)	(66.98)	(14.95)	(0.50)	-	-	34.40	(119.77)
Industrial	16.90	0.57	6.87	-	-	-	11.58	-	10.63	46.56
Commercial	5.34	-	-	-	-	0.01	1.62	-	10.74	17.71
Transport	62.40	0.81	-	-	-	-	-	1.83	0.04	65.08
Agriculture	2.75	-	-	-	-	0.04	-	-	0.00	2.79
Residential	7.85	-	-	-	-	0.05	35.49	-	12.98	56.37
Final Energy Demand	95.23	1.38	6.87	-	-	0.12	48.69	1.83	34.40	188.51
Savings from Energy Efficiency and Conservation										15.05
Final Energy Demand with Savings										173.46
Self-sufficiency, in percent										56.23

(In Thousand Tonnes of Oil Equivalent, KTOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	2,029.65	2,096.09	1,979.99	9,671.56	2,158.89	89.29	7,031.27	264.25	-	25,320.98
Net Imports	14,724.39	-	4,986.29	-	-	-	-	-	-	19,710.68
Total Primary Supply	16,754.03	2,096.09	6,966.28	9,671.56	2,158.89	89.29	7,031.27	264.25	-	45,031.66
Share	37.21	4.65	15.47	21.48	4.79	0.18	15.61	0.59	-	100.00
Oil Refining	(821.64)	-	-	-	-	-	-	-	-	(821.64)
Transmission & Distribution	-	-	-	-	-	-	-	-	(557.03)	(557.03)
Electricity Generation	(1,728.07)	(1,897.36)	(5,911.09)	(9,671.56)	(2,158.89)	(72.58)	-	-	5,524.04	(15,915.51)
Total Transformation	(2,549.71)	(1,897.36)	(5,911.09)	(9,671.56)	(2,158.89)	(72.58)	-	-	4,967.01	(17,294.18)
Industrial	2,431.71	0.08	1,092.21	-	-	0.77	1,671.47	-	1,535.47	6,731.70
Commercial	769.38	-	-	-	-	2.00	234.51	-	1,550.58	2,556.47
Transport	9,017.19	0.12	-	-	-	-	-	264.25	6.48	9,288.04
Agriculture	396.89	-	-	-	-	5.85	-	-	0.44	403.18
Residential	1,133.26	-	-	-	-	5.18	5,125.29	-	1,874.05	8,137.77
Final Energy Demand	13,748.42	0.20	1,092.21	-	-	13.80	7,031.27	264.25	4,967.01	27,117.15
Savings from Energy Efficiency and Conservation										2,173.22
Final Energy Demand with Savings										24,943.93
Self-sufficiency, in percent										56.23

Annex A.1.1

OVERALL ENERGY BALANCE, 2009, Reference Case

(In Million Barrels of Fuel Oil Equivalent, MMBFOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	11.96	15.37	15.12	69.79	15.72	0.62	49.22	1.91	-	179.72
Net Imports	108.24	-	35.51	-	-	-	-	-	-	143.75
Total Primary Supply	120.20	15.37	50.63	69.79	15.72	0.62	49.22	1.91	-	323.46
Share	37.16	4.75	15.65	21.58	4.86	1.68	15.22	0.59	-	100.00
Oil Refining	(5.69)	-	-	-	-	-	-	-	-	(5.69)
Transmission & Distribution	-	-	-	-	-	-	-	-	(4.08)	(4.08)
Electricity Generation	(12.56)	(13.92)	(43.24)	(69.79)	(15.72)	(0.50)	-	-	40.42	(115.30)
Total Transformation	(18.25)	(13.92)	(43.24)	(69.79)	(15.72)	(0.50)	-	-	36.34	(125.07)
Industrial	17.65	0.58	6.95	-	-	0.02	12.26	-	11.12	48.57
Commercial	5.73	-	-	-	-	0.01	1.68	-	11.39	18.81
Transport	64.62	0.88	-	-	-	-	-	1.91	0.05	67.45
Agriculture	2.82	-	-	-	-	0.04	-	-	0.00	2.86
Residential	8.08	-	-	-	-	0.05	35.28	-	13.79	57.20
Final Energy Demand	98.90	1.46	6.95	-	-	0.12	49.22	1.91	36.34	194.90
Savings from Energy Efficiency and Conservation										16.22
Final Energy Demand with Savings										178.68
Self-sufficiency, in percent										55.56

(In Thousand Tonnes of Oil Equivalent, KTOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	1,727.07	2,219.97	2,183.96	10,077.48	2,269.35	89.95	7,107.63	275.80	-	25,951.21
Net Imports	15,629.93	-	5,127.00	-	-	-	-	-	-	20,756.92
Total Primary Supply	17,357.00	2,219.97	7,310.95	10,077.48	2,269.35	89.95	7,107.63	275.80	-	46,708.13
Share	37.16	4.75	15.65	21.58	4.86	0.19	15.22	0.59	-	100.00
Oil Refining	(821.64)	-	-	-	-	-	-	-	-	(821.64)
Transmission & Distribution	-	-	-	-	-	-	-	-	(589.20)	(589.20)
Electricity Generation	(1,814.28)	(2,009.38)	(6,243.25)	(10,077.48)	(2,269.35)	(72.87)	-	-	5,837.08	(16,649.53)
Total Transformation	(2,635.92)	(2,009.38)	(6,243.25)	(10,077.48)	(2,269.35)	(72.87)	-	-	5,247.88	(18,060.37)
Industrial	2,540.31	0.08	1,105.16	-	-	0.79	1,770.11	-	1,605.18	7,021.63
Commercial	825.59	-	-	-	-	2.05	243.24	-	1,644.34	2,715.22
Transport	9,337.77	0.13	-	-	-	-	-	275.80	6.78	9,620.49
Agriculture	406.90	-	-	-	-	5.92	-	-	0.47	413.28
Residential	1,167.06	-	-	-	-	5.32	5,094.28	-	1,991.10	8,257.76
Final Energy Demand	14,277.63	0.21	1,105.16	-	-	14.09	7,107.63	275.80	5,247.87	28,028.39
Savings from Energy Efficiency and Conservation										2,342.17
Final Energy Demand with Savings										25,686.22
Self-sufficiency, in percent										55.56

Annex A.1.1

OVERALL ENERGY BALANCE, 2010, Reference Case

(In Million Barrels of Fuel Oil Equivalent, MMBFOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	22.49	18.47	16.86	71.10	15.86	0.63	49.79	1.99	-	197.20
Net Imports	98.68	-	37.29	-	-	-	-	-	-	135.97
Total Primary Supply	121.17	18.47	54.16	71.10	15.86	0.63	49.79	1.99	-	333.17
Share	36.37	5.55	16.25	21.34	4.76	0.19	14.95	0.60	-	100.00
Oil Refining	(5.69)	-	-	-	-	-	-	-	-	(5.69)
Transmission & Distribution	-	-	-	-	-	-	-	-	(4.29)	(4.29)
Electricity Generation	(9.91)	(16.72)	(46.67)	(71.10)	(15.86)	(0.50)	-	-	42.45	(118.32)
Total Transformation	(15.60)	(16.72)	(46.67)	(71.10)	(15.86)	(0.50)	-	-	38.16	(128.30)
Industrial	18.38	0.72	7.03	-	-	0.02	12.98	-	11.56	50.70
Commercial	6.16	-	-	-	-	0.01	1.75	-	11.99	19.91
Transport	66.76	1.03	-	-	-	-	-	1.99	0.05	69.83
Agriculture	2.89	-	-	-	-	0.04	-	-	0.00	2.93
Residential	8.32	-	-	-	-	0.05	35.06	-	14.55	57.99
Final Energy Demand	102.51	1.75	7.03	-	-	0.12	49.79	1.99	38.16	201.36
Savings from Energy Efficiency and Conservation										17.51
Final Energy Demand with Savings										183.85
Self-Sufficiency, in percent										59.19

(InThousand Tonnes of Oil Equivalent, KTOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	3,247.87	2,667.74	2,434.83	10,266.68	2,290.72	90.32	7,190.13	287.36	-	28,475.66
Net Imports	14,249.32	-	5,385.25	-	-	-	-	-	-	19,634.57
Total Primary Supply	17,497.19	2,667.74	7,820.08	10,266.68	2,290.72	90.32	7,190.13	287.36	-	48,110.23
Share	36.37	5.55	16.25	21.34	4.76	0.19	14.95	0.60	-	100.00
Oil Refining	(821.64)	-	-	-	-	-	-	-	-	(821.64)
Transmission & Distribution	-	-	-	-	-	-	-	-	(619.53)	(619.53)
Electricity Generation	(1,430.80)	(2,414.32)	(6,739.71)	(10,266.68)	(2,290.72)	(72.87)	-	-	6,129.39	(17,085.71)
Total Transformation	(2,252.44)	(2,414.32)	(6,739.71)	(10,266.68)	(2,290.72)	(72.87)	-	-	5,509.87	(18,526.87)
Industrial	2,644.99	0.10	1,118.28	-	-	0.82	1,874.57	-	1,669.78	7,308.53
Commercial	888.41	-	-	-	-	2.11	252.29	-	1,730.79	2,873.60
Transport	9,646.88	0.15	-	-	-	-	-	287.36	7.09	9,941.48
Agriculture	416.91	-	-	-	-	5.98	-	-	0.50	423.39
Residential	1,201.66	-	-	-	-	5.47	5,063.28	-	2,101.71	8,372.12
Final Energy Demand	14,798.85	0.25	1,118.28	-	-	14.38	7,190.13	287.36	5,509.87	28,919.12
Savings from Energy Efficiency and Conservation										2,528.44
Final Energy Demand with Savings										26,390.67
Self-sufficiency, in percent										59.19

Annex A.1.1

OVERALL ENERGY BALANCE, 2011, Reference Case

(In Million Barrels of Fuel Oil Equivalent, MMBFOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	22.70	20.99	18.14	72.26	15.89	0.63	50.41	2.07	-	203.09
Net Imports	102.86	-	37.30	-	-	-	-	-	-	140.16
Total Primary Supply	125.55	20.99	55.45	72.26	15.89	0.63	50.41	2.07	-	343.25
Share	36.58	6.12	16.15	21.05	4.63	0.18	14.69	0.60	-	100.00
Oil Refining	(5.69)	-	-	-	-	-	-	-	-	(5.69)
Transmission & Distribution	-	-	-	-	-	-	-	-	(4.52)	(4.52)
Electricity Generation	(10.68)	(18.92)	(47.88)	(72.26)	(15.89)	(0.50)	-	-	44.63	(121.51)
Total Transformation	(16.37)	(18.92)	(47.88)	(72.26)	(15.89)	(0.50)	-	-	40.12	(131.72)
Industrial	19.12	0.85	7.12	-	-	0.02	13.75	-	12.05	52.91
Commercial	6.60	-	-	-	-	0.01	1.81	-	12.63	21.05
Transport	68.86	1.21	-	-	-	-	-	2.07	0.05	72.20
Agriculture	2.96	-	-	-	-	0.04	-	-	0.00	3.00
Residential	8.56	-	-	-	-	0.05	34.85	-	15.38	58.84
Final Energy Demand	106.11	2.07	7.12	-	-	0.12	50.41	2.07	40.12	208.01
Savings from Energy Efficiency and Conservation										18.92
Final Energy Demand with Savings										189.09
Self-sufficiency, in percent										59.17

(In Thousand Tonnes of Oil Equivalent, KTOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	3,277.56	3,031.08	2,619.93	10,434.38	2,294.72	90.69	7,279.14	298.91	-	29,326.41
Net Imports	14,852.39	-	5,386.73	-	-	-	-	-	-	20,239.12
Total Primary Supply	18,129.96	3,031.08	8,006.66	10,434.38	2,294.72	90.69	7,279.14	298.91	-	49,565.53
Share	36.58	6.12	16.15	21.05	4.63	0.18	14.69	0.60	-	100.00
Oil Refining	(821.64)	-	-	-	-	-	-	-	-	(821.64)
Transmission & Distribution	-	-	-	-	-	-	-	-	(652.27)	(652.27)
Electricity Generation	(1,542.88)	(2,732.46)	(6,913.43)	(10,434.38)	(2,294.72)	(72.87)	-	-	6,444.93	(17,545.81)
Total Transformation	(2,364.52)	(2,732.46)	(6,913.43)	(10,434.38)	(2,294.72)	(72.87)	-	-	5,792.66	(19,019.72)
Industrial	2,751.47	0.12	1,131.58	-	-	0.84	1,985.19	-	1,740.27	7,609.48
Commercial	950.82	-	-	-	-	2.17	261.68	-	1,823.67	3,038.33
Transport	9,951.52	0.17	-	-	-	-	-	298.91	7.39	10,257.99
Agriculture	426.92	-	-	-	-	6.05	-	-	0.54	433.51
Residential	1,236.89	-	-	-	-	5.62	5,032.27	-	2,220.79	8,495.57
Final Energy Demand	15,317.63	0.30	1,131.58	-	-	14.67	7,279.14	298.91	5,792.66	29,834.88
Savings from Energy Efficiency and Conservation										2,732.05
Final Energy Demand with Savings										27,102.83
Self-sufficiency, in percent										59.17

Annex A.1.1

OVERALL ENERGY BALANCE, 2012, Reference Case

(In Million Barrels of Fuel Oil Equivalent, MMBFOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	24.36	23.71	20.49	73.28	15.92	0.63	51.07	2.15	-	211.62
Net Imports	105.49	-	36.65	-	-	-	-	-	-	142.15
Total Primary Supply	129.85	23.71	57.15	73.28	15.92	0.63	51.07	2.15	-	353.76
Share	36.71	6.70	16.15	20.71	4.50	0.18	14.44	0.61	-	100.00
Oil Refining	(5.69)	-	-	-	-	-	-	-	-	(5.69)
Transmission & Distribution	-	-	-	-	-	-	-	-	(4.76)	(4.76)
Electricity Generation	(11.28)	(21.32)	(49.48)	(73.28)	(15.92)	(0.50)	-	-	47.01	(124.79)
Total Transformation	(16.97)	(21.32)	(49.48)	(73.28)	(15.92)	(0.50)	-	-	42.25	(92.65)
Industrial	19.91	1.04	7.20	-	-	0.02	14.56	-	12.57	55.30
Commercial	7.06	-	-	-	-	0.02	1.88	-	13.32	22.28
Transport	71.02	1.35	-	-	-	-	-	2.15	0.05	74.57
Agriculture	3.03	-	-	-	-	0.04	-	-	0.00	3.07
Residential	8.81	-	-	-	-	0.05	34.63	-	16.29	59.79
Final Energy Demand	109.83	2.39	7.20	-	-	0.13	51.07	2.15	42.25	215.02
Savings from Energy Efficiency and Conservation										20.39
Final Energy Demand with Savings										194.63
Self-sufficiency, in percent										59.82

(In Thousand Tonnes of Oil Equivalent, KTOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	3,517.67	3,424.04	2,959.02	10,581.44	2,298.72	91.07	7,375.03	310.46	-	30,557.45
Net Imports	15,233.17	-	5,292.82	-	-	-	-	-	-	20,525.99
Total Primary Supply	18,750.83	3,424.04	8,251.84	10,581.44	2,298.72	91.07	7,375.03	310.46	-	51,083.43
Share	36.71	6.70	16.15	20.71	4.50	0.18	14.44	0.61	-	100.00
Oil Refining	(821.64)	-	-	-	-	-	-	-	-	(821.64)
Transmission & Distribution	-	-	-	-	-	-	-	-	(687.99)	(687.99)
Electricity Generation	(1,629.55)	(3,079.30)	(7,145.59)	(10,581.44)	(2,298.72)	(72.87)	-	-	6,788.32	(18,019.15)
Total Transformation	(2,451.19)	(3,079.30)	(7,145.59)	(10,581.44)	(2,298.72)	(72.87)	-	-	6,100.34	(19,528.77)
Industrial	2,865.15	0.15	1,145.06	-	-	0.86	2,102.35	-	1,814.97	7,928.53
Commercial	1,017.66	-	-	-	-	2.22	271.41	-	1,924.11	3,215.41
Transport	10,263.14	0.19	-	-	-	-	-	310.46	7.70	10,581.49
Agriculture	436.93	-	-	-	-	6.11	-	-	0.58	443.62
Residential	1,272.75	-	-	-	-	5.76	5,001.27	-	2,352.98	8,632.76
Final Energy Demand	15,855.63	0.34	1,145.06	-	-	14.96	7,375.03	310.46	6,100.34	30,801.81
Savings from Energy Efficiency and Conservation										2,944.32
Final Energy Demand with Savings										27,857.50
Self-sufficiency, in percent										59.82

Annex A.1.1

OVERALL ENERGY BALANCE, 2013, Reference Case

(In Million Barrels of Fuel Oil Equivalent, MMBFOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	21.96	27.19	21.07	74.20	15.92	0.63	51.79	2.24	-	214.99
Net Imports	111.99	-	37.56	-	-	-	-	-	-	149.55
Total Primary Supply	133.95	27.19	58.63	74.20	15.92	0.63	51.79	2.24	-	364.54
Share	36.74	7.46	16.08	20.35	4.37	0.17	14.21	0.61	-	100.00
Oil Refining	(5.69)	-	-	-	-	-	-	-	-	(5.69)
Transmission & Distribution	-	-	-	-	-	-	-	-	(5.05)	(5.05)
Electricity Generation	(11.46)	(24.59)	(50.88)	(74.20)	(15.92)	(0.50)	-	-	49.69	(127.86)
Total Transformation	(17.15)	(24.59)	(50.88)	(74.20)	(15.92)	(0.50)	-	-	44.64	(138.60)
Industrial	20.78	1.18	7.29	-	-	0.02	15.42	-	13.18	57.85
Commercial	7.56	-	-	-	-	0.02	1.95	-	14.11	23.64
Transport	73.23	1.42	-	-	-	-	-	2.24	0.06	76.95
Agriculture	3.10	-	-	-	-	0.04	-	-	0.00	3.14
Residential	9.07	-	-	-	-	0.05	34.42	-	17.29	60.83
Final Energy Demand	113.73	2.59	7.29	-	-	0.13	51.79	2.24	44.64	222.41
Savings from Energy Efficiency and Conservation										21.75
Final Energy Demand with Savings										200.66
Self-sufficiency, in percent										58.98

(In Thousand Tonnes of Oil Equivalent, KTOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	3,170.79	3,925.56	3,042.14	10,714.74	2,298.49	91.44	7,478.19	323.46	-	31,044.80
Net Imports	16,171.41	-	5,423.81	-	-	-	-	-	-	21,595.23
Total Primary Supply	19,342.21	3,925.56	8,465.95	10,714.74	2,298.49	91.44	7,478.19	323.46	-	52,640.03
Share	36.74	7.46	16.08	20.35	4.37	0.17	14.21	0.61	-	100.00
Oil Refining	(821.64)	-	-	-	-	-	-	-	-	(821.64)
Transmission & Distribution	-	-	-	-	-	-	-	-	(728.88)	(728.88)
Electricity Generation	(1,654.29)	(3,551.03)	(7,346.50)	(10,714.74)	(2,298.49)	(72.87)	-	-	7,174.81	(18,463.11)
Total Transformation	(2,475.92)	(3,551.03)	(7,346.50)	(10,714.74)	(2,298.49)	(72.87)	-	-	6,445.93	(20,013.63)
Industrial	2,989.74	0.17	1,158.72	-	-	0.88	2,226.41	-	1,902.92	8,278.85
Commercial	1,089.24	-	-	-	-	2.28	281.51	-	2,037.83	3,410.86
Transport	10,582.28	0.20	-	-	-	-	-	323.46	8.00	10,913.94
Agriculture	446.94	-	-	-	-	6.18	-	-	0.63	453.75
Residential	1,309.50	-	-	-	-	5.91	4,970.26	-	2,496.55	8,782.22
Final Energy Demand	16,417.70	0.37	1,158.72	-	-	15.25	7,478.19	323.46	6,445.93	31,839.62
Savings from Energy Efficiency and Conservation										3,140.70
Final Energy Demand with Savings										28,698.92
Self-sufficiency, in percent										58.98

Annex A.1.1

OVERALL ENERGY BALANCE, 2014, Reference Case

(In Million Barrels of Fuel Oil Equivalent, MMBFOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	14.58	30.08	23.32	74.76	15.94	0.64	52.56	2.32	-	214.19
Net Imports	124.20	-	37.32	-	-	-	-	-	-	161.52
Total Primary Supply	138.78	30.08	60.64	74.76	15.94	0.64	52.56	2.32	-	375.71
Share	36.94	8.01	16.14	19.90	4.24	0.17	13.99	0.62	-	100.00
Oil Refining	(5.69)	-	-	-	-	-	-	-	-	(5.69)
Transmission & Distribution	-	-	-	-	-	-	-	-	(5.32)	(5.32)
Electricity Generation	(12.28)	(27.34)	(52.79)	(74.76)	(15.94)	(0.50)	-	-	52.35	(131.27)
Total Transformation	(17.97)	(27.34)	(52.79)	(74.76)	(15.94)	(0.50)	-	-	47.03	(142.28)
Industrial	21.68	1.31	7.38	-	-	0.02	16.33	-	13.79	60.51
Commercial	8.09	-	-	-	-	0.02	2.02	-	14.90	25.03
Transport	75.51	1.43	-	-	-	-	-	2.32	0.06	79.32
Agriculture	3.17	-	-	-	-	0.04	-	-	0.00	3.21
Residential	9.33	-	-	-	-	0.05	34.21	-	18.28	61.86
Final Energy Demand	117.78	2.74	7.38	-	-	0.13	52.56	2.32	47.03	229.93
Savings from Energy Efficiency and Conservation										23.00
Final Energy Demand with Savings										206.93
Self-sufficiency, in percent										57.01

(In Thousand Tonnes of Oil Equivalent, KTOE)

	Oil and Oil Products	Natural Gas	Coal	Geothermal	Hydropower	Solar, Wind & Micro-hydro	Biomass	CME & Ethanol	Electricity	Total
Production	2,105.67	4,344.11	3,366.95	10,794.72	2,301.88	91.81	7,589.05	335.01	-	30,929.20
Net Imports	17,934.81	-	5,389.08	-	-	-	-	-	-	23,323.89
Total Primary Supply	20,040.48	4,344.11	8,756.03	10,794.72	2,301.88	91.81	7,589.05	335.01	-	54,253.09
Share	36.94	8.01	16.14	19.90	4.24	0.17	13.99	0.62	-	100.00
Oil Refining	(821.64)	-	-	-	-	-	-	-	-	(821.64)
Transmission & Distribution	-	-	-	-	-	-	-	-	(768.54)	(768.54)
Electricity Generation	(1,773.47)	(3,947.97)	(7,623.20)	(10,794.72)	(2,301.88)	(72.87)	-	-	7,559.14	(18,954.97)
Total Transformation	(2,595.10)	(3,947.97)	(7,623.20)	(10,794.72)	(2,301.88)	(72.87)	-	-	6,790.60	(20,545.14)
Industrial	3,120.36	0.19	1,172.57	-	-	0.90	2,357.80	-	1,991.14	8,642.97
Commercial	1,165.90	-	-	-	-	2.33	291.99	-	2,151.55	3,611.77
Transport	10,911.56	0.21	-	-	-	-	-	335.01	8.31	11,255.08
Agriculture	456.95	-	-	-	-	6.24	-	-	0.67	463.86
Residential	1,346.83	-	-	-	-	6.06	4,939.26	-	2,638.94	8,931.08
Final Energy Demand	17,001.60	0.40	1,172.57	-	-	15.54	7,589.05	335.01	6,790.61	32,904.77
Savings from Energy Efficiency and Conservation										3,321.20
Final Energy Demand with Savings										29,583.57
Self-sufficiency, in percent										57.01