Energy subsidies in Belarus

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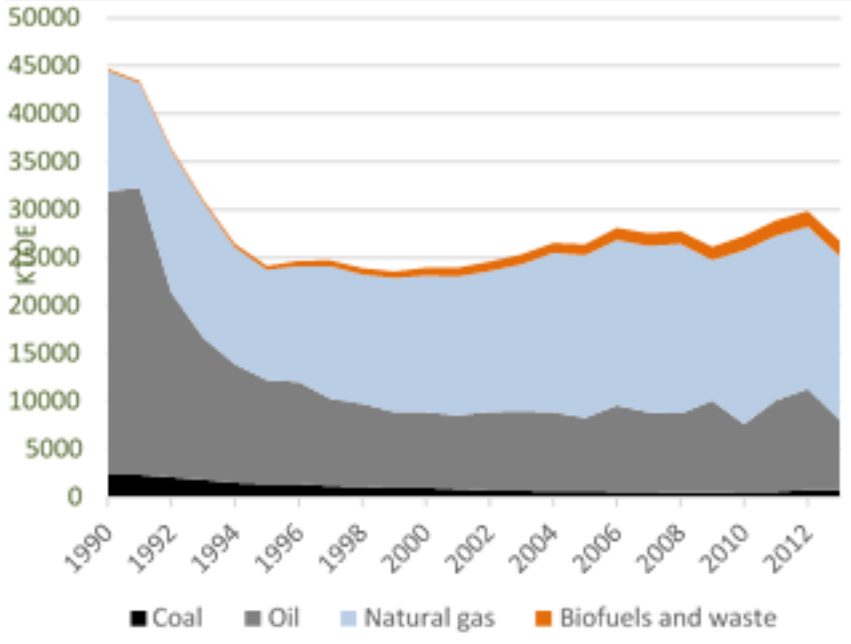
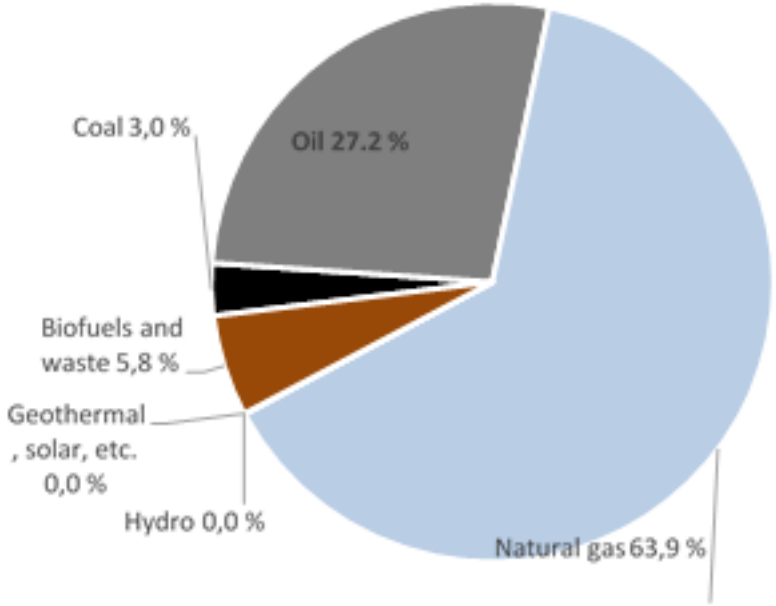
Energy mix

Figure 1. Total primary energy supply 1990-2013



Source: Compiled by the authors based on (IEA, 2015a) .

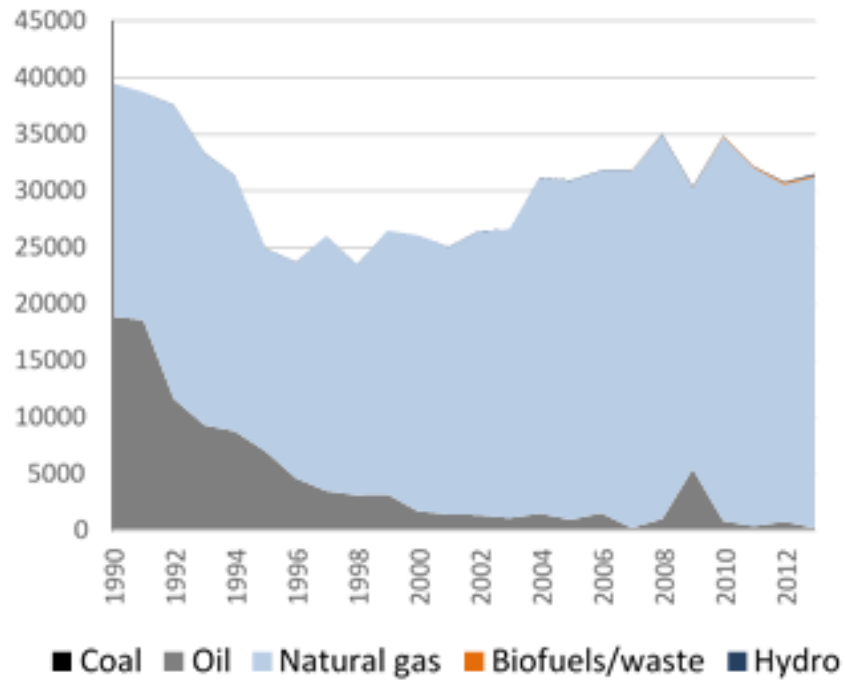
Figure 2. Primary energy supply by fuel in 2013



Source: Compiled by the authors based on (IEA, 2015a) .

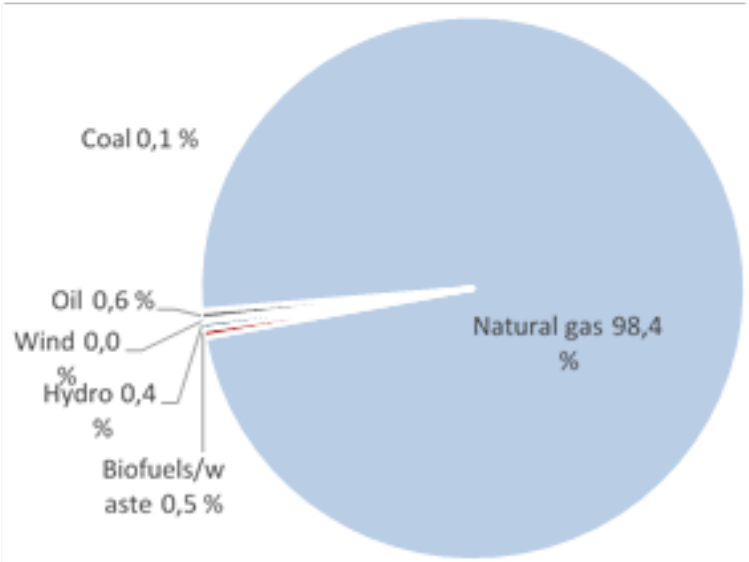
Electricity generation

Figure 2. Electricity generation by source



Source: Compiled by the authors based on (IEA, 2015a).

Figure 2. Electricity generation, GWh by source in 2013



Source: Compiled by the authors based on (IEA, 2015a).

Energy pricing policy

Energy Carrier	Pricing Policy	Price Categories
Natural gas	'Cost-plus' methodology, cross-subsidisation among different consumer groups is embedded in the tariff	For households the gas tariff is differentiated depending on the period of the year (lower during the heating season), availability of meters and use of individual gas boilers. For legal entities the gas tariff is differentiated depending on the economic sector (lowest for chemical and glass producers) and consumption volume.
Electricity	'Cost-plus' methodology, cross-subsidisation among different consumer groups is embedded in the tariff	For households the electricity tariff is differentiated depending on the minimum and maximum load periods and purpose of use (electric stoves, hot water and heat supply). For legal entities the electricity tariff is differentiated depending on the consumer group and capacity.
Heat	'Cost-plus' methodology, cross-subsidisation among different consumer groups is embedded in the tariff	For industrial and other consumers tariffs are highly differentiated depending on consumer category and the regional heat supply company.
Liquid petroleum products	Regulated, methodology is not publicly available	Differentiated depending on fuel quality.
LPG	Regulated, cross-subsidised via gas tariffs for certain consumers	Differentiated depending on season and use.
Solid fuels: coal, peat, fuel briquettes and fuel wood	Regulated by regional authorities, cross-subsidised via higher gas tariffs for certain consumers	Differs by region

Taxation of energy in Belarus

Activity subject to taxation	Baseline tax system: VAT, profit tax, property tax, land tax, environmental tax, etc.	Extraction tax	Excise tax
Companies extracting and refining oil and gas	Applicable as appropriate	Extraction tax is applied to oil	n.a.
Companies extracting coal and peat	Applicable as appropriate	Extraction tax is applied to peat and brown coal	n.a.
Consumers of liquid petroleum products and LPG	Applicable as appropriate	n.a.	The excise tax is applied to LPG and compressed gas and differentiated for petroleum products.
Companies generating electricity	Applicable as appropriate	n.a.	n.a.
Consumers of electricity	Applicable as appropriate	n.a.	n.a.

GHG emissions and climate policy

- GHG emissions were at 89.2 Mt of CO2-equivalent (without LULUCF) in 2012 (35.8% lower than in 1990);
- significant decline in energy-intensive industrial activities, implementation of energy efficiency policies ;
- The energy sector accounts for the largest share of emissions (61.9%)
- Paris 2015 – Republic of Belarus has committed not to exceed 75% of its 1990 GHG emissions levels by 2030

National definition of energy subsidies

- **Subsidy** – a budget transfer provided to an organisation or an individual, including individual entrepreneurs, on the condition of participation in financing (co-financing) with the objective of producing or selling of goods and services, or partial reimbursement of targeted expenditures
- **State support** – budget transfers to particular categories of legal entities and individual entrepreneurs in accordance with legislative norms
- **Tax benefits** – privileges provided to particular categories of taxpayers envisioned in this Code or other tax legislation and also international agreements of the Republic of Belarus in comparison with other taxpayers, including an opportunity not to pay a tax, charge (duty) or pay them at a lower rate

Price gap methodology

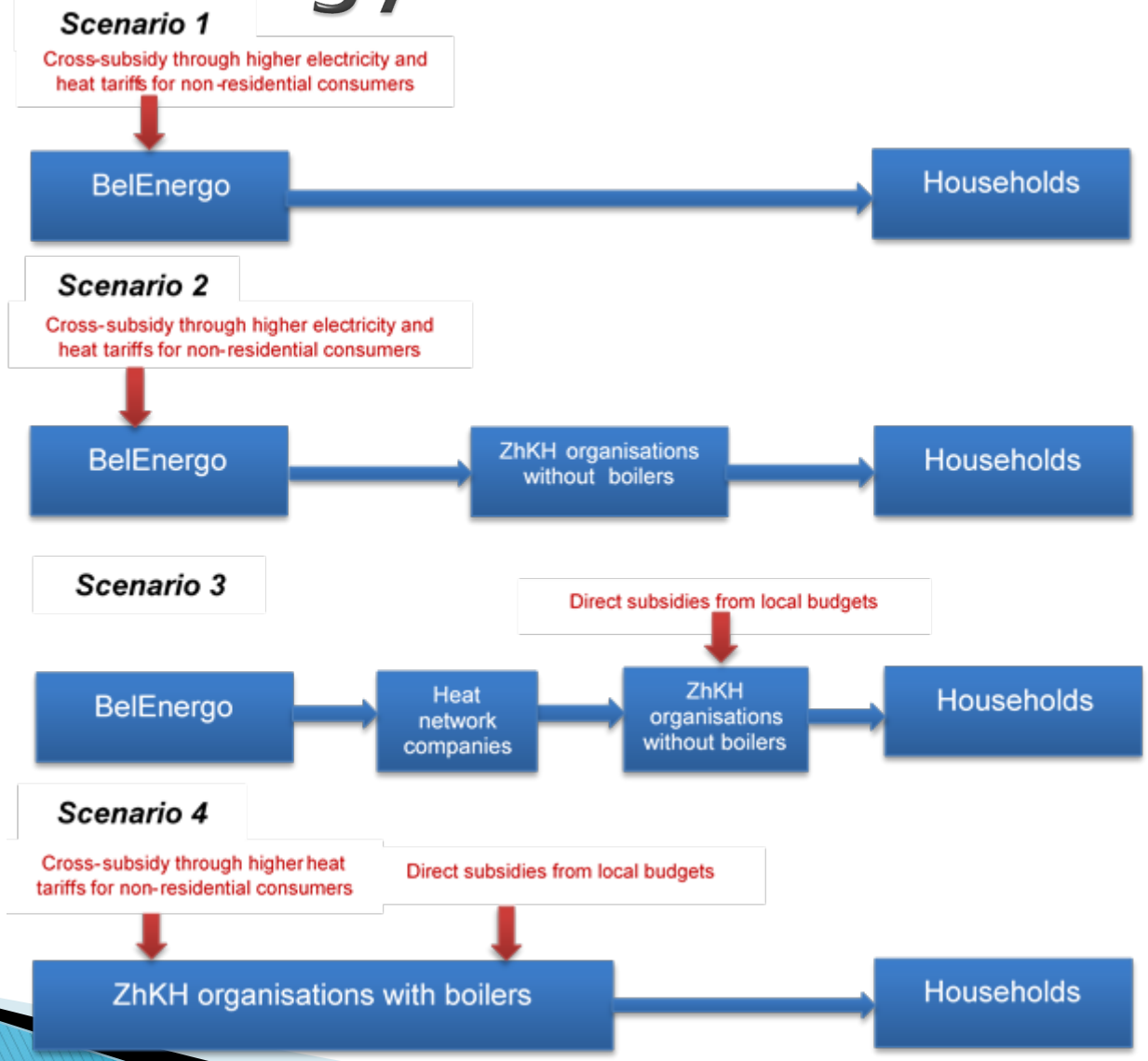
- Price gap =
Reference price – Net Tariff

- Subsidy =
Price gap × Units consumed

Electricity

Indicator	2010	2011	2012	2013	2014
Electricity supply to households, million kWh	5 889	6 109	6 330	6 386	6 397
Electricity supply to organisations, million kWh (for information only, not used in calculations)	31 701	31 679	32 065	31 479	31 657
Tariff for households with electric cooking stoves, BYR per kWh	125,3	164,6	250,6	445,0	810,7
Tariff for households without electric cooking stoves, BYR per kWh	173,0	193,8	295,0	504,0	953,8
Weighted average tariff for households, USD per kWh	0,056	0,041	0,035	0,055	0,092
Industrial tariff, BYR per kWh (for information only, not used in calculations)	357,80	737,00	1263,67	1372,78	1522,02
Industrial tariff, USD per kWh (for information only, not used in calculations)	0,120	0,159	0,152	0,1508	0,1490
“Base price”, USD per kWh (cost recovery rate used as a benchmark for calculations)	0,112	0,148	0,141	0,140	0,138
Price gap, USD per kWh	0,055	0,107	0,106	0,085	0,047
Value of electricity subsidy to households, thousand USD	325 582	652 902	671 228	545 591	297 992

Heat energy


Scenario 1
Cross-subsidy through higher electricity and heat tariffs for non-residential consumers
BelEnergo
Households
Scenario 2
Cross-subsidy through higher electricity and heat tariffs for non-residential consumers
BelEnergo
ZhKH organisations without boilers
Households
Scenario 3
Direct subsidies from local budgets
BelEnergo
Heat network companies
ZhKH organisations without boilers
Households
Scenario 4
Cross-subsidy through higher heat tariffs for non-residential consumers
Direct subsidies from local budgets
ZhKH organisations with boilers
Households

Heat energy

Indicator	2010	2011	2012	2013	2014
Heat supplied to households, thousand gigacalories	23 439	22 257	23 374	23 413	22 301
Heat supplied to organisations (for information only, not used in calculation)	49 036	46 703	48 063	46 069	44 592
Tariff for households, BYR per gigacalorie	43 458	49 333	60 140	70898	90 058
“Base price”, BYR per gigacalorie (cost recovery rate used as a benchmark for calculations)	86 894	108 468	240 000	300000	466 119
Tariff for households, USD per gigacalorie	14,59	10,67	7,22	7,79	8,82
“Base price”, USD per gigacalorie (cost-recovery rate used as a benchmark for calculations)	29,18	23,46	28,79	32,95	45,63
Price gap, USD per gigacalorie	14,59	12,79	21,58	25,16	36,81
Value of heat subsidy to households, thousand USD	341 873	284 700	504 385	589 188	821 002

Natural gas

Indicator	2010	2011	2012	2013	2014
Natural gas supplied to households, million cubic meters	1 749	1 694	1 898	1 877	1 839
Natural gas supplied to organisations, million cubic meters (for information only, not used in calculations)	20 113	19 005	18 504	18 709	18 588
Household tariff in summer, BYR per cubic meter	462,0	786,5	1 447,6	1 500,0	2 281,8
Household tariffs in winter, BYR per cubic meter	219,1	373,0	686,5	711,3	623,3
Weighed average household tariff, USD per cubic meter	0,101	0,111	0,113	0,108	0,116
Tariff for organisations, BYR per cubic meter (for information only, not used in calculations)	719,00	1 410	2593,18	2 359	3 021
Tariff for organisations, USD per cubic meter (for information only, not used in calculations)	0,241	0,305	0,311	0,259	0,296
"Base price", USD per gigacalorie (cost-recovery rate used as a benchmark for calculations)	0,220	0,277	0,283	0,236	0,269
Price gap, USD per cubic meter	0,118	0,166	0,170	0,128	0,153
Value of gas subsidy to households, thousand USD	207 087	281 822	322 104	240 590	281 155

Energy efficiency

Sources of funding	2011	2012	2013	2014	2015	Total over 2011 – 2015	Planned 2011-2015
National budget	109	172	125	50	38	439	2 339
Local budgets	150	192	234	230	134	939	1 299
Total	**259**	**364**	**358**	**280**	**172**	**1 439**	**3 638**

Renewable energy

Type of RE	Total, thousand USD	Coefficient	Subsidy, thousand USD
Total	22114,4		5188,95
Solar PV	1373,9	2,7	865,05
Wind	2779,7	1,3	641,47
Hydro	3305,9	1,1	300,53
Biogas	14292,7	1,3	3298,32
Biomass and other	362,2	1,3	83,58

Conclusions

- Total amount of quantified fossil fuel subsidies reached USD 1.7 billion in 2014 (2.2% of the GDP)
- Accepted measures permanent for the care of subsidies
- For fully eliminated energy subsidies to households utility tariffs for residential consumers will have to increase by 2.5 times ;
- Necessary to improving the targeting of subsidies for low-income categories of the population

Conclusions

- Phasing out subsidies for gas and electricity will be less challenging and could be implemented by 2020;
- Full cost-recovery in the heating sector may be more sensitive and requires a lot of time
- Reduction of heat consumption due to the implementation of energy efficiency measures in the residential sector could ease the overall reform process
- Special funds to support energy efficiency measures can be reallocated for better targeted support

Thank you !!!