

Special Focus: Residential Gas and District Heating Tariffs in Ukraine¹

October 7, 2013



THE WORLD BANK

- While Ukraine faces one of the highest average costs of gas supply, its residential gas and heating tariffs are among the lowest in Europe.
- The current low gas and heating tariffs are not targeted to the poor, adversely affect service delivery, impose a heavy fiscal burden, and result in inefficient use of energy.

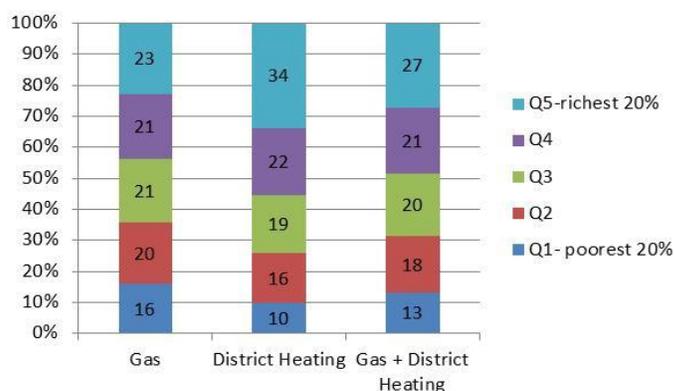
Ukraine's residential gas and district heating Tariffs are among the lowest in Europe, with several negative consequences

While Ukraine's residential gas and district heating tariffs are among the lowest in Europe, it has one of the highest average costs of gas supply. Ukraine's heating tariffs are 50 percent of those in Poland and 40 percent of Baltic countries. On average, Ukrainian households pay around 20 percent of the full import price of gas.² To maintain this disparity, the Government provides direct budgetary and quasi-fiscal subsidies amounting to around 7 percent of GDP.³ These subsidies are regressive i.e., they mainly go to the well-off groups in society. The two dichotomies—high costs and low tariffs; low tariffs and regressive subsidies—are caused by policies that underprice gas and district heating services, and by poorly targeted social assistance programs. This has serious negative consequences for Ukraine: more subsidies going to the rich, deteriorating quality of services because of underinvestment in gas and district heating companies, high fiscal burden, and energy inefficiency.

Low residential gas and district heating tariffs are not pro-poor

In Ukraine, gas and heating subsidies are mainly captured by well-off people because they tend to use more energy. In fact, around half of the gas and district heating subsidies provided by the Government go to the top half of the population on the income scale. On the other end, the poorest 20% of the population gets just 13 percent of the subsidies. Even the existing social programs (0.6 percent of GDP)⁴ to help sections of the population with their gas and heating bills are largely captured by people at the higher end of the income scale. Clearly, the current fiscal subsidies and social programs are not properly targeted to the poor and vulnerable sections of society. Therefore, increases in energy tariffs are good from an equity standpoint. If subsidies are well targeted, they can help the poor while the well-off sections of society pay higher tariffs that they can afford.

Distribution of direct budgetary and quasi-fiscal subsidies by income quintiles (2011)



¹ This note draws from draft World Bank (2013), "Gas and District Heating Tariff Reform in Ukraine: Mitigating the Impact of Tariff Increases through Targeted Cash Transfers and Energy Efficiency", Forthcoming.

² The average gas import price from Russia in 2012 was about US\$425/tcm; Ukrainian households pay on average a little over US\$100/tcm and district heating companies pay under US\$150/tcm for gas used to produce residential heat.

³ Quasi-fiscal subsidies are calculated as the difference between short-term economic value of gas in Ukraine and domestic cost of gas. Commodity cost of gas is driven by the market value of marginal supply source of natural gas as any changes in volume would be impacted directly by this cost of supply. Gas supply in Ukraine consists of mostly of Russian gas and indigenous Ukrainian gas. Ukrainian gas production has been relatively constant over the past eight years, at about 20 billion cubic meters annually, about 35 percent of total domestic gas consumption. Current indigenous gas production cannot fully meet demand, making Russia the marginal supplier of gas. Hence, the economic value of gas in Ukraine, at least in the short term, is equal to the commodity cost of Russian gas.

⁴ These are the Housing Subsidies Program and the Privileges Program.

Low residential gas and district heating tariffs are adversely affecting service delivery

If tariffs are set low and government subsidies are insufficient to cover full operation, maintenance and investment costs of Naftogaz and district heating companies, then they lead to poor quality and reliability of services. This means that these companies are subsidizing the end consumers by under-maintaining and underinvesting in infrastructure, thus shortening the normal lives of their assets and reducing their reliability. Public consultations by the Bank in 2011⁵ revealed that people are dissatisfied with the quality of heating services (e.g., temperatures not maintained at comfortable levels in apartments), frequent disruptions, and delays in heating services at the onset of the season.

Low residential gas and district heating tariffs are imposing fiscal costs

Low residential gas and heating tariffs are maintained through various budgetary and quasi-fiscal subsidies. These amount to around 7 percent of GDP – this imposes fiscal costs that Ukraine can ill afford and undermines fiscal sustainability.

Estimated direct budgetary and quasi-fiscal subsidies on gas and heating in Ukraine (post-tax), % of GDP

Subsidies to...	2011	2012	
Households, gas only (quasi-fiscal)	4.9	4.6	(Import price of Russian gas ³ – Average domestic price of gas to households) X Volume sold to households
District heating companies, production of residential heat (quasi-fiscal)	2.2	2.1	(Import price of Russian gas ³ – Domestic price of gas to utilities to produce residential heat) X Volume of gas sold to district heating companies to produce residential heat
District heating companies, difference between tariffs and costs (direct budgetary support)	0.4	0.3	(Cost/Gcal – tariff/Gcal) X Volume of heat sold to households
Total	7.5	7.0	

Note: Excludes transmission and distribution subsidies

Low residential gas and district heating tariffs hurt energy efficiency and security

Low energy tariffs encourage wasteful use. Ukraine's economy is roughly 10 times more energy intensive than an average OECD country in 2010, making it one of the most energy intensive economies in the world. Measures to improve energy efficiency could cut heat consumption by 50%, thus reducing gas needed to produce heat as well as partially compensating for tariff increases. The current low price of gas also deprives Naftogaz of the capital and incentives to further develop domestic gas. It also discourages both district heating companies and households to invest in energy efficiency improvements. Under development of domestic resources and lack of incentives to improve energy efficiency have contributed to Ukraine's sustained reliance on imported gas.

The Way Forward

In the short term, it is important for Ukraine to (i) increase average residential gas tariffs to equal the price district heating companies pay for gas to produce residential heat (UAH 895/tcm to UAH 1309/tcm); (ii) increase residential district heating tariffs to cover full financial cost of service (UAH 227/Gcal to UAH 322/Gcal on average); and (iii) improve targeting of social assistance programs. In the medium term (2013-17), Ukraine needs to gradually increase gas prices for households and district heating companies to cover the economic value of gas (equal to import price). These measures – increased energy tariffs coupled with better targeted social assistance – would be good for the poor, good for service delivery, good for the budget and good for Ukraine's energy security.

Contact info: Yadviga Semikolenova (ysemikolenova@worldbank.org); Tamara Sulukhia (tsulukhia@worldbank.org); Lalita Moorthy (LMoorthy@WorldBank.org). (380 44) 490 66 71/2/3 www.worldbank.org.ua

⁵ "Public Consultations in Lviv and Mykolaiv on Social Concerns about District Heating Services" (2011), background paper for the World Bank report "Modernization of the District Heating Systems in Ukraine: Heat Metering and Consumption-Based Billing," World Bank, 2012