Chapter 3

Azerbaijan's energy subsidies

This chapter identifies, documents and provides estimates of the various subsidies in Azerbaijan that relate to the production or use of coal, oil and related petroleum products, natural gas, and electricity and heat generated on the basis of these fossil fuels. The chapter also briefly looks at the subsidies benefiting energy-efficiency measures and renewable energy sources. An overview of the country's energy sector is first given to place the measures listed into context. In addition, the chapter discusses pricing and tax policies in the energy sector in Azerbaijan. The analysis summarises the context, the state of play, and the mechanics of the complex and evolving landscape of energy subsidies in the country.

Key findings

Azerbaijan is the only net energy exporter among the EU Eastern Partnership countries, which largely determines the structure of its energy subsidies. This structure is more similar to that of the oil-producing countries of Central Asia and, to a lesser extent, to the Gulf countries. The main challenge in analysing energy subsidies in Azerbaijan is the lack of transparency and publicly available information on the level of support for consumption and production of fossil fuels in the country. Similarly, little relevant information is disclosed by state-owned energy companies that are both recipients of subsidies and vehicles for providing government support for energy consumers.

Given the fiscal pressures resulting from the global financial and economic slowdown and the drop in world oil and gas prices, there is an ongoing discussion on budget and fiscal policy optimisation in Azerbaijan. Azerbaijan's national strategy "Azerbaijan 2020: Look into the Future" (adopted in 2012) provides that, among the country's strategic objectives, "special attention will be paid to the establishment of fiscal discipline in the sphere of forming and using budget resources, correcting distribution of funds and increasing the efficiency of expenses. Quick assessments of various budget risks (foreign, financial, operational risks) will be carried out" (President of Azerbaijan, 2012).

Energy subsidy review should be an indispensable part of this process, given the importance of the energy sector to Azerbaijan's economy, as well as the scale and the multitude of forms of government support for fossil-fuel energy in Azerbaijan. At the same time, this review cannot be limited to budgetary expenditure and should include tax privileges for energy companies, as well as the root causes that ultimately necessitate budgetary transfers to AzerEnerji, AzeriGas and AzerIstilikTechizat. These causes include the regulated prices of natural gas, electricity, heat and petroleum products.

Azerbaijan reformed its electricity tariff and prices for petroleum products in 2007, which helped to curb growing energy demand and inefficiencies of energy use. However, the country did not adopt a block tariff for electricity and other forms of targeted support for vulnerable groups that could have helped to reduce the subsidy further, as illustrated by international best practice.

After the price reform of 2006, the energy tariff was revised again in the spring of 2016. Despite the increase, depreciation of the Azerbaijani manat means that the subsidy, in the form of regulated domestic prices and opportunity costs of importing energy, remains intact.

Various forms of support for fossil fuel energy production and consumption also work against Azerbaijan's adopted targets of diversifying its economy, improving energy efficiency and increasing the share of renewable energy to 20% of the total electricity generated by 2020.

At the same time, the leadership of Azerbaijan remains committed to better integration in international energy markets, attracting investment and improving the country's overall competitiveness. Increasing transparency and stakeholder dialogue on energy subsidies and tariff-setting would be an important step in bringing Azerbaijan closer to fulfilling these goals. Such stakeholder consultations will help identify those energy subsidies that are inefficient, as well as the ways to phase them out while protecting vulnerable groups through targeted support.

Macroeconomic situation and energy sector overview

As in most former Soviet Union states, the economy of Azerbaijan was badly hit by the breakup of the Soviet Union. From 1989 to 1995, the economy shrank by 62.5% (World Bank, 2015d), but since then, and driven by a rapid rise in exports of oil and gas, its economy has grown dramatically. GDP increased by 344% between 2000 and 2014, reducing poverty levels from 50% in 2001 to 5.3% in 2013 (World Bank, 2015c).

Table 3.1. Azerbaijan's macroeconomic indicators

Key indicators	Year and unit	International statistics	National statistics
Population	2014, mln	9.30	9.48
GDP	2014, USD bln	74.15	75.19
GDP per capita	2014, USD	7 902	7 986
Energy production	2014, mtoe	58.78	61.13
Net imports	2014, mtoe	-44.54	-45.87
TPES	2014, mtoe	14.32	
TPES per capita	2014, toe	1.50	
Electricity consumption	2014, TWh	21.00	16.91
Electricity consumption per capita	2014, MWh	2.20	
CO ₂ emissions	2014, Mt of CO ₂	30.79	30.2
CO ₂ emissions per capita	2012, t of CO ₂	3.23	

Source: IEA (2016), World Bank (2015d), AzerStat (2015c).

Azerbaijan's petroleum sector accounted for more than 90% of total exports in 2014 (Comtrade, 2015) and 48.5% of GDP in 2010 (ECS, 2011). However, the country has made only limited progress in instituting market-based economic reforms. Economic inefficiencies are a drag on long-term growth, particularly in non-energy sectors. Stagnation in energy output since 2010 has resulted in a drop in oil revenue, leading to a significant reduction of public spending and slowdown of Azerbaijan's GDP growth. With the recent fall in global energy prices, it needs to diversify to strengthen its economic position (World Bank, 2015c).

Table 3.2. Weighted average exchange rate

	2012	2013	2014	2015	2016 ^a
Weighted average exchange rate, AZN per USD	0.7856	0.7844	0.7844	1.0261	1.6

Note: a. The exchange rate for the last year was provided by the Statistical Committee of the Republic of Azerbaijan, 2016.

Source: Central Bank of Azerbaijan (2016b).

Energy supply

Azerbaijan has rich deposits of oil and natural gas, onshore and offshore. In the past decade, it has become a major energy producer (IEA, 2015a), with oil reserves estimated at 952 mln tonnes (Mt) in 2012, and natural gas reserves at 991 bln m³ (IEA, 2015b). Energy production rose by 183% in 1990-2014, driven by a 237% rise in crude oil production and a 101% increase in natural gas production (Figure 3.2).

Azerbaijan was a net importer of energy in the early 1990s, but by 2014, exported more than 75% of its domestic energy production, that is, 37.7 mln tonnes of oil equivalent (mtoe) of oil and oil products, and 6.8 mtoe of natural gas (IEA, 2016).

Almost all this post-Soviet oil and gas production came from international oil and gas company investments into offshore fields in the Caspian Sea, including the Azeri-Chirag-Gunashli (ACG) oilfield complex and a giant Shah Deniz gas field. The same international companies also invested in export infrastructure, which includes the Baku-Tbilisi-Ceyhan oil pipeline (BTC), which runs through Georgia to Turkey and the Mediterranean Sea, and the South Caucasus Pipeline, which transports gas from Azerbaijan to Georgia and then Erzurum in Turkey. The South Caucasus Pipeline is so far the only completed pipeline of the Southern Gas Corridor designed to supply Europe with Caspian gas, in particular gas from Shah Deniz 2 development (TAP-AG, 2015). The other two elements of the Southern Gas Corridor are the Trans-Anatolian pipeline and the Trans-Adriatic pipeline. As of early 2016, the Trans-Anatolian pipeline was under construction. An older and relatively low capacity Baku-Supsa oil pipeline cuts through Georgia and the Baku-Novorossiysk oil pipeline through the Russian Federation, both of which terminate at the Black Sea coast.



Figure 3.1. Map of the existing and planned oil and gas pipelines from Baku

Source: Map created by Thomas Blomberg, © CC BY-SA 3.0.

Compared to 1990, total primary energy supply (TPES) in Azerbaijan in 2014 declined by 36.8%, primarily due to lower supply to the Azerbaijani industrial sector (IEA, 2016). Between 2000 and 2014, the country's TPES grew by 26.8%. Natural gas accounted for 67.4% and oil for 31.0% of TPES in 2014, while hydropower and biofuels and waste accounted for 0.8% and 1.1%, respectively.

Crude oil Natural gas Hydro Biofuels and waste 70 60 50 W10E 30 20 10 1996 1998 2000 1992 1994 2002 2004 2006 2008 2010 2012 2014 1990

Figure 3.2. Total energy production, 1990-2014

Source: Authors' presentation based on IEA (2016).

Figure 3.3. Total primary energy supply, 1990-2014

||||| Coal ‱ Oil Hydro Natural gas Hvdro **Biofuels and waste** 25 000 0.8% 20 000 15 000 Natural gas 10 000 67.2% 5 000 1000 T

Figure 3.4. Primary energy supply 2014 by fuel

Biofuels and waste 1.1% Oil 30.9%

Source: Authors' presentation based on IEA (2016).

Azerbaijan is fully electrified and self-sufficient in electricity generation. The installed generating capacity of power stations was 7 232 megawatts (MW) in 2014; the share of thermal power stations in electricity generation is 83.4% (6 032 MW), the rest being almost exclusively hydropower stations' capacity (1 200 MW) (Huseynova, 2015). There is no nuclear power generation in Azerbaijan.

The country generated a total of 24.7 terawatt hours (TWh) of electricity in 2014, of which 94.5% came from natural gas, 5.3% from hydroelectricity and 0.2% from heavy oil (mazut) and diesel. Azerbaijan has seen notable investments in new gas-fired generation over the past decade, with capacity increasing by 1.5 gigawatts (GW) since 2005. Electricity generation has increased by 31.3% from 2000 to 2014, driven by a 525% increase in gas-fired generation (Figure 3.5). Like Armenia and Georgia, Azerbaijan has seen its electricity generation switch to gas as the key feedstock. Gas-fired generation has almost completely replaced heavy oil (mazut) and diesel in the country's electricity balance.

According to the state-owned electricity monopoly, JSC AzerEnerji, demand for electricity in Azerbaijan is expected to increase by almost 140% by 2025. The peak demand is also expected to double by the years 2022-23 (ECS, 2011).

Figure 3.5. Electricity generation by source, 1990-2014

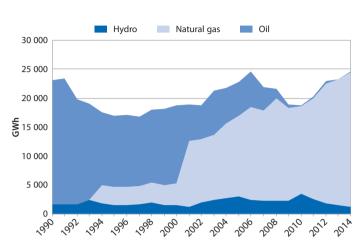
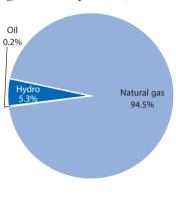


Figure 3.6. Electricity generation by source, 2014



Source: Authors' presentation based on IEA (2016).

Energy demand

Total final energy consumption (TFEC) in Azerbaijan increased by 32% over the period 2000-14. Growth would probably have been stronger if not for a decrease in residential consumption as a result of a tripling in electricity prices for consumers in 2007 (see below), which was an effort (albeit on this one occasion) to phase out subsidies to the sector (World Bank, 2013a). Consequently, residential power consumption plunged by 58% from nearly 1 200 kilotonnes of oil equivalent (ktoe) in 2006 to 495 ktoe in 2010.

Since then, however, residential consumption has been on the rise again, and 2014 registered a 31% increase in residential TFEC over 2000.

According to the International Energy Agency (IEA, 2016), natural gas and oil accounted for more than 80% of TFEC, of which 43% is gas used for power generation and 40% oil used for transport. Diesel consumption decreased after price increases in 2006 and 2007, but consumption of gasoline kept growing, in spite of equivalent price increases in correlation with GDP and growth in the number of personal vehicles (World Bank, 2013b). Electricity makes up 17% of all energy consumption. District heating plays only a minor role in domestic consumption (IEA, 2015b).

Energy sector structure, ownership and governance

Azerbaijan's energy sector is dominated by the state-owned energy companies, and several international oil and gas companies also have large stakes in upstream oil and gas production (Figure 3.7).

Upstream exploration and production is primarily organised through productionsharing agreements (PSAs), in which the State-Owned Company of the Azerbaijan Republic (SOCAR) represents the government of Azerbaijan and also takes part in the contracting consortium, with international oil companies including British Petroleum (BP), Chevron, ExxonMobil, Statoil, Petronas, Total, LUKOIL and several others. As of early 2016, SOCAR's share in the production of the giant Azeri-Chirag-Gunashli oilfield was 11%, and its share of production in Azerbaijan's largest gas field, Shah Deniz, was 10%. In similar joint ownership arrangements with international companies, SOCAR has stakes in all oil- and gas-exporting pipelines (Baku-Tbilisi-Ceyhan, South Caucasus Pipeline, Baku-Supsa and Baku-Novorossivsk).

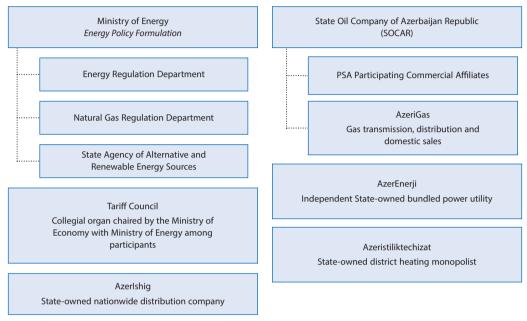


Figure 3.7. Structure of the energy sector in Azerbaijan

Source: Authors' presentation based on IEA (2015b), SOCAR (2015a), BP (2015a), AzerEnerji (2015), Tariff Council (2015).

Mid- and downstream, SOCAR is a government-instituted monopoly. It operates the two oil refineries in Baku inherited from the Soviet era (Heydar Aliyev Baku Refinery and Azerneftyagh Oil Refinery), with 400 000 barrels per day in processing capacity. In addition, SOCAR is a majority owner of PETKIM, a major petrochemical company based in Turkey, which has begun construction on a new refinery in the area of Izmir. SOCAR owns fuel-filling stations under the SOCAR brand in Azerbaijan, Georgia, Romania, Switzerland and Ukraine.

Gas transmission, distribution and sales are organised through SOCAR's subsidiary AzeriGas, which is reported to be financially, though not legally, unbundled from SOCAR as part of a 2002 reform to isolate the cost of suppressed prices.

The electricity market is a closed market, operated mainly by the state-owned company, AzerEnerji JSC. AzerEnerji operates the country's thermal and hydropower plants, with the exception of several small hydropower plants that have been privatised. Until February 2015, AzerEnerji operated as a bundled monopoly, managing electricity production, transmission, distribution and sales. However, on 10 February 2015, Bakielektrikshabaka Open Joint Stock Company, the regional distribution company established to supply electricity to the capital city of Baku (Huseynova, 2015), was renamed AzerIshig OJSC and made the nationwide distribution company for electricity (AzerIshig, 2015).

District heating is limited mainly to Baku and the surrounding areas, where heat is supplied by the state-owned monopoly, Azeristiliktechizat (ECS, 2011).

The Ministry of Energy is formally in charge of sector oversight and energy policy formulation and participates in the Tariff Council, which sets both producer and consumer prices.² The President and President's Office can reportedly recommend that the Tariff Council consider social concerns when setting tariffs, which on at least one occasion has led to the cancellation of tariff increases (Hasanli, 2015).

Energy pricing policy

Energy is subject to price regulation in Azerbaijan. Table 3.3 below presents the current tariffs for different types of energy. According to the Energy Charter Secretariat (ECS, 2011), the government included the transition to a "cost recovery plus 10% return" tariff policy as a mid-term goal in its State Programme for the Development of the Fuel and Energy Sector (2005-2015), which was adopted in 2005. However, the government's commitment to this goal may be in doubt. Even if the commitment to cost-recovery remains strong, there at least is reason to discuss whether it should be production cost or opportunity cost that is the government's point of departure in its tariff policy.

Natural gas

Natural gas tariffs are broken down into wholesale, retail and transmission, in addition to a discounted price for gas used in the generation of electricity, and for certain energy-intensive industries. Additionally, the tariff structure includes a category for natural gas processing. For households, the tariff is flat regardless of consumption volumes.

Azerbaijan is a gas-abundant country with a potential for significant gas exports. Domestic consumption is thus also associated with the opportunity cost of foregone export revenue. BP (2015b) reports a total gas production of 17 bln m³ in 2014, of which 9 bln m³ was consumed domestically and nearly 8 bln m³ was exported. Just over 5 bln m³ was sold to Spain, 0.2 to the Russian Federation, 0.3 bln m³ to Iran and 1.9 bln m³ to other post-Soviet countries, which may be assumed to represent Georgia, given that it is Azerbaijan's only post-Soviet offset market apart from the Russian Federation (SOCAR, 2015a). Since 2007, Azerbaijan has been exporting minimal quantities of gas to Turkey as well but with the construction of the Trans-Anatolian Gas pipeline Azerbaijan is expected to export 16 bln m³ of gas through Turkey: 6 bln m³ will be used by Turkey itself while 10 bln m³ of gas will be transferred further to the European countries (Rzayeva, 2015). Depending on the source of data, these numbers may differ, but the order of magnitude remains the same.

The highest price of natural gas for retail consumers is USD 97 per 1 000 m³, which is higher than SOCAR's reported production cost of USD 36 per 1 000 m³ (SOCAR, 2015a), but significantly lower than the gas price in Azerbaijan's main export market, Turkey, where the import parity price was USD 343 per 1 000 m³ in 2014 (IGU, 2015). Since 2014, the natural gas price has been on the decline, but Azerbaijan's domestic prices are still lower than another appropriate benchmark,³ the European market's 12-month average for January-December 2015, which was USD 270 per 1 000 m³ (World Bank, 2016a). More detailed discussion of benchmarking is provided in the section on price-gap subsidy estimation below.

AzeriGas is reported to receive not only government transfers, but both postponed tax payments and tax debt forgiveness to cover the gaps in its costs, including within distribution and retail (AzeCabMin, 2011). This points toward cost-recovery challenges resulting from Azerbaijan's domestic gas pricing policies.

Table 3.3. Price policies for different energy carriers in Azerbaijan in early 2016

Energy carrier	Pricing policy	Price categories	Price in AZN ^a	USD eq.
Natural gas ^b	Regulated	Processing	AZN 5.5 per 1 000 m ³	5.36
		Transmission per 100 km	AZN 2.0 per 1 000 m ³	1.95
		Wholesale to distributors	AZN 42.0 per 1 000 m ³	40.93
		Retail	AZN 100.0 per 1 000 m ³	97.45
		Chemical steel, aluminium and power industry	AZN 80.0 per 1 000 m³	77.97
		Industry with monthly consumption under 10 bln m ³		
Electricity ^b	Regulated	AzerEnerji JSC production	AZN 0.041 per kWh	0.04
		Private production of small hydropower plants	AZN 0.025 per kWh	0.024
		Wind-power plants	AZN 0.045 per kWh	0.044
		Consumer price	AZN 0.07 per kWh	0.068
		Transmission tariff	AZN 0.02 per kWh	0.019
		Energy supply through 35 and 110 kW lines, stable daily	Daytime (8 a.m. to 10 p.m.) 1kVh AZN 0.042	0.041
		freight demand, chemical and aluminium industry enterprises, with average monthly energy consumption not less than 5 mln KWh, for the production of steel melting based on mining	Night-time (10 p.m. to 8 a.m.) 1kVh AZN 0.02	0.019
_iquid petroleum	Regulated retail, wholesale	95-octane consumer price	AZN 0.80 per litre (incl. VAT)	0.78
oroducts ^b	and producer prices	95-octane producer price	AZN 0.35 per litre (incl. 64% excise tax)	0.34
		Diesel consumer price	AZN 0.60 per litre (incl. VAT)	0.58
		Diesel producer price	AZN 0.35 per litre (incl. 64% excise tax)	0.34
District heating	Regulated	Households	AZN 0.15 per m² per month (incl. VAT)	0.15
		Non-residential consumers	AZN 0.15 per m² per month (incl. VAT)	0.15
			AZN 30 per Gcal	29.23
Coal	Regulated	Wholesale price	AZN 39-76 per tonne	38-74
	Information for coke coal only	Producer price	AZN 28-54 per tonne	27-53
2015 AZN/USD aver	age exchange rate		1.0261	

Notes: a. Prices in the table are exclusive of VAT and excise tax unless otherwise indicated.

Source: Authors' summary based on Tariff Council (2016), Central Bank of Azerbaijan (2016a).

b. In January 2017, Azerbaijan introduced differentiated prices for gas and electricity. Under the new tariffs, consumers will pay AZN 0.11 for electricity consumption above 300 KWh per month. An annual gas consumption of higher than 1 700 m³ will cost the population AZN 200.00 per 1 000 m³. Consumer prices for 95-octane petroleum also increased, and currently stand at AZN 1.15. The Tariff Council commented on this issue, confirming that imported 95- and 98-octane petroleum products are not regulated by the Council.

Electricity

Electricity prices in Azerbaijan are regulated, and the country is one of the very few in the EU Eastern Partnership and Central Asia region that has not adopted a block tariff in the retail sector. Over the course of nearly two decades, the tariff has been charged regardless of household consumption levels. The electricity prices have been adjusted only once over this prolonged period. Electricity tariffs were increased in 2007 from USD 0.024 to USD 0.075 (AZN 0.06) per kWh (ECS, 2011). This, together with improved metering and collection practices, increased sector revenue significantly (Fichtner Ltd, 2013). Though one-off, this tariff increase did succeed in controlling the strong demand growth among residential consumers. As explained above, after the passage of this measure, residential power consumption plunged by 58% from nearly 1 200 ktoe in 2006 to 495 ktoe in 2010. As of early 2016, electricity consumption was still below pre-reform levels of 2007.

The tariffs set in 2007 remained in place until late spring 2016, when the price for residential consumers increased to AZN 0.07 per kWh. Due to the depreciation of the Azerbaijani manat, the consumer electricity tariff is now lower in dollar terms than in 2007 (USD 0.068 per kWh). This raises the question whether consumer demand is likely to accelerate again. Using domestic fuel prices (see below), as of early 2016, the levelised cost of electricity production estimates ranged from USD 0.024 to 0.035 per kWh. This indicates that Azerbaijan's regulated electricity tariffs in early 2016 were still above cost-recovery levels. At the same time, payment collection issues persist (World Bank, 2013b) in addition to debt forgiveness granted to AzerEnerji (AzeCabMin, 2015; AzeCabMin, 2011; TREND.AZ, 2015; and TREND.AZ, 2013), which suggests there may be some difficulty in recovering costs.

District heating

District heating tariffs are regulated. For households, the tariff is charged by the living area. For non-residential consumers, the tariff is calculated by heated area or by gigacalorie consumed (Table 3.3). For non-residential consumers, this corresponds to USD 29.25 per Gcal.

It is difficult to assess whether the price level for domestic consumers is adequate. It should be noted that uncoupling the basis for tariff calculation from consumption does not encourage energy efficiency, a common issue in the former Soviet countries. This practice may be expected to lead to over-consumption.

Petroleum products

All petroleum products, including gasoline and diesel, are sold at regulated prices, which are differentiated by producer, wholesale and retail prices. In early 2016, retail prices corresponded to USD 0.78 and USD 0.58 per litre of gasoline and diesel, respectively. The *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ, 2014) reports similar price levels in 2012, which placed Azerbaijan above the red benchmark (corresponding to the world crude oil price equivalent) for gasoline and below it for diesel. In the GIZ classification, this pricing policy ranked Azerbaijan between countries with fuel subsidies and those with high fuel subsidies.

Until 2006, prices for petroleum products in Azerbaijan were significantly lower than in neighbouring countries, which led to fuel smuggling to Georgia and the Russian Federation. To address this problem and raise budget revenue, Azerbaijan raised prices for liquid petroleum products in 2006 and in 2007. In the second instance, this price reform

coincided with a significant increase in regulated tariffs for electricity, water supply and public transport (World Bank, 2013b; Regnum, 2007).

Taxation policy

Azerbaijan's energy sector tax system is a combination of a baseline system and special regimes under host government agreements (HGAs) and production-sharing agreements (PSAs). In addition, tax relief can be granted to selected companies on an individual basis under the Law on Application of the Special Economic Regime for Export-Oriented Oil and Gas Operations, which took effect on 17 April 2009, and through investment promotion certificates introduced by Presidential Decree on 18 January 2016. Azerbaijan is considering setting up Special Economic Zones and has adopted relevant legislation. However, as of April 2016, none had yet been created (PWC, 2016).

National system

Azerbaijan's baseline taxes are Value Added Tax (VAT), profit tax, property tax, road tax, land tax, import tax and export tax (Table 3.4). According to the Tax Code, small businesses can pay a single tax under a simplified scheme (Parliament of Azerbaijan, 2000). There is also a withholding tax (WHT) on repatriation of profits by foreign companies. Upstream, within the national system, energy-extractive industries are subject to a mining tax (royalty), but in practice, the tax applies to a declining share of production from old fields, mostly onshore. The mining tax is deductible for the purposes of profit tax. The tax is applied to the wholesale price of oil at the rate of 26%, to natural gas at the rate of 20%, and to coal at the rate of 3% (Parliament of Azerbaijan, 2000).

Table 3.4. Azerbaijan's national system of energy taxation

Baseline tax system	VAT, profit tax, property tax, road tax, land tax	κ, import tax, exp	ort tax
Specific taxes	Excise tax, mining tax (roy	alty)	•
Energy sector taxation	Upstream	Midstream	Downstream
Oil	Applicable as appropriate. The baseline rate of corporate profit tax is 20%	No specific tax	Excise tax
Natural gas	Mining tax (royalty): 26% for oil, 20% for gas, deductible from corporate income tax	No specific tax	No specific tax
Electricity	no specific tax	No specific tax	No specific tax
Liquid petroleum products	n.a.	n.a.	Excise tax
Coal	Mining tax (royalty): 3%	n.a.	Excise tax

Note: n.a.: not applicable.

Source: Authors' summary based on Ernst & Young (2015b), Deloitte (2015), BakerMcKenzie (2009), BP (1994).

An accelerated rate of depreciation applies for geological and exploration costs with respect to corporate income tax. This rate is 25%, the same as for means of transport and equipment and computers. This is higher than the standard rate of 20% for most other asset classes (Parliament of Azerbaijan, 2000).

The VAT rate is 18%, and all domestic energy sales are subject to VAT. In some cases, the Tariff Council specifies consumer tariffs, including VAT (Tariff Council, 2016).

Host government agreements

New export pipelines funded by consortia, including international investors, are regulated by host government agreements (HGAs). HGA participants are only subject to a profit tax of 27% and social fund contributions for local employees. The participants are exempt from all other taxes. Subcontractors involved in the construction and operation of new export pipelines are exempt from all taxes except social fund payments (Ernst & Young, 2015b). HGA conditions are grandfathered through amendments in tax policies.

Production-sharing agreements

Large offshore fields that started producing in the post-Soviet period are subject to production-sharing agreements (PSAs) and hence a special tax treatment. PSAs grant a separate tax regime for each agreement (project), which includes negotiated bonuses and acreage fees. PSA conditions are grandfathered through amendments in tax policies.

A comprehensive review of Azerbaijan's more than 30 PSAs is beyond the scope of this research. However, a review of the Azeri-Chirag-Gunashli PSA, the so-called "Contract of the Century" (BP, 1994) yields the following details. Crude oil is split between the participating international companies (contractors), on the one hand, and the government, represented by SOCAR, on the other. Revenue from the sales of crude oil is divided into two categories, and so is the oil itself: to cover costs ("cost oil") and to generate profit ("profit oil"). Operational expenditures are covered by sales from production first. Then, 50% of the remaining oil can be used to cover capital expenditures. The residual profit oil is then split between companies and the government, depending on the real rate of return (RROR) earned by participating companies, on the following basis: 70% (company share) for RROR up to 16.75%, 45% for RROR up to 22.75% and 20% for RROR over 22.75%.

Free gas⁴ is not part of any PSA, and SOCAR retains the right to develop such resources. The participating companies may produce associated gas, which is relinquished free of charge to SOCAR. Apart from these provisions, the PSA contractors are obliged to pay 25% profit tax from their activities within the PSA, hire an increasing number of local workers and require employees to pay income tax to Azerbaijan on the part of their income related to activities in the country. For other PSAs, the profit tax rate ranges between 20% and 32% (Ernst & Young, 2015b).

Figure 3.8 illustrates the financial flows resulting from the Azeri-Chirag-Gunashli (ACG) PSA. In this illustration, the State Oil Fund of Azerbaijan (SOFAZ) and the State Social Fund fall outside the fiscal system, and payments to them are not taxed. They are nevertheless worth noting in terms of the overall picture of the government's revenue from PSAs. SOFAZ is Azerbaijan's equivalent of a sovereign wealth fund, where revenues from the implementation of PSAs are accumulated, managed and preserved as reserves for the future. As of the beginning of 2016, SOFAZ had accumulated funds of USD 35 bln, roughly equivalent to Azerbaijan's annual GDP at the devalued 2016 rate.

The budget of SOFAZ is approved separately from the national budget of Azerbaijan, and is not part of it. Still, every year, SOFAZ transfers significant funds to the national budget. For instance, SOFAZ's total 2016 budget was approved by the President of Azerbaijan in the amount of AZN 8.2 bln (USD 5.4 bln), 22% more than its expected revenue in a period of low world oil prices. SOFAZ's biggest expenditure item was the AZN 6 bln (USD 4 bln) transfer to the national budget.

In addition, SOFAZ funds various strategic development and social development projects, many of which are infrastructure investments. These include development of oil

and gas infrastructure and Azerbaijan's participation in the construction of the Southern Gas Corridor, at AZN 1.8 bln (President of Azerbaijan, 2015a), the Fund's second biggest expenditure in 2016.

Table 3.5. Oil and gas related expenditures by SOFAZ (in AZN million)

2013	2014	2015	2016
372.6ª	1 308.6 (548.7 ^b)	997 (693°)	1 822.8 (2 355 ^b)

Note: a. Budget as executed. b. Budget as approved.

Source: President of Azerbaijan (2015a).

Arrows: 1-2. Payments for goods and services 3. The share of the contractor in Profit oil Operating cost Oil production profit oil 4. The share of the government in profit oil 5. Rent and transit fees paid to SOFAZ, Azerbaijan's sovereign wealth fund 6. Taxes from the profit of the Capital cost contractor and incomes of subcontractors 7. 22% of the salary fund of staff 8. Salaries of staff SOFAZ Contractor 9. Income tax of staff subcontractors 10. Payments of staff to the Pension Fund State Budget State Social Fund 10 **Employee**

Figure 3.8. Financial flows under Azeri-Chirag-Gunashli PSA

Source: Reproduced from Bagirov (2007).

Tax benefits granted on an individual basis

Tax relief can be granted to companies on an individual basis under two arrangements.

First, there is the "manual control" arrangement for selected companies, specifically in the upstream oil and gas sector. The basis for this is the Law on Application of Special Economic Regime for Export-Oriented Oil and Gas Operations, which came into force on 17 April 2009. This law applies to export-oriented oil and gas operations carried out by contractors and subcontractors. The law is valid for 15 years, but may be extended. To receive individual exemptions, companies should have a permanent taxable presence (normally, a permanent establishment with operations and employees) in Azerbaijan and obtain a special certificate, issued separately for each contract. The certificate is

granted by the Ministry of Energy, generally for a period specified in the contractor's or subcontractor's contract. The holders of the certificate can benefit from the following tax privileges (PWC, 2016):

- local companies are permitted to choose between *i*) profit tax at a rate of 20% or *ii*) 5% withholding tax (WHT) on gross revenues
- foreign subcontractors are taxable only by a 5% WHT
- a 0% VAT rate on procured goods and services
- exemption from dividend WHT and taxation on the branch's net profits
- exemption from customs duties and taxes
- exemptions from property (real-estate and capital goods) tax and land (use) tax.

Second, the Presidential Decree of 18 January 2016 introduced additional investment promotion certificates that are not specific to the export-oriented oil and gas industry. Among the priorities of this policy is the attraction of investment in industrial parks, manufacturing plants and research (ABC.az, 2016). Based on the wording of the legislation, energy companies do not appear to be the intended beneficiaries of the scheme, but potentially, some of them, including those specialising in energy efficiency and renewable energy, may become eligible for such investment promotion certificates and associated tax benefits. The Ministry of Economy grants investment promotion certificates to the companies and individuals based on their business plans. The related tax benefits are in place for seven years from the date of the issue of the certificate and include the following:

- 50% of the profit is exempt from income tax
- 100% exemption from VAT and customs duties and taxes for import of equipment and devices approved by the relevant executive authority
- 100% exemption from property (real-estate and capital goods) tax
- 100% exemption from land (use) tax.

Although various analytical sources (e.g. OECD, 2003) discuss the existence of numerous environmental charges for air pollution and water discharges, as well as charges for solid waste, current research has not been able to identify any environmental charges or taxes in Azerbaijan. This may well imply that these charges have been eliminated. Nor did the PSA review uncover any technical prescriptions limiting gas-flaring or discharges of drill-cutting waste to the sea.

Greenhouse gas emissions and climate policy

Azerbaijan ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 1995 and its Kyoto Protocol in 2000. As a non-Annex I country, however, Azerbaijan did not undertake quantitative obligations to reduce greenhouse gas (GHG) emissions. The energy sector contributed more than 80% of total emissions in 2005 (Aliyev, 2013).

According to British Petroleum (BP, 2015b), CO₂ emissions related to energy production and consumption totalled nearly 35 mln tonnes in 2005, then dipped to below 26 mln tonnes in 2010, rising again to 32 mln tonnes in 2014. Some doubt has been cast on the accuracy of the dataset from British Petroleum (BP, 2015b). In particular, Aliyev (2015) reports a total of nearly 50 mln tonnes of CO₂ equivalent in 2010, of which the energy industry accounted for 37 tonnes.

Azerbaijan has established a Climate Change and Ozone Centre in charge of assessing climate change impacts and developing mitigation strategies. The Centre is part of the Hydrometeorological Department of the Ministry of Ecology and Natural Resources (AzMinEco, 2015b).

Azerbaijan is reported to take a pro-active role in mitigating climate change through domestic policies (Aliyev, 2013 and 2015). It also participates in international climate change negotiations (Gallagher, 2014). The Ministry of Ecology lists among its climaterelated achievements mainly projects implemented by donor organisations. The last selfassessment report dates from 2005 (AzMinEco, 2015a).

In preparing for the UNFCCC conference of the parties in Paris, Azerbaijan submitted its Intended Nationally Determined Contribution (INDC) in September 2015 (INDC of Azerbaijan, 2015). Under this INDC, Azerbaijan aims to reduce its GHG emissions from all sources by 35% by 2030, to 47.665 megatonnes of CO₂ equivalent excluding land use, land-use change and forestry (LULUCF), compared with the base year of 1990, when the total was 73.331 megatonnes of CO₂ equivalent (excluding LULUCF). This suggests that there is room for Azerbaijan to increase its emissions from the present level.

In 2004, to limit GHG emissions and increase energy efficiency, Azerbaijan adopted the State Programme on the Use of Alternative and Renewable Energy Sources (Government of Azerbaijan, 2004). The programme ran from 2005 to 2013. To facilitate implementation of the State Programme, a State Agency on Renewable and Alternative Energy Sources (AREA, sometimes also abbreviated as SAARES or ABEMDA) was established, in 2009. The Agency was initially founded under the Ministry of Energy and charged both with promoting alternative energy and implementing relevant investment projects. Since then, it has undergone several legal transformations. Most recently, on 24 November 2016, it was transformed into a "public legal entity" under the Ministry of Energy (President of Azerbaijan, 2016). There are reports (Malikov, n.d.) that AREA was in charge of the development of the National Strategy on the Use of Alternative and Renewable Energy Sources for the period 2012-20, but it has not been possible to determine the current status of this effort.

Azerbaijan's mid-term National Strategy, "Azerbaijan in 2020: Look into the Future," mentions energy efficiency and renewable-energy development among the country's priorities (President of Azerbaijan, 2012). In particular, Azerbaijan targets:

- an increase of the share of renewable energy in electricity generation to 20% by 2020 (in 2011 its share was 10%, including 9.8% from hydropower plants (HPPs), and 0.2% from other renewable energy (RE) sources) (Malikov, n.d.)
- an increase of the share of renewable energy in all energy consumption to 9.7% by 2020 (in 2011, it was 2.3%) (Malikov, n.d.).

At the same time, the Strategic Road Map for the Development of Utilities in Azerbaijan (electricity and thermal energy, water and gas supply), approved by Presidential Decree of 6 December 2016, envisages the construction of 420 MW renewable power plants, including 350 MW wind, 50 MW solar and 20 MW bioenergy power plants.

One of the key documents on energy efficiency in Azerbaijan is the State Programme for the Development of the Fuel and Energy Sector (2005-2015). This included measures to improve the use of hydrocarbon energy resources, as well as steps intended to reduce energy losses, prevent theft and reduce the inefficient use of energy, in order to help cover the demand for electricity and natural gas (Huseynova, 2015).

In addition, Azerbaijan ratified the Energy Charter Treaty and the Protocol on Energy Efficiency and Related Environmental Aspects. Since 2000, investments in generation and transmission and the conversion of some power plants from heavy oil (mazut) to natural gas have also improved power plant efficiency and reduced emissions and other adverse environmental impacts (Huseynova, 2015).

National definition and discussion of energy subsidies

As in the chapters on other countries of the EU's Eastern Partnership, the following discussion of energy subsidies in Azerbaijan relies on the subsidy definition from the Agreement on Subsidies and Countervailing Measures signed by 162 member countries of the World Trade Organization (WTO). According to this definition, the different forms of subsidies include:

- direct transfers of funds (e.g. grants, loans and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees)
- government revenue foregone or not collected (e.g. fiscal incentives such as preferential tax rates, tax exemptions and tax credits)
- government-provided goods or services other than general infrastructure at belowmarket rates (e.g. charges set at below-market rates for oil and gas transport through the country's territory), or purchases of goods at above-market rates
- income or price support, for instance, through regulation of prices, markets and other industry-specific activities.

However, Azerbaijan is not a member of the World Trade Organization, and the WTO definition of subsidies thus has little significance for its national legislation and discussions.

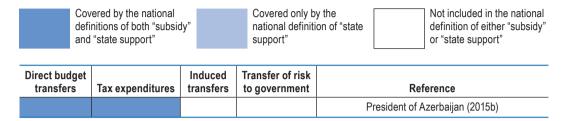
At the same time, especially given the fiscal pressures resulting from the global financial and economic slowdown and the drop in world oil and gas prices, an ongoing discussion on budget and fiscal policy optimisation is being conducted in Azerbaijan. The National Strategy "Azerbaijan 2020: Look into the Future" (adopted in 2012) provides that among the country's strategic objectives, "special attention will be paid to the establishment of fiscal discipline in the sphere of forming and using budget resources, correcting distribution of funds and increasing the efficiency of spending. Quick assessments of various budget risks (foreign, financial, operational risks) will be carried out" (President of Azerbaijan, 2012).

As in most other countries, the national legislation of Azerbaijan, including documents related to the budgetary process, clearly uses the notion of "subsidies" to define direct budgetary transfers (President of Azerbaijan, 2015b, IMF, 2015), the first group of subsidies under the WTO definition. In particular, there is an ongoing discussion of agricultural subsidies in Azerbaijan, which are funded directly out of the state budget (Kerimhanova, 2015; FAO REU, 2012).

Tax exemptions are also being discussed. For example, in late 2015, when the Tax Code of Azerbaijan was amended, a discussion took place in the *Milli Majlis* (Azerbaijan's Parliament) on whether tax exemptions for export-oriented oil and gas companies, in particular the VAT exemption for imported equipment, were still justified, given the increasing budgetary pressures in view of the low world price of oil (TREND.AZ, 20 October 2015). However, these tax benefits remained in place, and such government agencies as the Ministry of Energy and the Ministry of Economy predominantly view them as necessary incentives rather than harmful subsidies

In practice, it is possible to assume that direct transfers are acknowledged in Azerbaijan as subsidies; and tax expenditure is discussed as a form of government support as well (Figure 3.9).

Figure 3.9. What does Azerbaijan include in the national definition of government support?



At the same time, as in other EaP countries, consumer subsidies have been historically discussed in Azerbaijan under the banner of energy tariff reform, and the memories of the tripling of electricity prices and prices of petroleum products in 2006-07 were still very vivid in early 2016.

Transfer of risk to the government as a form of subsidy is a category likely to be less familiar to stakeholders. Risk and the cost of non-payments have been and are still transferred to the government, although metering and collection practices have improved in recent years.

Azerbaijan does not publish its own subsidy estimates or tax expenditure budgets. The availability of information was thus a major challenge in preparing this section.

There is some fragmentary analysis of Azerbaijan's energy subsidies from the World Bank and the IEA. The World Bank did a case study on Azerbaijan's consumer subsidy reform in 2006-07 (World Bank, 2013b) and analysed consumer prices for energy in the regional study Balancing Act, on "Cutting Energy Subsidies while Protecting Affordability" (World Bank, 2013a). Both publications from the World Bank generally qualify Azerbaijan's consumer subsidy reform of 2006-07 as an overall success story of managing energy demand.

The dataset supporting the IEA's World Energy Outlook 2015 (2015d) contains an estimate of Azerbaijan's fossil-fuel consumer subsidies based on a price-gap approach, totalling USD 1.5 bln (Table 3.6). The considerable drop in the value of subsidies in 2014 compared with 2013 is due to the drastic decline in the world energy prices that IEA uses as a benchmark in its calculations. The USD 1.5 bln worth of consumer subsidies amounted to 2% of Azerbaijan's GDP in 2014. The IEA estimates are used for triangulation of the authors' findings, described below.

Table 3.6. IEA estimates of fossil-fuel consumer subsidies in Azerbaijan based on the price gap approach, USD billion

Subsidised fossil fuel	2012	2013	2014
Oil	0.9	1.1	0.3
Electricity	0.6	0.7	0.5
Gas	0.9	1.0	0.7
Coal	-	-	-
Total	2.4	2.8	1.5

Source: Reproduced from IEA (2015d).

The authors' research has relied on tariff data from the Azerbaijani Tariff Council for an understanding of domestic price formation, reporting by British Petroleum on its Caspian operations for information on the Azerbaijani PSA regime and international legal and accounting firms for information on energy taxation. In addition, media reports and industry presentations for general information on the Azerbaijani energy sector were used. Throughout, the sources used are explicitly referenced.

Table 3.7 summarises the key findings on the legislative basis of different subsidy schemes and data availability by subsidy categories used by the OECD (OECD, 2013). These serve as a departure point for the rest of the chapter.

Table 3.7. Subsidy overview

Energy subsidy	Key findings
Direct transfer of funds and liabilities	 Discussed in Azerbaijan as subsidies (except liabilities) Transfers from the national budget to AzerEnerji and AzeriGas have been significant Transfers from SOFAZ for the construction of Southern Gas Corridor have been identified in 2016
Tax expenditures (tax revenue foregone)	 Tax revenue can be foregone in order to secure investment under three types of tax regime: i) national; ii) PSAs and HGAs; and iii) individual preferences under government certificates Tax expenditures are recognised as a form of government support, but discussed as "investment incentives" rather than subsidies Tax postponements and forgiveness to AzerEnerji and AzeriGas (documented in 2014 and 2015)
Induced transfers (income or price support provided to producers or consumers through various regulations)	 Discussed in Azerbaijan within tariff-setting practices and tariff reform A partial reform of consumer subsidies in 2006-07 is documented by the World Bank as an overall successful case Consumer prices are suppressed for gas, electricity, petroleum products and district heating compared with free-market pricing IEA estimates fossil-fuel consumer subsidies in Azerbaijan at USD 1.5 bln in 2014
Transfer of risk to government	 Not recognised or discussed as a subsidy Risk and cost of non-payments have been and are still transferred to the government, although metering and collection practices have improved in recent years

Government support for fossil fuels

To quantify fossil-fuel subsidies in Azerbaijan, the authors have used a combination of the bottom-up approach to subsidy identification and price-gap analysis. For price-gap calculations, the authors follow exactly the same logic as the IEA price-gap methodology used in the analysis of the other EaP countries in this report:

Price gap = Reference price – Net tariff Subsidy = Price gap × Units consumed

Price-gap estimates of consumer subsidies

Azerbaijan is a net exporter of natural gas and oil. In contrast with all other countries of the EU Eastern Partnership, the reference price for Azerbaijan is the opportunity cost of export for external markets, and not the import parity price (which is used for Armenia, Belarus, Georgia, Moldova and Ukraine). In other words, for natural gas and oil in Azerbaijan, the reference price is the export parity price understood as the price of a product at the nearest international hub, adjusted for transport costs. All calculations are net of VAT.

At the same time, it is quite common for oil- and gas-producing countries to argue that a justifiable reference price is not an export parity price, but production costs. Furthermore, for electricity, the levelised cost of generation is the only appropriate reference price benchmark for both net exporters and net importers of energy. Energy production costs are thus also provided in the analysis below.

Table 3.8 summarises the price-gap estimates from the calculations, which is the main quantitative estimate of fossil-fuel subsidies in Azerbaijan from this study. Azerbaijan's subsidies for both natural gas and electricity consumption are estimated at USD 1.7 bln in 2014, or 2.3% of the 2014 GDP.

Table 3.8. Price-gap estimates of fossil-fuel subsidies in Azerbaijan in 2014

Fuel	Price-gap subsidy estimate
(+) Natural gas	USD 1.7 bln
(-) Double-counting of support for electricity through suppressed gas prices for generators	USD 0.9 bln
(+) Electricity	USD 0.9 bln
(+) Petroleum products	n.c.
(+) Coal	n.c. and likely small
Total	USD 1.7 bln

Notes: n.c.: not calculated. Price-gap estimates are based on authors' calculations

Natural gas

Table 3.9 presents a price-gap analysis for natural gas in Azerbaijan. Consumption volumes have been taken from the country's official 2014 Energy Balance (AzerStat, 2015d).

SOCAR reports natural gas production costs at USD 36 per 1 000 m³ in 2014 (SOCAR, 2015a). Gas prices (tariffs) range from USD 78 to 97 per 1 000 m³ (see also Table 3.3 above). The average weighted by consumption volume is USD 87 per 1 000 m³. Thus, current sales prices substantially exceed domestic production costs.

However, Azerbaijan's domestic gas tariff is substantially below not only the levels in neighbouring Armenia and Georgia but also Azerbaijan's closest export opportunity, Turkey. If Azerbaijan were to export volumes that are currently consumed domestically, the country would generate additional revenue. This additional revenue constitutes the opportunity cost of selling fuel domestically at below current international prices. In 2014, the average wholesale gas price in Turkey was USD 343 per 1 000 m³ (IGU, 2015). Since 2014, gas prices have been decreasing, and for the lack of more recent price data from the Turkish market, the opportunity sales price has been set at the European 12-month average from January to December 2015 – that is, USD 270 per 1 000 m³, according to the latest data from World Bank (2016a), less estimated transport costs. Overall, the European market price appears to be a justifiable benchmark, given Azerbaijan's current plans to increase its natural gas exports to Europe through the Southern Gas Corridor.

Precise estimates of potential gas transport costs from Azerbaijan to Europe and appropriate netback pricing (that is, export market price less transport costs) would require substantial and diligent research. For purposes of illustration, these can be approximated using, first, the designed length of the proposed Southern Gas Corridor project (3 500 km) (TAP-AG, 2015) as a conservative estimate of the distance to European markets and, second, the average third-party transport tariff for the Russian Unified System of Gas Supply (USGS), which is USD 1.25 per 1 000 m³ per 100 km (Yafimava, 2015).⁵

Table 3.9. Price gap subsidy estimates for natural gas by consumer group, 2014

Prices and costs	Unit	Electricity generators	Priority industrial consumers	Other end consumers
Sales price	USD per 1 000 m ³	78	78	97
AzeriGas production costs	USD per 1 000 m ³	36	36	36
Opportunity cost for AzeriGas if selling at international market prices (or reference price)	USD per 1 000 m ³		226	
Volume consumed	Billion m ³	6.3	0.3	5.6
Price gap	USD per 1 000 m ³	148	148	129
Total subsidy based on the opportunity cost method	USD bln	0.9	0.05	0.7
Total for end consumption of gas (exclusive of support for electricity generators)	USD bln		0.77	
Total for all groups of consumers	USD bln		1.7	

Source: Authors' calculations based on Tariff Council (2015), Gazprom (2015), SOCAR (2015a), AzerStat (2015d), World Bank (2016a), World Bank (2016b), Sigra Group Analysis.

Combined, these two estimates yield a transport cost of nearly USD 44 per 1 000 m³ (1.25 \times 35). This means that the differential (price gap) between the highest gas price in Azerbaijan (USD 97) and the European 12-month average price adjusted for transport costs (270–44 = 226) is USD 129 per 1 000 m³ (226–97), which is the opportunity cost for gas producers in Azerbaijan and a potential subsidy to domestic consumption. According to the price-gap analysis in Table 3.8, Azerbaijan is losing approximately USD 1.7 bln per year compared with its opportunity sales option.

Considering modest electricity prices, under-pricing of natural gas for electricity generators may be considered an electricity consumption subsidy rather than a gasconsumption subsidy. If one excludes the support for electricity generators (USD 0.9 bln) from the total (USD 1.7 bln), the subsidy to end consumption of gas in 2014 was USD 0.8 bln. This is approximately the same as the IEA estimate for the natural gas subsidy, which was USD 1 bln in 2013 and USD 0.7 bln in 2014.

Petroleum products

It has not been possible to ascertain production (refining) costs for petroleum products in Azerbaijan. The calculation of netback costs, including transport costs to export markets, is also a challenge. Nonetheless, Figures 3.10 and 3.11 offer comparison with adjacent markets, using pump prices in mid-November 2014 as reported by GIZ (GIZ, 2015). The pump prices and the values in Figures 3.10 and 3.11 are inclusive of VAT and excise taxes – which are different depending on the country, hence the rationale for benchmarking is limited. The consumer price gap for gasoline is insignificant for all countries except Turkey (which generally has quite high gasoline prices by international standards), while for diesel, Georgia, Armenia and Turkey all have significantly higher prices. However, in the absence of a sound methodological foundation, it is premature to provide quantitative estimates of a potential subsidy.

Figure 3.10. Diesel prices in USD/litre in mid November 2014

2.5

2

1.5

0.5

-0.5

-1

Gap

Armenia

Reference price

Reference price

Azerbaijan price

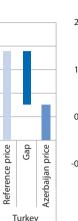
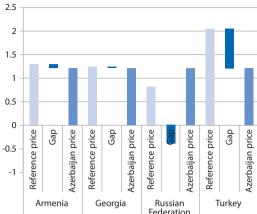


Figure 3.11. Gasoline prices, USD/litre in mid November 2014



Source: Authors' presentation based on GIZ (2015).

Georgia

Azerbaijan price

Reference price

Gap

Russian

Azerbaijan price

Through the course of 2015 and early 2016, the Azerbaijani manat depreciated significantly, while regulated prices of petroleum products in local currency remained constant. Thus, the more relevant domestic pump prices are USD 0.78 and USD 0.58 per litre for gasoline and diesel, respectively, versus the USD 1.21 and USD 0.77 prices applied in Figures 3.10 and 3.11. It is probable that this depreciation has increased the price gap. However, in the absence of updated data for other markets, only a comparison of the situation as of mid-November 2014 is possible.

At the same time, as indicated above, the IEA estimates consumption subsidies for petroleum products in Azerbaijan at USD 0.3 bln in 2014 and USD 1.1 bln in 2013.

Electricity and heat

Unlike natural gas, electricity is not traded across borders to a significant degree. Accordingly, the price gap must employ production cost as the price gap's reference price. The levelised cost of electricity (LCOE) is a common method for comparing the production cost of electricity across sources. In particular, the LCOE takes account of varying capital intensity, operation and maintenance costs, as well as fuel costs. Among other things, the LCOE approach answers the question of what sources of electric generation may be economically justified at a given sales price for electricity. This section provides LCOE estimates for Azerbaijan, which, compared with prevailing sales prices, allow for a pricegap analysis for electric power, however rudimentary.

Fightner Ltd (2013) provides a levelised cost estimate for combined-cycle gas turbine (CCGT) power production in Azerbaijan at USD 0.024 per kWh and offers USD 0.053 per kWh as an "international levelised cost estimate". Current producer tariffs (USD 0.040 per kWh) exceed the domestic cost estimates, but not the international benchmark (Table 3.3).

Fuel cost assumptions are not clear from Fichtner Ltd (2013). Table 3.10 therefore presents a parallel simple levelised cost (sLCOE) calculation using the methodology suggested by OpenEI (2016) and the same assumptions as Fichtner Ltd (2013) when possible. The two estimates of domestic levelised cost correspond to a one US cent difference per kWh (0.024 and 0.035 USD/kWh). However, the respective international benchmark estimates differ significantly; this is probably due to the difference in the opportunity fuel price.

Table 3.10. Levelised cost of power production for CCGT plants in Azerbaijan

	Unit	Fichtner	Own calculations (Sigra Group)
Fichtner and Sigra Group			
Specific investment	USD per kW	975	975
Operation and management	% of CAPEX	n.a.	0%
Fuel cost (local)	USD per MWh	5	n.a.
Fuel cost (international)	USD per MWh	5	n.a.
Efficiency	%	58%	n.a.
Size	MW	450	n.a.
Full operating hours	Hours per year	6 000	6 000
Useful life	Years	25	25
Discount rate	%	10%	10%
Own calculations (Sigra Group)			
Capacity factor	%	n.a.	68.5%
Domestic fuel cost	USD per 1 000 m ³	n.a.	78
Domestic fuel cost	USD/mmbtu (1 mln British Thermal Units)	n.a.	2.210
Conversion factor	1 000 m³/mbtu	n.a.	0.028
Opportunity fuel cost	USD per 1 000 m ³		270
Opportunity fuel cost	USD/mmbtu		7.65
Heat rate	btu/kWh	n.a.	7 667
Capital recovery factor			0.110
Levelised costs			
sLCOE Domestic gas price	USD/kWh	n.a.	0.035
sLCOE Opportunity gas price	USD/kWh	n.a.	0.077
Levelised unit cost local gas price	USD/kWh	0.024	n.a.
Levelised unit cost international gas price	USD/kWh	0.053	n.a.
Current prices			
AzerEnerji JSC production	USD/kWh		0.040
Consumer price	USD/kWh		0.058
Exchange rate	AZN/USD USD 2015 average	n.a.	1.0261

Note: n.a.: not applicable.

Source: Authors' summary based on Fichtner Ltd (2013), OpenEI (2016), EIA (2015b) and Sigra Group analysis.

In sum, neither approach indicates electricity consumption subsidies in Azerbaijan if we use domestic fuel prices. Introducing the opportunity cost of gas reveals a potential subsidy, depending on the opportunity cost applied. The parallel calculation method offered above can also be used to identify at what domestic gas price levelised costs would be equal to the current producer tariff. The sLCOE equals USD 0.040 per kWh at a gas price of USD 102 per 1 000 m³. Accordingly, any opportunity gas price above USD 102 per 1 000 m³, which would be a highly conservative opportunity gas price estimate, would justify higher current electricity prices than the current producer tariff.

Given the lack of operation and maintenance estimates by Fichtner Ltd (2013), the authors' own parallel calculation is subject to the same omission. Accordingly, levelised cost estimates should in fact be higher. Given the limited 5-cent differential between the estimated domestic levelised cost (USD 0.035 per kWh) and the tariff for AzerEnerji generation (USD 0.040 per kWh), it is also possible that introducing operation and maintenance cost would raise the levelised cost estimate above current tariffs, resulting in a subsidy from the point of view of purchase cost as well.

Applying a price gap between the domestic wholesale price of USD 0.04 per kWh and the internationalised levelised cost of USD 0.077 per kWh to Azerbaijan's 24.8 TWh production in 2014 (AzerStat, 2015g), yields a total estimate of a consumer subsidy for electricity of USD 0.9 bln in 2014, which includes the support through the under-pricing of gas for electricity generators. This is higher than the IEA price-gap estimate, which puts electricity consumption subsidies in Azerbaijan at USD 0.5 bln in 2014 and USD 0.7 bln in 2013.

Estimating electricity consumer subsidies is further complicated by two additional challenges. The first is the potential under-collection of payments from households (World Bank, 2013b). Not much data is available on this subject in the public domain, but AzerEnerji does receive direct budget transfers to address this problem (see below in the section on the bottom-up inventory, as well as Table 3.A1.1).

The second challenge is co-generation of heat and power. Virtually no information is available on heat generation costs. District heating also does not cover Azerbaijan in its entirety: it is provided mainly in the capital city of Baku and its surroundings. However, throughout the EaP and Central Asia region, district heating is heavily subsidised and often cross-subsidised through electricity tariffs. It is justifiable to assume that the same situation may exist in Azerbaijan.

Bottom-up inventory of government support for fossil fuels

The paucity of data available has limited the scope for a verifiable bottom-up inventory of fossil-fuel subsidy schemes in Azerbaijan. This report has relied on media reports, whose ambiguity may be a source of misinterpretation. Only a limited number of schemes have been identified, and quantitative estimates can only be considered indicative.

Table 3.11 summarises the findings, while Annex 3.A1 provides more detailed information on each of the schemes. In terms of direct transfers, AzerEnerji, AzeriGas and the district heat provider AzerIstilikTechizat appear to be recipients of funds from the national budget. The amounts of transfers are reported at face value from media reports, where available.

Projects 2013 2014 2015 2016 Construction of Star oil-processing complex 372.6 223.54 127 Transfers to Southern Gas Corridor projects 49.831 692.85 241.9 Construction of Oil and Gas Processing and Petrochemical 363.34 (0^a) Complex Financing of government share in oil and gas pipelines 51 372.6a 1 308.6 (548.7b) 997 (693a) 1 822.8 (2 355b) Total

Table 3.11. Oil-related expenditure of SOFAZ in AZN million

Notes: a. Budget as executed. b. Budget as approved.

Source: President of Azerbaijan (2015a).

Though technically off-budget, SOFAZ, Azerbaijan's sovereign wealth fund, also provides direct transfers to the oil and gas sector. As discussed earlier, in the 2016 SOFAZ budget (Table 3.5), Azerbaijan's participation in the construction of the Southern Gas Corridor was funded at the level of AZN 1.8 bln (President of Azerbaijan, 2015a). Table 3.11 provides information on specific types of oil-related investments supported by SOFAZ in the period 2013-16.

There are two additional types of budget transfers for special categories of energy consumers. First, Azerbaijan provides support for internally displaced persons for electricity consumption. This subsidy is administered as an allowance of 150 kilowatt-hours per person per month, and funded by the State Refugee Committee (World Bank, 2013b).

Second, farmers receive an allowance for petroleum products that is transferred to individual plastic cards issued by Kapital Bank. In 2015, the value of this annual subsidy was AZN 40 (USD 39) per hectare of farmed land. This subsidy dates back to 2007, when the prices of regulated diesel and other petroleum products were raised and it was decided to compensate farmers for this price increase (Kerimhanova, 2015).

It is less clear what measures should be included in the bottom-up inventory for the category of tax expenditure, since, as explained above, Azerbaijan has several tax regimes for upstream oil and gas operations. There is a national tax regime and then special tax provisions under PSAs and HGAs. However, outside special arrangements with international consortia within PSAs and HGAs, it seems logical to list at least the tax breaks under the Law on Application of Special Economic Regime for Export-Oriented Oil and Gas Operations, which came into force on 17 April 2009. There is insufficient information on the scale of the operations subsidised under this law, which made their quantitative assessment impossible, and no estimates from government sources are available in the public domain.

Induced transfers to energy consumers through regulated prices have been discussed above using the price-gap method. No official bottom-up estimates of this support are available.

Government support for energy efficiency and renewable energy

In April 2014, the government of Azerbaijan passed Resolutions No. 112 and 113, which exempt the import of equipment and technology used in energy efficiency and alternative and renewable energy from customs duties and VAT (Huseynova, 2015). Since there are exactly the same exemptions for the import of equipment and technology for the oil and gas sector, the 2014 Resolutions eliminate the negative distortion that previously existed with respect to energy efficiency and development of renewable energy.

The Tariff Council has the authority to provide preferential tariffs for producers of electricity from renewable energy sources; however, this authority has so far been exercised only to a limited extent. As indicated in Table 3.3 in the Price Policy section of this chapter, the electricity producer tariff is differentiated. Since 2008, the producer tariff for AzerEnerji's thermal power plants has been AZN 0.041 per kWh (USD 0.040), whereas for small private hydropower plants, it was lower, at AZN 0.025 per kWh (USD 0.024). The tariff for wind power plants was slightly higher than the thermal power plant benchmark, and was set at AZN 0.045 per kWh (USD 0.044). All these producer tariffs are lower than the price paid by consumers, which is AZN 0.06 per kWh (USD 0.058).

Table 3.12. Bottom-up inventory of fossil-fuel subsidies in Azerbaijan

	Subsidy mechanism		Estimate	ed annu	al amour	Estimated annual amount, AZN mIn	
Subsidy	(e.g. tax waiver or price support)	Activity	2012	2013	2014 (2015 plan (as of April)	Source/method of calculation
	Direct budget transfers (incl	oudget transfers (including spending on fossil-fuel-related infrastructure)	ssil-fuel	-related	Infrast	ructure)	
Budget support for AzerEnerji	Compensation for losses	Electricity generation	141.7	72	37.7	n.a.	Qafqazinfo.az (10 September 2013), "Corruption Facts at AzerEnerji Revealed by Hackers", www. qafqazinfo.az/iqtisadiyyat-4/hakerlerin-azerenerji-de-uze-cixardigi-korrupsiya-49750 ABC.az (n.d.), "Fitch: AzerEnerji Expects Power Rates to Stay Unchanged in 2014-17". http://abc.az/eng/interview/200.html
Budget support for AzeriGas	Compensation for expenditures	Supply of natural gas	n.a.	n.a.	n.a.	n.a	Azertag (29 December 2005), "AzeriGas did not Receive Subsidies". http://azertag.az/xeber/AZARIQAZA_SUBSIDIYA_AYRILMIR-332895
Budget support for AzerlstilikTechizat	Compensation for expenditures	District heating	n.a.	n.a.	n.a.	n.a	APA.az (27 November 2015), AzeriGas: "AzerlstilikTechizat Owes us 43 mln Manats Debt". http://m.apa.az/az/news/406296
Direct funding of energy projects from SOFAZ	Financing of investment	Various, including construction of upstream infrastructure					In the 2016 SOFAZ budget, Azerbaijan's participation in the construction of the Southern Gas Corridor is funded directly by SOFAZ at the level of AZN 1.8 bln (USD 1.1 bln) (President of Azerbaijan, 2015a).
Support for internally displaced persons	Direct transfer from the State Refugee Committee	Electricity consumption by a vulnerable group	Э.	Э	n. a.	n.a.	The State Refugee Committee provides allowance for electricity consumption by internally displaced persons in the communities of Barmek and Bayva (World Bank, 2013b).
Support for farmers	Direct transfer via plastic cards	Diesel and other petroleum product consumption by farmers	Э.	Э	n.a.	n.a.	AZN 40 per hectare of farmed land per year (Kerimhanova, 2015)
Subtotal direct budget transfers			141.7	72	37.7	43	

Table 3.12. Bottom-up inventory of fossil-fuel subsidies in Azerbaijan (continued)

	Subsidy mechanism		Estima	ted ann	ıal amou	Estimated annual amount, AZN mln	
Subsidy	(e.g. tax waiver or price support)	Activity	2012	2013	2014	2015 plan (as of April)	Source/method of calculation
		Tax expenditure					
Tax breaks under the Law on Application of Special Economic Regime for Export-Oriented Oil and Gas Operations • Local companies are permitted to choose between: <i>i</i>) a profit tax at a rate of 20%; or <i>ii</i>) a 5% WHT on gross revenue • Foreign sub-contractors are taxable only at a 5% WHT • A 0% VAT rate on procured goods and services • Exemption from a dividend WHT and taxation on branch's net profits • Exemption from customs duties and taxes • Exemptions from property tax (real-estate and capital goods) tax and land (use) tax	Government revenue foregone	Upstream oil and gas activities	i.e.	ю С	ä.		Law on Application of Special Economic Regime for Export-Oriented Oil and Gas Operations, which took effect 17 April 2009 (PWC, 2016). Information on the scale of the operations subsidised under this law is limited, making their quantitative assessment impossible.
Induced transfers (income or price support)							
Gasoline (Premium, Al-95)	Regulated prices	Gasoline	n.a.	n.a.	n.a.	n.a.	Tariff Council (n.d.), "Tariffs for Oil Products" www. tariffcouncil.gov.az/?/laz/content/72/
Gasoline (AI-92)	Regulated prices	consumption	n.a.	n.a.	n.a.	п.а.	Tariff Council (n.d.), "Tariffs for Oil Products". www. tariffcouncil.gov.az/?/az/content/72/
Diesel	Regulated prices	Diesel consumption	n.a.	n.a.	n.a.	п.а.	Tariff Council (n.d.), "Tariffs for Oil Products" www. tariffcouncil.gov.az/?/az/content/72/
Heavy oil (<i>mazut</i>) and kerosene	Regulated prices	Heavy oil (mazut) and kerosene consumption	ë.	ë.	n.a.	n.a.	Tariff Council (n.d.), "Tariffs for Oil Products". i) www.tariffcouncil.gov.az/?/az/content/72/; ii) Milli.az NewsPortal (28 November 2011), "Tariff Council Increased Price for Some of the Communal Services". http://news.milli.az/economy/82557.html
Natural gas	Regulated prices	Natural gas consumption, including for electricity generation	ë.	n. a.	n.a.	n.a.	(1) Tariff Council (n.d.), "Tariffs for Natural Gas Wholesale and Retail Prices", SOCAR (2014), "Financial Report by SOCAR for 2014". www.socar.az/socar/assets/documents/az/socar-annual-reports/illik-hesabat2014az.pdf
Electricity	Regulated prices	Electricity consumption	n.a.	n.a.	n.a.	п.а.	Tariff Council (n.d.), "Tariffs for Electricity". www. tariffcouncil.gov.az/?/az/content/70/
<i>Note</i> : n. s. : not available							

Note: n.a.: not available.

Source: Authors' summary.

Annex 3.A1

Fossil-fuel subsidies

Table 3.A1.1. Budget transfers to AzerEnerji

Subsidy category	Grants and other direct payments
Stimulated activity	Operations of AzerEnerji are supported by the compensation of its losses
Subsidy name	Budget transfers to AzerEnerji
Jurisdiction	National
Legislation/endorsing organisation	Presidential decrees Decisions adopted by the Cabinet of Ministers
Policy objective(s) of subsidy	Addressing social concerns about electricity consumption
End recipient(s) of subsidy	AzerEnerji
Time period	From 1991 until the present, i.e. since independence from the Soviet Union
Background	AzerEnerji is state-owned and the largest electric power producer in the country. Since the collapse of the Soviet Union, several reforms have been conducted to ensure effective budget support for the electricity sector. The mass installation of electric bill counters (electric meters) has reduced the use of electricity as residents have become more aware of their electricity consumption. This goal was to increase efficiency and reduce spending in this sector.
	However, as a result of nonpayment for its services, AzerEnerji accumulates debts and cannot always respect its tax payment obligations to the state budget. AzerEnerji's financial losses are covered (subsidised) by the state budget.
Amount of subsidy conferred	2012: AZN 141.7 mln (USD 180.37 mln) 2013: AZN 72 mln (USD 91.77 mln) 2014: AZN 37.7 mln (USD 48.06 mln)
Information sources	Official documents: AzeCabMin (2010), On the Regulation of Debts of Major Energy Consumers Dealing with Wholesale Natural Gas and Petroleum Products, 9 August 2010, Cabinet of Ministers of the Republic of Azerbaijan, Baku. http://cabmin.gov.az/?/az/pressreliz/view/351/ Ministry of Justice (2009), The Abolishment of Natural Gas Prices for the General Population, 29 December 2009, Ministry of Justice of the Republic of Azerbaijan, Baku. www.e-qanun.az/framework/18961
	Media Reports:
	 Axar.az News Portal (9 December 2013), "Why Is AzerEnerji in Debt Again?", Axar.az News Portal, Baku. http://axar.az/news/3703 Mediaforum News (29 December 2009), "President Pardons the Debts for Natural Gas Usage for the General Population", Mediaforum News, Baku. Musavat Newspaper (19 August 2010), "The Energy Debts of the Population Should be Abolished", Musavat Newspaper, Baku. http://musavat.com/news/iqtisadiyyat/ehalinin-de-enerji-borclarisilinmelidir_83123.html?welcome=1 Qafqazinfo.Az (21 January 2014), "The Millions are Allocated, but They Are Indebted Again", Qafqazinfo, Baku. www.qafqazinfo.az/musahibe-17/milyonlar-xerclenir-yene-borclari-var-68027 Rafiqoglu, A. (17 August 2010), "Accumulated Energy Debts Abolished", ANSPress, Baku. Report Information Agency (27 April 2015), "'Azersu' and 'Azerenerji' Are Indebted to Government", Report Information Agency, Baku. http://report.az/i-nfrastruktur/azersu-ve-azerenerji-nin-vergi-borcu-yaranib/

Table 3.A1.2. Budget transfers to AzeriGas

Subsidy category	Grants and other direct payments
Stimulated activity	Operations of AzeriGas are supported by compensation of its losses
Subsidy name	Budget transfers to AzeriGas
Jurisdiction	National
Legislation/endorsing organisation	Presidential decrees Decisions adopted by the Cabinet of Ministers
Policy objective(s) of subsidy	Addressing social concerns with respect to natural gas, heat and electricity consumption
End recipient(s) of subsidy	AzeriGas
Time period	From 1991 until the present, i.e. since independence from the Soviet Union
Background	AzeriGas is the state-owned natural gas monopoly. Since the collapse of the Soviet Union, there have been several reforms to ensure effective budget support for Azerbaijan's gas sector. As a result of the mass installation of gas bill counters (gas meters), the use of gas in the country has decreased as residents have become more aware of their consumption. This was done with the aim of increasing the efficiency and spending in this sector.
	However, as a result of nonpayment for its services, AzeriGas accumulates debts and cannot always respect its tax payment obligations to the state budget. AzeriGas financial losses are covered (subsidised) by the state budget.
Amount of subsidy conferred	Not available in public sources
Information sources	 Official documents: AzeCabMin (2010), On the Regulation of Debts of Major Energy Consumers Dealing with Wholesale Natural Gas and Petroleum Products, 9 August 2010, Cabinet of Ministers of the Republic of Azerbaijan, Baku. https://cabmin.gov.az/?/az/pressreliz/view/351/ Ministry of Justice (2009), The Abolishment of Natural Gas Prices for the General Population, 29 December 2009, Ministry of Justice of the Republic of Azerbaijan, Baku. www.e-qanun.az/framework/18961 Media reports: Axar.az News Portal (9 December 2013), "Why Is AzerEnerji in Debt Again?", Axar.az News Portal,
	 Axar.az News Portar (9 December 2013), Why is Azer Energi in Debt Again?, Axar.az News Portar, Baku. http://axar.az/news/3703 Mediaforum News (29 December 2009), "President Pardoned the Debts for Natural Gas Usage for the General Population", Mediaforum News, Baku. Musavat Newspaper (19 August 2010), The Energy Debts of the Population Should Be Abolished, Musavat Newspaper, Baku. http://musavat.com/news/iqtisadiyyat/ehalinin-de-enerji-borclarisilinmelidir_83123.html?welcome=1 Qafqazinfo.Az (21 January 2014), "The Millions Are Allocated, but They Are Indebted Again", Qafqazinfo, Baku. www.qafqazinfo.az/musahibe-17/milyonlar-xerclenir-yene-borclari-var-68027 Rafiqoglu, A. (17 August 2010), Accumulated Energy Debts Abolished, ANSPress, Baku. Report Information Agency (27 April 2015), "Azersu' and 'Azerenerji' Are Indebted to Government", Report Information Agency, Baku. http://report.az/i-nfrastruktur/azersu-ve-azerenerji-nin-vergi-borcu-yaranib/

Table 3.A1.3. Budget transfers to AzerIstilikTechizat

Subsidy category	Grants and other direct payments
Stimulated activity	Operations of AzerilstilikTechizat are supported by compensation of its losses
Subsidy name	Budget transfers to AzerlstilikTechizat
Jurisdiction	National
Legislation/endorsing organisation	Presidential decrees Decisions adopted by the Cabinet of Ministers
Policy objective(s) of subsidy	Addressing social concerns with respect to heat consumption
End recipient(s) of subsidy	AzerlstilikTechizat
Time period	From 1991 until the present, i.e. since independence from the Soviet Union
Background	AzerlstilikTechizat is the state-owned district-heating company, providing heating during the winter months for a very small part of the population. The share of this subsidy in the overall energy subsidy landscape is insignificant. However, according to media reports, the debts generated by AzerlstilikTechizat to AzeriGas have
Amount of subsidy conferred	generated problems for the functioning of both companies. In 2015, this subsidy was planned at the level of AZN 43 mln. Not available for previous years. Equivalent value in USD: 40.76 mln (at 1.0261 USD/AZN)
Information sources	 Media reports: Ali, U. R. (18 November 2015), "Why Providing Heat to Apartments in Baku Was Stopped – Reasons", Oxu.az, Baku. http://ru.oxu.az/society/102636 Salaeva, A. (29 November 2015), "The Date for Restarting the Supply of Heat to Apartments of Baku Announced", 1News.az, Baku. www.1news.az/society/20151119040452735.html Salaeva, A. (20 November 2015), "The Number of Heat Boiler Houses in Baku Announced", 1News. az, Baku. www.1news.az/society/20151120021718602.html

Table 3.A1.4. Regulated prices for natural gas

Subsidy category	Induced transfers
Stimulated activity	Natural gas consumption, including in electricity and heat generation
Subsidy same	Regulated price for natural gas
Jurisdiction	Tariff (Price) Council of the Azerbaijan Republic
Legislation/endorsing organisation	Decisions adopted by the Tariff (Price) Council of the Azerbaijan Republic (formed by representatives of the Ministries of Economy and Industry, Finance, Taxes, Justice, Energy, Transport, Communication and Information Technologies, Agriculture, Health, Education, Labour and Social Defence of the People, Committees of Customs Control and State City Building and Architecture)
Policy objective(s) of subsidy	Addressing social concerns about consumption of natural gas, electricity and heat, as well as providing natural gas to several energy-intensive industries
End recipient(s) of subsidy	Consumers of natural gas
Time period	From 1991 until the present, i.e. since independence from the Soviet Union
Background	The structure of the Tariff (Price) Council of the Republic of Azerbaijan was approved by Decree No. 341 of the President of the Republic of Azerbaijan, dated 26 December 2005. To account for the social concerns of the population since independence, natural gas prices have been regulated by the Cabinet of Ministers. Since 2005, price regulation has been a responsibility of the Tariff (Price) Council.
	The chemical, steel, aluminium and power industry, and other industries with a monthly consumption of under 10 bln m³ of gas benefit from reduced tariffs.
Amount of subsidy conferred	Not publicly available
Information sources	Tariff Council (2015a), Tariff Council – About, Tariff Council of the Republic of Azerbaijan, Baku. www. tariffcouncil.gov.az/?/en/content/44/
	Tariff Council (n.d.), Tariffs for Natural Gas Wholesale and Retail Prices, Tariff Council of the Republic of Azerbaijan, Baku. www.tariffcouncil.gov.az/?/az/content/66/
	State Customs Committee (2002), On the Founding of the Tariff Committee, State Customs Committee of the Republic of Azerbaijan, Baku. http://customs.gov.az/az/nkq17.html

Table 3.A1.5. Regulated prices for electricity

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Subsidy category	Induced transfer
Stimulated activity	Electricity consumption
Subsidy name	Regulated price for electricity
Jurisdiction	Tariff (Price) Council of the Azerbaijan Republic
Legislation or endorsing organisation	Decisions adopted by the Tariff (Price) Council of the Azerbaijan Republic (formed by representatives of the Ministries of Economy and Industry, Finance, Taxes, Justice, Energy, Transport, Communication and Information Technologies, Agriculture, Health, Education, Labour and Social Defence of the People, Committees of Customs Control, and State City Building and Architecture)
Policy objective(s) of subsidy	Addressing social concerns about consumption of electricity
End recipient(s) of subsidy	Consumers of electricity
Time period	From 1991 until the present, i.e. since independence from the Soviet Union
Background	The structure of the Tariff (Price) Council of the Republic of Azerbaijan was approved by Decree No. 341 of the President of the Republic of Azerbaijan, dated 26 December 2005. To account for the social concerns of the population since independence, electricity prices have been regulated by the Cabinet of Ministers. Since 2005, price regulation has been a responsibility of the Tariff Council. In nearly two decades, electricity prices were adjusted only once. Electricity tariffs were increased in 2007 from USD 0.024 to 0.075 (AZN 0.06) per kWh (ECS, 2011) which, coupled with improved metering and collection practices, increased the sector's revenue significantly (Fichtner Ltd, 2013). Although this was a one-off measure, this tariff increase did succeed in controlling strong demand among residential consumers. Residential power consumption plunged by 58% from nearly 1 200 ktoe in 2006 to 495 ktoe in 2010. As of early 2016, electricity consumption was still below pre-reform levels of 2007. The tariffs set in 2007 remained in place until late spring 2016, when the price for residential consumers increased to 0.07 manat/kWh. Due to the depreciation of the Azerbaijani manat, the consumer electricity tariff is now lower in dollar terms than in 2007 (USD 0.068/kWh at the 2015 average AZN/USD exchange rate of 1.0261).
Amount of subsidy conferred	Not publicly available
Information sources	Tariff Council (2015a), Tariff Council – About, Tariff Council of the Republic of Azerbaijan, Baku. www. tariffcouncil.gov.az/?/en/content/44/
	Tariff Council (n.d.), Tariffs for Natural Gas Wholesale and Retail Prices, Tariff Council of the Republic of Azerbaijan, Baku. www.tariffcouncil.gov.az/?/az/content/66/
	State Customs Committee (2002), On the Founding of the Tariff Committee, State Customs Committee of the Republic of Azerbaijan, Baku. http://customs.gov.az/az/nkq17.html

Notes

- 1 In the interest of inter-country comparability, this section builds on data from international sources such as the World Bank and the International Energy Agency. These data, however, have certain discrepancies with the State Statistical Committee of the Republic of Azerbaijan (AzerStat). In some instances, national sources provide more recent data. Therefore, for all key indicators, the chapter seeks to provide references to both national and international statistics.
- 2. Given the dominant role of SOCAR and AzerEnerji in the country's energy sector, one might question to what degree the division of roles between policy, regulation and business are distinct between the Ministry, Tariff Council and national energy companies. Further research is needed into the distinction between state companies and government bodies in shaping and influencing energy policy and decisions.
- 3. Azerbaijan expects to significantly increase its natural gas exports to Europe through the construction of the Southern Gas Corridor.
- 4. Free gas in this context refers to "free", as opposed to associated, petroleum gas. This is natural gas that can be produced separately from oil.
- Needless to say, this approximation is rough. The USGS transport tariff is used, given the lack 5. of better estimates of current transport costs. Assuming that the USGS is fully depreciated, this estimate has been accepted as closer to the actual transport cost through existing networks than estimating a levelised cost for the Southern Energy Corridor, which will be a new project. The distance estimate is conservative because it only includes landing in Italy, and not the distance to the end-point or the detour of existing networks from the Balkans through Eastern Europe.

References

- ABC.az (5 March 2016), "Investment Promotion Certificate Operates in Azerbaijan since March", http://abc.az/eng/news/94682.html.
- ABC.az (n.d), "Fitch: AzerEnerji Expects Power Rates to Stay Unchanged in 2014-17". http://abc.az/eng/interview/200.html.
- Ali, U.R. (18 November 2015), "Why Providing Heat to Apartments in Baku was Stopped - Reasons", Oxu.az, Baku. http://ru.oxu.az/society/102636.
- Aliyev, I. (2015), Azerbaijan: 2015 Paris Agreement and Intended Nationally Determined Contributions (INDCs) to be Submitted to United Nations Framework Convention on Climate Change (UNFCCC) in 2015.
- Alivev, I. (2013), Clima East: Support for Climate Change Mitigation and Adaptation in Russia and ENP East Countries, EU Climate Policy Roadshow Azerbaijan National Workshop.

- APA.az (27 November 2015), "AzeriGas: AzerIstilikTechizat Owes us 43 Million Manat Debt", APA.az, Baku. http://m.apa.az/az/news/406296.
- Axar.az News Portal (9 December 2013), "Why is AzerEnerji in Debt Again?", Axar.az News Portal, Baku. http://axar.az/news/3703.
- Azadlig Newspaper (23 January 2012), "The Mystery of Premium Gasoline in SOCAR Stations", *Azadlig Newspaper*, Baku. www.azadliq.info/12720.html.
- AzeCabMin (2015), Act on Estimates of Major State Taxpayers' Income and Expense, 9 June 2015, Cabinet of Ministers of the Republic of Azerbaijan, Baku.
- AzeCabMin (2011), Decision No. 133 of 10 August 2011: A Number of State-Owned Enterprises on Debt Settlement, Cabinet of Ministers of the Republic of Azerbaijan, Baku.
- AzeCabMin (2010), On the Regulation of Debts of Major Energy Consumers Dealing with Wholesale Natural Gas and Petroleum Products, 9 August 2010, Cabinet of Ministers of the Republic of Azerbaijan, Baku. http://cabmin.gov.az/?/az/pressreliz/view/351/.
- AzerEnerji (2015), *AzerEnerji About Us*, AzerEnerji, Baku. <u>www.azerenerji.gov.az/index.</u> php.
- AzerIshig (2015), Azərbaycan Elektrik Şəbəkəsi haqqında ümumi məlumat (General Information on Azerbaijan's Electricity Network), AzerIshig, Baku. www.azerishiq.az/index.php?lang=en&menu=about&id=9.
- AzerStat (2015a), Average for Prices and Tariffs for Consumer Products and Services to the Population, State Statistical Committee of the Republic of Azerbaijan, Baku.
- AzerStat (2015b), *Electricity Production and its Share*, State Statistical Committee of the Republic of Azerbaijan, Baku. www.stat.gov.az/source/balance_fuel/az/001_2.xls.
- AzerStat (2015c), *Energy*, State Statistical Committee of the Republic of Azerbaijan, Baku. www.stat.gov.az/source/balance_fuel/az/005_5.xls.
- AzerStat (2015d), *Energy Balance in 2014*, State Statistical Committee of the Republic of Azerbaijan, Baku. www.stat.gov.az/source/balance_fuel/.
- AzerStat (2015e), *Main Indicators for the Industry*, State Statistical Committee of the Republic of Azerbaijan, Baku. www.stat.gov.az/source/industry/az/001.xls.
- AzerStat (2015f), *Population of Azerbaijan*, State Statistical Committee of the Republic of Azerbaijan, Baku. www.stat.gov.az/source/demography/ap/az/1 1.xls.
- AzerStat (2015g), *Power Generation 1913-2014*, State Statistical Committee of the Republic of Azerbaijan, Baku. www.stat.gov.az/source/balance_fuel/az/005_4.xls.
- AzerStat (2015h), *The Production of Electricity*, State Statistical Committee of the Republic of Azerbaijan, Baku. www.stat.gov.az/source/balance_fuel/az/005_4.xls.
- AzerStat (2015i), *The Production of Energy Products*, State Statistical Committee of the Republic of Azerbaijan, Baku. www.stat.gov.az/source/balance_fuel/az/002_11-13.xls.
- Azertag (29 December 2005). "AzeriGas did not Receive Subsidies", *Azertag*, Baku. http://azertag.az/xeber/AZARIQAZA SUBSIDIYA AYRILMIR-332895.
- AzMinEco (2016), *Investment Promotion Certificate*, Ministry of Economy of the Republic of Azerbaijan, Baku.

- AzMinEco (2015a), National Capacity Self Assessment for Global Environment Management in Azerbaijan, Ministry of Ecology and Natural Resources of the Republic of Azerbaijan, Baku.
- AzMinEco (2015b), Overview of Climate Change and Ozone Center of the National Hydrometeorological Department of the Ministry of Ecology and Natural Resources of Azerbaijan Republic, Ministry of Ecology and Natural Resources of the Republic of Azerbaijan, Baku.
- Bagirov, S. (2007), Azerbaijan's Oil Revenues: Ways of Reducing the Risk of Ineffective Use. www.policy.hu/bagirov/ResearchPaper.pdf.
- BakerMcKenzie (2009), Getting the Deal Through Oil Regulation Azerbaijan, BakerMcKenzie.
- Beaton, C. et al. (2013), A Guidebook to Fossil-Fuel Subsidy Reform for Policy-Makers in Southeast Asia, IISD-GSI, Geneva. https://www.iisd.org/gsi/sites/default/files/ ffs guidebook.pdf.
- BP (2015a), BP Azerbaijan PSA Legal Documentation, British Petroleum, Baku. www. bp.com/en az/caspian/aboutus/legalagreements.html.
- BP (2015b), Statistical Review of World Energy, British Petroleum, London, www.bp.com/ en/global/corporate/energy-economics/statistical-review-of-world-energy.html.
- BP (1994), Agreement on the Joint Development and Production Sharing for the Azeri and Chirag Fields and the Deep Water Portion of the Gunashli Field in the Azerbaijan Sector of the Caspian Sea, British Petroleum, www.bp.com/content/dam/bp-country/ en az/pdf/legalagreements/PSAs/ACG PSA.pdf.
- Central Bank of Azerbaijan (2016a), AZN Rates Search by Period, Central Bank of the Republic of Azerbaijan, Baku. http://en.cbar.az/other/azn-rates?act=betweenForm&fro m[day]=1&from[month]=1&from[year]=2015&to[day]=31&to[month]=12&to[year]=20 15&rateID=usd.
- Central Bank of Azerbaijan (2016b), November Bulletin, Central Bank of the Republic of Azerbaijan, Baku.
- Comtrade (2015), UN Comtrade Trade Database, United Nations Commodity Trade Statistics Database. http://comtrade.un.org/data/.
- Deloitte (2015), Tax Highlights 2015 Azerbaijan, Deloitte, Baku.
- ECS (2013), In-Depth Review of Energy Efficiency Policy of Azerbaijan, Energy Charter Secretariat, Brussels.
- ECS (2011), Azerbaijan Follow-Up In-Depth Review of the Investment Climate and Market Structure in the Energy Sector, Energy Charter Secretariat, Brussels.
- EIA (2015a), Annual Energy Outlook 2015, US Energy Information Administration, Washington, DC. www.eia.gov/forecasts/aeo/pdf/0383(2015).pdf.
- EIA (2015b), Average Tested Heat Rates by Prime Mover and Energy Source, 2007-2013. US Energy Information Administration, Washington, DC. www.eia.gov/electricity/ annual/html/epa 08 02.html.
- EIA (2015c), Natural Gas: US Industrial Prices, US Energy Information Administration, Washington, DC. www.eia.gov/dnav/ng/hist/n3035us3m.htm.

- Ernst & Young (2015a), Global Oil & Gas Tax Guide, Ernst & Young. www.ey.com/ Publication/vwLUAssets/EY-2015-Global-oil-and-gas-tax-guide/\$FILE/EY-2015-Global-oil-and-gas-tax-guide.pdf.
- Ernst & Young (2015b), *Guide to Doing Business in Azerbaijan*, Ernst & Young, Baku. www.ey.com/Publication/vwLUAssets/EY-business-guide-azerbaijan-2015/\$FILE/EY-business-guide-azerbaijan-2015.pdf.
- FAO REU (2012), Assessment of the Agriculture and Rural Development Sectors in the Eastern Partnership Countries The Republic of Azerbaijan, Food and Agriculture Organization of the United Nations Regional Office for Europe and Central Asia, Budapest.
- Fichtner Ltd (2013), *Update of the Power Sector Master Plan of Azerbaijan 2013-2025*, Fichtner Ltd. www.inogate.org/documents/3 FICHT-11527706-v2-Final Report Azerbaijan.pdf.
- Gallagher, L. (2014), *Azerbaijan and Georgia: Taking the Silent Lead on Climate Action*, Climate Home, 12 June. www.climatechangenews.com/2014/06/12/azerbaijan-and-georgia-are-taking-the-silent-lead-on-climate-action/.
- Gazprom (2015), Gazprom in Numbers Databook, Gazprom, Moscow.
- GIZ (2015), International Fuel Prices 2014 Data Preview, Deutsche Gesellschaft für Internationale Zusammenarbeit, Berlin.
- GIZ (2014), International Fuel Prices 2012/2013 Eighth Edition, Deutsche Gesellschaft für Internationale Zusammenarbeit, Berlin.
- Government of Azerbaijan (2004), The State Program on the Use of Alternative and Renewable Energy Sources in Azerbaijan Republic, Government of the Republic of Azerbaijan, Baku.
- GSI (2014), Comparison of Fossil-Fuel Subsidy and Support Estimates, Global Subsidies Initiative, Geneva. www.iisd.org/gsi/sites/default/files/ffs_methods_estimationcomparison. pdf.
- Hasanli, A. (2015), "Ilham Aliyev Cancels Decision on Increasing Fuel Prices", Trend News Agency, Baku, 14 January. http://en.trend.az/azerbaijan/politics/2353077.html.
- Huseynova, H. (2015), *Alternative and Renewable Energy Outlook for Azerbaijan 2014 Policy Paper*, Konrad Adenauer Stiftung, Berlin. www.kas.de/wf/doc/kas_40177-1522-35-30.pdf?150123132359.
- IEA (2016), World Energy Balances, OECD Publishing/International Energy Agency, Paris.
- IEA (2015a), Country Report Azerbaijan, International Energy Agency, Paris. www.iea.org/statistics/statisticssearch/report/?country=AZERBAIJAN&product=balances&year=20124.
- IEA (2015b), Eastern Europe, Caucasus and Central Asia: Energy Policies Beyond IEA Countries, OECD/International Energy Agency, Paris. https://www.iea.org/publications/publications/publication/IDR_EasternEuropeCaucasus_2015.pdf.
- IEA (2015c), Fossil-Fuel Subsidies: Methodology and Assumptions. International Energy Agency, Paris. www.worldenergyoutlook.org/resources/energysubsidies/methodology/.

- IEA (2015d), World Energy Outlook 2015 Fossil Fuel Subsidies Database, International Energy Agency, Paris. www.worldenergyoutlook.org/media/weowebsite/2015/Subsidies20122014. xlsx.
- IGU (2015), Wholesale Gas Price Survey 2015 Edition, International Gas Union, Des Plaines, Illinois.
- IMF (2015), Counting the Cost of Energy Subsidies, International Monetary Fund, Washington, DC. www.imf.org/external/pubs/ft/survey/so/2015/NEW070215A.htm?utm source=twitterfeed&utm_medium=twitter.
- IMF (2013), Energy Subsidy Reform: Lessons and Implications, International Monetary Fund, Washington, DC.
- INDC of Azerbaijan (2015), Intended Nationally Determined Contribution of the Republic of Azerbaijan. http://www4.unfccc.int/submissions/INDC/Published%20Documents/ Azerbaijan/1/INDC%20Azerbaijan.pdf.
- Kerimhanova, Т. (2015), Стоит ли уменьшать объем субсидий в Азербайджане?, Biznesinfo ("Is it Worth Reducing the Volume of Subsidies in Azerbaijan?"), 25 May 2015.
- Lund, D. (2002), "Rent Taxation When Cost Monitoring Is Imperfect", Resource and Energy *Economics*, Vol. 24/3, pp. 211-228.
- Malikov, J. (n.d.), Renewable Energy Strategy of the Republic of Azerbaijan.
- Mediaforum News (2009), "President Pardoned the Debts for Natural Gas Usage for the General Population", Mediaforum News, Baku, 29 December.
- Milli.az NewsPortal (2013), "The Prices for Gasoline and Diesel Increased", Milli.az NewsPortal, Baku, 3 December. http://news.milli.az/economy/230415.html.
- Milli.az NewsPortal (28 November 2011), "Tariff Council Increased Price for Some of the Communal Services", Milli.az NewsPortal, Baku. http://news.milli.az/economy/82557. html.
- Ministry of Finance (2015a), Home Page, Ministry of Finance of the Republic of Azerbaijan, Baku, www.maliyye.gov.az/en.
- Ministry of Finance (2015b), Presentation of the State and Summary Budgets for the Republic of Azerbaijan in 2016, Ministry of Finance of the Republic of Azerbaijan, Baku.
- Ministry of Justice (2009), The Abolishment of Natural Gas Prices for the General Population, 29 December 2009, Ministry of Justice of the Republic of Azerbaijan, Baku. www.e-ganun.az/framework/18961.
- Musavat Newspaper (19 August 2010), "The Energy Debts of the Population Should Be Abolished", Musavat Newspaper, Baku, http://musavat.com/news/igtisadiyyat/ehalininde-enerji-borclari-silinmelidir 83123.html?welcome=1.
- OECD (2013), Analysing Energy Subsidies in the Countries of Eastern Europe, Caucasus and Central Asia. OECD Publishing, Paris. https://www.oecd.org/env/outreach/ EHS%20report 20%20August%202013 ENG.pdf.
- OECD (2003), The Use of Economic Instruments for Pollution Control and Natural Resource Management in Eastern Europe, Caucasus and Central Asia, CCNM/ENV/ EAP(2003)5, OECD Publishing, Paris.

- OpenEI (2016), *Transparent Cost Database*. http://en.openei.org/apps/TCDB/levelized_cost-calculations.html.
- Orujova, N. (10 March 2014), "Alternative Ways of Energy Supply in Azerbaijan", AzerNews, Baku. www.azernews.az/business/64969.html.
- Parliament of Azerbaijan (2000), The Tax Code of the Republic of Azerbaijan, Approved by Law No. 905-IG of the Republic of Azerbaijan of 11 July 2000, with Revisions and Amendments, Parliament of the Republic of Azerbaijan, Baku.
- Pirani, S. (2016), "Azerbaijan's Gas Supply Squeeze and the Consequences for the Southern Corridor", *OIES Paper: NG 110*, The Oxford Institute for Energy Studies, University of Oxford, Oxford. https://www.oxfordenergy.org/wpcms/wp-content/uploads/2016/07/Azerbaijans-gas-supply-squeeze-and-the-consequences-for-the-Southern-Corridor-NG-110.pdf.
- President of Azerbaijan (2016), *Presidential Decree on Some Changes for the Improvement of State Management*, President of the Republic of Azerbaijan, Baku. www.president.az/articles/21806.
- President of Azerbaijan (2015a), *Presidential Decree on the Budget of the State Oil Fund of the Republic of Azerbaijan in 2016*, President of the Republic of Azerbaijan, Baku. http://ru.president.az/articles/17386.
- President of Azerbaijan (2015b), *The Law of the Republic of Azerbaijan on the State Budget of the Republic of Azerbaijan for 2015*, President of the Republic of Azerbaijan, Baku. www.maliyye.gov.az/sites/default/files/Budget law 2015.pdf.
- President of Azerbaijan (2013a), *Presidential Decree No. 550 of 5 December 2013 on Some Issues of Regulation of Tariffs (Prices) for Housing and Communal Services*, President of the Republic of Azerbaijan, Baku. www.pravo.by/main.aspx?guid=3871&p0=P3130 0550&p1=1.
- President of Azerbaijan (2012), *Azerbaijan 2020: Look into the Future*, President of the Republic of Azerbaijan, Baku.
- PWC (2016), Azerbaijan Corporate Tax Credits and Incentives, PricewaterhouseCoopers, Baku.
- Qafqazinfo.Az (2014), "The Millions are Allocated, but They are Indebted Again", *Qafqazinfo*, Baku, 21 January. www.qafqazinfo.az/musahibe-17/milyonlar-xerclenir-yene-borclari-var-68027.
- Qafqazinfo.Az (2013), "Corruption Facts at AzerEnerji Revealed by Hackers", Qafqazinfo. az, Baku, 10 September. www.qafqazinfo.az/iqtisadiyyat-4/hakerlerin-azerenerji-de-uze-cixardigi-korrupsiya-49750.
- Rafiqoglu, A. (2010), "Accumulated Energy Debts Abolished", ANSPress, Baku, 17 August.
- Regnum (2007), Повышение цен в Азербайджане, или шок без терапии: Азербайджан за неделю, 16 January 2007 ("Price Increase in Azerbaijan, or a Shock without Therapy", Azerbaijan in a Week, 16 January 2007), Regnum, Baku.
- Report Information Agency (2015), "AzerSu and AzerEnerji are Indebted to Government", Report Information Agency, Baku, 27 April. http://report.az/i-nfrastruktur/azersu-ve-azerenerji-nin-vergi-borcu-yaranib/.

- Rzayeva, G. (2015), The Outlook for Azerbaijani Gas Supplies to Europe: Challenges and Perspectives, Oxford Energy Institute, Oxford.
- Salaeva, A. (2015), "The Date for Restarting the Supply of Heat to Apartments of Baku Announced", 1News.az, Baku, 29 November. www.1news.az/society/20151119040452735.
- Salaeva, A. (2015), "The Number of Heat Boiler Houses in Baku Announced", 1News.az, Baku, 20 November. www.1news.az/society/20151120021718602.html.
- SOCAR (2015a), 2014 Annual Report of the State Oil Company of the Republic of Azerbaijan, State Oil Company of the Azerbaijan Republic, Baku. www.socar.az/socar/ assets/documents/en/socar-annual-reports/annual report2014.pdf.
- SOCAR (2015b), SOCAR Website Organization, State Oil Company of the Azerbaijan Republic, Baku. www.socar.az/socar/en/company/organization/azerigas-productionunion.
- SOCAR (2014), Financial Report by SOCAR for 2014, State Oil Company of the Azerbaijan Republic, Baku. www.socar.az/socar/assets/documents/az/socar-annual-reports/illikhesabat2014az.pdf.
- Sputnik News Agency (2016), "Do Gasoline Stations Cheat Us?", Sputnik News Agency, 11 January. http://sputnik.az/life/20160111/403308069.html.
- State Customs Committee (2002), On the Founding of the Tariff Committee, State Customs Committee of the Republic of Azerbaijan, Baku. http://customs.gov.az/az/nkg17.html.
- TAP-AG (2015), TAP-AG Southern Energy Corridor, Trans Adriatic Pipeline, www. tap-ag.com/the-pipeline/the-big-picture/southern-gas-corridor.
- Tariff Council (2016), Tariff Council Tariffs, Tariff Council of the Republic of Azerbaijan, Baku. www.tariffcouncil.gov.az/?/en/content/95/.
- Tariff Council (2015), Tariff Council About, Tariff Council of the Republic of Azerbaijan, Baku. www.tariffcouncil.gov.az/?/en/content/44/.
- Tariff Council (2007), "The Tariff Council Held a Meeting on 6th January 2007", Tariff Council of the Republic of Azerbaijan, Baku. www.tariffcouncil.gov.az/?/az/pressreliz/ view/8/.
- TREND.AZ (2015), В Азербайджане предлагается сократить налоговые льготы для нефтегазовой сферы ("Azerbaijan Proposes to Reduce Tax Expenditure in the Oil and Gas Field") TREND.AZ, Baku, 20 October.
- TREND.AZ (3 August 2015), "AzerEnerji was Given a Delay of 5 Years due to Debt", TREND.AZ, Baku. http://az.trend.az/business/energy/2421795.html.
- TREND.AZ (24 July 2013), "A Decision on Allocating USD 73 Million for Farmers in Azerbaijan was Adopted for 2013", TREND.AZ, Baku. http://az.trend.az/business/ economy/2173887.html.
- World Bank (2016a), Pink Sheet January 2016, World Bank, Washington, DC. www.worldbank. org/en/research/commodity-markets.
- World Bank (2016b), Pump Prices, Gasoline and Diesel, World Bank, Washington, DC. http://data.worldbank.org/indicator/EP.PMP.DESL.CD, http://data.worldbank.org/ indicator/EP.PMP.SGAS.CD.

- World Bank (2015a), *Commodity Markets Monthly Data*, World Bank, Washington, DC. www.worldbank.org/en/research/commodity-markets.
- World Bank (2015b), *Ease of Doing Business Index*, World Bank, Washington, DC. <u>www.</u> doingbusiness.org/rankings.
- World Bank (2015c), *World Bank Country Overview Azerbaijan*, World Bank, Washington, DC. www.worldbank.org/en/country/azerbaijan/overview.
- World Bank (2015d), *World Bank World Development Indicators*, World Bank, Washington, DC. https://data.worldbank.org/data-catalog/world-development-indicators.
- World Bank (2013a), *Balancing Act: Cutting Energy Subsidies While Protecting Affordability*, World Bank, Washington, DC. https://openknowledge.worldbank.org/bitstream/handle/10986/12296/9780821397893.pdf?sequence=7.
- World Bank (2013b), *Implementing Energy Subsidy Reforms: Evidence from Developing Countries*, World Bank, Washington, DC. http://documents.worldbank.org/curated/en/566201468177234043/pdf/735180PUB0EPI00200pub0date010031012.pdf.
- Yafimava, K. (2015), Evolution of Gas Pipeline Regulation in Russia: Third Party Access, Capacity Allocation and Transportation Tariffs, Oxford Energy Institute, Oxford. https://www.oxfordenergy.org/wpcms/wp-content/uploads/2015/03/NG-95.pdf.



From:

Inventory of Energy Subsidies in the EU's Eastern Partnership Countries

Access the complete publication at:

https://doi.org/10.1787/9789264284319-en

Please cite this chapter as:

OECD (2018), "Azerbaijan's energy subsidies", in *Inventory of Energy Subsidies in the EU's Eastern Partnership Countries*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/9789264284319-6-en

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