5 Assessment of the retail market

This chapter describes the division of the retail electricity market and the impact of this on competition. Supply to businesses is based on a competitive framework but low liquidity and other factors in the wholesale market limit the intensity of competition in this segment. The household segment shows no signs of competition due to the fact that prices are regulated well below market levels.

As described in Section 3.2, all electricity consumers in Ukraine are free to choose suppliers. This does not, however, mean that the retail market is fully open to competition. In fact, regulation divides the market into different segments with differing levels of competition.

Business consumers can be divided into two categories: small non-household consumers and medium-sized or large non-household consumers. Public institutions (also referred to as budgetary organisations) are treated as non-household consumers and, depending on their contracted capacity, fall into the small or medium-to-large category.

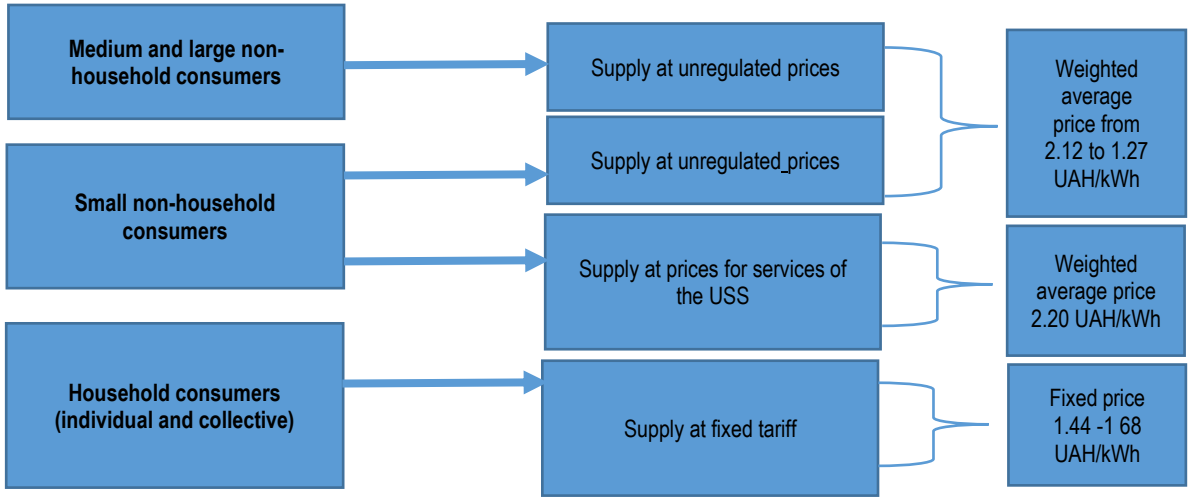
Businesses qualify as small non-household consumers if their connection to the electrical network has a contracted capacity of up to 50 kW. This status depends on the technical specifications of the consumer's equipment, which is included in the contract on the provision of distribution services concluded between the consumer and the distribution system operator (DSO). Businesses with contracted capacity of more than 50 kW are considered medium-sized or large non-household consumers within this classification.

Household consumers are divided into individual households that use electricity to meet their own needs and collective households – legal entities established to settle accounts for electricity consumed by groups of households.

All businesses have the right to purchase electricity from any licensed supplier by concluding contracts at unregulated prices. Small businesses additionally have the right to be supplied under transparent market conditions, which in practice means the right to be supplied by a universal service supplier (USS). Household consumers are also entitled to be supplied by a USS. For USSs, this translates into an obligation to supply small non-household consumers and households when requested.

The legal classification of electricity consumers has an important effect on the functioning of the retail market. Depending on the type of consumer, price formation and actual prices vary significantly (see Figure 5.1).

Figure 5.1. Customer categories and prices in Ukraine's retail electricity market



5.1. Business segment

The business segment comprises electricity supplies to all end users other than households, namely businesses and budgetary institutions. Prices in this segment are either unregulated or based on a methodology approved by the National Energy and Utilities Regulatory Commission (NEURC).

Electricity suppliers conclude network access agreements with those DSOs in whose area they want to supply customers. DSOs publish lists of suppliers that have concluded such agreements. DSOs are obliged to conclude such agreements on non-discriminatory terms with any suppliers requesting them. Since DSOs are unbundled, they have no structural incentives to discriminate and there are no indications of such behaviour taking place.

5.1.1. Supply at unregulated prices

The supply of medium-sized and large enterprises is the least regulated part of the retail market. Prices charged to such customers are unregulated.

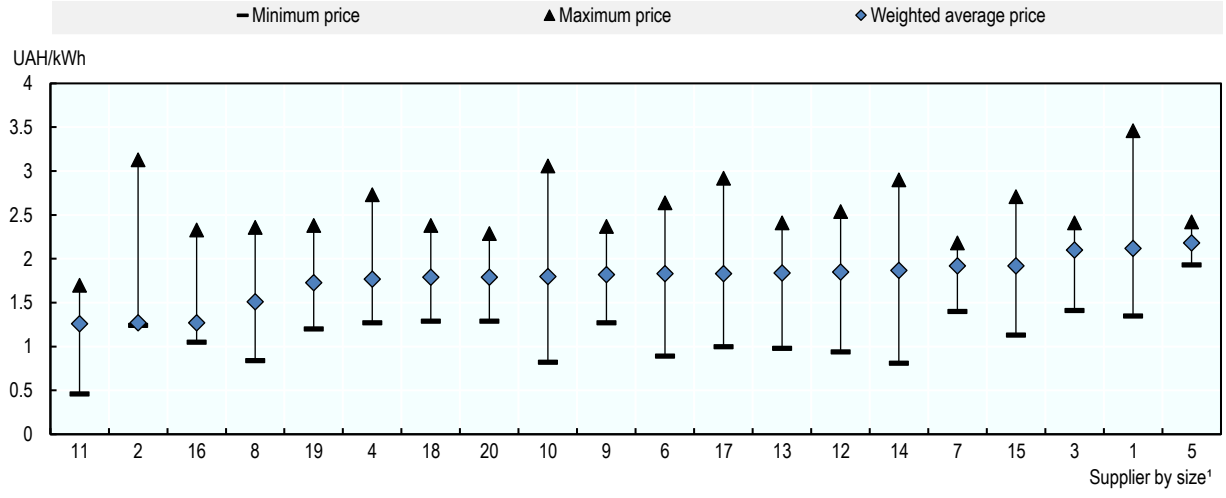
Supply at unregulated prices is usually based on standardised contracts, but conditions can be adjusted at prospective and existing customers' request. Standardised contracts are advertised as commercial offers. Suppliers have several commercial offers aimed at consumers with different consumption profiles. Small and medium-sized enterprises typically select commercial offers, while large enterprises may negotiate some adjustments to the standard conditions.

Suppliers are required to publish their commercial offers on their official websites. An exception is made for offers to large-scale industrial consumers with specific consumption patterns, the details of which are not required to be published. The main elements of commercial offers are stipulated by NEURC. Suppliers may offer fixed or variable prices. In the latter case, the elements of the price must be made explicit. This creates a relatively high level of transparency regarding the conditions offered.

To conclude a supply contract, consumers choose a commercial offer and send an application to enter the contract to the address of the supplier. NEURC publishes and periodically updates the list of suppliers with active commercial offers on its website.[1] The list provides only suppliers' names and links to their commercial offers on their own websites. As of 17 February 2022, 103 suppliers were fielding commercial offers. This had declined to 82 by 27 February 2023.

Figure 5.2 presents the minimum, average and maximum prices by Ukraine's largest retail suppliers to non-household consumers. The weighted average prices are between 1.3 and 2.2 UAH/kWh.

Figure 5.2. Non-household prices of the 20 largest suppliers in (excl. VAT and network tariffs), Q3 2021



1. The numbers indicate the suppliers' size. Number 1 is the largest supplier (by volume), number 2 is the second largest, etc.
Source: NEURC (2021[11]), Report on monitoring the functioning of the wholesale electricity market in the 3rd quarter of 2021.

A partial review of public commercial offers suggests that suppliers offer only variable prices. In fact, their offers show only price formulas without any quantification of the estimated price or price range. In terms of presentation and ease of use, the offers may be difficult for customers to access and understand. Suppliers' websites often contain several PDF documents describing general conditions and various public offers. The descriptions are complete, particularly in terms of commercial, technical and legal details of the contracts. No support in the form of simple descriptions or tools is made available to help prospective customers find the most suitable offers.

One mid-sized supplier, for example, has published 12 commercial offers on its website. It targets consumers with differing average monthly consumption over the past 12 months. Consumers must find the offer that most closely fits their consumption patterns, which requires opening and reading the descriptions. Customers then need to fill out an application form for an electricity supply contract (the request cannot be made online). The price is based on a formula plus a margin for the supplier. In contracts involving the largest volumes, the margin is 35 UAH/MWh. In those involving the smallest volumes it is 100 UAH/MWh. It should be noted that although the price formula is published, an estimated per MWh price is not. To learn final prices, customers must collect information from other sources, such as day-ahead prices published by the Market Operator and network tariffs published by NEURC, and make calculations themselves. This is feasible but time- and resource-intensive. For large enterprises with high electricity bills and dedicated purchasing departments, this should be manageable and worthwhile. Smaller enterprises may, however, be discouraged by the effort needed to compare offers and find the best option.

5.1.2. Supply at approved prices

Enterprises with contracted capacity not exceeding 50 kW can ask to be supplied by the USSs in their regions. Smaller enterprises and many public bodies, such as budgetary organisations, normally fall into this category of consumers.

The provision of universal services to such consumers must follow the price methodology set out by NEURC in 2018.[2]

The components of the price are:

- the price of electricity purchased by the USS under bilateral agreements and/or in organised market segments for supplying small non-household consumers (the price is assumed to correspond to the formula set out in the abovementioned procedure)
- the tariff for electricity transmission services
- the tariff for electricity distribution services (in case of connection to DSO networks) at the appropriate voltage class established by NEURC
- the tariff for the services of the USS.

USSs need to submit their price proposals to NEURC, which verifies the components, changes them if required, and approves the final price.

The weighted average price for universal services across all regions was 2 202.57 UAH/MWh (excluding VAT) in 2020. The largest component was USSs' purchase costs (64.6%), followed by tariffs for electricity distribution services (22.9%) and electricity transmission services (9%), and the margin for USSs (3.5%).

5.1.3. Competition in the business segment

At the end of 2021, Ukraine had 955 licensed electricity suppliers, 101 more than the year before. However, only 287 (30%) of licensed suppliers were active. (NEURC, 2022[2]) Active suppliers are counted based on NEURC's quarterly market monitoring. Suppliers that report at least one valid supply contract are considered active. The difference between active and non-active suppliers is explained largely by the fact that licensed

suppliers have the right – in addition to supplying retail customers – to purchase electricity on the wholesale market for their own needs or for resale. Many non-active suppliers are either industrial consumers purchasing electricity on the wholesale market to cover their own consumption or companies trading electricity on the wholesale market.

As of 31 December 2021, 38 291 contracts for the supply of electricity at unregulated prices had been concluded (NEURC, 2021[3]). More than 82% (31 555) of these had been concluded by suppliers performing the functions of USSs (NEURC, 2021[3]). The remainder (18%) had been concluded by fully commercial suppliers that did not provide universal services. At that time, Ukraine had 261 commercial-only suppliers and 25 USSs.

In terms of volume, supply at unregulated prices accounted for 66 503 GWh, 59% of the business segment. Universal service supplies accounted for 44 768 GWh, 40% of business segment (NEURC, 2021[3]). The remaining 1% was supplied by the supplier of last resort (561 GWh).

A significant part of the supplies at unregulated prices were provided by USSs acting as commercial suppliers. Overall, they had an 85% share of the business segment in volume terms, slightly higher than their share in terms of the number of contracts.

Before Russia's large-scale invasion of Ukraine, the number of business consumers exercising their right to switch suppliers had been increasing gradually (see Table 5.1). During 2021, 23% (32 802) of all non-household consumers changed suppliers.

Table 5.1. Evolution of supplier switching since market liberalisation

Figure	2019[1]	2020[1]	2021[1]
Number of active electricity suppliers	180	265	287
Number of non-household consumers that changed suppliers	6 563	12 498	32 802

1. Values are as of 1 January of the following year.
Source: NEURC (2022[4]), Bulletin to the Annual Report of NEURC, https://www.nerc.gov.ua/storage/app/sites/1/Docs/Byuleten_do_richnogo_zvitu/byuleten_do_richnogo_zvitu_nkrekp-2021.pdf.

In 2020, 6 946 complaints were received from consumers about changing suppliers (NEURC, 2021[3]). That was more than half the number of non-household consumers that changed suppliers. This suggests a high level of dissatisfaction among consumers with the procedures for changing suppliers. This situation is likely to improve with the roll-out of a simplified, automated procedure on Ukrenergo's Datahub platform. The testing of 11 new functions on Datahub, including changing electricity suppliers, began on 15 September 2022 (Ukrenergo, 2022[5]).

5.2. Household segment

The household segment of the retail market entails electricity supply to households. The supply side of the household segment consists of 25 regional USSs. Each USS has an exclusive supply territory – an administrative region, or *oblast* – in which no other company is authorised to supply electricity to households at regulated prices.

The demand side consists of individual and collective households eligible for supply at regulated prices.

5.2.1. Reasons for price regulation

The price for the supply of electricity to household consumers has remained regulated despite the liberalisation of Ukraine's electricity market.

Price regulation is considered economically justified in markets that are natural monopolies. In the electricity sector, transmission and distribution networks generally fall into this category, but the retail supply of electricity is not normally viewed as a natural monopoly. In Ukraine, the Electricity Market Law (EML) explicitly states that the supply of electric energy is a competitive activity.

Price regulation may also be justified in markets that lack effective competition. In such cases, regulation may be an appropriate tool to protect consumers against exercises of market power.

In liberalised electricity markets, there should be no significant administrative hurdles for companies to enter (or exit) the retail market and supply consumers. Setting up an electricity retail business requires expertise and investment, and fulfilment of special regulatory and administrative requirements. In Ukraine, retail electricity suppliers must be licensed, which represents an administrative entry barrier. However, none of the Ukrainian market's entry barriers appear insurmountable. In fact, as presented above, the presence of many licensed retail suppliers suggests that the regulatory and administrative burdens of obtaining licences are relatively light. Further, the fact that more than 200 suppliers are active in the retail market indicates that there is ample interest in supplying Ukraine's retail electricity customers.

In terms of business requirements, supplying electricity to households is not fundamentally different from supplying businesses, especially small enterprises. Retail suppliers currently active in the business segment are therefore well positioned also to supply households.

Overall, there are no clear indications that Ukraine's household electricity segment could not operate as a competitive market in the absence of regulated prices.

Box 5.1. EU legislation on price regulation

The legislation governing retail electricity prices in the EU is Directive 2019/944 on common rules for the internal market for electricity. As a general principle, it requires market-based prices for the supply of electricity and stipulates that "suppliers shall be free to determine the price at which they supply electricity to customers". This is based on the understanding that a fully liberalised, well-functioning retail electricity market stimulates price and non-price competition, and provides the right incentives for market entry and ultimately more choice and satisfaction for consumers.

The 2019 directive considers public intervention in market-based price formation "a fundamentally distortive measure that often leads to the accumulation of tariff deficits, the limitation of consumer choice, poorer incentives for energy-saving and energy-efficiency investments, lower standards of service, lower levels of consumer engagement and satisfaction, and the restriction of competition, as well as to there being fewer innovative products and services on the market". The legislation makes clear that public interventions in electricity prices are therefore justified only under certain conditions.

The directive recognises that a prerequisite for market-based prices is effective competition between suppliers, and it calls on EU member states to ensure that this condition is met. In the absence of effective competition, the directive permits public intervention in electricity prices for household customers and microenterprises, but only for a transitional period. During this period, member states must implement measures to achieve effective competition. Further, prices during the transitional period should be set above cost, at levels at which effective price competition can occur.

For the protection of energy-poor and vulnerable household customers, the directive advocates support through targeted social policy measures rather than public interventions in electricity price setting. It leaves the definition of vulnerable customers to the discretion of member states, but offers criteria such as income levels, energy expenditure as a share of disposable income, and the energy efficiency of homes as guidance.

Under special circumstances, the directive allows public service obligations in the form of price setting for limited durations. Market failures in which interventions by regulatory authorities and competition authorities have proven to be ineffective qualify as such circumstances, as do situations in which "supply is severely constrained, causing significantly higher electricity prices than normal".

Sources: Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU; Energy Community (2021[6]), Ukraine Annual Implementation Report, https://www.energy-community.org/dam/jcr:1731cc05-e414-47a8-95f8-4fb793fe0abd/IR2021_Ukraine.pdf.

In Ukraine regulated electricity prices are not set at the level of effective price competition and not even above cost. Further, the eligibility criteria for fixed prices are very broad, covering all private households and collective households. It appears that price regulation in Ukraine does not serve primarily as a protection against market power but as a tool to keep electricity prices below market-based levels. Although supporting the ability of households to pay for essential services such as electricity is a legitimate policy objective, price regulation is rarely, if ever, the most efficient way of achieving that objective.

Social policy – energy poverty

Electricity and, more broadly, energy are essential for everyday life. Energy bills often make up a significant share of household expenditure. This share varies significantly between countries, depending on average income levels, energy prices, climate and other factors. In the EU, electricity, natural gas and other fuels made up 4.3% of household expenditure in 2020, with the share ranging from 9.2% in the Slovak Republic to 2.2%, in Luxembourg (Eurostat, 2023[7]). Ukrainian households spent an average of 2.67% of their expenditure on electricity.

Under EU legislation, regulated electricity prices for energy-poor and vulnerable households are permitted, but only in exceptional situations and under strict conditions. The reason for this is that regulated prices create serious distortions of investment signals in generation and disempower consumers.

Ukraine has made some legislative progress towards defining the term "vulnerable consumer", but this concept was de facto replaced by a nationwide system of social support for certain categories of consumers. The main component of this system is a housing subsidy programme. Under the scheme, the state supports low-income families in paying for housing and communal services such as electricity, heating and water. Receiving such support requires making individual applications to social protection bodies that verify them and the fulfilment of certain criteria such as income per person. In principle, the housing subsidy programme could be extended to support vulnerable electricity consumers. It should be noted that the state budget is currently under huge pressure, which makes enlargement of the social support system very difficult. Since Russia's large-scale invasion, an estimated 44% of jobs in Ukraine have been lost and the poverty rate is expected to reach 58% in 2023 (World Bank, 2022[8]).

5.2.2. Costs and benefits of price regulation

Price regulation has kept Ukrainian households' electricity bills relatively low. In the absence of price regulation, the price of electricity for households would likely have been significantly higher. This represents a clear and significant benefit of price regulation. Administratively, regulated electricity prices are a simple way to make electricity affordable.

The benefits of price regulation should be balanced against its costs. The most obvious cost is the financial contributions paid by Energoatom and Ukrhydroenergo under the public service obligation (PSO) for households. Energoatom bears an additional cost in form of being constrained in selling its output at commercial terms. It is obliged to sell electricity to USSs to cover part of household consumption at a price linked to the DAM price. In absence of this obligation, it may be able to realise a slightly higher income,

which represents an opportunity loss. The OECD estimates the total cost to Energoatom and Ukrhydroenergo to have been around UAH 63 billion in 2021.

Energoatom and Ukrhydroenergo are both fully state-owned. Their profits and losses are attributed to the state, whose taxpayers ultimately bear and the cost of regulated electricity prices. The biggest beneficiaries of regulated electricity prices are households with high electricity consumption, which are often relatively wealthy. Regulated electricity prices therefore probably contribute to income inequality in Ukraine.

The financing and the effects of regulated prices on the electricity market are more complex and opaquer than direct support for electricity consumers by the state. The PSO for households depresses the revenues of Energoatom and Ukrhydroenergo, which reduces their ability to invest in modernising existing power plants and building new capacity. In case of Energoatom, the decommissioning of nuclear power plants will represent a huge cost in the future. Also, financing is needed for announced plans to build new nuclear units.

Another disadvantage of low regulated prices is that they do not encourage the economical use of electricity. Households are not encouraged to reduce their everyday consumption and invest in more efficient electrical devices.

5.2.3. Effects on competition

Regulated prices run contrary to the principles of a competitive retail market, distorting the production and consumption of electricity. When regulated prices are too low, retail suppliers will be deterred from competing for customers and may exit the market. When regulated prices are too high, benefits to consumers are reduced. Both excessively low and high regulated prices undermine the competitive functioning of the retail market. In theory, regulated prices could be set at the right level, but in practice, finding the right price is a daunting task that is most efficiently done by the competitive process.

Price regulation in Ukraine has de facto eliminated demand for commercial electricity supplies to households and in turn also supply. As long as regulated prices remain considerably below the market price, there is no prospect of competition in the household segment.

Finally, low regulated prices can also have negative consequences for investment into new power plants. They may be perceived as a sign of anti-market sentiment by prospective investors that may spread to wholesale markets.

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Notes

[1] NEURC lists the providers of commercial offers under https://www.nerc.gov.ua/sferi-diyalnosti/elektroenergiya/publichni-komercijni-propoziciyi/publichni-komercijni-propoziciyiyi.

[2] NEURC Decision No. 1 177 “On approval of the Procedure for forming prices for universal services”, 5 October 2018, https://zakon.rada.gov.ua/laws/show/v1177874-18#Text.