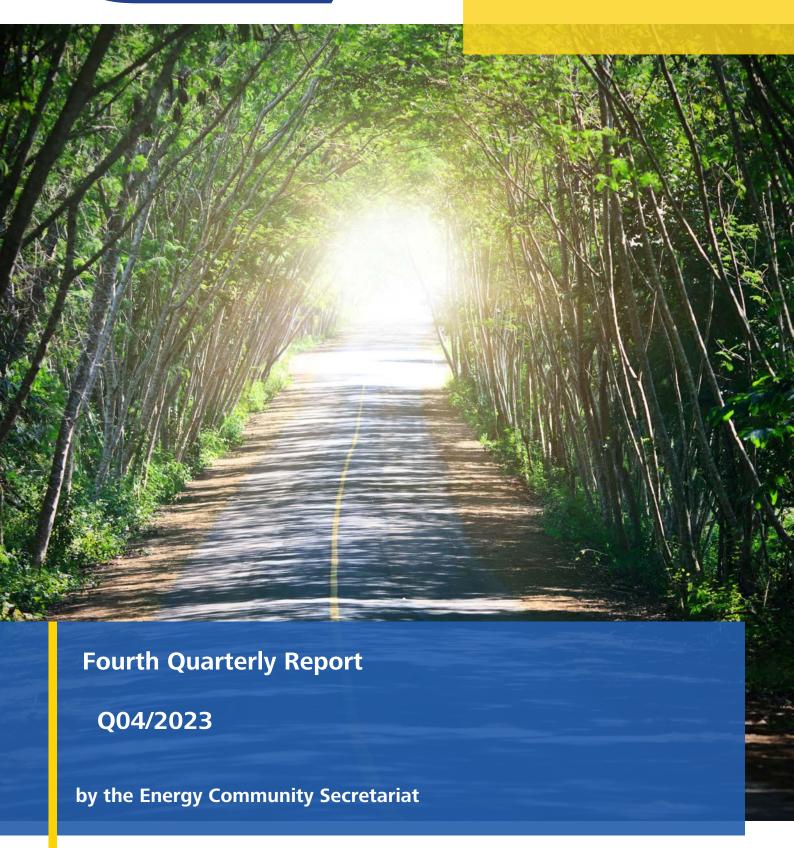


UKRAINE ENERGY MARKET OBSERVATORY



PURPOSE STATEMENT

In January 2023, the Energy Community Secretariat established the Ukraine Energy Market Observatory to streamline and consolidate its monitoring functions under the Energy Community Treaty with regard to Ukraine and its commitments. The current report is summarizing the activities under the Observatory during the fourth quarter (Q4) of 2023.

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Ukraine Energy Market Observatory Report: Q4 2023

March, 2024

1. EXECUTIVE SUMMARY

In Q4 2023, the main developments in the Ukrainian energy markets were highly driven by measures aiming at preparing the energy sector for winter. Section 2 of the Report summarises the main decisions of Ukrainian authorities related to the functioning of the **electricity and gas markets**. Among the main steps falling under the areas of Energy Community acquis, in particular, the transposition of Oil Directive was finalised with the adoption of relevant law. In November 2023, the Synchronisation Project between Ukraine and Continental Europe was completed; the Ukrenergo has become a full member of ENTSO-E. For more information, please refer to Section 2 of this Report.

Ukrainian authorities took a number of decisions to secure the electricity and gas supply ahead of the winter season 2023/2024. Although some measure may be considered as a positive step (e.g. increased price caps on electricity market), some decisions raise concerns in terms of compliance with the Energy Community acquis. For more information, please refer to Sections 2 and 3 of this Report.

After consultations with the Secretariat, NEURC¹ re-submitted the updated draft act on Import PSO for the compliance review. The Secretariat reiterated its concerns as regards its compliance with the Article 3(2) of Directive 2009/72/EC and recommended to consider other short-term measures to address resource adequacy prior the implementation of the PSO mechanisms. For more information, please refer to Section 3 of this Report.

Following the entry into force of the Green Transformation Law² in July 2023, which aims to transpose the REDII³ and the Electricity Directive⁴, a number of secondary regulations were adopted in Q4 2023 to ensure its implementation and create a legal framework for operation of active customers, aggregators, small distribution systems. For more information, please refer to Section 3 of this Report.

¹ National Energy and Utilities Regulatory Commission

² The Law On making changes to some laws of Ukraine regarding restoration and "green" transformation of the energy system of Ukraine No 3220-IX

³ Directive (EU) 2018/2001 of 11 December 2018 on the promotion of the use of energy from renewable sources incorporated by the Ministerial Council Decision 2021/14/MC-EnC

⁴ Directive (EU) 2019/944 of 5 June 2019 on common rules for the internal market for electricity incorporated by Decision 2021/13/MC-EnC and Decision 2022/03/MC-EnC of 15 December 2022

2. KEY DEVELOPMENTS IN THE UKRAINIAN ENERGY MARKETS SINCE THE Q3 2023 REPORT

Electricity

In November 2023 the Synchronisation Project between Ukraine and Continental Europe was completed following the confirmation by ENTSO-E Regional Group Continental Europe of full implementation by Ukrenergo of the Catalogue of Measures outlined in the Agreement on Conditions for the Future Interconnection of the power system of Ukraine with the power system of Continental Europe, signed in 2017⁵. The capacity limit for electricity trade from Continental Europe to Ukraine and Moldova was increased to 1,700 MW⁶. Following the approval by the ENTSO-E Assembly⁷ in December the transmission system operator Ukrenergo has become the full member of the ENTSO-E as of 1 January 2024. These events marked a major milestone in Ukraine's energy sector integration with the European internal electricity market. The Secretariat supported Ukrenergo throughout this process, including by providing ENTSO-E with a compliance assessment report on Ukrenergo's unbundling and corporate governance⁸.

The Cabinet of Ministers of Ukraine prolonged⁹ the designation of the state enterprise "Ukrinterenergo" as a supplier of last resort (SoLR) by 31 December 2024 as well as public service obligation on TSO to finance the activity of SoLR in electricity for the same period. Based on this decision NEURC approved a zero tariff (0,00 UAH/MWh) for SoLR services for 2024¹⁰ and operational costs of SoLR to be covered by the TSO.¹¹ Since the entry into force of the Electricity Market Law on 1 July 2019, the competitive selection of SoLR has never been conducted and latest amendments to transitional provisions of the law prolonged the deadline for competitive selection until 31 December 2025.

The PSO establishing the electricity prices for household customers was prolonged by the Government till 30 April 2024 keeping the price at the level set in June 2023 (2.64 UAH/kWh¹² or ~6.3 euro cents/kWh). In the meantime, NEURC increased for 2024 the transmission tariff by ~9 % (for "green metallurgy" – by ~74 %)¹³, where ~31% of the allowed revenue is attributable to the RES support PSO, and tariff for dispatch services – by 9.5%. Distribution tariffs for 2024 were also increased for most of DSOs¹⁴. As a result, the cost-reflectivity ratio of regulated household electricity price decreased in terms of covering of costs for its production, transportation and taxation¹⁵ compared to the 2023 level.

⁵https://www.entsoe.eu/news/2023/11/28/continental-european-tsos-announce-completion-of-synchronisation-project-with-ukrenergo-and-significant-increase-in-export-capacity-from-continental-europe-to-ukraine/

⁶ Previous limit was 1200 MW

⁷ https://www.entsoe.eu/news/2023/12/14/ukrainian-transmission-system-operator-npc-ukrenergo-joins-entso-e-as-new-member/

⁸ Assessment Note 18/2023

⁹ CMU Resolution No 1385 of 22.12.2023

¹⁰ NEURC Resolution No.2650 dd 29.12.2023, https://zakon.rada.gov.ua/rada/show/v2650874-23#Text

¹¹ NEURC Resolution No.2655 dd 29.12.2023

¹² Hereinafter the exchange rate of UAH/EUR of National Bank of Ukraine on 01.01.2024

¹³ NEURC Resolution No 2322 of 09.12.2023

https://www.nerc.gov.ua/sferi-diyalnosti/elektroenergiya/promislovist/tarifi-na-elektroenergiyu-dlya-nepobutovih-spozhivachiv/tarifi-na-poslugi-z-rozpodilu-elektrichnoyi-energiyi-shcho-diyut-z-01-sichnya-2024-roku

¹⁵ After household electricity price increase in June 2023, it was around 44% as presented under the Ukraine Energy Market Observatory Assessment Note 20/2023

The Government announced ¹⁶ a competitive selection of candidates for the position of the fourth independent member of the supervisory board of the electricity TSO ("Ukrenergo"), however the actual selection was not started in Q4 2023. The State-owned nuclear producer – state enterprise "Energoatom" – was corporatised by the transformation into a joint stock company with the new charter and supervisory board ¹⁷.

In late December 2023, NEURC also opened public consultations on the draft Law of Ukraine "On amending certain laws of Ukraine to transpose Energy Community acts" ¹⁸, which was prepared based on the Secretariat's draft proposal of the amendments aimed at transposing the Electricity Integration Package. This initiated the dialog between state authorities, market participants and other stakeholders, expected to result in a draft legislative proposal to be submitted by the Government to Verkhovna Rada. The Secretariat is supporting finalization of the draft law under the EU4Energy Project.

Gas

In Q4 2023, the Cabinet of Ministers of Ukraine amended the two existing ¹⁹ PSOs in the gas sector several times. In particular, conditions on natural gas supply to households (including regulated price) was extended to gas distribution system operators (as regards gas supply to cover the volume of normative losses and production and technological losses) till 15.04.2024²⁰. Also CMU obliged²¹ Naftogas Supply Company to supply gas from January 1, 2024 to April 15, 2024 (inclusive) from natural gas resources of Ukrainian origin to religious organisations at a price of 16,390 UAH (including VAT) per 1,000 m³ of gas. None of these decisions were consulted with the Secretariat.

At the end of December 2023, the Government also prolonged for 2024 the ban on export of natural gas of Ukrainian origin²², which violates basic Energy Community principles. Again, the ban for 2024 burdens further development of decarbonised gases (e.g. biomethane) oriented for export.

Environment

The Cabinet of Ministers of Ukraine amended the National Plan for Reducing Emissions from Large Combustion Plants (hereinafter, NERP)²³. The amendments stay within the framework of the Large Combustion Plants Directive, considering the amendments made by the Decision 2024/01/MC-EnC of the Ministerial Council.²⁴ In particular, taking into account the specific situation due to the Russian war of aggression against Ukraine as concerns the implementation of the environmental acquis on the reduction of emissions from existing large combustion plants, an approach was introduced for opted-out plants to suspend the calculation of operational hours after the entry into force of martial law in Ukraine. The exact manner depends on whether the

¹⁶ CMU Resolution No 1021 of 10.11.2023

¹⁷ The corporatisation is based on the Law "On the peculiarities of the formation of the joint-stock company

[&]quot;NAEK "Energoatom" No 2896-IX of 06.02.2023

¹⁸ https://www.nerc.gov.ua/storage/app/uploads/public/658/c42/241/658c42241f411493532342.zip

¹⁹ CMU Resolutions No. 812 of 19 July 2022 and No. 222 of 06 March 2022

²⁰ CMU Resolution No. 1257 of 01.12.2023

²¹ CMU Resolution No 1325 of 19.12.2023

²² CMU Resolution No 1402 of 29.12.2023

²³ CMU Resolution No 1222 of 29.12.2023

²⁴ https://www.energy-community.org/dam/jcr:56c46c91-a580-428d-949d-b72cfbef6bf7/MC-EnC%20Decision%202024-01-MC-EnC%20amending%20Decision%202013-05-MC-EnC%20and%202016-19-MC-EnC.pdf

plant is subject to the 20 000 hours²⁵ or the 40 000 operational hours²⁶ regime. These amendments contribute to the stability and functionality of the Ukrainian power system allowing generation plants, including those falling under the scope of the limited lifetime derogation under Article 4(4) of Directive 2001/80/EC, to stay in the system for a longer period of time.

Oil

The Verkhovna Rada of Ukraine adopted the Law on Minimum Reserves of Oil and Petroleum Products No 3484-IX²⁷ of 21.11.2023.

In particular, the Law No 3484-IX provides that minimum stocks of oil and oil products are kept in the form of emergency stocks, which cannot be used for commercial purposes, but are used only to overcome crisis phenomena at the local or global level. The volume of minimum reserves must correspond to at least 90 days of average daily net imports or 61 days of average daily domestic consumption, depending on which of the two values is greater. In addition, during the martial law in Ukraine and six months after its suspension minimum oil reserves and petroleum products can be stored at any central storage facility of EU MSs bordering with Ukraine and the countries of the European Union, bordering such EU MS.

In the final law the legislator considered some recommendations of the Secretariat²⁸, however the implementation of the law will take place only on December 24, 2024 with the achievement of the targeted volume of minimum reserves of oil and oil products within 8 years. This is a substantial delay compared to the commitments under the Energy Community acquis²⁹.

NRA independence

Following the Secretariat's assessment³⁰ of the independence and governance of the national regulatory authority the NEURC prepared³¹ a road map of ensuring its independence and drafted amendments to relevant laws to eliminate reviled incompliance³². The Secretariat will follow with the review and recommendations to the draft law.

The financial independence of the NEURC was preserved for 2024 with the Law on State budget for 2024 approved without changing the financial conditions determined by the NEURC Law. However, the draft Law No 8222 on amendments to the Law of Ukraine on Civil service still under concern.

3. IN FOCUS OF THIS REPORT

➤ MEASURES AHEAD OF WINTER SEASON 2023/2024

 $^{^{25}}$ As of 24 February 2022 and until the end of application of the martial law in Ukraine or by 31 December 2024, whichever the sooner

²⁶ As of 24 February 2022 and until the end of application of martial law in Ukraine or by 31 December 2025, whichever the sooner

²⁷ https://zakon.rada.gov.ua/laws/show/3484-IX#Text

²⁸ For the Secretariat's assessment and recommendations please refer to the Assessment note 16/2023

²⁹ Directive 2009/119/EC, deadline for establishing emergency oil stocks expired on 1 January 2023.

³⁰ https://www.energy-community.org/dam/jcr:4c176023-d2cf-4dda-956d-

fe65308b7503/Note17 Governance%20and%20Independence%20of%20NEURC.pdf

³¹https://www.nerc.gov.ua/news/nkrekp-rozrobila-plan-zahodiv-shchodo-zabezpechennya-svoyeyi-nezalezhnostividpovidno-do-mizhnarodnih-zobovyazan-ukrayini

³² The public consultation open till 27.01.2024

Ukrainian authorities took a number of decisions to secure the electricity and gas supply ahead of the winter season 2023/2024. The Cabinet of Ministers of Ukraine re-introduced³³ a ban on disconnection under load shading measures³⁴ customers supplied with the imported electricity, which is valid for the period of martial law and 3 months after its termination. The ban covers consumers who have not less than 30% of imported electricity in their hourly consumption (during May – September) and 50% of imported electricity (during October – April). Similar regime was in force till the end of winter 2023 caused by the emergency shortages in the power system of Ukraine due to massive shelling. Although the last year's Secretariat's assessment³⁵ did not raise concerns as regards the compliance of such regime with the Energy Community acquis. still the transparency as regards its application needs to be improved. The Cabinet of Ministers of Ukraine also removed the ban on disconnection of household consumers in case of non-payments for consumed utility services (e.g. electricity, gas, etc.), which was introduced right after the Russian invasion³⁶. The prohibition of disconnection is kept only for households which are located in territories where hostilities are taking place or temporarily occupied by the Russian Federation, or if the consumer's property was damaged as a result of hostilities. It is expected by Ukrainian officials that such decision shall contribute to the sector's financial liquidity since for the period of martial law the debts of households e.g. for consumed electricity have grown by 15 bln UAH³⁷.

To incentivise market based electricity imports, the NEURC revised³⁸ price caps on Day-Ahead, Intraday, and Balancing markets. The absolute maximum price caps have been raised during the morning and evening peak load hours, reaching a maximum value of EUR 191 per MWh, applicable from 17:00 to 23:00. The average maximum price cap increased by 7.4% (for more details please refer to Fig.1).

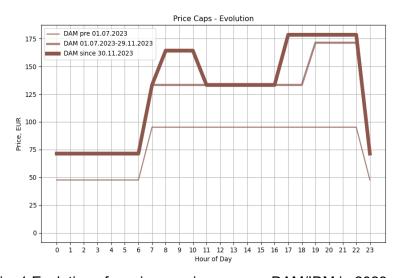


Fig. 1 Evolution of maximum price caps on DAM/IDM in 2023

³³ CMU Resolution No 1127 of 27.10.2023

³⁴ Hourly cut-off schedules and/or measures of limitation of the consumption, but does not apply to automatic load disconnection

³⁵ Assessment Note 03/2023

³⁶ CMU Resolution No 1405 of 29.12.2023

³⁷ https://ua-energy.org/uk/posts/borhy-za-komunalku-skilky-nakopychylosia-i-khto-zaplatyt

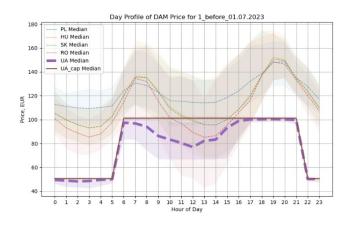
³⁸ NEURC Resolution of 09.11.2023 No 2099, new price caps took effect on 30 November 2023

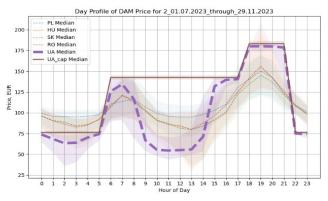
Fig.2 Comparison of Ukraine's DAM prices, price caps and prices of adjacent EU markets

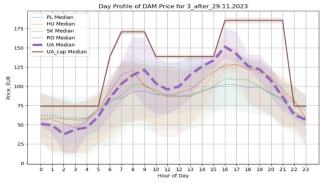
After increasing maximum DAM price caps in Ukraine during 2023 and the introduction of price cap differentiation, Ukraine's DAM market prices demonstrated higher correlation with prices of adjacent EU markets and better reflected the daily system load profile (Figure 2). However, adopted amendments do not change the approach for the price limits design implemented by NEURC on 27 June 2023, which was evaluated by the Secretariat as part of the Ukraine Energy Market Observatory with relevant recommendations³⁹.

On 7 November 2023, the National Security and Defense Council of Ukraine adopted the decision "Regarding additional measures to strengthen the stability of the functioning of the energy system and prepare the national economy for work in the autumn-winter period of 2023/24"40, which listed number of actions to be taken to solve outstanding problems in energy sector and to get prepared for the coming winter. The above-mentioned decisions on electricity market as well as gas export ban for 2024 correspond to this decision.

Nevertheless, no breakthrough decisions to boost sector development and reform were taken. Both energy markets still face







strong state interventions and price regulation. The Government has prolonged the validity of previously introduced PSOs on electricity and gas markets, which lack proportionality and transparency and do not comply with the Energy Community acquis. Electricity market to a large extent still operates based on the NEURC's martial law resolution No 332⁴¹.

More systematic and profound reforms are needed to create a sustainable energy sector able to resist war challenges and ensure the post-war recovery. Risk preparedness in electricity and gas sectors, including for winter season, shall be governed by a well-defined risk preparedness framework as defined by the acquis in force⁴². A comprehensive system for support of vulnerable

³⁹ Assessment Note 13/2023

⁴⁰ Decree of the President of Ukraine No 737/2023, https://www.president.gov.ua/documents/7372023-48809

⁴¹ https://zakon.rada.gov.ua/rada/show/v0332874-22#Text

⁴² Regulation (EU) 2019/941 of 5 June 2019 on risk-preparedness in the electricity sector and repealing Directive 2005/89/EC and Regulation (EU) 2017/1938 of 25 October 2017 concerning measures to safeguard the security of gas supply as amended by Regulation with regard to gas storage

consumers has to be designed and implemented. Limited fiscal and energy sector resources need to be focused on the protection of the most vulnerable customers.

DRAFT IMPORT PSO

In November 2023, NEURC submitted to the Secretariat updated draft act on public service obligation (PSO) requiring electricity importers to provide services of public interest for the balancing of the electricity market during martial law. The Secretariat review the draft in the context of the Memorandum⁴³ with NEURC and concluded⁴⁴ that the updated draft does not comply with the principle of proportionality and limited duration of Article 3(2) of Directive 2009/72/EC as well as lacks a number of details on matters potentially necessary for its implementation. Moreover, the Secretariat noted the incompliance of Ukrainian legislation with the Article 41 of the Energy Community Treaty⁴⁵, as customs duties/excise taxes are still applicable to imports of electricity to Ukraine. Therefore, the Secretariat recommended to consider other short-term measures to address resource adequacy prior the implementation of a PSO mechanisms, in particular:

- further increase or removal of the price caps in the organised markets (at least during the heating season or in the periods of identified risk to ensure short-term resource adequacy) to allow commercial imports as an alternative to imposing PSOs. This includes a revision of the price cap on the balancing market. Partially, this recommendation was recognized by the NEURC in its decision on increased price caps as of November 2023;
- abolishment of excise taxes and import duties as a mean to reduce the costs of imports;
- limit any additional PSO for the purpose of incentivizing imports in time and align the two different regulatory regimes (PSO and CMU Resolution) and prioritize (non-monetary) protection from disconnection to the extent suitable to maintain system adequacy;
- adjust the transmission tariff methodology (including review periods, recognition of costs for working capital etc.) to the additional financial burden on Ukrenergo.

> THE GREEN TRANSFORMATION LAW AND ITS IMPLEMENTATION

The Green Transformation Law⁴⁶ became effective on 27 July 2023. The Law introduces amendments to several laws in Ukraine (most importantly the Law "On Alternative Energy Sources"⁴⁷ and the Law "On the Electricity Market", ⁴⁸ (hereinafter the Electricity Market Law), partially transposing provisions of the RED II and the Electricity Directive. The relevant draft law was assessed by the Secretariat with a number of recommendations to ensure full compliance⁴⁹. Following the adoption of the law, the Secretariat prepared the assessment of the text in force and concluded that some provisions of the law raise doubts as to their compliance with the Energy Community acquis, and need further improvements and clarifications.

During Q4 2023, the implementation of the Green Transformation Law has progressed, in particular on the following issues:

⁴³ Memorandum of Understanding between the NEURC and the Energy Community Secretariat on mutual cooperation in the area of public service obligations of December 1, 2022

⁴⁴ Response of the Secretariat of 12 December 2023

⁴⁵ Prohibits customs duties and quantitative restrictions on the import and export of Network Energy and all measures having equivalent effect

⁴⁶ https://zakon.rada.gov.ua/laws/show/3220-20#n450

⁴⁷ Law No. 555-IV dated 20.02.2023, https://zakon.rada.gov.ua/laws/show/555-15#Text

⁴⁸ Law No.2019-VIII dated 13.04.2017, https://zakon.rada.gov.ua/laws/show/2019-19#Text

⁴⁹ https://www.energy-community.org/dam/jcr:f58f9b75-dc4a-4ee6-b34e-b1d4cc367173/Note08.pdf

a) Guarantees of origin for energy from renewable 50 sources

The Green Transformation Law established a legal basis for implementing a Guarantees of Origin (hereinafter GOs) system that complies with RED II and European standards. The issuing body for GOs for electricity from RES is the NEURC, and the State Agency on Energy Efficiency and Energy Saving is the issuing body for GOs from renewable gases. The procedure for issuing, circulation, and usage of GOs of electric energy produced from renewable energy sources was published by the Ministry of Energy for public consultations⁵¹.

b) Active customers

The Green Transformation Law introduced the concept of active customer⁵² to the legal framework of Ukraine. To become an active customer a consumer has to conclude a contract under the self-production mechanism, or to sell electricity at "green tariff", or to install storage in order to participate in the market (e.g. DAM, IDM, BM or ancillary services market) individually or through the aggregator.⁵³

Limitations to certain types of installations of self-generated electricity (such as from alternative energy sources only)⁵⁴ and provisions related to uncertainties regarding the limits of installed capacity for self-consumers, which were concerned by the Secretariat,⁵⁵ remain unchanged in the Law and further in the secondary legislation (Table 1).

In December 2023 the NEURC approved the Procedure ruling the sale and metering of electricity produced by active customers and settlements thereof (hereinafter, the Procedure for active customers)⁵⁶. Also, NEURC amended the Transmission Grid Code (hereinafter, TGC) and the Distribution Grid Code (hereinafter, DGC) with provisions defining the connection conditions for generating installations of consumers and providing some conditions for the installment and usage of the storage facilities by active customers. ⁵⁷

TGC provides that the active customer can connect storage facilities to its own networks for the purpose of the output of the stored energy into the transmission grid (or other entities), or for the participation in the ancillary service market, provision of the balancing services and selling and buying of the electricity in the organized market segments. Such customer shall ensure the metering of the electricity in line with the Commercial Metering Code. TGC also stipulates that the active customer can install and use storage without obtaining a special license, if the installed capacity of the storage does not exceed the permitted (contractual) capacity of such consumer's facilities intended for the consumption of electricity. An active customer has the right to connect to its own network storage of third parties with an installed capacity that does not exceed the

⁵⁰ The Secretariat highlights that the terms "alternative" and "renewable" sources, which essentially convey the same meaning, are used in various laws. It is important to harmonize this terminology. According to the REDII, the term "renewable" should be used consistently

https://mev.gov.ua/rehulyatornyy-akt/povidomlennya-pro-oprylyudnennya-proyektu-postanovy-kabinetu-ministriv-ukrayiny-6. The CMU Resolution No 227 "On the introduction of guarantees of origin of electricity produced from RES" was further approved on 27.02.2024

⁵² Active customer – is a <u>consumer, including a private household, an energy cooperative and a consumer who is a customer of an energy service that consumes electricity and produces electricity, and/or carries out energy storage activities, and/or sells excess produced and/or stored electric energy, or participates in energy efficiency and demand management measures in line with the requirements of the law, provided that these activities are not his main economic or professional activity</u>

⁵³ Article 58-1(1) of the Electricity Market Law

⁵⁴ Article 9(6) of the Law "On Alternative energy sources"

⁵⁵ For details – see the Note 08/2023 to the draft Law, https://www.energy-community.org/dam/jcr:f58f9b75-dc4a-4ee6-b34e-b1d4cc367173/Note08.pdf

⁵⁶ NEURC Resolution No 2651 dd 29.12.2023

⁵⁷ NEURC Resolution No 2 dd 10.01.2024

permitted (contractual) power of such consumer's electrical installations minus the installed capacity of consumer's own storage, respectively, and on the condition that the entire volume of selection/release electric energy by storage, belonging to third parties, is bought/sold by such a consumer.⁵⁸

Table 1. Limits of permitted installed capacity for generating installations of active and other types of customers (as defined by the Article 58-1(2) of the Electricity Market Law)

Other consumers, including Non-household consumers generating units with the generating units with generating units with the generating units with the installed capacity not installed capacity which installed capacity which installed capacity not exceeding 50 kW, intended does not exceed 150 kW. does not exceed the exceeding the permitted for the production of intended for the production permitted (contractual) (contractual) consumtion electrical energy from the of electrical energy from consumption capacity, but capacity of such a solar and/or wind energy not more than 50 kW, and solar and/or wind energy, consumer and the sale of and its sale at a "green" from biomass, biogas, the sale of produced (but produced energy (but not hydropower, geothermal not consumed) electrical consumed electrical energy energy and its sale at a energy using the selfby the mechanism of self-"green" tariff production mechanism production generating units, provided that the installed capacity of the generating units does not exceed the permitted (contractual) consumption capacity of such consumer's, but not more than 30 kW, and for the sale of produced, but not consumed electrical energy under the selfproduction mechanism

According to the DGC,⁵⁹ only active customers have the right to install and connect generating units in their own electrical networks (including generating facilities of third parties), with the possibility of injection of electricity produced by such installations to the distribution network and network of small DSOs, and the total installed capacity shall not exceed the value determined by law. In other cases – consumers may install generating units without the possibility of injection of electricity to the network. The limits of the permitted capacity are the following:⁶⁰

- the installed capacity of generating units with the possibility of injection into the grid at the distribution point cannot exceed the capacity allowed for consumption under the contract for the distribution services:
- for an active customer under the self-production mechanism (except for a household consumer and a small non-household consumer), the permitted capacity for output to the grid (including generating and energy storage facilities of third parties) cannot simultaneously exceed 50% of the permitted (contractual) consumption capacity of such customer;
- for an active customer (household and small non-household consumer), including generating and energy storage facilities of third parties, the permitted capacity for output to the grid cannot simultaneously exceed the permitted (contractual) consumption capacity of such active customer.
- an active customer has the right to install and/or connect storage (including storage of third parties) for the purpose of participating on the wholesale market segments

⁵⁸ Paragraph 7.12.1 of the TGC

⁵⁹ Paragraph 4.12.1 of the DGC

⁶⁰ Paragraph 4.13.1 of the DGC

independently or as part of aggregated groups at the connection voltage of their own current receivers, which does not exceed 20 kV.

According to the Procedure for active customers, an active customers may use the self-production mechanism or sell the electricity at the "green" tariff, but not simultaneously for the same generation unit.⁶¹

Households sell the electricity produced by their generating facility at the "green" tariff to the USS⁶². The amount of electricity injected into the grid is determined per calendar month in an amount exceeding the monthly electricity consumption by such a household. If household customer has not consumed electricity during the month, but generated to the grid, the sell price is the "day-ahead" market price, but not higher than the price at which the USS supplies electricity to household.

Under the self-production mechanism, the settlement period is one month. If the cost of the consumed electricity for the month exceeds the cost of injected electricity, then the difference is to be paid by the active customer to the supplier. In the reverse case – the difference is credited by the supplier to the active customer's personal account.

Transmission and distribution services are paid by the customer through the supplier. Active customers who installed storage – pay for network services separately for the volume of consumption by the consumer and for storage – for a difference of withdrawn volume by the storage and injected into the grid. The main conditions of the self-production mechanism, as defined by the Procedure for active customers, are presented in Fig.3.

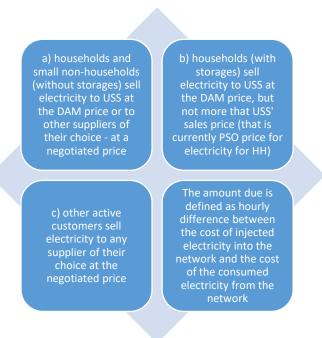


Fig. 3 Conditions of self-production mechanism as regards the sale price of produced electricity

c) Aggregation

⁶¹ P.3.1 of the Procedure for active customers

⁶² Universal Service Supplier

According to the Green Transformation Law, aggregation is a new activity in the electricity market of Ukraine. The main features as regards aggregation are the following:

- aggregation may be performed by an independent aggregator or by any other market participant;
- the aggregation activity is subject to licensing, the aggregator's license is not required only if the market participant already has a license for generation and/or supply and/or storage operator or is a guaranteed buyer. In October 2023, NEURC approved the licensing conditions for the activity of aggregation⁶³ and amended the TGC and DGC, Commercial Metering Code and other legal acts to create the regulatory framework for aggregators' operation in the electricity market;
- aggregation is allowed for storage, consumption and generating units (the latter with an installed capacity of up to 20 MW);
- an independent aggregator cannot supply electricity to consumers and be affiliated with an electricity supplier and/or USS of a consumer whose electrical installations are aggregated by him;
- technical requirements for aggregated installations to provide balancing and ancillary services are defined by the TGC;
- the Electricity Market Law provides that aggregation may also be with the aim of trade in the market (not only for providing balancing or ancillary services).

The regulatory framework for aggregators still needs further improvements. In particular non-discriminatory and proportionate rules clearly assigning roles and responsibilities to electricity undertakings and customers (existing licensees, independent aggregators) need to be established. Such rules shall determine their balancing status, data exchange requirements, a conflict resolution mechanism as well as other rights and obligations for this new type of market participants, as defined by the Electricity Directive. It is expected that relevant provisions will be included in the draft law transposing the Electricity Integration Package.

d) Small distribution systems

The Green Transformation Law amended the provisions of the Electricity Market Law defining the criteria and conditions for operation of small distribution system operators (hereinafter, small DSO). In particular, the activity of small DSOs is now subject to licensing, and the NEURC has already approved the relevant licensing conditions⁶⁴. The classification and criteria for the definition of small distribution systems are determined by the Electricity Market Law and further detailed in the DGC based, in particular, on the number of users (no less than two) of the small distribution system, the amount of electricity distributed by the small distribution system (monthly average distributed volume no more than 5 MWh) and the connection capacity to the transmission system and/or the distribution system (no less than 1MW). These criteria are not in line with Article 38 of the Electricity Directive and further shall be amended.

The Green Transformation Law also provides for several exemptions for small DSOs compared to the regulation of DSOs. In particular, the distribution and connection charges of small DSOs are determined by the operator itself, and such charges may not be higher than the distribution tariff (for relevant voltage class)/connection charge of the DSO, which is the owner of the largest distribution system in the territory of the relevant region. At the same time, the Law lacks the right of the user of a small distribution system to request the Regulator to review and approve tariffs, or the methodologies underlying their calculation as defined by the Article 38(3) of the Electricity

⁶³ NEURC Resolution 1909 of 18.10.2023

⁶⁴ NEURC Resolution 1813 of 04.10.2023

Directive. The fee for commercial metering services provided the small DSO on its territory is calculated in accordance with the methodology approved by the NEURC.

The small DSOs are also exempted from unbundling requirements, and may own and operate storages and recharging points for electric vehicles. The provisions on small distribution systems of the industrial parks are not in line with the Electricity Directive, as the Electricity Directive does not define such specific types of small distribution systems.

4. OBSERVATORY ACTIVITIES IN Q4

Under the Ukraine Energy Market Observatory, during Q4 2023, the Secretariat assessed compliance of a number of draft legal and regulatory acts communicated by Ukrainian authorities and stakeholders with the Energy Community *acquis*. The following assessment notes were prepared by the Secretariat and published on the Energy Community website:⁶⁵

Acquis	Assessment Notes
ELECTRICITY/GAS	No 17/2023 - The National Energy Regulatory Authority of Ukraine
(NRA)	Governance and Independence
	Compliance assessment of the National Energy and Utilities Regulatory
	Commission with the Energy Community acquis.
ELECTRICITY	No 18/2023 - Certification and Unbundling of Ukrenergo
	Assessment of the compliance by the Ukrainian electricity TSO
	Ukrenergo with the unbundling requirements of Directive 2009/72/EC
	No 20/2023 - Assessment of the Resolution of the Cabinet of
	Ministers of Ukraine of May 30, 2023 No 544 "On amendments to
	the resolution of the Cabinet of Ministers of Ukraine of June 5, 2019
	No. 483"
	Assessment of the amendments, adopted by the Resolutions of Cabinet of Ministers of Ukraine No 544 of 30 May 2023 as regards the new electricity prices for households.
GAS	No 19/2023 - Assessment of the amendments to the Gas
	Transportation Code and the Rules for the supply of natural gas
	(regarding the procedure for switching the supplier by non-
	household consumers)
	Assessment of the Resolution No 1454 of 8 August 2023 adopted by the
	National Energy and Utilities Regulatory Commission on the approval of
	changes to some resolutions of the NEURC, amending the Gas
	Transportation Code and the Rules for the Supply of Natural Gas related
	to the procedure for switching the supplier by non-household
	consumers.

⁶⁵ https://www.energy-community.org/Ukraine/observatory.html