



Європейсько-українське енергетичне агентство

European-Ukrainian Energy Agency

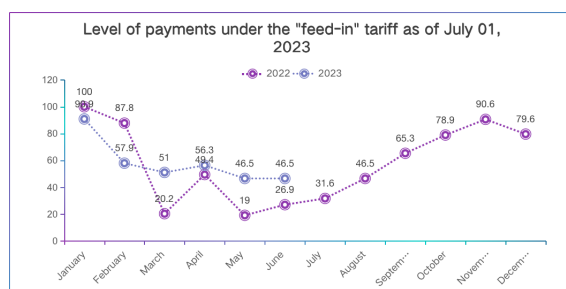


Level of payments under the "feed-in" tariff as of 1st July 2023

According to the SE "Guaranteed Buyer," the payments made for electricity purchased in 2022 amounted to UAH 0.96 billion. For the first five months of 2023, the payments reached **UAH 12.6 billion**.

As of July 1st, the company had settled 99% of the total amount owed for electricity purchased in 2021, 55.2% for 2022, and **53.8%** for electricity purchased in 2023. Notably, the payment levels for May and June (28 days) 2023 stood at the same level, namely 46.5%, while April saw a slightly higher percentage at 56.3%. Meanwhile, the debt owed by NPC "Ukrenergo" to the "Guaranteed Buyer" stands at **UAH 21.5 billion**.

From January 1 to July 01, 2023, the "Guaranteed Buyer" purchased a total of **3,888 thousand MWh** from producers of "green" energy. Among these, solar energy accounted for 68%, wind energy for 16%, bioenergy for 13%, and hydropower for 4%.

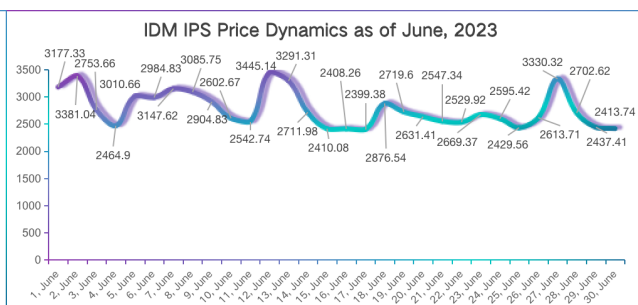
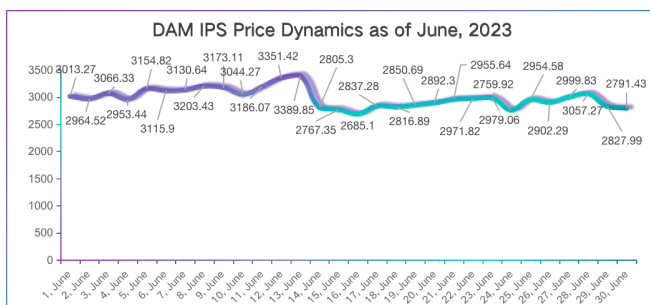


Source: [Guaranteed Buyer](#).

Market DAM and IDM Price Dynamics

During June 2023, the average price of electricity in Ukraine's Integrated Power System (IPS) Day-Ahead Market (DAM) witnessed a significant increase. The average price climbed to **UAH 2,987 per MWh**, indicating a substantial rise of **24.3%** compared to June 2022, when the average price stood at UAH 2,263 per MWh.

In June 2023, the Intraday Market (IDM) of Ukraine's Integrated Power System (IPS) experienced a notable increase in the average electricity price. The average price reached **UAH 2,774 per MWh**, marking a significant **13.8%** rise compared to the corresponding period in the previous year.

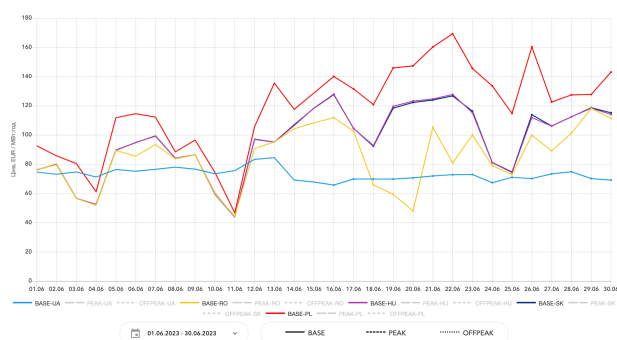


Source: [Ukrainian Market Operator](#).

In June, neighboring countries experienced a range of dynamics in electricity prices for base load, with fluctuations from high to low. However, notable price drops were observed on June 6 and 11 in these countries, registering average prices of 54.6 EUR/MWh and 44.8 EUR/MWh, respectively. During the month, the highest prices were recorded on the following dates:

- Hungary (June 16) at 128.1 EUR/MWh,
- Slovakia (June 16) at 127.7 EUR/MWh,
- Romania (June 29) at 118.4 EUR/MWh,
- Poland (June 22) at 169.4 EUR/MWh,
- the Integrated Power System (IPS) of Ukraine (June 13) at 84.6 EUR/MWh.

As of June 2023, the average price in Ukraine stands at **73.1 EUR/MWh**.



Source: [Ukrainian Market Operator](#).

In June 2023, Ukraine witnessed a substantial increase in electricity **imports**, reaching 43.7 thousand MWh, compared to May when the country imported 23.6 thousand MWh. This signifies an impressive **85%** surge in electricity imports during June. It is worth noting that a majority of these imports took place on weekends and holidays, coinciding with the period when European market prices were at their lowest.

Examining the sources of these imports, Ukraine obtained nearly 18 thousand MWh from Slovakia and 5.6 thousand MWh from Moldova in May. However, the import distribution underwent a notable shift in June, with Moldova contributing **41%** of the imports, while Slovakia accounted for **59%** of the total imports. Consequently, there was an increased reliance on Slovakia in June, compared to May.

Turning to electricity **exports**, Ukraine conducted exports totaling 41.3 thousand MWh in May 2023. However, in June, the country experienced a substantial 85% decline in electricity exports, with the total amounting to **6,175 MWh**.

Analyzing the changes in both imports and exports, it becomes evident that June witnessed an upward trend in imports and a significant decrease in exports compared to May. These fluctuations in electricity trade dynamics exemplify the dynamic nature of energy markets, which can be influenced by various factors such as supply-demand dynamics, interconnection capacity, regulatory frameworks, and bilateral agreements.

Import electricity from Moldova and Slovakia, as of June 2023



Export electricity to Moldova, Poland, as of June 2023



Source: [ExPro Consulting](#).

TOP RES News

Draft Law 9011-d on the green transformation of the energy system: the Verkhovna Rada of Ukraine voted in the second reading and as a whole

On June 30, 2023, the Verkhovna Rada of Ukraine adopted in the second reading and as a whole the draft law 9011-d "On Amendments to Certain Laws of Ukraine Regarding the Restoration and Green Transformation of the Energy System of Ukraine". The law aims to enhance support for renewable energy production, promote sustainable growth in the sector, and improve energy security in the country. It received the support of 279 MPs. As noted on the website of the VRU Committee on Energy, the main provisions of the Law provide for:

- implementation of a system for confirming the origin of electricity produced from renewable sources – guarantees of origin;
- a partial change in the mechanism of conducting auctions for the construction of RES generation;
- introduction of the possibility of transition of existing producers from the «feed-in» tariff to «feed-in-premium»;
- restoration of damaged RES generation facilities while preserving the «feed-in» tariff;
- introduction of the possibility of consumer participation in the provision of services on the electricity market through aggregators;
- creation of a prosumer mechanism that enables consumers to install generation for their own needs and sell the remaining unused electricity to their supplier;
- extension until the end of 2023 the period during which wind power plants (WPPs) can be built at the «feed-in» tariff. This provides an opportunity for investors who, due to the war, were unable to implement wind farm construction projects, to complete the implementation of their projects. [Source](#). [Details](#).

The first reading of the draft law was analyzed by industry experts and associations, including the European-Ukrainian Energy Agency, and recommendations and amendments were submitted to the Committee on Energy. Overall, it is seen as an important step towards meeting the Energy Community requirements and resolving issues that have hindered the Ukrainian renewable energy sector since 2020. The Energy Community Secretariat supports the draft law with certain recommendations. [Details](#). [Analysis](#).

The Ukrainian Regulator set new price-caps for electricity

On June 27, the NEURC adopted a resolution "On establishing limit prices on the day-ahead market, intraday market and balancing market." According to the Resolution, starting from June 30, 2023, the following maximum prices are set for:

1) the day-ahead market (**DAM**) and the intraday market (**IDM**): the maximum limit prices for the hours of minimum load (from 00:00 to 07:00 and from 23:00 to 24:00) – **UAH 3,000.00/MWh** and for hours (from 07:00 to 19:00) – **UAH 5,600.00/MWh**; for hours of maximum load (from 19:00 to 23:00) - **UAH 7,200.00/MWh**; minimum marginal price – **UAH 10.00/MWh**;

2) for the **balancing market**: the maximum limit price is **125%** of the IDM price determined by the market operator for each calculation period of the corresponding day of supply; the minimum marginal price is **UAH 0.01/MWh**. [Source](#).

The Export Credit Agency will insure investments in Ukraine against war risk

The draft law № [9015](#), concerning the insurance of investments in Ukraine against war risks, was approved by the Ukrainian Parliament. Its purpose is to facilitate increased investment in Ukraine during military operations and post-war reconstruction. This legislation allows the Export Credit Agency (ECA) to provide insurance coverage for domestic investments, but with a requirement that they be utilized for the development of facilities and infrastructure essential to

Ukraine implements REMIT regulation: Parliament adopted the Law

On June 30, the President of Ukraine signed the Law on Prevention of Abuse in Wholesale Energy Markets (Law № 5322). This law implements the REMIT Regulation, a set of European rules aimed at preventing abuses in energy markets, including electricity and natural gas markets. It holds market participants accountable for any such abuses. The purpose of this law is to implement the REMIT Regulation (EU) № 1227/2011, which ensures integrity and transparency in wholesale energy markets. The law also includes provisions related to the extension of pre-PPA contracts and technical conditions for wind energy projects. It addresses the distribution of revenues from the sale of crossings by NPC "Ukrenergo" and the payment of debts for renewable energy service. The adoption of the REMIT Law is a significant milestone for Ukraine's integration into the electricity and gas markets of its EU neighbors. It promotes transparency in the Ukrainian energy market and establishes a level playing field between Ukrainian and EU market participants, especially in the context of electricity market coupling. Artur Lorkowski, Director of the Energy Community Secretariat, emphasized the importance of this law for enhancing trust and market functioning. [Details](#). Read more about the Law in the special project of the VRU Committee on Energy - [remit.in.ua](#).

The Government approved the Procedure for keeping the register of emissions and transfer of pollutants

On June 02, at the CMU meeting, the approved procedure for managing the National Register of Emissions and Transfer of Pollutants has been announced. This procedure encompasses several key aspects, including the functionality of the Register, the establishment and management of user electronic accounts, guidelines for data entry and information submission, registration procedures for operators and their respective facilities, reporting obligations for operators, as well as the submission of certificates pertaining to diffuse sources.

the advancement of the processing industry and the exportation of Ukrainian-origin goods and services. [Details](#).

Ukraine's Energy Strategy 2050: Transforming into Europe's Energy Hub

During the URC2023, Minister of Energy Herman Halushchenko presented Ukraine's long-term Energy Strategy until 2050. The core objective of this strategy is to transform Ukraine into a prominent energy hub of Europe, thereby aiding the continent in breaking free from its dependence on Russian fossil fuels by leveraging Ukraine's clean energy resources. Minister emphasized that Ukraine is poised to drive a fundamental transformation of the European energy sector and facilitate an energy transition through advancements in hydrogen and biotechnologies, the production of green steel, and the cultivation of green fertilizers.

The Energy Strategy outlines multiple development scenarios for security and economic growth, contingent upon factors such as the resolution of the ongoing war, GDP growth rates, demographic trends, and Ukraine's integration into the European Union.

By 2050, Ukraine has the potential to significantly augment its energy generation capacity, including wind power up to 140 GW, solar power up to 94 GW, energy storage up to 38 GW, nuclear power up to 30 GW, combined heat and power (CHP) and bioenergy up to 18 GW, and hydroelectric power up to 9 GW.

The strategy also highlights substantial investment opportunities for new energy capacities, amounting to \$383 billion. Specifically, wind generation is projected to require \$134 billion, solar power \$62 billion, hydrogen technologies \$72 billion, energy storage \$25 billion, nuclear power \$80 billion, and transmission systems \$5 billion, with hydropower requiring \$4.5 billion. [Details](#).

High-level Advisory Group on the Ukrainian NECP launched in London amid Ukraine Recovery Conference

The Government of Ukraine, the Energy Community Secretariat, G7+ members and international partners presented, at the premises of EBRD HQ, including EBRD, EIB, USAID, World Bank, UNDP, DFC recognized that an integrated National Energy and Climate Plan for Ukraine (NECP) is a key reference document in line with Ukraine's economic recovery vision, outlining Ukraine's green rebuilding reform priorities, based on the EU template for energy and climate governance, aligned with the Energy Strategy 2050, the international commitments of Ukraine under the Paris Agreement, with the European accession process and decarbonisation targets under Energy Community Treaty. A well-designed NECP shall facilitate market reforms and ensure consistency across the various sectoral policies and objectives of the European

These provisions aim to ensure comprehensive and efficient management of the Register while promoting transparency and accountability in tracking emissions and pollutant transfers. [Details](#).

Ukraine Recovery Conference 2023: what support the partners have promised

- The Innovation Fund "InnovateUkraine" will be created in the amount of 62 million pounds. Also, an Agreement was signed between Great Britain and IFC on the financing of Ukraine's energy security programs in the amount of 30 million dollars." [Details](#).
- The United States will provide more than \$1.3 billion to rebuild Ukraine, State Secretary Antony Blinken said.
- France will allocate €40 million to rebuild critical infrastructure and increase Ukraine's resilience, Foreign Minister Catherine Colonna said. The country will also launch an investment protection mechanism through the state Public Investment Bank.
- Germany will provide an additional €381 million for humanitarian aid this year, Foreign Minister Annalena Berbock said.
- The European Union has committed to covering 45% of the financing of the reconstruction of Ukraine until 2027, said the President of the European Commission, Ursula von der Leyen.
- Spain will provide a wide package of civil aid worth €7 million and 24 tons of humanitarian aid for victims of the explosion of the Kakhovskaya HPP, Foreign Minister Jose Manuel Alvarez said. [Source](#).
- The EBRD and 19 development financial organizations (DFIs) signed a Memorandum of Understanding at the URC2023 in London, which will facilitate the implementation of joint investments in the private sector of the Ukrainian economy. [Source](#).
- The EBRD will allocate EUR 600 million for Ukrainian energy. EBRD President Odile Renaud-Basso signed three memorandums of understanding with the Prime Minister of Ukraine Denys Shmyhal regarding the mobilization of EUR 200 million for Ukrrenerg, EUR 200 million for Naftogaz, and EUR 200 million for Ukrhydroenergo.

The Ministry of Energy and the European Commission have updated the program of actions in the field of energy for 2023

The Ministry of Energy of Ukraine and the European Commission signed a work plan for 2023 aimed at further implementation of the Memorandum of Understanding on Strategic Energy Partnership. The document defines a number of directions for the joint work of Ukraine and the European Commission. Among them: increasing energy efficiency, nuclear safety, transformation of coal regions, oil reserves, integration of the gas market and the electricity market, development of renewable energy, science and innovation. [Details](#).

Energy Union. With the development of the NECP until mid-2024, it is aimed to unlock Ukraine's potential to leapfrog to a state-of-the-art decentralized energy system based on renewables, which will serve a modern and highly-efficient energy system in the future. [Details](#).

SAEE plans to launch a register of biomethane guarantees of origin in the fourth quarter of this year

This was reported by the director of the Department of Renewable Energy Development of the State Agency for Energy Efficiency and Energy Saving (SAEE), Olena Lenska, during the Third Conference on Energy Law, which is held on June 15 by the Association of Lawyers of Ukraine. "We have the newly appointed head of the SAEE- Hanna Zamazeyeva, she set us the task of launching the register in 4 months... If we launch the register of guarantees of origin by the end of the year, it will be a very significant event for our agro-industrial complex, which is a potential the opportunity to carry out export operations to the EU," she said. The representative of the SAEE added that there are 64 biogas complexes operating in Ukraine, which, with the right investment climate, can be equipped for the production of biomethane. [Details](#).

Energoatom and the Energy Community Secretariat signed a Memorandum of Understanding

While continuing to support Ukraine and in accordance with the signed Memorandum, the Energy Community will coordinate legal activities regarding compensation for damage to Ukraine's energy infrastructure caused by the Russian Federation, it is [noted](#) in the statement of Energoatom.

The construction of Westinghouse SMR in Ukraine will begin no earlier than 2028

The American nuclear company Westinghouse is going to start construction of the first small modular AP300 reactor in Ukraine, but the certification of this technology will last at least until the end of 2027, said the top manager of Westinghouse Electric, David Durham. That's when the AP300 design is scheduled to be certified. [Details](#).

Ukraine eases currency control restrictions, allowing repayment of certain external loans from foreign lenders

The National Bank of Ukraine (NBU) has recently eased currency control restrictions, allowing Ukrainian borrowers to transfer foreign currency funds abroad for repayment of specific external loans. This includes loans backed by guarantees from international financial institutions (IFIs), loans supported by foreign export credit agencies (ECAs) or foreign states, and new loans disbursed by foreign lenders into Ukrainian borrowers' bank accounts. Exemptions for the first two loan categories took effect on June 16, 2023, enabling borrowers to repay these loans, including principal and interest, as per their loan agreements. Exemptions for the third loan category took effect on June 21, 2023, subject to conditions such as interest rates not exceeding 12% per

ENTSO-E has increased the capacity of interstate interconnectors for importing electricity to Ukraine and Moldova to 1,200 MW

Now, from the zone of continental Europe to the Ukraine/Moldova block, the maximum available capacity will increase by 150 MW, Ukrenergo [reports](#). Currently, the import of electricity from the EU is a significant source of covering a possible deficit in the Ukrainian energy system, the energy company adds.

"Ukrenergo" and CISCO are starting a project to modernize and protect grids

"Ukrenergo" is starting the pilot project "Future Grids" to modernize and strengthen the protection of main grids, the introduction of Internet of Things technologies in the energy sector. To implement it, our company signed a Memorandum of Understanding with CISCO, the world leader in the field of digital grids technologies," - [it is stated in the message of the Ukrainian TSO](#). Among the five directions of the "Future Grids" initiative, cooperation with CISCO will primarily be aimed at protecting technological grids.

Westinghouse will modernize the cooling system at the Rivne NPP

One of the Ukrainian NPP launched a 1,000 MW power unit after repairs. Work on the facility was completed 20 days ahead of schedule, emphasized the Minister of Energy of Ukraine Herman Halushchenko. According to him, the most extensive repair campaign at energy facilities in the entire history of independence is underway in Ukraine.

The state-owned Energoatom and Westinghouse Electric Company signed a contract for the design, production and supply of long-term cooling of the hermetic envelope for the modernization of VVER-400 power units at the Rivne NPP. According to "Energoatom", the new system was "a real technological breakthrough and will significantly increase the safety of reactor installations for decades to come. Its purpose is to eliminate the shortcomings of the Soviet system and ensure the long-term maintenance of the active zone of the reactor in a safe condition in the event of an accident. [Details](#).

The share of non-performing loans in the renewable energy industry increased to 51% at the beginning of May from less than 3% before the beginning of the invasion - NBU

According to the NBU, the share of "green" energy loans in the gross loan portfolio is almost **4%**. In some banks, the share of the portfolio reaches 13%, according to the [report](#) on financial stability for June 2023 of the National Bank of Ukraine. The lack of a margin of safety may lead to a new wave of defaults after companies leave the regime of temporary relaxation of debt payments, the NBU emphasizes.

annum and repayment with borrowers' own funds for loans up to three years. This move aims to attract more loan inflows and enhance Ukraine's financial stability by surpassing outflows from loan repayments.

KSE estimates the direct damage from the destruction of the Kakhovskaya HPP at \$2 billion

The amount of direct damage caused by the explosion of the Kakhovskaya HPP is already at least \$2 billion. The tragedy led to significant damage to the housing and utility sector and the energy industry, as well as significant indirect damage to agriculture due to the loss of irrigation in the region. This is evidenced by the first analysis carried out within the framework of the "Russia will pay" project by the KSE Institute team.

More than a quarter of the total amount of losses due to the blow-up of the HPP – \$586 million – is directly related to the destruction of the Kakhovka HPP, which has a capacity of 334.8 MW and is not subject to restoration, and the dam. The total losses of the power industry reached **\$624 million**. The annual economic losses caused by the destruction of the hydroelectric power plant to the state company Ukrhydroenergo amount to more than \$100 million. The needs for the construction of a new HPP of similar capacity will amount to about \$1 billion. [Details](#).

EUEA has started the implementation of the SMARTER4EU grant project

The European-Ukrainian Energy Agency (EUEA) jointly with Energy Efficient Cities of Ukraine (EECU) have commenced the implementation of the SMARTER4EU grant project, funded by the European Commission. This initiative builds upon the achievements of the SMARTER Finance for Families (SFFF) project, which successfully expanded Green Homes & Green Mortgage (GHGM) programs across 12 European countries with the support of the European Commission's Horizon 2020 program. At the core of the SMARTER4EU project lies the concept of combining low-cost, credible green certification with a verified high standard of energy performance in homes.

The SMARTER4EU project has strong potential to implement valuable tools for Ukraine's green rebuilding efforts said Kateryna Polyakova during the kick-off meeting in Brussels. By scaling up successful green housing certification and green finance mechanisms, it aims to enhance energy security, mitigate energy poverty, and drive sustainable development. [Details](#).

The situation at Kakhovskaya HPP as of July 7

The average level of the lower bief near the Dniprovskaya HPP dam is 12.89 m BS. Ukrhydroenergo and the project institute are working out options for ensuring the operation of the Dnipro HPP in Zaporizhzhya - without restrictions and at full capacity. Also, work continues on the development of the Kakhovskaya HPP restoration project. It is realistic to rebuild the HPP. This issue will be dealt with after the de-occupation of the territories. According to the company's calculations, about \$1 billion is needed to build a new station. In addition, it will be necessary to build a bridge and railway crossing. All this is destroyed.

"Today, the hydropower industry is going through the most difficult times since the Second World War. We saw the barbaric act of destruction of the Kakhovskaya HPP, which cannot be restored. The Kakhovka HPP performed important energy and environmental functions and provided water to the residents of the southern and central regions of our country," noted General Director of Ukrhydroenergo Ihor Syrota.

In addition to the destruction of the station, we will also have environmental consequences. Because there were more than 450 tons of machine oil in the turbines and transformers, which got into the water. Destruction of HPP is considered a violation of the Geneva Convention. Kakhovskaya HPP has been occupied by Russian troops since last year.

EUEA Director K. Polyakova took part in the presentation of the Market Operator regarding the prospects for the implementation of market coupling

Oleksandr Gavva, General Director of JSC "Market Operator" presented to the representatives of business associations and experts of the energy sector his vision regarding the further development of the electricity spot market of Ukraine. During the discussion, it was emphasized that for the further development of the electricity market of Ukraine, it is important for market participants, including consumers, to implement market, credit and operational risk management. "The development of forward and financial markets, as tools for hedging market risks, will contribute to the development of the electricity spot market and its evolution from a tool for minimizing imbalances to a tool for ensuring physical supply (subject to financial price hedging). As it was in Germany, Scandinavian countries, Italy and other developed countries", Oleksandr Gavva emphasized during the meeting.

Latest EUEA publications

- [EUEA RES market review: market news and settlements review, May 2023.](#)
- [IMEPOWER Monitoring on legislative initiatives impacting RES market as of May, 2023.](#)
- [Implementation of Guarantees of Origin in Ukraine: EUEA Interview with Naida Taso from Energy Community Secretariat.](#)
- [2022 in RES Sector: the Year in Review.](#)

Other useful reports

- [Towards a green transition of the energy sector in Ukraine, Update on the Energy Damage Assessment, June 2023](#) (UNDP).
- [Economy review in June. London Conference: Will there be projects, and the funding?](#) (CES together with GET).
- [Economic Consequences of the Dam Destruction at the Kakhovka HPP](#) (CES).
- [Renewable energy statistics 2023](#) (IRENA).
- [Tracking SDG7: The energy progress report 2023](#) (IRENA).
- [Energy Efficiency: The Decade for Action](#) (IEA).
- [Scaling Up Private Finance for Clean Energy in Emerging and Developing Economies](#) (IEA).



European-Ukrainian Energy Agency

Dorogozhytska str. 3, UNIT City, B9, office 5, Kyiv, Ukraine, 04112

E-mail: office@euea-energyagency.org

Mob: +38 091 331 00 10

www.euea-energyagency.org