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Energy Transparency Index 2023

3rd International edition



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EXECUTIVE SUMMARY

The **Energy Transparency Index** has been developed as a universal tool to assess the availability and quality of information in the energy sector, diagnose gaps, make in-depth analyses, international comparisons and rankings, and track progress.

This international edition is the third comprehensive comparative study to examine energy sectors' transparency and accountability in Georgia, Moldova, and Ukraine. It also covers the EU member state Romania as an appropriate benchmark for the Eastern Partnership countries and the Energy Community Contracting Parties on their pathway towards European integration.

The Index's **ultimate beneficiaries** are *consumers*, as their awareness improves the possibility of protecting their rights and helps rationalize economic behavior in the market. More transparent and competitive energy markets promote the improvement of energy services for consumers and fair pricing. The Index will be helpful to *companies and potential investors* seeking an open, competitive environment, a better relationship with the government and local communities, and reducing business risks. The Index will also support *public authorities* responsible for information disclosure, indicating particular gaps and helping to improve their transparency and respective regulations. *Foreign partners* will get a deeper understanding of countries' energy policies and markets.

The 2023 Index includes **124 indicators** (+7 indicators compared to the [2021 Index study](#)) grouped into eight categories and based on EU regulatory requirements and best global practices regarding information disclosure. Compared to the 2021 Index, this study was extended with four new indicators stemming from the EU Clean Energy Package (CEP). Also, four irrelevant indicators (related to the Energy Efficiency and Renewable Energy Action Plans) were substituted with six indicators based on CEP, namely Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources. To improve the quality of the assessment, each of the two indicators dedicated to the minimum requirements for the quality of gas and electricity supply were divided into two separate indicators. Two other related indicators were merged into one for convenience of assessment.

Another novelty of the 2023 Index is **assessing public authorities and companies** responsible for information disclosure in the energy sector. To ensure the Index's applicability to countries covered, the team assessed only those public authorities that exist in all participating countries and unified their naming as follows: "Regulator", "Ministry of Energy", "Competition Authority", "TSO gas" and "TSO electricity".

The assessment is based on the analysis of **open sources**, focusing on the energy sector performance along the value chain, i.e., from production to consumption. The study covers electricity and gas markets and cross-sectoral issues.

Transparency analysis by category is divided into sectoral and cross-sectoral parts. The sectoral part covers the assessment of four categories – "Balances", "Natural monopolies", "Supply", and "Reliability and security" made by two energy markets. The cross-sectoral part encompasses

"Reporting", "Policy", and "Public authorities" as categories related to the whole energy sector. The "Consumption" category is split into sectoral and cross-sectoral parts.

Information gaps (so-called "black boxes") and drawbacks in data disclosure discovered by the Index provided the basis for targeted recommendations for public authorities and energy companies mentioned at the end of each country-specific Index section.

Key Findings

- According to the assessment made in 2023, the final scores for Georgia (73, B-), Moldova (57, and C-), and Ukraine (38, F) indicate **good, medium, and unacceptable transparency** of their energy sectors, respectively. The drastic decline in Ukraine (-31 points compared to 2021) was caused primarily by the full-scale Russian aggression in 2022 and related rapid and indiscriminate closure of most data on the energy sector due to security risks. Meanwhile, Georgia and Moldova continued their progress, improving their scores by 12 and 2 points, respectively, compared to the 2021 results. Yet, there is still **significant room for improvement for all countries**. This is proved by Romania's scores, which was assessed as a benchmark country that reached excellent transparency (86, A-) by the Index's scale. Given the ambitions of Georgia, Moldova, and Ukraine to become EU Members, Romania's result should be deemed an appropriate indicative benchmark and incentive for them to improve transparency and accountability.
- **Transparency strongly depends on the progress towards liberalization of energy markets and the maturity of legislation and regulation.** The intensity of internal reforms towards the EU market model defines the applicable rules and transparency requirements for public authorities and energy companies. Romania, which took the longest path of reforming its energy markets and ensured its integration with the EU single market, legitimately demonstrated the best results compared to the Eastern Partnership countries and can serve as a benchmark. Moldova is on its way to liberalizing energy markets, while Georgia – the country that joined the Energy Community last among the assessed countries – is rolling out reforms (therefore, some Index's indicators could not be yet applied and assessed).

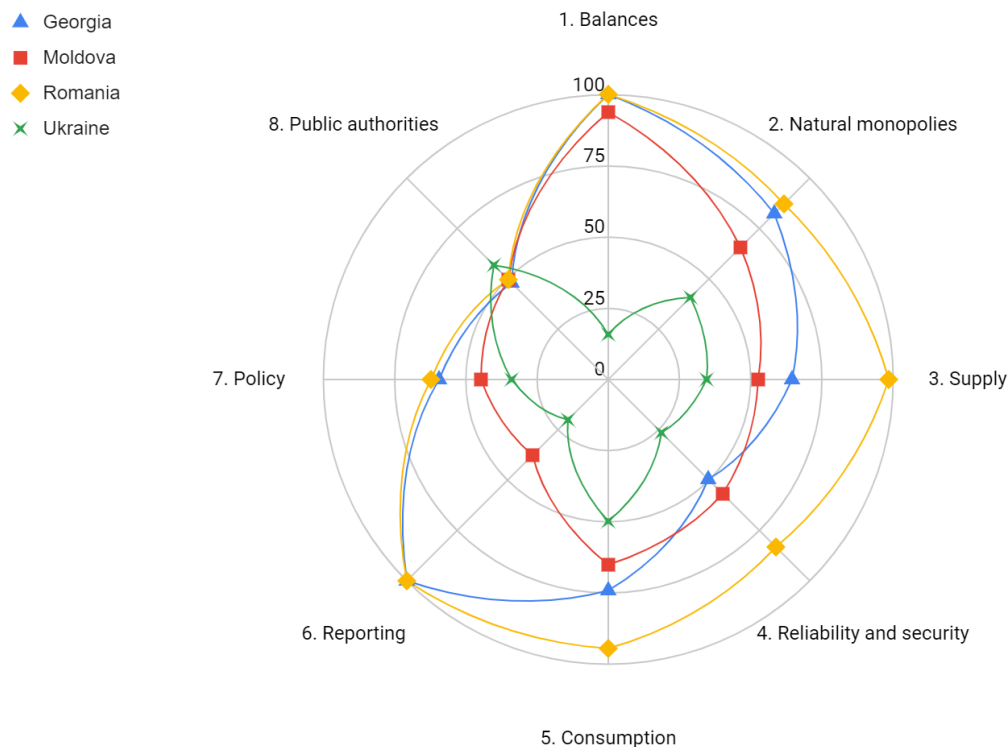
In turn, Ukraine represents a unique case in this regard as it has transposed most of the related EU requirements and rules into its national legislation. Yet, the full implementation of these requirements is considerably complicated by the ongoing Russian aggression and the constant risk of destruction of critical energy infrastructure. In such unfavorable circumstances, **transparency and physical security of energy assets became conflicting interests**. In Ukrainian circumstances, **security was prioritized over transparency as the former is a precondition not only for the normal functioning of the economy but for covering the basic needs of millions of citizens**. Nevertheless, it should be noted that **further successful restoration and recovery of Ukraine's energy sector will be conditional on transparency**, which can create the basis for

trust among stakeholders (state, business, foreign partners) and opportunities for investment in the sector.

- The level of transparency **varies significantly across the categories and sub-categories**, indicating the gaps and shortcomings where national governments should make particular efforts to implement reforms and improve information disclosure. The countries (not including Ukraine) demonstrated the best results in the “Balances”, and “Natural monopolies” categories, which can be attributed to **stringent legislative requirements and regulations** in those areas and **notable national and international accountability of dedicated authorities and companies**, particularly transmission system operators (TSO). In Ukraine’s case, the best results were shown in the “Consumption” and “Public authorities” categories, which covered prices, commercial offers, budget programs, etc., and are attributed to the lowest security risks for critical infrastructure. The worst results (Ukraine scores not included) were shown in the “Policy” and “Public authorities” categories and were mainly caused by deficient reporting on policy implementation, public spending and administration transparency. Also, Energy Community countries are transitioning to new strategic documents (National Energy and Climate Plans, etc.), which may explain lower scores in the “Policy” category. As for Ukraine, the categories with the lowest scores include “Balances”, “Reporting”, and “Reliability and security”. The reason behind such dynamics is also the high security risks of disclosing some information due to the Russian aggression supplemented with deliberate and systemic attacks on Ukraine’s energy infrastructure.

Assessment by category

Category	Georgia		Moldova		Romania		Ukraine	
	Score	Rating	Score	Rating	Score	Rating	Score	Rating
1. Balances	100	A+	100	A+	100	A+	16	F
2. Natural monopolies	83	B+	66	C+	87	A-	41	D-
3. Supply	65	C+	53	D+	99	A+	35	F
4. Reliability and security	57	C-	57	C-	83	B+	27	F
5. Consumption	74	B-	65	C+	94	A	50	D+
6. Reporting	92	A	38	F	100	A+	20	F
7. Policy	73	B-	45	D	63	C	34	F
8. Public authorities	42	D-	50	D+	50	D+	57	C-
Total 2023 Index score	73	B-	57	C-	86	A-	38	F



- Having that overall transparency headway, Moldova and Georgia demonstrated quite **controversial results within the Index's categories and subcategories**, showing a partial decline. E.g., Georgia progressed in 6 categories and 11 subcategories; simultaneously, its scores declined in 1 category and 4 subcategories, while the transparency of 1 category and 9 subcategories remained on the same level as in the 2021 assessment. Moldova advanced in 4 categories and 7 subcategories while declined in 3 categories and 7 subcategories; performance in 1 category and 10 subcategories remained unchanged. Ukraine expectedly showed a drop in 7 categories and 19 subcategories. Yet, even in times of war, Ukraine managed to achieve minor progress in 1 category and in 4 subcategories; the scores for 1 subcategory remained unchanged. Thus, **regular assessment and analysis are instrumental and critical in pushing for consistent progress** of countries' energy sector transparency and accountability.
- **The national gas and electricity markets, assessed by a set of sector-related indicators, demonstrated a different level of transparency** – from unacceptable (Ukraine) to excellent (Romania). At the same time, the transparency level of Georgia, Moldova, and Romania's energy markets advanced by 1-6 points compared to the 2021 assessment. The greatest progress was shown by Georgia in gas (+6 points), which is primarily related to the completion of unbundling of DSOs and TSOs and the publication of compliance programs and related annual reports.

Assessment by energy market

Market	Georgia		Moldova		Romania		Ukraine	
	Score	Rating	Score	Rating	Score	Rating	Score	Rating
Natural gas	70	B-	65	C+	90	A	46	D
Electricity	82	B+	63	C	91	A	31	F

- This is the first international Index study that **assesses public authorities and companies**. Such an assessment can give a general understanding of how information disclosure responsibilities are distributed among different public authorities and entities in different countries and how effective they are in fulfilling these responsibilities. For example, in Moldova, the Regulator is entrusted with more obligations to disclose information (42 indicators) than in other participating countries (32-35 indicators). The other peculiarity is that in 2 countries (Moldova and Romania), Regulators tend to be more transparent than the Ministries of Energy, while in Georgia and Ukraine, the situation is reversed. In Georgia and Moldova, electricity TSOs are more transparent; in Romania, they are almost equal, while in Ukraine, due to war, the situation is reversed - gas TSO is much more transparent (primarily due to the continued functioning of the Transparency Platform) than the TSO in electricity.

Assessment by institution

Institution	Georgia			Moldova			Romania			Ukraine		
	Number of indicators	Score	Rating	Number of indicators	Score	Rating	Number of indicators	Score	Rating	Number of indicators	Score	Rating
Regulator	34	65	C+	42	67	C+	34	83	B+	35	47	D
Ministry of Energy	16	72	B-	25	58	C-	12	45	D	13	55	C-
Competition Authority	9	40	D-	3	67	C+	10	64	C	9	66	C+
TSO gas	16	44	D-	13	38	F	16	83	B+	16	52	D+
TSO electricity	22	80	B+	18	46	D	22	81	B+	22	19	F

- **Georgia** demonstrated excellent performance in the publication of energy statistics. Also, the country started to disclose information on the independence of transmission and distribution system operators in gas (TSOs and DSOs). The significant increase in transparency was also related to the publication of data on smart metering penetration in electricity and better disclosure of companies' reporting through the consolidated platform Reportal, the first public information resource in Georgia containing financial and management reports of companies registered in Georgia. Other positive developments include adopting the Long-Term Low-Emission Development Strategy by 2050 in April 2023 and fulfilling reporting obligations under the Large Combustion Plants Directive in March 2023. Yet, Georgia could still improve energy markets' transparency by publishing exhausted data regarding registers of market participants, market concentration, annual reports on the costs of electricity and gas by consumer bands, and full-fledged market monitoring results. Other black boxes include data

on the penetration of meters and smart meters in the gas sector. Besides, Georgia should drastically improve the transparency of public spending and decision-making of energy-related public authorities.

- **Moldova** should improve data disclosure by the gas TSO, particularly on available transmission capacity and its allocation, system balancing, etc. Besides, the electricity TSO should publish complete data required by Regulation (EU) 543/2013. Moldova could enhance market transparency by publishing data on switching suppliers, complete registers of market participants, and retail markets' price mark-ups. Also, it should update monitoring reports on electricity and gas security of supply. Transparency in consumption could be improved by disclosing smart meters penetration data, commercial offers of electricity suppliers, and related price comparison tools. The government should pay attention to the corporate reporting of energy companies as there is ample space for improvement. In terms of policy, it should ensure the development and publication of NECP, Long-term renovation strategy for national building stock, and the Comprehensive assessment of the potential of high-efficiency cogeneration and efficient district heating and cooling. Besides, Moldova should considerably improve the transparency of public authorities' expenditure and the regulatory acts' impact assessment.
- **Ukraine** is facing the greatest challenge among all of the participating countries. On the one hand, it should ensure the security of its critical energy infrastructure facilities by minimizing the disclosure of sensitive information, which may be used by Russia for planning its attacks. On the other hand, transparency is the main prerequisite for the effective restoration of the Ukrainian energy sector, as it addresses many corruption risks and enhances the trust of potential investors. Given this 'security vs. transparency' dilemma, the recommendations to Ukraine on eradicating existing transparency gaps were divided into three types: 1) "*general*" recommendations, which may be implemented irrespective of martial law without posing security risks; 2) recommendations "*for the martial law period*", which are aimed at transparency gaps, which occurred following the Russian full-scale aggression and which may be eliminated even during the war without posing any security risks, and 3) *recommendations to be implemented following the termination of the martial law*, which may be deemed high-risk in circumstances of war but can be freely implemented after it ends.

Detailed information on the 2023 Index findings and the indicators assessment table with all scores and comments can be found in a separate spreadsheet published along with the Index on the dedicated **international Energy Transparency Index website** (<https://index.dixigroup.org/>) and websites of the project implementers: DiXi Group (<https://dixigroup.org/en/>), World Experience for Georgia (<http://weg.ge/en>), WatchDog.MD (<https://www.watchdog.md/english/>).

The assessment of Romania's energy sector transparency was exercised pro bono by Ana Otilia Nutu, energy and infrastructure policy analyst of Expert Forum think tank (Romania). We would like to

sincerely thank Ana Otilia and our Romanian colleagues for their expertise and participation, which enabled a more thorough and rigorous comparative analysis within the framework of the International Energy Transparency Index.

INTRODUCTION

The *Energy Transparency Index* provides a comprehensive assessment of the energy sector information disclosure in a particular country. The Index is a universal tool enabling in-depth analysis of transparency with a breakdown into categories and subcategories, energy markets, authorities, specific indicators, and tracking progress both in time and in comparison with other countries.

The Index provides a quantitative assessment and characterizes the ability of consumers, public authorities, energy companies and potential investors, foreign institutional partners, media, and experts to obtain the necessary information regarding the energy sector performance along the value chain, i.e., from production to consumption.

The pilot issue of the Index was published in 2018 with an assessment of Ukraine's energy sector transparency (an initial score – 43 out of 100 points). The 2019-2023 Indexes were developed applying improved methodology following the feedback of domestic and foreign experts and other stakeholders. The Indexes showed steady progress in Ukraine's energy sector transparency, shifting from insufficient in 2018 (43 points) to a medium transparency level in 2021 (63 points). Yet, the Russian aggression resulted in a steep decline in Ukraine's score in 2022 and 2023 as due to war risks public authorities and companies indiscriminately close most information on the energy sector.

This international edition is the 3rd comprehensive comparative study to examine energy transparency in Georgia, Moldova, and Ukraine as countries most advanced in European integration among the Eastern Partnership nations and to measure the progress compared to the [1st](#) and [2nd](#) international editions of the Index. The current study also includes assessment results for the EU member Romania, which provides a benchmark for the Eastern Partnership and the Energy Community countries. The Index methodology was adjusted in terms of indicators and energy markets covered to ensure its international applicability.

Purpose of the Index

The purpose of the annual development and publication of the study is to promote greater transparency in the energy sector, which includes indispensable and sufficient conditions for stakeholders to regularly receive comprehensive, up-to-date, and usable information they need to make evidence-based decisions.

Information disclosure is a good practice enabling due monitoring, analysis, assessment, and forecasting necessary for adequate and reasonable decision- and policymaking.

The Index aims to reduce informational asymmetry in the energy sector, narrow the possibilities for unfair competition, discriminatory behavior, and corruption, and foster proper operation of energy markets.

The information gaps and so-called "black boxes" – indicators where data is entirely unavailable – identified by the Index provided the basis for targeted, practical recommendations to public

authorities to improve the transparency of national energy sectors as the critical precondition for their better performance and sustainable development.

The international dimension of the Index brings a competitive spirit and urges national governments to improve transparency. Moreover, the international comparison facilitates faster and more fruitful dissemination of best national transparency practices to energy sectors of other countries, speeding up the development of open, competitive, and efficient energy markets.

Target audience

The Index's ultimate beneficiaries are *consumers*, as better awareness allows them to act more economically reasonably while minimizing expenses and increasing benefits. More transparent and competitive energy markets promote the improvement of services for consumers and fair pricing. They will have better opportunities to protect their interests using the mechanisms of monitoring and public control over energy companies and public authorities' activity. Empowering consumers by better awareness of processes in the energy sector would help achieve global sustainable development goals.

Greater transparency reduces business risks for *energy companies* and promotes more efficient and innovative activity, fair competition, and better relations with investors, the government, and communities. Newcomers and potential participants of energy markets, banks, and other financial institutions will receive better opportunities to assess risks, make investment or market entry decisions, and design a corporate policy. Consequently, a less risky business environment improves the investment climate and attracts additional resources to the industry.

Public authorities receive targeted practical recommendations concerning information and data disclosure. Assessing the transparency will encourage the elimination of "black boxes", which distort competition and breed corruption.

Foreign institutional partners will have better opportunities to understand national energy markets, objectives and policies, the effectiveness of its implementation, compliance with countries' international obligations under the Association Agreement with the EU, the Treaty establishing the Energy Community, the Paris Agreement, and other international treaties.

INDEX'S CATEGORIES OVERVIEW

SECTORAL PART

1. BALANCES

The "Balances" category defines the transparency of annual and monthly energy statistics and includes four indicators grouped into two subcategories:

- annual balance statistics (2 indicators);
- monthly balance statistics (2 indicators).

Assessment of the Index for the "Balances" category is based on determining the extent to which the national statistical authorities, as the government bodies responsible for statistics, are compliant with requirements of Regulation (EC) No 1099/2008 on energy statistics with amendments dated 22 January 2022.

2. NATURAL MONOPOLIES

The "Natural monopolies" category defines the transparency of transmission and distribution system operators (TSOs and DSOs) in electricity and natural gas markets. Given the clearly defined requirements of data publication which national public authorities, TSOs and DSOs are to comply with, this category of the Index includes the largest number of indicators (46) grouped into four subcategories:

- operation of transmission and distribution system operators (32 indicators);
- independence of transmission and distribution system operators (4 indicators);
- development of transmission and distribution systems (4 indicators);
- tariffs setting (6 indicators).

Assessment of the Index for the "Natural monopolies" category is based on determining the extent to which public authorities, TSOs and DSOs are compliant with the requirements of:

- Directive (EU) 2019/944 on common rules for the internal market for electricity and Directive 2009/73/EC concerning common rules for the internal markets in electricity and natural gas;
- Regulation (EC) No 715/2009 on conditions for access to the natural gas transmission network and Regulation (EU) 2019/943 on the internal market for electricity;
- Regulation (EU) No 543/2013 on submission and publication of data in electricity markets;
- Regulation (EU) No 312/2014 establishing a Network Code on Gas Balancing of Transmission Networks;
- best European practices of natural monopolies' transparency.

3. SUPPLY

The "Supply" category defines the transparency of rules, competition, and pricing in electricity and gas markets. The category includes 19 indicators grouped into three subcategories:

- market barriers (5 indicators);
- market concentration and competition level (2 indicators);
- prices and pricing (12 indicators).

Assessment of the Index for the "Supply" category is based on determining the extent to which public authorities and businesses operating in energy markets are compliant with the requirements of:

- Directive (EU) 2019/944 on common rules for the internal market for electricity and Directive 2009/73/EC concerning common rules for the internal markets in electricity and natural gas;
- Regulation (EU) No 1227/2011 on wholesale energy market integrity and transparency (REMIT);
- Regulation (EU) No 2016/1952 on European statistics on natural gas and electricity prices;
- best practices of the ACER and the CEER on monitoring and analysis of energy markets.

4. RELIABILITY AND SECURITY

The "Reliability and security" category defines the transparency of energy stocks and reserves, rules and regulations on reliability and security of supply, and corresponding reporting. The category includes 8 indicators grouped into three subcategories:

- stocks and reserves (2 indicators);
- security of supply planning (2 indicators);
- reports on reliability and security (4 indicators).

Compared to the 2021 Index, the category was supplemented by one new indicator dedicated to the implementation plan regarding adequacy concerns and related annual reports, both of which are provided by Art. 20 of Regulation 2019/943 (EU) on the internal market for electricity.

Assessment of the Index for the "Reliability and Security" category is based on determining the extent to which public authorities and businesses operating in energy markets are compliant with the requirements of:

- Directive (EU) 2019/944 on common rules for the internal market for electricity, Regulation (EU) No 2019/943 on the internal market for electricity and Regulation (EU) No 2019/941 on risk-preparedness in the electricity sector;
- Regulation (EU) No 2017/1938 concerning measures to safeguard the security of gas supply;
- Regulation (EC) No 1099/2008 on energy statistics;
- Treaty establishing Energy Community;
- EU best practices of guaranteeing the security of gas and electricity supply.

5. CONSUMPTION

The "Consumption" category defines the transparency of energy consumption metering, customer service standards, information for consumers on prices and tariffs, subsidies, preferences and other aid, and energy efficiency programs. The category includes 18 indicators grouped into three subcategories:

- penetration of metering (4 indicators);
- service standards (7 indicators);
- information for consumers (7 indicators).

Compared to the 2021 Index, the number of indicators in the category increased by 5. Three new indicators were added, namely the definitions of the concept of vulnerable customers in gas and electricity markets as well as criteria for energy-poor consumers. Also, each of the two indicators dedicated to the minimum requirements for the quality of gas and electricity supply were divided into two separate indicators. The first one is related to the minimum requirements themselves, while the second one is dedicated to reporting information reflecting compliance with these requirements.

Assessment of the Index for the "Consumption" category is based on determining the extent to which public authorities and businesses operating in energy markets are compliant with requirements of:

- Directive (EU) 2019/944 on common rules for the internal market for electricity and Directive 2009/73/EC concerning common rules for the internal markets in electricity and natural gas;
- Directive (EU) 2023/1791 on energy efficiency;
- best practices of the CEER regarding the quality of energy supply and the EU's best practices of empowering consumers.

CROSS-SECTORAL PART

6. REPORTING

The "Reporting" category defines the transparency of regular financial, management, and fiscal reporting and information regarding final beneficiaries of energy companies. The category includes 6 indicators grouped into three subcategories:

- financial and management reporting (3 indicators);
- fiscal reporting (2 indicators);
- beneficiaries and corporate governance (1 indicator).

Assessment of the Index for the "Reporting" category is based on determining the extent to which businesses operating in energy markets are compliant with the provisions and procedures of:

- Directive 2013/34/EU on the annual financial statements, consolidated financial statements, and related reports of certain types of undertakings;

- best global practices set out in the Global Reporting Initiative (GRI), the International Financial Reporting Standards (IFRS), the Principles of Corporate Governance of the Organization for Economic Cooperation and Development (OECD) regarding information disclosure, transparency, and corporate governance standards;
- the standard of the Extractive Industries Transparency Initiative (EITI).

7. POLICY

The "Policy" category defines the transparency of designing and implementing national policy documents on energy and sustainable development, energy efficiency, environmental protection, combating climate change, developing renewables, etc. The category includes 14 indicators grouped into four subcategories:

- monitoring and reporting (2 indicators);
- energy efficiency (4 indicators);
- environmental protection and combating climate change (6 indicators);
- renewable energy sources (2 indicators).

Compared to the 2021 Index, the number of indicators in the category was extended from 12 to 14. This is due to the substitution of two indicators in the 'Energy efficiency' subcategory (which were dedicated to the National Energy Efficiency Action Plan and related progress reports) with four new indicators on long-term renovation strategy of the national stock of buildings, inventory of heated and/or cooled central government buildings, list of available energy service providers and comprehensive assessment of the potential of high-efficiency cogeneration and efficient district heating and cooling. Also, two indicators on the National Renewable Energy Action Plan and related progress reports were substituted with indicators on a long-term schedule of the expected allocation of support to RES projects and information about previous tendering procedures for supporting RES, including project realization rates. These changes are motivated by the irrelevance of both Renewable Energy and Energy Efficiency Action Plans which were replaced by the comprehensive National Energy and Climate Plans (NECP).

Assessment of the Index for the "Policy" category is based on determining the extent to which public authorities responsible for designing and implementing energy and related policies are compliant with the requirements of:

- Directive (EU) 2023/1791 on energy efficiency;
- Directive 2010/75/EU on industrial emissions and Directive 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plants;
- Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources;
- Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action;
- global treaties on climate change (UN Framework Convention on Climate Change, Paris Agreement, etc.).

8. PUBLIC AUTHORITIES

The "Public authorities" category defines the transparency of public spending, including state aid, the designing, adopting, and implementing policy and regulatory decisions by public authorities. This category includes 9 indicators grouped into two subcategories:

- public spending (6 indicators);
- transparency of public administration (3 indicators).

Assessment of the Index for the "Public authorities" category is based on determining the extent to which public authorities responsible for policymaking and regulation in the energy sector are compliant with the requirements of:

- the Treaty establishing the Energy Community;
- Regulation (EU) No 651/2014 (GBER) declaring certain categories of aid compatible with the internal market in terms of art. 107 and 108 of the Treaty Establishing the European Community, particularly regarding the publication of information on state aid recipients;
- best global practices, particularly the Guidelines on Fiscal Transparency and the Guidelines for Public Expenditure Management of the International Monetary Fund, the Council Recommendations of the Organization for Economic Co-operation and Development (OECD) on good budgeting, regulatory policy and governance, and European Commission Guidelines on Better Regulation/Lawmaking.

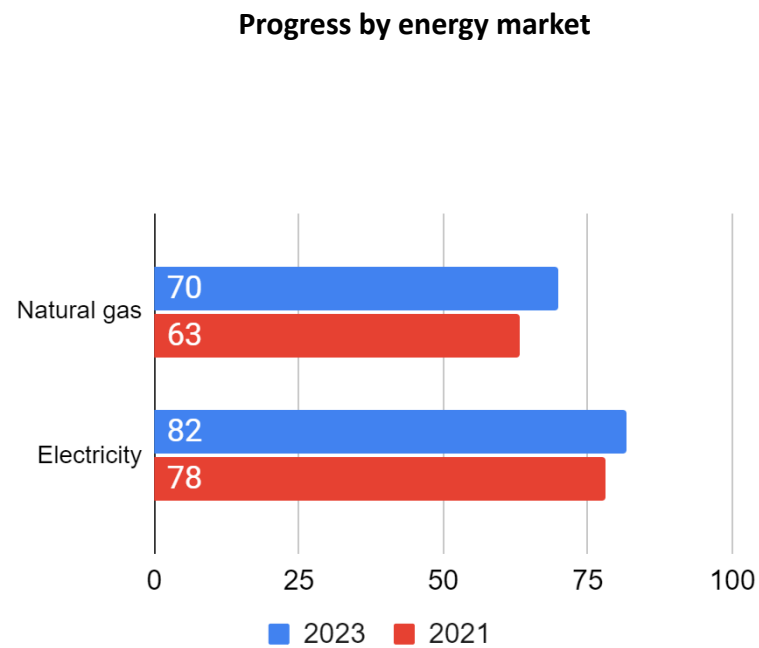
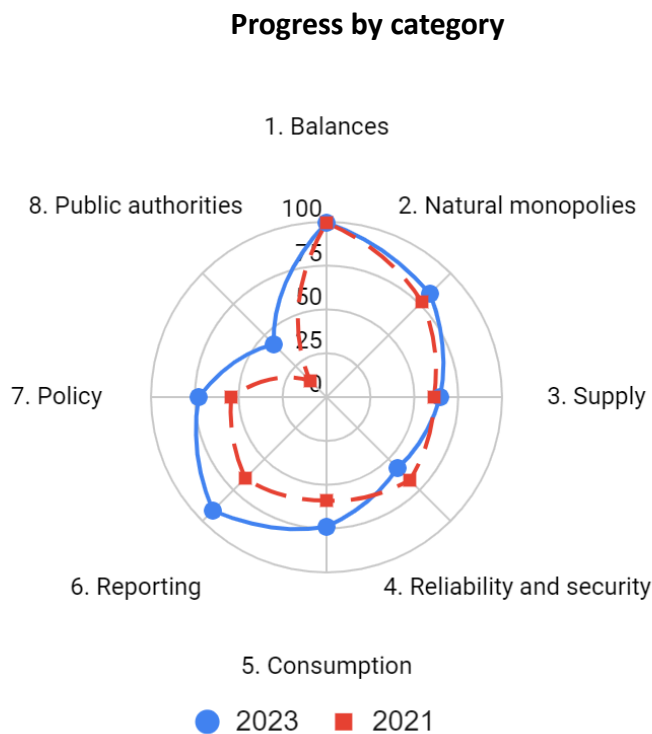
ANALYSIS BY COUNTRY

GEORGIA

GEORGIA'S 2023 ENERGY TRANSPARENCY INDEX

73, B-, Good Transparency

Progress: +12 points compared to the 2021 Index



1. BALANCES

Score: 100, A+, Absolute transparency

Progress: no changes compared to the 2021 Index

Scores by subcategories:

Subcategory	Score	Progress to 2021	Rating	Characteristic
Annual balance statistics	100	0	A+	Absolute transparency
Monthly balance statistics	100	0	A+	Absolute transparency

The National Statistics Office of Georgia (GEOSTAT) is responsible for publishing annual balances for the electricity and natural gas sectors. GEOSTAT ensures a high level of compliance in the collection of statistics and publishes these balances in accordance with the requirements of Regulation (EC) No 1099/2008 on energy statistics. The annual balances are usually published in December each year in .pdf and .xls(x) formats. The data is well-structured and easy to use.

In order to maintain data quality, GEOSTAT has implemented quality assurance procedures and produces quality reports for various domains. These reports are submitted to EUROSTAT for publication as required by the Regulation.

2. NATURAL MONOPOLIES

Score: 83, B+, Good transparency

Progress: +6 points compared to the 2021 Index

Scores by subcategories:

Subcategory	Score	Progress to 2021	Rating	Characteristic
Operation of transmission and distribution system operators	90	0	A	Excellent transparency
Independence of transmission and distribution system operators	52	+52	D+	Insufficient transparency
Development of transmission and distribution systems	50	-9	D+	Insufficient transparency
Tariffs setting	81	0	B+	Good transparency

In **gas**, the rules for connection to the gas transmission system are outlined in the Natural Gas Grid Code, adopted by GNERC Resolution № 22 on August 31, 2018¹. This code covers all types of connections except for those related to LNG facilities or storage facilities, as Georgia does not currently have such facilities.

The procedures for connecting customers to the distribution system are regulated by the GNERC Decree №12 of July 9, 2009, "On Adoption of the Principles of Natural Gas Supply and Consumption" (Chapter 2, Article 19). This document is available² on the GNERC website in PDF format.

Quantitative information on technical, contracted, and available transmission capacity, as well as information on short-term service availability (day-ahead and week-ahead) for all relevant points, including entry and exit points (including cross-border), is not available due to the absence of a short-term market. The same is true for information on measures taken to balance the gas transmission system, as well as related costs incurred and revenues collected.

The rules for the provision of balancing services by the transmission system operator are set out in the Natural Gas Network Rules. Scheduled maintenance periods that may affect system user rights and related operational information are available on the gas TSO's website. In addition, consumers are

¹ <https://matsne.gov.ge/ka/document/view/4318463?publication=0>

² <https://gnerc.org/files/dadgenilebebi/kodificirebuli/12.09.07.2009.pdf>

notified by text message. Gas quality information and pressure requirements are also available on the gas TSO's website.

Compliance programs and performance reports for the transmission and distribution system operators do not exist as the unbundling process in the natural gas sector has not yet started. Three distribution system operators distributed 89% of the total volume. In February 2023, the Energy Community Secretariat launched an infringement procedure against Georgia for the lack of unbundling of its transmission system operators. Georgia also does not comply with the rules on distribution unbundling.³

The ten-year network development plan is published on the Transmission System Operator's website. While separate implementation reports are not available, the plan includes information on completed projects and the status of ongoing ones. Network development plans for distribution systems and reports on their implementation exist and have been submitted to GNERC, but they are not published.

The methodologies for setting tariffs for gas transmission and distribution are defined in Resolution of GNERC №33 dated 25.12.2014⁴. The connection fees are published on the website of the regulator⁵. The tariffs for connection to gas distribution systems are outlined in Resolution of GNERC №12 dated 09.07.2009 "On Adoption of the Principles of Natural Gas Supply and Consumption". Tariffs for connection to gas transmission systems are specified in Natural Gas Grid Code. Tariffs for transmission and distribution services are detailed in Resolution of GNERC №30 dated 30.12.2005.

There are no online tools available for calculating gas TSO's service rates or checking the available capacity of the transmission system.

The **electricity sector** in Georgia is more advanced in terms of market reforms and transparency compared to the gas sector. The Government of Georgia has approved a new Electricity Market concept design following the Law on Energy and Water Supply by its Resolution № 46 of April 16, 2020. Concept Design outlines market segments for the wholesale electricity market, including the day-ahead market, intraday market, bilateral contracts market, and balancing and ancillary services market.

The Government postponed the opening of the day-ahead, balancing, and ancillary services markets twice in 2023. The last postponement also applied to the intraday market. The market opening was then scheduled to take place on 1 July 2024.⁶ As of now, Georgia has initiated⁷ a transitional model for its electricity market, preserving the existing structure of the wholesale market while introducing new trading opportunities.

Rules for connection to the transmission system, including new generation capacity, are incorporated into the Grid Code adopted by GNERC's resolution №10 on April 17, 2014⁸. Additionally, Art. 42 (1) of Directive (EU) 2019/944 regarding the obligation of the TSO to establish and publish transparent and efficient procedures for non-discriminatory connection of new generating installations and energy

³ Energy Community (2023). Georgia Annual Implementation Report. Available at:

<https://www.energy-community.org/implementation/report.html>

⁴ <https://gnerc.org/files/dadgenilebebi/kodificirebuli/33.25.12.2014.pdf>

⁵ <https://gnerc.org/ge/tariffs/tariff-natural-gaz/miertebis-safasuri>

⁶ Energy Community (2023). Georgia Annual Implementation Report Available at:

<https://www.energy-community.org/implementation/report.html>

⁷ <https://1tv.ge/lang/en/news/georgia-launches-transitional-electricity-market-model-with-future-reforms-planned/>

⁸ <https://matsne.gov.ge/ka/document/view/2322689?publication=0>

storage facilities is planned to be incorporated into the Law of Georgia on Electricity and Water Supply in the coming months.

Rules for connection to distribution systems are provided in the Electricity Distribution Network Code adopted by GNERC's resolution №19 on June 28, 2021⁹.

Various types of transfer contracts (including standard contracts) and/or standard terms that determine the rights and obligations of all system users are available on the TSO's website. The balancing rules are defined in the Balancing Market and Ancillary Service Rules, which are also available on the TSO's website. However, re-dispatching rules, including curtailment, are not available.

Information on the total load is available, accessible, and updated every 3 minutes on the TSO website. Additionally, an interactive map for visualizing export/import/transit activities is provided on the main page of the website. Hourly data can be downloaded in .xlsx format for any 2 weeks.

Information on the unavailability of consumption units is published on the ENTSO-E platform. The year-ahead forecast margin is also published on the ENTSO-E platform. Additionally, reports about expansion/dismantling projects for the next 3 years are uploaded on the ENTSO-E platform. Measures for congestion management are given in the Network Rules, article 46.

Information on actual generation is available on the TSO's website, updated every 3 minutes, and shows the actual generation broken down by the sources of power. Data can be downloaded in .xls format.

Information about balancing electricity volumes, prices, and shares in the total supply is available on the Electricity System Commercial Operator's (ESCO) website. Data is available from 2016. Complementary information is also available on the ENTSO-E platform.

Ten-year network development plans (TYNDPs) are available on the TSO's website. Although implementation reports are not available separately, all completed projects are briefly described in the annual reports. Network development plans for distribution systems and reports on their implementation exist, but a prior request is required to obtain them. The document received is partially disclosed.

Compliance programs and performance reports have been published by the electricity DSOs, which contributed to the significant increase in the score for subcategory "Independence of transmission and distribution system operators".

Methods of calculating tariffs for connection to transmission and distribution systems, provision of balancing services, transmission, and distribution are available on the GNERC website¹⁰. Electricity tariffs are outlined in Resolution of GNERC №33 dated 4.12.2008. Tariffs for connection to the distribution system are specified in Resolution of GNERC №19 dated 28.06.2021, under the Electricity Distribution Network Code, in Appendices №2-№6. Tariffs for connection to transmission systems are detailed in Resolution of GNERC №10 dated 17.04.2014, under the Network Code, in Appendices №10-№12. Additionally, there is an online tool available to calculate the estimated expenses and revenues for energy exporters.

Recommendations

⁹ <https://matsne.gov.ge/ka/document/view/5201147?publication=10>

¹⁰ <https://gnerc.org/files/dadgenilebebi/kodificirebuli/33.25.12.2014.pdf>

- The government, the Ministry of Economy and Sustainable Development, the Regulator, and TSO should speed up work on gas sector reforms and implementation of Directive 2009/73/EC on common rules for the internal market in natural gas;
- The TSOs in gas should start developing compliance reports following Directive 2009/73/EC concerning common rules for the internal market in natural gas;
- The GNERC should ensure that gas DSOs publish their compliance programs and respective implementation reports;
- The GNERC should ensure publishing the information on gas tariffs following the requirements of Art. 32 (1), 41 (7) of Directive 2009/73/EU on common rules for the internal natural gas market, Art. 18 (2), 19 (5) of Regulation (EC) No 715/2009 on conditions for access to the natural gas transmission networks.

3. SUPPLY

Score: 65, C+, Medium transparency

Progress: +4 points compared to the 2021 Index

Scores by subcategories

Subcategory	Score	Progress to 2021	Rating	Characteristic
Market barriers	60	+6 ¹¹	C	Medium transparency
Market concentration and competition level	50	0	D+	Insufficient transparency
Prices and pricing	70	+5 ¹²	B-	Good transparency

As there is no organized electricity and gas market in Georgia, the purchase and selling of natural gas and electricity is carried out through bilateral contracts. The Energy Market Monitoring Rules in Georgia stipulate the obligation to establish and maintain a national register of market participants, including assigning each participant a unique identifier. However, as the date of opening of the wholesale natural gas market (new model) is not yet determined, no exact registry has been established. The GNERC currently maintains a simplified version of the registry, tailored to the needs of the current market model, which is published on its official website. The Energy Market Monitoring Rules, including the transposed provisions of Regulation (EU) No 1227/2011 on wholesale energy market integrity and transparency, are published in the National Herald of Georgia.

Detailed information on concentration in the wholesale and retail electricity and gas markets, such as the Herfindahl-Hirschman Index (HHI), total market share of the three largest companies (CR3), and the number of companies with a market share exceeding 5%, is provided to the National Statistics Office of Georgia for submission to Eurostat. This information is also partially published in GNERC's annual reports. The Herfindahl-Hirschman Index (HHI) for the electricity production segment in 2022 was 1,129.3, indicating a concentrated market in the generation segment. The HHI among natural gas suppliers at the wholesale market level was 5034, indicating a highly concentrated market.¹³

¹¹ Progress was primarily caused by the change in assessment methodology

¹² Progress was primarily caused by the change in assessment methodology

¹³ GNERC (2022). Annual Report. Available at:

<https://gnerc.org/files/Annual%20Reports/Reports%20English/2022%20Activity%20Report%20-%20Eng.pdf>

The GNERC permanently monitors wholesale and retail market prices, collecting information via reports submitted by market participants. Aggregated information is partially published in the GNERC's annual reports. The information on the marginality of the retail natural gas and electricity market (mark-ups) is analyzed in the course of the retail price monitoring but is not published.

The National Statistics Office of Georgia (GEOSTAT) publishes semiannual information on gas and electricity prices. These data are not produced on an annual basis as required by Regulation (EU) No 2016/1952, yet such annual information can partially be found in the alternative sources. Information about prices is available for the regulated sector only.

It also has to be mentioned that the Public Service Obligations (PSO) regime has not yet been introduced in Georgia. The Regulatory Commission (GNERC) sets end-user tariffs for electricity and gas for households. The tariffs are set according to the adopted methodology. Georgia purchases so-called "social" gas at a preferential price to supply households and TPPs. Accordingly, retail and wholesale gas (and partially electricity) prices in this segment are significantly low compared to the commercial segment. In the commercial sector, fuel prices are contractually determined, and GNERC lacks regulatory authority over them.

Georgia adopted a law in 2019 to promote the production and use of energy from renewable sources. Later, in December 2022, a RES support mechanism known as the Contract for Difference (CFD) was introduced. Two successful auctions were announced and held in 2023-2024.

Recommendations

- The Ministry of Economy and Sustainable Development and GNERC should ensure a favorable environment to speed up market reforms in electricity and natural gas;
- The National Statistics Office of Georgia should ensure the publishing of annual information on gas and electricity prices on a semiannual basis as required by Regulation (EU) No 2016/1952;
- The GNERC should start publishing price monitoring reports covering regulated and liberalized wholesale and retail market segments.

4. RELIABILITY AND SECURITY

Score: 57, C-, Medium transparency

Progress: -10 points compared to the 2021 Index

Scores by subcategories

Subcategory	Score	Progress to 2021	Rating	Characteristic
Stocks and reserves	100	0	A+	Absolute transparency
Security of supply planning	0	0	F	Unacceptable transparency
Reports on reliability and security	75	-25	B	Good transparency

Information on electricity generation capacity, including maximum net capacity and the structure of generation sources, as well as data on peak load and available generation capacity, is available on the ENTSO-E platform. The respective indicator does not include gas storage facility-related data as Georgia does not have one.

The monitoring report on the security of natural gas supply was submitted in 2022 and is currently being prepared for 2024. Respective report on the security of electricity supply was prepared and published in 2021 for the first time¹⁴.

The national resource adequacy assessment, which includes an adequacy report on generation capacity for 2025-2035 (Medium and Long-Term Generation Adequacy of Georgia 2025-2035), is also available. However, the implementation plan in case of identification of an adequacy concern is not publicly available, which is the main reason for the decrease in the score for this category.

Georgia still does not have a national action plan, an emergency plan for gas supply, and a risk preparedness plan for electricity. Usually, utility companies have their plans in emergencies, and in most cases, those plans are confidential. In Georgia's electricity and gas sectors, the TSOs are currently developing emergency and risk management plans following the EU requirements. According to the law on Energy and Water Supply (articles 132, 140), the MoESD shall develop a strategy of action during a state of emergency in the electricity and natural gas sectors. The strategy is under development¹⁵.

Recommendations

- The Ministry of Economy and Sustainable Development should ensure the development of the national action plan and emergency plan for the gas sector in accordance with Regulation (EU) No 2017/1938 on measures to safeguard the security of natural gas supply;
- The responsible authority or market player (TSO, Regulator) should prepare and publish the implementation plan in case of identification of an adequacy concern as well as related annual reports.

5. CONSUMPTION

Score: 74, B-, Good transparency

Progress: +15 points compared to the 2021 Index

Scores by subcategories

Subcategory	Score	Progress to 2021	Rating	Characteristic
Penetration of metering	34	+15	F	Unacceptable transparency
Service standards	93	-7	A	Excellent transparency
Information for consumers	80	+5	B+	Good transparency

The level of gas and electricity consumers equipped with individual meters in Georgia is partially available, being published in GNERC annual reports, or available upon request. The information on smart metering penetration in electricity has become available, which contributed to the increase of the score for the "Penetration of metering" subcategory.

¹⁴ <https://bit.ly/3zH7Tki>

¹⁵ N. Shatirishvili, G.Mukhigulishvili Georgian Energy Security Assessment Including Legal and Institutional Framework, 2021

Information on service standards is fully transparent. Minimum requirements for the quality of electricity and gas supply are regulated by the Service Quality Rules adopted by the GNERC's Resolution №20 on June 28, 2021¹⁶. Information on ensuring minimum requirements for the quality of gas and electricity supply (continuity, quality, customer service) is published in GNERC annual reports.

Definition of vulnerable consumers (electricity and gas) is given in primary legislation ("a domestic consumer who, due to his status or condition, has been granted the right to use the system and/or electricity and/or natural gas and/or water supply under preferential terms under the relevant legislation of Georgia") and exact criteria in secondary legislation (Resolution No. 534 of 2021 of the Government of Georgia on Measures to Support Vulnerable Consumers as Provided for under the Law of Georgia on Energy and Water Supply). According to the new Law on Energy and Water Supplies (Article 112), the central government and local municipalities are responsible for defining categories of vulnerable consumers/developing appropriate measures.

The criteria for identifying energy-poor households in Georgia are not clearly defined, which contributed to the reduction of transparency in the "Service standards" subcategory. Although there is no legal definition of energy poverty, it is outlined in the draft energy policy document and the National Energy and Climate Plan (NECP). The draft NECP sets a national target to decrease the percentage of the population in energy poverty from 43% in 2017 to below 15% by 2030. However, further clarification is needed regarding the criteria for identifying energy-poor households.

Tariff information for the regulated segment (mainly households) is available on DSOs' and GNERC websites. The Regulator offers tariff comparison tools for different suppliers, but as was mentioned earlier, Georgia does not have fully established electricity and gas markets. Prices for the commercial sector are deregulated and lack transparency.

Regarding consumers' rights for subsidies and preferences in paying utility bills, Georgia has several social assistance schemes. These schemes either include electricity and natural gas as components or are specifically aimed at subsidizing the consumption of these utilities by certain consumer categories. Social assistance matters are regulated by the Law of Georgia on Social Assistance and the Law on Energy and Water Supply. The Social Service Agency is responsible for providing this assistance, and detailed information is available on its website.

Georgia has made significant progress in aligning its energy efficiency policies with EU directives and regulations. This includes updating its energy efficiency obligation target to meet the 2030 framework and integrating new alternative measures into the draft National Energy and Climate Plan (NECP) and the Energy Efficiency Law. Moreover, the adoption of by-laws and model contracts for energy performance contracting in 2023 represents a notable advancement in the financing of energy efficiency improvements. Fragmented information regarding the benefits and conditions of participating in energy efficiency programs, funds, energy service contracts, and other improvement measures can be found on the Ministry of Economy and Sustainable Development's website. However, Georgia lacks an energy efficiency agency or another dedicated public entity.

Recommendations

- The GNERC should ensure implementation of the requirements of Directive 2012/27/EU in terms of the collection and publication of the data on individual meters penetration;

¹⁶ <https://matsne.gov.ge/ka/document/view/5201093?publication=1>

- MoESD should adopt a legal definition of energy poverty and develop clear criteria for identifying energy-poor households.
- The Ministry of Economy and Sustainable Development should ensure the establishment of a public entity responsible for energy efficiency policy implementation, incl. publishing the information on benefits and conditions of participation in energy efficiency programs, funds, energy service contracts, and taking other energy efficiency measures following the Directive 2012/27/EU.

6. REPORTING

Score: 92, A, Excellent transparency

Progress: +26 points compared to the 2021 Index

Scores by subcategories

Subcategory	Score	Progress to 2021	Rating	Characteristic
Financial and management reporting	83	+13	B+	Good transparency
Fiscal reporting	100	+50	A+	Absolute transparency
Beneficiaries and corporate governance	100	0	A+	Absolute transparency

This category shows significant improvement. Most companies publish financial statements and independent auditors' reports. However, reports for previous years are sometimes unavailable, and existing reports are published in scanned .pdf format, making it difficult to adequately process and analyze the information.

Financial reports are available on companies' websites and on the consolidated website (Reportal), which is the first public information resource in Georgia containing financial and management reports of companies registered in Georgia.

Most companies publish information on the payment of taxes by business entities and types of taxes. Taxes are disclosed in the general financial statements.

Recommendations

- Energy companies should publish complete financial reports, auditor's reports to financial statements, and management reports; information on quasi-fiscal transactions and state aid. The reports should be published annually, and the previous year's reports should be available.
- Competition Agency should strengthen the law enforcement mechanisms and monitoring capacity to keep energy companies accountable.

7. POLICY

Score: 73, B-, Good transparency

Progress: +19 points compared to the 2021 Index

Scores by subcategories

Subcategory	Score	Progress to 2021	Rating	Characteristic
Monitoring and reporting	50	0	D+	Insufficient transparency
Energy efficiency	67	-33	C+	Medium transparency
Environmental protection and combating climate change	83	+41	B+	Good transparency
Renewable energy sources	75	+25	B	Good transparency

Georgia shows improvement in the development and transparency of its policies. In 2023, the Ministry of Economy and Sustainable Development drafted an energy policy document and the National Energy and Climate Plan (NECP) pursuant to the EU regulations and the new Energy Law. These documents will become the main strategic frameworks in the sector. In addition, Georgia is actively engaged in the UN Agenda 2030, having submitted its Voluntary National Review (VNR) on the implementation of the UN Sustainable Development Goals to the 2020 High-Level Political Forum. The VNR report is available on the dedicated SDGs website. Looking ahead, Georgia is preparing its second VNR for submission in 2024.

On April 24, 2023, Georgia adopted its Long-Term Low-Emission Development Strategy 2050 (Lt-LEDS), setting the stage for the country's carbon-neutral future and providing a clear roadmap for sustainable, low-emission growth. This contributed to the increase of the score for the "Environmental protection and combating climate change" subcategory.

While there is no specific progress report on the implementation of the National Strategy for Low Carbon Development and Georgia's nationally defined contribution to the Paris Agreement, Georgia has submitted its fourth national communication to the UNFCCC. This communication includes information on the progress of mitigation policies and measures in the country.

Georgia fulfilled its reporting obligations under the Large Combustion Plants Directive in March 2023, which is another reason for the growth in transparency level. The average emissions of the five gas-fired plants falling under the scope of the Large Combustion Plants Directive (and one new plant under the Industrial Emissions Directive) comply with the emission limit values of the respective Directives. However, the emissions of the two plants are very close to the limit value and they do not apply continuous measurements.¹⁷

The National Inventory Report of GHG emissions to the UNFCCC was updated and published for the 1990-2017 period. The inventory will be updated soon.

Georgia has made significant progress in developing energy efficiency policies. However, a recent report shows a negative progress score due to a change in methodology. Several new indicators have been added to this year's edition compared to previous years. The long-term renovation strategy for the national building stock is being developed. An inventory of central government buildings that are heated and/or cooled and have a total useful floor area greater than 250 square meters has been conducted, and the registry is publicly available.

¹⁷ Energy Community (2023). Georgia Annual Implementation Report Available at: <https://www.energy-community.org/implementation/report.html>

The long-term schedule of the expected allocation of support for renewable energy sources for at least the next five years is mentioned in various documents. Information on previous tenders for support of renewable energy sources, including project implementation rates, is also available.

Recommendations

- The MoESD should strengthen the national long-term strategy development and planning capacity; consider establishing an analytical/research center or a department within the MoESD.
- The Government should ensure linkage (harmonized goals, policies, and measures) among the national energy strategy, climate policy documents under the United Nations Framework Convention on Climate Change (UNFCCC), Low Emission Development Strategy, etc.;
- The Ministry of Economy and Sustainable Development (MOESD) should speed up the completion of the long-term renovation strategy for the national building stock;
- The Ministry of Finance should allocate sufficient financial resources for the strategic and planning capacity development of the MOESD.

8. PUBLIC AUTHORITIES

Score: 42, D-, Insufficient transparency

Progress: +29 points compared to the 2021 Index

Scores by subcategories

Subcategory	Score	Progress to 2021	Rating	Characteristic
Public spending	30	+27	F	Unacceptable transparency
Transparency of public administration	67	+32	C+	Medium transparency

The Basic Data and Directions (BDD) document provides budget priorities and information on particular budget programs. Detailed budgets and expenditures of particular entities (Ministry of Economy and Sustainable Development, GNERC, and Georgian Competition Agency) are available on their websites.

Georgia does not have a registry of state aid recipients. Some information is available on the Competition Agency's website on particular projects, but this is not a systematized registry. Annual reports on state aid are not available. The Law on Competition adopted in March 2014 defines state aid as a decision made concerning an undertaking stipulating tax exemptions, tax deductions or tax deferrals, debt relief, debt restructuring, granting loans on favorable terms, transfer of operating assets, monetary assistance, granting of profit guarantees, privileges, or other exclusive rights. The law describes the general rules for granting state aid¹⁸; however, it does not address the lack of obligation to notify any aid measure for approval before it is granted. Enforcement of the State aid acquis in the energy sector is lacking since neither the Competition Agency nor GNERC considers themselves competent¹⁹.

¹⁸ Law of Georgia on competition <https://bit.ly/3Fceuo2>

¹⁹ Energy Community Secretariat, Annual Implementation Report, Georgia 2021

Most public authorities publish draft regulatory acts and supplementary documents on their websites. All regulatory acts adopted are available on the consolidated website – the Legislative Herald of Georgia.

Results of monitoring the effectiveness of the regulatory acts implemented are not available.

Recommendations

- The Ministry of Economy and Sustainable Development, GNERC, and the Competition Agency should publish a complete summary of budget programs (incl. responsible public authority, objectives and targets, timeframe, expenditures, KPIs, etc.) following the OECD Good Practices for Performance Budgeting (2019) and IMF Guidelines for Public Expenditure Management (1999);
- The Competition Agency should establish a registry of state aid recipients with the corresponding state aid volumes and start publishing annual reports on state aid;
- The Ministry of Economy and Sustainable Development, GNERC, and the Competition Agency should publish the results of discussing draft regulatory acts and results of monitoring the effectiveness of the regulatory acts implemented.

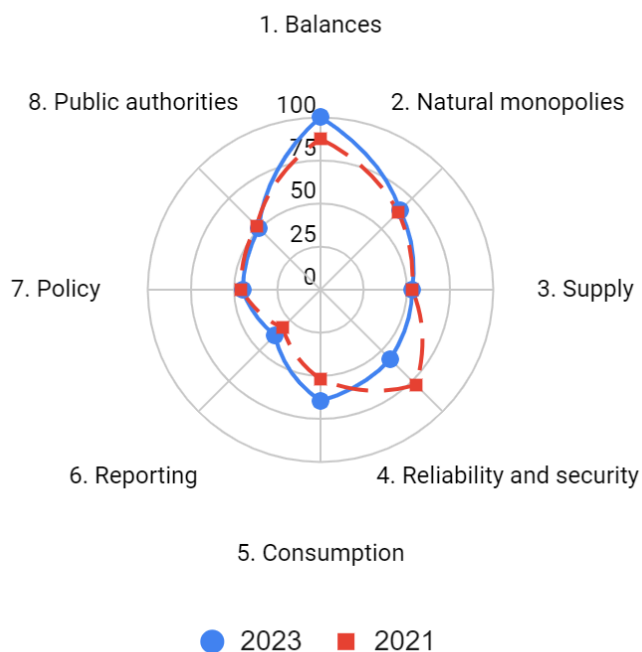
MOLDOVA

MOLDOVA'S 2023 ENERGY TRANSPARENCY INDEX

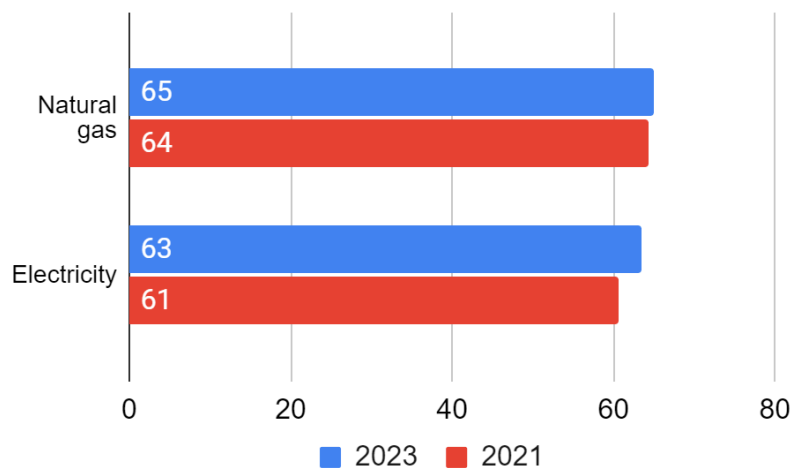
57, C-, Medium Transparency

Progress: +2 points compared to the 2021 Index

Progress by category



Progress by energy market



1. BALANCES

Score: 100, A+, absolute transparency

Progress: +13 compared to the 2021 index

Scores by subcategories:

Sub-category	Score	Progress to 2021	Rating	Characteristic
Annual balance statistics	100	0	A+	Absolute transparency
Monthly balance statistics	100	+25	A+	Absolute transparency

The National Bureau of Statistics (NBS) publishes annual and monthly balances for the natural gas and electricity sectors. The annual energy balance is available for 2015-2023 years on the website of NBS, in .pdf format and in .xls(x) format as well.

Beginning in 2015, the NBS published monthly balance statistics following Regulation (EC) No 1099/2008. The 2023 score for the "Balances" category improved due to the higher completeness of monthly balance statistics in electricity. The National Bureau of Statistics publishes all the relevant information in a timely manner.

2. NATURAL MONOPOLIES

Score: 66, C+, Medium transparency

Progress: +3 compared to the 2021 index

Scores by subcategories:

Sub-category	Score	Progress to 2021	Rating	Characteristic
Operation of transmission and distribution system operators	64	-1	C	Medium transparency
Independence of transmission and distribution system operators	98	+25	A+	Absolute transparency
Development of transmission and distribution systems	72	0	B-	Good transparency
Tariffs setting	50	+8	D+	Insufficient transparency

Compared to 2021 data, the score increased by +3 points due to several reasons: 1) approval of the electricity market rules by ANRE; 2) disclosure of the information on the unavailability of consumption units on the ENTSO-E transparency platform.

There is a lack of data regarding the contracted and available transmission capacity of natural gas, along with pre- and post-supply and demand information. This includes nominations, forecasts, and actual flows into and out of the system. Additionally, the gas Transmission System Operator (TSO) hasn't disclosed details about the actions taken to balance the system or the associated costs and revenue. As a consequence, the "Operation of transmission and distribution system operators" subcategory for natural gas received low scores.

The electricity TSO did not disclose the information related to transmission infrastructure, availability and use of forecasted and offered transmission capacity, congestion management measures and balancing. This also resulted in lower scores for the "Operation of transmission and distribution system operators" sub-category.

Regarding compliance programs, transmission and distribution system operators have made documents available on their websites, except for the electricity Transmission System Operator (TSO). According to the sampling list, all operators have published development plans, meeting legal obligations. However, progress reports on the implementation of network development plans are not

published by gas and electricity Distribution System Operators (DSOs). The publication of compliance programs marks a step forward in this regard, which is duly reflected in the score for "Independence of transmission and distribution system operators".

The tariff setting indicators are below a medium transparency level similar to the 2021 assessment results. It is mainly due to the non-availability of tariffs for the provision of balancing services and the lack of online tools for calculating available service rates and checking available capacity for both electricity and natural gas TSOs. The Regulator approved new Electricity Market Rules, which contributed to mild improvement in the transparency score. However, the act needs to be improved to establish the responsible party for balancing in the breakaway Transnistrian region.

Recommendations:

- The Regulatory Agency should still approve the rules for balancing services in the natural gas sector;
- The TSO Moldovatrangaz should disclose the information on contracted and available transmission capacity, the results of periodic auctions on transmission capacity allocation;
- TSO Moldelectrica should disclose the information on transmission infrastructure (details about the interconnector Chisinau-Vulcanesti-Isaccea in accordance with Art. 9 of EU Regulation 543/2013), congestion management measures, unavailability of 100 MW or more of a generation units (given the investment program of Termoelectrica), information on balancing (art. 17 of Regulation 543/2013).
- All three TSOs in electricity and gas should develop online tools for calculating available service rates and checking available capacity.

3. SUPPLY

Score: 53, D+, Insufficient transparency

Progress: 0 compared to the 2021 index

Scores by subcategories:

Sub-category	Score	Progress to 2021	Rating	Characteristic
Market barriers	40	0	D-	Insufficient transparency
Market concentration and competition level	0	0	F	Unacceptable transparency
Prices and pricing	70	-1	B-	Good transparency

The energy market is still highly monopolized, especially in the gas sector. The score was impacted negatively due to concentration in wholesale and retail natural gas markets, the lack of information regarding the breakdown of transportation and distribution costs and wholesale prices of gas imports from the EU market, no data about wholesale prices of electricity imports from Ukraine, incomplete information regarding the mark-ups of retail and wholesale markets for electricity and natural gas.

The national register of market participants does not include the information concerning the administrators and beneficial owners of the market operators, as required by Art. 9 (2) of the Regulation (EU) No 1227/2011.

The Regulatory Agency does not provide any information about the supplier switching on the retail electricity and gas market. Respectively, the sub-category "Market barriers" scored only 40 points, which stands for insufficient transparency.

Competition within the natural gas sector is notably restricted. According to the Regulatory Agency's annual report, Moldovagaz holds over 95% of both wholesale and retail markets for natural gas. However, in the electricity sector, data on retail market concentration is incomplete. The reports lack information on the combined market share of the three largest companies. Consequently, the "Market concentration and competition level" sub-category index received a score of 0 points, indicating a significant need for improvement.

The annual and semi-annual reports about the cost of electricity supplied by groups of consumption, including the cost of production and supply, are available in the monitoring reports published monthly by NBS, as well as quarterly and annually by the Regulatory Agency. Similar reports for the natural gas sector are incomplete due to a lack of data about the breakdown of transmission and distribution costs.

Recommendations:

- The Regulator should provide complete information in the national register of market participants, including the administrators and beneficial owners of the licensed companies;
- The Regulator should compile and disclose the information about supplier switching on retail electricity and natural gas markets;
- The Regulator should publish the information related to the market share of the three largest companies in the electricity market;
- The NBS should include information about the breakdown of transmission and distribution costs in the natural gas sector reports.

4. RELIABILITY AND SECURITY

Score: 57, C-, Medium transparency

Progress: -22 compared to the 2021 index

Scores by subcategories:

Sub-category	Score	Progress to 2021	Rating	Characteristic
Stocks and reserves	50	0	D+	Insufficient transparency
Security of supply planning	100	0	A+	Absolute transparency
Reports on reliability and security	38	-38	F	Unacceptable transparency

The decrease in score for this category is caused by the unavailability of information regarding the reports on the security of natural gas and electricity supply for the most recent reporting period.

Information regarding stocks and reserves does not encompass gas storage facilities, as they are not yet applicable in Moldova. However, details about existing local generation facilities and their capacities are available on the Transmission System Operator's (TSO) website. TSO also publishes the real-time load of the power system and the actual generation capacity of existing power plants, as well as import electricity flows. However, no information is disclosed about the available generation capacity, as required by clause 3.3. of Annex B to Regulation (EC) No 1099/2008.

The regulations and action plans on the emergency situations in the natural gas market and electricity market were approved by the government decisions No. 363 of 31 December 2019, and No. 149 of March 07, 2019, respectively. The report on the security of the electricity and natural gas supply of Moldova for the most recent reporting period is unavailable.

Recommendation:

- The TSO in electricity should provide information about the available generation capacity.
- The Ministry of Energy should publish the report on the security of electricity and natural gas supply of Moldova for the most recent reporting period.

5. CONSUMPTION

Score: 65, C+, Medium transparency

Progress: +13 compared to the 2021 index

Scores by subcategories:

Sub-category	Score	Progress to 2021	Rating	Characteristic
Penetration of metering	50	0	D+	Insufficient transparency
Service standards	86	-14	A-	Excellent transparency
Information for consumers	48	+14	D	Insufficient transparency

The penetration of metering has the lowest level of transparency, mainly due to a lack of regular reports about the number of final consumers equipped with natural gas meters and reports about the penetration of smart metering systems level for both electricity and natural gas sectors. There is only one report regarding the satisfaction level of consumers that reveals the way the consumption data is collected, and indirectly it shows a percentage of consumers that are using smart meters.

According to electricity market regulations, any consumption point can be connected to the grid only if it is equipped with metering. This requirement was in place even before Moldova's independence.

The Regulator (ANRE) enforced the requirements for the quality of gas/electricity supply (continuity, quality, service). ANRE's annual reports provide the data regarding the system operators' compliance with the requirements of the regulation.

The information for consumers in the electricity sector is minimal. Commercial offers (prices and terms of delivery) of electricity suppliers and price comparison tools (PTCs) in the retail electricity market are not available. In the gas sector, PCTs are not available as well - although 24 licensed companies are listed in the register of the gas supply market. The gas market is dominated by Moldovagaz (over 95%).

However, the score for "Information for consumers" increased due to available information on consumers' rights for subsidies, benefits and conditions of participation in energy efficiency programs.

No information for ongoing calls for proposals is published on the website of the Energy Efficiency Agency, as required by Art. 8 of Directive 2012/27/EU. Only partial information for approved calls is available. The Energy Efficiency Agency published only the Guide for the assessment of projects related to energy efficiency.

Recommendations:

- The Regulator should include information in its annual reports about the number of final consumers equipped with natural gas meters and reports about the level of penetration of smart metering systems for both electricity and natural gas sectors;
- The electricity suppliers should publish commercial offers on their websites;
- The Regulator should establish price comparison tools in the retail electricity market;
- The Energy Efficiency Agency should enhance the cooperation with mass media and conduct public events to disseminate the information on benefits and conditions of participation in energy efficiency programs and energy audit programs.

6. REPORTING

Score: 38, F, Unacceptable transparency

Progress: +7 compared to the 2021 index

Scores by subcategories:

Sub-category	Score	Progress to 2021	Rating	Characteristic
Financial and management reporting	46	+2	D	Insufficient transparency
Fiscal reporting	33	+16	F	Unacceptable transparency
Beneficiaries and corporate governance	16	0	F	Unacceptable transparency

The increase in the Reporting category is caused by the fact that more DSOs in the sample published their financial reports. However, part of the reports are incomplete or in non-machine-readable format.

Almost all system operators in the sample published their annual financial reports. However, in the gas sector, a few companies did not disclose complete financial reports with explanatory information about each component of the balance sheet, while Moldovagaz did not include the entire debt to Gazprom in its financial report.

Several operators in the natural gas sector, electricity generation and supply did not publish auditor's opinions on financial reporting and annual management reports, despite the clear regulatory requirements. Most probably, the information is not published on their website due to insufficient monitoring from the Regulatory Agency. The majority of documents are in a non-machine readable format.

The fiscal reporting contains only information about the income tax. No data is disclosed concerning the types of taxes paid or the quasi-fiscal transactions and state aid received by enterprises.

The reporting provided by private companies does not include information about final beneficiaries. These companies disclose only information about the shareholders (legal entities) in their financial reports.

Recommendations:

- Most licensees in the energy market from the sampling list should disclose complete financial reports, auditor's opinions on financial reporting and annual management reports. The documents should be in a machine-readable format and not as JPEG;
- The fiscal reporting should contain information concerning the types of taxes paid, the quasi-fiscal transactions and state aid disaggregated by enterprises;
- The private companies should disclose information about final beneficiaries.

7. POLICY

Score: 45, D, Insufficient transparency

Progress: -1 compared to 2021 index

Scores by subcategories:

Sub-category	Score	Progress in 2021	Rating	Characteristic
Monitoring and reporting	50	0	D+	Insufficient transparency
Energy efficiency	38	-13	D+	Insufficient transparency
Environmental protection and combating climate change	63	+17	D	Insufficient transparency
Renewable energy sources	0	-38	F	Unacceptable transparency

The score for this section was impacted negatively because the responsible public institutions are not publishing information regarding 1) the long-term schedule of the expected allocation of support at

least for the following five years and 2) information about previous tendering procedures for supporting RES, including project realisation rates.

The parliament approved the law 282/2023 that implements the Directive 2010/31/EU. However, this law does not represent a long-term renovation strategy. Also, Moldova didn't develop a comprehensive assessment of the potential of high-efficiency cogeneration and efficient district heating and cooling. Both factors contributed to the lower Moldova's score in the 'Energy efficiency' subcategory. Yet the list of energy service providers and the inventory of heated and/or cooled central government buildings are available.

The authorities are lagging the agenda concerning the emission reductions from large combustion plants. The national strategy in this field is not yet developed. Therefore, no progress reports are made in this area.

Recommendations:

- The Ministry of Infrastructure should publish reports on the progress of implementation of the Energy Strategy;
- The Ministry of Environment and that of Infrastructure should ensure the elaboration of the National Strategy on Emission Reductions From Large Combustion Plants and should publish related progress reports;
- The Energy Efficiency Agency should develop and publish a long-term renovation strategy for building stock and a comprehensive assessment of the potential of high-efficiency cogeneration and efficient district heating and cooling.

8. PUBLIC AUTHORITIES

Score: 50, D+, Insufficient transparency

Progress: -3 compared to the 2021 index

Scores by subcategories:

Sub-category	Score	Progress to 2021	Rating	Characteristic
Public spending	42	-4	D-	Insufficient transparency
Transparency of public administration	67	0	C+	Medium transparency

The slight decrease in the score is related to the fact that budget expenditures and state aid information are not reported in a timely manner. The register of state aid recipients is accessible for free. However, the information is not updated on a regular basis.

The Ministry of Finance started the elaboration of summaries for the budget programs, but the process was not finalized. Accordingly, the Ministry of Finance did not conduct any implementation reports, which makes the evaluation of this indicator impossible. The Court of Accounts conducts the independent financial audit of budget programs implementation. However, due to the absence of

publicly available information on passports of budget programs, this indicator was assessed with zero points.

The Register of state aid recipients is available and the access is not restricted as in the previous years. The decisions related to state aid are published on the website of the Council of Competition. However, there is no separate compartment for such decisions. The Council of Competition also publishes annual reports on the state aid, including different categories of recipients.

The draft regulatory acts are usually published in separate sections (Transparency in decision making) of websites by all public authorities. All documents include a table of proposals from stakeholders and substantiated position of public authority regarding their consideration/non-consideration (with a few exceptions). However, no assessment at all is conducted on the effectiveness of the regulatory acts implemented. This is a significant drawback, as the public authorities do not assess the extent to which the approved regulations have contributed to the achievement of the objectives initially set.

Recommendations:

- The public authorities should accomplish the implementation of passports (profiles) of budget programs and the Ministry of Finance should publish the implementation reports;
- The Court of Accounts should conduct the audit of budget programs after the respective passports (profiles) would be implemented;
- The Council of Competition should create a separate compartment for the decisions related to state aid;
- The public authorities should conduct assessments on the effectiveness of regulatory acts implemented and should publish the reports on their websites.

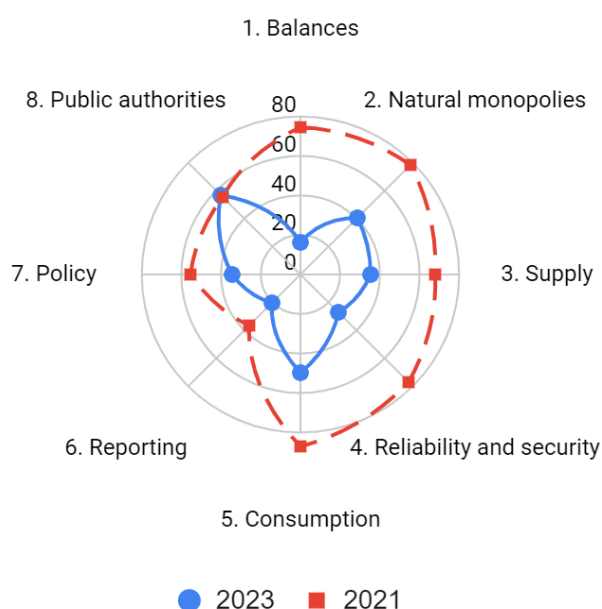
UKRAINE

UKRAINE'S 2023 ENERGY TRANSPARENCY INDEX (international version)²⁰

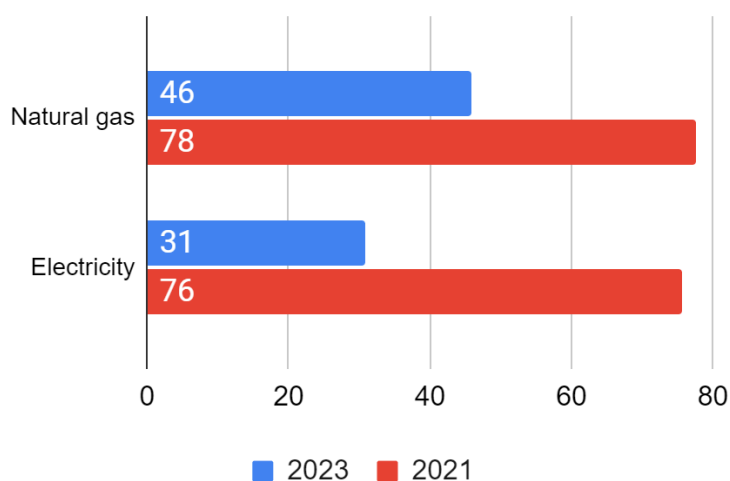
38, F, Unacceptable Transparency

Progress: -31 points compared to the 2021 Index

Progress by category



Progress by energy market



1. BALANCES

Score: 16, F, Unacceptable transparency

Progress: -59 points compared to the 2021 Index

Score by subcategories:

Subcategory	Score	Progress to 2021	Rating	Description
Annual balance statistics	31	-69	F	Unacceptable transparency
Monthly balance statistics	0	-50	F	Unacceptable transparency

²⁰ The extended national version of the [2023 Index](#) is based on a broader range of indicators (229), thus some assessments may differ compared to the international version.

A comparison with the 2021 assessment demonstrates a steep decline. On the one hand, no progress was observed in the SSS compliance with requirements of the Regulation (EC) No 1099/2008 in the disclosure of monthly statistics. Insufficient transparency of the "Monthly balance statistics" subcategory is caused by the State Statistics Service (SSS) not having proper legislative grounds and the necessary resources to collect data on the volumes and composition of production (extraction), use (consumption), exports, imports, and stock changes of energy resources.

On the other hand, annual balance statistics is only available for the prewar period which resulted in score reductions for relevance and frequency criteria. Also, due to the amendments to Regulation (EC) No 1099/2008 and new requirements for the disclosure of information on energy losses, capacity structure, the completeness score was also lowered.

Recommendations

- **(For the martial law period):** Cabinet of Ministers of Ukraine should confer on the State Statistics Service the liability to develop monthly product balances for energy resources (electricity, natural gas, steam coal, oil and liquid fuels, and heat) in part concerning compliance with requirements of Annex C to the Regulation (EC) No 1099/2008 on energy statistics;
- **(Following the termination of the martial law period):** to restore publication of annual balance statistics with due regard to the new provisions of Regulation (EC) No 1099/2008.

2. NATURAL MONOPOLIES

Score: 41, D-, Insufficient transparency

Progress: -38 compared to the 2021 Index

Score by subcategories:

Subcategory	Score	Progress to 2021	Rating	Description
Operation of transmission and distribution system operators	45	-43	D	Insufficient transparency
Independence of transmission and distribution system operators	22	-33	F	Unacceptable transparency
Development of transmission and distribution systems	8	-63	F	Unacceptable transparency
Tariffs setting	54	+2	D+	Insufficient transparency

The Russian full-scale aggression and related closure of data due to war risks caused the reduction in transparency scores for 3 out of 4 subcategories of the "Natural Monopolies" category.

In electricity, the main contributing factor for such regress is the closure of the data on total load, unavailability of consumption units and transmission infrastructure and year-ahead forecast margin, which was previously published on the ENTSO-E Transparency Platform. The compliance programs of electricity TSO and DSOs and related annual reports also became unavailable due to the directive prohibition stipulated by NEURC Resolution dated March 26, 2022 No. 349.²¹ In addition, this act prohibits the publication of ten-year network development plans and reports on their implementation.

²¹ <https://zakon.rada.gov.ua/rada/show/v0349874-22>

In gas, the information that became unavailable due to war risks includes data on gas in underground storages (including injection and withdrawal data, which was previously published by the storage operator), information about scheduled maintenance of transmission system, gas quality and balancing actions of the TSO (all information previously published on the gas TSO website). Yet it should be noted that information on the Ukrainian underground storages can be still obtained through alternative EU sources²². The compliance programs of gas TSO and DSOs, related annual reports as well as ten-year network development plans and respective implementation reports were also closed pursuant to above mentioned NEURC Resolution.

Also, some transparency gaps, which existed before the war, still remained relevant. In particular, electricity TSO Ukrenergo doesn't publish some information regarding capacity allocation and congestion management (in particular, forecasted) as required by Regulation (EU) No 543/2013. Gas TSO of Ukraine LLC still fails to comply with Regulation (EC) No 715/2009 in terms of informing on ex-ante and ex-post transmission capacity supply and demand.

Besides, the electricity and gas TSOs still do not provide transmission systems' users with online tools for calculating rates for various TSOs' services and checking the available transmission capacity.

The minor improvement in the "Tariffs setting" subcategory is related to slightly better quality of information on methods of calculation of tariffs for connection to gas networks.

Recommendations

- **(Following the termination of the martial law period):** Ukrenergo should ensure compliance with requirements of Articles 13 and 14 of the Regulation (EU) No 543/2013 on disclosure of information on congestion management measures;
- **(For the martial law period):** Gas TSO of Ukraine should restore publication of aggregated information on gas quality due to absence of risks related to such disclosure;
- **(Following the termination of the martial law period)** Gas TSO of Ukraine should ensure compliance with requirements of Articles 18 (6) and 21 (2) of the Regulation (EC) No 715/2009 on publication of ex-ante and ex-post data regarding transmission capacity supply and demand;
- **(Following the termination of the martial law period)** the NEURC and network operators should restore the publication of compliance programs, transmission and distribution system development plans, and respective implementation reports in machine-readable formats and in a timely manner.

3. SUPPLY

Score: 35, F, Unacceptable transparency

Progress: -33 compared to the 2021 Index

Score by subcategories:

Subcategory	Score	Progress to 2021	Rating	Description
Market barriers	48	-13	D	Insufficient transparency
Market concentration and level of competition	28	-72	F	Unacceptable transparency
Prices and pricing	30	-35	F	Unacceptable transparency

²² <https://agsi.gie.eu/#/>

War-related risks forced Ukrainian authorities and companies to close the significant share of information reflected in the indicators of the "Supply" category. This resulted in a drastic score reduction in all respective subcategories.

The decrease in "Market barriers" subcategory is related to the gaps in National Register of Market Participants, which was developed and published in 2023 pursuant to Regulation (EU) No 1227/2011. In particular, the register lacks information on the addresses of market participants, which is omitted deliberately due to security risks. Also historical versions of the Register are unavailable.

The main contributors to the score reduction in "Market concentration and level of competition" subcategory is unavailability of the NEURC's annual reports and quarterly electricity market monitoring reports, which contained up-to-date information on competition, including Herfindahl-Hirschman Index (HHI), total market share of three largest companies (CR3), number of companies with market share exceeding 5%.

Transparency in "Prices and pricing" subcategory also deteriorated due to the closure of the NEURC's annual reports and quarterly electricity market monitoring reports, which, inter alia, contained results of price monitoring on both reatail and wholesale gas and electricity markets. Another negative factor is the absence of up-to-date semiannual reports on the cost of natural gas and electricity as provided by the Regulation (EU) 2016/1952. The last published report covers the first half of 2021.

Besides, several "black boxes" were in the "Supply" category even before the war due to a lack of

- average annual electricity and gas prices for household and non-household consumers (by consumption bands) and price composition following the Regulation (EU) 2016/1952;
- a methodology for regulation of retail gas prices for particular consumer groups (so far, quasi-regulation of wholesale and retail gas prices by the government is observed);
- mark-ups in the retail gas market.

The exhaustive information in the "Supply" category could be expected only after the full-fledged establishment of the electricity and gas markets as provided by the Ukraine Plan²³ while maintaining the role of the government in fostering competition, preventing market power abuse, and proper consumer protection.

Recommendations

- **(General):** the Cabinet of Ministers should develop and make public the procedure for the transition to market prices of electricity for households as well as methods for calculating regulated gas prices in the wholesale and retail markets, which should contain the justification for the need for such regulation, the regulatory impact assessment and the final date of application of regulated prices;
- **(General):** the Cabinet of Ministers should abandon methodically unsupported quasi-fiscal decisions in energy supply for vulnerable consumers in favor of introducing transparent and targeted mechanisms for their support;
- **(General):** the NEURC and AMCU should launch regular monitoring and assessment of mark-ups in the electricity and gas markets;
- **(General):** the State Statistics Service should publish annual reports on gas and electricity prices following the requirements of Regulation (EU) 2016/1952;

²³ <https://www.ukrainefacility.me.gov.ua/wp-content/uploads/2024/03/ukraine-facility-plan.pdf>

- **(Following the termination of the martial law period):** the NEURC should ensure completeness of information in the licensees of market participants (as required by REMIT);
- **(For the martial law period):** the NEURC should restore disclosure of quarterly monitoring reports on the electricity market (as is the case with respective reports on the natural gas market) and restore publication of the quarterly reports for previous periods;
- **(For the martial law period):** the State Statistics Service should ensure updating semi-annual information on gas and electricity prices and their structure (by consumption bands).

4. RELIABILITY AND SECURITY

Score: 27, F, Unacceptable transparency

Progress: -50 compared to the 2021 Index

Score by subcategories:

Subcategory	Score	Progress to 2021	Rating	Description
Stocks and reserves	0	-94	F	Unacceptable transparency
Security of supply planning	50	0	D+	Insufficient transparency
Reports on reliability and security	28	-55	F	Unacceptable transparency

The main three factors contributing to the reduction of "Reliability and Security" score in 2023 were

- closure of National resource adequacy assessment provided by Articles 20 and 24 of Regulation (EU) 2019/943 on the internal market for electricity;
- unavailability of up-to-date Security of supply statements for electricity and gas sectors as well as historical statements provided by Article 29 of the Treaty establishing the Energy Community;
- removal of information on the maximum offtake capacity of gas storage facilities and maximum electricity generation capacities.

The absence of a Risk preparedness plan in the electricity sector provided by Regulation (EU) 2019/941 is a gap that was relevant even before the war.

Recommendations

- **(Following the termination of the martial law period):** the Ministry of Energy should ensure timely and regular publication of monitoring reports on the security of electricity and gas supply;
- **(General):** the Cabinet of Ministers should develop and submit to the Verkhovna Rada the draft Law "On Amending the Law of Ukraine "On the Electricity Market" to take due account of the requirements of *Regulation (EU) 2019/943* on the internal market for electricity and *Regulation (EU) 2019/941* on risk-preparedness in the electricity sector, in particular, those, related to the reporting of the Ministry of Energy, the NEURC and Ukrenergo NPC PrJSC.

5. CONSUMPTION

Score: 50, D+, Insufficient transparency

Progress: -37 compared to the 2021 Index

Score by subcategories:

Subcategory	Score	Progress to 2021	Rating	Description
Penetration of metering	3	-72	F	Unacceptable transparency
Service standards	41	-59	D+	Insufficient transparency
Information for consumers	86	-4	A-	Excellent transparency

The transparency score for the "Consumption" decreased by 37 points mainly due to the war-related factors as well as the addition of 3 new indicators, where Ukraine didn't show significant progress

The score of the "Penetration of metering" subcategory dropped due to the closure of the NEURC's annual reports, which contained the data on installation of individual gas and electricity meters as well as on smart metering penetration in the electricity market.

Transparency in the "Service standards" subcategory also reduced due to the unavailability of annual reports, where reporting information on ensuring minimum requirements for the quality of gas supply (continuity, quality, customer service) was published. Also, the Cabinet of Ministers still hasn't defined the concept of vulnerable customers, while the Ministry of Social Policy hasn't developed criteria for the definition of energy-poor consumers. All these requirements are reflected in three new indicators, which were subsequently assessed by 0.

The "Information for consumers" subcategory experienced an insignificant drop in transparency because, in general, gas and electricity supply companies continued to publish their commercial offers, while public authorities didn't remove information on existing energy efficiency programs and consumers' rights for subsidies and preferences in payment of utilities' bills. The slight reduction in score is explained by the unavailability of the lists of potential energy service facilities and contractors providing energy service, which were removed from the website of the State Agency for Energy Efficiency and Energy Saving for security considerations.

Recommendations

- **(General)** the NEURC should monitor and regularly publish data on the penetration of individual gas smart meters;
- **(General)** the NEURC should regularly inform about the equipment of consumers with smart gas metering systems;
- **(General)** the Cabinet of Ministers should develop procedures for the protection of vulnerable consumers in the electricity and gas markets; within the framework of this process, the Ministry of Social Policy should develop criteria for determining energy poverty;
- **(For the martial law period):** the NEURC should resume public reporting on the quality of gas supply, which was contained in the annual NEURC reports, as well as historical information on the compliance with minimum standards for electricity supply;
- **(Following the termination of the martial law period):** the State Agency on Energy Efficiency and Energy Saving should resume publication of the register of ESCO service providers.

6. REPORTING

Score: 20, F, Unacceptable transparency

Progress: -16 compared to the 2021 Index

Score by subcategories:

Subcategory	Score	Progress to 2021	Rating	Description
Financial and management reporting	20	-27	F	Unacceptable transparency
Fiscal reporting	9	-1	F	Unacceptable transparency
Beneficiaries and corporate governance	42	-12	D-	Insufficient transparency

Compared to the 2021 assessment, transparency in the "Reporting" category decreased from 36 to 20 points. The main cause of such decline was martial law and related legal exemptions enabling companies not to publish a number of reports.

The score in the "Financial and management reporting" reduced by 27 points due to the discretionary decision of the majority of companies in the sample to stop publishing the latest financial and non-financial statements. The Law No. 2115-IX "On Protecting the Interests of Entities Submitting Reports and Other Documents during the Period of Martial Law or a State of War"²⁴ and related by-laws enables companies to disclose mandatory reporting within three months after the termination or cancellation of martial law for the entire period for which reporting was not submitted.

The transparency of companies' reporting on taxes and other payments to the government ("Fiscal reporting" subcategory) remains dramatically low (9 points). Based on the directive ban (provisions of Laws No. 2115-IX and No. 2436-IX), the extractive companies in the sample have not published the reports on payments to the state on their websites for the second year in a row, and most companies did not submit reports to this year's EITI report.

The transparency of the "Beneficiaries and corporate governance" subcategory also deteriorated due to the fact that many companies in the sample don't disclose information about their ownership structure referring to martial law restrictions. Data on the ownership structure is published mostly by state-owned companies where the ultimate beneficiary is determined by law.

Recommendations

- **(General)** the companies should restore access to sections of corporate websites containing financial, management, and non-financial reporting documents with separate sections for non-financial reporting documents and documents regulating corporate governance relations;
- **(General)** The extractive companies should resume the practice of regular reporting on paid taxes on their websites and submitting reports on payments to the government.

7. POLICY

Score: 34, F, Unacceptable transparency

Progress: -21 compared to the 2021 Index

Score by subcategories:

Subcategory	Score	Progress to 2021	Rating	Description
Monitoring and reporting	31	-31	F	Unacceptable transparency
Energy efficiency	0	-75	F	Unacceptable transparency
Environmental protection and combating climate change	69	28	C+	Medium transparency

²⁴ <https://zakon.rada.gov.ua/laws/show/2115-20#Text>

Renewable energy sources	0	-69	F	Unacceptable transparency
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Comparing with the 2021 assessments indicates declining transparency in 3-of-4 subcategories and the whole category. The score in the "Monitoring and reporting" subcategory fell by 31 points primarily due to the unavailability of the Report on implementation of the Energy Strategy of Ukraine until 2035 (in particular, for the Energy Sector Reform stage till 2020). Also, the Ministry of Economy did not provide an updated progress report on monitoring objectives for Sustainable Development Goal 7 "Affordable and Clean Energy" with the data for 2020 and 2021.

In the "Energy efficiency" subcategory 2 indicators on the National Energy Efficiency Action Plan (NEEAP) and related progress report were substituted with 4 new indicators reflecting information disclosure requirements provided by Directive 2012/27/EU on energy efficiency and Directive 2010/31/EU on the energy performance of buildings. This explains the drastic decrease in the score in this subcategory, as Ukraine closed the list of available energy service providers and haven't conducted a comprehensive assessment of the potential of high-efficiency cogeneration and efficient district heating and cooling. Also, the State Agency on Energy Efficiency and Energy Saving removed an inventory of heated and/or cooled central government buildings with a total useful floor area of over 250 m².

On the contrary, the score for the "Environmental protection and combating climate change" subcategory increased by 28 points primarily due to the publication of the latest progress report on emissions reduction for large combustion plants for 2022.

The "Renewable energy sources" subcategory also experienced drastic decrease related to the substitution of 2 indicators dedicated to the National Renewable Energy Action Plan with indicators requiring publication of the long-term schedule of the expected allocation of support for RES projects and information about previous tendering procedures for supporting RES. Given the fact that Ukraine still hasn't held its first auction allocating support for the RES projects, neither long-term schedule nor information on previous auctions is publicly available.

Recommendations

- **(General)** the Ministry of Energy should ensure that all reporting on the implementation of the 2035 Energy Strategy of Ukraine and further updated version of the Strategy is publicly available; the Ministry should use the monitoring framework proposed by the OECD.
- **(General)** the Ministry of Energy should ensure the launch of the first tendering procedures for supporting RES projects and the publication of necessary information in this regard.
- **(General)** the State Agency on Energy Efficiency and Energy Saving should conduct a comprehensive assessment of the potential of high-efficiency cogeneration and efficient district heating and cooling.
- **(Following the termination of the martial law period):** the State Agency on Energy Efficiency and Energy Saving should resume publication of the inventory of heated and/or cooled central government buildings with a total useful floor area over 250 m².

8. PUBLIC AUTHORITIES

Score: 57, C-, Medium transparency

Progress: +1 compared to the 2021 Index

Score by subcategories:

Subcategory	Score	Progress to 2021	Rating	Description
Public spending	56	-1	C-	Medium transparency
Public administration	60	+7	C	Medium transparency

Unlike other categories, compared to the 2021 assessment, the "Public authorities" category demonstrated minimal progress of 1 point.

It was caused mainly by the improved transparency in the "Public administration" subcategory. The main reason for higher score is better quality of monitoring reports on adopted acts by the AMCU. Also all public authorities included in the sample started to publish adopted acts only in a format suitable for copying.

Overall, the growth of transparency in the "Public authorities" category remains restrained by the following "black boxes":

- incompleteness and untimely publication of draft regulatory acts with stakeholders' comments and results of their consideration;
- inadequate impact assessment of the regulatory acts adopted and unavailability of comprehensive reports on its results and further monitoring.

Recommendations

- the Ministry of Energy, NEURC, and AMCU should ensure the publication of stakeholders' comments and suggestions regarding draft regulatory acts and the results of their consideration;
- **(General)** the Ministry of Energy, NEURC, and AMCU should deliver full-fledged ex-ante and ex-post impact assessments of the adopted regulatory acts and publish their results;
- **(General)** the Ministry of Energy, the NEURC, and the AMCU should ensure that comments and suggestions on draft regulatory acts and the results of their discussion and consideration are publicly available;

METHODOLOGY

The Energy Transparency Index **methodology** is based on the universal statistical method of multidimensional weighted average, used to assess complex objects, processes, and phenomena. The Index dimensions include specific transparency indicators, their sets (categories and energy markets), and transparency aspects (criteria).

An **indicator** is a specific way of measuring the transparency of a certain object (e.g., energy company, public authority), process (e.g., pricing, regulation, trade, etc.), or phenomenon (e.g., market, competition, etc.). A set of indicators forms the lowest level of the Index decomposition. This study analyzed 124 indicators with indispensable and sufficient transparency features (contents of information, its format, frequency of updating, etc.) defined in European legislation and/or best global practices of information disclosure.

The study focuses on two **energy markets**: natural gas (43 indicators) and electricity (48 indicators), as well as cross-sector issues (33 indicators).

Grouping the indicators into **categories** allows various stakeholders to obtain information regarding transparency in different parts of the energy sector throughout its value chains.

By analyzing the requirements and practices of information disclosure, the indicators were grouped into eight categories:

- "Balances": defines the transparency of annual and monthly energy statistics;
- "Natural monopolies": defines the transparency of transmission and distribution system operators;
- "Supply": defines the transparency of rules, competition, prices and pricing in the energy markets;
- "Reliability and security": defines the transparency of stocks and reserves, rules and reports on the security of supply;
- "Consumption": defines the transparency of energy consumption metering, customer service standards, information for consumers on prices and tariffs, subsidies, preferences and other aid, and energy efficiency programs;
- "Reporting": defines the transparency of corporate financial statements and auditor reports, management reports, payments to the government, and information regarding final beneficiaries;
- "Policy": defines the transparency of implementing policy documents on energy and sustainable development, energy efficiency, environmental protection, combating climate change, and renewables;
- "Public authorities": defines the transparency of public spending, as well as designing, adopting, and implementing policy and regulatory decisions.

For the convenience of assessment and analysis, indicators in each category were grouped into subcategories and groups.

The **transparency criterion** is an aspect of assessing the transparency of an object, process, or phenomenon. Each indicator was evaluated by six transparency criteria:

- "Availability": the existence of information in open sources;
- "Accessibility": a measure of free access to information;
- "Relevance": availability of information for the most recent reporting period or the moment of assessment;
- "Frequency": compliance with the requirements regarding the regularity of updating and storing the information;
- "Usability": convenience and simplicity of using disclosed data and information;
- "Completeness": availability of exhaustive information required to be disclosed following legislative requirements or best global practices.

Transparency criterion	Score
Availability (C_{av})	0 – information unavailable 1 – information available
Accessibility (C_{ac})	0 – access to available information requires payment of a fee or prior request 0.5 – access to available information requires authorization (after providing the user's personal data) 1 – information in free access
Relevance (C_{rl})	0 – information for the most recent reporting period unavailable 1 – information for the most recent reporting period available
Frequency (C_{fr})	0 – information not updated and not available for past periods 0.5 – information updated but not available for certain past periods 1 – information updated according to requirements and available for past periods
Usability (C_{us})	0 – information available in a not machine-readable format (jpg, jpeg, png, pcx, tiff, scanned pdf, etc.) 0.5 – available information can be copied or processed (numerical: docx, pdf, html, xlsx (unstructured data)) 1 – information available in a machine-readable format (numerical: xlsx (structured data), csv, xml, json; textual: docx, non-scanned pdf)
Completeness (C_{in})	0 – information to be disclosed unavailable within the required period 0.5 – information to be disclosed partially available within the required period

	1 – all information to be disclosed is available within the required period
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Each Index's indicator was assessed by monitoring the open sources (websites of public authorities and energy companies, open data, and institutional repositories). The aggregate score of each transparency indicator was calculated by the following formula:

$$T_i = C_{av} \cdot (C_{ac} + C_{rl} + C_{fr} + C_{us}) \cdot C_{in},$$

with C_{av} , C_{ac} , C_{rl} , C_{fr} , C_{us} , C_{in} are scores for the availability, accessibility, relevance, frequency, usability, and completeness criteria, respectively.

If any information can be obtained only for a fee or upon prior request ($C_{ac} = 0$), it is considered unavailable ($C_{av} = 0$). For all qualitative indicators, $C_{rl} = C_{fr} = 1$ if the information was available ($C_{av} = 1$) and accessible ($C_{ac} = 1$).

Considering the large size of the transparency indicators, they were considered of equal weight. Therefore, the average values were used to develop sub-indexes for the categories, subcategories, and markets.

The assessment of indicators was conducted in **March-April 2024**.

AGGREGATION OF SCORES

To calculate the total Index score, weightings of the Index's categories were applied:

Category	Weighting
Balances	0.05
Natural monopolies	0.20
Supply	0.20
Reliability and security	0.05
Consumption	0.20
Reporting	0.10
Policy	0.10
Public authorities	0.10

INTERPRETATION OF SCORES

All scores were converted into a 100-point scale as $25T_i$, rounded off, and given the following interpretation:

Score	Rating	Characteristic
95...100	A+	absolute transparency
90...94 85...89	A A-	excellent transparency
80...84 75...79 70...74	B+ B B-	good transparency
65...69 60...64 55...59	C+ C C-	medium transparency
50...54 45...49 40...44	D+ D D-	insufficient transparency
0...39	F	unacceptable transparency

LIMITATIONS

The Index **cannot be applied** to assess the transparency of:

- the energy sector in real-time, since its calculation requires the processing of large amounts of information for the reporting period (as a rule, the one preceding the period during which the assessment is delivered);
- all participants of energy markets and/or public authorities; therefore, assessments of certain indicators in the "Natural monopolies", "Consumption", "Reporting" and "Public authorities" categories were delivered on the basis of a representative sample;
- not yet established energy markets under formation (i.e., steam coal and heating).

SAMPLES

"Natural monopolies" category:

- transmission system operators (TSOs): legal entities responsible for the operation, dispatching, maintenance, and development of networks as well as for ensuring their long-term capacity to meet reasonable demand for transmission of electricity and gas;
- distribution system operators (DSOs): legal entities operating in the largest cities and responsible for the safe, reliable, and efficient operation, maintenance and development of distribution systems in electricity and gas.

"Consumption" category:

- for natural gas: suppliers operating in the largest cities (including incumbents or regulated suppliers under public service obligations (PSO) and/or other mechanisms);
- for electricity: suppliers operating in the largest cities (including incumbents or regulated suppliers under PSO and/or other mechanisms).

"Reporting" category:

- "Financial and management reporting" and "Fiscal reporting" (partly) subcategories: energy companies ranked among top taxpayers in 2020, including entities of public interest as defined by the Directive 2013/34/EU;
- "Reports on payments to the government" indicator: state-owned and private extractive companies with the largest production of natural gas, oil and gas condensate, and steam coal in 2020;
- "Information about final beneficiaries" indicator: largest joint-stock energy companies selected from the primary sample of companies applied in the "Financial and management reporting" subcategory, with securities eligible for trading on stock exchanges.

"Public authorities" category:

- "Public spending" (partly), "Transparency of public administration" subcategories: public authority in charge of energy policy (ministry), national regulatory authority, competition (antitrust) authority.