

Energy Transparency Index 2020

International Edition



Re-granting Project 2020
Working Group 3



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EXECUTIVE SUMMARY

The *Energy Transparency Index* has been developed as a universal tool to assess information availability in the energy sector, diagnose gaps, make in-depth analysis and comparisons, and track the progress. This international edition is a first comprehensive comparative study to examine the level of energy transparency in Georgia, Moldova, and Ukraine as countries most advanced in terms of European integration among the Eastern Partnership nations.

The Index's ultimate beneficiaries are the *consumers*, as their awareness improves the possibility of protecting their rights and helps rationalize economic behavior in the market. The consumers will benefit from transparent and competitive energy markets since they bring better quality of energy services and fair pricing. A strong interest in the Index exists among *energy companies* and potential investors seeking an open, competitive environment, a better relationship with the government and communities, while reducing business risks. The Index will be useful for *public authorities* responsible for information disclosure, indicating particular gaps and helping them to improve their own transparency and regulations regarding such disclosure. *Foreign partners* will be able to better understand countries' energy policy and markets.

The Index includes *115 indicators* grouped into *eight categories* and based on EU regulatory requirements and best global practices regarding information disclosure. 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.

Information gaps (so-called «black boxes») and drawbacks in data disclosure discovered by the assessment, provided the basis for specific recommendations to public authorities and energy companies mentioned at the end of each country-specific Index's section.

Transparency analysis by categories is divided into sectoral and cross-sectoral parts. The sectoral part presents an assessment of four categories – «Balances», «Natural monopolies», «Supply», «Reliability and security» made by two energy markets. The cross-sectoral part presents an assessment of three categories – «Reporting», «Policy», and «Public authorities» as related to the whole energy sector. The «Consumption» category is split into both sectoral and cross-sectoral parts. The last part of the Index reveals a methodological approach to measuring and assessing energy sector transparency.

Key Findings

- According to the assessment made in 2020, the final scores for Georgia, Moldova, and Ukraine indicate medium or insufficient transparency of their energy sectors and a huge room for the improvement. The level of transparency significantly varies among the categories indicating the gaps and shortcomings where national governments should make particular efforts to promote reforms and improve information and data disclosure.
- The level of countries' energy sector transparency strongly depends on their progress towards liberalization of energy markets and maturity of legislation. The intensity of internal reforms towards the EU model of electricity and gas markets defines the pace and penetration of rules and requirements regarding transparency to public authorities and energy companies. Unlike Georgia and Moldova, Ukraine has transposed most of related EU requirements into national legislation; still, the question is its due implementation. Moldova is on its way of liberalizing the energy markets, while Georgia as the country, which joined the Energy Community later, is only about launching the reforms (therefore, some indicators could not be yet assessed).

Assessment by category

Category	Georgia		Moldova		Ukraine	
	Score	Rating	Score	Rating	Score	Rating
1. Balances	75	B	63	C	63	C
2. Natural monopolies	75	B	53	D+	63	C
3. Supply	62	C	63	C	63	C
4. Reliability and security	17	F	92	A	70	B-
5. Consumption	65	C+	45	D	71	B-
6. Reporting	47	D	20	F	24	F
7. Policy	36	F	70	B-	62	C
8. Public authorities	27	F	44	D-	50	D+
Energy Transparency Index	56	C-	53	D+	60	C



Assessment by market

Market	Georgia		Moldova		Ukraine	
	Score	Rating	Score	Rating	Score	Rating
Natural gas	59	C-	56	C-	65	C+
Electricity	71	B-	58	C-	62	C

- The scale of internal energy markets is also affecting the progress on transparency. Countries having larger markets with many participants, including natural monopolies (as Ukraine) experience more complications with their reforming and implementing the dedicated rules and requirements compared to countries with relatively smaller markets and fewer market participants, particularly distribution system operators (as Moldova and Georgia) where the process can proceed faster. Similarly, Ukraine is struggling with bringing national energy statistics in line with the Regulation (EC) No 1099/2008 (having 63 points in the dedicated «Balances» category), while Georgia demonstrates greater progress in the field (with 75 points).

- Having relatively immature electricity and gas markets, Ukraine still leads in transparency of market entry and competition areas compared to Georgia and Moldova, which are yet to open their markets. Notably, the national regulatory authority (NEURC) introduced quarterly monitoring of wholesale and retail electricity and gas markets with regular publishing of corresponding reports. However, in terms of energy pricing transparency, Ukraine trails both countries, which still have heavily regulated energy prices and yet to start bringing competitive market-based pricing to their markets.

- In terms of reliability and security of supply, Moldova demonstrates the best case among the countries assessed, since it approved the regulations and action plans on the emergency situations in gas and electricity markets, as well as published the reports on security of electricity and gas supply. However, Moldova and Georgia are yet to improve the transparency of energy metering, publishing the data on its penetration.

Meanwhile, all the countries demonstrate absolute transparency (100 points) in service standards, publishing the information on ensuring minimum requirements for the quality of electricity and gas supply. Still, informing consumers on energy prices needs to be improved by Moldova and particularly Ukraine, since most Ukrainian consumers can switch energy suppliers (except households in electricity where a PSO scheme is still in place).

- All three countries have relatively low transparency of corporate financial and non-financial reporting, especially on fiscal issues (payments to the government, quasi-fiscal transactions and state aid). Thus, national governments should improve the legislation and enforce energy companies to implement best global practices of corporate reporting.

- Georgia should pay particular attention to the transparency of policy making and the activity of public authorities since it lacks most key policy documents on energy and sustainable development. Besides, all three countries should considerably improve the reporting on public spending and implementation of policy documents in place and ensure proper tracking of the effectiveness of adopted regulations and due reporting considering best EU practices within the Better Regulation/Law making guidelines.

Detailed information about the findings of this study and particularly the *assessment table* with scores and comments, can be found in a separate spreadsheet published with the Index on websites of the project implementers: DiXi Group (<https://dixigroup.org/en/>), WEG (<http://weg.ge/en>), and WatchDog.md (<https://www.watchdog.md/english/>).

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, criteria, and certain markets, as well as 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, foreign institutional partners, potential investors, 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 released in 2018 with an assessment of Ukraine's energy sector transparency (initial score - 43 out of 100 points). The second 2019 Index issue was developed applying improved methodology considering the feedback of domestic and foreign experts and other stakeholders. It showed slight progress in transparency with the total score of 48 points (+5 points). The third Index edition for Ukraine made in 2020 demonstrated acceleration of transparency improvement up to 58 points (+10 points).

This international edition is a first comprehensive comparative study to examine the level of transparency in Georgia, Moldova, and Ukraine as countries most advanced in terms of European integration among the Eastern Partnership nations. To ensure international applicability, we adjusted the Index's methodology in terms of indicators and energy markets covered.

Purpose of the Index

The purpose of developing and publishing the Index is to promote greater transparency of the energy sector, which shall include indispensable and sufficient conditions for stakeholders to regularly receive comprehensive, complete,

up-to-date, and usable information they need to make evidence-based decisions.

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

The Index is intended to reduce informational asymmetry in the energy sector, squeeze the prospects for unfair competition, discriminatory behavior, and corruption, and promote proper operation of energy markets.

The information gaps (so-called «black boxes») identified throughout the Index development provided the basis for practical recommendations to public authorities to improve transparency of respective national energy sectors as one of the critical preconditions for their better performance and sustainable development.

The international dimension of the Index should bring the competitive spirit to the process and better encourage national governments urging them to promote transparency in energy markets and policy making. On the other hand, international comparison could facilitate faster and more fruitful dissemination of the best national transparency practices to energy sectors of other countries, thus speeding up their improvement and contributing to the development of more open, competitive, and efficient energy markets.

Target audience

The Index's ultimate beneficiaries are *consumers*, as better awareness would allow them to act more rationally while minimizing expenses and increasing benefits. Consumers will benefit from transparent and competitive energy markets since they bring better energy services 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 risk, make decisions on investment or market entry, and design a corporate policy. Simultaneously, a less risky business environment would improve the investment climate and attract additional resources to the industry.

Public authorities will receive practical recommendations regarding the disclosure of information and data. 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 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 sub-categories:

- 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 the Regulation (EC) No 1099/2008 on energy statistics.



2. NATURAL MONOPOLIES

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

- 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, transmission and distribution system operators are compliant with the requirements of:

- Directives 2009/72/EC and 2009/73/EC concerning common rules for the internal markets in electricity and natural gas;

- Regulations (EC) No 714/2009 and No 715/2009 on conditions for access to the network for cross-border exchanges in electricity and the natural gas transmission networks;

- 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 the natural gas and electricity markets. This category includes 18 indicators grouped into three sub-categories:

- market barriers (4 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:

- Directives 2009/72/EC and 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. This category includes seven indicators grouped into three sub-categories:

- stocks and reserves (2 indicators);
- security of supply planning (2 indicators);
- reports on reliability and security (3 indicators).

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 2009/72/EC concerning common rules for the internal market in 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;
- EU best practices of guaranteeing the security of gas and electricity supply.



5. CONSUMPTION

The «Consumption» category defines the transparency of service standards and metering, information for consumers about prices and tariffs, subsidies and other preferences, and energy efficiency programs. This category includes 13 indicators grouped into three sub-categories:

- penetration of metering (4 indicators);
- service standards (2 indicators);
- information for consumers (7 indicators).

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:

- Directives 2009/72/EC and 2009/73/EC concerning common rules for the internal markets in electricity and natural gas;
- Directive 2012/27/EU on energy efficiency;
- best practices of the CEER regarding the quality of energy supply and the EU 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. This category includes seven indicators grouped into three sub-categories:

- financial and management reporting (3 indicators);
- fiscal reporting (3 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 Extractive Industries Transparency Initiative (EITI) Standard.



7. POLICY

The «Policy» category defines the transparency of designing and implementing policy documents on energy and sustainable development, energy efficiency, environmental protection, combating climate change, renewable energy development, etc. This category includes 11 indicators grouped into four sub-categories:

- monitoring and reporting (2 indicators);
- energy efficiency (2 indicators);
- environmental protection and combating climate change (5 indicators);
- renewable energy sources (2 indicators).

Assessment of the Energy Transparency Index for the «Policy» category is based on determining the extent to which public authorities responsible for forming and implementing policies in the energy sector are compliant with the requirements of:

- Directive 2012/27/EU 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 2009/28/EC on the promotion of the use of energy from renewable sources;
- global treaties on climate change (UNFCCC, 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 decisions of public authorities. This category includes nine indicators grouped into two sub-categories:

- 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 forming and implementing the government policy in the energy sector are compliant with requirements of:

- the Treaty establishing the Energy Community;
- Regulation (EU) No 651/2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty;
- best global practices, in particular the European Commission Better Regulation/Law Making guidelines, the OECD Recommendation of the Council on Regulatory Policy and Governance, the OECD Good Practices for Performance Budgeting, the IMF Guidelines for Public Expenditure Management, and the Lima Declaration of Guidelines on Auditing Precepts.

ANALYSIS BY COUNTRY



GEORGIA

GEORGIA'S 2020 ENERGY TRANSPARENCY INDEX

Medium transparency

56, C-

1. BALANCES

Good transparency

75, B

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Annual balance statistics	75	B	good transparency
Monthly balance statistics	75	B	good transparency

The National Statistics Office of Georgia (GEOSTAT) is responsible for publishing annual balances for electricity and natural gas sectors. The data is available for 2013-2018 on the website of GEOSTAT. GEOSTAT publishes balances following the requirements of Regulation (EC) No 1099/2008 on energy statistics. The balances are published in December each year. Data is in .pdf and .xls(x) format, well-structured, and easy to process.

From 2018, GEOSTAT started publishing energy supply data. Data is published every month with a three months lag period. However, data for the electricity sector is incomplete (e.g., data on losses is not included).

Recommendation

- The National Statistics Office of Georgia should ensure the compilation of monthly electricity balances following the Regulation (EC) No 1099/2008 on energy statistics.

2. NATURAL MONOPOLIES

Good transparency

75, B

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Operation of transmission and distribution system operators	91	A	excellent transparency
Independence of transmission and distribution system operators	0	F	unacceptable transparency
Development of transmission and distribution systems	50	D+	insufficient transparency
Tariffs setting	75	B	good transparency

According to the Protocol on the Accession of Georgia to the Energy Community Treaty, Georgia has committed to implement EU directives and regulations on electricity and gas markets. Several draft laws and secondary legislation have been drafted and adopted to comply with these regulations, including the Law on Energy and Water Supply (2019), the Natural Gas Network Rules (2018), the Electricity Market Rules, etc.

As a result of these developments, the operation of transmission and distribution system operators in electricity, and to some extent in the gas sector, are mostly in compliance with the EU directives and regulations and the transparency score reaches 91 points.

The assessment does not cover many gas market-related issues (capacity allocation and costs of balancing) because an organized gas market does not exist in Georgia. Georgia must develop the Natural Gas Market Concept Design, which will be complemented by the Natural Gas Market Rules developed by GNERC. The deadline for the proper implementation of natural gas sector reforms is December 31, 2021.

The score also does not include LNG or gas storage-related indicators, as Georgia does not have these facilities. The gas storage is planned

to be developed by 2024. A tender has been announced to select a design, procurement, and construction contractors, but the tendering process had not yet been completed as of September 2020.

The electricity sector is more advanced in terms of market reforms and transparency. Requested Information is published on the ENTSO-E transparency platform and/or Georgian State Electrosystem (GSE) web-page.

The indicators in «Independence of transmission and distribution system operators» category are assessed with 0 scores. Transmission system operators are in the process of reform, they do not have compliance reports. Distribution system operators in electricity have compliance reports, but they are not published and are available only by request.

Network development plans for distribution systems and reports on their implementations are problematic as well. Neither gas nor electricity DSOs publish these plans. GNERC annual report indicates that in 2019 the Regulatory Commission reviewed and agreed upon 5-year distribution network development plans in accordance with the requirements envisaged in Network Rules, but these plans are not publicly available.

The tariff setting methods and information on tariffs themselves are available on the regulator's website, but in some cases, the information is not complete. No information about tariffs in the previous years are available.

Recommendations

- Government, the Ministry of Economy and Sustainable Development, the Regulator and TSO should speed up working on gas sector reforms and implementation of the Directive 2009/73/EC on common rules for the internal market in natural gas;
- The TSOs in electricity and gas should start developing compliance reports following the Directive 2009/72/EC on common rules for the internal market in electricity and Directive 2009/73/EC on common rules for the internal market in natural gas;
- The GNERC should ensure that DSOs publish their compliance programs and respective performance reports;
- The gas TSO should ensure publication of information on scheduled maintenance periods and related operational information in a manner that is easily available for the stakeholders;
- The electricity TSO should ensure publication of annual balances in machine-readable formats;
- 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

Medium transparency

62, C

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Market barriers	31	F	unacceptable transparency
Market concentration and competition level	50	D+	insufficient transparency
Prices and pricing	70	B-	good transparency

As mentioned earlier, the organized gas market does not exist in Georgia. Due to this fact purchase and selling of natural gas is carried out through bilateral agreements and direct contracts. The electricity trade is also mainly carried out by means of direct contracts. Electricity is sold by generators, importers and

Electricity Market Operator (ESCO) and purchased by an electricity distribution licensee (supply part), direct 16 customers, exporters, electricity generators (Plant expenses), ESCO and the Dispatch Operator (for the purpose of covering losses in the electricity purchase process).



According to the Regulation (EU) No 1227/2011 on Wholesale Energy Market Integrity and Transparency Market participants shall register with the national regulatory authority. The register shall give each market participant a unique identifier and shall contain sufficient information to identify the market participant, including relevant details relating to its value added tax number, its place of establishment, the persons responsible for its operational and trading decisions, and the ultimate controller or beneficiary of the market participant's trading activities (article 9). GNERC has a list of license holders, but it cannot be considered the full National Register of Market Participants as the list of license holders indicates only names and addresses of the companies.

Information about market concentration and competition level is also partially available. HHI is not assessed for the gas sector, however, information about market participants proves that the natural gas market of Georgia is concentrated at both wholesale and retail levels. The electricity distribution (supply) market is assessed as highly concentrated ($HHI_{2019}=5,338$). The 2019 Herfindahl-Hirschman Index of the electricity generation segment is 1,516.

The National Statistics Office of Georgia (GEOSTAT) publishes semi-annual information on

gas and electricity prices. These data are not produced on an annual basis as required by the Regulation (EU) No 2016/1952. 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 household customers. The tariffs are set according to the tariff setting methodology. Georgia purchases so-called 'social' gas at a preferential price which is used by the population and TPPs for consumption purposes. Accordingly, in this segment, retail and wholesale prices of natural gas (and partially electricity) are significantly low compared to the commercial segment.

The regulator is responsible for price monitoring, however, it does not publish reports on price monitoring. Part of the information can be found on the regulator's website or in its annual reports, but the information is not complete.

Recommendations

- The Ministry of Economy and Sustainable Development and GNERC should create a favorable environment to speed up market reforms in electricity and natural gas;
- The GNERC should create a National Register of Market Participants for electricity and gas markets and ensure publishing the information on market concentration and competition levels following the requirements of Directives 2009/73/EC and 2009/72/EC on common rules for the internal market in natural gas and electricity;
- The National Statistics Office of Georgia should ensure publishing information on gas and electricity prices on annual basis as required by the Regulation (EU) No 2016/1952;
- The GNERC should start publishing price monitoring reports. The reports should cover both regulated and liberalized, wholesale and retail market segments.

4. RELIABILITY AND SECURITY

17, F

Unacceptable Transparency

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Stocks and reserves	100	A+	absolute transparency
Security of supply planning	0	F	unacceptable transparency
Reports on reliability and security	0	F	unacceptable transparency

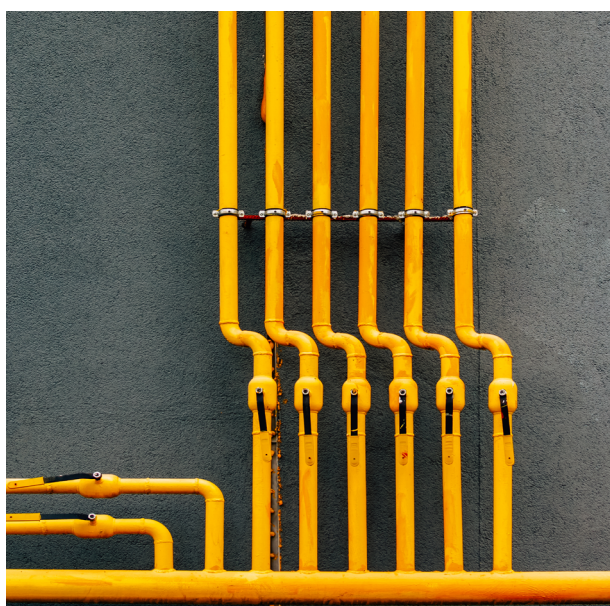
Stocks and reserves sub-category has the highest score in the assessment. It covers generation capacity: maximum net capacity (value and structure), magnitude of peak load and available generation capacity for electricity - which is published on the ENTSO-E platform. The indicator does not include gas storage facility related data as Georgia does not have one. The reliability and security sub-category has the lowest score in the assessment, considering that Georgia does not yet have a national action plan or emergency plans in gas or a risk preparedness plan in electricity. The deadline

for proper implementation of gas sector reforms is December 31, 2021. The EU4Energy program has launched a new technical assistance project in July 2020 to develop the first Natural Gas Emergency Plan in Georgia. Electricity risk-preparedness plan will be prepared by 2022.

Monitoring reports on the security of natural gas supply and the security of electricity supply are also in the preparatory phase.

Recommendations

- The Ministry of Economy and Sustainable Development should ensure preparation of national action plan and emergency plan for the gas sector following the Regulation (EU) No 2017/1938 on measures to safeguard the security of natural gas supply;
- The Ministry of Economy and Sustainable Development should start working on a Monitoring report on security of natural gas supply and a Monitoring report on security of electricity supply;
- The electricity TSO should ensure preparation of the National Resource Adequacy Assessment (adequacy report on generation capacity) and respective implementation plan.



5. CONSUMPTION

Medium transparency

65, C+

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Penetration of metering	25	F	unacceptable transparency
Service standards	100	A+	absolute transparency
Information for consumers	79	B	good transparency

The consumption category is showing medium transparency. The information on individual metering is available for electricity consumers. Distribution companies publish statistics of the customers having or not having individual meters. The data for the gas sector is not available, neither is the information on smart metering systems for natural gas or electricity consumption (Georgia has not introduced smart metering yet). According to the annual report of GNERC, a regulatory strategy for supporting the smart metering roll-out is planned to be developed.

Information on service standards is fully transparent. Information on ensuring minimum requirements for the quality of electricity and its supply are regulated by the Service Quality Rules approved by GNERC in 2018.

Tariff information for the regulated segment (mainly households) can be found on DSOs' and GNERC websites. The Regulator offers tariff comparison tools for different suppliers, but - as mentioned earlier - Georgia does not have fully established electricity and gas markets, and consumers do not have the opportunity to choose suppliers or switch from one to another. As for the prices for the commercial sector, they are deregulated and non transparent.

As for the information on consumers' rights for subsidies and preferences in payment of utilities' bills, even though there is no formal definition of vulnerable customers, Georgia has several social assistance schemes in place that either include electricity and gas as one of the components or are specifically targeted to subsidize electricity or gas consumption by certain categories of

consumers. Social assistance issues are regulated by the Law on Social Assistance and by the Law on Energy and Water Supply. The Social Service Agency is responsible for the assistance programs management, all information is available on its website. It is planned to develop a special program for vulnerable consumers to protect their rights in the time of reforms.

On the contrary, consolidated information about energy efficiency programs funds and information on benefits and conditions of participation in energy audit programs are not available. Some fragmented information can be found on the website of the Ministry of Economy and Sustainable Development. Still, Georgia does not have an agency on energy efficiency or other dedicated public entity that would publish and update the information following the Directive 2012/27/EU.

Recommendations

- The GNERC should ensure implementation of the requirements of Directive 2012/27/EU in terms of collection and publication of the data on individual meters;
- The Ministry of Economy and Sustainable Development should ensure the establishment of a dedicated public entity responsible for energy efficiency policy, incl. publishing the information on benefits and conditions of participation in energy efficiency programs, funds, energy service contracts, and of taking other energy efficiency improvement measures following the Directive 2012/27/EU.

6. REPORTING

Insufficient Transparency

47, D

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Financial and management reporting	61	C	medium transparency
Fiscal reporting	31	F	unacceptable transparency
Beneficiaries and corporate governance	54	D+	insufficient transparency

Transparency of the Reporting category is considered as insufficient. Most of the companies publish financial statements and independent auditor's reports on the financial statements. Still, reports for previous years are not available and existing ones are published in scanned .pdf format, making it difficult to adequately process and analyze the information.

It has to be mentioned that financial reports are available on the companies websites and also on the consolidated website (Reportal), which is the first public information resource in Georgia containing financial and management reports of companies registered in Georgia. Reportal was created in 2017 by the Service for Accounting, Reporting and Auditing Supervision Subdivision of Georgia's Ministry of Finance.

Management reports are more problematic. Only some companies publish these types of reports, which are mostly incomplete and do not meet the respective requirements of Directive 2013/34/EU.

Most companies publish information on the payment of taxes by business entities and types of taxes. Taxes are disclosed in general financial statements. Still, only one company from the sample publishes data on quasi-fiscal transactions and state aid. Georgia has only one extractive company who operates in the

gas extraction field, and the company does not disclose any information on taxes or management reports.

Information about final beneficiaries is available in most of the cases.

Recommendations

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

7. POLICY

36, F
Unacceptable Transparency

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Monitoring and reporting	50	D+	insufficient transparency
Energy efficiency	50	D+	insufficient transparency
Environmental protection and combating climate change	20	F	unacceptable transparency
Renewable energy sources	50	D+	insufficient transparency

The policy category is characterized by unacceptable transparency, as Georgia does not have most of the strategic and program documents of energy policy and sustainable development.

Georgia does not have an energy strategy implementation report. The Energy Strategy of Georgia 2020-2030 was approved by ministerial order in October 2019, but it was not a comprehensive strategy and will not be used. Instead, the Ministry of Economy and Sustainable Development is in the process of creating an Energy Policy document and the National Energy and Climate Plan (NECP) according to the EU directives and the New Energy Law. The NECP, as an annex of the Energy Policy document, shall be prepared by the end of 2020.

There are no progress reports available on NEEAP and NREAP. The NEEAP was initiated in 2015, and after intensive discussions and numerous amendments it was approved in late 2019. The government plans to focus on developing a new Action Plan with the targets until 2030. Also, there is currently no measuring/monitoring, reporting and verification (MRV) mechanism in place in Georgia. The same is true for NREAP as well. The NREAP was developed in compliance with Renewable Energy

Directive No. 2009/29/EC to define renewable energy targets and government actions for achieving them up to 2020. As the document was only approved in late 2019, it has missed the 2020 targets. The government aims to set the 2030 targets in the new NECP, which is currently being developed for the period of 2021-2030.

As for the Low-Emission Development Strategy (LEDS), preparation for Georgia began in 2013 and the draft version was ready in 2017, but it was not approved. New LEDS will be developed next year. Climate policy documents (NDC and CAP) are under development.

The emissions reduction road map for large combustion plants was prepared 2-3 years ago, but it was not approved. New primary and secondary legislation is being drafted and should be adopted by the end of 2021.

The National Inventory Report of GHG emissions to the UNFCCC was prepared and published for the 1990-2015 period. Updated report will be available by the end of 2020.

Georgia submitted the second report of Voluntary National Review (VNR) on the implementation of the UN Sustainable Development

Goals at the 2020 High-Level Political Forum. It is available on the SDGs website.

Recommendations

- The Government of Georgia should strengthen the country's long term strategy development and planning capacity;
- The Government of Georgia should ensure linkage (harmonized goals, policies and measures) among the country's energy strategy, strategic 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 prepare the Energy Policy document and the National Energy and Climate Plan (NECP) and continue working on strategic planning capacity development within the ministry;
- The Ministry of Finance should allocate sufficient financial resources for strategic and planning capacity development of the MOESD;
- The Government of Georgia should ensure the introduction of robust action plans (NREAP, NEEAP, NECP etc.) and monitoring mechanisms to track progress.

8. PUBLIC AUTHORITIES

27, F

Unacceptable Transparency

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Public spending	16	F	unacceptable transparency
Transparency of public administration	51	D+	insufficient transparency

Transparency of spending budget funds is not fully transparent in Georgia. Budgetary priorities and information about particular budget programs are provided in the Basic Data and Directions (BDD) document. Detailed budgets and expenditures of the particular entities (Ministry of Economy and Sustainable Development, GNERC, and Georgian Competition Agency in this case) are given on the websites, but the information is not complete. Targets, KPIs, and other parameters are missing in most of the cases and the reports of independent financial audit of

budget programs implementation are not always available.

Georgia does not have a register of state aid recipients. Some information is available on the Competition Agency's website on particular projects, but this is not a systematized register. Annual reports on state aid are not available.

As for the draft regulatory acts and supplementary documents, most of the entities publish this information on their websites. All regulatory acts adopted are also available on the



consolidated website - official gazette of Georgia. The website offers its users a comprehensive database of all normative acts having legal effect. Users can access any consolidated normative act, including the history of changes at any stage. In most cases, regulatory acts do not have an impact assessment; conducting such analysis became mandatory in Georgia from 2020. So, progress is expected in this direction.

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

Recommendations

- The Ministry of Economy and Sustainable Development, GNERC, and the Competition Agency should ensure publication of a full summary of budget programs (including 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 register of state aid recipients with the corresponding state aid volume and start publishing annual reports on state aid;
- The Ministry of Economy and Sustainable Development, GNERC, and the Competition Agency should ensure publication of the results of discussing draft regulatory acts and results of monitoring the effectiveness of the regulatory acts implemented.



MOLDOVA

MOLDOVA'S 2020 ENERGY TRANSPARENCY INDEX

Insufficient transparency

53, D+

1. BALANCES

Medium transparency

63, C

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Annual balance statistics	75	B	good transparency
Monthly balance statistics	50	D+	insufficient 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 2007-2018 years

on the website of NBS, in .pdf format. For the last two years, the data is available in .xls(x) format as well.

Beginning in 2015, the NBS publishes monthly balance statistics following the Regulation (EC) No 1099/2008. However, the information does not include the structure of electricity production and losses during transportation.

Recommendation

- The NBS should ensure that the monthly balances of natural gas and electricity include the structure of electricity production and the losses during transportation, following the Annex C to Regulation (EC) No 1099/2008 on energy statistics.



2. NATURAL MONOPOLIES

Insufficient transparency

53, D+

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Operation of transmission and distribution system operators	53	D+	insufficient transparency
Independence of transmission and distribution system operators	75	B	good transparency
Development of transmission and distribution systems	63	C	medium transparency
Tariffs setting	31	F	unacceptable transparency

The unbundling action plan of TSO Moldovatrangaz is being implemented and the scheduled deadline for submitting the application to the Regulatory Agency (ANRE) was October 1, 2020. The information related to capacity allocations, balancing, ex-ante and ex-post supply and demand for the natural gas sector is not available yet. The TSO in electricity did not disclose the information related to transmission infrastructure, availability and use of forecasted and offered transmission capacity, congestion management measures, and balancing. This resulted in low scores for the «Operation of transmission and distribution system operators» sub-category.

As for compliance programs, the transmission and distribution system operators published the documents on their websites, except the TSO in electricity.

According to the sampling list, all the operators published the development plans, in line with the legal requirements. Still, network operators in gas and electricity do not manage to publish progress reports on implementation of the network development plans.

The tariff setting indicators are below the acceptable transparency (31 points), mainly because of the non-availability of tariffs for the provision of balancing services and lack of online tools for calculating available service rates and checking available capacity for both electricity and natural gas. The ANRE approved new Electricity Market Rules with provisions on the procedure for calculating imbalance payments; however, the act would be applicable after its publication in the Official Gazette.

Recommendations:

- The Regulatory Agency should 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;
- The regulation on the balancing rules in electricity should be enforced by the Regulatory Agency and TSO following the publication in the Official Gazette;

- The TSO Moldelectrica should develop a compliance program, as provided for by the Art. 14 and 21 of Directive 2009/72/EC on common rules for the internal market in electricity;
- The TSO Moldelectrica should disclose the information on the availability and use of cross-border forecasted and offered transfer capacity, congestion management measures,

unavailability of consumption units and transmission infrastructure according to the Commission Regulation (EU) No 543/2013;

- Both TSOs in electricity and gas should develop online tools for calculating available service rates and checking available capacity.

3. SUPPLY

Medium transparency

63, C

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Market barriers	25	F	unacceptable transparency
Market concentration and competition level	25	F	unacceptable transparency
Prices and pricing	85	A-	excellent transparency

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 retail electricity and gas market. Respectively, the sub-category «Market barriers» scored only 25 points, which stands for unacceptable transparency.

The competition in the natural gas sector is very limited. According to the annual report of the Regulatory Agency, Moldovagaz supplier has a share of more than 95% of the wholesale and retail markets of natural gas. In the electricity

sector, the information about retail market concentration is incomplete, as not all the suppliers are included in the reports. This year the sub-category «Market concentration and competition level» index reached 25 points and needs to be improved significantly.

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 Regulatory Agency should provide complete information in the national register of market participants, including the administrators and beneficial owners of the licensed companies;
- The Regulatory Agency should compile and disclose the information about supplier switching on retail electricity and natural gas markets;
- The Regulatory Agency should enforce the market rules to increase the competition level in both electricity and natural gas sectors;
- The NBS should include information about the breakdown on transmission and distribution costs in the natural gas sector reports.

4. RELIABILITY AND SECURITY

Excellent transparency

92, A

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Stocks and reserves	50	D+	insufficient transparency
Security of supply planning	100	A+	absolute transparency
Reports on reliability and security	100	A+	absolute transparency

The information about stocks and reserves does not include gas storage facilities, as it is not applicable for Moldova at present. The information about existing local generation facilities and their capacity is published on the 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 resolutions No. 207 of April 03, 2019, and No. 149 of March 07, 2019, respectively. The Report on the security of electricity and natural gas supply of Moldova was approved by the Ministry of Economy and Infrastructure's Order No. 363 of December 31, 2019, Annex 1.

Recommendation:

- The TSO in electricity should provide information about the available generation capacity.

5. CONSUMPTION

Insufficient transparency

45, D

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Penetration of metering	25	F	unacceptable transparency
Service standards	100	A+	absolute transparency
Information for consumers	40	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.

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 Regulatory Agency (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 in the retail electricity market are not available. In the gas sector, PCTs are not available as well - although 22 licensed companies are active in gas supply, the market is dominated by Moldovagaz (over 95%).

Information on benefits and conditions of participation in energy audit programs and energy management implementation is not available, as required by Art. 8 of Directive 2012/27/EU. The Energy Efficiency Agency published only the Guide for the assessment of projects related to energy efficiency.

Recommendations:

- The Regulatory Agency 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 Regulatory Agency 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 audit programs and the implementation of energy management.

6. REPORTING

20, F
Unacceptable Transparency

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Financial and management reporting	34	F	unacceptable transparency
Fiscal reporting	0	F	unacceptable transparency
Beneficiaries and corporate governance	20	F	unacceptable transparency

Almost all system operators in the sample published annual financial reports. However, in the gas sector, 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 fiscal reporting contains only the 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 the private companies does not include the information about final beneficiaries. These companies disclose only the information about the shareholders (legal entities) in their financial reports.

Recommendations:

- The operators from the sampling list should disclose complete financial reports, auditor's opinions on financial reporting and annual management reports;
- The fiscal reporting should contain the 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

Good transparency

70, B-

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Monitoring and reporting	50	D+	insufficient transparency
Energy efficiency	94	A	excellent transparency
Environmental protection and combating climate change	60	C	medium transparency
Renewable energy sources	94	A	excellent transparency

The Ministry of Economy and Infrastructure does not conduct separate reports on the progress of implementation of the Energy Strategy of the Republic of Moldova by 2030. However, its annual reports contain information on the achievements in the energy sector.

In December 2019, the Government approved the latest National Energy Efficiency Action Plan, developed for the period 2019-2021. The national energy efficiency targets are included in this plan. However, the progress report is available only for 2018 on the website of the Energy Efficiency Agency.

The authorities are behind 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.

Moldova's National Renewable Energy targets are set up in the Law No. 10/2016 on the promotion of the use of energy from renewable sources. The Energy Efficiency Agency published on its website reports on the implementation of the National Renewable Energy Action Plan and National Energy Efficiency

Action Plan. The last available report is for 2018.

Recommendations:

- The Ministry of Economy and Infrastructure should publish reports on the progress of implementation of the Energy Strategy;
- The Ministry of Agriculture, Regional Development and Environment should ensure the elaboration of the National strategy on emission reductions from large combustion plants and should publish a progress reports on this issue;
- The Energy Efficiency Agency should publish in time the reports on the implementation of the National Renewable Energy Action Plan and the National Energy Efficiency Action Plan.

8. PUBLIC AUTHORITIES

Insufficient transparency

44, D-

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Public spending	33	F	unacceptable transparency
Transparency of public administration	67	C+	medium transparency

The Ministry of Finance started the elaboration of summaries for the budget programs, but the process was not finalized. Accordingly, no implementation reports are conducted by the Ministry of Finance, making it impossible to evaluate this indicator. The independent financial audit of budget programs implementation is conducted by the Court of Accounts. However, due to the absence of publicly available information about the profile of budget programs, this indicator was assessed with zero points.

The Register of state aid recipients is available, but access is restricted. Therefore, we cannot estimate the indicators except the availability. 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 reports cover the period from 2011 to 2018.

The draft regulatory acts are usually published in separate sections 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 is conducted at all on the effectiveness of the regulatory acts implemented. That is a significant drawback, as the public authorities do not as-

sess the extent to which the approved regulation has 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 grant public access to the Register of state aid recipients and 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 2020 ENERGY TRANSPARENCY INDEX

Medium transparency

60, C

1. BALANCES

Medium transparency

63, C

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Annual balance statistics	75	B	good transparency
Monthly balance statistics	50	D+	insufficient transparency

The transparency of energy statistics could be better if Ukraine were to bring public statistics in line with the EU best practices sooner. The State Statistics Service is still unable to meet the requirements of Regulation (EC) No 1099/2008 regarding the deadlines for the publication of annual balance statistics. The key reason for the lack of transparency of the «Monthly balance statistics» sub-category is a lack of regulatory framework and necessary resources to collect information on the volume and structure of production (extraction), use (consumption), exports, imports, international bunkering, stock changes (by type) of all types of energy resources. First of all, there is a lack of monthly statistics on electricity.

Even though some statistics are published by other government authorities (Ministry of Energy) and economic entities (Ukrenergo),

their availability and accessibility did not affect the overall score since Regulation (EC) No 1099/2008 imposes relevant obligations on the executive authority in the field of statistics.

Recommendations:

- The State Statistics Service should ensure the generation of monthly product balances of natural gas and electricity following the requirements of Annex C to Regulation (EC) No 1099/2008 on energy statistics;

The State Statistics Service should organize compliance with the deadlines for the publication of annual energy product balances set out in Annex B to Regulation (EC) No 1099/2008 on energy statistics.

2. NATURAL MONOPOLIES

Medium transparency

63, C

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Operation of transmission and distribution system operators	69	C+	medium transparency
Independence of transmission and distribution system operators	27	F	unacceptable transparency
Development of transmission and distribution systems	67	C+	medium transparency
Tariffs setting	52	D+	insufficient transparency

Although the transparency for the category as a whole is medium, the liberalization of electricity and gas markets ensured slightly higher transparency for such sub-categories as «Operation of transmission and distribution system operators» and «Development of transmission and distribution systems» (69 and 67 points, respectively). It could have been even greater should the TSOs provide tools to check the capacity available, calculate the payment for the services available and balancing-related activities («Tariffs setting» sub-category). Simultaneously, the incomplete certification of Ukrenergo and functional unbundling of network operators caused a low score in the «Independence of transmission and distribution system operators» sub-category (27 points).

With the introduction of new rules in gas and electricity markets harmonized with the European ones, the transparency of relevant sectors left the «red» zone but remains insufficient. This was caused by the complicated unbundling of Gas Transmission System Operator of Ukraine LLC (as it was running in parallel with negotiations on a new transit deal with Gazprom), resulting in longer implementation of European rules (network codes), and the incomplete reform of Ukrenergo.

The problem is the inability of transmission system operators to meet the requirements:

- for Ukrenergo – Regulation (EU) No 543/2013 in terms of congestion management, in particular forecasted reserves;
- for Gas Transmission System Operator of Ukraine LLC – Regulation (EC) No 715/2009 in terms of notifying on demand and supply (both ex-ante and ex-post), information about capacity allocation mechanisms.

However, adherence to these and other transparency requirements is impossible without developing an appropriate regulatory and legal framework, certification of operators of the electricity transmission system and gas storage facilities.

Recommendations

- The public authorities duly empowered by the Cabinet of Ministers should adopt reasonable decisions on certification of operators of the electricity transmission system and gas storage facilities;

- Ukrenergo should ensure compliance with Regulation (EU) No 543/2013 in terms of the publication of data on electricity markets;
- Gas Transmission System Operator of Ukraine LLC should ensure publication of data on demand (ex-ante and ex-post) and supply, information on capacity allocation mechanisms, balancing of the system and payment for relevant activities as required by Regulation (EC) No 715/2009 and Regulation (EU) No 314/2014;

- The NEURC, network operators should timely and regularly publish compliance programs, plans for the development of transmission, distribution systems, storage facilities, as well as reports on their implementation;

- The NEURC should encourage network operators to publish reports in a machine-readable format and create online tools for calculating tariffs for the services available.

3. SUPPLY

Medium transparency

63, C

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Market barriers	50	D+	insufficient transparency
Market concentration and competition level	100	A+	absolute transparency
Prices and pricing	61	C	medium transparency

The registers of electricity and gas market participants do not contain all the information required by Regulation (EU) No 1227/2011 (REMIT). The monitoring of supplier switching on these markets also needs to be improved. It is necessary to ensure the completeness of monitoring by such indicators: average duration and opportunity to choose the date of supplier switching.

At the same time, the introduction of quarterly market monitoring by the NEURC and the expansion of competition assessment had a positive impact on transparency in the «Market concentration and competition level» sub-category. Due to the increase in the completeness

of publishing the price information by the NEURC and electricity market entities, transparency in the «Prices and pricing» sub-category improved. The NEURC good practice of developing newsletters to inform consumers, particularly the newsletters on switching the electricity supplier (for eligible consumers), service standards and compensation to customers in case of their violating, etc.

The State Statistics Service publishes data on weighted average prices for natural gas and electricity by consumption groups on a semi-annual basis. Still, it does not disclose the price composition (in particular, by taxes).

Thus, there are «black boxes» in the category due to lack of:

- data on mark-ups in retail electricity and gas markets;
- reporting on weighted average annual prices of natural gas and electricity for households and non-household consumers by consumption groups and their composition.

Access to these and other data will be possible only after completing electricity and gas markets reform while maintaining the state's role in facilitating competition, preventing market abuse, and proper protection of consumer rights.

Recommendations

- The NEURC should improve the comprehensiveness of information in the registers of licensees, in reporting on supplier switching in gas and electricity markets;
- The NEURC, the AMCU, and the State Statistics Service of Ukraine should regularly publish in machine-readable format structural indicators of competitiveness in wholesale and retail energy markets and the results of price monitoring, in particular to compare commercial offers of suppliers and enable conscious choice by consumers;
- The State Statistics Service should ensure, besides semi-annual, the annual frequency of publication of the reports on prices of natural gas and electricity by consumption groups, including prices' composition.

4. RELIABILITY AND SECURITY

Good transparency

70, B-

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Stocks and reserves	94	A	excellent transparency
Security of supply planning	50	D+	insufficient transparency
Reports on reliability and security	67	C+	medium transparency

The availability of information on capacities and reserves, regular publication of reports on monitoring the security of natural gas supply and timely approval of Ukrenergo report on the adequacy assessment of generation capacity ensured good transparency for the category as a whole (70 points). However, the transparency could improve should the Ministry of Energy report on the results of the security of electricity supply monitoring, and Ukrenergo began work on developing a Risk-Preparedness Plan.

Recommendations

- Ukrenergo should pay attention to meeting the requirements of Regulation (EU) No 2019/941 in terms of the Risk-Preparedness Plan development by the transmission system operator;
- The Ministry of Energy should provide information about stocks and reserves, as well as reports on security of supply in a machine-readable format.

5. CONSUMPTION

Good transparency

71, B-

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Penetration of metering	63	C	medium transparency
Service standards	100	A+	absolute transparency
Information for consumers	66	C+	medium transparency

A score of 100 points was achieved for the «Service standards» sub-category due to the NEURC activity on informing consumers about their rights and the quality of services in electricity and gas markets.

However, transparency is not so high for other sub-categories. In particular, Directive 2009/72/EC requirements are not properly met regarding the data on each energy source share in the electricity mix of suppliers and the environmental impact caused by its production.

As for the penetration of metering, there is a lack of data on the deployment of smart metering systems in gas and electricity markets.

Price comparison tools were developed and launched in test mode. Within the USAID project, together with the NEURC, the Energy Online mobile application was developed to

compare gas suppliers' commercial offers in Ukraine. The Gasoteka web tool for comparing prices of gas suppliers was also launched in the test mode.

Due to the complexity of responsibility distribution among the Regulator, TSO, and DSOs, the information on prices and tariffs on the implementation of individual and smart metering systems by region is published breaching the deadlines, in aggregate form (as in annual reports of the NEURC), incomplete and in unfriendly format.

Recommendations

- The Verkhovna Rada of Ukraine should bring the requirements of the laws «On Ensuring Commercial Metering of Natural Gas», «On Peculiarities of Access to Information in the Fields of Electricity, Natural Gas, Heat Supply, Centralized Hot Water Supply, Centralized Drinking Water Supply and Sewerage» in line with the EU best practices on empowering consumers and improving their awareness;
- The NEURC should ensure the implementation of the requirements of Directive 2012/27/ EU in terms of collection and publication of data on smart metering systems;
- The NEURC should develop centralized price comparison tools for electricity and gas.



6. REPORTING

24, F
Unacceptable Transparency

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Financial and management reporting	25	F	unacceptable transparency
Fiscal reporting	5	F	unacceptable transparency
Beneficiaries and corporate governance	56	C-	medium transparency

Transparency in the «Financial and management reporting» sub-category is unacceptable due to the low prevalence of non-financial reporting practices (namely, management reports) and only a few cases of management reports developed following the guidelines of the Ministry of Finance and global best practices. This sub-category is characterized by low relevance (the latest reports are available for 2018 only) and usability (scanned documents in .pdf format) of published information.

There is also low transparency regarding energy companies' reporting on the amount and composition of payments to the government (taxes and other non-tax payments). Besides a few cases of providing aggregated data as part of financial statements and on companies' websites, companies do not provide detailed data, except for extractive companies reporting of payments under the Extractive Industries Transparency Initiative (EITI). The low score was also caused by the lack of approved forms and volumes of reporting on payments to the government (the relevant government resolution was adopted only on September 23, 2020).

Information on final beneficiaries made public by joint-stock companies is insufficient. Despite the fact that the information about owners is made public, only state-owned companies (where the final beneficiary is defined by law) and partially the largest private energy

holding disclose information about the final beneficiaries.

Recommendations

- The Cabinet of Ministers should ensure the implementation of Directive 2013/34/EU and Law of Ukraine «On Accounting and Financial Reporting in Ukraine» in terms of publication of management reports;
- The Ministry of Energy should ensure the implementation of reporting procedures and forms for energy companies in terms of preparing reports on payments to the government, and for public authorities and companies – in terms of developing reports on payments received;
- The Ministry of Energy should ensure timely preparation of national reports of Ukraine for 2018 and 2019 under the Extractive Industries Transparency Initiative (EITI) as well as the development and launch of an electronic reporting system;
- The Ministry of Economy, the National Securities and Stock Market Commission should introduce global best practices of publishing information on corporate governance and final beneficiaries by companies whose securities are admitted to trading on regulated markets.

7. POLICY

Medium transparency

62, C

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Monitoring and reporting	75	B	good transparency
Energy efficiency	88	A-	excellent transparency
Environmental protection and combating climate change	49	D	insufficient transparency
Renewable energy sources	56	C-	medium transparency

The annual reporting on implementing the Energy Strategy of Ukraine by 2035 «Security, Energy Efficiency and Competitiveness» doesn't contain detailed information on the tasks not accomplished with due rationale. The government also does not provide progress reports on implementing the 2050 Low-Emission Development Strategy under the Paris Agreement.

The lack of an up-to-date (for each year) action plan to reduce emissions from large combustion plants, inadequate reporting on them, unstructured and insufficient use of strategic environmental assessment information led to medium transparency for the «Environmental protection and combating climate change» sub-category.

The deadlines for updating the National Energy Efficiency Action Plan and the National Energy Efficiency Target are overdue. The deadline for updating the National Renewable Energy Action Plan was also missed. There is a lack of reporting on its implementation and a clear description of support schemes for the development of renewable energy sources.

As a good practice, the completeness and timeliness of monitoring the implementation of tasks under the Sustainable Development Goal 7 «Affordable and Clean Energy» should be noted.

Recommendations

- The Ministry of Energy should annually publish exhaustive reports on the implementation of Energy Strategy of Ukraine by 2035 «Security, Energy Efficiency and Competitiveness» and action plans to reduce emissions from large combustion plants, reporting to the Energy Community Secretariat;
- The Verkhovna Rada of Ukraine should harmonize the norms of national legislation with the requirements of Directive 2012/27/EU on energy efficiency, in particular adopt a new framework Law «On Energy Efficiency»;
- The State Agency for Energy Efficiency and Energy Saving should ensure regular updating of the National Energy Efficiency Action Plan and reporting on its implementation;
- The State Agency for Energy Efficiency and Energy Saving should ensure regular updating of the National Renewable Energy Action Plan with a description of support schemes and a long-term schedule of state support as well as meet the deadlines for reporting on the NREAP to the Energy Community Secretariat;
- The Ministry of Energy, the Ministry of Economy, and the State Agency for Energy Efficiency and Energy Saving should ensure timely and full publication of reports on the implementation of policy documents and Ukraine's international obligations.

8. PUBLIC AUTHORITIES

Insufficient transparency

50, D+

Scores by sub-categories:

Sub-category	Score	Rating	Characteristic
Public spending	49	D	insufficient transparency
Transparency of public administration	51	D+	insufficient transparency

The insufficient transparency of public spending is mainly caused by the lack of regular reporting on the results of independent financial audit of budget programs execution and the low level of detail in the register of decisions on state aid to energy companies. Aggregate data on state aid is regularly published on the «State Aid» web portal of the AMCU and are generally of poor usability (scanned .pdf documents).

The transparency of public administration is also insufficient. Regulatory acts and their accompanying documentation are made public, but systemic problems are incomplete content and low usability.

■ The «black boxes» of the category are:

- publishing the results of independent financial audit of budget programs execution by the State Audit Service and the Accounting Chamber of Ukraine;



- exhaustiveness and timeliness of publishing the results of discussions of draft regulatory acts (except the NEURC);

- proper tracking of the effectiveness of the adopted regulatory acts and publication of exhaustive reports on its results.

Recommendations

- The State Audit Service and the Accounting Chamber should publish the results of the budget programs' financial audit;

- The Ministry of Energy, the Ministry of Environmental Protection and Natural Resources, and the AMCU should publish the results of discussing draft regulatory acts;

- The Ministry of Energy, the Ministry of Environmental Protection and Natural Resources, the NEURC, and the AMCU should ensure regular tracking of the effectiveness of adopted regulatory acts and publication of exhaustive reports on its results;

- The AMCU should update the register of state aid recipients with details up to individual companies' level;

- The Ministry of Finance should develop a register of quasi-fiscal transactions with details up to individual companies' level.

METHODOLOGY

The **methodology** of the *International Energy Transparency Index* 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., an 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 **115** indicators, with indispensable and sufficient transparency features (content 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* (41 indicators) and *electricity* (44 indicators), as well as cross-sectoral issues (30 indicators).

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

By analyzing the requirements and practices of information disclosure, we came up with 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 security of supply;
- «*Consumption*»: defines the transparency of service standards, metering, information for consumers about prices and tariffs, subsidies and other aid, energy efficiency programs, commercial offers of suppliers, and price comparison tools;
- «*Reporting*»: defines the transparency of corporate financial statements and auditor reports, management reports, payments to the government, information regarding corporate governance and final beneficiaries;
- «*Policy*»: defines the transparency of implementing strategic and program documents of the energy policy and sustainable development, the policy on energy efficiency, environmental protection, combating climate change, renewable energy development;
- «*Public authorities*»: defines the transparency of public spending, designing, adopting, and implementing policy decisions.

For the convenience of assessment and analysis, indicators in each category were grouped into *sub-categories* and *groups*.

Transparency criterion is an aspect of assessing transparency of an object, process or phenomenon. Each indicator is assessed by six transparency criteria:

- «*Availability*»: existence of information in open sources;
- «*Accessibility*»: a measure of free access to information;
- «*Relevance*»: availability of information for the most recent reporting period;

- «*Frequency*»: compliance with the requirements regarding the frequency 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 in accordance with legislative requirements or best global practices.

Transparency criterion	Value
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 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 applicable requirements and available for past periods
Usability (C_{us})	0 – information available in a not machine-readable format (jpg, jpeg, png, pcx, tiff, pdf with scanned sections, 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, pdf with non-scanned content)
Completeness (C_{in})	0 – any information required to be disclosed is unavailable within the required period 0.5 – information required to be disclosed is partially available within the required period 1 – all information required to be disclosed is available within the required period

Each indicator of the Index was assessed via monitoring the open sources (websites of public authorities and energy companies, open data and institutional repositories). The aggregate score of every transparency indicator was calculated under the following formula:

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

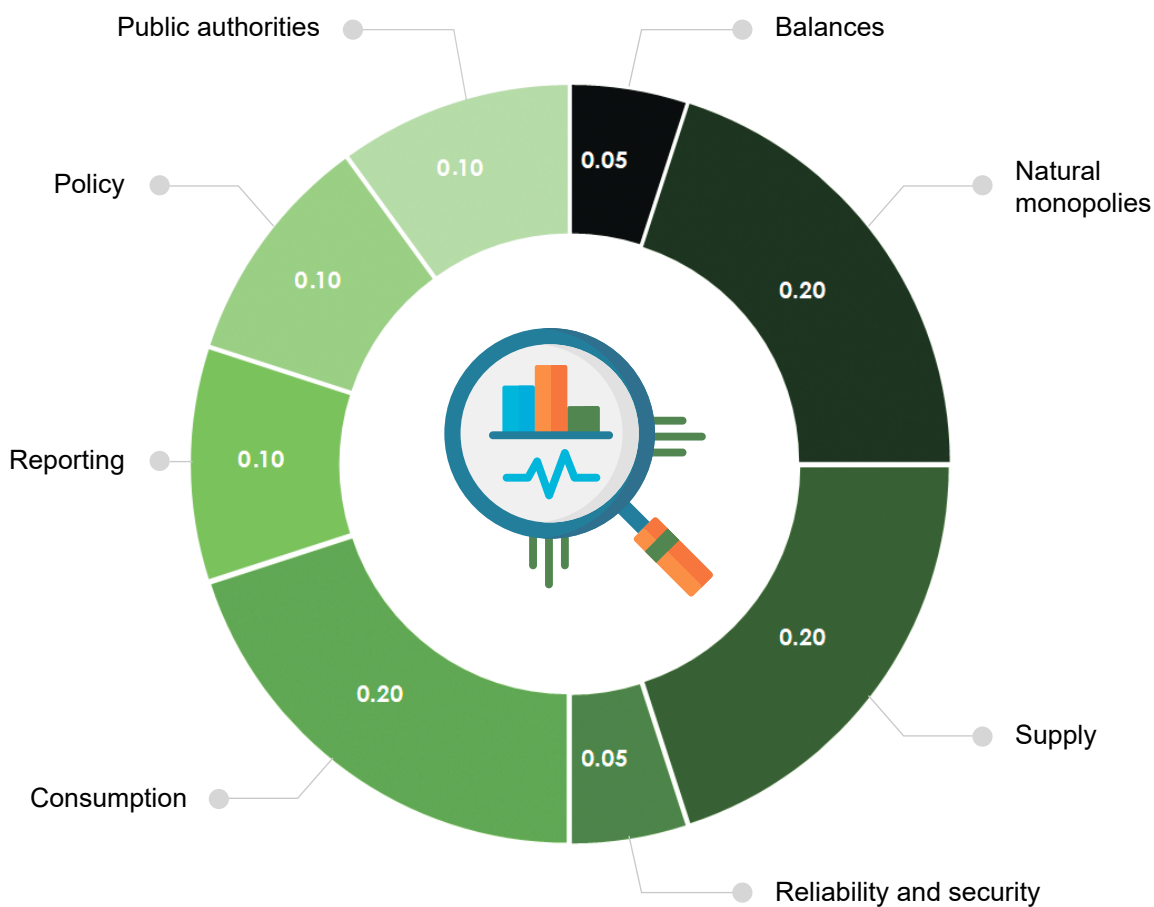
with C_{av} , C_{ac} , C_{rl} , C_{fr} , C_{us} , C_{in} are scores based on the availability, accessibility, relevance, frequency, usability and completeness criteria, respectively.

If information can be obtained only for a fee or upon prior request ($C_{ac} = 0$), this information was considered unavailable ($C_{av} = 0$). For all qualitative indicators, $C_{in} = C_{rl} = C_{fr} = 1$ 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 arithmetic mean values of the respective sets were used to develop sub-indexes for the categories and markets.

AGGREGATION OF SCORES

■ To calculate total transparency score, weightings of the Index's categories have been used:



INTERPRETATION OF SCORES

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

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

LIMITATIONS

The Index **cannot be used** to assess transparency of:

- the energy sector in real time, since its calculation is associated with the processing of large amounts of information for the reporting period (as a rule, the one preceding the period, during which the assessment is carried out);
- all participants of energy markets and/or public authorities, and therefore, assessments of certain indicators in the «Natural monopolies», «Consumption», «Reporting» and «Public authorities» categories were built on the basis of a representative sample;
- certain energy markets still in the process of formation (i.e., steam coal and heating).



SAMPLES

■ «Natural monopolies» category:

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

■ «Consumption» category:

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

■ «Reporting» category:

- «Financial and management reporting» and «Fiscal reporting» (partly) sub-categories: energy companies ranked among top taxpayers, including public interest entities as defined by the Directive 2013/34/EU;
- «Reports on payments to the government» indicator: extractive companies with the largest production of natural gas, oil and gas condensate, and steam coal;
- «Information about final beneficiaries» indicator: largest energy companies selected from the main sample of joint-stock companies with securities listed on regulated markets.

■ «Public authorities» category:

- «Public spending» (partly), «Transparency of public administration» sub-categories: public authority in charge of energy policy (ministry), national regulatory authority, competition (antitrust) authority.

