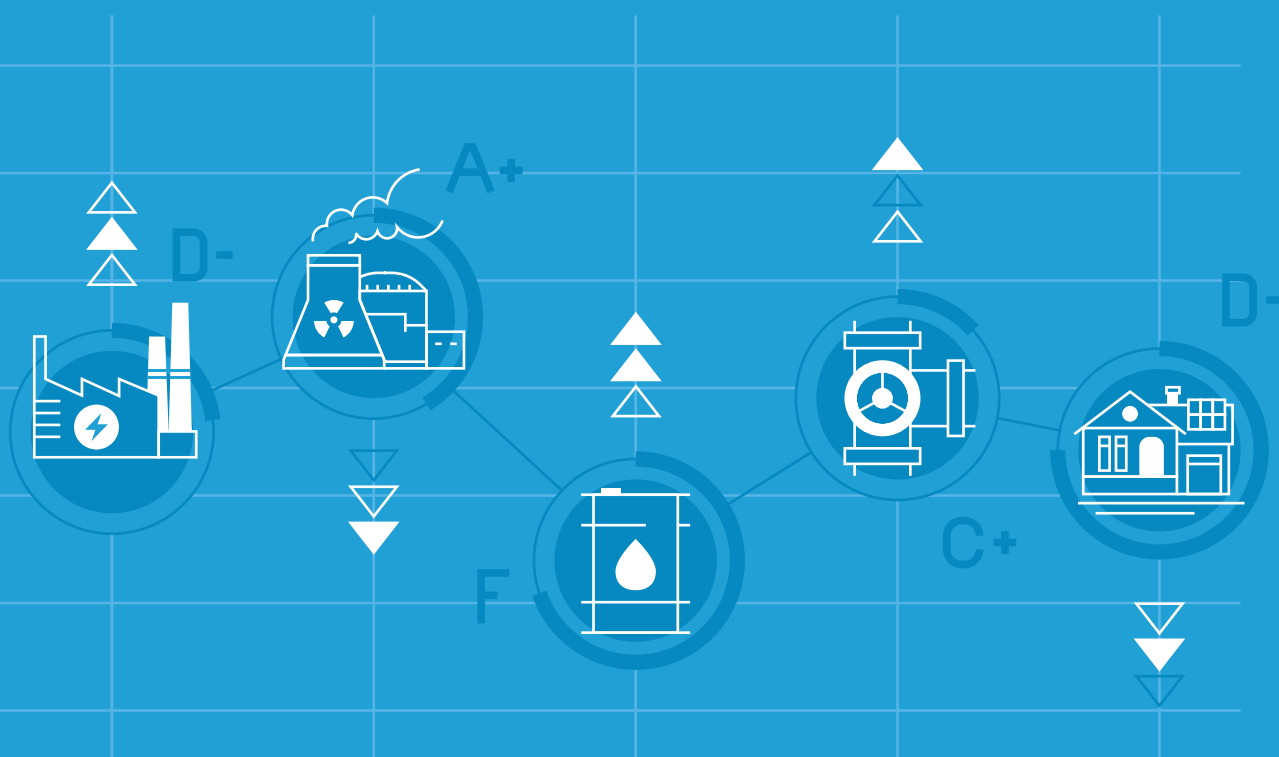


# ENERGY TRANSPARENCY INDEX



2021



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# SUMMARY

- The *Energy Transparency Index* has been developed to comprehensively assess the availability and quality of information in the sector, diagnose gaps, make an in-depth analysis of transparency by categories, energy markets, public authorities, particular indicators, and track progress.
- 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 services for consumers and fair pricing. The Index will be useful to *companies* and *potential investors* seeking an open, competitive environment, a better relationship with the government and communities, and reducing business risks. The Index will help *public authorities* responsible for information disclosure to improve their transparency and respective regulations. *Foreign partners* will get a deeper understanding of the energy policy and markets of Ukraine.
- The 4th issue of the Index includes *212 indicators* grouped into *eight categories* and is based on specific regulatory requirements and best global practices of information disclosure. The 2021 Index was extended by three new indicators stemming from the EU Clean Energy Package provisions regarding transparency. The assessment was based on data analysis solely from open sources, focusing on the energy sector's performance along the value chain, i.e., production to consumption.
- According to the assessment made in 2021, Ukraine's final score – 63 out of 100 – indicates medium transparency of the sector. At the same time, transparency in most categories has increased compared to the 2020 assessment, and the total Index score grew by 5 points. Only the «Balances» category regarding the publication of energy statistics traditionally demonstrates no positive shifts, while the «Policy» category has even declined for the first time (-5 points). On the other hand, the most notable progress was observed in the «Reporting» and «Natural monopolies» categories (+18 and +11 points, respectively). Together with the progress demonstrated in the «Consumption» category, it allowed to achieve good transparency in two Index's categories, for the first time since the initial assessment in 2018. This progress proves the effectiveness of actions already taken and the need to continue reforms to improve openness and transparency of the sector.
- The Index assesses *five energy markets* and *cross-sectoral* aspects. A comparison of markets shows that their transparency is primarily determined by the maturity of the legislative framework and regulation. Thus, after the implementation of new rules for the electricity market in 2020, the sector's transparency began improving at an accelerating pace. The 2021 assessment revealed significant progress in both markets: «Electricity» (+7 points) and «Natural gas» (+8 points), which shifted from medium to good transparency zone. However, transparency of the «Oil and liquid fuels» sector, which the government regulates much less, remains unacceptable (23 points).
- The «*black boxes*» (i.e., indicators and subcategories for which data is almost unavailable), deficiencies, and drawbacks in information disclosure discovered by the assessment, provided the basis for specific targeted recommendations for public authorities and companies mentioned at the end of every Index's section.
- Particular attention should be devoted to ensuring the independence of transmission system operators, improving transparency of participants of wholesale and retail energy markets, transmission, storage, and sales operators in the «Oil and liquid fuels» sector. Government regulation of prices in the electricity and gas markets, particularly setting prices for households and price caps in wholesale markets, also needs greater transparency. There is still a lack of progress in information disclosure on reliability and security of supply, annual and especially monthly balance statistics, and energy efficiency-related matters. The practice of non-financial reporting and disclosing information about companies' payments to the government need to be disseminated. Also, greater transparency should be achieved in designing draft regulatory acts and in selection of candidates for civil service positions responsible for policy-making.
- The 2021 Index continues assessing transparency of *public authorities* related to policy-making and regulation in the sector and which are the data owners. They were evaluated by particular indicators pertaining to their activity and areas of responsibility. Compared to the 2020 pilot assessment, only one of six public authorities (the Antimonopoly Committee) remains in the insufficient transparency zone, while the other two bodies (the Ministry of Energy and the State Statistics Service) showed positive dynamics and moved to the medium transparency zone. The State Agency for Energy Efficiency and Energy Saving (SAEE) also made progress and shifted to the good transparency zone to join the last year's «tenants» – the energy regulator (NEURC) and the Ministry of Ecology and Natural Resources.

Detailed results of the study, particularly the assessment table with all scores and comments, can be found on the Energy Transparency Index's website <https://index.ua-energy.org/en>. A detailed *catalog of links* to primary data sources for each indicator can be available upon request (e-mail your request to [author@dixigroup.org](mailto:author@dixigroup.org)).

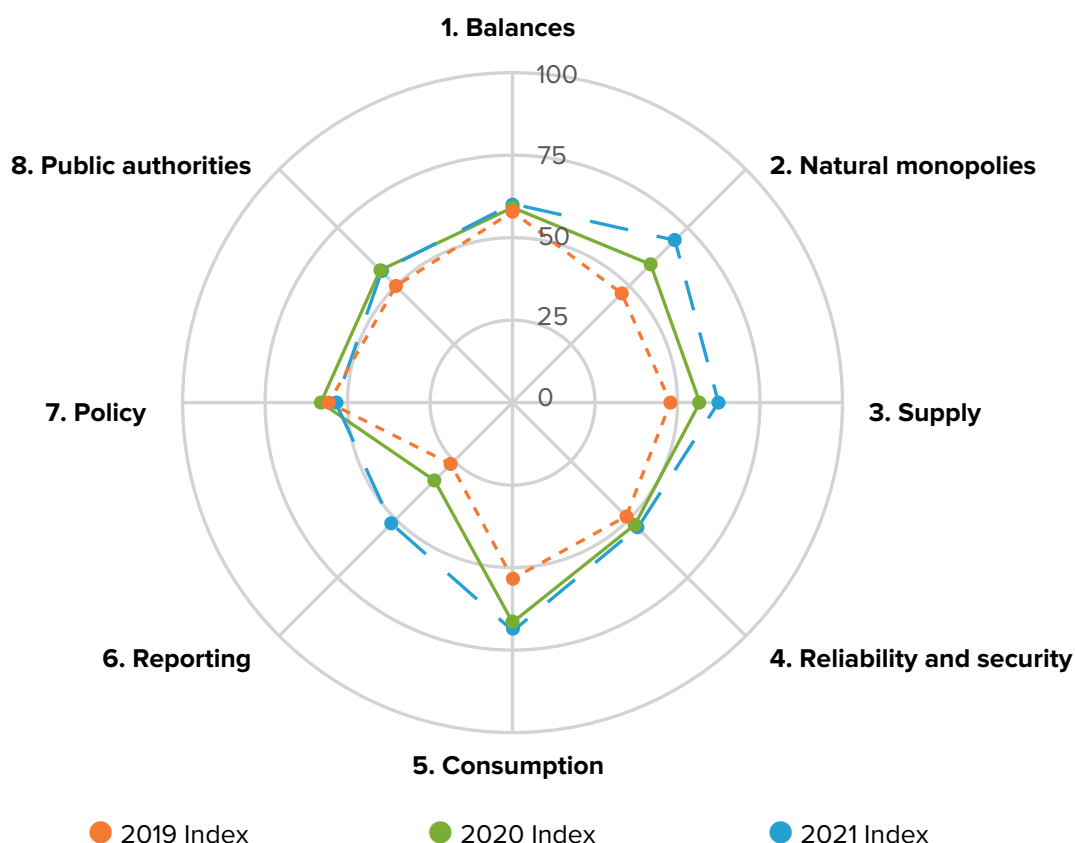
# UKRAINE'S 2021 ENERGY TRANSPARENCY INDEX

## TOTAL SCORE

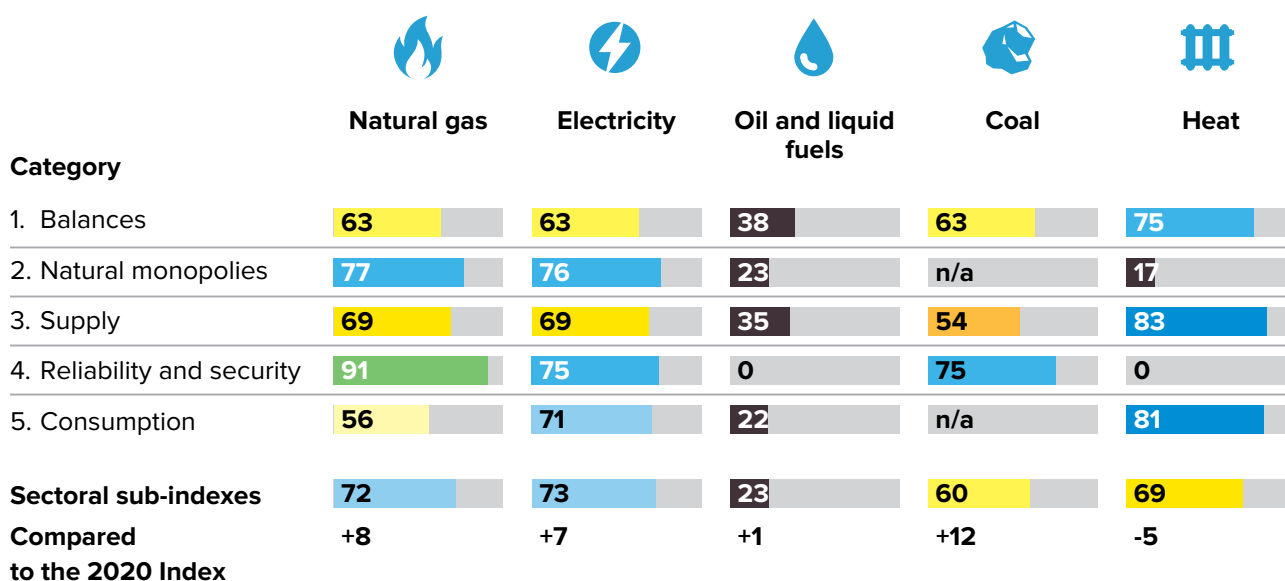
**63** (C, medium transparency; +5 compared to the 2020 Index)

## Scoreboard by category:

Category	Number of indicators	Score	Compared to the 2020 Index	Rating	Characteristic
1. Balances	9	58	0	C-	Medium transparency
2. Natural monopolies	71	70	+11	B-	Good transparency
3. Supply	35	63	+5	C	Medium transparency
4. Reliability and security	15	54	+1	D+	Insufficient transparency
5. Consumption	34	70	+2	B-	Good transparency
6. Reporting	12	53	+18	D+	Insufficient transparency
7. Policy	21	54	-5	D+	Insufficient transparency
8. Public authorities	15	57	+1	C-	Medium transparency
<b>Total Index score</b>	<b>212</b>	<b>63</b>	<b>+5</b>	<b>C</b>	<b>Medium transparency</b>



## Number of indicators by energy market:



## Number of indicators by energy market:

Energy sector	Natural gas	Electricity	Oil and liquid fuels	Coal	Heat	Cross-sectoral
Number of indicators	57	61	22	6	12	54

## Scoreboard by public authority:

Public authority	Number of indicators	Score	Compared to the 2020 Index	Grade	Characteristic
Regulator (NEURC)	54	71	-1	B-	good transparency
Ministry of Energy	24	58	+5	C-	medium transparency
Antimonopoly Committee	17	50	0	D+	insufficient transparency
State Statistics Service	14	55	+3	C-	medium transparency
State Agency on Energy Efficiency and Energy Saving	12	70	+4	B-	good transparency
Ministry of Ecology and Natural Resources	7	70	0	B-	good transparency

# INTRODUCTION

The Energy Transparency Index, on the one hand, is a *final product* providing a comprehensive assessment of the information disclosure of country's energy sector and its components, and on the other hand, a *universal tool* enabling an in-depth analysis with a breakdown into categories and subcategories, particular energy markets, public authorities, transparency indicators and criteria, as well as tracking progress both in time and in comparison with other countries.

## Purpose of the Index

The purpose of developing and publication of the Index is to promote greater transparency of the energy sector, which should include indispensable and sufficient conditions for stakeholders to regularly receive comprehensible, complete, up-to-date, usable information they need to make evidence-based decisions.

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

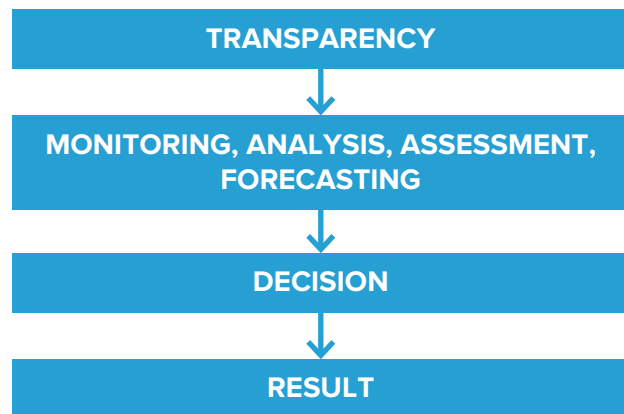
The information gaps (so-called «black boxes») identified by the Index provided the basis for practical recommendations for public authorities to increase the energy sector's transparency as one of the critical preconditions for its sustainable, reliable, and safe operation and development.

## Target audience

The Index's ultimate beneficiaries are *consumers*, as better awareness would allow 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.

For *companies in the energy sector*, greater transparency promotes more efficient and innovative activity, open competition, and better relations with investors, government, and communities. New and potential participants of energy markets, banks and other financial institutions will receive better

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 necessary information regarding energy sector performance along the value chain, i.e., production to consumption.



instruments for risk assessment, making decisions on investment or market entry, and designing a corporate policy with reduced risks. At the same time, less risky business conditions would improve investment climate and attract additional resources to the sector.

*Public authorities* receive targeted practical recommendations concerning information disclosure. Assessing the transparency will encourage opening «black boxes», which distort competition and breed corruption.

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



# ANALYSIS BY CATEGORY

## SECTORAL PART

### 1. BALANCES

#### 58 (C-, medium transparency; no progress compared to the 2020 Index)

The «Balances» category defines the transparency of annual and monthly energy statistics and covers nine indicators grouped into two subcategories:

- annual balance statistics (5 indicators);
- monthly balance statistics (4 indicators).

Assessment of the «Balances» category is based on determining the extent to which the State Statistics Service, as the government agency responsible for statistics, is compliant with requirements of **Regulation (EC) No 1099/2008 on energy statistics** set out in the Law «On Public Statistics».

#### Score by subcategory:

Subcategory	Score	Progress to 2020	Rating	Description
Annual balance statistics	75	0	B	good transparency
Monthly balance statistics	38	0	F	unacceptable transparency

A comparison with the previous two years' results demonstrates unchanging transparency of the category (58 points), which indicates an eventual slowdown of harmonizing Ukraine's official statistics with the EU's best practices in the field.

No progress has been observed in the State Statistics Service's compliance with requirements of the Regulation (EC) No 1099/2008. Due to national specifics of processing primary statistical data, the statistical agency is unable to meet the deadlines for the publication of annual balance statistics<sup>1</sup>. At the same time, insufficient transparency of the «Monthly balance statistics» subcategory is caused by the fact that the State Statistics Service does not have proper legislative ground and the necessary resources to collect data on the volumes and composition of

production (extraction), use (consumption), exports, imports, international bunkering, and stock changes of almost all types of energy resources. There is a lack of monthly data on electricity and structured information on steam coal. Information on oil and liquid fuels remains a «black box», being withdrawn by claiming compliance with requirements of the Law of Ukraine on Official Statistics concerning the confidentiality of statistical information.

Even though other public authorities (the Ministry of Energy) and companies (Ukrenergo) publish some relevant statistics, the availability and accessibility of this data could not affect the overall score because the Regulation (EC) No 1099/2008 imposes this responsibility on the national statistical authority.

#### Recommendations

- ▶ Cabinet of Ministers of Ukraine should confer on the State Statistics Service the liability to develop monthly product balances for energy resources (natural gas, steam coal, oil and liquid fuels, electricity, and heat) in part concerning compliance with requirements of Annex C to the Regulation (EC) No 1099/2008 on energy statistics;
- ▶ State Statistics Service should organize the publication of annual energy product balances by 30 November of the year following a reporting year, as required by Annex B to the Regulation (EC) No 1099/2008 on energy statistics.

<sup>1</sup> The product energy balances for 2019 were prepared on 07 December 2020.

## 2. NATURAL MONOPOLIES

### 70 (B-, good transparency; +11 compared to the 2020 Index)

The «Natural Monopolies» category defines the transparency of transmission and distribution system operators (TSO and DSO), mainly in electricity and natural gas markets.

Given the clearly defined requirements for data publication to be met by national public authorities, TSOs and DSOs, this category of the Index includes the largest number of indicators (71) grouped into four subcategories:

- operation of transmission and distribution system operators (47 indicators);
- independence of transmission and distribution system operators (5 indicators);
- development of transmission and distribution systems (8 indicators);
- tariffs setting (11 indicators).

Compared to the 2020 Index, the total number of indicators was reduced from 72 to 71 by reviewing requirements for gas TSO.

Assessment of the «Natural monopolies» category is based on determining the extent to which the public authorities, TSOs and DSOs meet the requirements<sup>2</sup>:

- **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 **715/2009** on conditions for access to the network for cross-border exchanges in electricity and natural gas;
- **Commission Regulation (EU) No 543/2013** on submission and publication of data in electricity markets;
- **Commission Regulation (EU) No 312/2014** establishing a Network Code on Gas Balancing of Transmission Networks;
- **EU, US, and Canadian best practices** for reporting of TSOs and DSOs.

The requirements of these documents are transposed in the laws «On the Natural Gas Market», «On the Electricity Market», network codes (transmission, distribution, and gas storage facilities) as well as decisions of the Regulator (NEURC) aimed at streamlining the activities of natural monopolies.

#### Score by subcategory:

Subcategory	Score	Progress to 2020	Rating	Description
Operation of transmission and distribution system operators	78	+14	B	good transparency
Independence of transmission and distribution system operators	44	+22	D-	insufficient transparency
Development of transmission and distribution systems	49	+4	D	insufficient transparency
Tariffs setting	64	0	C	medium transparency

Liberalization of the electricity and natural gas markets continues improving transparency in the «Natural monopolies» category. During the last year, the level of transparency grew in 3-of-4 evaluated subcategories: from 64 to 78 points for informing users of transmission and distribution systems, from 22 to 44 points for data corroborating independence of operators (TSOs and DSOs), and from 45 to 49 points for the development of the systems. The decline of transparency in the «Tariffs setting» subcategory observed in 2020 has stopped (64 points). This progress was made due to the efforts of

electricity and gas TSOs (Ukrenergo and Gas TSO of Ukraine) and the operator of the gas storage system (Ukrtransgaz). As a result, more information that must be disclosed according to the EU's best practices became available on their official websites.

Thanks to active lawmaking, the pace of information openness in the «Natural gas» and «Electricity» sectors equalized, and their transparency in this category has increased to 77 and 76 points, respectively (versus the last year's 61 and 67 points).

However, transparency of the «Oil and liquid fuels» sector, which the government regulates much less, remains unacceptable (23 points, no progress versus the 2020 assessment) and is treated as a «black box» in this category. There is a lack of data regarding the utilization of oil and petroleum products pipelines, oil and liquid fuel transmission and storage systems development plans, while the plans' implementation reports are unavailable. Only a few heating network operators publish their investment programs and respective implementation reports (15 points). At the same time, the available documents are usually published in scanned form.

Due to the introduction of new rules in the electricity and gas markets, transparency of the electricity (Ukrenergo) and gas (Gas TSO of Ukraine) TSOs has respectively increased from 61 to 72 points and 57 to 76 points. Transparency of the gas storage facilities operator (Ukrtransgaz) remains consistently high (88 points, +2 points versus the 2020 assessment).

Unfortunately, the operators mentioned above still have not fulfilled the following requirements:

- Ukrenergo: of the Regulation (EU) No 543/2013 concerning capacity allocation and congestion management (in particular, forecasted);
- Gas TSO of Ukraine: of the Regulation (EC) No 715/2009 concerning the informing on ex-ante and ex-post transmission capacity supply and demand, and of the Regulation (EU) No 312/2014 concerning the publication of the neutrality rate calculation methodology;
- Ukrtransgaz: of the Directive 2009/73/EC concerning the publication of gas storage facilities operator's compliance program and respective implementation reports.

The oil transmission system operator (Ukrtransnafta) remains the outsider in this category (15 points, no progress versus the 2020 assessment). At the same time, there are still no regulatory preconditions for certification of gas storage facilities operator and establishing the oil depots operator.

## Recommendations

- ▶ executive bodies duly authorized by the Cabinet of Ministers should adopt reasonable decisions on certification of gas storage facilities operator and establishment of oil depots operator to ensure availability of emergency and special stocks of oil and liquid fuels;
- ▶ Ukrenergo should ensure compliance with requirements of Articles 8, 13, and 14 of the Regulation (EU) No 543/2013 on disclosure of data concerning production forecast, the year ahead capacity reserve, and measures of congestion management;
- ▶ 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 data regarding supply and demand (ex-ante and ex-post) and the balancing status of the system's users, including actual and forecasted volumes of gas in the system for every balancing area, twice a day;
- ▶ Naftogaz of Ukraine should address the non-compliance of information provided on the Ukrtransnafta website with the EU's best practices of transparency of oil transmission system operators;
- ▶ the NEURC should agree with Gas TSO of Ukraine and approve a neutrality rate calculation methodology as required by Article 29 (4) of the Regulation (EU) No 312/2014;
- ▶ the NEURC and network operators should ensure compliance with requirements on the timely and regular publication of compliance programs, transmission, distribution, and storage system development plans, and respective implementation reports in machine-readable formats.

## 3. SUPPLY

### 63 (C, medium transparency; +5 compared to the 2020 Index)

The «Supply» category defines the transparency of rules, competition, and pricing in natural gas, electricity, steam coal, oil and liquid fuel, and heating markets. The category covers 35 indicators grouped into three subcategories:

- market barriers (12 indicators);
- market concentration and level of competition (4 indicators);
- prices and pricing (19 indicators).

Compared to the 2020 Index, the number of indicators grew from 33 to 35 due to the addition of two new indicators «Rules of tendering procedure for granting RES support» and «Plan for establishment of market-based electricity prices for households».

Assessment of the «Supply» category is based on determining the extent to which the public authorities and economic entities operating in the energy markets meet 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) 2016/1952** on European statistics on natural gas and electricity prices;

#### Score by subcategory:

Subcategory	Score	Progress to 2020	Rating	Description
Market barriers	62	+11	C	medium transparency
Market concentration and level of competition	66	+7	C+	medium transparency
Prices and pricing	63	+1	C	medium transparency

Comparison with the 2020 assessments indicates the increase of transparency in the «Market barriers» and «Market concentration and level of competition» subcategories. The «Market barriers» subcategory score has risen from 51 to 62 points due to the more complete disclosure of licensing terms for the relevant activities. In comparison, the score in the «Market concentration and level of competition» subcategory grew from 59 to 66 points primarily due to publishing information on concentration in various electricity market segments (market participants' shares, Herfindahl-Hirschman Index, Pivotal and Residual Supply Indexes). In addition, the Market Operator launched the practice of publishing data on the ratio between declared and accepted trading volumes, the number of buy and sell bids, market density, and trading turnover for particular segments of the electricity market.

The score in the «Prices and pricing» subcategory has risen from 62 to 63 points due to improvement of stock exchange data on prices for diesel fuel, steam, and coke coal, publication of interactive diagrams on the cost of natural gas at European hubs with various delivery terms and, partially, mark-up prices. The score could have improved much better if the procedure of transition to economically reasonable electricity prices for households and the methodologies for calculating regulated gas prices in the wholesale and retail markets were available.

- **ACER and CEER best practices** for monitoring and analysis of energy markets performance.

The requirements of the above documents are transposed in the laws «On the National Energy and Utilities Regulatory Commission», «On Peculiarities of Access to Information in the Spheres of Electricity, Natural Gas, Heating, Centralized Hot and Drinking Water Supply and Drainage», «On State Regulation of Production and Circulation of Ethyl Alcohol, Cognac and Fruit, Alcoholic Beverages, Tobacco Products and Fuel», the Tax Code of Ukraine as well as decisions of the public authorities aimed at the development of competition and ensuring transparency of pricing in energy markets.

Besides, there are several «black boxes» in the «Supply» category due to lack of:

- a methodological basis for regulation of retail natural gas prices for particular consumer groups, and the plan of transition to market-based pricing for households in electricity;
- a national registry of steam coal market participants;
- data on mark-ups in the retail segments of the natural gas, oil and liquid fuel markets;
- data on average annual electricity and natural gas prices for household and non-household consumers (by consumption bands) and price composition.

However, exhaustive information in the «Supply» category will be available only after the establishment of steam coal and heating markets and completion of setting up the electricity, gas and liquid fuel markets while maintaining the role of the government in the protection of competition, prevention of market power abuse, and proper protection of consumers.

## Recommendations

- ▶ the Cabinet of Ministers should develop and publish the plan/procedure for transition to cost-reflective electricity prices for households and the methodologies for calculation of regulated gas prices in the wholesale and retail markets, which should contain a rationale for such regulation, the regulatory impact assessment, and respective expiration date;
- ▶ the Cabinet of Ministers should shift from quasi-fiscal decisions in energy supply to socially vulnerable consumers without specific methodological basis to implementing transparent mechanisms of their subsidizing;
- ▶ the NEURC should ensure completeness of information in the registries of licensees (add data on persons responsible for operational and trading decisions and on beneficial owners, as required by REMIT) and in the reports on supplier switching in gas and electricity;
- ▶ the NEURC should approve and publish a methodology for setting price caps in the day-ahead, intraday, and balancing electricity markets;
- ▶ the NEURC and AMCU should launch regular monitoring and assessment of mark-ups in gas, electricity, oil and liquid fuel markets;
- ▶ the AMCU should annually publish information on the levels of concentration and competition in oil, liquid fuel and steam coal markets;
- ▶ the Ministry of Energy should develop and publish a registry of steam coal market participants;
- ▶ the Ministry of Finance should publish the licensing terms for production, storage, wholesale and retail sales of fuels and ensure completeness of information in the registries of licensees (add data on persons responsible for operational and trading decisions and on beneficial owners);
- ▶ the State Statistics Service should publish, in addition to semi-annual, annual reports on gas and electricity prices following the requirements of Regulation (EU) 2016/1952.

## 4. RELIABILITY AND SECURITY

### 54 (D+, insufficient transparency; +1 compared to the 2020 Index)

The «Reliability and security» category defines the transparency of energy stocks and reserves, rules for ensuring reliability and security of supply, and the frequency and completeness of reporting. The category covers 15 indicators grouped into three subcategories:

- stocks and reserves (6 indicators);
- security of supply rules (6 indicators);
- reports on reliability and security (3 indicators).

Assessment of the «Reliability and security» category is based on determining the extent to which the public authorities and economic entities operating in the energy markets meet the requirements of:

- **Directive 2005/89/EC** concerning measures to safeguard security of electricity supply and infrastructure investment;
- **Regulation (EU) 2017/1938** concerning measures to safeguard the security of gas supply;

- **Directive 2009/119/EC and Annex XXVII to the EU-Ukraine Association Agreement** imposing an obligation to maintain minimum stocks of crude oil and/or petroleum products;
- **Regulation (EC) No 1099/2008** on energy statistics;
- **EU best practices** in ensuring security of gas and electricity supply.

The requirements of these documents are transposed in the laws «On the Natural Gas Market», «On the Electricity Market», the Transmission System Code, the Rules on Security of Natural Gas Supply, the Rules on Security of Electricity Supply as well as decisions of public authorities aimed at ensuring energy security of Ukraine.

**Score by subcategory:**

Subcategory	Score	Progress to 2020	Rating	Description
Stocks and reserves	44	-4	D-	insufficient transparency
Security of supply rules	50	0	D+	insufficient transparency
Reports on reliability and security	83	+16	B+	good transparency

A comparison with the 2020 assessments indicates the continuing growth of transparency in the “Reports on reliability and security” subcategory (from 31 to 83 points over three years). This progress was caused by timely approval by the NEURC of Ukrenergo’s reports on generation capacity adequacy assessment and regular publication by the Ministry of Energy of reports on monitoring the security of natural gas supply and, for the first time, electricity supply<sup>2</sup>.

However, transparency in the “Stocks and reserves” subcategory has declined (from 48 to 44 points) due to the refusal of the Ministry of Energy from October 2021 to publish daily data on steam coal reserves at thermal power and cogeneration plants in a machine-readable format. In addition, the completeness of data has worsened because the Ministry of Energy stopped

publishing data on planned stocks, which complicates the analysis of fulfillment of coal stocking plans.

The “black boxes” in the “Reliability and security” category remain obligations set in Directive 2009/119/EC on establishing and maintaining minimum stocks of oil and/or petroleum products; development of an action plan for the introduction of emergency and special reserves in case of significant disruption of oil supplies, and annual reporting on measures taken to ensure their physical availability.

Thus, transparency in the «Reliability and security» category can be significantly improved only after the development of oil reserves in accordance with the requirements of Directive 2009/119/EC.

## Recommendations

- ▶ the Cabinet of Ministers should adopt and submit to the Verkhovna Rada a draft law «On Minimum Oil and Petroleum Products Reserves», develop and approve regulations for the implementation of its provisions following the requirements of Directive 2009/119/EC, as well as their execution within the schedule set by the updated Annex XXVII of the EU-Ukraine Association Agreement;
- ▶ the Ministry of Energy should ensure timely and regular publication of reports on monitoring of the security of natural gas and electricity supply;
- ▶ the Ministry of Energy should resume daily publication of data on coal stocks at thermal power and cogeneration plants in a machine-readable format;
- ▶ Ukrenergo should publish the Power System Protection Plan and note the repeal of Directive 2005/89/EC by the Regulation (EU) 2019/941, which after the establishment of the regulatory framework for its implementation in Ukraine, would require the TSO to develop Risk Preparedness Plans annually.

## 5. CONSUMPTION

### 70 (B-, good transparency; +2 compared to the 2020 Index)

The «Consumption» category defines the transparency of customer service standards and their implementation, energy consumption metering, information for consumers on prices and tariffs, subsidies, preferences and other aid, and energy efficiency programs. The category covers 34 indicators grouped into three subcategories:

- penetration of metering (5 indicators);
- service standards (6 indicators);
- information for consumers (23 indicators).

<sup>2</sup> The Energy Ministry published the 2019 report on monitoring of the security of electricity supply on 26 January 2021.



Assessment of the «Consumption» category is based on determining the extent to which the public authorities and economic entities operating in the energy markets meet the 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;
- **CEER best practices** of the quality of energy supply and EU best practices of empowering consumers.

The requirements of these documents are transposed in the laws «On Peculiarities of Access to Information in the Spheres of Electricity, Natural Gas, Heat Supply, Centralized Hot and Drinking Water Supply, and Drainage», «On Ensuring Commercial Metering of Natural Gas», «On Commercial Metering of Heating and Water Supply», «On the Electricity Market», the Code of Commercial Metering of Electricity as well as decisions of public authorities aimed at guaranteeing the energy consumers rights.

#### Score by subcategory:

Subcategory	Score	Progress to 2020	Rating	Description
Penetration of metering	80	+10	B+	good transparency
Service standards	83	-17	B+	good transparency
Information for consumers	64	+4	C	medium transparency

A comparison with the 2020 assessments indicates the increasing transparency in the “Penetration of metering” subcategory (from 70 to 80 points), mainly due to the publication of data on smart meters penetration in electricity. At the same time, the “Service standards” subcategory score declined from 100 to 83 points due to incomplete data on the quality of gas supply (including the volume of compensations for consumers).

Informing consumers on commercial offers (prices, tariffs, supply terms) in the liquid fuels market and on electricity mix purchased by suppliers and its environmental impact, as required by Directive 2009/72/EC, remains flawed. At the same time, the performance of the Energy Online mobile app and the [Gazoteka](#) price comparison tool developed jointly with the NEURC under the USAID support has improved. It indicates the need to create digital applications and

online services to compare commercial offers and prices in Ukraine’s energy markets.

Data on the penetration of individual smart meters for natural gas is not available. The forecasts of prices and tariffs in gas, electricity, and heat markets do not reveal their components and contain no descriptions of the respective assumptions and drivers.

Instead of publishing information on consumer rights, the electricity mix and its environmental impact, suppliers sometimes provide links to the websites of outside organizations. The information published by operators of the retail petroleum products market provides a poor possibility for consumers to make a quick and reasonable choice of the fuel they need. These factors define medium transparency in the “Information for consumers” subcategory (64 points).

#### Recommendations

- ▶ the NEURC should regularly publish data on the penetration of individual smart meters for natural gas;
- ▶ the NEURC should publish data on compensations paid to natural gas consumers;
- ▶ the NEURC should improve the completeness of data on natural gas, electricity, and heat prices and tariffs according to requirements (regional breakdown of prices and tariffs, five-year dynamics of their components, their forecasts with respective rationale, international comparison);
- ▶ the State Statistics Service should publish data on oil and liquid fuel prices by regions and in comparison with global prices, in addition to the data on sales volumes;
- ▶ natural gas suppliers should provide exhaustive information to consumers on their rights, in particular, on supplier switching procedure, submitting and reviewing complaints, disrupting and resuming of gas supply, gas tariffs and billing;
- ▶ electricity suppliers should provide data on their electricity mix and its environmental impact.

## CROSS-SECTORAL PART

### 6. REPORTING

#### 53 (D+, insufficient transparency; +18 compared to the 2020 Index)

The «Reporting» category defines the transparency of regular financial, non-financial, management, and fiscal reporting, information on corporate governance and final beneficiaries of energy companies. The category covers 12 indicators grouped into three subcategories:

- financial and management reporting (4 indicators);
- fiscal reporting (3 indicators);
- beneficiaries and corporate governance (5 indicators).

Assessment of the «Reporting» category is based on determining the extent to which the economic entities operating in the energy markets meet the requirements of:

- **Directive 2013/34/EU** on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, and Directive 2014/95/EU concerning the disclosure of non-financial information and information on diversity by certain big companies and their groups, in particular, the publication of regular financial, non-financial, and management reporting as well as reporting on payments to the government;
- **Directive 2004/109/EC** on the harmonization of transparency requirements concerning information on emitters whose securities are admitted to trading on a regulated market, in particular, publication of regular information of emitters and other regulated information for investors and shareholders;

- **best global practices** set out in the Global Reporting Initiative (GRI), International Financial Reporting Standards (IFRS), International Standards of Auditing (ISA), Principles of Corporate Governance of the Organization for Economic Co-operation and Development (OECD), the information disclosure guidance of the Financial Conduct Authority (FCA), transparency and corporate governance standards;

- **the standard of the Extractive Industries Transparency Initiative (EITI).**

The requirements of the above documents are transposed in the laws «On Accounting and Financial Reporting in Ukraine», «On Ensuring Transparency in Extractive Industries», «On Amending Certain Legislative Acts of Ukraine on Ensuring Transparency in Extractive Industries», National Accounting Regulations (Standards), documents of the Ministry of Finance, National Securities and Stock Market Commission, as well as other decisions of public authorities aimed at ensuring the transparency of reporting, information on corporate governance and final beneficiaries.

#### Score by subcategory:

Subcategory	Score	Progress to 2020	Rating	Description
Financial and management reporting	42	+17	D-	insufficient transparency
Fiscal reporting	39	+18	F	unacceptable transparency
Beneficiaries and corporate governance	69	+17	C+	medium transparency



Compared to the 2020 assessment, transparency in the “Reporting” category increased from 35 to 53 points. Although the progress was partially driven by the update of samples, which now include four companies compliant with transparency requirements, the overall improvement was achieved primarily due to quality shifts.

The score in the “Financial and management reporting” subcategory rose by 17 points due to the dissemination of practice of regular developing separate and consolidated financial statements compliant with the International Financial Reporting Standards (IFRS), along with the related independent auditor’s reports. However, only three companies of the sample assessed regularly produce exhaustive managerial reports according to recommendations of the Ministry of Finance and requirements of Directive 2013/34/EU. The number of companies disclosing non-financial information according to the GRI Standards and the United Nations Global Compact (CoP) slightly increased; however, this practice is not widespread<sup>3</sup>. Publication of data in the form of scanned documents, which complicates its processing and analysis, remains a severe drawback in this subcategory.

Overall, the transparency of companies’ reporting on taxes and other payments to the government (“Fiscal reporting” subcategory) remains pretty low

(39 points). The only exception is the reporting of extractive companies within the EITI framework which reached the maximum comprehensiveness. This particular practice caused an increase in transparency of this subcategory by 18 points compared to the 2020 score. Immediately after the template for the report on payments to the government was approved, extractive companies began disclosing this data. However, most companies do not publish this information on their websites and provide it only within the EITI framework.

The transparency of corporate information has increased by 17 points compared to the 2020 assessments. This progress was caused by the more comprehensive publication of corporate governance documents and the availability of up-to-date annual reports of securities emitters (with the persisting problem of regular quarterly reporting). The number of documents in a machine-readable format (.xml) with the affixed qualified electronic signature (QES) continues to grow, which improves their usability for investors and shareholders. The transparency of information on the companies’ ultimate beneficial owners did not progress due to the deep-rooted practice of its nondisclosure by private companies of the sample (caused, inter alia, by contradictory legislative regulation of this matter).

## Recommendations

- ▶ energy companies should regularly develop management reports as a separate document or as part of annual corporate reports;
- ▶ the Ministry of Energy should ensure regular reporting by energy companies and publication of their reports on payments to the government following requirements of the Laws «On Accounting and Financial Reporting in Ukraine» and «On Transparency of Extractive Industries»;
- ▶ the Ministry of Energy should ensure the proper functioning of the electronic reporting system according to the EITI Standard and continue regular development of national EITI reports;
- ▶ the Verkhovna Rada, Ministry of Finance, and National Securities and Stock Market Commission should promote the implementation of the best international practices of non-financial reporting by establishing the respective legislative and methodological basis and ensuring compliance of emitters whose securities are traded in regulated markets with requirements regarding the reporting in machine-readable formats;
- ▶ energy companies should publish financial reporting tables in machine-readable formats.

<sup>3</sup> Moreover, two state-owned companies leading in terms of non-financial reporting, Ukrenergo and Ukrhydroenergo, have not developed their 2020 reports (at the time of assessment).

## 7. POLICY

### 54 (D+, insufficient transparency; -5 compared to the 2020 Index)

The «Policy» category defines the transparency of the implementation of national documents of energy policy and sustainable development, energy efficiency, environmental protection, combating climate change, developing renewables, etc. The category covers 20 indicators grouped into four subcategories:

- monitoring and reporting (3 indicators);
- energy efficiency (7 indicators);
- environmental protection and combating climate change (9 indicators);
- renewable energy sources (2 indicators).

Compared to the 2020 Index, the number of indicators was extended from 20 to 21 by adding a new indicator, “National Energy and Climate Plan”.

Assessment of the «Policy» category is based on determining the extent to which the public authorities designing and implementing national energy and related policies meet the requirements of:

- **Directive 2012/27/EU** on energy efficiency and **Directive 2010/30/EU** on labeling energy products;

- **Directive 2010/31/EU (updated by Directive 2018/844/EU)** on the energy performance of buildings;
- **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;
- **Directives 2001/42/EC** and **2011/92/EU** on the assessment of the effects of certain public and private projects on the environment;
- **Directive 2009/28/EC** on the promotion of the use of energy from renewable sources;
- **international treaties** on combating climate change (UN Framework Convention on Climate Change, Paris Agreement).

The requirements of these documents are transposed in the laws «On Environmental Impact Assessment», «On Strategic Environmental Assessment», «On Air Protection», Presidential Decree «On Sustainable Development Goals of Ukraine until 2030», Energy Strategy of Ukraine until 2035, other decisions of public authorities aimed at ensuring the transparency of energy, environmental, and climate policies.

#### Score by subcategory:

Subcategory	Score	Progress to 2020	Rating	Description
Monitoring and reporting	75	-8	B	good transparency
Energy efficiency	40	-6	D-	insufficient transparency
Environmental protection and combating climate change	54	-7	D+	insufficient transparency
Renewable energy sources	69	+13	C+	medium transparency

Comparing with the 2020 assessments indicates declining transparency in 3-of-4 subcategories and the whole category. Particularly, the score in the “Monitoring and reporting” subcategory fell from 83 to 75 points due to inadequate reporting by the Ministry of Energy on the implementation of the Energy Strategy of Ukraine until 2035, in particular, on the action plan’s objectives that were not duly fulfilled in time.

The failure to meet the deadline for updating the National Action Plan and the national energy efficiency target resulted in the worsened score in the “Energy efficiency” subcategory (-6 points). A program of renovating the national stock of residential and commercial buildings was not developed. Also,

there is no complete inventory of buildings with a total useful space of over 250 m<sup>2</sup> requiring heating and cooling and no data on the implementation of energy labeling.

Information on strategic environmental assessment remains unstructured and inconvenient to use. Also, there is no up-to-date information on the progress in implementing the National Low-Carbon Strategy and the Nationally Determined Contribution of Ukraine to the Paris Agreement (despite the updated NDC). Besides, the absence of an up-to-date annual action plan for implementation of the National Emission Reduction Plan (NERP) and irregular publication of NERP reports led to insufficient transparency of the “Environmental protection and combating climate

change” subcategory (54 points), which declined by 7 points.

The National Renewable Energy Action Plan is being updated with delay. Moreover, the previous plan (until 2020) did not provide a description of support schemes for renewable energy as required by EU

directives. The National Energy and Climate Plan (NECP) is yet to be approved by the government and published as required by the Regulation (EU) 2018/1999, and the content of which is regulated by the Guidelines 2018/01/MC-EnC of the Ministerial Council of the Energy Community.

## Recommendations

- ▶ the Cabinet of Ministers should approve the updated Energy Efficiency Action Plan and provide its subsequent update every three years;
- ▶ the Energy Efficiency and Energy Saving Agency should introduce reporting on energy labeling penetration with subsequent setting up a database of products subject to energy labeling;
- ▶ the Energy Efficiency and Energy Saving Agency should update the National Renewable Energy Action Plan every two years with a due description of schemes and a long-term timeline of state support;
- ▶ the Ministry of Energy should abide by the publication deadlines and improve the completeness of annual reports on the implementation of the Energy Strategy of Ukraine until 2035; in particular, apply the monitoring approach proposed by OECD<sup>8</sup>;
- ▶ the Ministry of Energy should ensure availability of annual action plans on the implementation of the National Emission Reduction Plan and due reporting to the Energy Community Secretariat in the format defined in the National Plan;
- ▶ the Ministry of Energy should complete the development, approval, and publication of the National Energy and Climate Plan following the Energy Community Secretariat Guidelines;
- ▶ the Ministry of Ecology and Natural Resources should publish information on the progress in implementing the National Low-Carbon Development Strategy and the Nationally Determined Contribution of Ukraine to the Paris Agreement;
- ▶ the Ministry of Ecology and Natural Resources should publish strategic environmental assessment data in a structured form and machine-readable formats (similarly to the Unified EIA Registry);
- ▶ the Ministry of Energy, Ministry of Economy, Energy Efficiency and Energy Saving Agency should ensure the timely and complete publication of reports on implementing national policy documents and fulfilling Ukraine’s international commitments in the official language.

## 8. PUBLIC AUTHORITIES

### 57 (C-, medium transparency; +1 compared to the 2020 Index)

The «Public authorities» category determines the transparency of public expenditure, the designing, adoption, and implementation of government decisions, and the formation of governing bodies. The category covers 15 indicators grouped into two subcategories:

- public spending (8 indicators);
- public administration (7 indicators).

Assessment of the «Public authorities» category is based on determining the extent to which the public authorities designing and implementing national policies and regulating the energy sector meet the requirements of:

- **Treaty establishing the Energy Community;**
- **EU-Ukraine Association Agreement;**
- **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**, including the Guidelines on Fiscal Transparency and the Guidelines for Public Expenditure Management of the International Monetary Fund, the Council Recommendations

<sup>8</sup> <https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Monitoring-the-energy-strategy-Ukraine-2035-EN-.pdf>

of the Organization for Economic Co-operation and Development (OECD) on good budgeting, regulatory policy and governance, and the OECD Principles and Guidelines for Public Administration and Employment in Public Sector, European Commission Guidelines on Better Regulation/Law Making as well as the Lima Declaration of Guidelines on Auditing Precepts.

The requirements of these documents are transposed in the Budget Code of Ukraine, the Laws of Ukraine «On the Accounting Chamber», «On the State Control and Examination Service in Ukraine», «On Civil Service», «On the National Regulatory Commission of Energy and Utilities», «On Basic Principles of State Regulatory Policy», other regulatory legal acts of Cabinet of Ministers and Ministry of Finance on public spending and ensuring transparency of public administration.

#### Score by subcategory:

Subcategory	Score	Progress to 2020	Rating	Description
Public spending	66	+5	C+	medium transparency
Public administration	47	-4	D	insufficient transparency

Compared to the 2020 assessment, transparency in the “Public authorities” category remains almost unchanged (57 points; +1) as a result of improved transparency of public spending (+5 points) and a certain regress in the openness of public administration (-4 points).

The Ministry of Energy increased the completeness of budget planning documents, and the Accounting Chamber published a report on the financial audit of the NEURC for 2020. The Ministry of Finance produced a more comprehensive regular report on fiscal risks and their impact on the state budget indicators regarding state-owned companies Naftogaz of Ukraine, Ukrenergo, and Energoatom. Nonetheless, detailed information on the amounts, forms, and recipients of state aid to coal mining enterprises remains unavailable.

Compared to the 2020 assessment, the publication by the NEURC of stakeholders’ comments on draft regulatory acts developed by the Regulator worsened. At the same time, the Antimonopoly Committee (AMCU) website provides incomplete information on the winners of a contest for vacant positions. It does

not provide up-to-date information on draft regulatory acts, while the approved acts are now published in the format of unscanned .pdf files.

Overall, the growth of transparency in the “Public authorities” category is restrained by the following “black boxes”:

- incompleteness and untimely publication of draft regulatory acts discussion results;
- inadequate impact assessment of the regulatory acts adopted, and unavailability of comprehensive reports on the results of respective monitoring;
- unavailability of video streaming, minutes and (or) transcripts of meetings of commissions evaluating candidates for civil service positions (except for the procedure of selecting candidates for NEURC members).

#### Recommendations

- ▶ the State Audit Service and the Accounting Chamber should ensure the publication of reports on the financial audit of budget programs implementation by the Ministry of Energy and AMCU;
- ▶ the Ministry of Energy, NEURC, and AMCU should ensure publication of reservations and suggestions concerning draft regulatory acts and the results of their discussion;
- ▶ the Ministry of Energy, NEURC, and AMCU should deliver due impact assessment of the adopted regulatory acts and respective monitoring with publishing comprehensive reports on their results;
- ▶ the National Agency for Civil Service, Ministry of Energy, NEURC, and AMCU should publish information on the process of competitive selection of candidates for civil service positions;
- ▶ the AMCU should update the registry of the state aid recipients with reflecting particular coal mining enterprises and detailed data on state aid granted.

# METHODOLOGY

The **methodology** of the 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, subcategories, energy markets), and transparency criteria.

An **indicator** is a specific way of measuring 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 is the lowest level of the Index decomposition.

This study analyzes 212 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 five **energy markets**: *natural gas, electricity, oil and liquid fuels, steam coal, and heat*. Each commodity market represents a set of indicators characterizing its transparency. If an indicator relates to several markets, it wasn't assessed for each market, being considered **cross-sectoral**.

Energy market	Natural gas	Electricity	Oil and liquid fuels	Steam coal	Heat	Cross-sectoral
<b>Number of indicators</b>	57	61	22	6	12	54

A **category** is a set of indicators characterizing elements of the specific part of the energy value chain. Grouping indicators into categories allows various stakeholders to obtain information regarding transparency in different value chain parts.

By analyzing the rules and practices of information disclosure and the feedback from external experts, the Index team came up with eight categories:

- «*Balances*»: transparency of annual and monthly energy statistics;
- «*Natural monopolies*»: transparency of transmission and distribution system operators;
- «*Supply*»: transparency of rules, competition, and pricing in energy markets;
- «*Reliability and security*»: transparency of stocks and reserves, rules and reports on security of supply;
- «*Consumption*»: 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*»: transparency of corporate financial statements and auditor reports, management reports, disclosure of non-financial information, payments to the government, information regarding corporate governance and final beneficiaries;
- «*Policy*»: transparency of implementing strategic and program documents of energy policy and sustainable development, the policy on energy

efficiency, environmental protection, combating climate change, and renewable energy, etc.;

- «*Public authorities*»: transparency of public spending, developing, adopting, and implementing policy decisions, forming management bodies.

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

The **transparency criterion** is a specific aspect of assessing transparency of a particular object, process, or phenomenon. Every indicator could be evaluated based on nine criteria:

- «*Availability*»: existence of information in open sources;
- «*Objectivity*»: independence of available information from the method of obtaining it;
- «*Credibility*»: absence of incidental or deliberate distortion of disclosed information;
- «*Accuracy*»: degree of information being close to the actual state of an object, process, or phenomenon;
- «*Accessibility*»: measure of free access to information;
- «*Relevance*»: availability of information for the most recent reporting period;
- «*Frequency*»: degree of compliance with the applicable requirements regarding the frequency of updating information;
- «*Usability*»: convenience and simplicity of using or processing disclosed information;

- «Completeness»: availability of exhaustive information required to be disclosed following legislation and/or best global practices of information disclosure.

Since the purpose of the study was to calculate the Index based on information from open sources (corporate websites, open data, institutional

repositories), every indicator was assessed based on «Availability», «Accessibility», «Relevance», «Frequency», «Usability», and «Completeness» criteria only. Assessment of indicators based on «Objectivity», «Credibility» and «Accuracy» criteria can be done on request in case the customer provides data with restricted access.

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 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 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, or xlsx with unstructured data) 1 – information available in a machine-readable format (numerical: xlsx with 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

The total 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.

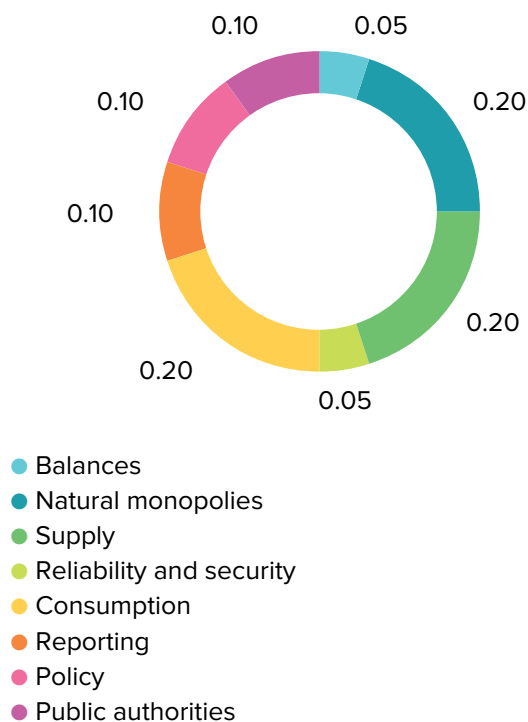
If the information could not be obtained other than for a fee or prior request ( $C_{ac} = 0$ ), this information was considered unavailable ( $C_{av} = 0$ ).

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 specific categories, subcategories, and markets.



## AGGREGATION OF SCORES

To calculate the total Index score, an expert rating method was used to determine weightings for the Index's categories:



## LIMITATIONS

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

- the energy sector in real time, since developing the Index is associated with the processing of a large amount of information for the reporting period (as a rule, the one preceding the period, during which the assessment is carried out);

## INTERPRETATION OF SCORES

All indexes were converted to a 100-point scale as 25Ti, 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	

- 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 built on representative samples;
- certain parts of the energy sector with commodity markets still under formation (steam coal and heat); therefore, the indexes calculated for these markets serve for reference purposes only.

## SAMPLES

### «Natural monopolies» category:

- transmission system operators (TSOs) are 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, transmission and storage of natural gas, oil and liquid fuel;
- distribution system operators (DSOs) are legal entities operating in the five largest cities of Ukraine and responsible for safe, reliable, and efficient operation, maintenance and development of networks and ensuring their long-term capacity for distribution of natural gas, electricity, and heat.

### «Consumption» category:

- for natural gas – suppliers operating in the five largest cities of Ukraine who delivered public service obligations on gas market until 1 August 2020;
- for electricity – universal service suppliers operating in the five largest cities of Ukraine;
- for petroleum products – operators of the retail market managing the five largest networks of filling stations by sales volumes in 2020.

### «Reporting» category:

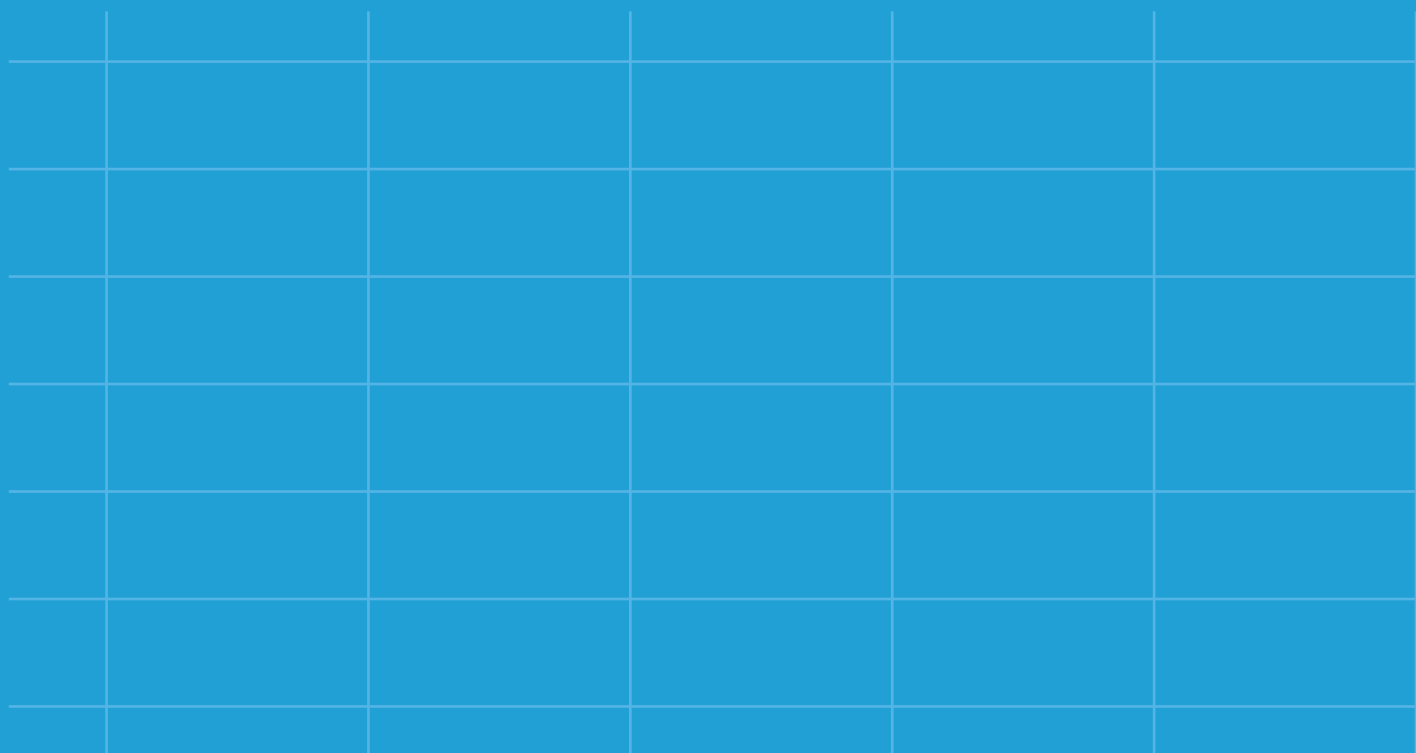
- «Financial and management reporting» subcategory, «Information on payment of taxes (by types of taxes and entities)» group – 20 energy companies ranked among TOP 100 taxpayers in 2020 and classified as entities of public interest under paragraph 21, Article 1 of the Law «On Accounting and Financial Reporting in Ukraine»;

- «Special reporting of companies in extractive industries» group – 12 state-owned and private companies with the largest production of natural gas, oil and gas condensate, and steam coal in 2020;
- «Beneficiaries and corporate governance» subcategory – 14 largest joint-stock energy companies selected from the primary sample of companies applied in the «Financial and management reporting» subcategory and whose securities are eligible for trading on a stock exchange.

### «Public authorities» category:

- «Budget expenditures», «Decision-making and implementation», «Managerial bodies formation transparency» groups – the Ministry of Energy, the National Energy and Utilities Regulatory Commission (NEURC) and the Antimonopoly Committee;
- «State aid» group – the indicators were assessed following the data of the Antimonopoly Committee;
- «Quasi-fiscal transactions» group – the indicators were assessed following the data of the Ministry of Finance on quasi-fiscal risks regarding energy companies.





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