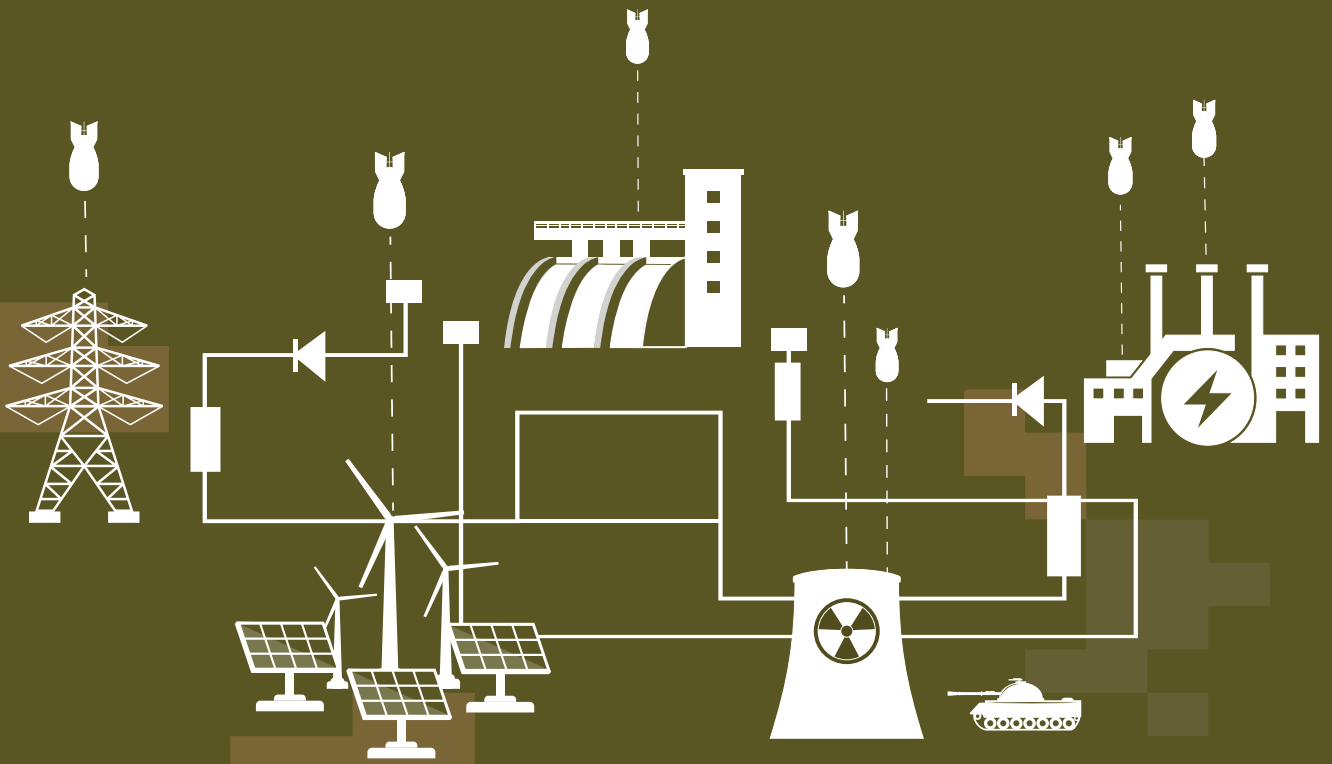




**USAID**  
FROM THE AMERICAN PEOPLE



# ENERGY TRANSPARENCY INDEX



**WARTIME EDITION**

**2022**



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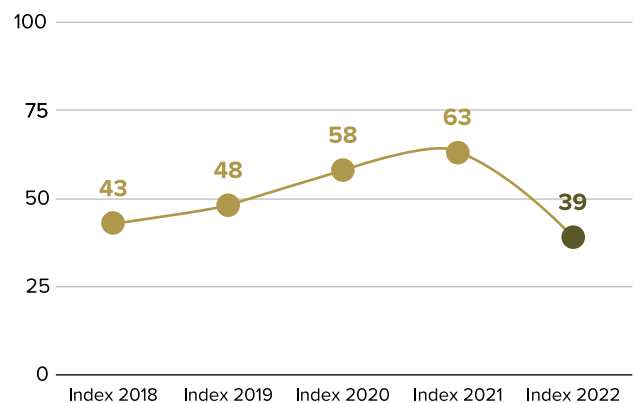
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# EXECUTIVE SUMMARY

- 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 category, energy market, public authority, 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 improving services for consumers and fair pricing. The Index will be helpful to *companies* and *potential investors* seeking an open, competitive environment, a better relationship with the government and communities, and reducing business risks. The Index will help *public authorities* responsible for information disclosure improve their transparency and related regulations. *Foreign partners* will get a deeper understanding of Ukraine's energy policy and markets.
- **A key feature of the 2022 Index is its preparation during the martial law in Ukraine introduced due to unprovoked and unjustified military aggression and the full-scale invasion of the russian federation troops on 24 February 2022.** The introduction of the legal regime of martial law caused a significant limitation of the availability of information and data in the country due to national security considerations<sup>1</sup>. Moreover, because of the war, the opportunities for the full-fledged collection, systematization, and publication of data by administrators were partially lost due to several restrictions. Particularly personnel losses, legislative changes in terms of allowing economic entities not to submit reporting during martial law<sup>2</sup>, providing public authorities, state-owned companies, institutions and organizations with the right to stop or limit the operation of information systems/services, public electronic registers<sup>3</sup>, cancellation of the competitive selection procedure for civil service positions<sup>4</sup> as well as other war-related factors and force majeure circumstances. One of the main goals of the wartime Index edition is to **reflect and analyze the impact of the war and martial law on information openness in the energy sector.**
- **The 2022 Index covers 228 indicators grouped into eight categories and based on specific regulatory requirements and best global transparency and accountability practices.** This year's edition is supplemented with new indicators stemming from the provisions of the Clean Energy Package – the current framework rules for energy markets in the EU. In particular, indicators on the security and reliability of energy supply, pricing, consumer protection, public administration performance, etc., were added. The content and basis of all indicators of the Index were also updated based on up-to-date EU legislation, best European and global information disclosure and reporting practices. The assessment results from processing data from open sources on the energy sector operation along the chain “from producer to consumer.”
- **According to the 2022 assessment, Ukraine's final score is 39 out of 100, the lowest in the last five years.** The war with the russian federation and the introduction of martial law caused a sharp drop in the information openness of the sector – the indicator fell by 24 points (or -38.1%) compared to the 2021 assessment. According to the Index scale, it fell into the “unacceptable” transparency zone. At the same time, **the number of “black boxes”<sup>5</sup> in the sector has more than doubled – from 16% to 34%.** Thus, information is locked or completely missing for more than a third of the indicators.



- 1 Resolution of the National Commission for State Regulation of Energy and Public Utilities (NCSREPU) No. 349 dated 26 March 2022 “On the protection of information that, under martial law, may be classified as restricted information, including in terms of critical infrastructure facilities”
- 2 Law of Ukraine No. 2115-IX dated 3 March 2022 “On Protecting the Interests of Entities Submitting Reports and Other Documents during the Period of Martial Law or a State of War”
- 3 Resolution of the Cabinet of Ministers of Ukraine (CMU) No. 263 dated 12 March 2022 “Certain issues of ensuring the functioning of information and communication systems, electronic communication systems and public electronic registers under martial law”
- 4 Law of Ukraine No. 2259-IX dated 12 May 2022 “On Amending Certain Laws of Ukraine on the Functioning of the Civil Service and Local Self-Government During Martial Law”
- 5 “Black boxes” are indicators for which any public data are complete missing; their score is “zero”.

- An in-depth analysis identified three key factors that led to the loss of transparency:
  - 1) a directive prohibition on data publication,
  - 2) a discretionary decision of data administrators or reporting entities to limit the volume of public data or stop their publication during martial law, and
  - 3) the “fog” of war.

The first two factors have legislative nature and were caused by reactive amendments to legislation prohibiting disclosure of specific data or allowing to limit their publication. The third factor is synthetic and not directly related to legislative changes. It encompasses a set of destabilizing shifts caused by the war, which have resulted in the loss of the ability of data administrators (public authorities, economic entities, etc.) to disclose information.

- **The assessment found that a third of the 2022 Index indicators (75 out of 228) were subject to a legal restriction on publication.** In particular, 27 indicators (11.8%) relate to directive prohibition, while 48 indicators (21.1%) to a discretionary decision by

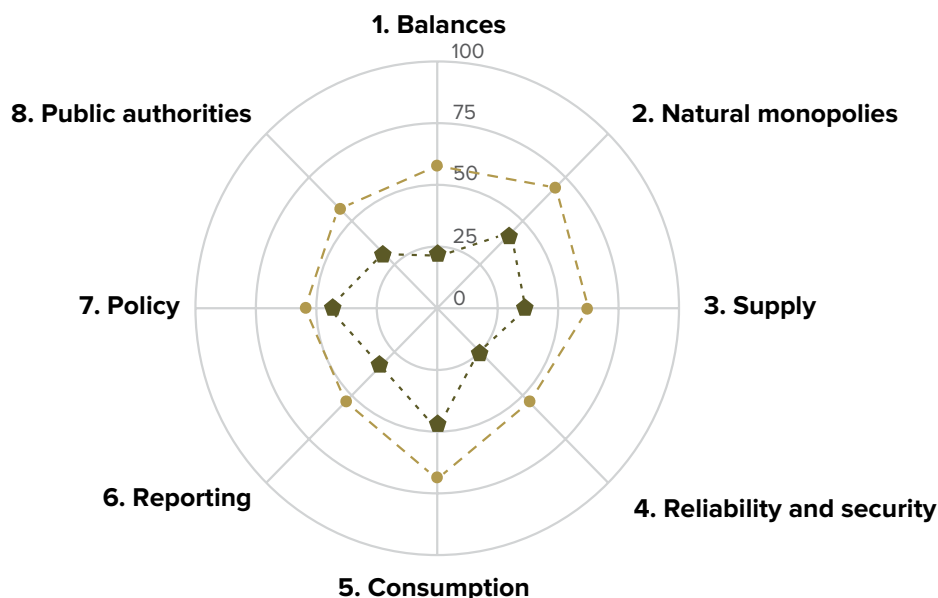
data administrators to lock information. These two factors played a decisive role in decreasing the overall transparency of the sector by 24 points, causing it to decrease by 18 points, i.e., 75% of the setback. The impact of other factors (the “fog” of war) caused a reduction in transparency by 6 points or 25%. Thus, **legislative and regulatory factors will be vital in restoring the sector’s information openness after the end and even during martial law.**

- **As a result of closing data during martial law, the transparency score of the energy sector decreased in all 8 Index categories.** The smallest drop (-10 points) was observed in the “Policy” category, and the largest (-37 points) was in “Balances”. In the remaining categories, the decrease was also significant and amounted to 20-29 points. As a result, all categories ended up in the two zones with the worst transparency (by Index scale): 3 categories – in the zone of “insufficient” and 5 – “unacceptable” transparency. In addition, transparency decreased in 22 of the 24 subcategories of the Index, and only in two of them it remained on the same level.

## Scores by category

Category	Number of indicators	Score	Compared to the 2021 Index	Grade	Characteristic
1. Balances	9	21	-37	F	Unacceptable transparency
2. Natural monopolies	71	44	-26	D-	Insufficient transparency
3. Supply	36	37	-26	F	Unacceptable transparency
4. Reliability and security	18	25	-29	F	Unacceptable transparency
5. Consumption	43	49	-21	D	Insufficient transparency
6. Reporting	12	33	-20	F	Unacceptable transparency
7. Policy	23	44	-10	D-	Insufficient transparency
8. Public authorities	16	32	-25	F	Unacceptable transparency
<b>Total 2022 Index score</b>	<b>228</b>	<b>39</b>	<b>-24</b>	<b>F</b>	<b>Unacceptable transparency</b>






● Index 2021  
◆ Index 2022



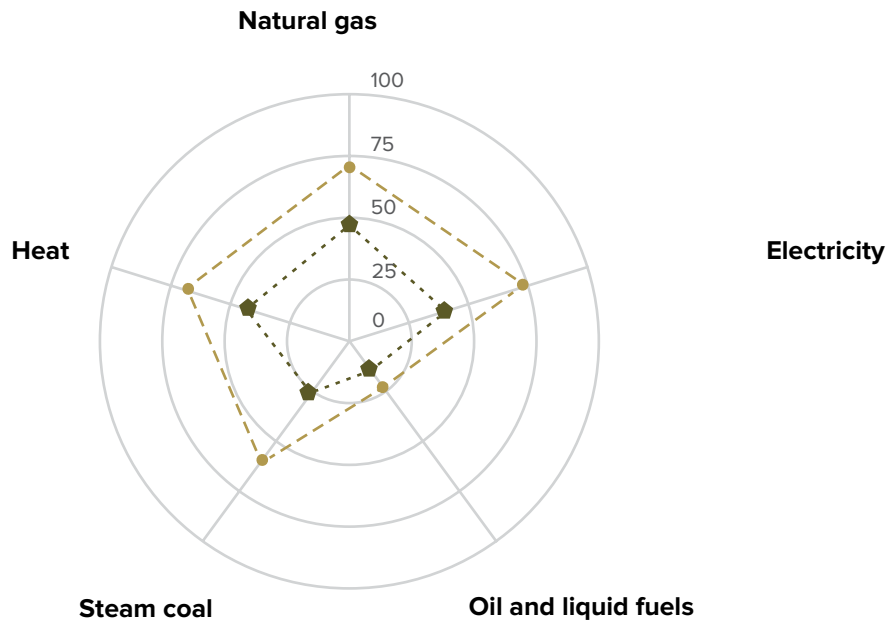
- The Index assesses transparency by *five energy markets* and cross-sectoral issues. **After a gradual improvement over several years, caused mainly by the development of the legal framework and regulation, the information openness of energy markets in wartime conditions showed a significant setback caused by the same factors.** In particular, among the 75 indicators related to

the legal restriction of publication, 52 indicators (or 69%) are sectoral. Thus, the natural gas, electricity, and heating markets, which according to the 2021 assessment, had the best starting positions, fell into the zone of “insufficient” transparency, while oil and liquid fuel and steam coal fell into the “unacceptable” transparency zone.

## Scoreboard by energy market:

	 Natural gas	 Electricity	 Oil and liquid fuels	 Steam coal	 Heat
<b>Category</b>					
1. Balances	19	19	19	19	38
2. Natural monopolies	56	41	6	n/a	0
3. Supply	26	43	28	31	75
4. Reliability and security	69	19	0	n/a	0
5. Consumption	41	53	16	n/a	43
<b>Sectoral sub-indexes</b>	<b>47</b>	<b>41</b>	<b>14</b>	<b>26</b>	<b>43</b>
<b>Compared to the 2021 Index</b>	<b>-25</b>	<b>-33</b>	<b>-9</b>	<b>-34</b>	<b>-26</b>

● Index 2021  
◆ Index 2022



Energy sector	Natural gas	Electricity	Oil and liquid fuels	Steam coal	Heat	Cross-sectoral
<b>Number of indicators</b>	61	68	22	5	14	58

● The 2022 Index continued the practice of assessing transparency of public authorities responsible for policymaking and related to the energy sector regulation. They were evaluated via indicators related to their activities and spheres of responsibility. The scores fell for all six public authorities compared to the previous Index study. The most significant drop

was demonstrated by the State Statistics Service (-35 points) and the Regulator (NEURC) (-29 points). The main factors of such dynamics are the legislative restrictions introduced following martial law. Besides, the loss of the capability of data administrators to collect, process, and disclose data also had a partial impact.

### Scoreboard by public authority:

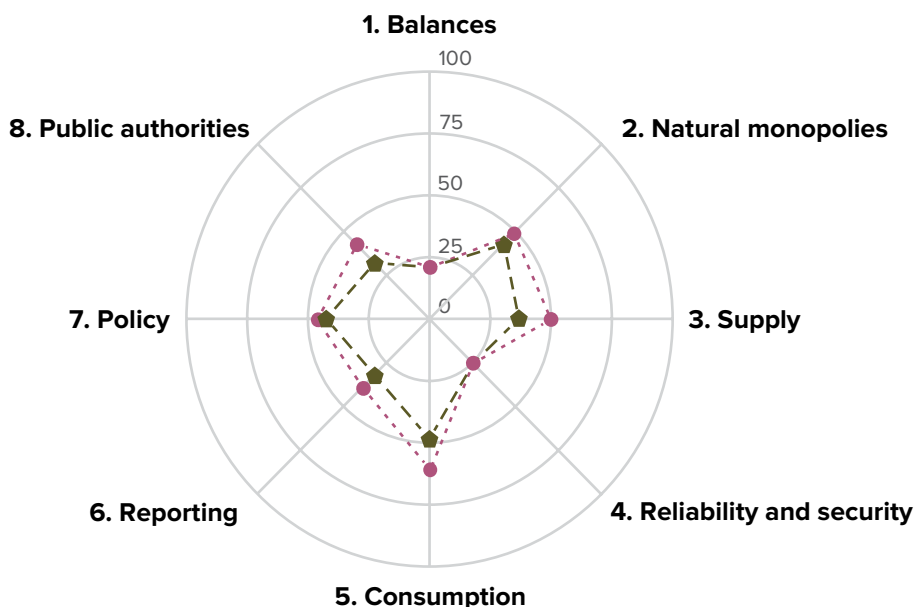
Public authority	Number of indicators	Score	Compared to the 2021 Index	Grade	Characteristic
Regulator (NEURC)	58	42	-29	D-	Insufficient transparency
Ministry of Energy	25	45	-13	D	Insufficient transparency
Antimonopoly Committee	18	40	-10	D-	Insufficient transparency
State Statistics Service	14	20	-35	F	Unacceptable transparency
State Agency on Energy Efficiency and Energy Saving	12	56	-14	C-	Good transparency
Ministry of Ecology and Natural Resources	8	63	-7	C	Good transparency

● The “black boxes” and gaps in transparency and accountability identified by the assessment provided the basis for specific recommendations to public authorities and companies outlined at the end of each Index section. Given the specifics of the war and martial law’s impact on information openness, for the first time, the recommendations were grouped into three groups:

- 1) general (regardless of martial law),
- 2) recommendations for the martial law period allowing to partially improve the energy sector transparency, while avoiding security risks, and
- 3) recommendations for the transparency recovery after the termination or cancellation of martial law.

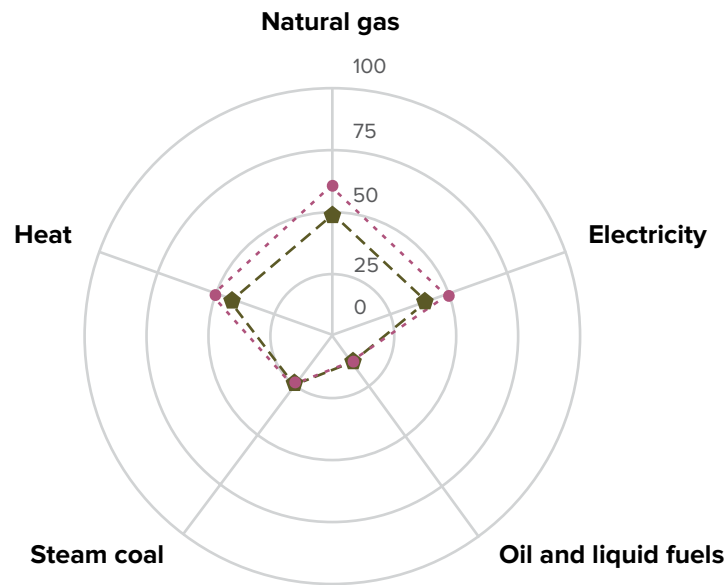
● As part of the wartime Index edition, **several model calculations of the potential restoration of information openness in Ukraine’s energy sector were conducted for the first time.** In particular, the cancellation of legislative restrictions on information disclosure after the cancellation or termination of martial law may allow for a quality improvement in transparency – from the current 39 points (F, unacceptable transparency) to 57 points (C-, medium transparency). Moreover, the recommendations for the martial law period will allow for achieving a “quick effect”, and improving the overall information openness of the sector to 47 points (D, insufficient transparency) even before the end of martial law. Notably, it will improve transparency in 6 out of 8 categories and 3 out of 5 energy markets.

◆ Index 2022  
● Index 2022 (with recommendations for the martial law period)





- ◆ Index 2022
- Index 2022  
(with recommendations  
for the martial law  
period)



- Detailed results of the study, particularly the *assessment table* with all scores and comments, can be found on the Energy Transparency Index website <https://index.ua-energy.org/en>.

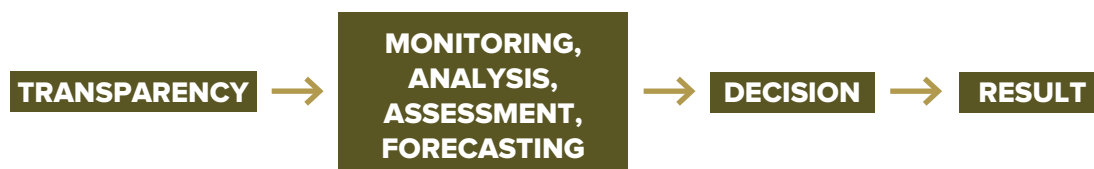
# INTRODUCTION

The Energy Transparency Index, on the one hand, is a *final product* providing a comprehensive assessment of the information disclosure of the 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.

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.

## Purpose of the Index

The purpose of developing and publication of the Index is to promote greater transparency in 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 and 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.

In addition, the transparency of the sector will play a decisive role in the process of post-war reconstruction of Ukraine's economy, as it will significantly affect the possibilities of attracting investments and new technologies, the effectiveness of the development and implementation of energy policy, the regulation and operation of markets as well as the acquisition of Ukraine's membership in the EU and NATO.

## 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 with 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 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 the 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, the 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.

# 2022 ENERGY TRANSPARENCY INDEX OF UKRAINE

**39** **F, Unacceptable transparency; -24 compared to the 2021 Index**

## ANALYSIS BY CATEGORY

### SECTORAL PART

#### 1. BALANCES

**21** **F, Unacceptable transparency; -37 compared to the 2021 Index)**

The “Balances” category defines the transparency of annual and monthly energy statistics and covers 9 indicators grouped into two subcategories:

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

The calculation of the Transparency Index for the “Balances” category is based on establishing the extent to which an authorized public authority in the field of statistics (State Statistics Service) meets the requirements of **Regulation (EC) 1099/2008** on energy statistics, as amended on 28 January 2022, reflected in the Law of Ukraine “On State Statistics”.

#### Score by subcategory:

Subcategory	Score	Progress to 2021	Grade	Description
<b>Annual balance statistics</b>	38	-37	<b>F</b>	Unacceptable transparency
<b>Monthly balance statistics</b>	0	-38	<b>F</b>	Unacceptable transparency

Although significant amendments were made to Annexes B and C of *Regulation (EC) 1099/2008*, which were announced in 2021, the State Statistics Service (SSS) did not initiate a revision of statistical information processing methods. Therefore, even in the absence of restrictions introduced after the start of the war, the transparency score for both subcategories of the “Balances” category would have remained at the level of 2019. This indicates a final slowdown in bringing state statistics in Ukraine in line with EU best practices in this area. The State Statistics Service does not monitor the changes occurring in European energy statistics, waiting for the emergence of respective regulatory basis in Ukraine. But after that, SSS was not ready for quick reporting because it lost time to update the methods.

The Cabinet of Ministers has not yet given the State Statistics Service an exclusive and full-fledged authority for preparing energy statistics, which are currently dispersed between SSS, the Ministry of Energy, the Ministry for Regional Development, NEURC, and transmission and distribution system operators. At the same time, due to the national peculiarities of primary statistical information processing, the responsible body fails to comply with the deadlines for the publication of annual balance statistics<sup>6</sup>. Besides, the comprehensiveness and structure of data in this category no longer correspond to the amended Annex B of Regulation (EC) 1099/2008.

<sup>6</sup> The Product Energy Balance for 2020 was prepared on 12 October 2022

The complete non-transparency for the “Balance monthly statistics” subcategory is due to the loss of capacity caused by permitting respondents not to submit statistical reports during martial law<sup>7</sup>. But even before the start of the war, the State Statistics Service missed the regulatory basis and necessary resources for collecting information on the volumes and composition of production (extraction), use (consumption), losses (by the entire chain of transformations), exports and imports, location and changes in reserves for all energy resources. Data on energy production by prosumers, energy storage systems, new capacities, decommissioned capacities, technological processes used at enterprises and other data required by Annex C of *Regulation (EC) 1099/2008* were not included in the statistical reporting forms. Before the war, some

statistical data were published by other governmental authorities (Ministry of Energy) and economic entities (Ukrenergo NPC PrJSC). However, *Regulation (EC) 1099/2008* imposes corresponding duties on the public authority in statistics.

The “black box” in the “Balances” category remains information on oil and liquid fuel, which was removed even before the war with reference to the need to comply with the requirements of the Law of Ukraine “On State Statistics” for the confidentiality of statistical information (similar norms are also contained in the new Law “On Official Statistics” adopted in 2022). However, this removal is becoming increasingly questionable, given the change in the market structure and the owners of economic entities operating in these markets.

## ⚡ Recommendations

### general:

- ▶ the Cabinet of Ministers should provide the State Statistics Service with full-fledged authority to form monthly product balances of energy resources (natural gas, steam coal, oil and liquid fuel, electricity, and heat) to the extent relating to compliance with the requirements of Annex C to Regulation (EC) 1099/2008 on energy statistics, as amended as of 28 January 2022;
- ▶ the State Statistics Service should bring statistical information processing methods into compliance with the updated *Regulation (EC) 1099/2008* on energy statistics and arrange that the annual product energy balance is made public by 31 October of the year following the reporting one;

### during martial law:

- ▶ the State Statistics Service should check whether the prohibition on the publication of monthly statistics in the “Oil and liquid fuel” sector meets the requirements of the Law of Ukraine “On Official Statistics” in terms of the confidentiality of statistical information;

### after the termination or cancellation of martial law:

- ▶ the State Statistics Service should resume the publication of balance monthly statistics in accordance with the updated Regulation (EC) 1099/2008 on energy statistics.

## 2. NATURAL MONOPOLIES

### 44 D-, Insufficient transparency; -26 compared to the 2021 Index)

The “Natural monopolies” category defines the transparency of operators of the transmission (transportation) and distribution systems, primarily in electricity and natural gas. Given the clearly defined data publication requirements to be met by public authorities, transmission (transportation) and distribution system operators, this Index category covers 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).

The calculation of the Transparency Index for the “Natural monopolies” category is based on establishing to what extent public authorities, operators of transmission (transportation) and distribution systems meet the requirements of:

- **Regulation (EU) 2019/943** on the internal market for electricity;

<sup>7</sup> Law of Ukraine No. 2115-IX dated 3 March 2022. URL: <https://zakon.rada.gov.ua/laws/show/2115-20#Text>

- **Directive (EU) 2019/944** on common rules for the internal market for electricity and amending Directive 2012/27/EU;
- **Directive 2009/73/EC** concerning common rules for the internal market in natural gas;
- **Regulation (EC) 715/2009** on conditions for access to the natural gas transmission networks;
- **Regulation (EU) 543/2013** on submission and publication of data in electricity markets;
- **Regulation (EU) 2016/631** establishing a network code on requirements for grid connection of generators;
- **Regulation (EU) 312/2014** establishing a Network Code on Gas Balancing of Transmission Networks;
- **EU, US, and Canadian best practices** for reporting on transmission and distribution system operators.

The requirements of these documents are reflected in the laws “On the Natural Gas Market”, “On the Electricity Market», network codes (electricity transmission and distribution systems, gas transmission system, gas distribution systems, 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 2021	Grade	Description
<b>Operation of transmission and distribution system operators</b>	53	-25	<b>D+</b>	Insufficient transparency
<b>Independence of transmission and distribution system operators</b>	23	-21	<b>F</b>	Unacceptable transparency
<b>Development of transmission and distribution systems</b>	4	-45	<b>F</b>	Unacceptable transparency
<b>Tariffs setting</b>	46	-18	<b>D</b>	Insufficient transparency

The distribution of scores obtained during the war does not reflect the high level of transparency achieved in 2020-2021 due to the liberalization of the electricity and natural gas markets. Unless the war, the overall score in the “Natural monopolies” category would have reached 75-78 points, which is 29-32 points higher than in 2019.

Amendments to the NEURC Resolution No. 349 dated 26 March 2022, introduced by the NEURC Resolution No. 384 dated 20 April 2022, prohibited the publication of information covered by 19 indicators. The restrictions concerned primarily the operation of transmission and distribution system operators (12 indicators) and the development of transmission and distribution systems (4 indicators). For seven more indicators, data publication was stopped by the discretionary decision of the gas TSO and DSO operators. And although there were no regulatory prerequisites for this, such a drop in transparency can be justified by a directive prohibition on publication of similar information by TSO and DSOs in electricity. However, closing individual data sets is questionable since they are available in an aggregated form on the GIE, ENTSO-E, and ENTSG platforms. The lack of information about the quality and pressure of natural gas on domestic routes is also doubtful.

Unless the wartime prohibitions, the transparency score for the “Natural monopolies” category and at least three of its subcategories would have been higher than a year ago. This was ensured by Ukrenergo NPC PrJSC, Gas TSO of Ukraine LLC, and Ukrtransgaz JSC,

whose websites provided most of the information that should be public following EU best practices.

Unfortunately, these operators did not fulfill the requirements before the start of the war:

- Ukrenergo NPC PrJSC – *Regulation (EU) 543/2013* in terms of congestion management, in particular, forecasted available transmission capacity;
- Gas TSO of Ukraine LLC – *Regulation (EU) 543/2013* in terms of informing on demand and supply (ex-ante and ex-post) of transmission capacity as well as the costs, frequency, and volume of balancing measures applied (short-term products, balancing services and balancing in adjacent zones);
- Ukrtransgaz JSC – *Directive 2009/73/EC* in terms of publication of the storage operator’s compliance program and implementation reports.

The procedure for connecting to electric and gas networks remains inconvenient and sometimes incomprehensible for customers. The rules on the operators’ websites usually do not contain direct links to the forms of the required documents. At the same time, not all operators provide connection algorithms and forms of necessary documents.

But if previous progress – before the introduction of martial law – was evident in the electricity and natural gas markets, the “Oil and liquid fuel” sector, whose infrastructure development the government pays much less attention to, remains a “black box”. As before, information about the conditions of access

and use of oil and petroleum product pipelines is not available; plans for the development of oil and liquid fuel transportation and storage systems have not been prepared. Since the beginning of the war, the website of the operator of the oil transportation system Ukrtransnafta JSC has not been working.

Unlike the operators of the united energy system of Ukraine – Ukrenergo NPC PrJSC, gas transportation system – Gas TSO of Ukraine LLC, underground gas storage facilities – Ukrtransgaz JSC, whose transparency increased noticeably in the pre-war years, Ukrtransnafta JSC remains an outsider in the category. At the same time, the state has not yet developed regulatory prerequisites for establishing an oil storage operator<sup>8</sup>.

Meanwhile, there are a number of practices in the EU, the USA, and Canada, the application of which can significantly increase the transparency of the sector. Particularly, the database of the International Energy Agency (IEA) on the available capacities of main pipelines; the guideline of the U.S. Federal Energy Regulatory Commission on the regulation of pipelines (in terms of ensuring equal conditions of access); recommendations of the energy regulator to the Ministry of Natural Resources of Canada for the distribution of main pipeline capacities; the practice of reporting on the implementation of plans for the development of natural gas transportation and electricity transmission systems, etc.

## Recommendations

### general:

- ▶ the public authorities duly empowered by the Cabinet of Ministers should make justified decisions on the creation of an oil storage operator to ensure the readiness of emergency and special reserves of oil and liquid fuels;
- ▶ Naftogaz of Ukraine NJSC should draw attention to the inconsistency of the information provided on the Ukrtransnafta JSC website with the best transparency practices of oil transportation system operators;

### during martial law:

- ▶ Ukrtransnafta JSC should develop a plan for the post-war development of the oil transportation system and restore the functioning of the official website, in particular, informing customers on the conditions of access to main pipelines;
- ▶ Gas TSO of Ukraine LLC should finalize online tools for reservation, confirmation of capacity, transfer of rights to it, implementation of nomination and renomination procedures; calculating payment for available services and checking available capacity; as well as resume informing consumers about the quality of gas on domestic transmission routes;
- ▶ Ukrtransgaz JSC should develop and publish the storage operator's compliance program, as required by Article 15 (2d) of *Directive 2009/73/EC* concerning common rules for the internal market in natural gas;
- ▶ transmission system operators should resume publication of the aggregated information freely available on the GIE, ENTSO-E, and ENTSOG platforms;

### after the termination or cancellation of martial law:

- ▶ Ukrenergo NPC PrJSC should ensure compliance with the requirements of Articles 8, 13, and 14 of *Regulation (EU) 543/2013* for the publication of data on capacity reserve for the year ahead and congestion management measures;
- ▶ Gas TSO of Ukraine LLC should ensure compliance with the requirements of Articles 18 (6) and 21 (2) of *Regulation (EC) 715/2009* for the publication of data on supply and demand (ex-ante and ex-post) as well as the balancing status of system users, including the actual and forecasted gas volumes in the system for each balancing zone with a frequency of twice a day;

<sup>8</sup> As of 17 February 2023, the government draft law “On Minimum Stocks of Oil and Petroleum Products” (registration number 9024), which provides for this, is under consideration by the Committee of the Verkhovna Rada of Ukraine on Energy, Housing and Utility Services.

- ▶ distribution system operators should publish the forms of documents necessary for network connection and develop auxiliary online services to simplify this procedure;
- ▶ the NEURC and network operators should ensure compliance with the requirements for timely and regular publication of compliance programs, plans for the development of transmission, transportation and distribution systems and storage facilities, investment programs of licensees as well as reports on their implementation in machine-readable formats.

### 3. SUPPLY

#### 37 **F, Unacceptable transparency; –26 compared to the 2021 Index**

The “Supply” category defines the transparency of rules and competition in the markets for natural gas, electricity, steam coal, oil and liquid fuel, and heat, as well as prices and pricing in these markets. The category covers 36 indicators grouped into three subcategories:

- market barriers (12 indicators);
- market concentration and level of competition (4 indicators);
- prices and pricing (20 indicators).

Compared to the 2021 Index, the total number of indicators increased from 35 to 36, due to adding a new indicator, “Procedure for determining the compensation provided to natural gas market entities on which the public service obligation is imposed”. In addition, three indicators on exchange prices of energy carriers were reformatted into indicators with samples due to the presence of several platforms for exchange trading.

The calculation of the Transparency Index for 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 (EU) 2019/944** and **2009/73/EC** concerning common rules for the internal markets in electricity and natural gas;
- **Directive (EU) 2018/2001** on the promotion of the use of energy from renewable sources;
- **Regulation (EU) 1227/2011** on wholesale energy market integrity and transparency (REMIT);
- **Regulation (EU) 2016/1952** on European statistics on natural gas and electricity prices;
- **ACER and CEER best practices** for monitoring and analyzing the functioning of energy markets.

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

#### Score by subcategory:

Subcategory	Score	Progress to 2021	Grade	Description
<b>Market barriers</b>	49	–13	<b>D</b>	Insufficient transparency
<b>Market concentration and level of competition</b>	13	–53	<b>F</b>	Unacceptable transparency
<b>Prices and pricing</b>	35	–28	<b>F</b>	Unacceptable transparency

A comparison with the previous assessment shows a significant drop in transparency for all subcategories. The lion’s share of this drop is due to restrictions on providing access to information, which were introduced after the beginning of the Russian Federation aggression. The score for the “Market barriers” subcategory decreased from 62 to 49 points in 2022, mainly due to the termination of the renewal of the NEURC License Register, which is the basic register of participants in the natural gas, electricity, and heating markets. The

assessment of the subcategory was also negatively affected by the closure of data on supplier switching, which were previously contained in the currently unavailable quarterly reports of the Regulator based on the results of monitoring the electricity and gas markets.

Transparency in the “Market concentration and level of competition” subcategory in 2022 scored only 13 points, which is 53 points less than last year’s indicator. The reason was the closure of almost all information



about concentration and competition in the wholesale and retail energy markets. In the “Prices and pricing” subcategory, the score fell from 63 to 35 points due to the terminated updating of semi-annual statistical data on the gas and electricity prices by consumption bands, the lack of a methodology for calculating regulated gas prices as well as the results of price monitoring on gas and electricity markets. In addition, the quality of the information on stock exchange gas prices significantly deteriorated due to the start of trading by companies of the Naftogaz group on the site of SaaS Platform UICE LLC, which does not have a website.

In general, the sharp decrease in the transparency of the “Supply” category at the beginning of the war is mainly related to discretionary decisions by data administrators not to update or disclose information (11 indicators). For this reason, the category score in 2022 fell by 17 out of 26 points, accounting for most of the regression compared to the 2021 study.

Part of the discretionary decisions of data administrators (according to 5 indicators) became possible due to the adoption of CMU resolution No. 263 dated 12 March 2022 “Certain issues of ensuring the functioning of information and communication systems, electronic communication systems and public electronic registers under martial law”, which gave administrators the right to stop or limit the operation of electronic registers and information and communication systems. Another part of the discretionary decisions (according to 6 indicators) could probably result from the loss of the administrators’ capability to collect relevant data due to the adoption of Law of Ukraine No. 2115-IX dated 3 March 2022, “On Protecting the Interests of Entities Submitting Reports

and Other Documents during the Period of Martial Law or the State of War”. This act enables reporting (including statistical reporting) entities to submit it within 3 months after the termination or cancellation of martial law.

Another reason for the drop in the assessment was changes in the approaches to assessing information on concentration and competition in the gas, oil and liquid fuel, and steam coal markets, as well as on supplier switching in the retail gas and electricity markets. To ensure the same intervals of information disclosure for different energy markets, the developers of the Index expect that the data for these indicators will be quarterly – as they were published for the electricity market before the war. In addition, this information is critical for monitoring the recovery of energy markets after the war.

The “black boxes” of the “Supply” category, which took place even before the full-scale aggression of the Russian Federation, remained:

- procedure (plan) for transition to market pricing of electricity for household consumers;
- full-fledged national register of steam coal market participants;
- generalized data on the mark-up of the retail segments of the natural gas, oil and liquid fuel markets;
- reporting on weighted average annual prices for natural gas and electricity for household and non-household consumers (by consumption bands) and their composition.

## Recommendations

### general:

- ▶ The Cabinet of Ministers should develop and make public the procedure for the transition to market prices of electricity for households as well as methods for calculating regulated gas prices in the wholesale and retail markets, which should contain the justification for the need for such regulation, the regulatory impact assessment and the final date of application of regulated prices (taking into account the provisions of the Law of Ukraine No. 2479-IX “On the Peculiarities of Regulating Relations on the Natural Gas Market and in the field of Heat Supply during Martial Law and the Subsequent Restoration of Their Functioning”);
- ▶ the Cabinet of Ministers should update the Procedure for determining the compensation provided to natural gas market entities on which the public service obligation is imposed, taking into account the features of the new PSO model in the gas market;
- ▶ the Cabinet of Ministers should abandon methodically unsupported quasi-fiscal decisions in energy supply for vulnerable consumers in favour of introducing transparent and targeted mechanisms for their support;
- ▶ the NEURC and the Antimonopoly Committee of Ukraine (AMCU) should introduce regular monitoring and assessment of the price mark-ups on the retail natural gas, electricity, oil and liquid fuel markets;
- ▶ the AMCU should publish on a quarterly basis data on concentration and competition in the oil and liquid fuel and steam coal markets;



- ▶ the Ministry of Finance should make public the licensing conditions for conducting economic activities in the production, storage, wholesale and retail trade in fuel; ensure completeness of information in the registers of licensed activity entities (concerning the persons responsible for operational and trade decisions and the ultimate beneficial owner);
- ▶ the State Statistics Service should ensure the development of annual reports on the natural gas and electricity prices (by consumption bands), including price composition;
- ▶ the NEURC should make public quarterly information on competition, concentration in the wholesale and retail electricity and gas markets as well as on supplier switching;
- ▶ the National Securities and Stock Market Commission of Ukraine (NSSMCU) should inspect the stock exchange platform of SaaS Platform UICE LLC for the availability of a commodity exchange license and compliance with license conditions, in particular regarding the disclosure of information on prices and volumes of trade on the exchange;

#### during martial law:

- ▶ the NEURC should resume the publication of quarterly monitoring of gas and electricity markets. In the event that the impossibility of preparing monitoring is caused by the failure of licensees to submit reports, simplified reporting forms allowing to collect basic information on the markets, without imposing an excessive administrative burden on licensees, should be developed;
- ▶ the State Statistics Service should ensure that information on gas and electricity prices (by consumption bands) is updated semi-annually. In the event that it is impossible to update data because of the failure of respondents to submit reporting, simplified reporting forms allowing to collect information, without imposing an excessive administrative burden on licensees, should be developed;

#### after the termination or cancellation of martial law:

- ▶ the NEURC should resume updating and publication of the License Register;
- ▶ the State Tax Service (STS) should resume publication of the state register of economic entities that have received licenses for the production, storage, wholesale and retail trade of fuel;
- ▶ the Ministry of Energy should ensure the development and publication of a full-fledged register of steam coal market participants.

## 4. RELIABILITY AND SECURITY

### 25 F, Unacceptable transparency; –29 compared to the 2021 Index

The “Reliability and security” category defines the transparency of stocks (reserves) of energy resources, norms and rules that guarantee reliability and security of energy supply as well as the regularity and comprehensiveness of reporting on their compliance. The category covers 18 indicators grouped into three subcategories:

- stocks and reserves (5 indicators);
- security rules (7 indicators);
- reliability and security reports (6 indicators).

Compared to the previous Index study, the number of indicators increased from 15 to 18. At the same time, from their list

- was excluded one indicator of the “Stocks and reserves” subcategory related to the publication of data on steam coal stocks and reserves (due to amendments to Annex B of *Regulation (EC)*

*1099/2008* on energy statistics);

- the requirement for the preparation of the Power System Protection Plan in the “Safety rules” subcategory was replaced by the requirement for the development of the Risk Preparedness Plan in Electricity Sector (due to the occurrence of grounds for the implementation in Ukraine of Regulation (EU) 2019/941 on risk-preparedness in the electricity sector);
- the requirement for the development of a Report on the assessment of adequacy of generating capacities in the “Reliability and security reports” subcategory was replaced by the requirement for the development of National Resource Adequacy Assessments (due to the occurrence of grounds for the implementation in Ukraine of the requirements of *Regulation (EU) 2019/943* on the internal market for electricity);

- one and three indicators were added, respectively, in the “Safety rules” and “Reliability and security reports” subcategories (due to the occurrence of grounds for the implementation in Ukraine of the requirements of *Regulation (EU) 2019/943* on the internal market for electricity and *Regulation (EU) 2019/941* on risk-preparedness in the electricity sector).

The calculation of the Transparency Index for 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:

- **Regulation (EU) 2017/1938** concerning measures to safeguard the security of gas supply;
- **Regulation (EU) 2019/943** on the internal market for electricity;

#### Score by subcategory:

Subcategory	Score	Progress to 2021	Grade	Description
<b>Stocks and reserves</b>	0	-44	F	Unacceptable transparency
<b>Security of supply rules</b>	43	-7	D-	Insufficient transparency
<b>Reports on reliability and security</b>	25	-58	F	Unacceptable transparency

NEURC resolution No. 349 dated 26 March 2022 amended by NEURC resolution No. 384 dated 20 April 2022, prohibited, in view of martial law, the publication of information covered by four indicators from the “Stocks and reserves” and “Reliability and security reports” subcategories. The direct consequence of this restriction was zeroing of the first subcategory score and a more than three-fold reduction (from 83 to 25 points) of the second subcategory score.

However, transparency in the “Reliability and security” category would have been lower than last year even without the introduction of these prohibitions. The overall score was expected at 50 points, showing a return to the 2019 indicator. The reason for this was delays in the Ministry of Energy’s publication of reports on monitoring the security of natural gas and electricity supply as well as changes in the reporting of national regulators and transmission system operators introduced by *Regulations (EU) 2019/943* and *2019/941*, which were not implemented.

According to the introduced changes, the TSO in electricity is required to make public and update every four years the Risk-preparedness Plan, which should contain measures aimed at preventing and/or mitigating the consequences of electricity crises, comply with the rules of market functioning and inform civil society about electricity crises. At the same time, the annual Report on the assessment of compliance (adequacy) of generating capacities should be replaced by the National Resource Adequacy Assessment as well as the Resource Inadequacy Elimination Plan and annual implementation reports developed by the TSO.

- **Regulation (EU) 2019/941** on risk-preparedness in the electricity sector and repealing Directive 2005/89/EC;
- **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) 1099/2008** on energy statistics, as amended on 28 January 2022;
- **EU best practices** in ensuring the security of natural gas and electricity supply.

The requirements of these documents are reflected 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.

In turn, the NEURC should develop methods for preparing the Ex-post Evaluation Report. Such reports should be developed in the event of a crisis and submitted no later than three months after its end. The Ex-post Evaluation Report should contain a description of the event that triggered the crisis; a description of the measures taken and an assessment of their effectiveness; an assessment of the cross-border impact of the measures taken; a report on assistance received; economic consequences of the crisis; reasons justifying the use of non-market measures; possible changes to the risk preparedness and network development plan.

The “black boxes” in the “Reliability and security” category remained the obligations set out in *Directive 2009/119/EC* in terms of creating 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/petroleum product supplies as well as annual reporting on measures taken to ensure their physical accessibility.

Based on this, the overall score of transparency in the “Reliability and security” category after the war can be significantly improved only through the creation of regulatory prerequisites and the actual formation of oil reserves in accordance with *Directive 2009/119/EC* and the fulfillment of the requirements of the new *Regulation (EU) 2019/941* on risk-preparedness in the electricity sector.

## ⚡ Recommendations

### general:

- ▶ the Cabinet of Ministers should ensure proper support in the Verkhovna Rada of the draft Law “On Minimum Reserves of Oil and Petroleum Products” (registration number 9024), ensure the development and adoption of regulatory legal acts necessary for the implementation of its provisions in accordance with the requirements of Directive 2009/119/EC as well as their implementation within the terms established by the updated Annex XXVII to the EU-Ukraine Association Agreement.
- ▶ the Cabinet of Ministers should develop and submit to the Verkhovna Rada the draft Law “On Amending the Law of Ukraine “On the Electricity Market” following the requirements of Regulation (EU) 2019/943 on the internal market for electricity and Regulation (EU) 2019/941 on risk-preparedness in the electricity sector, in particular, in the reporting of the Ministry of Energy, the NEURC and Ukrenergo NPC PrJSC;
- ▶ the NEURC should develop and approve methods of preparation and submission of ex-post evaluation reports;
- ▶ the Committee of the Verkhovna Rada of Ukraine on Energy, Housing and Utility Services should ensure compliance with the requirements of Directive 2009/119/EC in the government draft Law “On Minimum Reserves of Oil and Petroleum Products”.

### during martial law:

- ▶ Ukrenergo NPC PrJSC should analyze the changes caused by the adoption of Regulations (EU) 2019/941 and 2019/943 and create prerequisites for the development of the Risk-preparedness Plan, the National Resource Adequacy Assessment, the Resource Inadequacy Elimination Plan, implementation reports and ex-post evaluation reports (in case of its occurrence);

### after the termination or cancellation of martial law:

- ▶ the Ministry of Energy should resume regular and timely publication of reports on monitoring the security of natural gas and electricity supply.

## 5. CONSUMPTION

### 49 D, Insufficient transparency; -21 compared to the 2021 Index

The “Consumption” category defines the transparency of service standards, consumption metering, information for consumers about prices and tariffs, subsidies and other assistance, as well as energy efficiency programs. The category covers 43 indicators grouped into three subcategories:

- penetration of metering (5 indicators);
- service standards (15 indicators);
- information for consumers (23 indicators).

Compared to the 2021 Index, the number of indicators in the category increased by 9 due to adding 3 new indicators: “Procedure for the protection of vulnerable consumers” (separately for gas and electricity) and “Consumer energy poverty criteria” (cross-sectoral indicator). In addition, the indicators related to the minimum requirements for the quality of gas, electricity, and heat supply and the compensation for their violation were split, so the number of indicators increased by 6. The reason for the splitting is the expediency of a separate transparency assessment of reporting on the fulfillment of minimum supply standards and the provision of compensation for their non-compliance.

The calculation of the Transparency Index for the “Consumption” category is based on determining the extent to which public authorities and economic entities operating in the energy markets meet the requirements of:

- **Directives (EU) 2019/944** 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 and EU on the quality of energy supply and strengthening consumer market power.

The requirements of these documents are reflected in the laws «On Peculiarities of Access to Information in the Spheres of Electricity, Natural Gas, Heat Supply, Centralized Hot Water Supply, Centralized Drinking Water Supply and Drainage», “On Natural Gas Market”, “On Ensuring Commercial Metering of Natural Gas”, “On Commercial Metering of Heat 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 rights of consumers.

**Score by subcategory:**

Subcategory	Score	Progress to 2021	Grade	Description
Penetration of metering	10	-70	F	Unacceptable transparency
Service standards	45	-38	D	Insufficient transparency
Information for consumers	60	-4	C	Good transparency

Comparisons with the results of the 2021 study showed a significant drop in transparency in the “Penetration of metering” subcategory due to the closure of a number of sources of information about the state of equipping consumers with meters. Data on the installation of gas and electricity meters were contained in the annual NEURC reports, which became unavailable after the beginning of the war. Moreover, in pursuance of the Law of Ukraine “On Ensuring Commercial Metering of Natural Gas”, quarterly information was provided on the state of gas metering penetration for various categories of consumers before the war.

The score for the “Service standards” subcategory decreased from 83 to 45 points mainly due to the lack of reporting on the fulfillment of supply standards and compensation in case of non-compliance in the gas and heating markets. In addition, the lack of uniform minimum quality standards for heating, the procedure for protecting vulnerable consumers in the gas and electricity markets as well as energy poverty criteria affected the lower score.

For the “Information for consumers” subcategory, the drop was much smaller (4 points). Among the reasons for the reduction was the cancellation by the State Statistics Service of the statistical observation “Volume of wholesale and retail sale of light petroleum products and gas through filling stations by region”, which contained up-to-date information on the prices of petroleum products by region. The score was also affected by the closing of the register of ESCO service providers, which was one of the sources of data on energy service contracts. In addition, the scores for the “Comparison of tariffs in different regions of Ukraine, comparison of prices and tariffs with other countries” indicator for gas and heat worsened due to the irrelevance and incomprehensiveness of public data. At the same time, the score on the indicator of commercial offers on the gas market increased, which is related to

the reduction of the evaluated sample to one supplier, Naftogaz of Ukraine Gas Supply Company, which became a monopolist in the retail segment.

According to our assessment, Russian aggression and related measures to mitigate security risks directly affected the publication of data for 8 indicators. For 7 of them, the information was closed or restricted due to the *administrator’s discretionary decision*. In particular, data on the installation of gas and electricity meters, reporting on the fulfillment of minimum standards for the supply of heat, gas, and electricity, as well as compensation for their non-compliance. All these data were contained in the annual NEURC reports and separate reports on the quality of the provision of services, which are currently unavailable. Since the closure of these data was not directly required for by regulatory acts and the information was aggregated and did not imply security risks, that type of restriction of data publication was determined as a *discretionary decision for unknown reasons*. According to the “Information on the benefits and terms of using legal mechanisms for increasing energy efficiency (energy service contracts, etc.)” indicator, the register of ESCO service providers was closed.

Furthermore, last year’s “black boxes” remain the same. The system of informing consumers on commercial offers (prices, tariffs, and terms of supply) on liquid fuel markets as well as on the shares of different sources in the electricity mix purchased by suppliers and their environmental impact, as required by Directive (EU) 2019/944, remained deficient. Forecasts of prices and tariffs on the natural gas, electricity, and heating markets do not reveal their components and do not contain a description of assumptions and influencing factors. Instead of publication of information on consumer rights, environmental impact and the electricity mix purchased, licensees sometimes provide links to websites of third-party organizations.

## Recommendations

### general:

- ▶ the NEURC should regularly inform about the equipment of consumers with smart gas metering systems, as required by the Law of Ukraine “On Ensuring Commercial Metering of Natural Gas”;
- ▶ the State Agency on Energy Efficiency and Energy Saving should disclose data on the equipment of consumers with heat meters in a machine-readable format;

- ▶ the Ministry for Regional Development should develop uniform minimum quality standards for heating similar to the gas and electricity markets, start centralized data collection on their implementation and provision of compensation for their non-compliance;
- ▶ the NEURC should make public reporting information on compensations provided to consumers for non-compliance with minimum standards for gas supply;
- ▶ the NEURC should increase the comprehensiveness and update the data on prices and tariffs for natural gas, electricity and heating (by region, five-year dynamics of components, forecasts, comparison with other countries);
- ▶ the Cabinet of Ministers should develop procedures for the protection of vulnerable consumers in the electricity and gas markets; within the framework of this process, the Ministry of Social Policy should develop criteria for determining energy poverty;
- ▶ gas suppliers should ensure informing consumers on their rights, in particular, supplier switching, submitting and considering complaints (requests, claims), disconnection/restoration of gas supply, billing and pricing;
- ▶ electricity suppliers should provide information on the share of each energy source in the electricity mix purchased and their environmental impact;

#### during martial law:

- ▶ the NEURC should resume public reporting on the quality of gas supply, which was contained in the annual NEURC reports, as well as historical information on the compliance with minimum standards for electricity supply and the compensation provided for non-compliance;

#### after the termination or cancellation of martial law:

- ▶ the State Statistics Service should resume the publication of data on volumes of wholesale and retail sales of light petroleum products and gas through filling stations (by region) and ensure publication of data on oil and liquid fuel prices by region and their international comparison;
- ▶ the State Agency on Energy Efficiency and Energy Saving should resume publication of the register of ESCO service providers.

## CROSS-SECTORAL PART

### 6. REPORTING

#### 33 F, Unacceptable transparency, –20 compared to the 2021 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 as well as reporting of extractive companies within the Extractive Industries Transparency Initiative (EITI). 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).

The calculation of the Transparency Index for the “Reporting” category is based on determining the extent to which the economic entities operating in the energy markets comply with the provisions 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** as regards disclosure of non-financial and information on diversity by certain large undertakings and groups, in particular with regard to the publication of regular financial, non-financial and management reporting as well as reporting on payments to the state;
- **Directive 2004/109/EC** on the harmonisation of transparency requirements in relation to information about emittents whose securities are admitted to trading on a regulated market, in particular in terms of the publication of regular information of the emittents of securities and other regulated information for investors and shareholders, and **Directive (EU) 2015/849** as regards disclosure of information on the beneficial ownership of companies;



- **world's best practices** set out in the Global Reporting Initiative (GRI), International Financial Reporting Standards (IFRS), International Standards on 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).**

In Ukraine, the requirements of these documents are reflected in the laws “On Accounting and Financial Reporting in Ukraine”, National Accounting Regulations (Standards), “On Ensuring Transparency in Extractive

Industries”, “On Amending Certain Legislative Acts of Ukraine on Ensuring Transparency in Extractive Industries”, “On Joint Stock Companies”, “On Capital Markets and Organized Commodity Markets”, “On State Registration of Legal Entities, Private Entrepreneurs and Public Organizations”, “On Prevention and Counteraction to the Legalization (Laundering) of the Proceeds of Crime or Terrorism Financing as well as Financing Proliferation of Weapons of Mass Destruction” and also in the by-laws of the Ministry of Finance and the National Securities and Stock Market Commission as well as other decisions of public authorities aimed at ensuring transparency of reporting, information on corporate governance and ultimate beneficiaries.

### Score by subcategory:

Subcategory	Score	Progress to 2021	Grade	Description
<b>Financial and management reporting</b>	19	-23	<b>F</b>	Unacceptable transparency
<b>Fiscal reporting</b>	39	0	<b>F</b>	Unacceptable transparency
<b>Beneficiaries and corporate governance</b>	40	-29	<b>D-</b>	Insufficient transparency

Compared to the 2021 study, there was a significant deterioration of transparency in the “Reporting” category from 53 to 33 points, which was mainly caused by the consequences of the introduction of martial law, including the revision of the sample, after which companies with unacceptable transparency indicators were included in the sample instead of companies that stopped or significantly limited their activities due to the impact of hostilities.

The score in the “Financial and management reporting” subcategory worsened by 22 points. The main reason was the discretionary decision of the overwhelming majority of companies in the sample to stop publishing the latest financial and non-financial statements (for 2021), having received a legal exemption from responsibility for not submitting them within the specified time in accordance with the Law No. 2115-IX and related by-laws. Currently, mandatory reporting can be disclosed by companies within three months after the termination or cancellation of martial law for the entire period for which reporting was not submitted. However, some companies completely closed access to sections of websites where reporting was posted, including for previous years. Some state-owned companies, on the contrary, continued to publish up-to-date IFRS reporting. In terms of quality changes, there was a significant improvement in usability in up-to-date published reports and an abandonment of the practice of posting low-quality scanned documents.

Transparency in the “Fiscal reporting” subcategory remained at last year’s level (39 points) mainly due to the termination of reporting on payments to the state (based on the provisions of the above-mentioned Law No. 2115-IX). On the other hand, the reporting of extractive companies under EITI remained at the highest level as the process did not stop and the latest up-to-date report was published in early February 2022. In addition, more companies began publishing data on taxes paid on their websites.

The transparency of corporate information (“Beneficiaries and corporate governance” subcategory) also decreased significantly – by 29 points, as a result of a decrease in scores by the relevance criterion. This happened due to permitting companies not to disclose the latest up-to-date information during the period of martial law (NSSMCU decision No. 161 dated 13 March 2022). This had the greatest impact on the disclosure of annual and quarterly information of securities issuers and other regulated information. Moreover, information about the composition of the management almost disappeared, given its sensitivity during the war. On the other hand, martial law had almost no effect on the disclosure of data on the ultimate beneficial owners of companies, while the disclosure of documents regulating corporate governance relations even improved. There was also an improvement in the usability of published documents for the sample as a whole.

## ⚡ Recommendations

### general:

- ▶ Companies should: make public financial and non-financial reporting documents as well as corporate reporting on their websites following the best practices of state-owned companies with the separation of sections for non-financial reporting documents and documents regulating corporate governance relations;
- ▶ Companies should: introduce the practice of regular reporting on taxes paid;

### during martial law:

- ▶ Companies: a number of discretionary decisions that led to the closure of a complete set of information on financial and non-financial reporting (by locking access to the relevant sections of corporate websites) seem excessive. At least, access to historical information (reporting of past years) can be restored;
- ▶ Companies: based on the practice of the largest state-owned companies, the annual financial statements according to IFRS can be prepared and made public even under martial law. Accordingly, this practice can be restored for most companies, except for the cases when the preparation of financial statements is complicated or impossible due to the location of individual subdivisions in the areas of military operations;
- ▶ Extractive companies: the preparation and publication of reports on payments to the government can be resumed with an increased publication lag, except for the cases of capacity loss, especially considering that these data are regularly reported to the EITI data portal;

### after the termination or cancellation of martial law:

- ▶ the Verkhovna Rada, the Ministry of Finance and the NSSMCU should create incentives for the wider introduction of non-financial reporting into the practice of companies, both formal (management reports) and informal (corporate non-financial annual reports based on global best practices);
- ▶ The Ministry of Energy should ensure the proper functioning of the electronic reporting system according to the EITI standard, the further regular preparation of national reports of Ukraine and the restoration of full access to information on the data portal of extractive industries;
- ▶ the Ministry of Finance should, starting in 2023, ensure the implementation of the provisions of the updated legislation on the regulation of ultimate beneficial ownership and the ownership structure of legal entities, and encourage companies to disclose data on ultimate beneficial owners;
- ▶ Companies should: resume the publication of current information on the composition of the management;
- ▶ Companies should: resume regular preparation and publication of issuers' annual and quarterly reports and other types of issuer's regulated information on corporate websites, preferably by creating special sections.

## 7. POLICY

### 44 **D-, Insufficient transparency; -10** compared to the 2021 Index

The "Policy" category defines the transparency of the designing and implementation of policy documents regarding energy and sustainable development, energy efficiency, environmental protection, combating climate change, renewables, etc. The category covers 23 indicators grouped into four subcategories:

- monitoring and reporting (4 indicators);
- energy efficiency (7 indicators);

- environmental protection and combating climate change (10 indicators);
- renewable energy sources (2 indicators).

Compared to the 2021 Index, the total number of indicators increased from 21 to 23 due to adding a new one, "National report on the implementation of national energy policy (dynamics of the implementation of goals, effectiveness of measures, mechanisms and tools for

the implementation of the Energy Strategy)". In addition, for ease of evaluation, the «National Emission Reduction Plan from Large Combustion Plants and annual action plans for its implementation" indicator was split into two ones: one of which is dedicated directly to the NERP, the other one – to annual plans for its implementation.

The calculation of the Transparency Index for the "Policy" category is based on establishing to what extent the public authorities formulating and implementing national policy in the energy and related sectors meet the requirements of:

- **Directive 2012/27/EU** on energy efficiency and **Regulation (EU) 2017/1369** setting a framework for energy labeling;
- **Regulation (EU) 2018/1999** on the Governance of the Energy Union and Climate Action;
- **Directive 2010/31/EU** (recast by Directive (EU) 2018/844) 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 2018/2001/EC** on the promotion of the use of energy from renewable sources;
- **international treaties** on combating climate change.

The requirements of these documents are reflected in the laws "On Environmental Impact Assessment», "On Strategic Environmental Assessment", "On Air Protection", "On Principles of Monitoring, Reporting, and Verification of Greenhouse Gas Emissions", Presidential Decree "On Sustainable Development Goals of Ukraine until 2030», the 2035 Energy Strategy of Ukraine, other decisions of public authorities aimed at ensuring the transparency of energy, climate, and environmental policies.

#### Score by subcategory:

Subcategory	Score	Progress to 2021	Grade	Description
<b>Monitoring and reporting</b>	41	-34	<b>D-</b>	Insufficient transparency
<b>Energy efficiency</b>	28	-12	<b>F</b>	Unacceptable transparency
<b>Environmental protection and combating climate change</b>	51	-3	<b>D+</b>	Insufficient transparency
<b>Renewable energy sources</b>	69	0	<b>C+</b>	Medium transparency

A comparison with the 2021 Index study shows a significant decrease in transparency for the "Monitoring and reporting" subcategory from 75 to 41 points due to the lack of reporting by the Ministry of Energy on the implementation of the 2035 Energy Strategy of Ukraine. Therefore, access to the report on the implementation of the "Energy Sector Reform (until 2020)" stage of the Energy Strategy was closed after the start of the war, while the annual report on the results of monitoring the consideration of the provisions of the Energy Strategy of Ukraine in the activity of energy entities was never published. It would also be useful from the standpoint of proper preparation of the updated 2050 Energy Strategy, as repeatedly reported by representatives of the Ministry of Energy. There is also no up-to-date report on monitoring the implementation of tasks within the framework of Sustainable Development Goal 7, "Affordable and Clean Energy", the preparation of which is the responsibility of the Ministry of Economy.

According to the "Energy efficiency" subcategory, the score decreased by 12 points, in particular, due to the closure of the Buildings' Energy Certificates Database, which contained an incomplete inventory description of heated and (or) cooled buildings. The score for action plans for sustainable energy development (and climate) (APSED[C]) decreased due to the replacement of the

city of Zaporizhzhia in the sample by the city of Dnipro, which did not develop an appropriate plan. The lower final score was also influenced by the unsatisfactory format of the report on the implementation of the Energy Efficiency Action Plan (scanned .pdf). At the same time, there was an update of the above-mentioned Plan in December 2021, which somewhat offset a decrease in the score.

Transparency in the "Environmental protection and combating climate change" subcategory decreased by 3 points mainly due to the closure of environmental impact assessment (EIA) reports as a result of adopting the order of the Ministry of Environment No. 177 dated 20 April 2022, which limits external use of the EIA Unified Register. The score for the strategic environmental assessment reports also decreased due to the unavailability of a significant part of them.

The score for the "Renewable energy sources" subcategory did not change compared to last year's assessment. At the same time, a number of "black boxes" remained in the "Policy" category, including:

- approved National Energy and Climate Plan until 2030;
- updated information on the progress in implementing the National Low-Emission Development Strategy



- and Nationally Determined Contribution of Ukraine to the Paris Agreement;
- approved up-to-date Renewable Energy Action Plan until 2030;
- the long-term strategy for the renovation of the national stock of residential and commercial buildings;
- annual action plans for the implementation of the National Emission Reduction Plan from Large Combustion Plants (NERP);
- reporting on the introduction by manufacturers the labeling of energy consumption classes by energy-consuming equipment and on the measures taken by public authorities to ensure it;
- actual reporting of communities on the implementation of action plans for sustainable energy development (and climate) (APSED[C]).

## Recommendations

### general:

- ▶ the State Agency on Energy Efficiency and Energy Saving should introduce reporting on the implementation of labeling of energy consumption classes by energy-consuming equipment, and in the future – a product database for energy efficiency labeling (compatible with the European EPREL database);
- ▶ the State Agency on Energy Efficiency and Energy Saving should ensure that the National Renewable Energy Action Plan is updated every two years, with a description of the schemes and a long-term schedule for providing state support;
- ▶ the Ministry of Energy should ensure that all reporting on the implementation of the 2035 Energy Strategy of Ukraine and further updated version is publicly available, and it should use the monitoring framework proposed by the OECD<sup>9</sup>;
- ▶ the Ministry of Energy should ensure the availability of annual action plans on the implementation of the National Emission Reduction Plan from Large Combustion Plants as well as reporting to the Secretariat of the Energy Community in the format specified in the NERP;
- ▶ the Ministry of Energy should ensure the completion of preparation, approval and publication of the National Energy and Climate Plan;
- ▶ the Ministry of Environmental Protection and Natural Resources should make public up-to-date information on the progress in the implementation of the National Low-Emission Development Strategy and the updated Nationally Determined Contribution of Ukraine to the Paris Agreement;
- ▶ the Ministry of Environmental Protection and Natural Resources should make public data on strategic environmental assessment in a structured form and in machine-readable formats (by analogy with the EIA Unified Register);
- ▶ 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 forecast and programmatic documents and Ukraine's international obligations in Ukrainian;
- ▶ local authorities should ensure preparation and approval of reports on the implementation of action plans for sustainable energy development (and climate) (APSED[C]);

### during martial law:

- ▶ the State Agency on Energy Efficiency and Energy Saving should resume the publication of the of the Buildings Energy Certificates Database in depersonalized form (removal of personal data and data on the geographical location of buildings);

### after the termination or cancellation of martial law:

- ▶ the Ministry of Environmental Protection and Natural Resources should restore the functioning of the EIA Unified Register with access to relevant documentation.

<sup>9</sup> <https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Monitoring-the-energy-strategy-Ukraine-2035-EN-.pdf>

## 8. PUBLIC AUTHORITIES

### 32 F, Unacceptable transparency, –25 compared to the 2021 Index

The “Public authorities” category (the sample includes the Ministry of Energy, the National Commission for State Regulation of Energy and Public Utilities, and the Antimonopoly Committee) determines the transparency of public spending; provision of state aid and implementation of quasi-fiscal operations; designing, adoption and execution of official decisions; as well as procedures for selecting candidates and appointing managers in central executive authorities (if such appointments are not political). The category covers 16 indicators grouped into two subcategories:

- public spending (9 indicators);
- transparency of public administration (7 indicators).

Compared to the 2021 Index, the total number of indicators increased from 15 to 16 due to adding a new one, “Results of budget program effectiveness assessment by the administrator”.

The calculation of the Transparency Index for the “Public authorities” category is based on establishing to what extent public authorities formulating and implementing energy and related policies meet the requirements of:

- **Treaty establishing the Energy Community;**
- **EU-Ukraine Association Agreement;**

- **Commission Regulation (EU) 651/2014** (the so-called GBER Regulation) declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty establishing the European Community in terms of making public of information on recipients of state aid;
- **global best practices**, including the Guidelines on Fiscal Transparency and the Guidelines for Public Expenditure Management of the International Monetary Fund, the Council Recommendations of the Organization for Economic Co-operation and Development (OECD) on good budgeting, regulatory policy and governance, and 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 reflected 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 Commission for State Regulation of Energy and Public Utilities” and “On the Principles of State Regulatory Policy in the Field of Economic Activity” as well as other legal acts of the Cabinet of Ministers and the Ministry of Finance on public expenditure and ensuring transparency of public administration.

#### Score by subcategory:

Subcategory	Score	Progress to 2021	Grade	Description
Public spending	35	–31	F	Unacceptable transparency
Public administration	28	–19	F	Unacceptable transparency

Compared to the 2021 assessment, transparency in the “Public authorities” category decreased by 25 points mostly due to a decrease in the transparency of public spending reporting (–31 points) and, to a lesser extent, a reduction in the transparency of public administration (–18 points).

In particular, the transparency of budget planning and reporting documents (passports of budget programs and public spending reporting) was critically reduced. Spending units in the sample mostly closed access to the entire array of such information; this problem is especially acute for the NEURC. At the same time, spending units began to publish reports on the results of budget program effectiveness assessment (a new indicator) but only the AMCU makes public updated reports. A common problem with such documents is their low usability (low-quality scans in .pdf format).

The transparency of reporting on the results of the independent financial audit of the implementation of budget programs by the Accounting Chamber on the budget programs of the Ministry of Energy and the AMCU also increased. The Ministry of Finance’s reporting on quasi-fiscal operations and related risks for the state budget maintained the best possible transparency. At the same time, the AMCU stopped publishing updated information in its registers about decisions and recipients of state aid as a result of the directive decision to switch to a simplified and accelerated procedure for providing state aid, which freed companies from the obligation to submit relevant information to the AMCU.

The situation with the publication of draft regulatory acts and accompanying documentation improved somewhat after updating the websites of public authorities in the sample. In particular, they received a more

convenient updated search engine, while the usability of published documents also improved. However, there was a rapid deterioration of transparency in indicators regarding publishing information on contests for civil

service positions, since Law No. 2259-IX cancelled the competitive selection procedure for civil service positions and all related requirements for the publication of information for the period of martial law.

## Recommendations

### general:

- ▶ the Ministry of Energy and the AMCU should improve the comprehensiveness and timeliness of the publication of results of the discussion on draft regulatory acts;
- ▶ the Ministry of Energy and AMCU should ensure that video broadcasts, open protocols and (or) transcripts of meetings of commissions for the selection of candidates for civil service positions are publicly available;
- ▶ the Ministry of Energy, the NEURC and the AMCU should abandon the practice of the publication of low-usability documents (scans in .pdf format without the possibility of machine search and copying);

### during martial law:

- ▶ the Ministry of Energy, the NEURC and the AMCU should resume the publication of the updated budget planning documents, as other spending units did not stop making them public;
- ▶ the State Audit Service and the Accounting Chamber should ensure that the actual results of the financial audit of implementing the budget programs of the Ministry of Energy, the NEURC and the AMCU are publicly available;
- ▶ the Ministry of Energy, the NEURC and the AMCU should ensure that comments and suggestions on draft regulatory acts and the results of their discussion and consideration are publicly available;
- ▶ the NEURC should resume tracking the effectiveness of adopted regulatory acts; the Ministry of Energy, the AMCU and the NEURC should publish meaningful and comprehensive impact assessment reports (ex-ante and ex-post);

### after the termination or cancellation of martial law:

- ▶ the AMCU should resume the publication of the information in the register of state aid recipients with details up to the level of individual companies;
- ▶ the National Agency of Ukraine on Civil Service, the Ministry of Energy, the NEURC and the AMCU should publish the information on the process of competitive selection of candidates for civil service positions.

# 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 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 is the lowest level of the Index decomposition.

This study analyzes 228 indicators with indispensable and sufficient transparency features (the 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>	61	68	22	5	14	58

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 the 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:

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

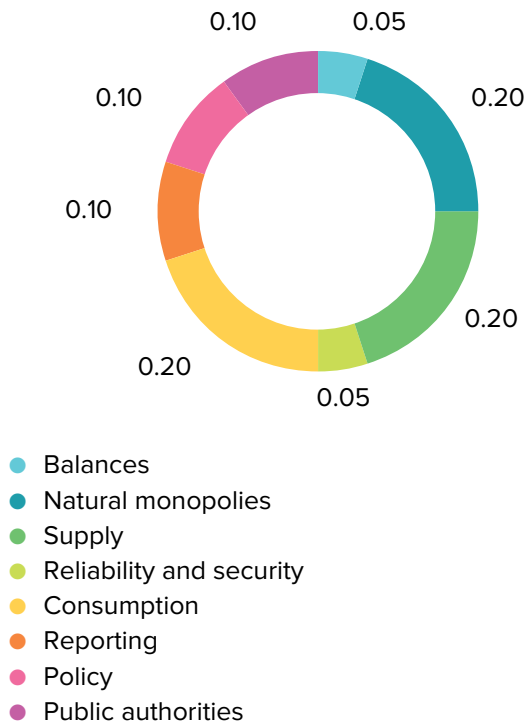
with  $C_{av}$ ,  $C_{ac}$ ,  $C_{rl}$ ,  $C_{fr}$ ,  $C_{us}$ ,  $C_{in}$  – are scores based on the availability, accessibility, relevance, frequency, usability and completeness criteria, respectively.

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

Given a large number of the transparency indicators, they were considered of equal weight. Therefore, the average 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:



## INTERPRETATION OF SCORES

All indexes were converted to a 100-point scale as  $25T_p$ , 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+	Medium transparency
60...64	C	
55...59	C-	
50...54	D+	Insufficient transparency
45...49	D	
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 developing the Index required processing a large amount of information for the reporting period (as a rule, the one preceding the period, during which the assessment is delivered);
- all participants of energy markets and/or public authorities; therefore, assessments of certain indicators in the «*Natural monopolies*», «*Consumption*», «*Reporting*» and «*Public authorities*» categories were built on representative samples;
- certain parts of the energy sector with commodity markets still under establishing (steam coal and heat); therefore, the indexes calculated for these markets serve for reference purposes only.

## SAMPLES

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### “Natural monopolies” category:

- transmission and transportation system operators (TSOs) are legal entities responsible for the operation, dispatching, maintenance, and development of these systems as well as for ensuring their long-term capacity to meet reasonable demand: for electricity transmission, for transportation and storage of natural gas, oil and liquid fuels;
- distribution system operators (DSOs) are legal entities operating in the five largest cities of Ukraine and responsible for the safe, reliable and efficient operation, maintenance, and development of distribution systems and ensuring the long-term capacity of distribution systems in natural gas, electricity, and heating.

### “Supply” category:

- for exchange price indicators – commodity exchanges with the most liquidity in the relevant wholesale energy markets.

### “Consumption” category:

- for natural gas – the sample consists of only one supplier, which is Naftogaz of Ukraine Gas Supply Company in connection with the transfer to it as the “last hope” supplier of the lion’s share of household consumers (about 98%) in May 2022<sup>10</sup>;
- for electricity – universal service providers in the five largest cities of Ukraine;
- for petroleum products – operators of retail trade in petroleum products, namely legal entities that manage the five networks of filling stations largest in terms of sales in 2022.

### “Reporting” category:

- “Financial and management reporting” subcategory, “Information on payment of taxes (by types of taxes and entities)” group – 20 energy companies, which were among the TOP 100 taxpayers in 2020<sup>11</sup> and, according to paragraph 21 of Article 1 of the Law “On Accounting and Financial Reporting in Ukraine”, are enterprises of public interest;
- “Special reporting of enterprises in the extractive industries” group – the 12 private and state-owned companies with the largest production of natural gas, oil with gas condensate, and steam coal in 2020<sup>12</sup>;
- “Beneficiaries and corporate governance” subcategory” – the 14 largest energy companies selected from the main sample, which are joint stock companies, and whose securities can be admitted to trading on the exchange.

### “Policy” category:

- for indicators related to Action Plans for Sustainable Energy Development (and Climate) (APSED[C]) – the five largest cities of Ukraine: Kyiv, Kharkiv, Lviv, Dnipro, and Odesa.

### “Governmental authorities” category:

- “Budget spending”, “Decision-making and implementation processes”, “Transparency of establishing governing bodies” groups – the Ministry of Energy, the National Commission for State Regulation of Energy and Public Utilities, and the Antimonopoly Committee;
- “State aid” group – indicators were assessed based on information on the provision of state aid to the Antimonopoly Committee;
- “Quasi-fiscal operations” group – according to the information about quasi-fiscal risks related to energy companies of the Ministry of Finance.

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10 <https://biz.liga.net/ua/all/tek/novosti/naftogaz-stal-monopolistom-na-roznychnom-rynke-gaza-u-nego-98-bytovyh-potrebiteley>

11 <https://rating.zone/top-200-najbilshykh-kompanij-ukrainy-za-sumoiu-splaty-podatkovykh-platezhiv-za-2020-rik/>

12 According to the information on the extraction volumes referred to in the EITI Report 2020 last updated at the time of the assessment.



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