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ACKNOWLEDGEMENTS

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THE 2020 ENERGY TRANSPARENCY INDEX WAS DEVELOPED BY:

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Roman Nitsovych, DiXi Group,
Bohdan Serebrennikov, DiXi Group.
SUMMARY

- The Energy Transparency Index has been developed to assess the actual status of availability and quality of information in the sector, diagnose gaps, make an in-depth analysis of transparency with the breakdown into categories, criteria, and particular energy markets, and track progress.

- The Index’s ultimate beneficiaries are the consumers, as their awareness improves the possibility of protecting their rights and helps rationalize economic behavior in the market. More transparent and competitive energy markets will promote the improvement of services for consumers and fair pricing. A strong interest in the Index exists among companies and potential investors seeking an open, competitive environment, a better relationship with the government and communities, and reducing business risks. The Index will help public authorities responsible for information disclosure to improve their transparency and respective regulations. Foreign partners will be able to better understand the energy policy and markets of Ukraine.

- The third issue of the Index includes 210 indicators grouped into 8 categories and is based on specific regulatory requirements and best global practices of information disclosure. The assessment was based on data analysis solely from open sources, focusing on the energy sector performance along the value chain, i.e., from production to consumption.

- According to the assessment made in 2020, Ukraine’s total score is 58 out of 100, indicating medium transparency of the sector. Transparency in most categories has increased by 3 to 15 points, while the total score increased by 10 points compared to the 2019 assessment. There are no positive changes only in the «Balances» category in terms of publication of energy statistics. The most significant progress was made in categories «Consumption», «Natural monopolies», and «Supply» (+15, +13, and +9 points, respectively). This progress demonstrates the importance of further efforts to promote reforms and improve the energy sector openness.

- A comparison of energy markets showed that their transparency is primarily determined by the regulatory and legal framework maturity. Thus, after introducing new rules in the wholesale electricity market in 2020, the sector’s transparency began to grow faster, outpacing the gas market’s score by two points (66 compared to 64). The transparency of the oil and liquid fuel sector remains unacceptable (22 points) since the government pays much less attention to its development.

- Information gaps (so-called «black boxes») and deficiencies in information disclosure discovered by the assessment provided the basis for specific recommendations to public authorities, mentioned at the end of every Index’s section.

- Particular attention should be devoted to ensuring the independence of transmission system operators, improving transparency of grid operators and participants of wholesale and retail energy markets, security of supply, corporate reporting, particularly non-financial, disclosure of information regarding fiscal payments and quasi-fiscal operations, the activity of public authorities in terms of policy and decision-making.

- A novelty of the 2020 Index is a pilot assessment of transparency of public authorities related to policymaking and regulation in the sector. They were assessed by individual indicators of the Index. Three of the six public authorities (Ministry of Energy, Antimonopoly Committee, and State Statistics Service) appeared in the insufficient transparency zone, while the other three (National Commission for State Regulation of Energy and Public Utilities [NEURC], State Agency on Energy Efficiency and Energy Saving [SAEE], Ministry of Ecology and Natural Resources) were characterized by medium or good transparency.

Detailed information about the findings of the study, and in particular, the assessment table with scores and comments can be found in a separate spreadsheet published with the Index on the DIXI Group website (http://dixigroup.org).

The Index team has also prepared a detailed catalog of links to primary sources of information for every indicator, available upon request (e-mail your request to author@dixigroup.org).
UKRAINE’S 2020 ENERGY TRANSPARENCY INDEX

TOTAL SCORE

58  C–, medium transparency; +10 compared to the 2019 Index

Scoreboard by category:

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of indicators</th>
<th>Score</th>
<th>Compared to the 2019 Index</th>
<th>Grade</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Energy balances</td>
<td>9</td>
<td>58</td>
<td>0</td>
<td>C–</td>
<td>Medium transparency</td>
</tr>
<tr>
<td>2. Natural monopolies</td>
<td>72</td>
<td>59</td>
<td>+13</td>
<td>C–</td>
<td>Medium transparency</td>
</tr>
<tr>
<td>3. Supply</td>
<td>33</td>
<td>58</td>
<td>+9</td>
<td>C–</td>
<td>Medium transparency</td>
</tr>
<tr>
<td>4. Reliability and security</td>
<td>15</td>
<td>53</td>
<td>+3</td>
<td>D+</td>
<td>Insufficient transparency</td>
</tr>
<tr>
<td>5. Consumption</td>
<td>34</td>
<td>68</td>
<td>+15</td>
<td>C+</td>
<td>Medium transparency</td>
</tr>
<tr>
<td>6. Reporting</td>
<td>12</td>
<td>35</td>
<td>+8</td>
<td>F</td>
<td>Unacceptable transparency</td>
</tr>
<tr>
<td>7. Policy</td>
<td>20</td>
<td>59</td>
<td>+3</td>
<td>C–</td>
<td>Medium transparency</td>
</tr>
<tr>
<td>8. Public authorities</td>
<td>15</td>
<td>56</td>
<td>+6</td>
<td>C–</td>
<td>Medium transparency</td>
</tr>
<tr>
<td><strong>Total Index score</strong></td>
<td><strong>210</strong></td>
<td><strong>58</strong></td>
<td><strong>+10</strong></td>
<td>C–</td>
<td>Medium transparency</td>
</tr>
</tbody>
</table>


Index 2018  Index 2019  Index 2020
Scoreboard by energy market:

<table>
<thead>
<tr>
<th>Category</th>
<th>Natural gas</th>
<th>Electricity</th>
<th>Oil and liquid fuels</th>
<th>Coal</th>
<th>Heat</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Energy balances</td>
<td>63</td>
<td>63</td>
<td>38</td>
<td>63</td>
<td>n/a</td>
</tr>
<tr>
<td>2. Natural monopolies</td>
<td>61</td>
<td>67</td>
<td>23</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>3. Supply</td>
<td>65</td>
<td>69</td>
<td>33</td>
<td>24</td>
<td>79</td>
</tr>
<tr>
<td>4. Reliability and security</td>
<td>97</td>
<td>60</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>5. Consumption</td>
<td>58</td>
<td>66</td>
<td>43</td>
<td>n/a</td>
<td>94</td>
</tr>
</tbody>
</table>

Compared to 2019 Index

Natural gas: +10
Electricity: +17
Oil and liquid fuels: -5
Coal: 0
Heat: +26

Energy sector

<table>
<thead>
<tr>
<th>Energy sector</th>
<th>Natural gas</th>
<th>Electricity</th>
<th>Oil and liquid fuels</th>
<th>Coal</th>
<th>Heat</th>
<th>Cross-sectoral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of indicators</td>
<td>58</td>
<td>59</td>
<td>22</td>
<td>6</td>
<td>12</td>
<td>53</td>
</tr>
</tbody>
</table>

Scoreboard by public authority:

<table>
<thead>
<tr>
<th>Public authority</th>
<th>Number of indicators</th>
<th>Score</th>
<th>Grade</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulator (NEURC)</td>
<td>54</td>
<td>72</td>
<td>B–</td>
<td>good transparency</td>
</tr>
<tr>
<td>Ministry of Energy</td>
<td>21</td>
<td>53</td>
<td>D+</td>
<td>insufficient transparency</td>
</tr>
<tr>
<td>Antimonopoly Committee</td>
<td>17</td>
<td>50</td>
<td>D+</td>
<td>insufficient transparency</td>
</tr>
<tr>
<td>State Statistics Service</td>
<td>14</td>
<td>52</td>
<td>D+</td>
<td>insufficient transparency</td>
</tr>
<tr>
<td>State Agency on Energy Efficiency and Energy Saving</td>
<td>12</td>
<td>66</td>
<td>C+</td>
<td>medium transparency</td>
</tr>
<tr>
<td>Ministry of Ecology and Natural Resources</td>
<td>7</td>
<td>70</td>
<td>B–</td>
<td>good transparency</td>
</tr>
</tbody>
</table>
INTRODUCTION

The Energy Transparency Index, on the one hand, is a final product providing a comprehensive assessment of the information disclosure of country’s energy sector and its components, and on the other hand, a universal tool enabling an in-depth analysis with a breakdown into categories, criteria, and certain markets, as well as tracking changes – 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., from production to consumption.

Purpose of the Index

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

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

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

Target audience

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

For companies in the energy sector, higher transparency promotes 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 investment climate and attract additional resources.

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

Foreign institutional partners will have better opportunities to understand 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.
ANALYSIS BY CATEGORY

SECTORAL PART

1. BALANCES

58 C–, medium transparency; no changes compared to the 2019 Index

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

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

Score by subcategory:

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Score</th>
<th>Progress to 2019</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual balance statistics</td>
<td>75</td>
<td>0</td>
<td>B</td>
<td>good transparency</td>
</tr>
<tr>
<td>Monthly balance statistics</td>
<td>38</td>
<td>0</td>
<td>F</td>
<td>unacceptable transparency</td>
</tr>
</tbody>
</table>

A comparison with 2019 scores indicates an unchanged level of transparency for the category (58 points). This may indicate a slowdown in bringing state statistics in Ukraine in line with EU best practices.

The State Statistics Service is still unable to meet the requirements of Regulation (EU) No 1099/2008 regarding the deadlines for the publication of annual balance statistics. The key reason for the lack of transparency of the «Monthly balance statistics» subcategory is a gap in regulatory framework and necessary resources to collect data on volume and structure of production (extraction), use (consumption), exports, imports, international bunkering, changes in stocks (by type) for all types of energy resources. First of all, there is a lack of monthly statistics on electricity, oil and liquid fuel, and structured data on steam coal. Even though some statistics are published by other public authorities (Ministry of Energy) and economic entities (Ukrenergo), their availability did not affect the overall score since Regulation (EC) No 1099/2008 imposes relevant obligations on executive authority in the field of statistics.

Recommendations:

- the State Statistics Service should ensure publication of monthly product balances of energy resources (natural gas, electricity, steam coal, oil and liquid fuel, heating) following the requirements of Annex C to Regulation (EC) No 1099/2008 on energy statistics;

- the State Statistics Service should organize the publication of the annual product energy balance by 30 November of the year following the reporting one by requirements of Annex B to Regulation (EC) No 1099/2008 on energy statistics.
2. NATURAL MONOPOLIES

C–, medium transparency; +13 compared to the 2019 Index

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

Given the clearly defined requirements for data publication to be met by national public authorities, TSOs and DSOs, this category of the Index includes the largest number of indicators (72) grouped into four subcategories:

- activity of transmission and distribution system operators (48 indicators);
- independence of transmission and distribution system operators (5 indicators);
- development of transmission and distribution systems (8 indicators);
- tariffs setting (11 indicators).

Compared to the 2019 Index, the total number of indicators was reduced from 77 to 72 by combining similar requirements for TSOs and DSOs.

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

- Directives 2009/72/EC and 2009/73/EC concerning common rules for the internal markets in electricity and natural gas;
- Regulations (EC) No 714/2009 and 715/2009 on conditions for access to the network for cross-border exchanges in electricity and natural gas;
- Commission Regulation (EU) No 543/2013 on submission and publication of data in electricity markets;
- Commission Regulation (EU) No 312/2014 establishing a Network Code on Gas Balancing of Transmission Networks;
- EU, US, and Canadian best practices for reporting of TSOs and DSOs.

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

Score by subcategory:

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Score</th>
<th>Progress to 2019</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity of transmission and distribution system operators</td>
<td>64</td>
<td>+13</td>
<td>C</td>
<td>medium transparency</td>
</tr>
<tr>
<td>Independence of transmission and distribution system operators</td>
<td>22</td>
<td>+8</td>
<td>F</td>
<td>unacceptable transparency</td>
</tr>
<tr>
<td>Development of transmission and distribution systems</td>
<td>45</td>
<td>+31</td>
<td>D–</td>
<td>insufficient transparency</td>
</tr>
<tr>
<td>Tariffs setting</td>
<td>64</td>
<td>-6</td>
<td>C</td>
<td>medium transparency</td>
</tr>
</tbody>
</table>

The streamlined liberalization of electricity and gas markets during 2020 significantly increased, compared to the 2019 assessment, the transparency for subcategories «Activity of transmission and distribution system operators» (from 51 to 64 points) and «Development of transmission and distribution systems» (from 14 to 45 points). Instead, transparency for the «Tariffs setting» subcategory decreased (from 70 to 64 points). It relates to the lack of tools to check available capacity and calculate payments for available services. At the same time, incomplete certification of electricity TSO (Ukrenergo) and unbundling of distribution, supply, and storage of natural gas, as well as distribution and supply of electricity, led to a consistently low score for the «Independence of transmission and distribution system operators» subcategory (22 points).
The study results show that public authorities and market operators’ openness is determined by regulatory and legal framework readiness. Thus, if in 2019 the «Natural gas» sector was more open than the «Electricity», then with the introduction from 1 January 2019 in retail and from 1 July 2019 in wholesale segments of electricity market of new rules harmonized with European ones, the transparency of the latter began to grow faster. It was initially equated with transparency of the «Natural gas» sector, and in 2020 – it was ahead by two points (66 compared to 64). The «Oil and liquid fuel» sector, to which the government pays much less attention, remains a «black box» in this category (22 points).

There is a lack of data on using oil and petroleum product pipelines. There are also no plans for the development of oil and liquid fuel transportation and storage systems and reports on their implementation. Only some operators of heat supply networks publish investment programs and reports on their implementation (15 points).

Following the introduction of new rules in the electricity and natural gas markets, the transparency of electricity TSO Ukrenergo increased from 43 to 61 points and gas TSO Operator of Gas Transmission System of Ukraine – from 50 to 57 points.

The issue that remained is the inability of transmission system operators to comply with:

- for Ukrenergo – Regulation (EC) No 714/2009 in terms of the deadlines, congestion management and capacity allocation procedures; Regulation (EU) No 543/2013 in terms of congestion management, in particular, forecasted capacity limits;

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

### Recommendations

- executive authorities duly authorized by the Cabinet of Ministers should adopt reasonable decisions on unbundling and independence of the gas storage operator, certification of electricity transmission system and gas storage operators, as well as an operator of storage facilities ensuring operational readiness of emergency and special reserves of oil and liquid fuel;
- Ukrenergo should ensure compliance with Articles 8, 13, and 14 of Regulation (EU) No 543/2013 on publication of data on production forecast, a year ahead capacity reserve, and measures of congestion management;
- Gas Transmission System Operator of Ukraine should ensure publication of data on supply and demand (ex-ante and ex-post) and capacity allocation mechanisms as required by Regulation (EC) No 715/2009;
- the NEURC, network operators should ensure observance of the requirements for timely and regular publication of compliance programs, plans for the development of transmission, distribution systems, storage facilities, as well as reports on their implementation;
- the NEURC should encourage distribution system operators to publish reports in a machine-readable format and develop online tools to calculate tariffs for the services available.

### 3. SUPPLY

C–, medium transparency; +9 compared to the 2019 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 heating, as well as pricing in these markets. The category covers 33 indicators grouped into three subcategories:

- market barriers (11 indicators);
- market concentration and level of competition (4 indicators);
- prices and pricing (18 indicators).
Assessment of the «Supply» category is based on determining the extent to which the public authorities and economic entities operating in the energy markets meet the requirements of:

- **Directives 2009/72/EC and 2009/73/EC concerning** common rules for the internal markets in electricity and natural gas;
- **Regulation (EU) No 1227/2011** on wholesale energy market integrity and transparency (REMIT);
- **ACER and CEER best practices** for monitoring and analyzing the operation of energy markets.


<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Score</th>
<th>Progress to 2019</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market barriers</td>
<td>51</td>
<td>-2</td>
<td>D+</td>
<td>insufficient transparency</td>
</tr>
<tr>
<td>Market concentration and level of competition</td>
<td>59</td>
<td>+28</td>
<td>С–</td>
<td>medium transparency</td>
</tr>
<tr>
<td>Prices and pricing</td>
<td>62</td>
<td>+10</td>
<td>С</td>
<td>medium transparency</td>
</tr>
</tbody>
</table>

A comparison with the 2019 assessment indicates remained lack of transparency for the «Market barriers» subcategory, in particular, due to the lack of information on beneficiaries and persons responsible for operational and trade decisions in the national registers of natural gas and electricity market participants (as required by REMIT).

A significant increase in the assessment of the «Market concentration and level of competition» subcategory (from 31 to 60 points) was achieved mainly due to the introduction by the NEURC and the publication of quarterly market monitoring reports, as well as expanding the completeness of competition assessment in electricity and gas markets. The «Prices and pricing» subcategory score increased from 52 to 62 points due to the greater completeness of publication of price information by the NEURC and electricity market entities.

Nevertheless, data on competition, wholesale and retail prices in other (except gas and electricity) energy markets are usually not available. Some indicators can be found only in annual reports of the NEURC or the recommendations of the Antimonopoly Committee of Ukraine provided as a result of investigations on competition law violations. The State Statistics Service publishes data on weighted average prices for natural gas and electricity on a semi-annual basis by consumption bands. Still, it does not disclose the data on price composition, in particular, taxes.

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

- liquid exchange and retail market of steam coal and retail heating market;
- national register of steam coal market participants;
- data on price mark-ups in retail energy markets;
- reporting on weighted average annual prices for natural gas and electricity for households and non-household consumers by consumption bands and price composition.

Access to these and other data will be possible only after the development of steam coal and heating markets and completion of setting up the electricity, gas and liquid fuel markets while maintaining the role of the government in the protection of competition, prevention of market power abuse, and proper protection of consumers.
Recommendations

- the Ministry of Energy should develop regulatory preconditions for designing a competitive steam coal market, inter alia: introduction of bilateral agreements market, the liquid market of coal products by consumption segments; bringing the pricing in the coal products market in line with world’s best practices; development of forecasted balances of steam coal; development of a register of steam coal market participants;
- the Ministry of Finance should publish the licensing conditions for economic activity in the production and storage of petroleum products, their wholesale and retail trade;
- the Ministry for Regional Development and the NEURC should develop regulatory prerequisites for establishing a competitive heating market, ensuring, in particular: a guarantee of open access of third parties to the networks; possibility of purchasing heat from independent producers, including through auctions; financial separation of accounting for costs of heat production and transportation and their separate reflection in prices and tariffs;
- the NEURC should ensure completeness of information in the registers of licensees (add data on persons responsible for operational and trade decisions and on beneficial owners) and in reporting on gas and electricity suppliers switching;
- the NEURC and the Antimonopoly Committee should regularly publish structural indicators of competitiveness and prices monitoring reports for wholesale and retail energy markets;
- the State Statistics Service should publish, in addition to semi-annual, the annual reports on prices of natural gas and electricity following the requirements of Regulation (EU) 2016/1952;
- the NEURC, the Antimonopoly Committee and State Statistics Service should disclose more exhaustive data on the level of competition, wholesale and retail prices in energy markets and provide the information in machine-readable formats.

4. RELIABILITY AND SECURITY

53  **D+, insufficient transparency; +3 compared to the 2019 Index)**

The «Reliability and security» category defines the transparency of energy stocks and reserves and rules that guarantee reliability and security of energy supply as well as the regularity and completeness of reporting on their compliance. The category covers 15 indicators grouped into three subcategories:

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

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

- **Directive 2005/89/EC** concerning measures to safeguard security of electricity supply and infrastructure investment;
- **Regulation (EC) No 1099/2008** on energy statistics;
- **EU best practices** in ensuring security of gas and electricity supply.

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

68  C+, medium transparency; +15 compared to the 2019 Index

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

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

The increased number of indicators compared to the 2019 report from 29 to 34 relates to considering changes regarding the realization of consumers’ right to switch suppliers and receive compensation for non-compliance with the required quality of energy supply.

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

A comparison with the 2019 assessment indicates a continued increase in transparency for the «Reports on reliability and security» subcategory (from 31 to 67 points in two years). This relates to regular publication of reports on monitoring the security of natural gas supply following the requirements of Article 5 of the Law «On the Natural Gas Market» and timely approval by the NEURC of the draft report of Ukrenergo on the adequacy of generation capacity. However, transparency in this category would be better if the Ministry of Energy reported on the results of monitoring the security of electricity supply.

As in 2019, the «black boxes» in the «Reliability and security» category are the obligations set out in Directive 2009/119/EC on establishing and maintaining minimum stocks of oil and/or petroleum products; development of an action plan for the introduction of emergency and special reserves in case of significant disruption of oil supplies as well as annual reporting on measures taken to ensure their physical accessibility.

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

Score by subcategory:

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Score</th>
<th>Progress to 2019</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stocks and reserves</td>
<td>48</td>
<td>0</td>
<td>D</td>
<td>insufficient transparency</td>
</tr>
<tr>
<td>Security Rules</td>
<td>50</td>
<td>0</td>
<td>D+</td>
<td>insufficient transparency</td>
</tr>
<tr>
<td>Reliability and security report</td>
<td>67</td>
<td>+13</td>
<td>C+</td>
<td>medium transparency</td>
</tr>
</tbody>
</table>

Recommendations

- the Cabinet of Ministers of Ukraine should adopt and submit to the Verkhovna Rada of Ukraine the draft law «On Minimum Oil and Petroleum Products Reserves», ensure the development and adoption of regulations necessary for the implementation of its provisions following the requirements of Directive 2009/119/EC, as well as their execution within the schedule set by the updated Annex XXVII of the EU-Ukraine Association Agreement;
- Ukrenergo should pay attention to meeting the requirements of Regulation (EU) 2019/941 in terms of development of the Risk-preparedness Plan by the transmission system operator;
- the Ministry of Energy should provide information about stocks and reserves and reports on security of supply in machine-readable formats.
- Directives 2009/72/EC and 2009/73/EC concerning common rules for the internal markets in electricity and natural gas;
- Directive 2012/27/EU on energy efficiency;
- CEER best practices of the quality of energy supply and EU best practices of empowering consumers.


A comparison with the 2019 assessment indicates the appearance of the 100 points score, which is the first in the history of reporting. It was achieved in the «Service standards» subcategory due to the excellent work of the NEURC regarding informing consumers about their rights, the quality of electricity, natural gas, and heating, as well as compensation to consumers for non-compliance with service standards.

It is worth noting proper informing of energy consumers about their rights and conditions for receiving subsidies and preferences in paying bills for housing and utility services, as well as about their opportunities and financial tools for improving their energy efficiency.

The medium level of transparency for the «Information for consumers» subcategory is caused by the lack of proper informing of consumers regarding prices, supply conditions, quality and safety of petroleum products. Suppliers do not meet the requirements of Directive 2009/72/EC in terms of notification (via official websites) on the share of each energy source in the electricity mix purchased by the supplier and the environmental impact caused by its production.

Despite a significant increase in transparency for the «Penetration of metering» subcategory (from 25 to 70 points) due to the efforts of the State Agency on Energy Efficiency and Energy Saving (SAEE) and the NEURC, there is still a lack of information on the introduction of smart metering in natural gas and electricity markets.

Online information services for comparing commercial offers of suppliers (price comparison tools) were developed and launched in test mode.

Within the USAID project, in cooperation with the NEURC, the Energy Online mobile application was developed, allowing to compare commercial offers of gas suppliers throughout Ukraine. The Gazoteka app (gasoteka.ua-energy.org), a service for online comparison of gas prices and switching suppliers, was launched in test mode.

However, the national legislation is yet insufficiently harmonized with the European acquis, has gaps regarding provisions set out in Directives 2009/72/EC, 2009/73/EC, 2012/27/EU (in particular, requirements for remote metering of energy consumption) and EU best practices for empowering consumers. Thus, there are «black boxes» in the «Consumption» category, in particular regarding:

- introduction of smart metering;
- availability of centralized information services for comparing commercial offers of suppliers in the electricity market (price comparison tools);
- informing gas consumers on their rights regarding switching suppliers, submission of complaints, billing and tariffs.

Due to vagueness of responsibility division between the Regulator, transmission, and distribution system operators regarding the disclosure of metering penetration data, the information required is made public in violation of the deadlines set, in aggregate form (as in annual reports of the NEURC), incomplete and in inconvenient formats.

Score by subcategory:

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Score</th>
<th>Progress to 2019</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penetration of metering</td>
<td>70</td>
<td>+45</td>
<td>B–</td>
<td>good transparency</td>
</tr>
<tr>
<td>Service standards</td>
<td>100</td>
<td>+17</td>
<td>A+</td>
<td>absolute transparency</td>
</tr>
<tr>
<td>Information for consumers</td>
<td>60</td>
<td>+3</td>
<td>C</td>
<td>medium transparency</td>
</tr>
</tbody>
</table>
Recommendations

- The Verkhovna Rada of Ukraine should bring the requirements of the laws «On Ensuring Commercial Metering of Natural Gas», «On Commercial Metering of Heating and Water Supply», «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» in line with EU best practices on empowering consumers; public authorities should ensure their implementation in terms of availability of prices and tariffs historical data, forecasts as well as their comparability with prices and tariffs in other countries;
- The NEURC should implement the requirements of Directive 2012/27/EU regarding collecting and publication of data on smart metering penetration;
- The NEURC should create centralized online services for comparison of commercial offers of suppliers (price comparison tools) to facilitate conscious consumer choice.

CROSS-SECTORAL PART

6. REPORTING

F, unacceptable transparency; +8 compared to the 2019 Index

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

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

The reduction in the number of indicators from 30 to 12 compared to the 2019 study relates to the aggregation of requirements for annual financial and non-financial reporting and information for investors and shareholders.

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

- Directive 2004/109/EC on the harmonization of transparency requirements concerning information about issuers whose securities are admitted to trading on a regulated market;
- best global practices set out in the Global Reporting Initiative (GRI), International Financial Reporting Standards (IFRS), 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).

Despite an increase by eight points compared to the 2019 assessment, transparency for the «Reporting» category remains unacceptable (35 points).

The decline of the «Financial and management reporting» subcategory score (from 28 to 25 points) relates to the update of the methodology, which included more stringent financial reporting requirements (publication of annual financial reports prepared following IFRS and audit opinion on it) and aggregation of non-financial reporting indicators. It was also affected by the lack of up-to-date management reports published by energy companies and corporate non-financial reports that meet the requirements of international standards. In general, the subcategory is characterized by low relevance (the latest reports are dated 2018 at the time of their assessment) and poor usability of information (scanned documents).

Transparency of reporting on taxes and other payments to the government remains low (except for data available in the financial reporting and, less frequently, on websites). The exception is the reporting of extractive companies on taxes paid under the Extractive Industries Transparency Initiative (EITI). The low score was also caused by the lack of approved forms and volumes of reporting on payments to the government (the relevant government resolution was adopted only on 23 September 2020).

The improvement in the transparency of information to be published by joint-stock companies (from 26 to 52 points) relates to the revision of the sample of companies and the aggregation of information to be provided to investors and shareholders. However, there were qualitative improvements, particularly in the usability of regular annual reports of securities issuers (their publication in XML format with affixing a qualified electronic signature).

### Score by subcategory:

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Score</th>
<th>Progress to 2019</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial and management reporting</td>
<td>25</td>
<td>-3</td>
<td>F</td>
<td>unacceptable transparency</td>
</tr>
<tr>
<td>Fiscal reporting</td>
<td>21</td>
<td>-5</td>
<td>F</td>
<td>unacceptable transparency</td>
</tr>
<tr>
<td>Beneficiaries and corporate governance</td>
<td>52</td>
<td>+26</td>
<td>D+</td>
<td>insufficient transparency</td>
</tr>
</tbody>
</table>

### Recommendations

- the Cabinet of Ministers should ensure implementation of the requirements of Directive 2013/34/EU regarding publication by economic entities of management reports, detailed policies, description of risks, non-financial indicators, as well as disclosure of information on quasi-fiscal transactions;
- the Ministry of Finance should ensure compliance with the requirements of the Law of Ukraine «On Accounting and Financial Reporting in Ukraine» regarding annual reporting of large companies, companies of public interest, and joint-stock companies according to IFRS; ensure compliance with the requirements for the development and publication of management reports of such companies; promote the practice of regular non-financial reporting by large companies;
- the Ministry of Energy should ensure the implementation of reporting procedures and forms for energy companies regarding payments to the government; for public authorities and companies – regarding developing reports on payments received;
- the Ministry of Energy should ensure timely preparation of national reports for 2018 and 2019 under the Extractive Industries Transparency Initiative (EITI) as well as the development and launch of an electronic reporting system;
- the Ministry of Economy and the National Securities and Stock Market Commission should promote the introduction of best global practices of corporate governance in Ukraine, namely the publication of regular reports, information on corporate governance and final beneficiaries by issuing companies whose securities are admitted to trading on regulated markets.
The «Policy» category defines the transparency of the implementation of strategic and programmatic documents of energy policy and sustainable development, the policy of improving energy efficiency, environmental protection, combating climate change, developing renewable energy sources, etc. The category covers 20 indicators grouped into four subcategories:

- monitoring and reporting (3 indicators);
- energy efficiency (7 indicators);
- environmental protection and combating climate change (8 indicators);
- renewable energy sources (2 indicators).

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

- Directive 2010/75/EU on industrial emissions and Directive 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plants;
- Directives 2001/42/EC and 2011/92/EU on the assessment of the effects of certain public and private projects on the environment;
- Directive 2009/28/EC on the promotion of the use of energy from renewable sources;
- international treaties on combating climate change (UN Framework Convention on Climate Change, Paris Agreement).

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

Comparison with the 2019 assessment shows a slight increase in transparency for the «Policy» category (from 56 to 59 points), which relates to better reporting by public authorities, namely by the Ministry of Economy regarding monitoring the achievement of Sustainable Development Goal 7 «Affordable and Clean Energy».

Violation of the deadline for updating the National Emissions Reduction Plan for Large Combustion Plants (NERP), inadequate reporting on it, unstructured information with poor usability regarding strategic environmental assessment caused a medium transparency score for the «Environmental protection and combating climate change» subcategory.

Failure to meet the deadline of updating the National Renewable Energy Action Plan, lack of reporting on its implementation and a clear description of state support schemes for renewable energy sources reduced the transparency score for the «Renewable energy sources» subcategory from 67 to 56 points.
Recommendations

- the Ministry of Energy should submit annual progress reports on the Energy Strategy of Ukraine until 2035 «Security, Energy Efficiency and Competitiveness», focusing on the analysis of the performance and efficiency of state policy and specific recommendations for its prolongation, revision, or termination;
- the Verkhovna Rada should harmonize national legislation with the requirements of Directive 2012/27/EU on energy efficiency, in particular, adopt a new framework Law «On Energy Efficiency»;
- the State Agency on Energy Efficiency and Energy Saving should ensure regular updating of the Energy Efficiency Action Plan and reporting on its implementation;
- the State Agency on Energy Efficiency and Energy Saving should ensure regular updating of the National Renewable Energy Action Plan with a description of support schemes and a long-term schedule of state support as well as observance of the deadlines for reporting to the Energy Community Secretariat;
- the State Agency on Energy Efficiency and Energy Saving should ensure reporting on the level of energy labeling penetration with the development of a relevant database;
- the Ministry of Ecology and Natural Resources should publish the data on strategic environmental assessment in a structured form and machine-readable formats;
- the Ministry of Energy, the State Agency on Energy Efficiency and Energy Saving should ensure timely, complete, and in the state language publication of reports on the implementation of policy documents and international obligations of Ukraine (in particular, national plans for RES development, energy efficiency, reduction of emissions from large combustion plants, etc.).

8. PUBLIC AUTHORITIES

56  C–, medium transparency; +6 compared to the 2019 Index

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

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

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

- Treaty establishing the Energy Community;
- EU-Ukraine Association Agreement;
- Regulation (EU) No 651/2014 declaring certain categories of aid, particularly regarding the publication of information on state aid recipients;

Comparison with the 2019 assessment shows an increase in transparency for the «Public authorities» category from 50 to 56 points due to improved transparency of public spending (+9 points), namely the regular publication of decisions on state aid and quasi-fiscal transactions on the State Aid web portal of the Antimonopoly Committee, regular publication of the Ministry of Finance report on fiscal risks and their impact on the state budget, improving the usability of reporting on spending. Also, the usability of the documentation setting requirements to candidates for management positions was improved (which added +3 points in the «Public administration» subcategory).

At the same time, the traditional «black boxes» of the category remain:

- publication of the independent financial audit reports on budget programs implementation by the State Audit Service and the Accounting Chamber of Ukraine;
- comprehensive and timely publication of the results of discussing draft regulatory acts (except the NEURC);
- proper impact assessment of adopted regulatory acts and publication of full-fledged informative reports following its results;
- sources of information recording the process of selecting candidates for the positions in civil service (video streams, available minutes of meetings, transcripts).

### Score by subcategory:

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Score</th>
<th>Progress to 2019</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public spending</td>
<td>61</td>
<td>+9</td>
<td>C</td>
<td>medium transparency</td>
</tr>
<tr>
<td>Public administration</td>
<td>51</td>
<td>+3</td>
<td>D+</td>
<td>insufficient transparency</td>
</tr>
</tbody>
</table>

**Recommendations**

- the State Audit Service and the Accounting Chamber should ensure the publication of reports on the budget programs financial audit;
- the National Agency on Civil Service, the Ministry of Energy, the Ministry of Ecology and Natural Resources, NEURC, the Antimonopoly Committee should make public the information on the process of selecting candidates for managerial civil service positions;
- the Ministry of Energy and the Antimonopoly Committee should ensure the publication of the results of discussions on draft regulatory acts, applying the NEURC practice;
- the Ministry of Energy, NEURC, and the Antimonopoly Committee should ensure regular impact assessment of adopted regulatory acts and publication of full-fledged informative reports on its results;
- the Antimonopoly Committee should keep updating the register of state support recipients with details up to the level of individual economic entities;
- the Ministry of Finance should create a register of quasi-fiscal transactions with details up to the level of individual economic entities.
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, and energy markets), and transparency criteria.

An indicator is a specific way of measuring transparency of a certain object (e.g., an energy company, public authority), process (e.g., pricing, regulation, trade, etc.), or phenomenon (e.g., market, competition, etc.). A set of indicators forms the lowest level of the Index decomposition.

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, we 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 were grouped into subcategories and groups.

The transparency criterion is an aspect of assessing transparency of an 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;

<table>
<thead>
<tr>
<th>Energy market</th>
<th>Natural gas</th>
<th>Electricity</th>
<th>Oil and liquid fuels</th>
<th>Steam coal</th>
<th>Heat</th>
<th>Cross-sectoral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of indicators</td>
<td>58</td>
<td>59</td>
<td>22</td>
<td>6</td>
<td>12</td>
<td>53</td>
</tr>
</tbody>
</table>
- **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:

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

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

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

Considering the large size of the transparency indicators, they were considered of equal weight. Therefore, the arithmetic mean values of the respective sets were used to develop sub-indexes for specific categories, subcategories, and markets.
AGGREGATION OF SCORES

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

<table>
<thead>
<tr>
<th>Score</th>
<th>Rating</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>95...100</td>
<td>A+</td>
<td>absolute transparency</td>
</tr>
<tr>
<td>90...94</td>
<td>A</td>
<td>excellent transparency</td>
</tr>
<tr>
<td>85...89</td>
<td>A–</td>
<td>good transparency</td>
</tr>
<tr>
<td>80...84</td>
<td>B+</td>
<td>medium transparency</td>
</tr>
<tr>
<td>75...79</td>
<td>B</td>
<td>insufficient transparency</td>
</tr>
<tr>
<td>70...74</td>
<td>B–</td>
<td>unacceptable transparency</td>
</tr>
<tr>
<td>65...69</td>
<td>C+</td>
<td></td>
</tr>
<tr>
<td>60...64</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>55...59</td>
<td>C–</td>
<td></td>
</tr>
<tr>
<td>50...54</td>
<td>D+</td>
<td></td>
</tr>
<tr>
<td>45...49</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>40...44</td>
<td>D–</td>
<td></td>
</tr>
<tr>
<td>0...39</td>
<td>F</td>
<td></td>
</tr>
</tbody>
</table>

LIMITATIONS

The Index cannot be used to assess transparency of:

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

- all participants of energy markets and/or public authorities; therefore, assessments of certain indicators in the «Natural monopolies», «Consumption», «Reporting» and «Public authorities» categories were built on representative samples;

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

«Natural monopolies» category:
● transmission system operators (TSOs) are legal entities responsible for the operation, dispatching, maintenance, and development of networks as well as for ensuring their long-term capacity to meet reasonable demand; for transmission of electricity, transmission and storage of natural gas, oil and liquid fuel;
● distribution system operators (DSOs) are legal entities operating in the five largest cities of Ukraine and responsible for safe, reliable, and efficient operation, maintenance and development of networks and ensuring their long-term capacity for distribution of natural gas, electricity, and heat.

«Consumption» category:
● for natural gas – suppliers operating in the five largest cities of Ukraine who performed public service obligations on gas market until 1 August 2020;
● for electricity – universal service suppliers operating in the five largest cities of Ukraine;
● for petroleum products – operators of the retail market managing the five largest networks of filling stations in terms of sales in 2019.

«Reporting» category:
● «Financial and management reporting» subcategory, «Information on payment of taxes (by types of taxes and entities)» group – 20 energy companies ranked in 2019 among TOP 100 taxpayers of the Large Taxpayers Office of the State Fiscal Service of Ukraine, and classified as public interest entities under paragraph 21, Article 1 of the Law «On Accounting and Financial Reporting in Ukraine»;
● «Special reporting of companies in extractive industries» group – 12 companies with the largest production of natural gas, oil and gas condensate, and steam coal in 2019;
● «Beneficiaries and corporate governance» subcategory – 14 largest energy companies selected from the primary sample of joint-stock companies and whose securities are admitted to trading on regulated markets.

«Public authorities» category:
● «Budget expenditures», «Decision-making and implementation», «Managerial bodies formation transparency» groups – the Ministry of Energy, the National Commission for State Regulation of Energy and Public Utilities (NEURC) and the Antimonopoly Committee;
● «State aid» group – the indicators were assessed following the data of the Antimonopoly Committee; «Quasi-fiscal transactions» group – following the data of the Ministry of Finance.