Second-Party Opinion

Ukrenergo Green and Sustainability-Linked Bond Framework

SUSTAINALYTICS
a Morningstar company
SECOND-PARTY OPINION

Evaluation Summary

Evaluation Date	September 29, 2021
Issuer Location	Kyiv, Ukraine

Green Bond Principles

Sustainalytics is of the opinion that the Green and Sustainability-Linked Bond Framework is credible and impactful and aligns with the four core components of the Green Bond Principles 2021, administered by ICMA. The eligible categories for the use of proceeds – Renewable Energy and Energy Efficiency – are aligned with those recognized by the Green Bond Principles and will lead to positive environmental impacts.

Sustainability-Linked Bond Principles

Sustainalytics is of the opinion that the Green and Sustainability-Linked Bond Framework aligns with the Sustainability-Linked Bond Principles 2020. Overview of KPIs and SPTs:

KPIs	SPTs	Strength of the KPI	Ambitiousness of SPT
1a: Connection of wind and solar energy production capacity (MW)	8,100MW by 2022 8,900MW by 2024 9,300MW by 2026 9,700MW by 2028 10,100MW by 2030	Adequate	Ambitious
1b: Share of connected wind and solar energy production capacity of total connected energy production capacity (%)	14,6% by 2022 16.1% by 2024 16.9% by 2026 18.0% by 2028 18.7% by 2030	Strong	Ambitious

The Use of Proceeds contribute to the following SDGs:

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Scope of Work and Limitations

Sustainalytics' Second-Party Opinion reflects Sustainalytics' independent[1] opinion on the alignment of the Green and Sustainability-Linked Bond Framework with current market standards. As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework's alignment with the Green Bond Principles 2021 and Sustainability-Linked Bond Principles 2020, as administered by ICMA[2];
- The credibility and anticipated positive impacts of the use of proceeds and SPTs;
- The issuer's sustainability strategy, performance and sustainability risk management; and

As part of this engagement, Sustainalytics held conversations with various members of Ukrenergo's management team to understand the sustainability impact of their business processes and the core components of the Framework. Ukrenergo representatives have confirmed that:

(1) They understand it is the sole responsibility of Ukrenergo to ensure that the information provided is complete, accurate or up to date;

(2) They have provided Sustainalytics with all relevant information; and

(3) Any provided material information has been duly disclosed in a timely manner.

Sustainalytics also reviewed relevant public documents and non-public information. This document contains Sustainalytics' opinion of the Framework and should be read in conjunction with that Framework. Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and Ukrenergo.

Sustainalytics' Second-Party Opinion, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market standards. The Second-Party Opinion is valid for issuances aligned with the respective Framework for which the Second-Party Opinion was written up to 24 months or until one of the following occurs: (1) A material change to the external benchmarks[3] against which targets were set; (2) A material corporate action (such as material M&A or change in business activity) which has a bearing on the achievement of the SLBs or the materiality of the KPI.

For use of proceeds bonds, the Second-Party Opinion:

- addresses the anticipated impacts of eligible projects expected to be financed with bond proceeds but does not measure the actual impact. The measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the Framework owner.
- opines on the potential allocation of proceeds but does not guarantee the realised allocation of the bond proceeds towards eligible activities
- Sustainalytics relied on its internal taxonomy, version 1.10, which is informed by market practice and Sustainalytics' expertise as an ESG research provider

For linked instruments, the Second-Party Opinion:

- addresses the anticipated SPTs of KPIs but does not measure the KPIs' performance. The measurement and reporting of the KPIs is the responsibility of the Bond issuer.

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument, either in favour or against, the truthfulness, reliability or completeness of any facts or

[1] When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics' hallmarks is integrity, another is transparency.
[2] The bond Principles, Guidelines and Handbooks are administered by the International Capital Market Association and are available at: https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/
[3] Benchmarks refers to science-based benchmarks

statements and related surrounding circumstances that Ukrenergo has made available to Sustainalytics for the purpose of this Second-Party Opinion.

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Introduction

National Power Company Ukrenergo ("Ukrenergo", or the "Company") is a private joint stock company in which 100% of the shares are government-owned. Ukrenergo is the national transmission system operator for Ukraine, with operational and technological control of the Integrated Power System of Ukraine (IPS), responsible for the transmission of electricity via main power grids from generation to distribution networks, as well as commercial metering administrator and settlement administrator of the electricity market of Ukraine.

Ukrenergo has developed the Green and Sustainability-Linked Bond Framework (the "Framework") under which it intends to issue use of proceeds (green,) and/or sustainability-linked bonds. Ukrenergo engaged Sustainalytics to review the Green and Sustainability-Linked Bond Framework, dated August 2021, and provide a Second-Party Opinion on the Framework's alignment with the Green Bond Principles 2021 (GBP)[4] and the Sustainability-Linked Bond Principles (SLBP).[5] This Framework has been published in a separate document.[6]

The proceeds from the use of proceeds bonds will finance and/or refinance, in whole or in part, existing and/or future projects in power grid firming to aid renewable energy connected capacity. The Framework defines eligibility criteria in two areas:

1. Renewable Energy
2. Energy Efficiency

Under sustainability-linked bonds, the coupon rate of the bond is tied to the achievement of the Sustainability Performance Targets related to the connection of wind and solar energy production capacity.

Ukrenergo has engaged Sustainalytics to review the Framework and provide an opinion on the alignment of the Framework with the Green Bond Principles and Sustainability-Linked Bond Principles (SLBP).[7]

The KPIs and SPTs used by Ukrenergo are defined in Tables 1 and 2 below.

Table 1: KPI Definitions

KPI	Definition
1a: Connection of wind and solar energy production capacity.	Installed capacity of wind and solar power plants (RES) connected to the power system of Ukraine measured in MW as of end of the reporting period.[8] RES connected capacity = Wind connected capacities + Solar connected capacities
1b: Share of connected wind and solar energy production capacity of total connected energy production capacity.	Share of installed capacity of wind and solar power plants connected to the grid expressed as percentage of total energy generation capacities connected to the grid. • RES share = RES connected capacity (from KPI 1a) / Total installed capacity Total installed capacity of the Ukraine's power system includes installed capacities of all electricity producers as disclosed by Ukrenergo monthly on its website.[8]

[4] The Green Bond Principles are administered by the International Capital Market Association and are available at: https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Green-Bonds-Principles-June-2018-270520.pdf

[5] The Sustainability Linked Bond Principles (SLBP) were launched by ICMA in June 2020. They are administered by the ICMA and are available at: https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/sustainability-linked-bond-principles-slbp/

[6] The Sustainability Finance Framework is available on Ukrenergo's website at: https://ua.energy/en/

[7] The Sustainability Linked Bond Principles (SLBP) were launched by ICMA in June 2020. They are administered by the ICMA and are available at: https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/sustainability-linked-bond-principles-slbp/

[8] Ukrenergo provides information on installed capacities split by generation types on its website (https://ua.energy/installed-capacity-of-the-ips-of-ukraine/#12-2020) on a monthly basis. For the avoidance of doubt, SPP stands for "Solar connected capacities" and WPP stands for "Wind connected capacities" from the formula used for KPI 1a calculation.

Table 2: SPTs and Past Performance

KPI	2018	2019	2020 (baseline)	SPT 2022	SPT 2024	SPT 2026	SPT 2028	SPT 2030
1a: Connection of wind and solar energy production capacity (MW).	1,614	4,580	6,474	8,100	8,900	9,300	9,700	10,100
1b: Share of connected wind and solar energy production capacity of total connected energy production capacity (%).	3.2%	8.7%	11.8%	14.6%	16.1%	16.9%	18.0%	18.7%

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the Alignment of the Framework with Relevant Market Standards

Alignment with Green Bond Principles 2021 (GBP)

Sustainalytics is of the opinion that the Green and Sustainability-Linked Bond Framework is credible, impactful and aligns with the four core components of the GBP. For detailed information please refer to Appendix 1: Sustainability Bond/ Sustainability Bond Programme External Review Form. Sustainalytics highlights the following elements of Ukrenergo's Sustainability Bond Framework:

Use of Proceeds

Overall Assessment of Use of Proceeds

Use of Proceeds	Activity	Classification	Sustainalytics' Assessment
Renewable Energy	Expenses[9] related to transmission network connecting and/or integrating renewable energy generating facilities[10]	Green	- The direct connection and integration of renewables is aligned with market practice.
	Enhancement of transmission capacity to facilitate renewable energy transmission	Green	- Ukrenergo has confirmed any expansion or upgrades to the transmission system financed will be for the express purpose of improving its ability to transmit renewable energy, such as from an area of renewable energy surplus. Sustainalytics considers this activity to be aligned with market expectations.
	Construction and/or upgrade of transformer capacities to connect additional RES producers to the grid	Green	- Infrastructure directly associated with renewable energy is aligned with market practice

[9] Ukrenergo specifies expenditures related to construction, development, and maintenance of renewable energy related projects and associated grid infrastructure for all the activities under the Renewable Energy category.
[10] Renewable energy capacities in Ukraine include wind power plants, solar power plants, biomass power plants, biogas power plants, mini hydro power plants (mini HPPs; HPPs with the capacity of up to 10MW), and geothermal power plants.

	Feed-in-Tariff (FIT) expenses for renewable energy generation (expenses for the services to ensure RES' share increase in electricity production in the power system)	Green	- As part of its role in the operation of electricity markets in Ukraine, Ukrenergo compensates electricity purchasers for the difference between the guaranteed FIT price paid to RES electricity producers and the market price of electricity sold in the open market. The Company intends to finance these expenses as part of its green bond. - Sustainalytics considers these expenditures as directly supporting the production of renewable energy, as they represent a long-term guarantee which enables power producers to obtain financing to develop new renewable projects, and therefore views this to be aligned with market expectations.
Energy Efficiency	Construction of new lines or substations to facilitate growth in RES capacities connections and electricity transmission	Green	- Ukrenergo has identified a list of projects which it intends to finance under this criterion, and has disclosed that these projects, and any future projects, will be those deemed required to allow for increased penetration of renewables based on the Report on the Adequacy of Generating Capacities, a 10-year forecast of the system needs. The Issuer has further confirmed that only projects with the primary intent of allowing for increased generation and use of renewable energy will be considered. - Based on the above, Sustainalytics considers this to be aligned with market expectation.
	Construction of interconnectors to strengthen the connection of the Ukrainian power system with the neighboring member countries of the European Network of Transmission System Operators for Electricity (ENTSO-E)	Green	- Sustainalytics recognizes that the expansion of resilient energy grids broadly to be supportive of positive environmental outcomes. Furthermore, it is recognized that interconnections can play an important role in balancing renewable energy generation and that further integration with the ENTSO-E grid will allow Ukraine to connect with many low-carbon grid regions. - Based on the above, Sustainalytics considers this to be aligned with market expectation.
	Replacements and/or upgrades of obsolete equipment for modern ones (e.g. autotransformers and relay protection devices)	Green	- Sustainalytics notes that Ukrenergo targets upgrades and/or replacements of equipment that would result in lower energy consumption, which is in line with market practice.

- While the Sustainability-Linked portion of the Framework refers explicitly to solar and wind power, the Use of Proceeds section does not specify to which technologies it refers. Sustainalytics notes that wind and solar energy represent the majority of current and anticipated RES capacity, while small hydro (<10MW) and biomass/biogas[11] represent 1.6% and 2.6 % respectively.[12] These four energy resources represent those considered as RES by Ukrainian legislation, such as the FIT scheme.

[11] Best practice in the green bond market is the biomass projects should have low lifecycle emissions and should be powered by sustainable feedstocks, either from waste products or sustainably grown crops. As the generating facilities are not within the Company's control and biomass/biogas a very small share of both the current and anticipated generation mix, Sustainalytics does not consider the lack of criteria in this area to detract from the credibility of the Framework.
[12] https://cms.law/en/int/expert-guides/cms-expert-guide-to-renewable-energy/ukraine

Project Evaluation and Selection

- Ukrenergo has established a Green Bond Committee ("the Committee" or "GBC"), comprising of members of finance planning and analysis, strategy, treasury, controlling units, to identify and assess Eligible Green Projects in line with the eligibility criteria under the Framework. Projects no longer meeting the eligibility criteria shall be excluded and replaced by projects approved by the Committee.
- The Issuer mandates necessary environmental checks, assessments, and protection measures to be in place prior to project initiation, to ensure mitigation of environmental and social risks associated with the Eligible Green Projects, which are applicable to all allocation decisions made under the Framework. Sustainalytics considers these environmental and social risk management systems to be adequate and aligned with market expectation. For additional detail see Section 2.
- Based on defined multi-step process to identify eligible projects, Sustainalytics considers this process to be in line with market practice.

Management of Proceeds

- The Green Bond Committee will manage the allocation of proceeds under the Green Project Portfolio using an internal register. The Committee will review the register semi-annually.
- At any point of time, the Issuer will maintain a Green Project Portfolio that is larger than the total net proceeds of all outstanding green bonds. Pending allocation, net proceeds will be placed in general liquidity accounts with the intention achieve full allocation within 24 months of issuance. In addition, the Ukrenergo has established a look back period of 18 months.
- Based on the internal tracking mechanisms, and temporary allocation measures, Sustainalytics considers this process to be in line with market practice

Reporting

- Ukrenergo commits to publish a Green Bond Report on its website on an annual basis, until full allocation of proceeds. The report will include the allocation reporting as well as the impact reporting.
- Under allocation reporting, the Issuer will report on total amounts of outstanding Green Bonds, share of financing vs refinancing, allocations as per portfolio and categories, unallocated proceeds, and examples of Eligible Projects.
- Under impact reporting, where feasible the Issuer will report on relevant environmental impact metrics based on each category, such as renewable electricity production capacity added (MW), share of renewable installed capacity in total electricity production capacity, technological losses in the grid (% of transmission volumes), and reduction of electricity not supplied (ENS) due to interruptions (kWh/year).
- Based on the commitment to annual allocation and impact reporting, Sustainalytics considers this process to be in line with market practice.

Alignment with Sustainability-Linked Bond Principles 2020 (SLBP)

Sustainalytics is of the opinion that the Framework align with the five core components of the Sustainability-Linked Bond Principles 2020 (SLBP). For detailed information please refer to Appendix 2: Sustainability Bond/ Sustainability Bond Programme External Review Form. Sustainalytics highlights the following elements of Ukrenergo's Sustainability Bond Framework:

Selection of Key Performance Indicators (KPIs)

Relevance and Materiality of KPIs

Sustainalytics in its assessment of materiality and relevance considers i) whether an indicator speaks to a material impact of the issuer's business on environment or social issues, and ii) to what portion of impact the KPI is applicable.

Sustainalytics considers both KPIs to be material and relevant given the strategic importance of increased RES capacity for the Ukrainian government and Ukrenergo's role in enabling the connection of this capacity. In its strategy report, Ukrenergo highlighted its ambition to implement a transmission system development programme for RES integration which will see the RES installed capacity level reach 10,700 MW by 2035.[13] Ukrenergo's strategy to increase the RES connected capacity is aligned with the Ukraine government's "Energy Strategy of Ukraine until 2035" (ESU 2035),[14] in which one of the objectives is to increase the renewable energy mix to 25% by 2035.

In its standards for electric utilities, the Sustainability Accounting Standards Board (SASB) identifies Greenhouse Gas Emissions and Energy Resource Planning as a material issue for electric utilities, and notes that transmission operators have a role to play in addressing GHG emissions from fossil fuels combustion for power generation, which makeup the majority of the sector's emissions.[15] The standard further highlights the need for careful planning of infrastructure investments to ensure an energy mix capable of meeting the emissions requirements set forth by regulations. Sustainalytics notes the development and adoption of a national energy strategy, and the recognition of the material environmental issue in the subindustry by SASB as indicators of high relevance and materiality for the Company.

KPI Characteristics

Sustainalytics in its assessment of the KPI characteristics considers i) whether a clear and consistent methodology is used, ii) whether the issuer follows an externally recognized definition, iii) whether the KPIs are a direct measure of the performance of the issuer on the material environmental or social issue, and iv) if applicable, whether the methodology can be benchmarked to an external contextual benchmark.[16]

Sustainalytics considers Ukrenergo's definition and methodology to calculate both KPI's performance to be clear based on the ease of interpretation and consistency with the historical reporting on the performance of the KPIs. Sustainalytics also considers both KPIs to be indirectly linked to the performance of the issuer regarding the material impact, given that the KPIs are measuring the connection of wind and solar energy production capacity to support anticipated growth in renewable energy generation in Ukraine, which in turn affects the carbon intensity of transmitted energy. In addition, both KPIs follow an externally recognized methodology widely used by transmission system operators (TSOs), distribution system operators (DSOs), and supply companies that are typically mandated to meet minimum-service standards for grid stability and electricity supply.[17] Sustainalytics further notes that while KPI 1a's future performance does not lend itself to external contextual benchmarking, the

[13] Ukrenergo, "Strategy", at: https://ua.energy/wp-content/uploads/2020/12/Strategy_eng_for_publication.pdf
[14] Razmukov Centre, "New energy strategy of Ukraine till 2035", at: https://razumkov.org.ua/uploads/article/2017_NES%202035_RazumkovCentre_Ukraine_September%202017_description.pdf
[15] SASB, "Electric Utilities sustainability accounting standard", at: https://www.sasb.org/wp-content/uploads/2016/05/IF-Combined_PCP_Standards.pdf
[16] External contextual benchmarks provide guidance on the alignment with ecological system boundaries. This criterion is not applied to social KPIs or impact areas for which such contextual benchmarks are not available.
[17] GE, "Capacity firming for renewable energy and grid stability", at: https://www.ge.com/gas-power/applications/grid-firming

future performance of KPI 1b can be benchmarked against external trajectories such as the clean energy transition indicators determined by the International Energy Agency (IEA).

Overall Assessment

Sustainalytics overall considers KPI 1a to be adequate and KPI 1b to be strong given they both speak to a relevant and material environmental issue while offering a clear and consistent externally recognized definition. Sustainalytics also considers both KPIs as indirectly linked to the performance on the material environmental issue, and that, while KPI 1a does not lend itself to external benchmarking, KPI 1b's future performance can be benchmarked against external contextual benchmarks.

1a: Connection of wind and solar energy production capacity (MW).	Not Aligned	Adequate	Strong	Very strong
1b: Share of connected wind and solar energy production capacity of total connected energy production capacity (%).	Not Aligned	Adequate	Strong	Very strong

Calibration of Sustainability Performance Targets (SPTs)

Alignment with Issuer's Sustainability Strategy

Ukrenergo has set the following SPTs for its KPIs:

- SPT 1a: Achieve 8,100MW by 2022, 8,900MW by 2024, 9,300MW by 2026, 9,700MW by 2028, and 10,100MW by 2030 – using a 2020 baseline.
- SPT 1b: Achieve 14.6% by 2022, 16.1% by 2024, 16.9% by 2026, 18.0% by 2028, and 18.7% by 2030 – using a 2020 baseline.

Sustainalytics considers the SPTs to be aligned with Ukrenergo's sustainability strategy (please refer to Section 2 for analysis of the credibility of Ukrenergo's sustainability strategy).

Ukrenergo has developed its strategy with energy goals set for 2035 which include developing a transmission system offering unimpeded and uninterrupted access of all market participants, including RES ones, to the transmission system.[18] In the same strategy report, Ukrenergo has made strategic commitments to reduce electricity transmission prices for consumers by investing in infrastructure development, improving management efficiency, and optimizing the use of funds. These strategic initiatives are aligned with the Ukraine government's "Energy Strategy of Ukraine until 2035" (ESU 2035),[19] whose target include increasing the renewable energy mix to 25% by 2035. The Company's has a standing environmental management system which is implemented in accordance with the requirements of the international standard ISO 14001:2015 "Environmental management systems.[20] Sustainalytics considers the SPTs to be aligned with the overall sustainability strategy of Ukrenergo and the national energy strategy of the Ukraine government.

Strategy to Achieve the SPTs

Ukrenergo intends to achieve the SPT through the following strategy:

- Ukrenergo will achieve the SPTs by fulfilling its role in enabling the connection of renewable energy. The Company forecasts the development of generating capacity and plans the development of the transmission system to ensure compliance of transmission capacity with the needs of the electricity market and issues approvals for connection of renewable power producers to the grid. As such, the capacity firming plan to achieve this SPT include i) construction, reconstruction, modernization, and proper maintenance of transformers ensuring availability of connection for new power plants and ii) construction, reconstruction and proper maintenance of power lines ensuring sufficient transmission

[18] Ukrenergo, "Strategy", at: https://ua.energy/wp-content/uploads/2020/12/Strategy_eng_for_publication.pdf
[19] Razmukov Centre, "New energy strategy of Ukraine till 2035", at: https://razumkov.org.ua/uploads/article/2017_NES%202035_RazumkovCentre_Ukraine_September%202017_description.pdf
[20] Ukrenergo,"environmental protection", at: https://ua.energy/about_us/social-responsibility/environmental-protection/

capacity for produced renewable energy. The Company has provided examples of projects under development with completion dates ranging from 2022 to 2029.

Ambitiousness, Baseline and Benchmarks

Ukrenergo has set 2020 as the baseline for the SPTs as it represents the most recently available full year of historical data. Ukrenergo may recalculate or adjust the SPTs in case of major corporate reorganization and significant events not within its control, such as changes in the regulatory policy, renewable electricity regulatory framework, commissioning of nuclear power capacities different from what its currently expected, to the extent such events substantially impact the calculation of the KPI and require the restatement of the SPT and/or pro-forma adjustments of baselines or KPI scope.

To determine the ambitiousness of the SPTs, Sustainalytics considers whether the SPTs go beyond business-as-usual trajectory, ii) how the SPTs compare to targets set by peers, iii) and how the SPTs compare with science.[21]

Regarding historical performance, Sustainalytics observed the period of rapid growth in connected RES capacity between 2018 up to the baseline year, 2020, where the annualized growth rates were 100% for SPT 1a and 90% for SPT 1b. To achieve the SPTs by 2030, Sustainalytics notes that the implied annual growth rate for RES capacity will have to be approximately 5.7% for both SPTs, and considers this to represent a continued improvement that represents a beyond business-as-usual trajectory, noting the increasing technical challenges of integrating each incremental share of variable generation sources.

Sustainalytics analysed the RES connected capacity for selected national electricity transmission utilities in the European Union and Eastern Europe and consider Ukrenergo's SPTs as broadly aligned with the peer performance. Sustainalytics notes the challenges inherent in this assessment, based on the varying geographic and historic/regulatory contexts, but nevertheless notes that the targeted wind and solar percentages are well beyond the performance of neighbouring countries.

As it relates to science-based decarbonization trajectories, Sustainalytics has compared SPT 1b with the clean energy transition indicators for a net zero by 2050 scenario as set forth by the International Energy Agency.[22] According to the IEA's indicators, the RES capacity for wind needs to double between 2020 and 2030, while solar PV needs to quadruple over the same period.[23] While Ukrenergo's average linear increase of 1.2% of wind and solar power capacity from 2020-2031 does not achieve this benchmark, Sustainalytics recognizes that IEA's figures are not directly applicable to the local context, due to the high share of low-carbon nuclear energy in the Ukrainian electricity sector. The IEA net-zero 2050 scenario requires that by 2030 only 25% of electricity generation come from unabated fossil fuels; Ukrenergo has provided data disclosing that, should they achieve their targets, that the share of energy from thermal (oil, gas, and coal) and combined heat and power facilities will be approximately 28.7%. On this basis, Sustainalytics is of the opinion that the implied outcome of the SPT is a generation mix which is close to the IEA trajectory. Sustainalytics also references the 2-degree trajectory outlined by Transition Pathway Initiative, which targets an average emissions intensity of <245 gCO2/kWh by 2030. Based on Ukrenergo's reported share of fossil fuel energy generation in 2030, and using a conservative assumption of the carbon intensity of such generation,[24] Sustainalytics anticipates the average emissions intensity of the power generated by facilities connected to Ukrenergo's grid will fall below this threshold. Sustainalytics is therefore of the opinion that (i) the performance in Ukrenergo's electrical grid is likely aligned or approaching a science-based decarbonization trajectory, (ii) ongoing data reporting is required to substantiate this alignment, and (iii) the SPT itself, while material to this performance, is not the sole driver of this decarbonization.

[21] We refer here to contextual benchmarks, that indicate the alignment of targets with ecosystem boundaries.
[22] IEA, " Net Zero by 2050 Scenario", at: https://www.iea.org/data-and-statistics/data-product/net-zero-by-2050-scenario#tables-for-scenario-projections
[23] The wind capacity needs to rise from a global average of 9% to 21% share by 2030, while solar PV needs to rise from 9% to 33% over the same period. This represents cumulative annual growth of 15% for wind and 21% for solar PV over the same period, at: https://www.iea.org/data-and-statistics/data-product/net-zero-by-2050-scenario#tables-for-scenario-projections
[24] The carbon intensity of thermal power is estimated to range from 450 gCO2/kWh for highly efficient combined cycle natural gas turbines to above 800 gCO2/kWh for some coal facilities.

Overall Assessment

Sustainalytics considers the SPTs to align with Ukrenergo's sustainability strategy and considers Ukrenergo's SPTs to be ambitious given that both SPTs represent a material improvement compared to past performance, are aligned with or surpass regional targets, and likely contribute to alignment with science-based trajectories.

Achieve 8,100MW by 2022, ,900MW by 2024, 9,300MW by 2026, 9,700MW by 2028 and 10,100MW by 2030.	Not Aligned	Moderately Ambitious	Ambitious	Highly Ambitious
Achieve 14,6% by 2022, 16.1% by 2024, 16.9% by 2026, 18.0% by 2028, and 18.7% by 2030.	Not Aligned	Moderately Ambitious	Ambitious	Highly Ambitious

Bond Characteristics

Ukrenergo has disclosed that it will link the financial characteristics of bonds issued under this Framework to the achievement of the SPTs. A failure to meet the SPTs at the target observation date or a failure to meet the reporting and verification commitments will trigger a financial penalty in the form of either a coupon rate step-up or a premium payment upon redemption of the bond. The penalty associated to the non-achievement of each SPT will be assessed independently of the other. The Company will select the relevant observation date for each specific issuance and will strive to choose an observation date near the mid-point of the bond tenor.

Sustainalytics notes positively that both SPTs need to be met to avoid an increase in the coupon rate and considers the disclosures provided to be in line with the SLBP. Sustainalytics does not opine on the adequacy of the magnitude of a penalty for not achieving an SPT.

Reporting

Ukrenergo commits to report on an annual basis on its performance on the KPIs and expects to include the relevant figures to be published on the Company's website, which is aligned with the SLB Principles. Ukrenergo further commits to disclose relevant information that enabling investors to monitor the level of ambition of the SPTs.

Verification

Ukrenergo commits to having an external verifier provide reasonable assurance on the published KPI performance figures annually, or any date relevant for assessing the KPI performance against the SPT leading to a potential financial adjustment, which is aligned with the SLB Principles on verification.

Section 2: Assessment of Ukrenergo's Sustainability Strategy

Credibility of Ukrenergo's sustainability strategy

One of Ukrenergo's key focus areas as highlighted in its "Development Strategy" is supporting the growth of renewable energy systems (RES) penetration while ensuring reliable power grid operation in Ukraine.[25] Some of the key renewable energy related goals include (i) planning for the connection of RES up to 10,700 MW by 2035 and (ii) investing in the development of renewable energy forecasting and demand management systems. Ukrenergo' strategy is aligned with the goals of Ukraine's "The Energy Strategy of Ukraine for 2035" - Energy Sector Reform, Optimization and Innovative Development of Energy Infrastructure and Ensuring Sustainable Power Industry Development.[26]

Ukrenergo also aims to optimize resource usage by reducing electricity consumption and ensuring recycling of household and industrial wastes. According to Ukrenergo's 2019 Sustainability Report, the company achieved 3.8% reduction in total energy consumption in 2019.[27] Integration with ENTSO-E, the European Network of Transmission System Operators for Electricity, is one of the key strategic goals of Ukrenergo. The Company has set a target of operating in synchronous mode with ENTSO-E in the first quarter of 2023.[28] This further highlights Ukrenergo' sustainability ambitions as ENTSO-E plays a vital role in driving clean energy transition across Europe and realizing the European Green Deal targets. Additionally, Ukrenergo has been reporting on sustainability indicators such as emissions, resource use, waste management and health and safety for the past three years.

Sustainalytics considers Ukrenergo to have an adequate sustainability strategy and considers that the SLBs and Green Bonds eventually issued or obtained under the Framework will further support the Company's sustainability strategy.

Ukrenergo's Environmental and Social Risk Management

Sustainalytics recognizes that the targets defined by Ukrenergo are impactful, but it also acknowledges that achieving the SPT and operating in the power sector generally bears some environmental and social risks related to carbon emissions from own operations, corporate governance, waste management and occupational health and safety.

In the following section, Sustainalytics comments on Ukrenergo's ability to mitigate such potential risks.

- Ukrenergo has implemented an environmental management system that is certified in accordance with ISO 14001:2015 "Environmental management systems and is highlighted in the environmental protection strategy for Ukrenergo.[29]
- Ukrenergo assesses projects using its Environmental and Social Management Plans (ESMPs) to identify and mitigate adverse environmental and social impacts during both implementation and operation stages.[29]
- Current legislation makes it mandatory to conduct an "Environmental Impact Assessment" (EIA) to minimize the impact on the environment. This includes the development of a plan with a list of mandatory measures to reduce environmental damage and plans to mitigate the environmental impact of any development or project.
- Ukrenergo is a member of several European environmental conservation groups including the Committee on Industrial Ecology and Sustainable Development of the European Business Association, the International Partnership "Green Business" and the Professional Association of Ecologists of Ukraine (PAEU).[29] In 2020, the Company became a signatory to the United Nations Global Compact, which provides guidelines on upholding human rights, eliminating unfair labor practices, and promoting environmental sustainability.[30]
- Regarding corporate governance, Ukrenergo has undertaken significant reform of its corporate governance and internal controls over the past several years, partially in response to allegations of potential corruption. The reforms are aiming to ensure adherence to the OECD Guidelines on Corporate Governance of State-Owned Enterprises.

[25] Ukrenergo, "Ukrenergo Development Strategy Goals", at: https://ua.energy/wp-content/uploads/2020/12/Strategy_eng_for_publication.pdf
[26] "Energy Strategy of Ukraine through 2035" (2014), at: https://www.enercee.net/fileadmin/enercee/images-2016/Ukraine/Energy_strategy_2035_eng.pdf
[27] Ukrenergo, "Ukrenergo Sustainability Report 2019", at: https://ua.energy/wp-content/uploads/2020/09/Ukrenergo_Sustainability-Report_2019.pdf
[28] Ukrenergo, "Integration with ENTSO-E", at: https://ua.energy/european-integration/integration-entso-e/
[29] Ukrenergo, "Environmental Protection", at: https://ua.energy/about_us/social-responsibility/environmental-protection/
[30] Ukrenergo, "Ukrenergo joins UN Global Compact", at: https://ua.energy/general-news/ukrenergo-joined-the-un-global-compact-in-ukraine/

Actions taken include the appointment of its first independent supervisory board in October 2018, corporatization of public enterprise in 2019 and adoption of IFRS standards in corporate reporting.[31]

- Regarding occupational health and safety, Ukrenergo ensures production personnel are fully provided with personal and collective protective equipment. To prevent accidents at work, the Company organizes personnel trainings in occupational safety, ongoing control over performance of works, occupational safety days and comprehensive inspections. The Company has also adopted an integrated health management and occupational safety that is in accordance with ISO 45001: 2018 and OHSAS 18001-2007 standard.[32]
- Regarding waste management, all units follow Ukrenergo's waste management plan and carry out the selective segregation and collection of wastes, primarily those produced by industrial activity. As required by ISO 14001:2015, Ukrenergo has developed and established the Register of Environmental Aspects and programme for the mitigation of significant environmental aspects including waste management and monitoring.[27] Additionally, Ukrenergo has put in place rules for inventory management rules which include passport for all waste generated, instructions on the waste management procedure and primary accounting of the quantity, type and composition of waste in accordance with form No.1-BT33 and selective waste collection and storage mechanisms.[27] Overall, Sustainalytics considers that Ukrenergo has demonstrated efforts in implementing policies and systems to mitigate environmental and social risks and encourages the Company to further advance its disclosure of ESG risk mitigation practices.

Section 3: Impact of Use of Proceeds / SPTs Chosen

Impact of the sustainability issue / Importance of sustainability issue

In the EU, the energy sector accounts for more than 75% of the annual GHG emissions.[34] Additionally, fossil fuels are responsible for about 71% of the EU's primary energy supply, despite the ongoing transition away from fossil fuels and current efforts to reduce GHG emissions.[35] The EU has set an ambitious goal to become climate neutral by 2050, which is in line with the EU's commitments under the Paris Agreement. To achieve this climate neutrality goal, the European Commission has proposed a European Climate Law to ensure that the goal is set in legislation and Member States meet their respective targets.[36] The International Renewable Energy Agency (IRENA) estimates that renewable energy sources can deliver at least 60% of energy-related CO2 emission reductions.[37] However, the uptake of renewable energy sources across the EU will require substantial investments in renewable power projects in combination with continued efforts in energy efficiency improvement.

Ukraine has signed and ratified the 2015 Paris Agreement, setting up a nationally determined contribution to maintain its GHG emissions below 60% of 1990's levels by 2030.[38] Ukraine is also part of the Ukraine-European Union Association Agreement,[39] in force since 2017. The agreement aims to converge Ukraine's policies with those of the EU – increasing use of energy generated from renewable energy sources is part of the agreement.[40] It is estimated that around 75% of the primary energy demand of Ukraine is met by nuclear power and fossil fuels.[41] The development of renewable power capacity will contribute to

[31] OECD, "Corporate Governance of State-Owned Enterprises: In-depth Review of Ukrenergo" (2021) at: https://www.oecd.org/eurasia/countries/Supporting-energy-Sector-Reform-Ukrenergo-ENG.pdf
[32] Ukrenergo, "Occupational Safety", at: https://ua.energy/about_us/social-responsibility/occupational-safety/
[33] Accounting of waste and packaging materials" and Instructions for filling approved by the Order of the MENR No 342 from 07.07.2008 (Ukraine)
[34] European Commission, "Powering a climate-neutral economy", (2020), at: https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1259
[35] IRENA, "Global energy transformation: A roadmap to 2050 (2019 edition)", at: https://www.irena.org/publications/2019/Apr/Global-energy-transformation-A-roadmap-to-2050-2019Edition
[36] European Commission, "(EU) 2018/1999 (European Climate Law)", (2020), at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020PC0080&from=EN
[37] IRENA, "How to transform energy system and reduce carbon emissions", (2019), at: https://www.irena.org/DigitalArticles/2019/Apr/How-To-Transform-Energy-System-And-Reduce-Carbon-Emissions
[38] UNFCCC, "Intended Nationally-Determined Contribution (INDC) of Ukraine to a New Global Climate Agreement", (2016), at: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Ukraine%20First/Ukraine%20First%20NDC.pdf
[39] European Commission, « EU-Ukraine Association Agreement », (2014), at : https://trade.ec.europa.eu/doclib/docs/2016/november/tradoc_155103.pdf
[40] UNFCCC, "Ukraine 2050 Low Emission Development Strategy", (2017), at: https://unfccc.int/sites/default/files/resource/Ukraine_LEDS_en.pdf
[41] Our World in Data, "Ukraine: Energy Country Profile", at: https://ourworldindata.org/energy/country/ukraine

de-carbonize the electricity mix and to realize the goals of "The Energy Strategy of Ukraine 2035"[42] and Ukraine's 2050 Low Emission Development Strategy.[43]

The Energy Strategy aims to increase by 20% the share of renewable production in the final gross energy consumption as well as to increase the renewables mix to 25% by 2035. The Low Emission strategy draws a link between the development of renewable capacities and the reduction of CO2 emissions.

In this context, Sustainalytics is of the opinion that Ukrenergo's financing of renewable energy and energy efficiency projects is expected to support Ukraine's energy-related targets while contributing to the EU's transition towards a low-carbon economy.

Alignment with/contribution to SDGs

The Sustainable Development Goals (SDGs) were set in September 2015 and form an agenda for achieving sustainable development by the year 2030. The use of proceeds and/or sustainability-linked bonds advances the following SDG goals and targets:

Use of Proceeds Category / KPI	SDG	SDG Target
Renewable Energy	- Affordable and clean energy	- By 2030, increase substantially the share of renewable energy in the global energy mix
Energy Efficiency	- Affordable and clean energy - Decent work and economic growth	- By 2030, double the global rate of improvement in energy efficiency - Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead

[42] "Energy Strategy of Ukraine through 2035" (2014), at: https://www.enercee.net/fileadmin/enercee/images-2016/Ukraine/Energy_strategy_2035_eng.pdf
[43] UNFCCC, "Ukraine 2050 Low Emission Development Strategy", (2017), at: https://unfccc.int/sites/default/files/resource/Ukraine_LEDS_en.pdf

Conclusion

Ukrenergo has developed the Green and Sustainability-Linked Bond Framework under which it may issue use of proceeds and/or sustainability-linked bonds.

Under the green bonds, bond proceeds may be used to finance renewable and energy efficiency projects. Sustainalytics considers that the project(s) funded by the green bond proceeds are expected to provide positive environmental impact through enhancements or construction of power grid infrastructure to accommodate an improved RES mix on the Ukraine power grid. The Framework outlines a process by which proceeds will be tracked, allocated, and managed, and commitments have been made for reporting on the allocation and impact of the use of proceeds.

Under the sustainability-linked bonds, Ukrenergo intends to tie the coupon rate or bond redemption price to the achievements of the following SPTs:

(1) 1a: Connection of wind and solar energy production capacity (MW); Achieve 8,100MW by 2022, ,900MW by 2024, 9,300MW by 2026, 9,700MW by 2028 and 10,100MW by 2030, from a 2020 baseline.

(2) 1b: Share of connected wind and solar energy production capacity of total connected energy production capacity (%); Achieve 14,6% by 2022, 16.1% by 2024, 16.9% by 2026, 18.0% by 2028, and 18.7% by 2030 from a 2020 baseline.

Sustainalytics considers KPI 1a to be adequate and KPI 1b to be strong given that both KPIs speak to a material issue with clear and consistent definitions. Sustainalytics further considers both KPIs to be indirect measures of performance on the material issue and that KPI 1b is comparable to external contextual benchmarks while KPI 1a does not lend itself to comparability against external benchmarks. Sustainalytics considers both SPTs to be ambitious based on continued improvement on historical performance, alignment with regional targets, and likely alignment science-based decarbonization trajectories. Sustainalytics considers reporting and verification commitments to be aligned with market expectations.

Furthermore, Sustainalytics believes that the Framework is aligned with the overall sustainability strategy of the company and that Ukrenergo has adequate ESG risk management structures.

Based on the above, Sustainalytics is confident that Ukrenergo is well-positioned to issue green use of proceeds and sustainability-linked bonds and that that Framework is in alignment with the four core components of the Green Bond Principles (2021), and the five core components of the Sustainability-Linked Bond Principles (2020).

Appendix 1 Green Bond / Green Bond Programme - External Review Form

Section 1. Basic Information

Issuer name:	National Power Company Ukrenergo
Green Bond ISIN or Issuer Green Bond Framework Name, if applicable:	Green and Sustainability-Linked Bond Framework
Review provider's name:	Sustainalytics
Completion date of this form:	September 29, 2021
Publication date of review publication:	

Section 2. Review overview

SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarise the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBP:

☒	Use of Proceeds	☒	Process for Project Evaluation and Selection
☒	Management of Proceeds	☒	Reporting

ROLE(S) OF REVIEW PROVIDER

☒	Consultancy (incl. 2nd opinion)	☐	Certification
☐	Verification	☐	Rating
☐	Other *(please specify)*:		

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW *(if applicable)*

Please refer to Evaluation Summary above.

Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

1. USE OF PROCEEDS

Overall comment on section *(if applicable)*:

The eligible categories for the use of proceeds – Renewable Energy and Energy Efficiency – are aligned with those recognized by the Green Bond Principles and will lead to positive environmental impacts.

Use of proceeds categories as per GBP:

☒	Renewable energy	☒	Energy efficiency
☐	Pollution prevention and control	☐	Environmentally sustainable management of living natural resources and land use
☐	Terrestrial and aquatic biodiversity conservation	☐	Clean transportation
☐	Sustainable water and wastewater management	☐	Climate change adaptation
☐	Eco-efficient and/or circular economy adapted products, production technologies and processes	☐	Green buildings
☐	Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBP	☐	Other *(please specify)*:

If applicable please specify the environmental taxonomy, if other than GBP:

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

Ukrenergo has established a Green Bond Committee ("the Committee" or "GBC"), comprising of members of finance planning and analysis, strategy, treasury, controlling units, to identify and assess Eligible Green Projects in line with the eligibility criteria under the Framework. Projects no longer meeting the eligibility criteria shall be excluded and replaced by projects approved by the Committee. The Issuer has in place mandates necessary environmental checks, assessments, and protection measures to be in place prior to project initiation, which are applicable to all allocation decisions made under the Framework and viewed as adequate risk management systems. Based on consider. Sustainalytics considers the projection evaluation and selection processes to be in line with market practice.

Evaluation and selection

☒	Credentials on the issuer's environmental sustainability objectives	☒	Documented process to determine that projects fit within defined categories

☒ Defined and transparent criteria for projects eligible for Green Bond proceeds

☒ Documented process to identify and manage potential ESG risks associated with the project

☒ Summary criteria for project evaluation and selection publicly available

☐ Other *(please specify):*

Information on Responsibilities and Accountability

☒ Evaluation / Selection criteria subject to external advice or verification

☐ In-house assessment

☐ Other (please specify):

3. MANAGEMENT OF PROCEEDS

Overall comment on section *(if applicable)*:

The Green Bond Committee will manage the allocation of proceeds under the Green Project Portfolio using an internal register. The Committee will review the register semi-annually. At any point of time, the Issuer will maintain a Green Project Portfolio that is larger than the total net proceeds of all outstanding green bonds. Pending allocation, net proceeds will be placed in general liquidity accounts with the intention achieve full allocation within 24 months of issuance. In addition, the Ukrenergo has established a look back period of 18 months. This is considered to be in line with market practice.

Tracking of proceeds:

☒ Green Bond proceeds segregated or tracked by the issuer in an appropriate manner

☒ Disclosure of intended types of temporary investment instruments for unallocated proceeds

☐ Other *(please specify)*:

Additional disclosure:

☐ Allocations to future investments only

☒ Allocations to both existing and future investments

☐ Allocation to individual disbursements

☒ Allocation to a portfolio of disbursements

☒ Disclosure of portfolio balance of unallocated proceeds

☐ Other *(please specify)*:

4. REPORTING

Overall comment on section (if applicable):

Ukrenergo commits to publish a Green Bond Report on its website on an annual basis, until full allocation of proceeds. The report will include the allocation reporting as well as the impact reporting. Under allocation reporting, the Issuer will report on

total amounts of outstanding Green Bonds, share of financing vs refinancing, allocations as per portfolio and categories, unallocated proceeds, and examples of Eligible Projects. Under impact reporting, where feasible the Issuer will report on relevant environmental impact metrics based on each category. This is in line with market practice.

Use of proceeds reporting:

☐ Project-by-project

☒ On a project portfolio basis

☐ Linkage to individual bond(s)

☐ Other *(please specify):*

Information reported:

☒ Allocated amounts

☒ Green Bond financed share of total investment

☐ Other *(please specify):*

Frequency:

☒ Annual

☐ Semi-annual

☐ Other (please specify):

Impact reporting:

☐ Project-by-project

☒ On a project portfolio basis

☐ Linkage to individual bond(s)

☐ Other (please specify):

Information reported (expected or ex-post):

☐ GHG Emissions / Savings

☐ Energy Savings

☐ Decrease in water use

☒ Other ESG indicators (please specify): renewable electricity production capacity added (MW), share of renewable installed capacity in total electricity production capacity, technological losses in the grid (% of transmission volumes), and reduction of electricity not supplied (ENS) due to interruptions (kWh/year).

Frequency

☒ Annual

☐ Semi-annual

☐ Other (please specify):

Means of Disclosure

☐ Information published in financial report

☐ Information published in sustainability report

☐ Information published in ad hoc documents

☒ Other (please specify): to be published in Green Bond Report

☐ Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided:

☐ Consultancy (incl. 2nd opinion)

☐ Certification

☐ Verification / Audit

☐ Rating

☐ Other *(please specify):*

Review provider(s): **Date of publication:**

ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP

i. Second-Party Opinion: An institution with environmental expertise, that is independent from the issuer may issue a Second-Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second-Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.

ii. Verification: An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.

iii. Certification: An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.

iv. Green Bond Scoring/Rating: An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

Appendix 2 Sustainability-Linked Bond - External Review Form

Section 1. Basic Information

Issuer name: National Power Company Ukrenergo

Sustainability-Linked Bond ISIN:

Independent External Review provider's name for second party opinion pre-issuance (sections 2 & 3)**:** Sustainalytics

Completion date of second party opinion pre-issuance: September 29, 2021

Independent External Review provider's name for post-issuance verification (section 4)**:**

Completion date of post issuance verification:

At the launch of the bond, the structure is:

☒ a step-up structure

☒ a variable redemption structure

Section 2. Pre-Issuance Review

2-1 SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarise the scope of the review.

The review:

☒ assessed all the following elements (complete review)

☐ only some of them (partial review):

- ☒ Selection of Key Performance Indicators (KPIs)
- ☒ Calibration of Sustainability Performance Targets (SPTs)
- ☒ Verification
- ☒ Bond characteristics *(acknowledgment of)*
- ☒ Reporting

☒ and confirmed their alignment with the SLBP.

2-2 ROLE(S) OF INDEPENDENT EXTERNAL REVIEW PROVIDER

- ☒ Second Party Opinion
- ☐ Verification
- ☐ Certification
- ☐ Scoring/Rating

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

2-3 EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW *(if applicable)*

Sustainalytics considers KPI 1a to be adequate and KPI 1b to be strong given that both KPIs speak to a material issue with clear and consistent definitions. Sustainalytics further considers both KPIs to be indirect measures of performance on the material issue and that KPI 1b is comparable to external contextual benchmarks while KPI 1a does not lend itself to comparability against external benchmarks. Sustainalytics considers both SPTs to be moderately ambitious based on continued improvement on historical performance and alignment with regional targets. Sustainalytics also notes while SPT 1a cannot be benchmarked against science-based trajectories as it is measured in absolute values, while SPT 1b can be assessed against science-based trajectories and that the set targets are likely aligned or approaching a science-based

decarbonization trajectory. Sustainalytics considers reporting and verification commitments to be aligned with market expectations.
Furthermore, Sustainalytics believes that the Framework is aligned with the overall sustainability strategy of the company and that Ukrenergo has adequate ESG risk management structures.
Based on the above, Sustainalytics is confident that Ukrenergo is well-positioned to issue green use of proceeds and sustainability-linked bonds and that that Framework is in alignment with the four core components of the Green Bond Principles (2021), and the five core components of the Sustainability-Linked Bond Principles (2020).

Section 3. Detailed pre-issuance review
Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

3-1 SELECTION OF KEY PERFORMANCE INDICATORS (KPIS)

Overall comment on the section *(if applicable)*: Sustainalytics overall considers KPI 1a to be adequate and KPI 1b to be strong given they both speak to a relevant and material environmental issue while offering a clear and consistent externally recognized definition. Sustainalytics also considers both KPIs as indirectly linked to the performance on the material environmental issue, and that, while KPI 1a does not lend itself to external benchmarking, KPI 1b's future performance can be benchmarked against external contextual benchmarks.

List of selected KPIs:

- ✓ 1a. Connection of wind and solar energy production capacity (MW).
- ✓ 1b. Share of connected wind and solar energy production capacity of total connected energy production capacity (%).

Definition, Scope, and parameters

- ☒ Clear definition of each selected KPIs
- ☒ Clear calculation methodology
- ☐ Other *(please specify)*:

Relevance, robustness, and reliability of the selected KPIs

- ☒ Credentials that the selected KPIs are relevant, core and material to the issuer's sustainability and business strategy.
- ☒ Credentials that the KPIs are measurable or quantifiable on a consistent methodological basis
- ☒ Evidence that the KPIs are externally verifiable
- ☒ Evidence that the KPIs can be benchmarked
- ☐ Other *(please specify):*

3-2 CALIBRATION OF SUSTAINABILITY PERFORMANCE TARGETS (SPTs)

Overall comment on the section *(if applicable)*: Sustainalytics considers the SPTs to align with Ukrenergo's sustainability strategy and considers Ukrenergo's SPTs to be ambitious given that both SPTs represent a material improvement compared to past performance, are aligned with or surpass regional targets, and likely contribute to alignment with science-based trajectories.

Rationale and level of ambition

- ☒ Evidence that the SPTs represent a material improvement
- ☒ Evidence that SPTs are consistent with the issuer's sustainability and business strategy
- ☒ Credentials on the relevance and reliability of selected benchmarks and baselines
- ☒ Credentials that the SPTs are determined on a predefined timeline
- ☐ Other *(please specify):*

Benchmarking approach

- ☒ Issuer own performance
- ☒ Issuer's peers
- ☒ reference to the science
- ☐ Other *(please specify)*:

Additional disclosure

- ☒ potential recalculations or adjustments description
- ☒ issuer's strategy to achieve description
- ☒ identification of key factors that may affect the achievement of the SPTs
- ☐ Other *(please specify)*:

3-3 BOND CHARACTERISTICS

Overall comment on the section *(if applicable)***:** Ukrenergo has disclosed that it will link the financial characteristics of bonds issued under this Framework to the achievement of the SPTs. A failure to meet the SPTs at the target observation date or a failure to meet the reporting and verification commitments will trigger a financial penalty in the form of either a coupon rate step-up or a premium payment upon redemption of the bond. The penalty associated to the non-achievement of each SPT will be assessed independently of the other. The Company will select the relevant observation date for each specific issuance and will strive to choose an observation date near the mid-point of the bond tenor.

Financial impact:

- ☒ variation of the coupon
- ☐ …
- ☐ Other *(please specify)*:

Structural characteristic:

- ☐ …
- ☐ …
- ☐ Other *(please specify)*:

3-4 REPORTING

Overall comment on the section *(if applicable)***:**

Information reported:

- ☒ performance of the selected KPIs
- ☒ verification assurance report
- ☒ level of ambition of the SPTs
- ☐ Other *(please specify):*

Frequency:

- ☒ Annual
- ☐ Semi-annual
- ☐ Other *(please specify):*

Means of Disclosure

- ☐ Information published in financial report
- ☒ Information published in sustainability report

☐ Information published in ad hoc documents ☐ Other *(please specify):*

☐ Reporting reviewed *(if yes, please specify which parts of the reporting are subject to external review):*

Where appropriate, please specify name and date of publication in the "useful links" section.

Level of Assurance on Reporting

☐ limited assurance ☒ reasonable assurance

☐ Other *(please specify):*

USEFUL LINKS *(e.g. to review provider methodology or credentials, to issuer's documentation, etc.)*

Section 4. Post-issuance verification

Overall comment on the section *(if applicable)*:

Information reported:

☐ limited assurance ☐ reasonable assurance

☐ Other *(please specify):*

Frequency:

☐ Annual ☐ Semi-annual

☐ Other *(please specify):*

Material change:

☐ Perimeter ☐ KPI methodology

☐ SPTs calibration

Disclaimer

About Sustainalytics, a Morningstar Company

Sustainalytics, a Morningstar Company, is a leading ESG research, ratings and data firm that supports investors around the world with the development and implementation of responsible investment strategies. For more than 25 years, the firm has been at the forefront of developing high-quality, innovative solutions to meet the evolving needs of global investors. Today, Sustainalytics works with hundreds of the world's leading asset managers and pension funds who incorporate ESG and corporate governance information and assessments into their investment processes. Sustainalytics also works with hundreds of companies and their financial intermediaries to help them consider sustainability in policies, practices and capital projects. With 17 offices globally, Sustainalytics has more than 800 staff members, including more than 300 analysts with varied multidisciplinary expertise across more than 40 industry groups.

For more information, visit www.sustainalytics.com

Or contact us contact@sustainalytics.com

5th Green Bond Pioneer Awards
Climate Bonds Initiative
Largest Verifier for Certified Climate Bonds of 2019
awarded to Sustainalytics
SUSTAINALYTICS
Climate Bonds AWARDS 2020
More information conference.climatebonds.net/awards

CLIMATE BONDS STANDARD
APPROVED VERIFIER

Environmental Finance
Bond Awards 2021
Winner
External assessment provider of the year

GlobalCapital
SRI Awards
Named
2015: Best SRI or Green Bond Research or Rating Firm
2017, 2018, 2019: Most Impressive Second Opinion Provider

The Green Bond Principles