



New Energy Investments Green Bond Second Opinion

November 27, 2020

New Energy Investments (NEI) is a Polish private holding company (a special purpose vehicle) focusing on developing small scale solar PV plants in Poland, fully owned by Columbus Energy. NEI currently has 31 solar photovoltaic (PV) projects diversely located in Poland, with a 30,34 MW installed capacity. It currently has contracted 31 projects, of which two are operationalized and 11 are under construction. Remaining projects are estimated to be completed within the first half of 2021. NEI is planning to expand their portfolio with similar solar PV projects in Poland, starting in 2021.

The green bond framework exclusively focuses on financing of solar PV plants with an installed capacity between 500 kW and 1 MW that promote the transition to low carbon, climate resilient growth and sustainable development in Poland. The company informed us that no forests would be cleared for the power plants, but the issuer has no environmental experts within the selection team. Installations are built on low value agricultural land, or on flat grounds or buildings without obstacles blocking the sunlight. According to national regulation, land with high biodiversity value or conservation areas cannot be selected.

NEI is focusing on the generation of renewable energy but could significantly improve governance procedures. NEI does not have any specific targets related to environment or climate change and neither has the parent company Columbus Energy. The issuer has not implemented TCFD recommendations but is aware of the climate risk related to their activities. The selection process does not include any screening of suppliers or life cycle assessments. The company currently does not specify impact reporting but informed us that they are currently considering reporting impacts. To increase transparency, NEI could publish the environmental impacts reports on their website.

Based on the overall assessment of the eligible green assets under this framework and governance and transparency considerations, NEI's green finance framework receives a **CICERO Dark Green** shading and a governance score of **Fair**. The project categories represent a clear Dark Green solution, but the issuer could improve the framework by strengthening governance procedures such as forming a selection committee with environmental expertise and requiring life cycle assessments, screening suppliers for environmental impacts and equipment for recyclability as well as monitoring and reducing emissions from the construction.

SHADES OF GREEN

Based on our review, we rate the New Energy Investments' green bond framework **CICERO Dark Green**.

Included in the overall shading is an assessment of the governance structure of the green bond framework. CICERO Shades of Green finds the governance procedures in New Energy Investments' framework to be **Fair**.



GREEN BOND PRINCIPLES

Based on this review, this Framework is found in alignment with the principles.





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1 Terms and methodology

This note provides CICERO Shades of Green's (CICERO Green) second opinion of the client's framework dated October 2020. This second opinion remains relevant to all green bonds and/or loans issued under this framework for the duration of three years from publication of this second opinion, as long as the framework remains unchanged. Any amendments or updates to the framework require a revised second opinion. CICERO Green encourages the client to make this second opinion publicly available. If any part of the second opinion is quoted, the full report must be made available.

The second opinion is based on a review of the framework and documentation of the client's policies and processes, as well as information gathered during meetings, teleconferences and email correspondence.

Expressing concerns with 'shades of green'

CICERO Green second opinions are graded dark green, medium green or light green, reflecting a broad, qualitative review of the climate and environmental risks and ambitions. The shading methodology aims to provide transparency to investors that seek to understand and act upon potential exposure to climate risks and impacts. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The shades are intended to communicate the following:

CICERO Shades of Green



Dark green is allocated to projects and solutions that correspond to the long-term vision of a low carbon and climate resilient future. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Ideally, exposure to transitional and physical climate risk is considered or mitigated.



Medium green is allocated to projects and solutions that represent steps towards the long-term vision, but are not quite there yet. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Physical and transition climate risks might be considered.



Light green is allocated to projects and solutions that are climate friendly but do not represent or contribute to the long-term vision. These represent necessary and potentially significant short-term GHG emission reductions, but need to be managed to avoid extension of equipment lifetime that can lock-in fossil fuel elements. Projects may be exposed to the physical and transitional climate risk without appropriate strategies in place to protect them.



Brown is allocated to projects and solutions that are in opposition to the long-term vision of a low carbon and climate resilient future.

Examples



Wind energy projects with a strong governance structure that integrates environmental concerns



Bridging technologies such as plug-in hybrid buses



Efficiency investments for fossil fuel technologies where clean alternatives are not available



New infrastructure for coal

Sound governance and transparency processes facilitate delivery of the client's climate and environmental ambitions laid out in the framework. Hence, key governance aspects that can influence the implementation of the green bond are carefully considered and reflected in the overall shading. CICERO Green considers four factors in its review of the client's governance processes: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify and approve eligible projects under the framework, 3) the management of proceeds and 4) the reporting on the projects to investors. Based on these factors, we assign an overall governance grade: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.



2 Brief description of New Energy Investments' green bond framework and related policies

New Energy Investments Sp.z o.o. (NEI) is a private holding company (a special purpose vehicle) focusing on photovoltaic (PV) solar investments. NEI is fully owned by Columbus Energy S.A. (Columbus Energy). Columbus Energy started to invest in solar PV plants in 2019 and is one of the leading Polish companies on the Polish PV market. 12,5 MW of capacity is now installed and connected to the grid. Remaining investment portfolios (owned and under negotiation) is around 1000 MW. Columbus Energy has a 10% market share in the Polish solar market and is listed on the Warsaw Stock Exchange.

NEI is focusing on small scale solar PV plants, with an installed capacity between 500 kW and 1 MW and with a majority of projects close to or at 1 MW. NEI has currently 31 solar PV projects diversely located in Poland, with a 30,34 MW installed capacity. Of the 31 projects, two are operationalized and 11 are under construction. For the remaining projects construction have not started, but projects are estimated to be completed within the first half of 2021. NEI is planning to further expand their portfolio with similar solar PV projects in Poland, starting in 2021.

All projects in NEI's portfolio have signed "Contract for Differences" (CfD) with the Zarządca Rozliczeń S.A. (ZA; a company full owned by the Polish Government) that will guarantee the electricity price offered by the company under the auction (the bid-price) for the electricity generated over a 15-years period. After the 15-year period, the asset will sell energy at market prices. The solar farms will generate revenues from the sale of energy at market prices. Installations are built on low value agricultural land, or on flat grounds or buildings without obstacles blocking the sunlight.

Environmental Strategies and Policies

NEI was established for the purpose of constructing and operating solar PV plants, and as such they do not have comprehensive corporate governance including concrete climate or environmental target but is following the same environmental procedures as Columbus Energy. However, Columbus Energy does not have any concrete targets related to environment or climate change. NEI is not reporting in line with GRI/Global Compact standards and have not carried out Life Cycle Analysis for their projects.

According to the issuer, they have not implemented the TCFD-recommendations or carried out climate risk assessments, however equipment used in the installation is tested for resistance to wind, snow, and hail with a large margin of safety to withstand increasingly difficult weather conditions. Furthermore, NEI informs that the components are equipped with security features ensuring safe operation of the installations.

The construction of the solar plants is carried out by Columbus Energy with the use of subcontractors that according to NEI, are qualified to install solar farms and need to have a quality certificate issued by Columbus Energy.

The waste collected during construction is stored and then transferred to a specialized company for recycling or disposal. Municipal waste generated by employees, is segregated in accordance with the standards adopted in local institutions dealing with waste disposal.



Use of proceeds

NEI will use the green bond proceeds exclusively to finance the construction of solar PV farms and covering future liabilities resulting from investment outlays. Proceeds will also be used to refinance existing debt from the two PV projects already implemented and ongoing constructions of the solar PV plants not yet completed.

The debt result from the value of the bonds issued by Columbus Energy, and no other external debt is foreseen.

Selection

The selection process is a key governance factor to consider in CICERO Green's assessment. CICERO Green typically looks at how climate and environmental considerations are considered when evaluating whether projects can qualify for green finance funding. The broader the project categories, the more importance CICERO Green places on the governance process.

NEI has not established a committee for selection of new projects. NEI informs that their main selection criteria for new solar PV projects are the location of the solar farms and available power in the grid. A large team of around 20 experts with knowledge on relevant project sites and grid availability is working on identifying new projects, and the final decision is taken by the CEO of the company. They select agricultural wasteland or low-class agricultural land. The location needs to be aligned with local landscape- and environmental laws and reviewed by regional environmental authorities. A positive opinion from the regional environmental authorities is needed before investments can start. Investments in protected area or on higher grade class of land will be rejected.

Management of proceeds

CICERO Green finds the management of proceeds of New Energy Investments to be in accordance with the Green Bond Principles.

Under the NEI green bond framework, the proceeds will be paid directly from the bond issuance account to project implementation of ongoing projects, provided that certain conditions are met. Conditions are set out by NEI's independent technical advisor and are related to productivity assumptions of the individual power plants, verification of stage of investment and completion and compliance of the assumptions. The funds from the bonds will be assigned to individual projects. Project funds will then be used to repay the bonds. There will be no unforeseen inflows, and the SPV will only handle investments in solar PV farms. Only NEI will be able to use the funds.

Reporting

Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of green finance programs. Procedures for reporting and disclosure of green finance investments are also vital to build confidence that green finance is contributing towards a sustainable and climate-friendly future, both among investors and in society.

NEI will report on verifications of the PV plant's productivity assumptions, the investment's advancement, that formal and legal acceptance of the investments have been completed and on information on the general condition of the investments. This reporting will be verified by a technical advisor.

NEI will also provide financial reports on the economic effects of the investments. The reports include conducted activities effect on revenues, costs, and financial results. This comprises information on the volume of energy produced and sold, information on failures, defects, random events and additional operating costs, changes to the



project documentation or other events important for the future functioning of the installation or for achieving the contracted level of electricity sales. This reporting will be presented quarterly, semi-annually and annually.



3 Assessment of New Energy Investments’ green bond framework and policies

The framework and procedures for NEI’s green bond investments are assessed and their strengths and weaknesses are discussed in this section. The strengths of an investment framework with respect to environmental impact are areas where it clearly supports low-carbon projects; weaknesses are typically areas that are unclear or too general. Pitfalls are also raised in this section to note areas where NEI should be aware of potential macro-level impacts of investment projects.

Overall shading

Based on the project category shadings detailed below, and consideration of environmental ambitions and governance structure reflected in NEI’s green bond framework, we rate the framework **CICERO Dark Green**.

Eligible projects under the NEI’s green bond framework

At the basic level, the selection of eligible project categories is the primary mechanism to ensure that projects deliver environmental benefits. Through selection of project categories with clear environmental benefits, green bonds aim to provide investors with certainty that their investments deliver environmental returns as well as financial returns. The Green Bonds Principles (GBP) state that the “overall environmental profile” of a project should be assessed and that the selection process should be “well defined”.

Category	Eligible project types	Green Shading and some concerns
Renewable energy	<ul style="list-style-type: none">Installations up to 1 MW solar PV plants	Dark Green <ul style="list-style-type: none">✓ Solar power is key to a low-carbon transition.✓ Environmental requirements to sub-contractors and life cycle impacts of the solar modules or the entire plants are currently not considered.✓ While solar power is generally low-carbon, local environmental impacts such as on biodiversity and landscape can be of concern for these projects.

Table 1. Eligible project categories



Background

In 2019, renewable electricity generation rose 6%, with wind and solar PV technologies together accounting for 64% of this increase. Although the share of renewables in global electricity generation reached almost 27% in 2019, renewable power as a whole still needs to expand significantly to meet the SDS share of almost half of generation by 2030. This requires the rate of annual capacity additions to accelerate¹. In 2017, solar PV provided about 2% of the world's electricity – only a tenth of that provided by hydropower. By 2030, solar is expected to have caught up with hydro – with both sources providing almost 15% each of the total electricity produced².

The EU has committed itself to a clean energy transition, which will contribute to fulfilling the goals of the Paris Agreement on climate change and provide clean energy to all. To deliver on this commitment, the EU has set binding targets, e.g. to increase the share of renewable energy to at least 32% of EU by 2030³. The EU Member States have drafted 10-year National Energy and Climate Plans (NECP), setting out how to reach its national targets. As part of meeting the EU-wide 2030 target, Poland has in their NCEP declared to achieve a 21 % share of renewable energy in gross final energy consumption by 2030, of which 7,3 GW of solar PV in 2030 compared to 1,5 GW in 2019. The share of renewable energy in net electricity generation is expected to grow to ca. 27 % by 2030⁴. However, to enter the path require by the EU climate policy, the gross final energy consumption should be at least 25% by 2030.

In 2019 over 80% of Poland's energy was produced from coal, and policies for renewable energy in Poland has been slow. However, the Renewable Energy Act (REA) was implemented in 2015 to encourage growth of production in the renewable energy sector in Poland and amended to further incentivize renewable energy investments. In the RES Amendment Act (enacted July 2018) the Feed-in-Tariffs that was previously applied have for installations of at least 500 kW been replaced by an auctioning system. In the last auction round held for systems with a generation capacity up to 1 MW, solar PV plants took the whole 750 MW volume. The Polish PV market is now growing fast, and capacity has increased from less than 5 MW in 2013 to 1,5 GW installed capacity in the National Power System by February 2020. According to the Institute for Renewable Energy (IEO) in Poland, the country's cumulative installed solar PV capacity will reach 2.5 GW by the end of 2020. The IEO is also forecasting an annual increase of around 1 GW per year the coming five years⁵. This mean that already in 2025, the solar PV capacity will exceed the capacity assumed in NCEP for 2030.

Challenges for among other manufacturers of PV equipment are related to a comprehensive bureaucracy and lack of knowledge of the market prospects in the medium and long term.

EU Taxonomy

In March 2020, a technical expert group (TEG) proposed an EU taxonomy for sustainable finance that included a number of principles including “do-no-significant-harm (DNSH)-criteria” and mitigation thresholds for various types of activities.⁶ In November 2020, EU published its draft delegated act to outline its proposed technical screening criteria for climate adaptation and mitigation objectives, respectively, which it was tasked to develop after the Taxonomy entered into law in July⁷. NEI's eligible activities relate to the taxonomy activity *Electricity generation using solar photovoltaic technology* in the draft published in November 2020⁸.

¹ <https://www.ica.org/reports/renewable-power>

² <https://www.dnvgl.com/to2030/technology/solar-pv-powering-through-to-2030.html>

³ https://ec.europa.eu/energy/sites/ener/files/documents/necp_factsheet_pl_final.pdf

⁴ https://ec.europa.eu/energy/sites/ener/files/documents/poland_draftnecp_en.pdf

⁵ <https://solaredition.com/the-polish-solar-pv-market-will-boom-in-the-next-five-years-predictions-ico/>

⁶ Taxonomy: Final report of the Technical Expert Group on Sustainable Finance, March 2020.

⁷ https://ec.europa.eu/knowledge4policy/publication/sustainable-finance-teg-final-report-eu-taxonomy_en

⁸ https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12302-Climate-change-mitigation-and-adaptation-taxonomy#ISC_WORKFLOW

⁸ [EU Taxonomy: Annex to the Commission Delegated Regulation, supplementing Regulation \(EU\) 2020/852, November 2020. https://ec.europa.eu/finance/docs/level-2-measures/taxonomy-regulation-da-2020-annex-1_en.pdf](https://ec.europa.eu/finance/docs/level-2-measures/taxonomy-regulation-da-2020-annex-1_en.pdf)



For Solar PV DNSH-criteria are related to adaptation, circular economy, and ecosystems:

- ✓ Adaptation: Material physical climate risks to the activity must be identified through climate risk assessments. PV farms should consider expected future physical climate risks, e.g. from heavy snow loads, hailstorms and increased frequency and severity of storms, and ensure e.g. that equipment need to be robust enough to withstand more intense weather.
- ✓ Circular economy: The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
- ✓ Ecosystems: Completion of an Environmental Impact Assessment (EIA) in accordance with the EU Directives on Environmental Impact Assessment (2014/52/EU). For sites/operations located in or near to biodiversity-sensitive areas additional requirements are applicable.

Alignment:

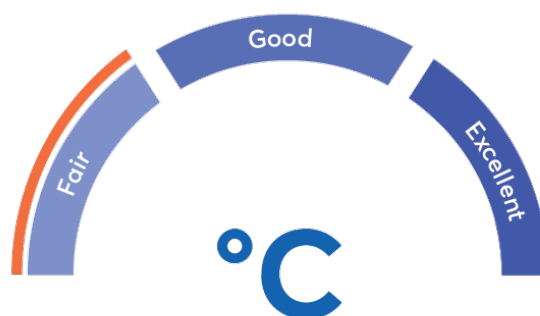
- ✓ NEI informs that the equipment used in the installation is tested for resistance to wind, snow, and hail with a large margin of safety to withstand increasingly difficult weather conditions. However, climate risk assessments have not been carried out.
- ✓ According to the issuer, components are equipped with security features ensuring safe operation of the installation.
- ✓ According to Polish regulation, EIAs need to be carried out when significant environmental impacts are expected⁹. For small solar PV projects an EIA is not required, but an “Information Card” must be submitted, providing information about the planned project and potential environmental effects.

Governance Assessment

Four aspects are studied when assessing the NEI’s governance procedures: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify eligible projects under the framework; 3) the management of proceeds; and 4) the reporting on the projects to investors. Based on these aspects, an overall grading is given on governance strength falling into one of three classes: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.

NEI is focusing on the generation of electricity from Solar PV and is by this contributing to the mitigation of climate change. However, NEI does not have any specific targets related to environment or climate change and neither has the parent company Columbus Energy. The issuer has not implemented TCFD recommendations but is aware of the climate risk related to their activities. The selection process could be strengthened by forming a selection committee, including environmental competence that can take unanimous decisions on the selection of projects. The company is weak on the reporting of environmental impacts of their projects but will report on energy generated from the solar PV farms. This reporting will be verified by a technical advisor. The company informed us that it is currently strongly considering reporting impacts according to ICMA’s handbook for impact reporting. There are currently no plans to make the reports available on the company’s website.

The overall assessment of NEI’s governance structure and processes gives it a rating of **Fair**.



⁹ Act on providing information on the environment and environmental protection, public participation in environmental protection and on environmental impact assessment. (ecolex.org)



Strengths

It is a clear strength that NEI's framework focuses exclusively on low-carbon solutions. Electricity generated from solar PV plants will increase the share of renewable energy in Poland and is an important contribution to Poland's renewable energy targets.

Production of electricity from solar PV is considered to contribute substantially to climate change mitigation without any further threshold screening, and is therefore likely to be aligned with the technical mitigation criteria in the EU-taxonomy for the activity *Electricity generation using solar photovoltaic technology*.

Based on information from the issuer, it is our interpretation that except for a lack of climate risk assessments NEI is likely to be aligned with the DNSH-criteria for the activities eligible in their green bond framework.

Weaknesses

We find no material weaknesses in NEI's green finance framework.

Pitfalls

While renewable energy projects generally are considered to have a very positive climate mitigation impact, there are nevertheless emissions associated with the construction process. CICERO Green encourages NEI to conduct life cycle assessments of major projects. Life cycle assessments will provide valuable information on the environmental and climate impacts of the projects and point to suppliers that can lead to a reduction in emissions.

While the project categories are exclusively focusing on low carbon technology, NEI's governance approach of the framework represents a pitfall. The issuer could improve the framework by strengthening governance procedures such as forming a selection committee and strengthening reporting practices.



Appendix 1: Referenced Documents List

Document Number	Document Name	Description
1	Green bond framework, Issued by New Energy Investments Sp. Z o.o., dated October 2020.	



Appendix 2: About CICERO Shades of Green

CICERO Green is a subsidiary of the climate research institute CICERO. CICERO is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international cooperation. CICERO has garnered attention for its work on the effects of manmade emissions on the climate and has played an active role in the UN's IPCC since 1995. CICERO staff provide quality control and methodological development for CICERO Green.

CICERO Green provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green bond investments. CICERO Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Green is independent of the entity issuing the bond, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. CICERO Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

We work with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions (ENSO). Led by CICERO Green, ENSO contributes expertise to the second opinions, and is comprised of a network of trusted, independent research institutions and reputable experts on climate change and other environmental issues, including the Basque Center for Climate Change (BC3), the Stockholm Environment Institute, the Institute of Energy, Environment and Economy at Tsinghua University and the International Institute for Sustainable Development (IISD).

