°CICERO Shades of Green

NAP Nyrt
Green Finance Second Opinion

30 November 2022

Executive Summary

NAP Nyrt ("NAP") is a solar power producer. Through wholly owned project companies, it currently operates 55 solar photovoltaic power plants in Hungary with installed capacity of 27.5 MW, all of which are connected to the grid. In the long term, its investments may expand to other renewable energies such as onshore wind farms. NAP was founded in 2020 and listed on the Budapest Stock Exchange's Xtend market in 2021, and currently has four employees.

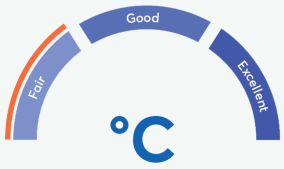
Under its framework, NAP will finance or refinance the acquisition of photovoltaic solar projects or the development of renewable energy projects. The latter is limited to developing photovoltaic solar power plants and integrating energy storage systems into its solar projects. Investments under the framework are limited to Hungary.

We rate the framework **CICERO Dark Green** and give it a governance score of **Fair.** The Dark Green shading reflects the importance of renewable energy in a 2050 future, while the governance score reflects that - as a young and small company - NAP's approaches to environmental and climate matters are, in some instances, in an early stage of development.

SHADES OF GREEN

°CICERO Dark Green

GOVERNANCE ASSESSMENT



GREEN BOND AND LOAN PRINCIPLES

Based on this review, this framework is found to be aligned with the principles.

Strengths

Renewable energy - including solar - is key to a low carbon transition. Such solutions are particularly necessary in jurisdictions such as Hungary where coal and gas power are currently prevalent. Energy storage solutions can help mitigate the volatility of renewable energy systems, including against climate risks, for example extreme changes in weather.

NAP's selection process has welcome elements. For example, an external sustainability expert will support the selection and decision process for all eligible green investments (though these do not vote), and the framework states the selection process will include express consideration of potential social issues.

Pitfalls

While solar energy and energy storage systems are considered to have positive climate mitigation and resilience impacts, they can be energy-intensive to produce, transport and install/remove. As such, considerations of Scope 3 emissions are critical. We encourage NAP to adopt a lifecycle approach to calculating the environmental impacts of solar PV cells and batteries, which should extend to the recycling, re-use or disposal phase. Supply chain considerations should extend, where feasible, to social risks and local environmental impacts where raw materials are sourced. These considerations will be especially important for greenfield projects, where NAP will be able to exert greater influence over, for example, solar panel sourcing.

Specific, quantitative environmental targets, set for various time horizons, allow for an assessment of ambition and easier measurement of progress. We encourage NAP to set short and medium-term climate targets as it develops its proposed Green Strategy, noting it would be particularly well served by including Scope 3 emissions in these targets, as well as measurable commitments in respect of other supply chain issues.

We encourage NAP to increase its considerations of physical risk, including the use of climate scenarios. Though NAP has informed us that climate risks are measure and evaluated - for example via soil testing for flood risks - it does not utilize climate scenarios in such assessments and could place greater emphasis on minimizing and mitigating physical risks, and pre-emptively adapting plants against potential future damage.

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1 NAP Nyrt's environmental management and green finance framework

Company description

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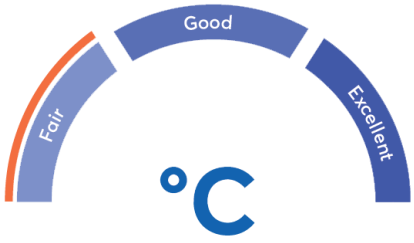
Governance assessment

As a young and small company, NAP's approaches to environmental and climate matters are, in some instances, in an early stage of development. For example, it does not have any climate or environmental targets in place beyond increased installed capacity and generation, or any express policies around lifecycle impacts of renewable energy installations. We welcome that NAP states it will focus on developing its approaches to some of these matters as the company grows and becomes more established. We also encourage NAP to develop its considerations of physical risk, including an integration of climate scenarios.

NAP's selection process has welcome elements, for example the inclusion of an external environmental expert (though these do not vote), consideration of potential social issues, and confirmation that its current approaches to, among other things, biodiversity and physical hazards will apply.



NAP's reporting commitments are similarly sound, particularly that it will align the reporting with ICMA's Handbook – Harmonized Framework for Impact Reporting, where feasible.

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

Sector risk exposure

Physical climate risks. Climate-related changes in temperature can reduce the supply and quality of energy inputs. While less sun can impact output, increasing temperatures can conversely reduce the efficiency of solar projects. Rapidly changing cloud cover can affect the stability of grids. Extreme weather events such as floods and mudslides can cause damage, both to the projects themselves and transmission and distribution networks.

Transition risks. Due to the profound changes needed to limit global warming to 2ºC, transition risk affects all sectors. Nonetheless, stricter climate policies are expected to favour renewable energy in general, and particularly solar power, which is expected to face few transition risks.

Environmental risks. Photovoltaic panel production is resource-intensive, requiring substantial amounts of water and industrial materials. Certain inputs (such hydrofluoric acid and sodium hydroxides) need careful treating and generate wastewater that requires disposal, while studies show that silicon particles are released into the environment during the production process (risking silicosis). Solar panels are made primarily from glass but can also contain cadmium and lead, which can cause cancer.

Social risks. There is an ongoing concern regarding breaches of fundamental human rights for workers in the Xinjiang region of China, home to large chemical industries, including the production of polysilicon for use in the global value chain of silicon solar panels, accounting for nearly 50% of the supply globally. Another risk is lack of traceability of product components and raw materials used in the solar power industry. Markets and practices surrounding the extraction and refining of battery inputs, like cobalt, as well as product assembly, are complex and it is difficult to ascertain their origin.

Environmental strategies and policies

NAP does not currently measure its emissions, though - as a producer of solar power - Scope 3 emissions will likely account for most of its emissions. As a young company, NAP currently has only one climate or environmentally related target: by 2024, in a best-case scenario, NAP targets installed capacity of 100 MW and generation of 145 GWh.

According to NAP, it intends to implement a 'Green Strategy' in the future, though the timeframe for this is unclear. NAP sees the Green Strategy developing its current approaches in two broad areas: firstly, environmental issues in its due diligence process (e.g. site selection), and secondly, key suppliers (e.g. environmental criteria in supplier selection).

NAP does not currently have any express climate or environmental requirements for its supply chain, for example it relies upon project developers and contractors for the procurement of solar panels, and does not consider emissions from construction or maintenance works.

In respect of circular economy considerations, NAP states that it invests in plants with solar panels with long guarantees, which may contribute to extending the lifetime of the panel. NAP also informed us that it is required to set aside costs for end-of-life, and going forward seeks to exploit the growing market for recycled or recyclable panels.

According to the framework, NAP carries out environmental assessments for sites / operations located on or near biodiversity-sensitive areas. According to NAP, this is done as standard and is a requirement of Hungarian legislation / licensing process. For investments in operational plants, it notes that local opposition to projects is not an issue it has experienced, though it notes it would be committed to discussions with local stakeholders for greenfield projects.

During project development, NAP states that climate risks are measured and evaluated, to an extent, for example via soil testing for flood risks. Nonetheless, it does not utilize scenarios in this assessment, and it is our understanding that the impact of such assessments on investment decisions is limited, and pre-emptive adaptive work is not prioritized.

NAP does not currently report on sustainability.

Green finance framework

Based on this review, this framework is found to be aligned with the Green Bond Principles and Green Loan Principles. For details on the issuer's framework, please refer to the green finance framework dated November 2022.

Use of proceeds

For a description of the framework's use of proceeds criteria, and an assessment of the categories' environmental impacts and risks, please refer to section 2.

Selection

NAP's board of directors will be responsible for project evaluation and selection, including project identification, evaluation, approval, and implementation. Only assets that satisfy the framework's eligibility criteria will be selected. Voting is done by simple majority or, if the value of the proposed transaction equals 30% or more of NAP's share capital, unanimously.

The framework states that the board of directors will also identify and manage the social and environmental risks associated with the project. According to NAP, this will entail, among others, its approaches to the use of impact assessments and consideration of physical hazards.

An external sustainability expert will support the selection and decision process for all eligible green investments.

Management of proceeds

NAP will keep proceeds in a separate account. This internal tracking method may be externally audited. Proceeds will be allocated within 24 months of issuance. Unallocated proceeds will be placed in temporary investments such as bank deposits or government bonds; they cannot be placed in fossil fuel related assets.

Reporting

NAP will publish a green finance report no later than one year after borrowing or issuance under the framework, and annually until the full allocation of proceeds. The board of directors is responsible for the report. NAP intends to report allocation on a project basis, while impacts will be aggregated. It will also align the reporting with ICMA's Handbook – Harmonized Framework for Impact Reporting (2022), where feasible.

In respect of allocation, NAP will report:

- Amount of net proceeds allocated to eligible project categories compared to total proceeds (preferably in percentage terms) – NAP has confirmed it will report proceeds allocated to 'acquisition' investments and 'development' investments separately
- List of eligible projects (number of projects and amounts allocated to each project)
- Balance of unallocated proceeds (if any)
- Proportional allocation of net proceeds to existing projects and new projects
- Proportional allocation of net proceeds to financing and refinancing.

NAP will furthermore link each project to individual bonds or borrowing, and will report the share of each eligible project deriving from proceeds under the framework. NAP may obtain a limited assurance report from an external auditor in respect of allocation.

Table 1 sets out the impact metrics contained in the framework. According to NAP, it will disclose the methods used to calculate impacts.

Eligible Projects	**Metric**
Acquisition of solar energy systems	• Annual CO_2 emission saving (CO_2 t / year) measured separately for solar energy • Total capacity of renewable energy production (MW / year) measured separately for solar energy • Annual renewable energy generation (MWh / year) measured separately for solar energy
Development of renewable energy projects associated with solar power	• Total capacity of energy storage (MW / year) • Annual CO_2 emission saving (CO_2 t / year) • Total capacity of renewable energy production (MW / year) • Annual renewable energy generation (MWh / year)

Table 1. Impact metrics

2 Assessment of NAP Nyrt's green finance framework

The eligible projects under NAP's green finance framework are shaded based on their environmental impacts and risks, based on the "Shades of Green" methodology.

Shading of eligible projects under NAP Nyrt's green finance framework

- NAP expects to use all proceeds for financing, though may use proceeds for refinancing in the future. A lookback period of one year applies.
- More proceeds are expected to be allocated to acquisition investments than development projects, though the exact shares are uncertain.
- Proceeds will be used exclusively in Hungary.
- NAP excludes standalone projects connected to highly polluting activities, nuclear energy generation, weapons and defence purposes, gambling, and potentially environmentally harmful resource extraction.

Category	Eligible project types	Green Shading and considerations
Renewable energy	• Acquisition of solar energy systems (acquisition of project companies) • Development of renewable energy projects (Example: development of energy storage unit)	**Dark Green** ✓ NAP has confirmed that the acquisition of solar energy systems is limited to photovoltaic solar plants, while the development of renewable energy projects can include the development of greenfield photovoltaic solar projects and the integration of energy storage systems into its solar projects. Project companies will be pure play. ✓ Renewable energy - including solar - is key to a low carbon transition. Energy storage solutions can help mitigate the volatility of solar systems, including against climate risks e.g. extreme changes in weather. ✓ Renewable energy projects can carry biodiversity and local environmental risks. NAP ensures environmental impact assessments are in place for operational assets, while it states it will be required under Hungarian legislation to undertake these for potential greenfield projects. ✓ Renewable energy projects entail lifecycle risks and impacts, for example emissions associated with the construction of solar panels and plants. NAP does not currently have a strong focus on

		such issues, for example embedded emissions or the environmental performance of solar panel suppliers are not considered.
	✓	End of life should be an important consideration in respect of renewable energy installations. NAP demonstrates a certain consideration of this, for example it is setting aside costs for end-of-life operations, though an increased consideration of the use of recycled and/or recyclable materials is encouraged.

Table 2. Eligible project categories

3 Terms and methodology

This note provides CICERO Shades of Green's second opinion of the client's framework dated **November 2022.** 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 Shades of 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.

'Shades of Green' methodology

CICERO Shades of 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:

Shading	Examples
Dark Green is allocated to projects and solutions that correspond to the long-term vision of a low-carbon and climate resilient future.	Solar power plants
Medium Green is allocated to projects and solutions that represent significant steps towards the long-term vision but are not quite there yet.	Energy efficient buildings
Light Green is allocated to transition activities that do not lock in emissions. These projects reduce emissions or have other environmental benefits in the near term rather than representing low carbon and climate resilient long-term solutions.	Hybrid road vehicles

The "Shades of Green" methodology considers the strengths, weaknesses and pitfalls of the project categories and their criteria. 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, including potential macro-level impacts of investment projects.

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 Shades of 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.

Assessment of alignment with Green Bond Principles

CICERO Shades of Green assesses alignment with the International Capital Markets' Association's (ICMA) Green Bond Principles. We review whether the framework is in line with the four core components of the GBP (use of proceeds, selection, management of proceeds and reporting). We assess whether project categories have clear environmental benefits with defined eligibility criteria. The Green Bonds Principles (GBP) state that the "overall environmental profile" of a project should be assessed. The selection process is a key governance factor to consider in CICERO Shads of Green's assessment. CICERO Shades of 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 Shades of Green places on the selection process. CICERO Shades of Green assesses whether net proceeds or an equivalent amount are tracked by the issuer in an appropriate manner and provides transparency on the intended types of temporary placement for unallocated proceeds. Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of green finance programs.

Appendix 1:
Referenced Documents List

Document Number	Document Name	Description
1	Green Finance Framework (November 2022)	

Appendix 2:
About CICERO Shades of Green

CICERO Shades of 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 Shades of Green.

CICERO Shades of Green provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green bond investments. CICERO Shades of Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Shades of 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 Shades of 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, the International Institute for Sustainable Development (IISD) and the School for Environment and Sustainability (SEAS) at the University of Michigan.

Environmental Finance
Bond Awards
2022
Winner
External assessment provider of the year

- **2021 Largest External Reviewer,** Climate Bonds Initiative Awards
- **2020 External Assessment Provider Of The Year,** Environmental Finance Green Bond Awards
- **2020 Largest External Review Provider In Number Of Deals,** Climate Bonds Initiative Awards
- **2019 External Assessment Provider Of The Year,** Environmental Finance Green Bond Awards
- **2019 Largest Green Bond SPO Provider,** Climate Bonds Initiative Awards
- **2018 External Assessment Provider Of The Year,** Environmental Finance Green Bond Awards
- **2018 Largest External Reviewer,** Climate Bonds Initiative Awards
- **2017 Best External Assessment Provider,** Environmental Finance Green Bond Awards
- **2016 Most Second Opinions,** Climate Bonds Initiative Awards