

Sustainability Second Party Opinion

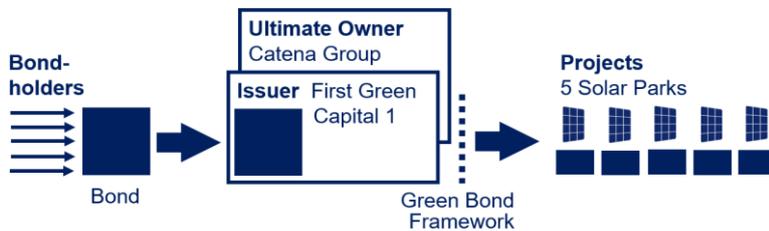
5.5% First Green Capital Green Bond 2020-2030

6/2020

Key Data

Issuer: First Green Capital Investments 1 GmbH
Ultimate Owner: Catena Group BV
Volume: up to EUR 2.0 mil
ISIN: NL0015031519
Fixed Interest Rate: 5.5% p.a.
Tenor: 10 years

Green bond with ecological purpose: photovoltaic plants



● The proceeds will be used to refinance existing photovoltaic plants of issuer First Green Capital in Germany. The portfolio is comprised of five plants in fields and on rooftops with a total capacity of 6.2 MWp.

► Increasing renewable energy capacities is one of the most important measures for climate change mitigation. The use of proceeds of the discussed green bond are directly supporting this goal.

► Environmental and social risks in the supply chain exist. Catena Group does not apply procurement criteria that go beyond legal compliance.

► Catena Group’s Green Bond Framework, valid since 2019, comprises various superficially defined areas eligible for funding. The procedures ensure an appropriate management of proceeds, although the discussed green bond is refinancing already existing older projects. Financial information and investor relations are in the development stages.

► Catena Group receives an above average rfu-sustainability rating.

► **The bond’s overall sustainability rating is B+. This is an above average result, reflecting the characteristics of a green bond.**

proactive		active		neutral		negative			
A+	A	A-	B+	B	B-	C+	C	C-	EX
a			b			c			NR
ab				bc					
ba									

A+ ... C- are the ratings of the rfu sustainability model. This applies up to 100 single criteria for measuring a company’s or project’s ecological and social quality. Small characters express indicative ratings based on a reduced data rate. Other possible characters are EX (excluded) and NR (no Rating).

Explanations

rfu, which was founded in 1997, is based in Austria and is a provider of sustainability research, audits for sustainable financial products and other services related to sustainable investment. rfu was entrusted with an external sustainability survey (a so-called Second Party Opinion) by the issuer of this green bond.

This Second Party Opinion intends (a) to describe the use of proceeds in a comprehensible manner and to evaluate their (b) ecological and (c) social impact verbally and by a rating. This includes (d) the suitability of processes to select funded projects, transparency as well as (e) the issuer’s own sustainability.

The concept of sustainability is a comprehensive one, which means that the ecological and the social dimensions as well as specific emphases (e.g. “social bonds” or “green bonds”) are taken into consideration. International standards (in particular the “Green Bond Principles” and the “Social Bond Principles”) are reflected where relevant.

Legend

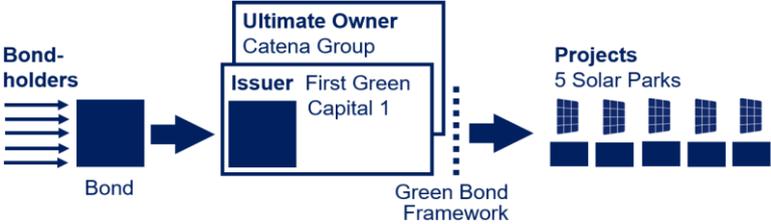
Blue Boxes contain descriptions of relevant framework conditions. Texts after “●” present concrete characteristics. After “►”, interpretations and evaluations can be found.

A. Description of the Use of Proceeds

? *“For which projects will the proceeds of the green bond be used?”*

A.1. Projects

- The **proceeds** will be used to **refinance existing photovoltaic projects in Germany**, which have been constructed in 2011/2012. The portfolio is comprised of five plants both in fields and on rooftops with a total installed peak capacity of 6.2 MWp. Field installations represent 60%, rooftops 40%. Additions to the portfolio are not planned. In case of changes (e.g. sale of asset) proceeds would be allocated towards other photovoltaic projects.
- The **issuer First Green Capital Investments 1 GmbH**, a company under German law, is a subsidiary of **First Green Capital Holding GmbH** and is ultimately owned by **Catena Group BV** (see Chapter E). Catena Group, headquartered in the Netherlands, is an investment management firm with a focus on financial advisory projects and complex transactions emphasizing green energy and circular economy projects. The ecological and the social impact of the bond is widely linked to the issuing SPV (special purpose vehicle) First Green Capital Investments 1 GmbH (see Chapter B and C). For the evaluation of the issuer in a wider sense (Chapter E), we define Catena Group as the relevant entity, because is the operating company which has the strategic lead over the issuing SPV.



- The consolidated **book value** of the relevant assets is EUR 6.2 mil and annual revenues reach around EUR 1.3 mil. The investments can be attributed to the supply chain, most importantly energy production equipment (modules, inverter) as well as planning, construction and electric works.

List of projects (sorted by capacity)

Project Name	Location	Commissioning	Situation	Capacity (kWp)
Solkraftwerk 2	Friedrichshain	9-2011	Ground mount	3,683
Solkraftwerk 1	Berlin	6-2012	Rooftop	1,066
Solkraftwerk 12	Poing	3-2011	Rooftop	0,866
Solkraftwerk 6	Wittstock	3-2011	Rooftop	0,300
Solkraftwerk 5	Wusterhausen	12-2011	Rooftop	0,300
Total				6,215

? *“What are the major determinants of sustainability along the value chain?”*

A.2. Topics of Material Importance

The following topics are of material importance for the environmental and social quality of the green bond.

- **climate impacts of photovoltaics**
- **social impacts in the supply chain**
- social impacts of the operation of photovoltaic plants
- other environmental impacts throughout the life cycle

These are the parameter on which the following impact analysis is focusing.

B. Ecological Impact of Use of Proceeds



“What is the impact of use of proceeds on the natural environment?”

In terms of environmental impacts, the concept of planetary boundaries serves as a point of reference. A life cycle-oriented perspective is applied for this Second Party Opinion, and factors of material importance are derived from this.

B.1. Climate Impacts of Photovoltaics

The transition from fossil-based modes of consumption and production towards renewable energy is one of the most essential steps for global society to reduce the magnitude of climate change but also atmospheric aerosol loading and ocean acidity. This is particularly true for the European Union where electricity consumption alone amounts to 5.470 kWh/capita and thus results in approximately 3 mt CO₂e (equivalents) / capita. In order to achieve the goals of the Paris Agreement, these impacts need to decline drastically.

- According to the IPCC (Intergovernmental Panel on Climate Change) photovoltaics has very **low climate impacts per electricity output** compared to fossil based energy, but it is not characterized by an outstanding performance compared to other sources of renewable energy (e.g. wind).
- Based on average figures from NREL Energy Analysis, the **CO₂-life-cycle-emissions** are estimated at 24 g CO₂e/kWh and are far below the European average of 294 g (2017). Site and supplier specific data is not collected.
- ▶ **Increasing renewable energy capacities is one of the most important measures for climate change mitigation. It can be expected that the green bond’s use of proceeds for the discussed photovoltaics projects support the goal of a transition towards a carbon-neutral electricity generation.**

B.2. Environmental Impacts in the Supply Chain and through Operation

Most environmental impacts of photovoltaics are found in the supply chain through the (a) exploration of silicon, (b) processing into ingots and wafers, (c) finalisation of the modules and (d) other components (power inverter, aluminium frame). During operation, the main impact has to be considered mobility and transportation for maintenance.

- 40% of the modules are rooftop installations. Since already sealed surfaces, these do not contribute to **land use changes**. The remaining 60% are ground mounted greenfield developments.
- **Regional environmental risks** in terms of insufficient legislative frameworks have to be considered rather low to medium in Germany, but can be expected further upstream in the value chain. This is particularly true for the value chain of photovoltaic modules.
- The **most important suppliers** are the producers of the photovoltaic modules and inverters as well as construction companies and maintenance service providers:
 - Yingli Green Energy (vendor of modules): first photovoltaics company to obtain a product carbon footprint verification, partner of the WWF Climate Savers Initiative, ISO14001 certification, declining sustainability reporting
 - BYD Company Ltd (modules): declining sustainability reporting, no above average environmental performance
 - REFU Elektronik GmbH (inverter): apart of its products no specific environmental nor social orientation
 - ABB Ltd (inverter): sustainability report, science-based greenhouse gas reduction target
 - Emerson Electric Company (inverter): sustainability report, climate goals (not science-based)
- Specific environmental criteria or requirements for the **selection of suppliers** were not applied. Despite positive measures of some of the major vendors, the environmental performance in the supply chain is not far beyond average and a more ambitious use of renewable energy and secondary resources would be required.

● The **carbon footprint of the supply chain** is estimated to be around 153 t CO_{2e}. The extend of renewable energy used to produce main components (modules, inverters) and the provision of major services (construction, maintenance) is unknown. It is not emphasized to increase its share.

► **Environmental risks in the supply chain exist due to the focus on Chinese photovoltaic modules and are not managed systematically yet. A share of roughly 60% of the installed plants are greenfield developments.**

B.3. Rating - Ecological Impact of Use of Proceeds

proactive		active		neutral		negative			
A+	A	A-	B+	B	B-	C+	C	C-	EX
a		b				c			NR
ab				bc					
				ba					

C. Social Impact of Use of Proceeds



“What is the impact of use of proceeds on society and its major stakeholders?”

C.1. Social Impacts in the Supply Chain

Social risks in the supply chain of photovoltaics exist and can be found most importantly in the exploration and processing of raw material, manufacturing as well as transportation and construction services. Over the full life cycle the human health impacts of photovoltaics are far below those of the prevailing fossil fuels (in terms of death rates from air pollution and accidents/kWh).

- Catena Group has no yet taken measures towards an **ethical supply chain management** and is currently in the process of drafting a supplier relationship management framework.
 - The **most important suppliers** are partly characterized by certain positive aspects (e.g. SA8000 certification of Yingli Green Energy). Overall, no above average social performance can be observed. Two of the main suppliers had also been involved in very controversial activities (e.g. BYK in Tibetan mining activities, ABB’s wind energy project in Western Sahara), but which are not connected to the photovoltaics value chain.
 - **Legal standards** (e.g. working conditions and human rights) in Germany are high and should reduce the mentioned social risks for some parts of the value chain.
- **Social risks in the supply chain exist, most particularly considering the working conditions in the component production. Catena Group does not apply procurement criteria that go beyond legal compliance.**

C.2. Social Impacts of the Operation of Solar Parks

Access to electricity and security of supply have a high influence on the quality of life. Energy poverty in Germany is well below European average and most importantly linked to heating. Democratization of energy supply through participatory funding schemes has become more popular in the recent years.

- First Green Capital mainly is a developer and manager of production capacities. **Monitoring and maintenance** of the solar parks is **partly outsourced** to Kintlein & Ose GmbH & Co KG. Apart of its services, no specific sustainability orientation can be observed (e.g. regarding working conditions).
 - First Green Capital sells the produced electricity to energy suppliers. Its influence on **consumer prices** is very limited. Participatory funding schemes are not supported.
 - Photovoltaics projects have led to rather few controversies with adjacent communities, compared to other forms of energy production such as wind parks, hydro power and fossil fuels combustion. Catena Group has not yet defined procedures for the **integration of stakeholders** (e.g. involvement of adjacent communities into decisions).
- **Photovoltaics directly contributes to the sustainable development goal number 7 (“Affordable and Clean Energy”). Apart of this intrinsic value no further social aspects are currently managed.**

C.3. Rating - Social Impact of Use of Proceeds

proactive		active		neutral		negative			
A+	A	A-	B+	B	B-	C+	C	C-	EX
a			b			c			NR
ab				bc					
ba									

D. Management of Proceeds & Reporting



“How does the issuer evaluate and select the projects funded and ensure the ongoing compliance with the framework?”

D.1. Process of Evaluating and Selecting Projects

The issuer is responsible for the use of the proceeds for sustainable, especially ecological, purposes. Therefore, environmental and social criteria and processes are necessary to ensure their initial and ongoing fulfillment. This includes an impact assessment. The Green Bond Principles recommend the definition of qualitative and quantitative criteria (key performance indicators) as far as this is possible to measure the sustainability impacts.

- Catena Group has published a **Green Bond Framework** in 2019, featuring **six areas eligible** for funding.
 - **renewable energy:** production of renewable and clean energy
 - **energy efficiency:** energy efficiency and savings, renewable and advanced clean generation, energy transmission, storage, distribution and transportation
 - **green buildings:** water usage, waste management and re-use of materials in addition to energy consumption
 - **clean transportation:** electric, hybrid, public, rail, non-motorised, multi-modal transportation, infrastructure for clean energy vehicles and reduction of harmful emissions
 - **pollution prevention and control:** reduction of air emissions, greenhouse gasses, waste prevention, waste reduction, waste recycling and projects that advance energy/emission-efficient waste to energy
 - **eco-efficient and/or circular economy adapted products, production technologies and processes:** sustainable products with an eco-label or environmental certification, resource-efficient packaging and distribution
- The board can approve investments **outside of this framework**, if eligibility under the Green Bond Principles is stated.
- The company does not apply explicit **exclusion criteria** yet, which should cover at least social and governance minimum requirements.
- The company has defined a set of indicators to **assess the potential impact** of projects. Apart of details on the allocation of proceeds, these also include some impact indicators (e.g. avoidance of CO₂-emissions). Qualitative aspects are not included.
- ▶ **The Green Bond Framework of Catena Group comprises various superficially defined areas eligible for funding.**

D.2. Management of Proceeds

The issuer is responsible for assuring a comprehensible tracking of allocated funds (e.g. sub-accounts, sub-portfolios, internal tracking). The issuer has to define clear procedures and measures to cover the proceeds with suitable investments.

- All projects are managed in a portfolio approach by individual subsidiaries. Their **assets exceed the volume of the issuance**. The framework does not limit the **time frames**, which also enables the refinancing of older projects.
- The Framework allows the temporary allocation of **unallocated proceeds** in any form of cash, bank deposits or other forms of available current financial asset. Social or environmental criteria for financial assets have not been specified in a policy.
- ▶ **The procedures of Catena Group ensure an appropriate management of proceeds of a green bond. For the green bond discussed, all proceeds will be used for refinancing of existing, rather old solar parks.**



“In which manner and quality is information regarding the sustainability of the green bond available?”

D.3. Reporting

Transparency and traceability of use of proceeds are two of the major characteristics of a green or social bond. Therefore, the issuer should provide investors and other interested stakeholders with reasonable information on the most relevant sustainability aspects.

- This is the **first issuance of a green bond** by the issuer, so there is no observable reporting track record yet.
 - Prior to issuing, Catena Group intends to inform potential investors with a **Second Party Opinion**. One year after issuance a **report** on the green bond is planned. This will include an overview on the use of proceeds and certain key performance indicators such as total installed capacity. In the further course reporting on an annual basis is foreseen but not yet defined in detail.
 - For **impact assessment** the avoidance of CO_{2e} emissions using life cycle data is estimated.
 - The bond is a senior unsecured callable fixed rate bond. Major source of information about the bond’s conditions and the issuer’s background is an information memorandum, available in a draft version when drawing up this Second Party Opinion. Also other instruments of **investor relations with bondholders** are still in the development stages.
- ▶ **A Second Party Opinion is published prior to issuance and a report on the use of proceeds accompanied by several key indicators is planned annually. Financial information for bondholders is quite limited yet.**

D.4. Rating - Management of Proceeds & Reporting

proactive		active		neutral		negative			
A+	A	A-	B+	B	B-	C+	C	C-	EX
a		b			c			NR	
ab			bc						
ba									

E. The Issuer’s Sustainability Performance

? *“How is the issuer’s sustainability performance, in general, regardless of the Green Bond Framework at hand?”*

E.1. The Issuer’s Sustainability

The evaluation of the issuer’s sustainability is carried out by means of the “rfu Sustainability Rating Model”. It is based on six stakeholder groups (employees, society, customers, market partners, investors, environment) and supplemented by a value chain analysis of the products or services. Overall, the rfu Sustainability Model includes about 100 single criteria, which are operationalized by approximately 400 quantitative and qualitative indicators. The features of the criteria will be aggregated to an overall rating on a scale from A+ to C- over several levels. If data is not sufficient, there will be an indicative rating from a to c.

● **Profile:** Catena Group has a complex structure comprising a variety of subsidiaries. Shareholders of Catena are Naber Holding BV (40%), Merusa Capital BV (40%), Panarea Capital Holding BV (10%) and Norte Holdings BV (10%). All of them are linked to individuals and partly to the management of the company. Catena is active in the Netherlands (advisory services, LED leasing and green cloud), Germany (solar and wind energy) and to a lesser extend in Scotland (wind energy). The company has 21 employees (FTE) and consolidated sales amount to 3.5 mil EUR (2018).

● **Sustainability strategy and management:** Given the size of the company, formal sustainability management processes have not been established or are not yet systematized. Catena has formulated statements on human rights, investment practices, diversity and human resources, which address selected ethical issues rather superficially. A carbon footprint has been estimated for the direct corporate activities and the avoided emissions of the portfolio. Transparency on social and environmental issues is yet low. While clear social goals, explicit measures and programs do not exist, the company’s business model has an explicit orientation towards environmental responsibility.

● **Products and services:** Catena’s business areas are cleantech investments in renewable energy (solar and wind; 40% of revenue in 2019) and energy efficiency (LED leasing and green cloud services; 29%) as well as related financial advisory services (31%). These business activities are largely and directly or indirectly linked to energy transition and climate protection. Only within the advisory services, conventional business fields are addressed to a minor extend (max. 20%).

● **Stakeholder relations:** For employees, the company features benefits typical to small scale businesses. Catena is characterized by a rather low diversity (>90% male). The company is preparing a policy for the supply chain but does not yet apply social and ecological purchasing criteria. The carbon footprint of the Dutch corporate activities amounts to roughly 2,5 t CO₂e/employee (FTE) and despite green electricity, consumption and energy efficiency in the office is above average. Car transportation and business flights contribute the major part of emissions. A mobility concept to reduce emissions does not exist. CSR activities could not be overserved. The general transparency of the group itself is rather low and the complex structure is difficult to comprehend for interested stakeholders. Annual reports are not available publicly, but financial figures are **xxxxx**.

► **Catena Group receives an above average rfu-sustainability rating. This can be attributed most importantly to its strategic focus on ecological impact investment and its contribution to energy transition and efficiency. Social themes and stakeholders are of minor importance.**

E.2. Rating - the Issuer’s Sustainability Performance

proactive		active		neutral		negative			
A+	A	A-	B+	B	B-	C+	C	C-	EX
a			b			c			NR
ab				bc					
ba									

F. Total Evaluation



“What is the total sustainability rating of the green bond?”

The total evaluation of the sustainability quality of a bond within a Second Party Opinion carried out by rfu is the result of the aggregation of the four sub-ratings of (1) the ecological impact of use of proceeds, (2) the social impact of use of proceeds, (3) management of proceeds & reporting and (4) sustainability of the issuer.

F.1. Evaluation & Rating of Subsections

► Ecological Impact of Use of Proceeds A-

Increasing renewable energy capacities is one of the most important measures for climate change mitigation. It can be expected that the green bond’s use of proceeds for the discussed photovoltaics projects support the goal of a transition towards a carbon-neutral electricity generation. Environmental risks in the supply chain exist due to the focus on Chinese photovoltaics modules and are not managed systematically yet. A share of roughly 60% of the installed plants are greenfield developments.

► Social Impact of Use of Proceeds ba

Social risks in the supply chain exist, most particularly considering the working conditions in the component production. Catena Group does not apply procurement criteria that go beyond legal compliance. Photovoltaics directly contributes to the sustainable development goal 7 (“Affordable and clean energy”). Apart of this intrinsic value no further social aspects are currently managed.

► Management of Proceeds & Reporting ba

The Green Bond Framework (2019) of Catena Group comprises various superficially defined areas eligible for funding. The procedures of Catena Group ensure an appropriate management of proceeds of a green bond. For the green bond discussed, all proceeds will be used for refinancing of existing, rather old solar parks. A Second Party Opinion is published prior to issuance and a report on the use of proceeds accompanied by several key indicators is planned annually. Financial information for bondholders is quite limited yet.

► Issuer’s Sustainability Performance ba

Catena Group receives an above average rfu-sustainability rating. This can be attributed most importantly to its strategic focus on ecological impact investment and its contribution to energy transition and efficiency. Social themes and stakeholders are of minor importance.

F.2. Total Rating

proactive		active		neutral		negative			
A+	A	A-	B+	B	B-	C+	C	C-	EX
a			b			c			NR
ab				bc					
Ba									

Legal Disclaimer



This Second Party Opinion is provided for information purposes only and is no recommendation for the purchase or sale of the securities of the companies rated.

The information used is based on sources that are regarded as being reliable and have been chosen to the best of our knowledge and belief. The rating is based on subjective models and interpretations of the persons entrusted with the analyses and on the knowledge available at the editorial deadline. rfu will not assume any liability for the correctness, completeness and accuracy of information and evaluations contained and reserves to make amendments or supplements, at any time.

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