

# Ecoener Shades of Green assessment

May 30, 2024



**Sector: Renewable Energy**



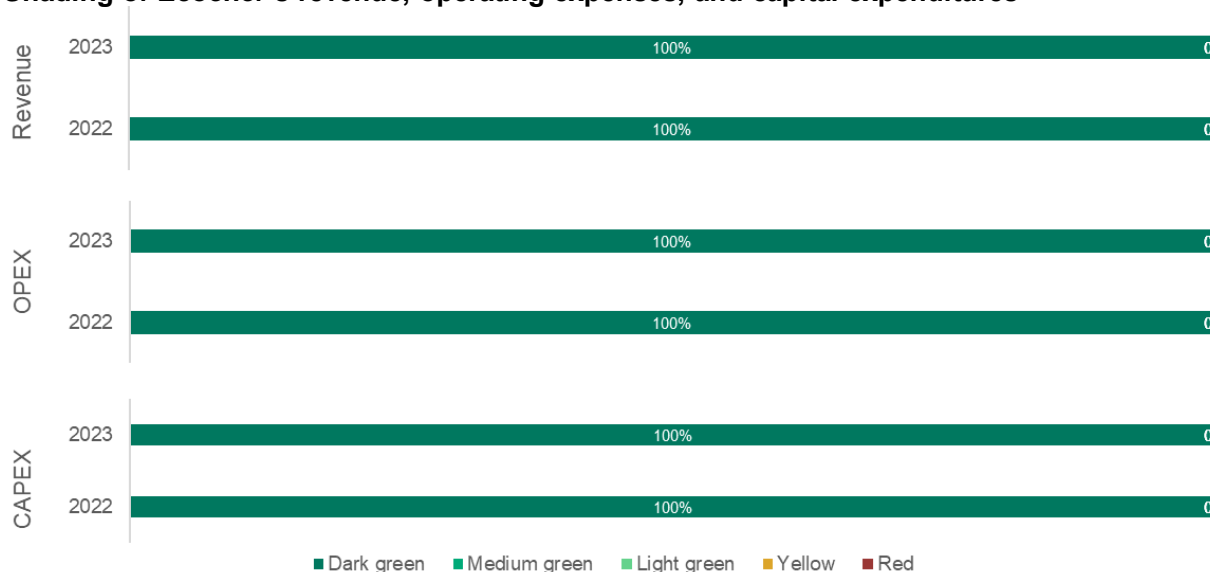
**Region: Global**

This report was produced by Shades of Green using Shades of Green Methodology. On December 1, 2022, S&P Global acquired Shades of Green from CICERO.

## Executive Summary

**Ecoener, S.A. (“Ecoener”)** is a renewable energy company with solar, wind and hydropower assets. The company is headquartered in La Coruña (Spain) but has assets under development or in operation in 14 countries, including a strong presence in Latin America. At the end of 2023, Ecoener had 342 MW in operation, 399 MW under construction and 1,509 MW under development.

## Shading of Ecoener’s revenue, operating expenses, and capital expenditures



**Figure 1: Shading of revenue, operating costs and capital expenditures for Ecoener from 2022 to 2023**

**A Dark Green shading has been awarded to 100% of Ecoener’s revenues, CAPEX and OPEX.** Renewable energy will be a key element in a low carbon and climate-resilient future and the company’s solar, wind and run-of-river hydropower assets are considered Dark Green solutions. Ecoener’s revenues come from the sale of renewable energy produced by these assets, from services (engineering, operation and maintenance) it provides to other renewable energy facilities that do not belong to Ecoener, and from the trading of renewable energy (the company has confirmed that it does not engage in the trading of fossil fuel-based electricity). The company’s OPEX and CAPEX are all expenditures related to the construction, planning, operation or trading of renewable energy facilities (its own or partners’) and hence are considered Dark Green as well.

## Governance Assessment

**Ecoener’s sustainability vision is clearly articulated and executed, in a way that is especially impressive given the company’s relatively small size.** Sustainability governance appears to be solidly anchored at the Board level as well as in the responsibilities of management executives. The company has made progress over the year to its GHG emission reporting, now reporting certain categories of Scope 3 emissions. It has also set emission reduction targets across all scopes, although these are not yet public. Areas to watch going forward include monitoring closely and formally the social and environmental risks of supply chain partners, especially as these originate in overseas territories with which Ecoener may be less familiar. Sustainably decommissioning renewable

energy installations and maximising re-use of components will become a growing responsibility for the company in the coming years, as will the application of climate risk analysis to all assets to ensure their resilience and production in the face of increasing impacts of a changing climate.

### EU Taxonomy

The relevant EU Taxonomy activities for Ecoener are electricity generation from solar photovoltaic technology, electricity generation from wind power, and electricity generation from hydropower. The share of eligible activities is 100% of revenue, OPEX, and CAPEX. There are gaps related to multiple Do-No-Significant-Harms (DNSH) criteria, and therefore there are currently no share of likely aligned revenue, OPEX, and CAPEX. The company appears to mainly fulfil the minimum social safeguards.

**Table 1: Sector specific metrics**

	Installed capacity (MW)	Gross generation (GWh)	Scope 1 + 2 emissions (tCO <sub>2</sub> eq)	Scope 3 emissions (tCO <sub>2</sub> eq)	Avoided emissions (tCO <sub>2</sub> eq)
2023	342	495,99	675	62,942	249,947
2022	202	382,01	316	No information	191,068
2021	171	344,59	294	No information	179,531
2020	133	298,12	No information	No information	No information

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## Ecoener sustainability governance

### Company description

Ecoener, S.A. (“Ecoener”) is a Spanish renewable energy company headquartered in La Coruña focusing on solar, wind and hydropower. Ecoener has been active in renewable energy generation for 35 years, starting off with the acquisition of existing hydroelectric power plants before diversifying into the construction and management of solar and wind plants in the later years. As of year-end in 2023, Ecoener had 342 MW in operation and 399 MW under construction. Further, Ecoener had 1,509 MW under development (design and planning stage).

Ecoener is involved in the entire value chain of the production of renewable energy, with activities organised around development, construction, and operation of projects. For each project facility, Ecoener creates a subsidiary. These subsidiaries follow the same procedures and protocols as Ecoener. When operating in new regions, Ecoener hires personnel with expertise in local laws and norms.

Ecoener is currently in the development phase of ‘hybridisation projects’, which are characterised by the combination of two or more technologies of renewable origin that contribute to optimising the use of available energy resources, increasing production hours and grid supply stability, and reducing impacts on land-use. Furthermore the company is progressing with energy storage projects linked to some of their wind and solar farms with the aim of improving energy security.

### Governance Assessment

Ecoener demonstrates a solid awareness of environmental and sustainability concerns. Essential policies and supporting processes have been established, including a Code of Conduct (CoC) for employees and suppliers, yet it bears the mark of its origins as a small regional company in that not all sustainability policies and processes are embedded or formalised.

The company has reported on Scope 1 and 2 emissions for several years and began reporting Scope 3 emissions (purchased goods and services, upstream transportation and distribution, business travel and employee commuting) as part of its 2023 sustainability reporting. It is a positive that Ecoener has started reporting certain categories of Scope 3 emissions, although it is important that the company continues to expand the number of categories it reports with time. More generally, the company’s approach to reporting is transparent and in line with international and best practice. It aims to reduce emission intensities, and has recently set quantified targets that cover all three scopes as part of the Sustainability Strategic Plan 2023-2026 (SSP), however the targets are not yet public. Additionally, we note that intensity-based targets still allow for increases in absolute emissions as Ecoener expands its business. Setting absolute based targets generally helps companies to manage their overall carbon footprint. However, we understand that it is expected that renewable energy companies, such as Ecoener, will likely increase their absolute emissions as they increase capacity with the wider benefit of providing low carbon energy to the economy.

Ecoener’s monitoring of other environmental impacts (biodiversity, water, waste) appears to be robust, with the company progressing in setting clear objectives for monitoring key environmental risks as part of its latest SSP. However, as with emissions targets, these specific objectives are currently not reported publicly. We recommend

that plans for component recycling and decommissioning be further developed as this will become more urgent the closer its current operating assets come to end-of-life.

Ecoener has a solid awareness of physical climate risks. According to the company, it makes use of climate scenarios— such as those provided by the IPCC— as a starting point for assessing climate risks. The climate scenarios applied have periods significantly exceeding the projected lifespan of the asset under evaluation. Ecoener also makes use of real-time monitoring data and regional climate models to ascertain how risks may manifest themselves in local conditions.

Social risks are considered within Ecoener’s wider SSP. The company has focused on developing its Social Strategic Plan in the Dominican Republic, where it has a fast growing presence. This has involved local stakeholder engagement and has led to specific objectives such as a focus on hiring more women and contributing to school funding locally.

The overall assessment of Ecoener’s governance structure and processes gives it a rating of Good. The company’s sustainability vision is clearly articulated and executed, in a way that is notably strong given the company’s relatively small size and regional family-owned origin. Ecoener could continue to improve its governance by extending climate risk analyses to the supply chain and all existing assets, and publicly reporting its quantified environmental KPIs and targets. As established in its 2024-2026 Strategic Sustainability Plan we expect Ecoener to measure and report more quantified environmental KPIs from its 2024 annual reporting cycle.



## Assessment of Ecoener’s activities

### Key issues and metrics

#### GHG Emissions

Ecoener calculates and verifies its carbon footprint for Scopes 1, 2 and 3 in accordance with Spanish law and the ISO 14064-3 Standard. Ecoener’s absolute combined scope 1 and 2 emissions increased by 114% in 2023 compared to 2022 due to an increase in activity at all phases. At the same time, Ecoener significantly increased its renewable energy assets under operation, to 342 MW as at end 2023 (202 MW as at end 2022). Overall the ratio of scope 1 emissions compared to MW of renewable energy in construction and operation dropped to 0.34 tCO<sub>2</sub>eq per MW as at end 2023 (0.37 as at end 2022), meanwhile the same ratio for scope 2 emissions increased to 0.57 tCO<sub>2</sub>eq per MW from 0.38.

**Table 2: The table summarises GHG-emissions and main emission reduction targets.**

	Total Scope 1 and 2 (tons CO <sub>2</sub> eq <sup>1</sup> )	Scope 1 emissions	Scope 2 emissions	Scope 3 emissions
<b>Main targets</b>	The objective is to continue to reduce the CO <sub>2</sub> eq/MW ratio (carbon footprint in relation to MW in operation and under construction).			
<b>2023</b>	675	250	424	62,942
<b>2022</b>	316	157	159	No information
<b>2021</b>	294	129	165	No information
<b>Change 2023-2022</b>	+114%	+60%	+167%	N/A
<b>Main Sources</b>		Vehicles under the direct control of the company such as their fleet	Purchased and consumed electricity by Ecoener	Purchased products (e.g. Solar panels), and their transportation. Ecoener also includes scope 3 emissions related to business travel and employee commuting.

It is positive that Ecoener recently set targets that cover all three scopes of emissions, however these are not yet public. It should be noted that emissions related to construction are not captured in Ecoener’s Scope 1 emissions,

<sup>1</sup> CO<sub>2</sub>e, carbon dioxide equivalent is a measurement term for greenhouse gas accounting.

as construction is carried out by contractors. These are not yet included in Scope 3 numbers but are expected to be in the future.

Ecoener reported 249,947 tCO<sub>2</sub>eq of avoided emissions in its annual report, which represents the generated renewable energy compared to the Spanish grid, in accordance with government regulation (Order TEC/1380/2018) and using a grid emission factor of 0.521 kg CO<sub>2</sub>/kWh of final energy. The emissions calculations are externally verified.

As Ecoener is planning to expand and develop new power plants, it is expecting total avoided emissions to increase moving forward.

**Table 3: The table summarises avoided emissions**

Emissions (tCO <sub>2</sub> eq)	Emissions avoided (tCO <sub>2</sub> eq)
<b>2023</b>	249,947
<b>2022</b>	191,068
<b>2021</b>	179,531

### Energy

Ecoener produced 495.99 GWh of energy in 2023, of which 221,090 MWh (45%) was generated by wind power, 141,880 MWh (29%) from photovoltaic systems and 133,020 MWh (27%) from hydroelectric power plants.

**Table 4: The table summarises renewable energy production**

	Installed capacity (MW)	Actual gross generation (GWh)
<b>2023</b>	342	496
<b>2022</b>	202	382
<b>2021</b>	171	345
<b>2020</b>	133	298
<b>2019</b>	118	304

Ecoener's main energy consumption is the use of fuels and electricity. The fuel is used for its company fleet, while the electricity is used at construction sites, facilities and at its offices. The fuel used in construction (e.g. for heavy machinery) is not measured as Ecoener sees this as outside of its scope since it only oversees the construction management, while the execution of the work is subcontracted. In 2023, Ecoener's electricity consumption grew by some 95% compared to 2022. At the same time, fuel use for vehicles increased by 112% and diesel by 44%. The increases were mainly due to an increase in activity for the construction, operational and maintenance phases in 2023. The largest increases in energy use in the year are from facilities that draw energy from the local grid.

**Table 5: The table summarises energy mix by energy source**

Energy Source	2021	2022	2023
<b>Fuel – vehicles (l)</b>	11,491	14,840	31,508
<b>Diesel – vehicles (l)</b>	42,501	49,997	71,836
<b>Electricity (kWh)</b>	650,358	824,709	1,612,103

### Waste

The most common waste from Ecoener’s power plants is used oils, oil filters, contaminated containers and contaminated absorbents. Waste is mainly managed by subcontractors in line with government regulation which dictates that waste must be handled by approved waste companies.

Ecoener has no short-term plans to decommission any of its power plants, however it has started a process to consider how to reuse or recycle old renewable energy components. Plans for restoring disused land is already integral to the planning from a project’s conception. Ecoener is aware that it is a sector challenge to manage some of the waste and material generated from decommissioning, for example that it is an issue to find counterparties willing to take large quantities of old photovoltaic solar panels. It is in discussions with universities and research centres about the possibility of donating solar panels with minor defects that are not used in the facilities.

In 2023, Ecoener’s total reported waste increased by 101%, primarily due to an increase in activity at construction sites. The vast majority of waste (99.8%) remains non hazardous.

**Table 6: The table summarises waste generated**

Source	2021	2022	2023
<b>Office (t)</b>	1.49	0.48	0.48
<b>Facilities (t)</b>	6.77	8.64	8.71
<b>Construction sites (t)</b>	828.66	1,455.23	2,940.73
<b>Total (t)</b>	836.92	1,464.35	2,949.92
<b>Non-hazardous waste (t)</b>	830.06 (99.18%)	1,455.62 (99.40%)	2,944.90 (99.8%)
<b>Hazardous waste (t)</b>	6.86 (0.82%)	8.73 (0.60%)	5.02 (0.17%)

### Water

During the construction phase of Ecoener’s projects, most of its water use is aimed at minimising the pollution from particulate material. In 2023, Ecoener’s total reported water use increased by 70%, primarily due to an increase in activity at construction sites. At the same time the ratio of water consumed to MW of renewable energy under construction and operation reduced to 26.34 m<sup>3</sup>/MW in 2023 from 27.10 m<sup>3</sup>/MW in 2022, demonstrating an improvement in management of water use.

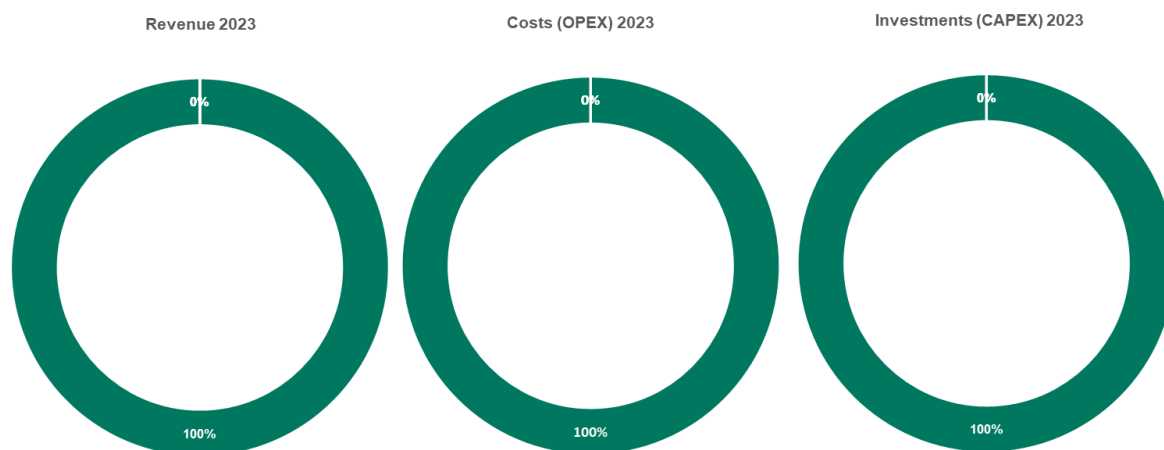
Ecoener operates multiple hydroelectric power plants. According to Ecoener’s annual report, it follows the appropriate environmental procedures and identifies the possible impact on local hydrology. Its hydroelectric power plants are run-of-river, hence do not extract or consume water.

**Table 7: The table summarises total water consumption (m3)**

Source	2021	2022	2023
Office	378	235	245
Construction sites	25,104	10,082	18,847
Facilities	-	1,121	400
<b>TOTAL</b>	<b>25,482</b>	<b>11,438</b>	<b>19,492</b>

**Shading of Ecoener’s revenue, operating expenses and capital expenditures**

■ Dark green ■ Medium green ■ Light green ■ Yellow ■ Red



Source: Shades of Green analysis using Ecoener’s financial data for 2023

**Figure 2: Shading of revenue, operating costs and capital expenditures for Ecoener**

**A Dark Green shading has been awarded to 100% of Ecoener’s revenues, CAPEX and OPEX.** Renewable energy is a key element in a low carbon and climate-resilient future and the company’s solar, wind and run-of-river hydropower assets are considered Dark Green solutions from a Paris-aligned 2050 perspective. Ecoener’s revenues come from the sale of renewable energy produced by these assets, from services (engineering, operation and maintenance) it provides to other renewable energy facilities that do not belong to Ecoener, and from the trading of renewable energy (the company has confirmed that it does not engage in the trading of fossil fuel-based electricity).

The company’s OPEX are all expenditures related to the construction, planning, operation or trading of renewable energy facilities (its own or partners’) and hence are considered Dark Green as well. Similarly, the company’s CAPEX is associated with the development of hydropower, wind and solar facilities. In 2023, much of the CAPEX was associated with the construction of solar projects, reflecting that a large proportion of under construction assets

are solar PVs. The shading of CAPEX reflects that we consider climate and other risks in the supply chain to be adequately managed although as the company expands it will be important to increasingly scrutinise these aspects especially as more components are brought in from less regulated overseas markets. It also reflects that there were no fossil fuel elements in the CAPEX.

The Shade of Green assigned to an activity reflects its overall climate risk and environmental impact. In assigning a shade of green to Ecoener’s revenue streams and costs, we have considered Ecoener’s Governance Score of Good, the company’s management of key environmental concerns, and how its activities are aligned to a low carbon and climate-resilient future.

Investors should note that our assessment is based on data reported or estimated by the company and has not always been verified by a third party. We analyse revenue, operating costs and capital expenditures, however there is typically not an explicit link between sustainability and financial data<sup>2</sup>. Our shading often requires allocating line items in financial statements to projects or products, for this we rely on the company’s internal allocation methods. In addition, there are numerous ways to estimate, measure, verify and report e.g. data on emissions, which may make direct comparisons between companies or regulatory criteria difficult and somewhat uncertain.

### EU Taxonomy Update

The mitigation criteria in the EU taxonomy includes specific thresholds and do no significant harm (DNSH) criteria for electricity generation from solar photovoltaic technology, electricity generation from wind power, and electricity generation from hydropower. Comments on alignment are given in the table below, and detailed thresholds, NACE-codes and likely alignment with DNSH criteria are given in Appendix 2.

**Table 8: Overall EU Taxonomy alignment 2023**

<b>Overall EU Taxonomy alignment (Substantial contribution + DNSH + minimum safeguards)</b>	<b>Revenue</b>	<b>OPEX</b>	<b>CAPEX</b>
<b>Total share eligible (activities covered by criteria)</b>	100%	100%	100%
<b>Total share likely aligned to all criteria</b>	0%	0%	0%

#### *Alignment with minimum social safeguards*

To qualify as a sustainable activity under the EU regulation certain minimum safeguards must be complied with. Shades of Green has assessed the company’s social safeguards with a focus on human and labour rights. We take the sectoral, regional and judicial context into account and based on the information provided by the company, we focus on the risks likely to be the most material social risks. The most relevant human rights and labour rights risks for Ecoener appears to be linked to construction activities and the sourcing of materials. Shades of Green concludes that Ecoener appears to mainly fulfil the requirements of the minimum safeguards.

<sup>2</sup> Most accounting systems do typically not provide a break-down of revenue and investments by environmental impact, and the analysis may therefore include imprecisions and may not be directly comparable with figures in the annual reporting

**Table 9: Summary of alignment to electricity generation from solar photovoltaic technology (NACE code D35.11 and F42.22)**

<b>Eligibility</b>	<b>Full assessment from 2022</b>	<b>2023 Updated comments on alignment</b>
<b>Activities covered</b>	<ul style="list-style-type: none"> <li>✓ 18.3% of revenue, 9.3% of OPEX, and 1.6% of CAPEX are eligible</li> <li>✓ In reality, these figures are likely higher, but current reporting does not separate investments to a sufficiently granular level to confirm this.</li> <li>✓ 0% of revenue, 0% of OPEX, and 0% of CAPEX are likely aligned</li> <li>✓ By end of year 2022, Ecoener had 46 MWp capacity related to photovoltaic power in operation and 217 MWp under construction.</li> </ul>	<ul style="list-style-type: none"> <li>✓ 25.1% of revenue, 10.4% of OPEX, and 9.1% of CAPEX are eligible (all revenue, OPEX and CAPEX related to solar activities)</li> <li>✓ The share of CAPEX related to solar may be higher, but current reporting does not separate investments to a sufficiently granular level to confirm this.</li> <li>✓ 0% of revenue, 0% of OPEX, and 0% of CAPEX are likely aligned</li> <li>✓ By end of year 2023, Ecoener had 182 MWp capacity related to photovoltaic power in operation and 396 MWp under construction.</li> </ul>
<b>Substantial</b>	<b>Summary of assessment</b>	
<b>Mitigation Criteria</b>	✓ Likely aligned.	✓ Likely aligned
<b>DNSH-criteria</b>	<b>Summary of assessment</b>	
<b>Climate Change Adaptation</b>	✓ Likely not aligned. While Ecoener has procedures to assess physical climate risks in the design phase of its power plants and implements adaptation solutions to all assets, it has currently not performed a screening of all its existing assets following the methodology	✓ Likely not aligned. No update to previous assessment.
<b>Transition to a circular economy (circular economy)</b>	✓ Likely not aligned. While acknowledging there are currently challenges in the industry achieving scalable solutions for recycling solar power components, Ecoener currently does not have any documented policies or formal requirements to suppliers for equipment and components of high durability and recyclability. In light of this, we assess that Ecoener currently are likely not aligned.	✓ Likely not aligned. No update to previous assessment.
<b>Protection and restoration of biodiversity and ecosystems</b>	✓ Likely aligned for assets in the EU/EEA. It is not possible to conclude for assets outside this region due to different regulatory context.	✓ Likely aligned for assets in the EU/EEA. It is not possible to conclude for assets outside this region due to different regulatory context. No update to previous assessment

**Table 10: Summary of alignment to electricity generation from wind power (NAACE code D35.11 and F42.22)**

<b>Eligibility</b>	<b>Full assessment from 2022</b>	<b>2023 Updated comments on alignment</b>
<b>Activities covered</b>	<ul style="list-style-type: none"> <li>✓ 47.4% of revenue, 21.0% of OPEX, and 14.9% of CAPEX are eligible</li> <li>✓ In reality, these figures are likely higher, but current reporting does not separate investments to a sufficiently granular level to confirm this</li> <li>✓ 0% of revenue, 0% of OPEX, and 0% of CAPEX are likely aligned</li> <li>✓ By end of year 2022, Ecoener had 104 MW capacity related to wind power in operation and 0 MW under construction.</li> </ul>	<ul style="list-style-type: none"> <li>✓ 33.4% of revenue, 20.3% of OPEX, and 3.7% of CAPEX are eligible (all revenue, OPEX and CAPEX related to wind activities)</li> <li>✓ The share of CAPEX related to wind may be higher, but current reporting does not separate investments to a sufficiently granular level to confirm this.</li> <li>✓ 0% of revenue, 0% of OPEX, and 0% of CAPEX are likely aligned</li> <li>✓ By end of year 2023, Ecoener had 104 MW capacity related to wind power in operation and 3 MW under construction.</li> </ul>
<b>Substantial</b>	<b>Summary of assessment</b>	
<b>Mitigation Criterion</b>	<ul style="list-style-type: none"> <li>✓ Likely aligned. Wind power is assumed to contribute substantially to climate change mitigation.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Likely aligned</li> </ul>
<b>DNSH-criteria</b>	<b>Summary of assessment</b>	
<b>Climate Change Adaptation</b>	<ul style="list-style-type: none"> <li>✓ Please refer to Electricity generation using solar photovoltaic technology.</li> </ul>	<ul style="list-style-type: none"> <li>✓ No update to previous assessment</li> </ul>
<b>Transition to a circular economy (circular economy)</b>	<ul style="list-style-type: none"> <li>✓ Please refer to Electricity generation using solar photovoltaic technology.</li> </ul>	<ul style="list-style-type: none"> <li>✓ No update to previous assessment</li> </ul>
<b>Protection and restoration of biodiversity and ecosystems</b>	<ul style="list-style-type: none"> <li>✓ Please refer to Electricity generation using solar photovoltaic technology.</li> </ul>	<ul style="list-style-type: none"> <li>✓ No update to previous assessment</li> </ul>

**Table 11: Summary of alignment to electricity generation from hydropower (NACE code D35.11 and F42.22)**

<b>Eligibility</b>	<b>Full assessment from 2022</b>	<b>2023 Updated comments on alignment</b>
<b>Activities covered</b>	<ul style="list-style-type: none"> <li>✓ 17.4% of revenue, 15.4% of OPEX, and 2.2% of CAPEX are eligible</li> <li>✓ In reality, these figures are likely higher, but current reporting does not separate investments to a sufficiently granular level to confirm this.</li> <li>✓ 0% of revenue, 0% of OPEX, and 0% of CAPEX are likely aligned</li> <li>✓ Ecoener currently has seven hydroelectric power plants in operation, and has recently expanded one of them (the Ciervas project).</li> <li>✓ By end of year 2022, Ecoener had 52 MW capacity related to hydropower in operation and 3 MW under construction.</li> </ul>	<ul style="list-style-type: none"> <li>✓ 22.2% of revenue, 15.0% of OPEX, and 1.1% of CAPEX are eligible (all revenue, OPEX and CAPEX related to hydropower activities)</li> <li>✓ The share of CAPEX related to hydropower may be higher, but current reporting does not separate investments to a sufficiently granular level to confirm this.</li> <li>✓ 0% of revenue, 0% of OPEX, and 0% of CAPEX are likely aligned.</li> <li>✓ By end of year 2023, Ecoener had 56 MW capacity related to hydropower in operation and 0 MW under construction.</li> </ul>
<b>Substantial</b>		
<b>Mitigation Criteria</b>	<b>Summary of assessment</b>	
	<ul style="list-style-type: none"> <li>✓ The hydropower plants are likely aligned, as they are run-of-river without artificial reservoirs. One plant uses tanks (small ponds) for water regulation purposes but the company has confirmed that these meet criteria b)– see Appendix 2, Section 4.5.</li> </ul>	
<b>DNSH-criteria</b>		
<b>Climate Change Adaptation</b>	<b>Summary of assessment</b>	
	<ul style="list-style-type: none"> <li>✓ Please refer to Electricity generation using solar photovoltaic technology.</li> </ul>	
<b>Protection and restoration of biodiversity and ecosystems</b>	<ul style="list-style-type: none"> <li>✓ Please refer to Electricity generation using solar photovoltaic technology.</li> </ul>	











## Terms and methodology

The aim of this analysis is to be a practical tool for investors, lenders and public authorities for understanding climate risk. Shades of Green encourages the client to make this assessment publicly available. If any part of the assessment is quoted, the full report must be made available. Our assessment, including on governance, is relevant for the reporting year covered by the analysis. This assessment is based on a review of documentation of the client’s policies and processes, as well as information provided to us by the client during meetings, teleconferences and email correspondence. In our review we have relied on the correctness and completeness of the information made available to us by the company.

### Shading corporate revenue and investments

Our view is that the green transformation must be financially sustainable to be lasting at the corporate level. We have therefore shaded the company’s current revenue generating activities, as well as investments and operating expenses.

The approach is an adaptation of the Shades of Green methodology for the green bond market. The Shade of Green allocated to a green bond framework reflects how aligned the likely implementation of the framework is to a low carbon and climate resilient future, and we have rated investments and revenue streams in this assessment similarly. We allocate a shade of green to the revenue stream and investments according to how these streams reflect alignment of the underlying activities to a low carbon and climate resilient future and taking into account governance issues.

Shading		Examples
	<b>Dark green</b> Is allocated to projects and solutions that corresponds to the long-term vision of a low-carbon and climate resilient future.	 Solar power plants
	<b>Medium green</b> Is allocated to projects and solutions that represent significant steps towards the long-term vision but are not quite there yet.	 Energy efficient buildings
	<b>Light green</b> 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
	<b>Yellow</b> Is allocated to projects and solutions that do not explicitly contribute to the transition to a low carbon and climate resilient future. This category also includes activities with too little information to assess.	 Health care services
	<b>Red</b> Is allocated to projects and solutions that have no role to play in a low-carbon and climate resilient future. There are the heaviest emitting assets, with the most potential for lock in of emissions and highest risk of stranded assets.	 New oil exploration

In addition to shading from dark green to red, Shades of Green also includes a governance score to show the robustness of the environmental governance structure. When assessing the governance of the company, Shades of Green looks at five elements: 1) strategy, policies and governance structure; 2) lifecycle considerations including supply chain policies and environmental considerations towards customers; 3) the integration of climate

considerations into their business and the handling of resilience issues; 4) the awareness of social risks and the management of these; and 5) reporting. 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.

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 safety thresholds for various types of activities<sup>3</sup>. In April 2021, EU published its delegated act to outline proposed criteria for climate mitigation and adaptation, which it was tasked to develop after the EU Taxonomy Regulation entered into law in July 2020. Shades of Green has assessed the mitigation criteria in the EU taxonomy that includes specific thresholds for activities relevant for the company<sup>4</sup>.

Do-No-Significant-Harm criteria include measures such as ensuring resistance and resilience to extreme weather events, preventing excessive water consumption from inefficient water appliances, ensuring recycling and reuse of construction and demolition waste and limiting pollution and chemical contamination of the local environment, as well as restriction on the type of land used for construction (no arable or forested land).

Shades of Green has assessed potential alignment against the mitigation thresholds and the DNSH criteria in the delegated acts published in April 2021.

In order to qualify as a sustainable activity under the EU regulation 2020/852 certain minimum safeguards must be complied with. The safeguards entail alignment with the OECD Guidelines for Multinational Enterprises and UN Guiding Principles on Business and Human Rights, including the International Labour Organisation’s (‘ILO’) declaration on Fundamental Rights and Principles at Work, the eight ILO core conventions and the International Bill of Human Rights. Shades of Green has completed a light touch assessment of the above social safeguards with a focus on human rights and labor rights risks<sup>5</sup>. We take the sectoral, regional and judicial context into account and focus on the risks likely to be the most material social risk.

Our assessment of alignment against the EU Taxonomy is based on a desk review of the listed source documents against the Taxonomy Delegate Act and following our own shading methodology.

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<sup>3</sup> Taxonomy: Final report of the Technical Expert Group on Sustainable Finance, March 2020. [TEG final report on the EU taxonomy \(europa.eu\)](#)

<sup>4</sup> [taxonomy-regulation-delegated-act-2021-2800-annex-1\\_en.pdf \(europa.eu\)](#)

<sup>5</sup> Shades of Green is in the process of further developing its assessment method to ensure that it encompasses the object and purpose of the minimum safeguards.

## Appendix 1: Referenced documents list

Document Number	Document Name	Description
1	29 February 2024 Results Presentation	Presentation of financial results
2	Auditor's Report on Grupo Ecoener, S.A and Subsidiaries: Consolidated Annual Accounts for the year ended 31 December 2023	Annual Accounts
3	Ecoener Code of Conduct 2020	
4	Ecoener Community Relations Policy 2023	
5	Ecoener Corporate Governance Policy	
6	Ecoener Board of Directors Selection Policy	
7	Ecoener Human Rights Policy 2023	
8	Ecoener Sustainability Policy 2023	
9	Ecoener Sustainability Report 2023	
10	VERIFICACIÓN DE EMISIONES DE GASES EFECTO INVERNADERO. ECOENER AÑO 2023 (Alcance 1+2+3)	TUV Sud's verification report of Ecoener's GHG savings calculations for 2023

## Appendix 2: EU Taxonomy criteria and alignment

Complete details of the EU taxonomy criteria are given in [taxonomy-regulation-delegated-act-2021-2800-annex-1\\_en.pdf \(europa.eu\)](#)

### 4.1 Electricity generation from solar photovoltaic technology

Framework activity	Renewable energy		
Taxonomy activity	Electricity generation using solar photovoltaic technology (NACE Code D.35.1.1, F42.2.2)		
Taxonomy version	EU Technical mitigation criteria	Comments on alignment	Alignment
Mitigation criteria	The activity generates electricity from solar PV technology.	<ul style="list-style-type: none"> <li>Solar power is assumed to contribute substantially to climate change mitigation.</li> <li>By end of year 2023, Ecoener had 182MWp capacity related to photovoltaic power in operation and 396MWp under construction.</li> </ul>	<b>Likely aligned</b>
	EU Taxonomy DNSH-criteria	Comments on alignment	Alignment
Climate change adaptation	<p>The physical climate risks that are material to the activity have been identified (chronic and acute, related to temperature, wind, water, and soil) by performing a robust climate risk and vulnerability assessment with the following steps<sup>6</sup>:</p> <p>a. screening of the activity to identify which physical climate risks from the list in Section II of this</p>	<p><b>Information provided by Ecoener:</b></p> <p>Ecoener’s climate risk assessments focus on the initial design and construction of facilities.</p>	<p><b>Likely aligned for new assets</b></p> <p><b>Likely not aligned for existing assets</b></p> <p>While Ecoener has procedures to assess physical climate risks in the design phase of its power plants and implements adaptation solutions to all assets, it has</p>

<sup>6</sup> The Taxonomy is referring to Appendix A in the Taxonomy Annex 1.

	<p>Appendix may affect the performance of the economic activity during its expected lifetime;</p> <p>a. where the activity is assessed to be exposed to physical climate risks, a climate risk and vulnerability assessment to assess the materiality of the physical climate risks on the economic activity;</p> <p>c. an assessment of adaptation solutions that can reduce the identified physical climate risk.</p> <p>The climate risk and vulnerability assessment is proportionate to the scale of the activity and its expected lifespan, such that:</p> <p>a. for activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using climate projections at the smallest appropriate scale;</p> <p>a. for all other activities, the assessment is performed using the highest available resolution, state-of-the-art climate projections across the existing range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 year climate projections scenarios for major investments.</p> <p>The climate projections and assessment of impacts are based on best practice and available guidance and take into account the state-of-the-art science for vulnerability and risk analysis and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports, scientific peer-reviewed publications, and open source or paying models.</p> <p>For existing activities and new activities using existing physical assets, the economic operator implements physical and non-physical solutions ('adaptation solutions'), over a period of time of up to five years, that reduce the most important identified physical climate risks that are material to that activity. An adaptation plan for the implementation of those solutions is drawn up accordingly.</p>	<ul style="list-style-type: none"> <li>• The assessment of physical climate risks is conducted prior to the decision to commence operations for any facility.</li> <li>• According to Ecoener, to evaluate physical climate risks, it relies on i) climate scenarios, such as those provided by organizations like the Intergovernmental Panel on Climate Change (IPCC), ii) Historical Data, to anticipate future risk, iii) Regional Climate Models, to gain more precise and localized projections of climate changes, and iv) Real-time Monitoring Data, to facilitate a quicker response to emergency situations.</li> <li>• In Ecoener, the assessment of physical climate risks is integrated into the initial design phase of its renewable energy facilities. During this stage, climate scenarios with return periods significantly exceeding the projected lifespan of the plant are applied. Ecoener states that this practice is essential to ensure that facilities are designed and built with the necessary resilience to withstand extreme climate conditions over the long term, considering the statistics of unusual weather events that may occur over several decades.</li> </ul> <p>While Ecoener has procedures to assess physical climate risks in the design phase of its power plants, it has currently not performed a full screening of all its power plants</p>	<p>currently not performed a screening of all its existing assets following the methodology required by the Taxonomy.</p>
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	<p>For new activities and existing activities using newly built physical assets, the economic operator integrates the adaptation solutions that reduce the most important identified physical climate risks that are material to that activity at the time of design and construction and has implemented them before the start of operations.</p> <p>The adaptation solutions implemented do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of cultural heritage, of assets and of other economic activities; are consistent with local, sectoral, regional or national adaptation strategies and plans; and consider the use of nature-based solutions or rely on blue or green infrastructure to the extent possible.</p>	<p>following the methodology asked for by the EU taxonomy.</p> <p>The company implements relevant adaptation solutions to reduce risks at all its assets.</p> <ul style="list-style-type: none"> <li>Ecoener states that its adaptation solutions are consistent with local /national strategies and respectful of communities and surrounding ecosystems, and that it prioritizes nature-based solutions.</li> </ul>	
Transition to a 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.	<p><b><u>Information provided by Ecoener</u></b></p> <ul style="list-style-type: none"> <li>When procuring new solar photovoltaic systems, wind turbines, and hydropower projects, Ecoener’s primary focus is on selecting reputable industry brands. According to Ecoener, it chooses renowned brands that has proven their dedication to durability and recyclability through extensive research and development efforts, as well as certifications that validate the quality of their products.</li> <li>Furthermore, Ecoener maintain an ongoing dialogue with its suppliers to evaluate the technical features of the equipment and components. This includes conversations about design details, materials utilized, and production practices that promote both</li> </ul>	<p><b>Likely not aligned</b></p> <p>While acknowledging there are currently challenges in the industry achieving scalable solutions for recycling solar power components, Ecoener currently does not have any documented policies or formal requirements to suppliers for equipment and components of high durability and recyclability. In light of this, we assess that Ecoener currently is likely not aligned.</p>

		<p>durability and ease of recycling. According to the company, this proactive approach ensures that the equipment remains resilient throughout its operational life and can be efficiently recycled at the conclusion of its lifecycle.</p>	
<p>Protection and restoration of biodiversity and ecosystems</p>	<ul style="list-style-type: none"> <li>• An Environmental Impact Assessment (EIA) or screening has been completed in accordance with Directive 2011/92/EU,<sup>9</sup> or in accordance with national provisions.</li> <li>• Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</li> <li>• For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment, where applicable, has been conducted and based on its conclusions the necessary mitigation measures are implemented.</li> </ul>	<p><b><u>Information provided by Ecoener</u></b></p> <ul style="list-style-type: none"> <li>• Ecoener informs us that Environmental Impact Assessments are conducted for nearly all of the projects it undertakes. However, there has been an exception where it has not been carried out due to the project’s small size, where it was assessed that such as assessment was not necessary.</li> <li>• Ecoener confirms that where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. Furthermore, in certain projects, actions such as Forest Compensation Plans and Biodiversity Compensation Plans are carried out.</li> <li>• The San Bartolomé hydroelectric power station is located within the Fragas del Eume Natural Park. It is classified as a Zona Especial de Conservación (ZEC) and Lugar de Importancia Comunitaria (LIC). Ecoener informs us that the existence of the San Bartolomé hydroelectric plant</li> </ul>	<p><b>Likely aligned for assets in the EU/EEA</b></p> <p><b>Not possible to conclude for assets outside this region due to different regulatory context.</b></p>

		<p>predates the establishment of the protected area but that the facility was modernised in 1996. The work was carried out without the use of heavy machinery and in compliance with administrative requirements to minimise environmental impact. Generally speaking, when selecting locations for new projects, the company avoids any protected area designation.</p>	
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### 4.3 Electricity generation from wind power

<b>Framework activity</b>	<b>Renewable energy</b>		
<b>Taxonomy activity</b>	<b>Electricity generation from wind power (NACE codes D.35.1.1 and F 42.22)</b>		
	<b>EU Technical mitigation criteria</b>	<b>Comments on alignment</b>	<b>Alignment</b>
Mitigation criteria	<ul style="list-style-type: none"> <li>Substantial contribution to climate change mitigation as the activity generates electricity from wind power.</li> </ul>	<p><b>Relevant contextual information</b></p> <ul style="list-style-type: none"> <li>Wind power is assumed to contribute substantially to climate change mitigation.</li> <li>By end of year 2023, Ecoener had 104MW capacity related to wind power in operation and 3 MW under construction.</li> </ul>	<b>Likely aligned</b>
	<b>EU Taxonomy DNSH-criteria</b>	<b>Comments on alignment</b>	<b>Alignment</b>

<p>Climate change adaptation</p>	<p>The physical climate risks that are material to the activity have been identified (chronic and acute, related to temperature, wind, water, and soil) by performing a robust climate risk and vulnerability assessment with the following steps:</p> <ul style="list-style-type: none"> <li>(a) screening of the activity to identify which physical climate risks from the list in Section II of this Appendix may affect the performance of the economic activity during its expected lifetime;</li> <li>(b) where the activity is assessed to be exposed to physical climate risks, a climate risk, and vulnerability assessment to assess the materiality of the physical climate risks on the economic activity;</li> <li>(c) an assessment of adaptation solutions that can reduce the identified physical climate risk.</li> </ul> <p>The climate projections and assessment of impacts are based on best practice and available guidance and take into account the state-of-the-art science for vulnerability and risk analysis and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports, scientific peer-reviewed publications, and open source or paying models.</p> <p>For existing activities and new activities using existing physical assets, the economic operator implements physical and non-physical solutions ('adaptation solutions'), over a period of time of up to five years, that reduce the most important identified physical climate risks that are material to that activity. An adaptation plan for the implementation of those solutions is drawn up accordingly.</p> <p>For new activities and existing activities using newly built physical assets, the economic operator integrates the adaptation solutions that reduce the most important identified physical climate risks that are material to that activity at the time of design and construction and has implemented them before the start of operations.</p> <p>The adaptation solutions implemented do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of cultural heritage, of assets and of other economic activities; are consistent with local, sectoral, regional or national adaptation strategies and plans; and consider the use of</p>	<ul style="list-style-type: none"> <li>• Please refer to Electricity generation using solar photovoltaic technology.</li> </ul>	<p><b>Likely aligned for new assets</b></p> <p><b>Likely not aligned for existing assets</b></p> <p>While Ecoener has procedures to assess physical climate risks in the design phase of its power plants and implements adaptation solutions to all assets, it has currently not performed a screening of all its existing assets</p>
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	nature-based solutions or rely on blue or green infrastructure to the extent possible.		
Sustainable use and protection of water and marine resources	<ul style="list-style-type: none"> <li>In case of construction of offshore wind, the activity does not hamper the achievement of good environmental status as set out in Directive 2008/56/EC<sup>7</sup> of the European Parliament and of the Council, requiring that the appropriate measures are taken to prevent or mitigate impacts in relation to that Directive's Descriptor 11 (Noise/Energy), laid down in Annex I to that Directive, and as set out in Commission Decision (EU) 2017/848159 in relation to the relevant criteria and methodological standards for that descriptor.</li> </ul>	<p><b>Information provided by Ecoener</b></p> <ul style="list-style-type: none"> <li>Ecoener only operates onshore wind, and are not planning any offshore wind projects, therefore the DNSH Sustainable use and protection of water and marine resources is not applicable.</li> </ul>	N/A
Transition to a circular economy	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Please refer to Electricity generation using solar photovoltaic technology</li> </ul>	<p><b>Likely not aligned</b></p> <p>The company seeks to use high-quality components and is establishing agreements with universities for re-use of some components but is unlikely to currently meet the Taxonomy's requirements on this across all equipment.</p>
Protection and restoration of biodiversity and ecosystems	<ul style="list-style-type: none"> <li>Please see under Electricity generation from solar photovoltaic technology</li> </ul> <p>In case of offshore wind, the activity does not hamper the achievement of good environmental status as set out in Directive 2008/56/EC, requiring that the appropriate measures are taken to prevent or mitigate impacts in relation to that Directive's Descriptors 1 (biodiversity) and 6 (seabed integrity), laid down in Annex I to that Directive, and as set out in Decision (EU) 2017/848 in relation to the relevant criteria and methodological standards for those descriptors.</p>	<ul style="list-style-type: none"> <li>Please see under Electricity generation from solar photovoltaic technology</li> </ul>	<p><b>Likely aligned for assets in the EU/EEA</b></p> <p><b>Not possible to conclude for assets outside this region due to different regulatory context</b></p>

<sup>7</sup> The EU-Directive establishing a framework for community action in the field of marine environmental policy. [EUR-Lex - 32008L0056 - EN - EUR-Lex \(europa.eu\)](#)

**4.5 Electricity generation from hydropower**

Framework activity	Renewable energy		
Taxonomy activity	Electricity generation from hydropower (NACE Code D35.11 and F42.22)		
Taxonomy version	EU Technical mitigation criteria	Comments on alignment	Alignment
Mitigation threshold	<p>The activity complies with either of the following criteria:</p> <ul style="list-style-type: none"> <li>a) the electricity generation facility is a run-of-river plant and does not have an artificial reservoir;</li> <li>b) the power density of the electricity generation facility is above 5 W/m<sup>2</sup>;</li> <li>c) the life cycle GHG emissions from the generation of electricity from hydropower, are lower than 100g CO<sub>2e</sub>/kWh<sup>8</sup>.</li> </ul>	<p><b><u>Information provided by Ecoener</u></b></p> <ul style="list-style-type: none"> <li>• By end of year 2023, Ecoener had 56 MW capacity related to hydropower in operation and 0 MW under construction.</li> <li>• All hydroelectric plants are run-of-river and do not have artificial reservoirs. The Las Fuentes II plant in Guatemala has two tanks - or small ponds - to regulate the flow during peak hours but the company has confirmed that these meet criteria b).</li> </ul>	<b>Likely aligned</b>
	EU Taxonomy DNSH-criteria	Comments on alignment	Alignment
Climate change adaptation	<ul style="list-style-type: none"> <li>• Please see under Electricity generation from solar photovoltaic technology</li> </ul>	<ul style="list-style-type: none"> <li>• Please see under Electricity generation from solar photovoltaic technology</li> </ul>	<p><b>Likely aligned for new assets</b></p> <p><b>Likely not aligned for existing assets</b></p> <p>While Ecoener has procedures to assess physical climate risks in the design phase of its power plants and implements adaptation solutions to all assets, it has currently not performed a screening of all its existing assets</p>

<sup>8</sup> The life cycle GHG emissions are calculated using Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018162, ISO 14064-1:2018163 or the G-res tool. Quantified life cycle GHG emissions are verified by an independent third party.

<p>Sustainable use and protection of water and marine resources</p>	<ul style="list-style-type: none"> <li>Substantial contribution to climate change mitigation</li> </ul> <ol style="list-style-type: none"> <li>The activity complies with the provisions of Directive 2000/60/EC<sup>9</sup>, in particular with all the requirements laid down in Article 4 of the directive.</li> <li>For operation of existing hydropower plants, including refurbishment activities to enhance renewable energy or energy storage potential, the activity complies with the following criteria:             <ol style="list-style-type: none"> <li>In accordance with Directive 2000/60/EC and in particular Articles 4 and 11 of that Directive, all technically feasible and ecologically relevant mitigation measures have been implemented to reduce adverse impacts on water as well as on protected habitats and species directly dependent on water.</li> <li>Measures include, where relevant and depending on the ecosystems naturally present in the affected water bodies:                 <ol style="list-style-type: none"> <li>measures to ensure downstream and upstream fish migration (such as fish friendly turbines, fish guidance structures, state-of-the-art fully functional fish passes, measures to stop or minimise operation and discharges during migration or spawning);</li> <li>measures to ensure minimum ecological flow (including mitigation of rapid, short-term variations in flow or hydro-peaking operations) and sediment flow;</li> <li>measures to protect or enhance habitats</li> </ol> </li> <li>The effectiveness of those measures is monitored in the context of the authorisation or permit setting out the conditions aimed at achieving good status or potential of the affected water body.</li> </ol> </li> <li>For construction of new hydropower plants, the activity complies with the following criteria:             <ol style="list-style-type: none"> <li>In accordance with Article 4 of Directive 2000/60/EC and in particular paragraph 7 of that Article, prior to construction, an impact assessment of the project is carried out to assess all its potential impacts on the status of water bodies within the same river basin and on protected habitats and species directly dependent on</li> </ol> </li> </ol>	<p><b>Information provided by Ecoener</b></p> <p><i>For all hydropower facilities</i></p> <ul style="list-style-type: none"> <li>Ecoener evaluates impacts on water and species for both new and existing hydropower facilities.</li> <li>Ecoener has confirmed that fish migration is evaluated for all hydroelectric plants, and fish ladders are implemented in all hydroelectric plants where a need is identified.</li> </ul> <p><i>Existing hydropower</i></p> <ul style="list-style-type: none"> <li>Ecoener confirms that for all existing hydropower plants, all technically feasible and ecologically relevant mitigation measures have been implemented to reduce adverse impacts on water as well as on protected habitats and species directly dependent on water.</li> <li>In the case of acquiring an existing hydroelectric installation, Ecoener would carry out a due diligence process, which would include an assessment of impacts on water and species.</li> <li>In operational projects, Ecoener assesses ecological flow. It informs us that sediment flow is not evaluated due to the small scale of the projects. For risks identified in the assessment, Ecoener states that it implements the necessary mitigation measures.</li> </ul> <p><i>New hydropower</i></p>	<p><b>Likely aligned for assets in the EU/EEA</b></p> <p><b>Not possible to conclude for assets outside this region due to different regulatory context.</b></p>
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<sup>9</sup> The Water Framework Directive, [EUR-Lex - 32000L0060 - EN - EUR-Lex \(europa.eu\)](#)

	<p>water, considering in particular migration corridors, free-flowing rivers or ecosystems close to undisturbed conditions.</p> <p>The assessment is based on recent, comprehensive and accurate data, including monitoring data on biological quality elements that are specifically sensitive to hydromorphological alterations, and on the expected status of the water body as a result of the new activities, as compared to its current one.</p> <p>It assesses in particular the cumulated impacts of this new project with other existing or planned infrastructure in the river basin.</p> <p>3.2. On the basis of that impact assessment, it has been established that the plant is conceived, by design and location and by mitigation measures, so that it complies with one of the following requirements:</p> <p>(a) the plant does not entail any deterioration nor compromises the achievement of good status or potential of the specific water body it relates to;</p> <p>(b) where the plant risks to deteriorate or compromise the achievement of good status/potential of the specific water body it relates to, such deterioration is not significant, and is justified by a detailed cost-benefit assessment demonstrating both of the following: (i) the reasons of overriding public interest or the fact that benefits expected from the planned hydropower plant outweigh the costs from deteriorating the status of water that are accruing to the environment and to society; (ii) the fact that the overriding public interest or the benefits expected from the plant cannot, for reasons of technical feasibility or disproportionate cost, be achieved by alternative means that would lead to a better environmental outcome (such as refurbishing of existing hydropower plants or use of technologies not disrupting river continuity).</p> <p>3.3. All technically feasible and ecologically relevant mitigation measures are implemented to reduce adverse impacts on water as well as on protected habitats and species directly dependent on water. Mitigation measures include, where relevant and depending on the ecosystems naturally present in the affected water bodies:</p> <p>(a) measures to ensure downstream and upstream fish migration (such as fish friendly turbines, fish guidance structures, state-of-the-art fully functional fish passes, measures to stop or minimise operation and discharges during migration or spawning);</p>	<ul style="list-style-type: none"> <li>• Ecoener has carried out one extension of a hydropower facility, the Cierves project.</li> <li>• For this project, an impact assessment of the project has been carried out to assess all potential impacts on the status of water bodies within the same river basin and on protected habitats and species directly dependent on water, considering in particular migration corridors, free-flowing rivers or ecosystems close to undisturbed conditions.</li> <li>• For this project, the assessment is based on recent, comprehensive and accurate data, including monitoring data on biological quality elements that are specifically sensitive to hydromorphological alterations, and on the expected status of the water body as a result of the new activities, as compared to its current one.</li> <li>• According to the environmental impact assessment, the expansion of the hydroelectric plant complies with all applicable regulations.</li> <li>• Ecoener complies with the Resolution of the Dirección General del Agua. This resolution establishes a series of controls on water, macroinvertebrates, and riparian vegetation that are being implemented.</li> <li>• Ecoener has confirmed that all technically feasible and ecologically relevant mitigation measures will be implemented to reduce adverse impacts on water as well as on protected habitats and species directly dependent on water.</li> <li>• According to Ecoener, the plant does not permanently compromise the achievement of good status/potential in any of the water bodies in the same river basin district.</li> <li>• According to Ecoener, for the Cierves project, the installation does not imply any deterioration or compromise the</li> </ul>	
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	<p>(b) measures to ensure minimum ecological flow (including mitigation of rapid, short-term variations in flow or hydro-peaking operations) and sediment flow;</p> <p>(c) measures to protect or enhance habitats. The effectiveness of those measures is monitored in the context of the authorisation or permit setting out the conditions aimed at achieving good status or potential of the affected water body.</p> <p>3.4. The plant does not permanently compromise the achievement of good status/potential in any of the water bodies in the same river basin district.</p> <p>3.5. In addition to the mitigation measures referred to above, and where relevant, compensatory measures are implemented to ensure that the project does not increase the fragmentation of water bodies in the same river basin district. This is achieved by restoring continuity within the same river basin district to an extent that compensates the disruption of continuity, which the planned hydropower plant may cause. Compensation starts prior to the execution of the project.</p>	<p>achievement of the good status or potential of the specific water body to which it refers.</p>	
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<p>Protection and restoration of biodiversity and ecosystems</p>	<ul style="list-style-type: none"> <li>Please see under Electricity generation from solar photovoltaic technology</li> </ul>	<ul style="list-style-type: none"> <li>Please see under Electricity generation from solar photovoltaic technology</li> </ul>	<p><b>Likely aligned for assets in the EU/EEA</b></p> <p><b>Not possible to conclude for assets outside this region due to different regulatory context.</b></p>
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## Appendix 3: About Shades of Green

S&P Global Ratings Shades of Green provides independent, research-based second party opinions (SPOs) of green financing frameworks as well as climate risk and impact reporting reviews of companies. At the heart of all our SPOs is the multi-award-winning Shades of Green methodology, which assigns shadings to investments and activities to reflect the extent to which they contribute to the transition to a low carbon and climate resilient future.

Shades of Green Company Assessments indicate the greenness of a company by providing a shading of revenues, operating costs and capital expenditures, as well as an assessment the company's governance structure. Shades of Green also provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green, sustainability and sustainability-linked bond investments. Shades of Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. Shades of Green is independent of the company being assessed, 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. Shades of Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of assessments.



ESG Opinion Provider of the Year



Largest External Review Provider in  
Number of Deals for Shades of Green



ESG Assessment Tool of the Year - Ratings



External Assessment Provider of the Year

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