S&P Global Ratings

Powered by Shades of Green

Second Party Opinion

Cadeler's Green Finance Framework

Dec. 1, 2023

Location: Denmark **Sector:** Transportation

Primary contact

Luis Solís
Madrid
+34 914233218
Luis.Solis
@spglobal.com

Alignment With Principles

Aligned = ✔ Conceptually aligned = ○ Not aligned = ✖

✔ Green Bond Principles, ICMA, 2021 (with June 2022 Appendix 1)

✔ Green Loan Principles, LMA/LSTA/APLMA, 2023

See Alignment Assessment for more detail.

Medium green

Activities that represent significant steps towards a low-carbon climate resilient future but will require further improvements to be long-term low-carbon climate resilient solutions.

Our Shades of Green Analytical Approach >

Strengths

Cadeler's business strategy is to support offshore wind installations and help the energy sector decarbonize. Cadeler intends to use most of the green financing proceeds to acquire, construct, and operate vessels to support the offshore wind energy industry.

The company commits to achieving net-zero operations by 2035 for its vessels. We view this as ambitious given the decarbonization challenges the shipping sector faces. Cadeler has scope 1 and 2 greenhouse gas emissions reduction targets, aligned with the IMO's revised goals.

Cadeler's vessels operate under the International Convention for the Prevention of Pollution from Ships (MARPOL). The vessels comply with MARPOL ballast water management requirements and are fitted with ballast water treatment plants. The issuer aims for zero spills of hydrocarbon and other toxic substances.

Weaknesses

Upon delivery, vessels will be running mainly on marine gas oil. While there is an option to run the engines on biofuels of different blends, implementation will depend on external factors beyond Cadeler's control, such as the availability of these fuels. However, we note positively Cadeler's efforts to address the potential setbacks and still manage to reach its transition targets.

Areas to watch

If vessels are sold, they could be used for fossil-fuel activities because they have technical similarities with vessels involved in oil and gas operations. However, under the framework Cadeler commits to ensuring that no more than 5% of a vessel's annual turnover will come from activities other than the installation and maintenance of offshore renewables, with no revenues related to oil and gas fields.

Cadeler's scope 3 emissions represent 87% of its total greenhouse gas emissions. Cadeler commits to improving its value chain reporting and to setting a scope 3 target by 2024. We see this target as an essential benchmark, against which the company will be able to better assess its progress in the climate transition.

Eligible Green Projects Assessment Summary

Eligible projects under Cadeler's green finance framework are assessed based on their environmental benefits and risks, using Shades of Green methodology.

Renewable energy	**Medium green**
Operation, maintenance, refurbishment, upgrade, and ownership of vessels dedicated to the installation and maintenance of offshore renewable energy generation and transmission	
Equipment to be used on the vessels, such as cranes, relevant tools and sea fastening structures, equipment to enable access to and the use of shore-based power, as well as investments aimed at reducing the environmental impact of the vessels, such as alternative fuel engines	

Climate adaptation	**Dark green**
Installation of weather stations onboard vessels aimed at improving marine meteorological observation and supporting the long-term understanding of the global climate	

Sustainable water and wastewater management and pollution prevention and control	**Medium to Light green**
Installation and operation of water treatment and production plants onboard vessels, as well as equipment improving waste recycling practices	

See Analysis Of Eligible Projects for more detail.

Issuer Sustainability Context

This section provides an analysis of the issuer's sustainability management and the embeddedness of the financing framework within its overall strategy.

Company Description

Cadeler is a Denmark-based shipping and construction company in the offshore wind industry. Since 2008, it has installed over 600 wind turbines and over 500 foundations. The company provides a range of offshore services including operations and maintenance, transportation and installation, and other marine and engineering operations. Operating two windfarm installation vessels, Wind Orca and Wind Osprey, Cadeler is headquartered in Copenhagen, Denmark, and has sales offices in Taipei and Taiwan. In 2022, Cadeler's revenues increased to €106 million (up 74% from 2021), reflecting its consistent operational performance.

Material Sustainability Factors

Climate transition risk

Transportation is the fastest-growing source of emissions worldwide, and accounts for about a quarter of global greenhouse gas emissions according to the International Energy Agency, behind the power sector. Emissions from international shipping accounted for about 2% of global energy-related CO2 emissions in 2022. This share is expected to increase further because shipping volumes are projected to grow, and as other sectors decarbonize more easily. As international and country-level climate targets become more ambitious, this could lead to higher compliance costs given that shipping companies that fail to meet regulations risk losing their licenses to operate. Compliance with regulations will require investments in new engine technologies and the use of more expensive alternative fuels (such as ammonia, e-methanol, liquified natural gas, or green hydrogen).

Pollution

Pollution in the shipping sector can take the form of airborne emissions (such as nitrogen oxides and soot), accidental spills, ground pollution at facilities such as gas stations, and excessive noise. These have severe impacts, especially for people living near major sea or road transportation routes. For instance, air pollution from transportation, among other sources, is responsible for more than 3.5 million deaths globally every year and causes health problems for many more, according to the OECD. With regard to marine transportation, air and water pollution from ships in operation creates regulatory and reputational risks. Moreover, pollution is a concern during decommissioning, as scrapping ships poses environmental risks, including the release of hazardous substances that are no longer permitted. There has been some progress in reducing pollution through regulation, engine improvements, safety procedures, and in some cases changes to equipment.

Physical climate risk

Acute weather events--like storms--can make operations complex and immobilize marine transportation assets, such as vessels. They may also limit the accessibility of essential infrastructure the industry relies on, including ports, and increase the risk of accidents. Ports will also be affected by higher temperatures, rising sea levels, and increased precipitation. Over time, both acute and chronic risks--changing temperatures and increased frequency of storms--may shorten the useful life of vessels and infrastructure. Implications for stakeholders may be widespread over a region or the service area of the damaged infrastructure (or beyond), suspending transportation and disrupting supply chains.

Workforce health and safety

The health and safety of employees and passengers in the transportation sector is critical, given that the industry sees regular incidents and accidents. Workplace incidents can result in injuries and fatalities, which can also affect companies' operations, legal exposure, and reputation.

Issuer And Context Analysis

The framework's eligible project categories aim to address both climate transition and pollution risks, which we consider to be the most material sustainability factors for Cadeler. In addition, physical climate and health and safety (H&S) risks are relevant to the framework because vessels and the corresponding infrastructure are highly exposed to the effects of climate change and to H&S risks during the construction, operation, and decommissioning phases.

The issuer's overall business strategy aligns with the global transition to renewable energy sources. Cadeler intends to upgrade its existing vessels and offer four new state-of-the-art service vessels to the offshore wind industry. We view its offering as an essential service for the renewable energy sector and as facilitating the transition to a low-carbon future.

Cadeler aims for net-zero operations by 2035, supported by fleet emission reductions, operation innovations, and R&D for reliable solutions for sequestering greenhouse gases. It reports scope 1 and 2 emissions, in accordance with the GHG Protocol. It has partly tracked and reported emissions from the supply chain, and aims to expand its scope 3 disclosures and provide the total footprint in the coming years. Cadeler has set scope 1 and 2 targets, in line with the International Maritime Organization's (IMO) revised goals, and commits to setting a scope 3 target by 2024. We believe this will be a relevant step in Cadelar's climate strategy given that scope 3 represents 87% of total emissions. These are associated with air travel for vessel and office personnel, helicopter crew changes, vessel on hire, marine gas oil consumption, among others. As part of its goal to achieve net-zero operations by 2035, the issuer commits to sourcing 100% of its electricity consumption from renewable sources and reducing companywide scopes 1 and 2 emissions intensity by 50% by 2030. As Cadeler's main emission-intensive activities are attributed to fossil-fuel combustion to operate its vessels, the issuer intends to increase the load capacity of new vessels, which will reduce the number of transits. Along with implementing an onboard energy saving system with increased battery capacity, this should reduce fuel consumption. Further planned improvements to vessel design include the implementation of an onshore power connection, which Cadeler projects will reduce fuel consumption by up to 15%.

Cadeler's vessels operate under the International Convention for the Prevention of Pollution from Ships (MARPOL), which mitigates pollution risks. The issuer aims for zero spills of hydrocarbon and other toxic substances into the marine environment by regularly performing onboard audits and ensuring chemicals are properly stored. Vessels also regularly conduct oil pollution emergency drills to avoid accidental spills. They also carry onboard a marine pollution emergency plan that outlines what steps would been taken in the event of oil pollution. Positively, the company complies with the Ballast Water Management convention, adopted by the IMO, to prevent the spread of potentially harmful aquatic organisms and pathogens in vessels' ballast water. Cadeler also implements noise mitigation techniques during the installation of foundations to protect marine mammal life. Its vessels are EU flagged and therefore subject to the EU Ship Recycling Regulation that reduces pollution risks during shipbreaking. Additionally, the company has environmental ISO 14001 certification, ensuring continuous improvements to the impacts its vessels have on the environment.

The issuer performs a physical climate risk assessment on its assets and its vessels are designed to withstand North Sea Survival conditions fully loaded, both offshore and in ports. The issuer has said it is currently analyzing the outcomes of the assessment and the levels of vulnerability to determine how the infrastructure the vessels depend on will be impacted under different climate scenarios. We note positively that all Cadeler's operations are planned and executed under Marine Operations Standard DNV-ST-N001, which outlines industry best practices and ensures alignment with recognized safety standards. Moreover, the issuer commits to implement a specific typhoon response plan to further mitigate the physical risks.

Health and safety are key risks especially during the construction of the vessels. Cadeler follows industry standards with ISO 45001 certification for its H&S management. Since the vessels started operating in 2013, the company has reported no employee fatalities and aims for zero lost time incidents.

Alignment Assessment

This section provides an analysis of the framework's alignment with Green Bond and Loan principles.

Alignment With Principles

Aligned = ✔ Conceptually aligned = ○ Not aligned = ✖

✔ Green Bond Principles, ICMA, 2021 (with June 2022 Appendix 1)

✔ Green Loan Principles, LMA/LSTA/APLMA, 2023

✔ Use of proceeds

We apply a shade of green assessment to all the framework's green project categories and note that the issuer commits to allocate the net proceeds issued under the framework exclusively to eligible green projects. Cadeler also intends to use the proceeds for general corporate purposes (Green Company Financing [GCF]) for which it still needs to fulfill ambitious Green Company Eligibility Criteria at the company level to qualify as green, aligned with the Green Loan Principles. The issuer can both finance and refinance eligible projects, with a maximum look-back period of three years from issuance for operating expenditures. Please refer to Analysis of Eligible Projects section for more information on our analysis of the environmental benefits of the expected use of proceeds.

✔ Process for project evaluation and selection

Cadeler has established a Green Finance Committee (GFC) that includes members from senior management, finance, the ESG/technical department, and business ethics teams. The GFC is responsible for deciding the allocation of proceeds based on the use-of-proceeds and Green Company Eligibility Criteria. It monitors the evolution of the green finance market and could revise the framework to align with future market practices or company advancements. Cadeler has designated various departments to be responsible for identifying and mitigating the environmental and social risks associated with all its projects, as well as managing specific ESG topics and ensuring compliance with its responsible business practices, which encompass policies on human rights, ecological impacts, and environmental considerations, among others.

✔ Management of proceeds

The issuer commits to earmarking an equal amount of the net proceeds from the issued green finance instrument and from the GCF for financing and refinancing the green projects and for general corporate purposes. Cadeler strives to allocate the net proceeds from green instruments to green projects within three years of the issue date. Cadeler will keep an internal register of proceeds and adjust the allocations either at the time of investment or at least on a quarterly basis. Any remaining unallocated funds will be handled according to the issuer's broader liquidity management policy and may be invested in short-term money market instruments or kept in cash. We note that Cadeler commits to exclude investments in fossil fuel and nuclear energy generation, R&D for weapons and defence, potentially environmentally damaging resource extraction, and gambling/tobacco.

✔ Reporting

Cadeler commits to providing annual reports on the allocation of proceeds and the impact of the green financing instruments issued under the framework. It will publish these on its website in the form of a Green Finance Report for as long as these instruments remain outstanding. The reporting will detail the amount each project category receives, the amount awaiting allocation, the proportion of new financing versus refinancing, and environmental methods and assumptions, among others. Regarding the GCF, Cadeler will report the same metrics at the company level as part of its annual report. Additionally, we view positively the issuer's intention to obtain limited assurance from an external auditor regarding the allocation of proceeds and that for the GCF, the issuer's intention to externally verify the alignment with the Green Company Eligibility Criteria on an annual basis and share it with the relevant lenders.

Analysis Of Eligible Projects

This section provides details of our analysis of eligible projects, based on their environmental benefits and risks, using the Shades of Green methodology.

For the initial transactions under the framework, Cadeler expects to allocate around 75% to the renewable energy category and to use the remaining 25% of the proceeds for general corporate purposes GCF, as long as no more than 5% of the annual turnover is derived from non-offshore renewable energy activities, none of the turnover is derived from commissioning new or existing oil and gas installations, and at least 95% of the company's capital spending is aligned with its green project categories.

Medium green

Activities that represent significant steps towards a low-carbon climate resilient future but will require further improvements to be long-term low-carbon climate resilient solutions.

Our Shades of Green Analytical Approach >

Overall Shades of Green assessment

Based on the project category shades of green detailed below, and considering the environmental ambitions reflected in Cadeler's Green Finance Framework, we assess the framework Medium green.

Green project categories

Renewable energy

Assessment	Description
Medium green	Existing vessels: Operation, maintenance, refurbishment, upgrade, and ownership of existing vessels dedicated to the installation and maintenance of offshore renewable energy generation and transmission activities as well as other activities supporting renewable energy generation, transmission, and consumption. Newbuilds: Development, construction, and acquisition of new vessels meeting any of the following requirements: • Vessels intended for the installation and maintenance of wind farms are purpose-built and able to serve the next generation of offshore wind projects (turbines with 14 MW and above) and are, in addition, optimized to lower the environmental footprint per installed unit compared to the average performance of existing vessels (at the time of issuance of the green finance instrument). • Vessels intended for other enabling and supporting purposes within offshore renewable energy generation and transmission should be optimized to lower the environmental footprint during operation compared to the average performance of existing vessels. For vessels to remain eligible, the following criteria should be met annually: • No more than 5% of their annual turnover should be derived from activities other than installation and maintenance related to offshore renewable energy generation and transmission activities, and no turnover from vessels should be derived from installation/maintenance related to oil and gas fields. Equipment to be used on the vessels, such as cranes, relevant tools and sea fastening structures, equipment to enable access to and use of shore-based power, as well as investments aimed at reducing the environmental impact of the vessels, such as alternative fuel engines.

Analytical considerations

- We consider the proceeds allocated to hybrid vessels exclusively dedicated to offshore wind renewable energy to play a relevant role in the low-carbon transition given the sector's challenges regarding the use of 100% low-carbon fuels, as well as electric power, for a future of net-zero emissions.
- Most of the proceeds will be used for existing or newly acquired vessels and the construction of new ones. Specifically, the issuer intends to construct four state-of-the art hybrid vessels, two X-Class and two F-Class, with an increased transit capacity, and upgrade two fossil-powered O-Class vessels. New wind turbine installation vessels are estimated to produce 30% lower greenhouse gas emissions compared to the existing O-Class vessels. The issuer performed emissions-savings calculations internally and based them on the preliminary data of newbuilds, which will be confirmed after finalizing engine emission tests. We note that while the vessels will be exclusively deployed for offshore wind farm installations, they could potentially be used for other offshore operations as well (not exceeding 5% of their annual turnover and not associated with oil and gas fields).
- We view as positive that the new vessels will be hybrid (using electricity and battery storage as well as fuel combustion) and dual-fuel (that is, allowing for the use of both conventional and low-carbon fuels). The new vessels are designed to allow the transition to low-carbon fuels. Specifically, all vessels can take a mix of FAME biofuel or 100% HVO biofuel. Moreover, the issuer aims to use ISCC certified fuels (ensuring sustainable biofuel sourcing, traceable products, and verified emission reductions) and align with the IMO guidelines on the lifecycle greenhouse gas intensity of marine fuels, which includes well-to-wake emissions in their entirety. However, we note that vessels will be running on marine gas oil upon delivery and the transition depends on several external factors beyond the issuer's control, such as the availability of low carbon fuels, continued progress in low carbon engine technology, the development of new technologies such as fuel cells, among others. To address these external challenges, Cadeler has started collaborating with key suppliers of low-carbon fuels and critical technologies to ensure it is well prepared to mitigate potential setbacks and to increase its likelihood of access to the technologies and consumables necessary to meet its 2035 net-zero target. Cadeler also projects that implementing shore power connections will further decrease its fuel consumption by around 15%. Nevertheless, this may not be feasible in the short term due to constraints such as a lack of infrastructure in certain ports where the vessels would operate.
- The expected emissions reduction will also result from investments in increasing cargo capacity of newbuilds to reduce the number of necessary transits, as well as other efficiency measures (for example shutting down unused equipment and heat recovery from engines and ventilation).
- A small portion of the proceeds will be allocated to finance equipment for use on the vessels, including upgrading the cranes of O-Class vessels to make them capable of handling the new generation of wind turbines, as well as essential tools and sea fastening structures. We see these measures as enabling because they facilitate the expansion of offshore wind energy, yet they do not constitute a long-term solution without supplementary measures to shift away from fossil fuels. In addition, within this category, we view positively investments to develop alternative low-emission fuels for vessels, given that oil-based fuels are the sector's primary source of greenhouse gas emissions.
- As part of the issuer's evaluation in relation to monitoring the "do no significant harm" criteria for climate adaptation in the EU taxonomy, the issuer has initiated a process for assessing the physical risks in its vessels. The company has yet to determine the impact of climate change on the financed assets because the result of the assessment is currently being translated into the vulnerability assessment. The issuer has said that climate risks are more likely to affect the supporting projects--such as ports seeing elevated water levels or operations experiencing weather-related downtime--rather than the vessels themselves. We view as positive that the vessels are designed to withstand harsh weather events and are constructed in line with recognized Marine Operations Guidelines to further mitigate the risks.
- Beyond climate-related aspects, as part of an environmental impact assessment (EIA) by Cadeler's clients for offshore wind projects, the issuer collaborates on environmental operational measures that can address, reduce, or mitigate potential adverse impacts on biodiversity. The key vessel-related biodiversity risks are associated with ballast water exchange and noise impacts from operations. To mitigate these risks, Cadeler complies with the IMO's ballast water requirements and has installed ballast water treatment plants in existing vessels and will do the same for future vessels. As for noise pollution, Cadeler has implemented mitigation systems, along with having a marine mammal observer onboard on the U.K.-based windfarms to stop works if marine mammals enter the vicinity of the operations. The issuer commits to evaluating its clients for good environmental practices, if it moves into a new market, where regulations and EIA requirements are less stringent.
- All in all, as the majority of the proceeds will be allocated to the construction of hybrid and dual-fuel vessels, with sustainable sourcing safeguards by 2035, and which serve an activity we assess as Dark green, along with the biodiversity and physical climate risk considerations, we assign the renewable energy category a Medium green shade.

Climate change adaptation

Assessment	Description
Dark green	Installation of weather stations onboard vessels aimed at improving marine meteorological observation and supporting long-term understanding of the global climate.

Analytical considerations

- The weather stations onboard vessels help provide greater visibility of the impacts of climate change. We understand that this will help manage the resilience of the vessels in the future, which we view as a strength.
- The issuer commits to share its research findings, which will provide valuable insights for other maritime transport operators, providing real time conditions and potentially reducing risks for the sailing and operational plans of various stakeholders.

Sustainable water and wastewater management and pollution prevention and control

Assessment	Description
Medium to Light green	Installation and operation of water treatment and production plants onboard vessels, as well as equipment improving waste recycling practices.

Analytical considerations

- We see the improvements and upgrades of vessels, such as water treatment and waste recycling practices, as positive steps to reduce potentially harmful environmental impacts from shipping operations. We therefore assess this aspect as Light green, factoring in that vessels are serving an activity we assess as Dark green.
- The vessels' ballast water management complies with the most recent revisions to the IMO convention. Each vessel has a ballast water management plan, keeps a ballast water record book, and has an international ballast water management certificate, which demonstrates compliance with the convention. Aligned with the more stringent D-2 Ballast Water Performance Standard, ballast water treatment plants are installed on existing vessels. The issuer commits to deliver all newbuilds with the same treatment system. We assess this commitment as Medium green, reflecting that it is consistent with the transition to the low-carbon future in the medium term.
- While the water treatment pumps and other devices are currently powered with fossil fuels, they are integrated into the overall vessel power system, which means that any improvements made to the vessel energy system also benefit the efficiency of the power provided to water treatment equipment.

S&P Global Ratings' Shades of Green

Assessments	Dark green	Medium green	Light green	Yellow	Orange	Red
Description	Activities that correspond to the long-term vision of an LCCR future.	Activities that represent significant steps toward an LCCR future but will require further improvements to be long-term LCCR solutions.	Activities representing transition steps in the near-term that avoid emissions lock-in but do not represent long-term LCCR solutions.	Activities that do not have a material impact on the transition to an LCCR future, or, Activities that have some potential inconsistency with the transition to an LCCR future, albeit tempered by existing transition measures.	Activities that are not currently consistent with the transition to an LCCR future. These include activities with moderate potential for emissions lock-in and risk of stranded assets.	Activities that are inconsistent with, and likely to impede, the transition required to achieve the long-term LCCR future. These activities have the highest emissions intensity, with the most potential for emissions lock-in and risk of stranded assets.
Example projects	Solar power plants	Energy efficient buildings	Hybrid road vehicles	Health care services	Conventional steel production	New oil exploration

Note: For us to consider use of proceeds aligned with ICMA Principles for a green project, we require project categories directly funded by the financing to be assigned one of the three green Shades.

LCCR--Low-carbon climate resilient. An LCCR future is a future aligned with the Paris Agreement; where the global average temperature increase is held below 2 degrees Celsius (2 C), with efforts to limit it to 1.5 C, above pre-industrial levels, while building resilience to the adverse impact of climate change and achieving sustainable outcomes across both climate and non-climate environmental objectives. Long term and near term--For the purpose of this analysis, we consider the long term to be beyond the middle of the 21st century and the near term to be within the next decade. Emissions lock-in--Where an activity delays or prevents the transition to low-carbon alternatives by perpetuating assets or processes (often fossil fuel use and its corresponding greenhouse gas emissions) that are not aligned with, or cannot adapt to, an LCCR future. Stranded assets--Assets that have suffered from unanticipated or premature write-downs, devaluations, or conversion to liabilities (as defined by the University of Oxford).

Mapping To The U.N.'s Sustainable Development Goals

Where the Financing documentation references the Sustainable Development Goals (SDGs), we consider which SDGs it contributes to. We compare the activities funded by the Financing to the International Capital Markets Association (ICMA) SDG mapping and outline the intended linkages within our SPO analysis. Our assessment of SDG mapping does not impact our alignment opinion.

This framework intends to contribute to the following SDGs:

Use of proceeds			
Renewable energy	**7. Affordable and clean energy***	**9. Industry, innovation and infrastructure***	**13. Climate action**
Climate change adaptation	**3. Good health and well-being**	**13. Climate action***	
Sustainable water and wastewater management Pollution prevention and control	**12. Responsible consumption and production***	**14. Life below water**	

*The eligible project categories link to these SDGs in the ICMA mapping.

Related Research

- Analytical Approach: Second Party Opinions: Use Of Proceeds, July 27, 2023
- FAQ: Applying Our Integrated Analytical Approach For Use-Of-Proceeds Second Party Opinions, July 27, 2023
- Analytical Approach: Shades Of Green Assessments, July 27, 2023
- S&P Global Ratings ESG Materiality Maps, July 20, 2022

Analytical Contacts

Primary contact

Luis Solís
Madrid
+34 914233218
Luis.Solis@spglobal.com

Elene Parulava
Frankfurt
+49 175 5812617
Elene.Parulava@spglobal.com

Secondary contacts

Catherine Rothacker
Oslo
+47 941 57 987
Catherine.Rothacker@spglobal.com

Luisina Berberian
Madrid
+34 91 788 7200
Luisina.Berberian@spglobal.com