MOODY'S RATINGS

ASSESSMENT
22 May 2024

Send Your Feedback

Contacts

Tom Collet
Sustainable Finance Analyst
tom.collet@moodys.com

Camille Bienayme
Sustainable Finance Associate
camille.bienayme@moodys.com

Adriana Cruz Felix
VP-Sustainable Finance
adriana.cruzfelix@moodys.com

Rahul Ghosh
MD-Sustainable Finance
rahul.ghosh@moodys.com

CLIENT SERVICES

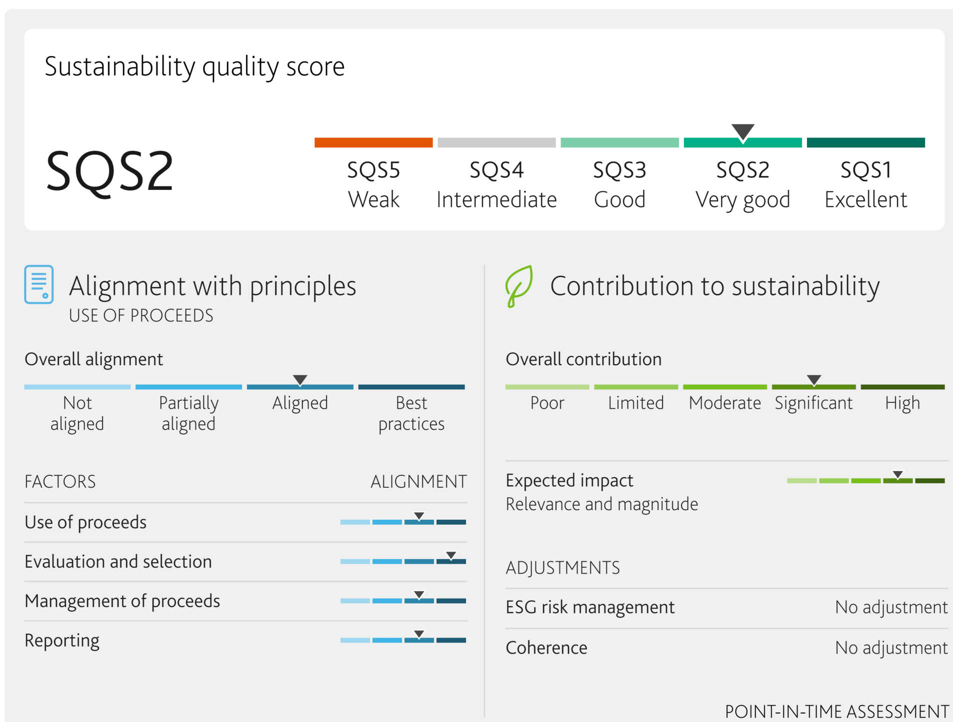
Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Air Liquide

Second Party Opinion – Sustainable Financing Framework Assigned SQS2 Sustainability Quality Score

Summary

We have assigned an SQS2 Sustainability Quality Score (very good) to Air Liquide's sustainable financing framework dated May 2024. Air Liquide has established its sustainable financing framework with the aim of financing projects across three eligible green categories and one social category. The framework is aligned with the four core components of the International Capital Market Association's (ICMA) Green Bond Principles (GBP) 2021 (with June 2022 Appendix 1), Social Bond Principles (SBP) 2023, and the Sustainability Bond Guidelines 2021 (SBG), and the Green Loan Principles (GLP) 2023 and Social Loan Principles (SLP) 2023 of the Loan Market Association, Asia Pacific Loan Market Association and Loan Syndications & Trading Association (LMA/APLMA/LSTA). The framework also demonstrates a significant contribution to sustainability.



Scope

We have provided a second party opinion (SPO) on the sustainability credentials of Air Liquide's sustainable financing framework, including the framework's alignment with the ICMA's GBP 2021 (including the June 2022 Appendix 1), SBP 2023, SBG 2021 and the LMA/APLMA/LSTA's GLP and SLP 2023. Under its framework, the issuer plans to issue green financing instruments, including green and social bonds and loans, and any other financial instruments, to finance projects under three eligible green categories and one social category. The three eligible green categories are air gases, hydrogen and carbon capture as a service, and the social category is home healthcare and community care services (as outlined in Appendix 2 of this report).

Our assessment is based on the last updated version of the framework received on 21 May 2024, and our opinion reflects our point-in-time assessment[1] of the details contained in this version of the framework, as well as other public and non-public information provided by the company.

We produced this SPO based on our Framework to Provide Second Party Opinions on Sustainable Debt, published in October 2022.

Issuer profile

Air Liquide, with its headquarters in Paris, France, holds a prominent position in the global market for gases, technologies and services catering to industries and health care. In 2023, it reported revenue of €27.6 billion. The company's workforce comprises around 67,800 employees spread over 72 countries. The company's operations are distributed into three business segments: Gas and Services (G&S), Engineering and Construction (E&C), and Global Markets and Technologies (GM&T). G&S, the primary unit, accounted for 95% of 2023 sales, providing industrial gases and related services. E&C, responsible for designing and constructing industrial gas production units, contributed 2%. GM&T, which offers technological solutions to facilitate the new markets of energy transition, maritime logistics and deep tech, constituted 3%. Due to its extensive global presence, the group's G&S sales are evenly distributed across the world's main manufacturing regions: the Americas (39%), Europe (37%), Asia-Pacific (20%), and the Middle East and Africa (4%).

Air Liquide's environmental, social and governance (ESG) strategy involves the improvement of lives, through the supply of healthcare services, the reduction of greenhouse gas (GHG) emissions and the supply of solutions for decarbonation. Air Liquide has committed to lower its GHG emissions by 33% by 2035 compared to a 2020 baseline. Its ultimate objective is to achieve zero carbon emissions across the entire value chain by 2050. In addition to these internal efforts, Air Liquide plays an important role in providing low-carbon solutions to its customers.

Strengths

» The framework is in line with the company's global strategy to become a leader in the provision of decarbonization solutions for hard-to-abate industries, including air gases, low-carbon hydrogen and carbon capture services, and eligible green categories are likely to support the decarbonation of different industrial processes.

» The social category seeks to address the long-term issue of increasing need of home care services globally.

Challenges

» Low-carbon hydrogen will be mainly used in the refineries sector in the short term and uncertainties over downstream carbon capture applications limit visibility on GHG emission reduction potential of both technologies.

Alignment with principles

Air Liquide's sustainable financing framework is aligned with the four components of the ICMA's GBP 2021 (including the June 2022 Appendix 1), SBP 2023, SBG 2021 and the LMA/APLMA/LSTA's GLP and SLP 2023:

- ☑ Green Bond Principles (GBP)
- ☑ Social Bond Principles (SBP)
- ☑ Green Loan Principles (GLP)
- ☑ Social Loan Principles (SLP)
- ○ Sustainability-Linked Bond Principles (SLBP)
- ○ Sustainability Linked Loan Principles (SLLP)

Use of proceeds

Not aligned | Partially aligned | **Aligned** | Best practices

Clarity of the eligible categories – ALIGNED

Air Liquide has clearly communicated the nature of the expenditures and has set eligibility and exclusion criteria for the eligible categories. The company has stated that the eligible projects will be located in countries where Air Liquide currently operates. The company has described the project categories, and the general definition includes references to the technical thresholds used to define project eligibility. The exclusion criteria are clear and apply across the hydrogen and carbon capture service categories.

The cornerstone of the ICMA's GBP is the full allocation of net bond proceeds to the eligible projects with clear environmental benefits. We consider investments of green bond proceeds in equity stakes a nonstandard use of proceeds, which introduces challenges in terms of adherence to sustainability objectives, allocation and traceability at the asset level, impact reporting, value discrepancy and double counting. Air Liquide has detailed that the proceeds could be allocated to companies deriving at least 90% of their revenue from activities falling in any of the eligible green project categories, and the remaining 10% following the exclusion criteria. To ensure this, an external auditor will be mandated to audit the investee company revenue. To avoid double counting, the proceeds will be earmarked to an equivalent amount of the eligible projects in the investee company's portfolio, and these projects will not be financed through the investee company's own green debt instruments. The allocation to acquisitions is not expected to exceed 10% of the total proceeds allocated under this framework.

Clarity of the environmental or social objectives – BEST PRACTICES

Air Liquide has clearly outlined relevant and coherent environmental and social objectives for all the eligible categories. These objectives include climate change mitigation and access to essential services. All eligible categories are relevant to the respective environmental or social objectives they aim to contribute to. The objectives set are coherent with international standards.

Clarity of expected benefits – BEST PRACTICES

Clear and relevant expected environmental and social benefits have been identified for all eligible categories. The expected benefits are measurable for nearly all the project categories, and Air Liquide has committed to quantifying these benefits in its annual reporting that will be provided to investors. The share of refinancing will be disclosed in the post-issuance reporting, and estimations will be shared with the investors at the time of the issuance. A look-back period of 24 months has been established.

Best practices identified - use of proceeds

- » Objectives set are defined, relevant and coherent for all project categories
- » Relevant benefits are identified for all project categories
- » Benefits are measurable and quantified for most projects, either ex-ante with clear baselines or with a commitment to do so in future reporting
- » Commitment to transparently disclose the share of proceeds used for refinancing where feasible
- » Commitment to transparently communicate the associated lookback period(s) where feasible

Process for project evaluation and selection

Not aligned	Partially aligned	Aligned	Best practices

Transparency and quality of process for defining eligible projects – BEST PRACTICES
Air Liquide has established a clear and structured process for the evaluation and selection of eligible green and social projects, including detailed decision-making criteria, and clearly defined roles and responsibilities formalized in its framework. The company established a sustainable financing working group in 2021 in charge of selecting and verifying the eligible projects together with the business teams, the CFO, the treasury department, the group operations controls department and the sustainability department. It meets once a year and before each new bond issuance. The working group is also in charge of monitoring the compliance of the projects before the issuance and throughout the lifetime of the bond. In case a project is no longer compliant, Air Liquide would replace it with an equivalent amount of another eligible project. Decisions will be recorded in the minutes of each meeting.

Environmental and social risk mitigation process – BEST PRACTICES
The environmental and social (E&S) risk mitigation process is clearly disclosed in the framework and relies on the formalized policies, guidelines and systems implemented. The processes implemented are continuous and include a combination of identification, management, monitoring and control measures. The identification and monitoring of the E&S risks are performed by the sustainable financing working group. The company has allocated resources dedicated to environmental risks management, including the monitoring of energy, water and GHG emission risks. The environmental management system is embedded in the wider industrial management system governing operations.

Best practices identified - process for project evaluation and selection

» The roles and responsibilities for project evaluation and selection are clearly defined and include relevant expertise

» There is evidence of continuity in the selection and evaluation process through the life of the financial instrument(s), including compliance verification and procedures to undertake mitigating actions when needed

» The process for project evaluation and selection is traceable

» Material environmental and social risks for most project categories are identified

» Presence of corrective measures to address environmental and social risks across projects

» ESG controversies are monitored

Management of proceeds

Not aligned	Partially aligned	Aligned	Best practices

Allocation and tracking of proceeds – BEST PRACTICES
Air Liquide has clearly defined the process for the management, allocation and tracking of proceeds in the framework. Net proceeds will be placed in the company's general treasury, tracked on a daily basis by the group treasury department and earmarked for allocation to eligible green projects. The balance of unallocated proceeds will be adjusted on an ongoing basis. Air Liquide also commits to allocate proceeds within two calendar years following each bond issuance.

Management of unallocated proceeds – ALIGNED
Pending full allocation, unallocated proceeds may temporarily be invested in accordance with Air Liquide's investment guidelines in cash, deposits and money market instruments. The company has committed, on a best effort basis, to temporarily invest 50% of the unallocated proceeds in deposits and money market instruments with ESG criteria, including, but not limited to, Article 8 funds[2]

and green deposits. In case of project postponement or divestment, Air Liquide will replace the project with an equivalent amount of another eligible project.

Best practices identified - management of proceeds

- » Broad disclosure of a clearly articulated and comprehensive management of proceeds policy to external stakeholders; bondholders or lenders at a minimum
- » Short allocation period, for example typically less than 24 months
- » Commitment to reallocate proceeds to projects that are compliant with the framework

Reporting

Not aligned	Partially aligned	Aligned	Best practices

Transparency of reporting – ALIGNED

Annually, Air Liquide will report publicly on the use of proceeds issued under the framework. Reporting will occur until the full allocation of the proceeds and in the event of significant changes. Allocation reporting will include a list of outstanding bonds, the amount of proceeds allocated at the eligible category level per geography, the share of unallocated proceeds and type of temporary placements, the share of financing and refinancing, and the share of proceeds aligned with the EU Taxonomy.

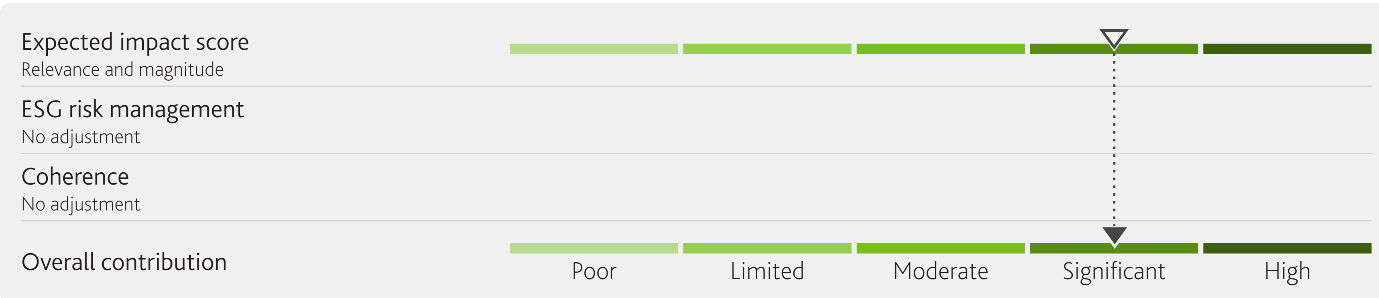
The company will publish a sustainable financing report on its website and has identified relevant environmental and social reporting indicators for all the eligible categories, which are clearly disclosed in the framework. The calculation methodologies and assumptions used for the environmental and social indicators will be included. The company will employ an independent external auditor to verify the tracking and allocation of funds to eligible projects or categories, the compliance of projects with the framework and the management of proceeds, at least until the full allocation of proceeds and in case of significant changes. However, there will not be an independent impact assessment of the environmental and social benefits and externalities associated with the financed projects.

Best practices identified - reporting

- » Reporting covers material developments and issues related to the projects or assets
- » Reporting on allocation of proceeds and benefits done at least at eligible category level
- » Exhaustive allocation reporting – balance or % of unallocated funds, types of temporary investments (e.g. cash or cash equivalent) and share of financing vs re-financing
- » Clear and relevant indicators to report on the expected environmental/social impact of all the projects, where feasible, or eligible categories
- » Disclosure of reporting methodology and calculation assumptions to bondholders or lenders at a minimum
- » Independent audit of the tracking and allocation of funds at least until full allocation and in case of material changes

Contribution to sustainability

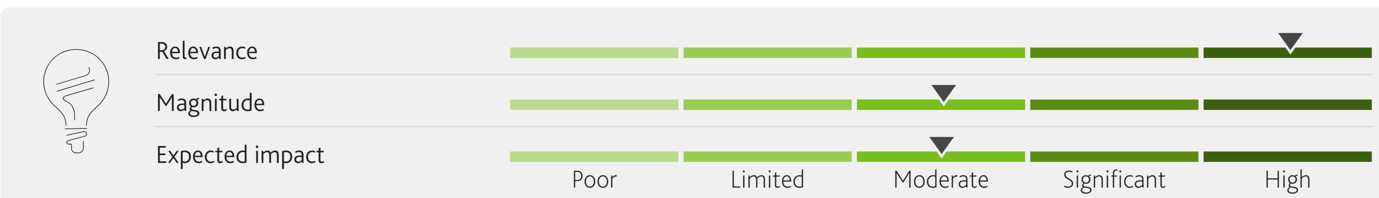
The framework demonstrates a significant overall contribution to sustainability.



Expected impact

The expected impact of the eligible project categories on the environmental objective is significant. To assess the consolidated score for contribution to sustainability, we have weighted the categories according to estimates provided by Air Liquide for the first issuances. In particular, the issuer estimates that most of the proceeds will be allocated to projects in the hydrogen category. A detailed assessment by eligible category is provided below.

Air gases

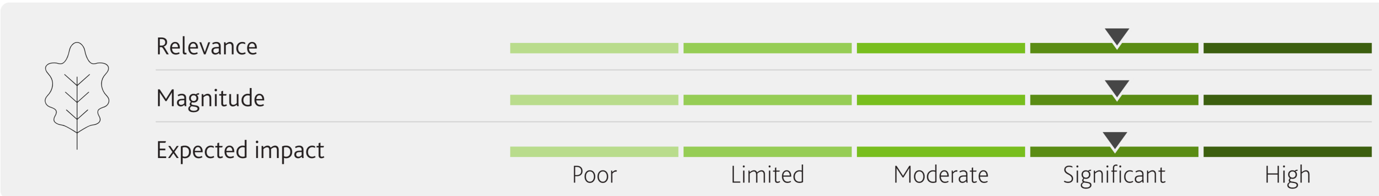


Investment in air separation units (ASUs) and the related production of air gases is highly relevant for improving climate mitigation in industrial sectors. Air gas technology applications can reduce the carbon intensity of certain manufacturing processes in hard-to-abate sectors, and the project category targets cement, construction materials, chemicals, steel and maritime sectors, as well as strengthening stability across electrical grids. Air gases can also enable GHG emissions reduction by serving as a value chain input for the electric vehicles, low-carbon hydrogen, carbon capture and renewable energy sectors. Moreover, improving ASUs' energy efficiency could help reduce the company's GHG footprint, as this technology is the company's core activity responsible for around 95% of the company's scope 2 emissions and around 55% of its scope 1 and 2 emissions.

The eligible projects in this category will moderately contribute to lowering GHG emissions in hard-to-abate sectors. While the technologies and sector applications of the oxygen derived from the ASUs could generate material reductions in GHG emissions, the technology's expected contribution to the targeted sectors' decarbonizing activities, which can vary by sector, is challenging to quantify. The oxygen used for hydrogen production will be applied to the autothermal reforming (ATR) process with carbon capture and storage (CCS), which can lower its carbon intensity. For steel manufacturing, the oxygen will only be used for hydrogen-based direct reduced iron ore in electric arc furnaces and excludes blast furnaces, which represents a promising production pathway for the sector's decarbonization. For EV battery production, the oxygen could ensure better performance and stability[3] as part of the active cathode material production, which is key for decarbonizing the transportation sector.

Air Liquide intends to finance ASUs which are more energy efficient than the top quartile of its existing stock of ASUs, or ASUs that source more than 75% of energy from renewable or nuclear power. However, a specific threshold of percentage of energy efficiency improvement compared to a baseline has not been provided for the ASUs. Regarding the use of ASUs to mitigate grid instability, there is limited visibility into the grids' characteristics that would make such assets eligible for financing.

Hydrogen



Expanding the production of low-carbon hydrogen will be critical for helping sectors across the economy transition towards their respective net-zero scenarios by 2050[4]. Currently, low-carbon hydrogen is a scarce resource that will require exponential development over the next decade to meet future aggregate demand[5]. As hydrogen's decarbonization potential can vary across industries, its relevance in advancing climate mitigation strategies largely depends on the sectors in which it is applied. Under this project category, the company intends to sell most of the hydrogen it produces to the fuel refining and chemicals sectors in the short term. While these sectors currently represent the largest markets for hydrogen, its application is less relevant in reducing GHG emissions than other hard-to-abate sectors. However, in the long term, the issuer expects to provide low-carbon hydrogen for steel manufacturing, which is highly relevant when used to replace coking coal as a direct reducing agent for iron ore.

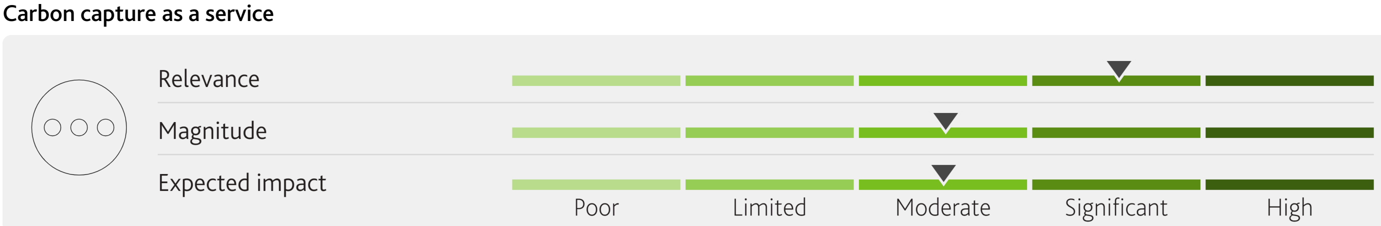
In addition, increasing Air Liquide's low-carbon hydrogen production capabilities plays a pivotal role in lowering the carbon intensity of its hydrogen production, which accounts for around 28% of the company's scope 1 and scope 2 emissions, and 65% of its scope 1 emissions.

The range of projects financed under this category to promote low-carbon hydrogen production will significantly contribute to climate change mitigation. The company has defined a technology-agnostic carbon content threshold of 3.38 tCO_2e/ tH_2, which is in line with the EU Renewable Energy Directive (REDII) threshold. While more stringent thresholds exist in the market, REDII is considered to be a relevant standard.

The majority of proceeds under this category will be allocated to expanding the company's green hydrogen production via water electrolysis, which is the most effective technology for generating low-carbon hydrogen. However, it is unclear whether the carbon content threshold will be met solely through on-site renewables, or if market mechanisms will also be considered.

The remaining proceeds will go towards blue hydrogen production using natural gas reforming technologies, including steam-methane reforming (SMR) and ATR coupled with CCS, which presents the risk of GHG emission lock-in due to the continued consumption of natural gas. Although the captured CO_2 will be transported to permanent storage facilities, inherent technological risks related to the CCS' current technical feasibility, scalability and leakages remain. In terms of water risks related to the hydrogen production, Air Liquide will systematically assess the local water availability during the project development phase, particularly in areas under acute water stress. The assets related to hydrogen storage, transmission and distribution, and hydrogen refueling installations should account for a minor part of the proceeds allocated under this category.

Carbon capture as a service



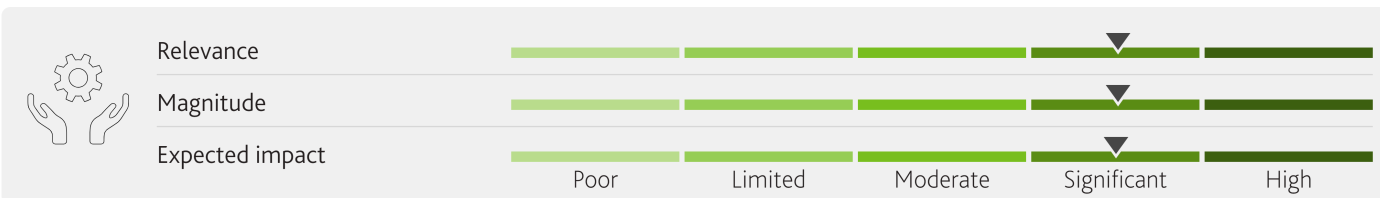
Projects to finance carbon capture (CC) technologies under this category are significantly relevant for transitioning towards a net-zero economy[6]. The CC technologies' relevance for reducing GHG emissions largely depends on the sector applying the technology and its decarbonization pathway. Some of the eligible industries have been specified, including cement manufacturing, where CC can play a key decarbonization role[7]. While the application of CC in power generation, oil and gas upstream, and greenfield refineries is excluded, there is limited clarity on the full range of industries in which the CC projects can be deployed.

The projects financed under this category will have a positive contribution to advancing climate action. Air Liquide intends to develop a wide range of CC technologies, including the design, development and installation of CC units as well as the construction and operation of infrastructure used for the captured CO_2 transportation and intermediate storage, which can help lower the carbon-intensity of activities in hard-to-abate sectors, depending on the technology's implementation.

While Air Liquide's CC unit design targets a minimum capture rate of 90%, which is in line with recognized standards, lock-in effects from existing fossil assets may be present because of broad downstream sector application under the framework. The eligible CC units will not be deployed for projects related to enhanced oil recovery, which is viewed positively; however other carbon-intensive sectors, such as fossil fuel processing, have not been excluded.

Air Liquide will in most cases operate the units, however, as provider of CC services, it may not have full governance of the capture rate during CC units operational phase, the permanence of the stored CO_2 or the maximum CO_2 leakage threshold from its transportation. The company has committed to engage with its clients on aligning the CC units' operational capture rates with the CC units' design capture rate of 90%. Although the company did not provide information regarding potential monitoring systems for CO_2 transportation leakage risks, the projects will most likely be limited to short distances, which reduces the risk of significant leakages downstream.

Home healthcare and community care services



The participation of Air Liquide in small and medium home health care and community care related companies dedicated to the provision of medical treatment for patients with chronic diseases, with a specific target on Germany, Italy, Poland, Roumania, Benelux, Korea, Canada, Colombia, Argentina, Brazil, Roumania, Saudi Arabia and South Africa, significantly addresses the growing need for health care services in these countries. Chronic diseases affect a large portion of the population, especially with an aging population. A third of Europeans suffer from chronic diseases[8]. We consider home health care as a relevant solution, reducing the need for hospitalization for patients, although there is some uncertainty on how the investments include measures to address the main health care needs of the target population. Among others, investments in companies involved in intensive care services and respiratory activities are contemplated. The services include training, patient initiation to following medical treatments and to the use of potential medical devices.

Investments in health care companies are likely to generate a significantly positive impact on the general population. The issuer will develop home health care services, mainly in developed and emerging economies, where health insurance covers around 100% of the medical treatment cost, ensuring the universal affordability of the services. However, the issuer has not defined additional measures to target the populations in most need and to facilitate the affordability in countries where medical treatment is not refunded 100% by health insurance.

ESG risk management

We have not applied a negative adjustment to the expected impact score for ESG risk management. The company has allocated appropriate resources dedicated to environmental risks referential management, including the monitoring of energy, water and GHG emission risks. The environmental management system is embedded into the wider industrial management system governing operations, which is a robust mechanism. Regarding climate change adaption, assets are designed to take into account the local situation (e.g., weather patterns, exposure to specific risks such as flooding). The company has conducted a global study on climate physical risks to identify and remedy these risks.

Coherence

We have not applied a negative adjustment to the expected impact score for coherence. Projects to be financed under Air Liquide's framework align with its broader sustainability strategy. The group's emission reduction targets are consistent with an ambition to limit the temperature increase to well-below 2°C, as in line with the Science Based Targets initiative (SBTi). The issuer's framework is also in line with the company's global strategy to become a leader in the provision of decarbonization solutions for hard-to-abate industries, including air gases, low-carbon hydrogen and carbon capture services[9]. The Group is also focused on expanding its healthcare activities to provide high quality services not only to hospitals but more specifically to patients who prefer at-home care, with the aim to provide personalized healthcare treatments[10].

Appendix 1 - Mapping eligible categories to the United Nations' Sustainable Development Goals

The three eligible categories included in Air Liquide's sustainable financing framework are likely to contribute to three of the United Nations' (UN) Sustainable Development Goals (SDGs), namely:

UN SDG 17 Goals	Eligible Category	SDG Targets
GOAL 3: Good Health and Well-being	*Home healthcare and proximity /community care services*	3.8: Achieve universal health coverage with access to quality and affordable essential health-care services and medicines for all
GOAL 9: Industry, Innovation and Infrastructure	*Air gases* *Hydrogen* *Carbon capture as a service*	9.4: Upgrade infrastructure and retrofit industries to make them sustainable, with all countries taking action
GOAL 13: Climate Action	*Air gases* *Hydrogen* *Carbon capture as a service*	13.2: Integrate climate change measures into national policies, strategies and planning

The mapping of the UN's SDGs in this SPO considers the eligible project categories (or key performance indicators) and associated sustainability objectives/benefits documented in the issuer/borrow/lender's financing framework, as well as resources and guidelines from public institutions, such as the ICMA's SDG Mapping Guidance and the UN's SDG targets and indicators.

Appendix 2 - Summary of eligible categories in Air Liquide's sustainable financing framework

Eligible Categories	Description	Sustainability Objectives	Impact Reporting Metrics
Air gases	Production of air gases for the decarbonization of industries involved in the energy transition and as necessary component in green activity value chain: Manufacture of O2 and N2 through energy efficient Air Separation Units (ASUs) contributing to: - The decarbonisation of the following industries, necessary in net-zero scenarios and medium to long-term transition plans: cement, construction materials, chemicals, steel, maritime - The value chain of industrial processes related to the following green activities: electric vehicles, low-carbon hydrogen, carbon capture, renewables Production of air gases for the integration of variable renewables through Demand-Side Management (DSM): - New process for Air Gases production specifically designed to ensure a smooth integration on power grids featuring a high share of intermittent renewable sources	Climate change mitigation	- Energy saving of the ASU - Information on industrial pilot units when relevant
Hydrogen	Hydrogen production: - Development, construction, installation, upgrade, transmission, distribution and maintenance of hydrogen production capacity with related lifecycle GHG emissions that comply with the Renewable Energy Directive (EU) 2023/2413 (RED II) threshold of 3.38tCO2e/tH2 (“the Hydrogen Production threshold”) - Development, construction, and upgrade of conditioning process such as liquefaction of hydrogen to enable its transport, when hydrogen meets the Hydrogen Production Threshold - Acquisition and manufacturing of equipment for the production, conditioning and use of hydrogen, when hydrogen meets the Hydrogen Production Threshold Storage of hydrogen: - Construction of storage facilities dedicated to hydrogen, including trailers and containers when hydrogen meets the Hydrogen Production Threshold - Operation of hydrogen storage facilities where the hydrogen stored in the facility meets the Hydrogen Production Threshold - Conversion of existing underground gas storage facilities into hydrogen storage facilities Hydrogen mobility: - Infrastructure for hydrogen refueling installations for road and off-road transportation, such as passenger cars, public transportation, road freight, waterborne transport and aircrafts	Climate change mitigation	- Annual Hydrogen production (tH2 or m3) - Annual Hydrogen transported (tH2 or m3) - Annual Hydrogen stored (tH2 or m3) - Energy storage capacity (MW) - Number of HRS installed or HRS refueling station capacity (H2 kg per day)

Eligible Categories	Description	Sustainability Objectives	Impact Reporting Metrics
Carbon Capture as a service	Capture of CO2: - Design, development and installation of carbon capture units for the purpose of decarbonizing hard-to-abate sectors, with a designed carbon capture rate above 90% and associated infrastructure for the transport (pipelines, vehicles, and vessels) and intermediate storage of captured CO2	Climate change mitigation	- Annual amount of CO2 captured (tCO2 or m3) - Annual amount of CO2 transported (tCO2 or m3)
Home healthcare and community care services	Development of home healthcare services and of proximity / community care services that fall under a public health subsidy program for long-term follow-up care related services, for chronic or complex patients - Target population: each and every person in need of medical care, including the most vulnerable. It includes patients suffering from chronic diseases such as chronic obstructive pulmonary disease, obstructive sleep apnea, chronic respiratory insufficiency, diabetes, pulmonary arterial hypertension, Parkinson's disease, and other pathologies treated by infusion	Access to essential services	- Estimated number of beneficiaries

Endnotes

1 The point-in-time assessment is applicable only on the date of assignment or update

2 According to the European Union's Sustainable Finance Disclosure Regulation, Article 8 funds promote, among other characteristics, environmental or social characteristics, or a combination of those characteristics

3 Stabilisation de matériaux d'électrode positive pour batteries Li-ion de structure désordonnée type NaCl : synthèse et caractérisation, Guegan 2021

4 Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach, 2023 Update.

5 Probabilistic feasibility space of scaling up green hydrogen supply, A. Odenweller, et al. (2022) Nature Energy.

6 Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach, 2023 Update.

7 Technology Roadmap: Low-Carbon Transition in the Cement Industry, International Energy Agency, March 2018.

8 Self-perceived health statistics, Eurostat (2023)

9 Universal Registry Document, Air Liquide (2023)

10 Ibid

REPORT NUMBER 1404744