

# Second-Party Opinion

## Air Liquide Sustainable Financing Framework



### Evaluation Summary

Sustainalytics is of the opinion that the Air Liquide Sustainable Financing Framework is credible and impactful and aligns with the Sustainability Bond Guidelines 2018, Green Bond Principles 2018, Social Bond Principles 2020, Social Loan Principles 2021, and Green Loan Principles 2021. This assessment is based on the following:



**USE OF PROCEEDS** The eligible categories for the use of proceeds – Biogas, Energy Efficiency, Hydrogen, Air Gases, Green Buildings, Access to Essential Services, Supporting Entrepreneurship – are aligned with those recognized by the Green Bond Principles, Social Bond Principles, Social Loan Principles, and Green Loan Principles. Sustainalytics considers that the eligible categories will lead to positive environmental or social impacts and advance the UN Sustainable Development Goals, specifically SDG 3, 7 and 9.



**PROJECT EVALUATION / SELECTION** Air Liquide S.A.'s internal process in evaluating and selecting projects is to be managed by the Sustainable working group, made up of various business heads from throughout the Company. Sustainalytics considers the project selection process in line with market practice.



**MANAGEMENT OF PROCEEDS** Air Liquide S.A.'s processes for management of proceeds is the responsibility of its Treasury Department. Eligible proceeds will be tracked through a Sustainable Registrar and reviewed annually. This is in line with market practice.



**REPORTING** Air Liquide S.A. intends to report on allocation of proceeds on its website on an annual basis until full allocation. In addition, Air Liquide S.A. is committed to reporting on relevant impact metrics including GHG emissions avoided (tCO<sub>2</sub>e/year), annual amount of landfill gas produced (m<sup>3</sup>) and estimated number of healthcare beneficiaries. Sustainalytics views Air Liquide S.A.'s allocation and impact reporting as aligned with market practice.

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**Evaluation Date** May 10, 2021

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**Issuer Location** Paris, France

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### Climate Transition Strategy

Sustainalytics views one category of the Air Liquide Sustainable Financing Framework to be a transition-related activity. Sustainalytics has evaluated Air Liquide's transition governance, strategy, decarbonization targets, and intentions to report on transition progress and finds them to be adequate overall and in alignment with the recommendations of the Climate Transition Finance Handbook 2020. The Company's financing of Carbon Capture and Sequestration (CCS) technology for application to hard-to-abate sectors and for use in hydrogen production aligned with low-carbon thresholds is considered to support a credible climate transition.

## Introduction

Air Liquide S.A. (“Air Liquide” or the “Company”) is a multinational company founded in 1902 that supplies industrial gasses and services to medical, chemical and technology companies. Air Liquide is headquartered in Paris, France and operates in over 78 countries and serves more than 3.8 million customers and patients.

Air Liquide has developed the Air Liquide Sustainable Financing Framework (the “Framework”) under which it intends to issue sustainability bonds, loans, and/or convertible bonds,<sup>1</sup> and use the proceeds to finance and/or refinance, in whole or in part, existing and/or future projects that aim to promote the Company’s environmental and social sustainability objectives by reducing emissions and improving living conditions for target populations. The Framework defines eligibility criteria in eight areas:

1. Biogas
2. Energy Efficiency
3. Carbon Capture and Storage
4. Hydrogen
5. Air Gases
6. Green Buildings
7. Access to essential services
8. Supporting entrepreneurship

Air Liquide engaged Sustainalytics to review the Air Liquide Sustainable Financing Framework, dated May 2021, and provide a Second-Party Opinion on the Framework’s environmental and social credentials and its alignment with the Green Bond Principles 2018 (GBP), Social Bond Principles 2020 (SBP), Sustainability Bond Guidelines 2018 (SBG),<sup>2</sup> Social Loan Principles 2021 (SLP),<sup>3</sup> and Green Loan Principles 2021 (GLP).<sup>4</sup> This Framework has been published in a separate document.<sup>5</sup> Additionally, Sustainalytics has evaluated Air Liquide’s transition governance, strategy, decarbonization targets, and intentions to report on transition progress in alignment with the recommendations of the Climate Transition Finance Handbook 2020.<sup>6</sup> Air Liquide’s inaugural issuance under this Framework will be a green bond, and has therefore been assessed by Sustainalytics for its alignment to the GBP.

### Scope of work and limitations of Sustainalytics’ Second-Party Opinion

Sustainalytics’ Second-Party Opinion reflects Sustainalytics’ independent<sup>7</sup> opinion on the alignment of the reviewed Framework with the current market standards and the extent to which the eligible project categories are credible and impactful.

As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework’s alignment with the Sustainability Bond Guidelines 2018, Green Bond Principles 2018, and Social Bond Principles 2020, as administered by ICMA, and the Green Loan Principles 2021 and Social Loan Principles 2021 as administered by LMA, APLMA, and LSTA;
- Air Liquide’s alignment with the recommendations of the Climate Transition Finance (CTF) Handbook 2020;
- The credibility and anticipated positive impacts of the use of proceeds; and

<sup>1</sup> Should Air Liquide issue convertible bond(s), as per alignment with the Green Bond Principles, Sustainalytics’ Second-Party Opinion is only valid until the time of conversion from the bond to common stock

<sup>2</sup> The Green Bond Principles, Social Bond Principles, and Sustainability Bond Guidelines are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/green-social-and-sustainability-bonds/sustainability-bond-guidelines-sbg/>

<sup>3</sup> The Social Loan Principles are administered by the Loan Market Association, Asia Pacific Loan Market Association and Loan Syndications & Trading Association and are available at: <https://www.lsta.org/content/social-loan-principles-slp/>

<sup>4</sup> The Green Loan Principles are administered by the Loan Market Association, Asia Pacific Loan Market Association and Loan Syndications & Trading Association and are available at: <https://www.lsta.org/content/green-loan-principles/#>

<sup>5</sup> The Air Liquide Sustainable Financing Framework is available on Air Liquide S.A.’s website at: <https://www.airliquide.com/investors/sustainable-finance>

<sup>6</sup> The Climate Transition Finance Handbook is administered by the International Capital Market Association and is available at: <https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Climate-Transition-Finance-Handbook-December-2020-091220.pdf>

<sup>7</sup> When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics’ hallmarks is integrity, another is transparency.

- The alignment of the issuer’s sustainability strategy and performance and sustainability risk management in relation to the use of proceeds.

For the use of proceeds assessment, Sustainalytics relied on its internal taxonomy, version 1.8.1, which is informed by market practice and Sustainalytics’ expertise as an ESG research provider.

As part of this engagement, Sustainalytics held conversations with various members of Air Liquide’s management team to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of the Framework. Air Liquide representatives have confirmed (1) they understand it is the sole responsibility of Air Liquide to ensure that the information provided is complete, accurate or up to date; (2) that they have provided Sustainalytics with all relevant information and (3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the Framework and should be read in conjunction with that Framework.

Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and Air Liquide.

Sustainalytics’ Second-Party Opinion, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market standards. Furthermore, Sustainalytics’ Second-Party Opinion addresses the anticipated impacts of eligible projects expected to be financed with bond and loan proceeds but does not measure the actual impact. The measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the Framework owner.

In addition, the Second-Party Opinion opines on the potential allocation of proceeds but does not guarantee the realised allocation of the bond and loan proceeds towards eligible activities.

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument, either in favour or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that Air Liquide has made available to Sustainalytics for the purpose of this Second-Party Opinion.

## Sustainalytics’ Opinion

### Section 1: Sustainalytics’ Opinion on the Air Liquide Sustainable Financing Framework

Sustainalytics is of the opinion that the Air Liquide Sustainable Financing Framework is credible, impactful and aligns with the four core components of the SBG, GBP, SBP, SLP and GLP. Sustainalytics highlights the following elements of Air Liquide’s Sustainability Bond Framework:

- Green Use of Proceeds:
  - The eligible categories – Biogas, Energy Efficiency, Hydrogen, Air Gases, Green Buildings, Access to Essential Services, and Supporting Entrepreneurship – are aligned with those recognized by the GBP, SBP and GLP.
  - Under the biogas category, Air Liquide may finance or refinance biogas projects such as the following:
    - Digesters producing biogas from the anaerobic digestion of biowaste. Air Liquide has confirmed that the feedstock will include food waste, agricultural waste, food processing industry waste and sequential crops.<sup>8</sup> Sustainalytics views these investments as aligned with market practice.
    - Landfill gas capture projects which will use the captured gas for power production or injection into gas grids: Sustainalytics notes that landfill gas capture for energy generation is one of the key waste management strategies to reduce methane

<sup>8</sup> Additional requirements are that (i) a monitoring and contingency plan in place for methane leakage, (ii) biogas must be used for generation of electricity or heat, or as biomethane in gas grid or vehicle fuel, (iii) bio-waste must constitute as 90% of input feedstock and must be segregated at source and collected separately, and (iv) the produced digestate is to be used as fertilizer.

- emissions relative to landfill with no gas capture or open dumps, while noting that best practice is to select only projects installed at closed landfills.<sup>9</sup>
- Within the Energy Efficiency category, Air Liquide may finance or refinance the following projects:
    - Data analysis program to improve reliability of data from oxygen, nitrogen and hydrogen plants and optimize energy consumption.
    - Construction and operation of electricity storage systems that use liquid air gasses or hydrogen as an energy storage reservoir: The Framework specifies that all hydrogen produced for energy storage will be compliant with the Framework's Hydrogen Threshold (see below), and the Company has confirmed that in all cases the intent of the energy storage is to increase the ability of electricity grids to integrate intermittent renewables; Sustainalytics therefore considers these projects to be in line with market expectation,
  - Under the Hydrogen Category, Air Liquide may finance or refinance the projects that support the production, storage and distribution and use of hydrogen.
    - The Framework defines a lifecycle emissions threshold of 4.37tCO<sub>2</sub>e/t H<sub>2</sub> for activities<sup>10</sup> under this category.<sup>11</sup> Sustainalytics views positively the use of a threshold and the reliance on industry guidelines to establish the applicable level. Nevertheless, Sustainalytics considers best practice for hydrogen production to either rely solely on renewable energy or to adopt the threshold of the EU Sustainable Finance Taxonomy<sup>12</sup> and encourages Air Liquide to strive for these levels over time.
    - Air Liquide may finance the development, construction, and upgrade of hydrogen electrolyzers, which use electricity to produce hydrogen gas from water. Sustainalytics recognizes that hydrogen production from electrolysis has significant potential to reduce emissions over the conventional pathway of production, i.e., steam reforming of natural gas, although the magnitude of the environmental benefit is dependent on the carbon-intensity of the electricity used.
    - Activities related to hydrogen mobility, specifically the installation of infrastructure for hydrogen refueling stations and the acquisition of a hydrogen vehicles fleet. Sustainalytics considers the use of hydrogen as a transport fuel to be aligned with market expectations.
    - Hydrogen storage, transmission, and distribution, including the dedicated hydrogen infrastructure and the conversion of existing gas storage and distribution networks to hydrogen. Sustainalytics considers the retrofit of fossil fuel systems to transport hydrogen to be aligned with market expectations.
  - Within the Air Gasses category, the Company may finance activities related to the manufacturing of oxygen and nitrogen through Air Separation units (ASUs), namely (i) new ASUs that are expected to be 5% more energy efficient than average existing units, (ii) ASUs which will be devoted to providing gasses that enable heavy industry to reduce emissions, and (iii) the development of new processes for the production of air gasses that allow for operation in such a way that supports the integration of variable renewable energy sources into a grid. Sustainalytics notes the following:
    - ASUs are large consumers of electrical energy, and currently represent the majority (>90%) of Air Liquide's Scope 2 emissions. The Company has disclosed that, due to the maturity of the technology used in ASUs, it considers a 5% improvement to be significant.
    - The gasses produced by ASUs have the potential to enable various carbon-intensive sectors, such as steel, cement, or chemicals, to reduce emissions. Sustainalytics views positively the deployment of technologies that enable emissions reduction from carbon-intensive activities, and highlights that the investments under the Framework will be directed to projects which support industry in achieving the relevant EU-ETS benchmark for their sector, while noting that Air Liquide's role as a provider of enabling

<sup>9</sup> The Framework defines as eligible projects at decommissioned cells, which may be within an active landfill.

<sup>10</sup> Which may include the production, conditioning and use of hydrogen, in accordance with the criteria of the Framework

<sup>11</sup> CertifHy is a European certification scheme for facilitating the production and procurement of green and low-carbon hydrogen by providing certificates that guarantee the origin of hydrogen. Additional information can be found at: <https://www.certifhy.eu/>

<sup>12</sup> The Draft Delegated Act of the EU Taxonomy aims to achieve an 73.4% emissions reduction against a fossil fuel comparator, and therefore has established a threshold of 3 tCO<sub>2</sub>e per tonne of hydrogen gas.

- technology is only one part of a credible climate transition. Sustainalytics notes that the provision of services to fossil fuel power generation is not viewed as aligned with market expectation.
- Large industrial electric loads, such as ASUs, are recognized to have a role in the integration of variable renewables through Demand-Side Management (DSM). Development and deployment of ASUs which have the ability to increase or decrease consumption to match grid conditions therefore have the potential to allow for increased renewable energy capacity and are consequently viewed positively.
  - Under the Green Buildings category, Air Liquide may finance or refinance the following activities:
    - The acquisition and/or construction of buildings that have received or will receive at least one of the following internationally recognized green building certifications such as LEED (“Gold” or above), BREEAM (“Very Good” or above), and CASBEE (“A” or above). Sustainalytics recognizes that BREEAM “Very Good” is considered to be in line with market practice in some contexts, while in others BREEAM Excellent is preferred. In any case, Sustainalytics encourages the selection of BREEAM buildings that achieve a minimum score of 70% in the Energy category.<sup>13</sup> Sustainalytics views the selected certifications as credible, and the levels selected as robust. An assessment of certifications can be found in Appendix 1.
    - Air Liquide may invest in buildings that meet a minimum requirement of EPC label A. Sustainalytics notes that in some contexts, buildings rated with an EPC label A do not belong to the top 15% of building stocks based on energy performance. Sustainalytics encourages the company, where relevant, to select buildings that have an EPC label A and belong to the top 15% energy efficient buildings within the local jurisdiction in order to provide sufficient assurance of positive environmental impact.
    - The renovation of buildings that achieve a reduction of 30% in primary energy demand, and installation of energy efficient equipment, charging stations for electric vehicles, devices to measure and control energy consumption and renewable energy technologies. Sustainalytics views positively the Framework’s inclusion of a defined energy efficiency threshold on a portfolio basis for the installations of energy-efficient systems, equipment, and technologies.
    - Air Liquide has confirmed to Sustainalytics that renewable energy technologies will include photovoltaic panels, heating by geothermal energy and hydrogen fuel cell for the electricity generation, heating and cooling. Air Liquide has confirmed to Sustainalytics that geothermal energy technology will have a direct emission threshold of <math><100\text{gCO}\_2/\text{kWh}</math>, which is in line with market practice.
  - Transition Use of Proceeds
    - Under the Carbon Capture category, Air Liquide may finance or refinance carbon capture units for the purpose of (i) decarbonizing hard-to-abate sectors and (ii) enable low-carbon hydrogen production. Sustainalytics classifies projects under this category as transition activities.
      - By providing carbon capture and sequestration (CCS) technology to carbon-intensive hard-to-abate sectors such as cement, steel, and petrochemicals, Air Liquide may help to enable the decarbonization of these activities. Sustainalytics recognizes the environmental benefits of providing such technology, and notes that the ultimate responsibility for the credible transition of these sectors lies with the entities carrying out the activity.
      - Air Liquide will apply CCS technology to steam methane reforming<sup>14</sup> (SMR) facilities producing hydrogen from fossil fuel gases to allow the facilities to achieve an emissions threshold of  $4.37\text{tCO}_2\text{e}/\text{t H}_2$ . Sustainalytics views the use of CCS to achieve science-based carbon intensities for hydrogen to have the potential to be part of a credible climate transition, when subject to appropriate governance and implementation, and recognizes the need to continue decarbonizing hydrogen production over time through ongoing technological development and/or the replacement of SMR with electrolysis.

<sup>13</sup> This threshold is associated with fulfilling the requirements for BREEAM Excellent in the energy category, which Sustainalytics regards as the most important one.

<sup>14</sup> Steam methane reforming is a method for producing syngas (hydrogen and carbon monoxide) by reaction of hydrocarbons with water.

- Air Liquide does not intend to use proceeds under the Framework to provide CCS to fossil fuel-based power generation; however, such activities are not specifically excluded. Sustainalytics does not consider the use of CCS technology for such activities to be part of a credible climate transition.
    - Sustainalytics also notes the role that hydrogen is anticipated to enable the transition of other sectors, such as transportation and industry.
  - Please see below for further assessment of transition use of proceeds in the context of ICMA's Climate Transition Finance Handbook.
- Social Use of Proceeds
  - Within the Access to Essential Services category, the Company may support the development of home healthcare services, community care services, and services and network infrastructure to deliver medical gasses to patients. Air Liquide has confirmed that projects under this category are in geographies where payment of healthcare services is made by either public or private institutions or insurers and every patient is provided access to healthcare, regardless of their ability to pay as long as they are referred by their healthcare practitioner. Sustainalytics recognizes that, although there are provisions in place for financial assistance as well as measures in place that limit patient cost, affordability is not always guaranteed. Nonetheless, Sustainalytics acknowledges the need for increasing healthcare access and equipment care globally and therefore views positively these projects, while encouraging Air Liquide to continue to emphasize accessibility for vulnerable and/or low-income groups.
  - Also, within the Access to Essential Services category, Air Liquide may finance "Health Care System Strengthening"; investments which leverage the Company's expertise to help develop the health care sector in specific countries. One such example is its "Access Oxygen" programme in Senegal, through which it partners with local healthcare providers to ensure that vulnerable patients have access to necessary medical treatments. Sustainalytics highlights that this initiative is not philanthropic in nature, and therefore consider it to be aligned with market expectations.
  - Within the category of "Supporting entrepreneurship", Air Liquide intends to provide financing in the form of minority investments in early-stage start-ups,<sup>15</sup> with a focus on three sectors which the Company classifies as "important to social change", namely "energy transition", "healthcare", and "digital".<sup>16</sup> Sustainalytics recognizes both (i) the potential of the entities financed to deliver positive environmental and/or social impacts and (ii) the social benefits that can result from some forms of SME financing.
    - The Issuer has communicated that ALIAD is focused on start-ups whose products are aligned with the Company's sustainability objectives, and that the general intent is to finance start-ups that have the potential to deliver positive environmental or social outcomes. Sustainalytics notes, however, that the selection criteria for investments do not provide a clear indication as to the nature or degree of expected impact.
    - ALIAD's holdings include investments in other environmentally or socially focused investment funds. While this structure reduces the transparency around ultimate impact as well as selection criteria and processes, the Issuer intends to ensure that its reporting will substantiate the environmental and social impacts achieved, regardless of the structure of the investments.
    - Sustainalytics considers it a market expectation that the financing of SMEs/start-ups should either be targeted to owners/operators who are members of historically disadvantaged groups<sup>17</sup> or to companies whose products and/or operations are known to meet credible sustainability criteria defined in a bond framework. While it is recognized that Air Liquide aims, through its focus on early-stage start-ups, to target SMEs that would not otherwise have access to credit, and that such financing can have broad social benefits, neither condition above is met by this category and, although the

<sup>15</sup> The financing provided under the Framework will always occur at the Series A or Series B stages, indicating companies that are early in their development cycle, and Air Liquide has confirmed that these will be small businesses that are not yet profitable and with an average investment amount of under EUR 2 million.

<sup>16</sup> ALIAD, Air Liquide's Venture Capital arm, has made 35 investments to date in these sectors. See: <https://www.airliquide.com/group/aliad-venture-capital>

<sup>17</sup> Such as, but not limited to, SMEs in low-income countries, SMEs in economically depressed regions, or SMEs owned by individuals who are members of a historically disadvantaged group.

percentage of proceeds allocated to it will be relatively small, Sustainalytics considers it to be a limitation of the Framework.

- **Project Evaluation and Selection:**
  - Air Liquide’s eligible projects will be evaluated and selected by the Sustainable working group (the “group”). The group is made up of representatives from the heads of various business units as well as the Sustainability and Treasury departments, and chaired by the Group CFO.
  - The group will monitor the Eligibly Projects Portfolio on an on-going basis, and will identify Eligible Projects that no longer meet eligibility criteria.
  - Sustainalytics considers that the collaboration between relevant business units strengthens the implementation of the Framework and is in line with market practice.
- **Management of Proceeds:**
  - Air Liquide’s Group Treasury Department will be responsible for allocating the net proceeds to eligible projects. Pending allocation, the Company will temporarily invest an equal amount of the unallocated balance of proceeds in cash, deposits and money market instruments in line with its investment guidelines.
  - The Group Treasury Department will create a Sustainable Register, to be reviewed annually by the Sustainability working group. The Register will contain information on the allocation amount to each issuance.
  - The Framework defines a three-year lookback period for refinancing activities, which Sustainalytics considers to be in line with market practice. Air Liquide intends to fully allocate eligible proceeds within two years following each bond issuance.
  - Based on the defined management approach and disclosure around the management of unallocated proceeds, Sustainalytics considers this process to be in line with market practice.
- **Reporting:**
  - Air Liquide commits to publishing a Sustainable Financing Report on its website, on an annual basis, which will include amounts allocated to eligible projects, project descriptions and the remaining balance of unallocated net proceeds.
  - The Company intends to report on the estimated environmental impacts of the projects to which it has allocated proceeds. Some of the potential impact metrics include GHG emissions avoided (tCO2e/year), annual amount of landfill gas produced (m<sup>3</sup>) and estimated number of healthcare beneficiaries.
  - Sustainalytics considers Air Liquide’s allocation and impact reporting process to be in line with market practice.

**Alignment with Sustainability Bond Guidelines 2018**

Sustainalytics has determined that the Air Liquide Sustainable Financing Framework aligns with the four core components of the GBP, SBP and GLP. For detailed information please refer to Appendix 2: Sustainability Bond/ Sustainability Bond Programme External Review Form.

**Climate Transition Handbook 2020**

Sustainalytics has assessed Air Liquide’s alignment with the recommendations of the Climate Transition Finance (CTF) Handbook and considers the Company’s transition strategy to be adequate overall. Sustainalytics highlights the following key elements of the assessment:

Key Elements	ICMA Recommendation	Sustainalytics’ Assessment	
Issuer’s climate transition strategy and governance	- Transition strategy to address climate-related risks and contribute to alignment with the goals of the Paris Agreement	- Air Liquide has defined clear medium-term targets to support its decarbonization strategy, namely a 30% reduction in carbon intensity (emissions/EBITDA) over the period 2015-2025 and a 33% reduction in absolute scope 1 and 2 emissions by 2035 from 2020.	Strong

	<ul style="list-style-type: none"> <li>- Relevant interim targets on the trajectory towards long-term goal</li> <li>- Governance of transition strategy</li> </ul>	<ul style="list-style-type: none"> <li>- The Company has a stated objective of carbon neutrality by 2050.</li> <li>- Air Liquide has targeted the expansion of its operations and opportunities related to the energy transition, such as producing hydrogen, supporting the use of low-carbon gases, and the application of CCS technology in hard-to-abate activities. These actions support the broader decarbonization of its operations. By 2030 the Company aims to have 3 GW of electrolysis capacity.</li> <li>- While the Company reports on a share of its Scope 3 emissions, it has not set formal targets in relation to their decarbonization.</li> <li>- The Company's climate strategy is overseen by a committee which reports to the Board.</li> <li>- See detailed assessment in Section 2.</li> </ul>	
<b>Business model environmental materiality</b>	<ul style="list-style-type: none"> <li>- Transition trajectory should be relevant to the environmentally-material parts of the issuer's business model</li> </ul>	<ul style="list-style-type: none"> <li>- Hydrogen production units are responsible for 32% of Air Liquide's own-operations (Scope 1 and 2) GHG emissions</li> <li>- Air Liquide's customers operate in carbon-intensive sectors, such as steel and other heavy industry, which are recognized as being activities in need of transition.</li> </ul>	Relevant and environmentally-material
<b>Climate transition strategy to be 'science-based' including targets and pathways</b>	<ul style="list-style-type: none"> <li>- Transition strategy should reference science-based targets and transition pathways</li> </ul>	<ul style="list-style-type: none"> <li>- The Company's long-term objective of carbon neutrality by 2050 is aligned with credible science-based targets.</li> <li>- While aiming to support the Paris Agreement, Air Liquide's short-to-medium-term targets (33% by 2035) are not directly based on or benchmarked to science-based trajectories.</li> <li>- See detailed assessment in Section 2.</li> </ul>	Adequate
<b>Implementation transparency</b>	<ul style="list-style-type: none"> <li>- Disclosure of CAPEX and OPEX plans</li> <li>- Climate-related outcomes and impacts that expenditures are intended to result in</li> </ul>	<ul style="list-style-type: none"> <li>- Air Liquide is committed to reporting on its decarbonization progress, and makes public information related to Scope 1 and 2 emissions.</li> <li>- The Company is working, with industry partners, to develop an accounting and reporting approach for Scope 3 emissions in relation to the use of industrial gasses, as there is currently no standardized methodology in this area.</li> <li>- Although it has established investment targets for its operations in relation to energy transition, and will provide updates on the amounts invested in low-carbon hydrogen, Air Liquide has not committed to reporting on the share or amount of CAPEX focused on its overall low-carbon activities.</li> </ul>	Adequate

## Section 2: Sustainability Strategy of Air Liquide

### Contribution of Framework to Air Liquide S.A.'s sustainability strategy

Sustainalytics is of the opinion that Air Liquide demonstrates a commitment to sustainability with a focus on three key environmental and social areas: (I) the energy transition, (II) greenhouse gas emissions reductions and energy efficiency and (III) healthcare. In 2020, Air Liquide consulted its stakeholders and developed its materiality matrix.<sup>18</sup> Through this matrix, five key areas were identified as having internal and external importance to the sustainable development of Air Liquide. The areas identified are part of Air Liquide's strategy to create both economic and societal value.<sup>19</sup> Air Liquide intends to integrate the focus areas through the following targets, strategies and commitments:

<sup>18</sup> Air Liquide, "Materiality Matrix", (2020), at: <https://www.airliquide.com/group/materiality-matrix>

<sup>19</sup> Air Liquide, "Materiality Matrix", (2020), at: <https://www.airliquide.com/group/materiality-matrix>



Energy transition – Please see “Credibility of Air Liquide’s climate transition strategy” below

Greenhouse gas emissions and energy efficiency - Air Liquide is committed to reducing CO2 emissions in its operations. The Company has targeted a 33% reduction of carbon emissions by 2035 based on 2020 Scope 1 and 2 emissions and carbon neutrality by 2050.<sup>20</sup> Air Liquide intends to achieve its targets through the development of low-carbon solutions. The Company invests in solutions that reduce GHG emissions through carbon capture, including injecting CO2 in concrete, and the use of hydrogen as a coal replacement in the production of steel.<sup>21</sup>

Healthcare – the gases produced by Air Liquide, including oxygen and hydrogen, are used to serve more than 1.8 million patients and 15,000 hospitals globally.<sup>22</sup> Air Liquide has identified the facilitation of medical oxygen to rural communities in low and middle-income countries as a priority.<sup>23</sup> The Company intends to achieve this through expanding its partnerships with NGOs and equipping communities in villages with expertise and support. Air Liquide intends to continue expanding its products and services for the healthcare sector in response to changes in healthcare including increases in chronic diseases, ageing populations, and the increasing importance of health and well-being.<sup>24</sup>

Air Liquide’s sustainability strategy is integrated into the Company’s business model and highlights its growth trajectory as a company while addressing global transformations, including climate change. Therefore, Sustainalytics is of the opinion that the Air Liquide Sustainable Financing Framework is aligned with the company’s overall sustainability strategy and initiatives and will further the Company’s action on its key environmental priorities.

#### **Well-positioned to address common environmental and social risks associated with the projects**

While Sustainalytics recognizes that the use of proceeds from the Framework will be directed towards eligible projects that are expected to have positive environmental and social impact, Sustainalytics is aware that such eligible projects could also lead to negative environmental and social outcomes. Some key environmental and social risks associated with the eligible projects, could include environment, health and safety risks associated with construction, operation, and maintenance of biogas, hydrogen and air gases generation and distribution infrastructure as well as materials handling and manufacturing.

Air Liquide is a multinational company and therefore operates within different regulatory jurisdictions. As such, the Company published its 2020 Universal Registration Document<sup>25</sup> outlining particular policies and regulations related to risk including those identified by Sustainalytics as being associated with the eligible projects under the Framework. The Company is headquartered in France, and therefore the risk management measures are in compliance with article 16 of Regulation (EU) 2017/1129 dated June 14, 2017 (“Prospectus Regulation, Chapter III”), as well as the inclusion of a Vigilance Plan pursuant to article L. 225-102-4 of the French Commercial Code.<sup>26</sup> The Group identifies five risk categories (business-related, financial risk, digital risk, environment and societal risks and geopolitical, regulatory and legal risks).<sup>27</sup> While the identification, management and mitigation of all risks is important, Sustainalytics highlights the following categories due to alignment with eligible projects:

- **Health and Safety of Individuals and Operations** – Air Liquide has integrated safety into its operations and is committed to achieving zero accidents by 2030.<sup>28</sup> The Group has recorded a declining trend in accidents across its operations over the 20-year period prior to 2020.<sup>29</sup> Air Liquide divides its safety actions across three axes: (I) safety of individuals, (II) road safety and (III) process safety.<sup>30</sup> The Group uses an Industrial Management System (IMS) to assess and manage risks. The IMS ensures compliance with standards and regulations, design management, industrial risk management, health

<sup>20</sup> Air Liquide, “Environmental Data”, (2021), at: <https://www.airliquide.com/group/environmental-data>

<sup>21</sup> Air Liquide, “ACT for Sustainable Development”, (2021), at: <https://www.airliquide.com/sites/airliquide.com/files/2021/03/22/act-leaflet.pdf>

<sup>22</sup> Ibid

<sup>23</sup> Ibid

<sup>24</sup> Ibid

<sup>25</sup> Air Liquide, “Universal Registration Document”, (2020), at: <https://www.airliquide.com/sites/airliquide.com/files/2021/03/04/air-liquide-2020-universal-registration-document.pdf>

<sup>26</sup> Ibid

<sup>27</sup> Ibid

<sup>28</sup> Air Liquide, “Safety”, (2021), at: <https://www.airliquide.com/group/safety-our-first-priority>

<sup>29</sup> Ibid

<sup>30</sup> Ibid

and safety and treatment of incidents and accidents.<sup>31</sup> Risks related to the design, construction and operation of industrial infrastructure is categorized under Air Liquide's industrial risk policies.<sup>32</sup>

- Environment– Air Liquide's Vigilance Plan outlines the Group's commitment to climate change and environmental management.<sup>33</sup> The Group implements risk mitigation efforts in relation to both greenhouse gas emissions reductions and water management. The Sustainable Development Department oversees the process of analyzing environment-related risks.<sup>34</sup>

Based on these policies, standards and assessments, Sustainalytics is of the opinion that Air Liquide has implemented adequate measures and is well-positioned to manage and mitigate environmental and social risks commonly associated with the eligible categories.

### **Credibility of Air Liquide's climate transition strategy**

Sustainalytics recognizes that some of the use of proceeds from the Framework will be invested in projects that support transition activities that are critical for achieving GHG emissions reduction targets, but that are not typically financed within the green bond market. While transition-related investments do not eliminate emissions completely, they can support the shift to a low-carbon economy. Within this context, Sustainalytics has assessed Air Liquide's climate transition strategy below:

#### Climate Governance

Air Liquide's climate transition strategy is reviewed by the Group's Environment and Society Committee that reports to the Company's Board of Directors.<sup>35</sup> The Sustainable Development Department oversees the analysis of risk assessment and impact evaluation in conjunction with General Managers across the Group's global operations.<sup>36</sup>

#### Emission-Reduction Targets

Air Liquide's long-term (2050) emissions reduction target is to reach carbon neutrality by 2050, and to reduce CO<sub>2</sub> emissions 33% by 2035 based on 2020 Scope 1 and 2 emissions.<sup>37</sup> In the short-term, Air Liquide committed to 30% reduction of its carbon intensity by 2025 compared to 2015 levels, measured in kg CO<sub>2</sub> equivalent per euro of operating income.<sup>38</sup> Air Liquide has aligned its long-term targets with those outlined in the Paris Agreement.<sup>39</sup>

On the basis of Air Liquide's long-term emissions reduction targets and alignment with the Paris Agreement, in Sustainalytics' opinion the Group's targets are credible and will contribute to the transition to a low-carbon economy.

#### Decarbonization Pathway and Implementation Plan

Air Liquide's decarbonization pathway will focus on the energy transition through its efforts to promote hydrogen as a key driver of a low-carbon economy. The Group intends to assist global decarbonization efforts through increasing the use of hydrogen in mobility, and by developing solutions for its customers to integrate hydrogen into supply-chains. Some notable highlights of how Air Liquide intends to achieve this are outlined below:

- Hydrogen powered-transportation: Air Liquide has identified hydrogen mobility as an area of strength and growth.<sup>40</sup> The Company's current hydrogen production is capable of charging 10 million hydrogen vehicles.<sup>41</sup> Air Liquide is actively involved in installing hydrogen charging stations globally and is involved in the promotion of hydrogen as source of clean energy for mobility. Additionally, the Group is investing in technologies and solutions to increasing hydrogen usage in transportation and energy usage.<sup>42</sup> The Group intends to do this through investing in low-carbon electricity, carbon capture technologies and

<sup>31</sup> Air Liquide, "Universal Registration Document", (2020), at: <https://www.airliquide.com/sites/airliquide.com/files/2021/03/04/air-liquide-2020-universal-registration-document.pdf>

<sup>32</sup> Ibid

<sup>33</sup> Ibid

<sup>34</sup> Ibid

<sup>35</sup> Air Liquide, "Universal Registration Document", (2020), at: <https://www.airliquide.com/sites/airliquide.com/files/2021/03/04/air-liquide-2020-universal-registration-document.pdf>

<sup>36</sup> Ibid

<sup>37</sup> Air Liquide, "Abatement of CO<sub>2</sub> emissions", (2021), at: <https://www.airliquide.com/group/abatement-co2-emissions>

<sup>38</sup> Ibid

<sup>39</sup> Ibid

<sup>40</sup> Air Liquide, "2019 Annual Report", (2020), at: <https://www.airliquide.com/sites/airliquide.com/files/2020/04/24/2019-annual-report.pdf>

<sup>41</sup> Air Liquide, "2019 Annual Report", (2020), at: <https://www.airliquide.com/sites/airliquide.com/files/2020/04/24/2019-annual-report.pdf>

<sup>42</sup> Ibid

improving its supply chain and production efficiencies. The Air Liquide Group has invested over \$150 million USD in the U.S. and targets the installation of 200 charging stations by 2025.<sup>43</sup> The Company has committed to producing 100% of its hydrogen intended for the mobility market from low-carbon, renewable energy sources including biogas and renewable energies.<sup>44</sup>

- Hydrogen economy and solutions: Air Liquide has five innovation campuses dedicated to the energy transition and the environment. Air Liquide is one of the founders of the Hydrogen Council, a group of 90 multinational companies in the transportation, energy and manufacturing sectors.<sup>45</sup> The Council focuses on promoting hydrogen as a key solution for the energy solution for both industry and mobility sectors based on hydrogen.<sup>46</sup> Air Liquide projects its revenues from hydrogen will triple by 2035 and intends to invest 8 billion Euros in the low carbon hydrogen supply chain by 2035.<sup>47</sup> By 2030 the Company aims to have 3 GW of electrolysis capacity.

#### Reporting on Implementation

Air Liquide intends to report annually on its emissions reduction progress as outlined in its Universal Registration Document. The Group intends to report on Scope 1, 2 and 3 emissions in accordance with the GHG Protocol's carbon accounting method. This includes reporting on emissions from all sources owned or controlled by Air Liquide, emissions related to the production of electricity generated or purchased by the Group, and the reporting of emissions related to the life cycle of products sold by Air Liquide. The Group intends to continue annually disclosing its GHG emissions, and is therefore transparently reporting on its overall climate progress.

Air Liquide has established a target to invest 8 billion Euros towards innovation in the low-carbon hydrogen supply-chain by 2035, and will report on the investments in the low-carbon hydrogen supply chain on a quarterly basis. The Company has not made specific commitments to report other low-carbon investments (ie. those in sectors other than hydrogen, the impact of these investments, or the relative share of the low-carbon investments within the Company's overall CAPEX plan.

### **Section 3: Impact of Use of Proceeds**

All eight use of proceeds categories are aligned with those recognized by GBP, SBP, SLP or GLP. Sustainalytics has focused on two below where the impact is specifically relevant in the local context.

#### **Importance of green building design in industrial production facilities**

, the building sector is a significant contributor to both global energy use and total CO<sub>2</sub> emissions, with building construction and operations accounting for 36% of global final energy use and contributing nearly 40% of energy-related CO<sub>2</sub> emissions globally. In the United States alone, residential and commercial buildings account for 39% of total U.S. energy consumption<sup>48</sup> and 72% of national electricity consumption.<sup>49</sup> According to the Global Alliance for Buildings & Construction, an initiative of UN Environment while countries are continuing to implement and update building energy codes and certification policies, most expected building growth is expected in countries that do not have mandatory energy codes and policies in place as of 2018. Concurrently, investments in energy efficiency in buildings has slowed, with investments only experiencing a growth of 4.7% in 2017 (3% adjusted for inflation), which is sited as the lowest increase rate in recent years.<sup>50</sup> In this context, Air Liquide's investments in acquisition, renovation and installation of energy efficient equipment in industrial production facilities which have received certification from international building rating and certification systems has the potential to significantly reduce GHG emissions associated with its overall operations.

#### **Impact of hydrogen as a fuel source and low-carbon energy**

Hydrogen is considered as a clean energy that does not emit CO<sub>2</sub> in its consumption stage and its use is increasing in various areas such as industrial manufacturing, transportation, buildings, and power generation.

<sup>43</sup> Ibid

<sup>44</sup> Ibid

<sup>45</sup> Air Liquide, "Hydrogen Council", (2020), at: <https://www.airliquide.com/magazine/energy-transition/hydrogen-council-coming-together-promote-hydrogen>

<sup>46</sup> Ibid

<sup>47</sup> Air Liquide, "ACT for Sustainable Development", (2021), at: <https://www.airliquide.com/sites/airliquide.com/files/2021/03/22/act-leaflet.pdf>

<sup>48</sup> U.S. Energy Information Administration FAQ: <https://www.eia.gov/tools/faqs/faq.php?id=86&t=1>

<sup>49</sup> EPA Energy and Environment, Electricity Customers: <https://www.epa.gov/energy/electricity-customers#industrial>

<sup>50</sup> World Green Building Council, 2018 Global Status Report:

<https://www.worldgbc.org/sites/default/files/2018%20GlobalABC%20Global%20Status%20Report.pdf>

Hydrogen is produced by reforming fossil fuels such as natural gas, or through the electrolysis of water and other processes. Depending on the method, its production entails the emission of greenhouse gases. However, in hydrogen production by electrolysis using electricity from renewable energy sources or in combination with CO<sub>2</sub> capture and storage (CCS) technology, the CO<sub>2</sub> emission in the production process may be reduced significantly or even to zero.<sup>51</sup>

Hydrogen is expected to contribute to the decarbonization of the power generation industry when it is used as a fuel, as it does not emit CO<sub>2</sub> at the time of combustion irrespective of the source material. When generating 1 kWh of electricity by thermal power generation, the amount of direct CO<sub>2</sub> emissions from an average coal-fired power plant and an LNG thermal power plant is 864 g CO<sub>2</sub> and between 341 to 476 g CO<sub>2</sub>, respectively.<sup>52</sup> On the other hand, a 100% hydrogen-fired power plant emits no CO<sub>2</sub> during the power generation process. The gas turbine power generation industry has progressed in the development of hydrogen co-firing technology, and further R&D efforts have been made for the establishment of a 100% hydrogen mono-fuel combustion technology.<sup>53</sup>

One of the key use cases for hydrogen fuel cells has been in the transportation sector with the onset of fuel cell electric vehicles (FCEVs). By combining hydrogen stored in a tank with oxygen from the air to produce electricity, such technologies emit only water and zero tailpipe emissions.<sup>54</sup> FCEVs are equipped with notable energy efficiency features such as regenerative braking systems, which capture the energy lost during braking and store it in a battery for future consumption.<sup>55</sup> According to the U.S. Department of Energy, while FCEVs and the hydrogen infrastructure needed to fuel them are still in the early stages of wide-spread implementation, it has proven to be a viable and environmentally friendly alternative to fossil fuel-powered transportation.<sup>56</sup>

Based on the above, Sustainalytics is of the opinion that Air Liquide's investments in hydrogen production, storage, transmission and distribution through its green bond, will have a positive impact on decarbonization efforts globally.

#### Alignment with/contribution to SDGs

The Sustainable Development Goals (SDGs) were set in September 2015 by the United Nations General Assembly and form an agenda for achieving sustainable development by the year 2030. The bond(s) issued under the Air Liquide Sustainable Financing Framework advances the following SDG(s) and target(s):

Use of Proceeds Category	SDG	SDG target
Biogas	7. Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
Energy Efficiency		7.3 Double the global rate of improvement in energy efficiency
Hydrogen		
Air Gases	9. Industry, Innovation and Infrastructure	9.4 Upgrade infrastructure and retrofit industries to make them sustainable
Green Buildings		
Access to Essential Services	3. Good Health and Well-Being	3.8: Achieve universal health coverage, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all
Supporting Entrepreneurship	8. Decent Work and Economic Growth	8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization

<sup>51</sup> International Energy Agency (IEA), "The Future of Hydrogen", at: [https://www.capenergies.fr/wp-content/uploads/2019/07/the\\_future\\_of\\_hydrogen.pdf](https://www.capenergies.fr/wp-content/uploads/2019/07/the_future_of_hydrogen.pdf)

<sup>52</sup> Central Research Institute of Electric Power Industry, "Comprehensive Life Cycle CO<sub>2</sub> Emissions Assessment of Power Generation Technologies in Japan (Japanese only)", at: <https://criepi.denken.or.jp/jp/kenkikaku/report/leaflet/Y06.pdf>

<sup>53</sup> International Energy Agency (IEA), "The Future of Hydrogen", at: [https://www.capenergies.fr/wp-content/uploads/2019/07/the\\_future\\_of\\_hydrogen.pdf](https://www.capenergies.fr/wp-content/uploads/2019/07/the_future_of_hydrogen.pdf)

<sup>54</sup> Digital Trends, Hydrogen was the fuel of tomorrow, so what happened: <https://www.digitaltrends.com/cars/hydrogen-cars/>

<sup>55</sup> U.S. Department of Energy, Fuel Cell Electric Vehicles: [https://afdc.energy.gov/vehicles/fuel\\_cell.html](https://afdc.energy.gov/vehicles/fuel_cell.html)

<sup>56</sup> Ibid

		and growth of micro-, small- and medium-sized enterprises, including through access to financial services
--	--	---

## Conclusion

Air Liquide has developed the Air Liquide Sustainable Financing Framework under which it may issue sustainability bonds and/or loans and use the proceeds to finance projects supporting projects that are anticipated to have positive environmental and social impacts, and in particular to further the development of hydrogen as a renewable energy source and advance the Company’s transition to a low-carbon economy.

The Air Liquide Sustainable Financing Framework outlines a process by which proceeds will be tracked, allocated, and managed, and commitments have been made for reporting on the allocation and impact of the use of proceeds. Furthermore, Sustainalytics believes that Air Liquide Sustainable Financing Framework is aligned with the overall sustainability and transition strategies of the company and views the transition-related activities of the Framework to be part of a credible climate-aligned transition. The use of proceeds categories will contribute to the advancement of the UN Sustainable Development Goals 3, 7 and 9. Additionally, Sustainalytics is of the opinion that Air Liquide has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects funded by the use of proceeds.

Sustainalytics is of the opinion that the Air Liquide Sustainable Financing Framework is robust, transparent, and in alignment with the four core components of the Green Bond Principles (2018), Social Bond Principles (2020), Social Loan Principles (2021) and Green Loan Principles (2021). Sustainalytics has also assessed Air Liquide’s alignment with the recommendations of the Climate Transition Finance Handbook, considers the Company’s transition strategy to be adequate overall. Based on the above, Sustainalytics is confident that Air Liquide is well-positioned to issue green, social, and sustainability bonds.

## Appendices



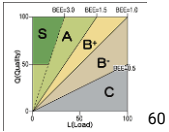
### Appendix 1: Green Building Certification Assessment

	LEED <sup>57</sup>	BREEAM <sup>58</sup>	CASBEE Certification <sup>59</sup>
<b>Background</b>	Leadership in Energy and Environmental Design (LEED) is a US Certification System for residential and commercial buildings used worldwide. LEED was developed by the non-profit U.S. Green Building Council (USGBC) and covers the design, construction, maintenance and operation of buildings.	BREEAM (Building Research Establishment Environmental Assessment Method) was first published by the Building Research Establishment (BRE) in 1990.  Based in the UK, BREEAM can be used for new, refurbished and extension of existing buildings.	The Comprehensive Assessment System for Built Environment Efficiency (CASBEE) Certification is a green building certification scheme in Japan, which a third party certifies the environmental performance of buildings. The certification scheme includes, based on types of buildings: CASBEE for Buildings, CASBEE for Real Estate, and CASBEE for Housing.
<b>Certification Levels</b>	<ul style="list-style-type: none"> <li>• Certified</li> <li>• Silver</li> <li>• Gold</li> <li>• Platinum</li> </ul>	<ul style="list-style-type: none"> <li>• Pass</li> <li>• Good</li> <li>• Very Good</li> <li>• Excellent</li> <li>• Outstanding</li> </ul>	C (Poor) B- (Slightly Poor) B+ (Good) A (Very Good) S (Excellent)  <ul style="list-style-type: none"> <li>• * 4-grade evaluation for CASBEE for Real Estate excluding C rank</li> </ul>
<b>Areas of Assessment</b>	<ul style="list-style-type: none"> <li>• Energy and Atmosphere</li> <li>• Sustainable Sites</li> <li>• Location and Transportation</li> <li>• Materials and Resources</li> <li>• Water Efficiency</li> <li>• Indoor Environmental Quality</li> <li>• Innovation in Design</li> <li>• Regional Priority</li> </ul>	<ul style="list-style-type: none"> <li>• Energy</li> <li>• Land Use and Ecology</li> <li>• Pollution</li> <li>• Transport</li> <li>• Materials</li> <li>• Water</li> <li>• Waste</li> <li>• Health and Wellbeing</li> <li>• Innovation</li> </ul>	<ul style="list-style-type: none"> <li>• Energy Efficiency</li> <li>• Resource efficiency</li> <li>• Local environment</li> <li>• Indoor environment</li> </ul> <ul style="list-style-type: none"> <li>• * Areas for assessment of CASBEE for Real Estate are energy/GHG, water, resource, biodiversity, indoor environment</li> </ul>
<b>Requirements</b>	Prerequisites (independent of level of certification) + Credits with associated points.  These points are then added together to obtain the LEED level of certification.  There are several different rating systems within LEED. Each rating system is designed to apply to a specific sector (e.g. New Construction, Major Renovation, Core and Shell Development, Schools-/Retail-/Healthcare New Construction and Major Renovations, Existing Buildings: Operation and Maintenance).	Prerequisites depending on the levels of certification. Credits with associated points.  This number of points is then weighted by item and gives a BREEAM level of certification, which is based on the overall score obtained (expressed as a percentage). Majority of BREEAM issues are flexible, meaning that the client can choose which to comply with to build their BREEAM performance score.	Score-based performance level.  CASBEE uses the BEE (Built Environment Efficiency) as its assessment indicator, which is calculated from Q (Built Environment Quality) as the numerator and L (Built Environment Load) as the denominator. Q and L are obtained through the classification and rearrangement of the four areas of assessment.  Buildings may receive ranks ranging from C (poor) to S (excellent), in order of increasing BEE value.  For authorization, a building must receive a report from the CASBEE

<sup>57</sup> USGBC, "LEED rating system", at: [www.usgbc.org/LEED](http://www.usgbc.org/LEED).

<sup>58</sup> BREEAM, "How certification works" at: <https://www.breeam.com/discover/how-breeam-certification-works/>.

<sup>59</sup> Institute for Building Environment and Energy Conservation, "CASBEE certification scheme (Japanese only)", at: <http://www.ibec.or.jp/CASBEE/certification/certification.html>.

			<p>Certification system, which is afterwards assessed by the local government.</p> <p>* CASBEE for Real Estate does not use BEE, additional point system. Certification will not be given, if required item are not met.</p>
<b>Performance Display</b>			
<b>Accreditation</b>	<p>LEED AP BD+C LEED AP O+M</p>	<p>BREEAM International Assessor BREEAM AP BREEAM In Use Assessor</p>	<p>Japan Sustainable Building Consortium (JSBC) under the auspice of the Ministry of Land, Infrastructure, Transport and Tourism (MLIT)</p>
<b>Qualitative Considerations</b>	<p>Widely recognised internationally, and strong assurance of overall quality.</p>	<p>Used in more than 70 countries. Good adaptation to the local normative context. Predominant environmental focus. BREEAM certification is less strict (less minimum thresholds) than HQE and LEED certifications.</p>	<p>CASBEE is continuously developed based on industry-government-academia collaboration under the support of Ministry of Land, Infrastructure, Transport and Tourism. In Japan, many local governments have made CASBEE assessment results mandatory for building permits.</p>

<sup>60</sup> Institute for Building Environment and Energy Conservation, "Method of Evaluation and Built Environment Efficiency (BEE)", at: [http://www.ibec.or.jp/CASBEE/CASBEE\\_outline/method.html](http://www.ibec.or.jp/CASBEE/CASBEE_outline/method.html).

## Appendix 2: Sustainability Bond / Sustainability Bond Programme - External Review Form

### Section 1. Basic Information

<b>Issuer name:</b>	Air Liquide S.A.
<b>Sustainability Bond ISIN or Issuer Sustainability Bond Framework Name, if applicable:</b>	Air Liquide Sustainable Financing Framework
<b>Review provider's name:</b>	Sustainalytics
<b>Completion date of this form:</b>	May 10, 2021
<b>Publication date of review publication:</b>	

### Section 2. Review overview

#### SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarise the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBP and SBP:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds        | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting                                    |

#### ROLE(S) OF REVIEW PROVIDER

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 <sup>nd</sup> opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification   | <input type="checkbox"/> Rating        |
| <input type="checkbox"/> Other ( <i>please specify</i> ):                       |  |

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

#### EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW (*if applicable*)

Please refer to Evaluation Summary above.

### Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.



## 1. USE OF PROCEEDS

Overall comment on section (if applicable):

The eligible categories for the use of proceeds Biogas, Energy Efficiency, Hydrogen, Air Gases, Green Buildings, Access to Essential Services, Supporting Entrepreneurship are aligned with those recognized by both the Green Bond Principles, Social Bond Principles and Green Loan Principles. Sustainalytics considers that the eligible categories will lead to positive environmental or social impacts and advance the UN Sustainable Development Goals, specifically SDG 3, 7 and 9

### Use of proceeds categories as per GBP:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Renewable energy   | <input checked="" type="checkbox"/> Energy efficiency  |
| <input type="checkbox"/> Pollution prevention and control  | <input type="checkbox"/> Environmentally sustainable management of living natural resources and land use |
| <input type="checkbox"/> Terrestrial and aquatic biodiversity conservation   | <input type="checkbox"/> Clean transportation  |
| <input type="checkbox"/> Sustainable water and wastewater management   | <input type="checkbox"/> Climate change adaptation   |
| <input type="checkbox"/> Eco-efficient and/or circular economy adapted products, production technologies and processes                             | <input checked="" type="checkbox"/> Green buildings  |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs | <input type="checkbox"/> Other (please specify):   |

If applicable please specify the environmental taxonomy, if other than GBPs:

### Use of proceeds categories as per SBP:

- |   |  |
|---|--|
| <input type="checkbox"/> Affordable basic infrastructure  | <input checked="" type="checkbox"/> Access to essential services                                   |
| <input type="checkbox"/> Affordable housing   | <input checked="" type="checkbox"/> Employment generation (through SME financing and microfinance) |
| <input type="checkbox"/> Food security  | <input type="checkbox"/> Socioeconomic advancement and empowerment                                 |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with SBP categories, or other eligible areas not yet stated in SBP | <input type="checkbox"/> Other (please specify):   |

If applicable please specify the social taxonomy, if other than SBP:

## 2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

Air Liquide S.A.'s internal process in evaluating and selecting projects is to be managed by the Sustainable working group, made up of various business heads from throughout the Company. Sustainalytics considers the project selection process in line with market practice.

#### Evaluation and selection

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Credentials on the issuer's social and green objectives                                 | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories    |
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Sustainability Bond proceeds | <input type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |
| <input type="checkbox"/> Summary criteria for project evaluation and selection publicly available                           | <input type="checkbox"/> Other (please specify):   |

#### Information on Responsibilities and Accountability

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Evaluation / Selection criteria subject to external advice or verification | <input type="checkbox"/> In-house assessment |
| <input type="checkbox"/> Other (please specify):   |  |

### 3. MANAGEMENT OF PROCEEDS

Overall comment on section (*if applicable*):

Air Liquide S.A.'s processes for management of proceeds is the responsibility of its Treasury Department. Eligible proceeds will be tracked through a Sustainable Registrar and reviewed annually. This is in line with market practice.

#### Tracking of proceeds:

- |   |
|---|
| <input checked="" type="checkbox"/> Sustainability Bond proceeds segregated or tracked by the issuer in an appropriate manner |
| <input checked="" type="checkbox"/> Disclosure of intended types of temporary investment instruments for unallocated proceeds |
| <input type="checkbox"/> Other (please specify):  |

#### Additional disclosure:

- |   |   |
|---|---|
| <input type="checkbox"/> Allocations to future investments only | <input checked="" type="checkbox"/> Allocations to both existing and future investments |
| <input type="checkbox"/> Allocation to individual disbursements | <input type="checkbox"/> Allocation to a portfolio of disbursements                     |

- Disclosure of portfolio balance of unallocated proceeds
- Other (please specify):

**4. REPORTING**

Overall comment on section (if applicable):

Air Liquide S.A. intends to report on allocation of proceeds on its website on an annual basis until full allocation. In addition, Air Liquide S.A. is committed to reporting on relevant impact metrics including GHG emissions avoided (tCO<sub>2</sub>e/year), annual amount of landfill gas produced (m<sup>3</sup>) and estimated number of healthcare beneficiaries. Sustainalytics views Air Liquide S.A.'s allocation and impact reporting as aligned with market practice.

**Use of proceeds reporting:**

- Project-by-project
- On a project portfolio basis
- Linkage to individual bond(s)
- Other (please specify):

**Information reported:**

- Allocated amounts
- Sustainability Bond financed share of total investment
- Other (please specify): Project descriptions

**Frequency:**

- Annual
- Semi-annual
- Other (please specify):

**Impact reporting:**

- Project-by-project
- On a project portfolio basis
- Linkage to individual bond(s)
- Other (please specify):

**Information reported (expected or ex-post):**

- GHG Emissions / Savings
- Energy Savings
- Decrease in water use
- Number of beneficiaries
- Target populations
- Other ESG indicators (please specify): annual production of biogas (in MWh), annual amount of landfill gas produced (in m<sup>3</sup>), annual hydrogen produced, stored, and transported (in tH<sub>2</sub> or m<sup>3</sup>)

**Frequency:**

- Annual
  Semi-annual  
 Other (please specify):

**Means of Disclosure**

- Information published in financial report
  Information published in sustainability report  
 Information published in ad hoc documents
  Other (please specify): website  
 Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):

Where appropriate, please specify name and date of publication in the useful links section.

**USEFUL LINKS (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)**

<https://www.airliquide.com/investors/sustainable-finance>

**SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE****Type(s) of Review provided:**

- Consultancy (incl. 2<sup>nd</sup> opinion)
  Certification  
 Verification / Audit
  Rating  
 Other (please specify):

**Review provider(s):****Date of publication:****ABOUT ROLE(S) OF REVIEW PROVIDERS AS DEFINED BY THE GBP AND THE SBP**

- i. Second-Party Opinion: An institution with sustainability expertise that is independent from the issuer may provide a Second-Party Opinion. The institution should be independent from the issuer's adviser for its Sustainability Bond framework, or appropriate procedures such as information barriers will have been implemented within the institution to ensure the independence of the Second-Party Opinion. It normally entails an assessment of the alignment with the Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy, and/or processes relating to sustainability and an evaluation of the environmental and social features of the type of Projects intended for the Use of Proceeds.
- ii. Verification: An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or sustainability criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally or socially sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Sustainability Bond proceeds, statement of environmental or social impact or alignment of reporting with the Principles may also be termed verification.
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