



WHEN TRUST MATTERS



# LG CHEM GREEN FINANCING FRAMEWORK



**Document title:** Second Party Opinion on LG Chem's Green Financing Framework

**Prepared by:** DNV Business Assurance Korea Ltd.

**Location:** Seoul, Republic of Korea

**Date:** 21 June 2021

**Ref. Nr.:** PRJN-253297-2021-AST-KOR

This statement is valid until the Framework provided on 27 May 2021 remains unchanged.

## Table of Contents

Table of Contents.....	2
DNV’S INDEPENDENT ASSESSMENT .....	3
Scope and Objectives .....	3
Responsibilities of the Management of LG Chem and DNV .....	4
Basis of DNV’s opinion .....	4
Work Undertaken.....	5
Findings and DNV’s Opinion.....	5
Schedule 1. Description of Categories to be financed or refinanced through LG Chem’s Green Financing Transactions	8
Schedule 2. Contributions to UN SDGs	10
Schedule 3. Eligibility Assessment Protocol	11
1. Use of Proceeds	11
2. Process for Project Selection and Evaluation	11
3. Management of Proceeds	12
4. Reporting	13
Schedule 4. Green Bond / Green Bond Programme External Review Form	15

### Disclaimer

Our assessment relies on the premise that the data and information provided by the client to us as part of our review procedures have been provided in good faith. Because of the selected nature (sampling) and other inherent limitation of both procedures and systems of internal control, there remains the unavoidable risk that errors or irregularities, possibly significant, may not have been detected. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied as per scope of work. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Statement.

### Statement of Competence and Independence

DNV applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2011 - Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We have complied with the DNV Code of Conduct<sup>1</sup> during the assessment and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. DNV was not involved in the preparation of statements or data included in the Framework except for this Statement. DNV maintains complete impartiality toward stakeholders interviewed during the assessment process.

<sup>1</sup> DNV Code of Conduct is available from DNV website ([www.dnv.com](http://www.dnv.com))

## DNV'S INDEPENDENT ASSESSMENT

### Scope and Objectives

LG Chem, Ltd. ("LG Chem" or the "Company")<sup>2</sup> was established in 1947 in the Republic of Korea. Since establishment, the Company has continuously achieved growth and has become the Korea's leading chemical company, now striving for a leader in the global chemical market. From the durable cosmetic product lids to the high quality batteries, LG Chem has focused on enriching the lives of customers through its innovative technologies.

Sustainability is one of the key values in implementing LG Chem's vision 'We connect science to life for a better future'. As a driving engine of long-term business success and continuous growth, LG Chem is focusing on sustainability in all business decisions. As a global company that influences humanity and the world, LG Chem aims to achieve "sustainable growth" by consolidating financial growth and environmental, social, and governance (ESG) criteria across the entire process, from sourcing raw materials to using products to their disposal.

Most of all, the company has shown its commitment to tackling various environmental issues by setting the concrete goals and targets in following areas for achieving the Sustainable Development Goals.

- **Carbon Neutrality**

LG Chem was the first domestic chemical player to announce its plans to become carbon neutral growth by 2050. This goal is to suppress carbon emissions down to approximately 10 million tons of carbon emissions by 2050, against the level of emissions in 2019. LG Chem is also reviewing the introduction of new CCU (Carbon Capture and Utilization) technologies to directly reduce carbon emissions, in the mid- to long-term. It is an innovative new technology that captures the carbon occurring during production processes. Furthermore, the company is committed to transitioning into 100% renewable energy in all of the business sites by 2050 (for overseas plants by 2030).

- **Circular Economy (Plastic Recycling and Biodegradable Plastics)**

On March 11, 2020, the EU announced the new Circular Economy Action Plan' through the European Commission. The new 'Circular Economy Action Plan' is one of the main pillars of the European Green Deal' and Europe's new agenda for sustainable growth. In line with this, LG Chem is transitioning from a traditional linear economic system into a circular economic system, intending to minimize resource depletion and waste through reuse and recycling. As part of the initiative, the company has developed white Post-Consumer Recycled (PCR) ABS plastics using recycling technologies. LG Chem is also increasing portion of renewable raw materials in production, replacing oil-based plastics with those made from renewable raw materials. Forming the strategic partnership with Neste, the world's largest biodiesel producer, is a good example in materializing LG Chem's such effort.

- **Landfill Zero**

LG Chem is pursuing 'Zero Waste to Landfill' from its business sites to reduce waste and increase its recycling rates. The electric vehicle battery production subsidiary (LGESMI) in Michigan has received 'Zero Waste to Landfill Certification' from NSF International in the United States by recycling more than 90% of its production waste. The Company has also imposed the mandatory Landfill Zero policy in new business sites, and will phase in the policy for existing sites. By recycling the waste generated from manufacturing processes, instead of landfill/incineration, the company plans to reduce carbon emission and treatment cost.

---

<sup>2</sup> <https://www.lgchem.com/main/index>

LG Chem's efforts for preserving the environment are highlighted in receiving Korea's first eco-friendly international certification - International Sustainability and Carbon Certification (ISCC) Plus, for nine types of products used in diapers, IT, home appliances and automotive materials. The company announced on 19 April 2021 that it has obtained ISCC Plus certification for bio-balanced products that were made from renewable plant materials such as waste oil and palm oil.

In line with its efforts for sustainable growth, LG Chem has developed the Green Financing Framework (the "Framework") under which it is issuing Green Bond/Loan with structures tailored to contribute to sustainable development and LG Chem plans to use the proceeds to refinance or finance the Eligible Projects in green development categories.

DNV Business Assurance Korea Ltd. ("DNV")<sup>3</sup> has been commissioned by LG Chem to review its Green Financing Framework and provide a Second Party Opinion on the Framework considering the alignment with Green Bond Principles 2021 ("GBP")<sup>4</sup> published by the International Capital Market Association ("ICMA") and Green Loan Principles 2021 ("GLP") and Guidance on Green Loan Principles 2021 ("GGLP") published by the Loan Market Association ("LMA"). Our methodology to achieve this is described under 'Work Undertaken' below. We were not commissioned to provide independent assurance or other audit activities.

No assurance is provided regarding the financial performance of instruments issued via the LG Chem's Framework, the value of any investments, or the long-term environmental benefits of the transaction. Our objective has been to provide an assessment that the Framework has met the criteria established on the basis set out below.

## Responsibilities of the Management of LG Chem and DNV

The management of LG Chem has provided the information and data used by DNV during the delivery of this review. Our statement represents an independent opinion and is intended to inform LG Chem management and other interested stakeholders in the Framework as to whether the Framework is aligned with GBP and GLP. In our work we have relied on the information and the facts presented to us by LG Chem. DNV is not responsible for any aspect of the nominated assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV shall not be held liable if any of the information or data provided by LG Chem's management and used as a basis for this assessment were not correct or complete.

## Basis of DNV's opinion

We have adapted our assessment methodology to create the LG Chem-specific Eligibility Assessment Protocol (henceforth referred to as "Protocol"). Our Protocol includes a set of suitable criteria that can be used to underpin DNV's opinion.

As per our Protocol, the criteria against which the Framework has been reviewed are grouped under the four core components:

### 1. Use of Proceeds

<sup>3</sup> <https://www.dnvgi.co.kr/assurance/index.html>

<sup>4</sup> <https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/>

The Use of Proceeds criteria are guided by the requirement that an issuer of a bond/a borrower of a loan must use the funds raised to finance eligible activities. The eligible activities should produce clear environmental and social benefits.

## 2. Process for Project Evaluation and Selection

The Project Evaluation and Selection criteria are guided by the requirements that an issuer of a bond/a borrower of a loan should outline the process it follows when determining eligibility of an investment using Green Bond/Loan proceeds, and outline any impact objectives it will consider.

## 3. Management of Proceeds

The Management of Proceeds criteria are guided by the requirements that a bond/a loan should be tracked within the organization, that separate portfolios should be created when necessary and that a declaration of how unallocated funds will be handled should be made.

## 4. Reporting

The Reporting criteria are guided by the recommendation that at least annual reporting should be made of the use of proceeds and that quantitative and/or qualitative performance indicators should be used, where feasible.

## Work Undertaken

Our work constituted a high-level review of the available information, based on the understanding that this information was provided to us by LG Chem in good faith. We have not performed an audit or other tests to check the veracity of the information provided to us. The work undertaken to form our opinion included:

- Creation of a Protocol, adapted to the purpose of the Framework, as described above and in Schedule 3 to this Assessment;
- Assessment of documentary evidence provided by LG Chem on the Framework and supplemented by a high-level desktop research. These checks refer to current assessment best practices and standards methodology;
- Review of published materials by LG Chem and LG Chem's website;
- Discussions with LG Chem's management, and review of relevant documentation and evidence related to the criteria of the Protocol; and
- Documentation of findings against each element of the criteria. Our opinion as detailed below is a summary of these findings.

## Findings and DNV's Opinion

DNV's findings are listed below:

### 1. Use of Proceeds

LG Chem intends to use the proceeds from the Green Bond/Loan issued under the Framework to finance or refinance, in whole or in part, new or existing Eligible Green Project Categories. The framework defines the following eligible project categories.

#### *Eligible Green Project Categories*

- Renewable Energy
- Circular Economy
- Clean Transportation

DNV undertook an analysis of the associated project type to determine the eligibility as "Green" in line with the GBP and GLP. In order to strengthen analytical accuracy, the worldwide accredited principles and regulations which define green projects, such as EU Taxonomy<sup>5</sup> and Climate Bond Initiative (CBI) Taxonomy<sup>6</sup> were also referred to comprehensively. LG Chem has provided tables mapping its Eligible Green Categories and the United Nations Sustainable Development Goals ("UN SDGs"). The outlined types of project within each category and associated selection criteria is provided in the Framework in order to determine eligibility.

DNV concludes that the eligible categories outlined in the Framework are consistent with the categories outlined in the GBP and GLP.

## 2. Process for Project Evaluation and Selection

The Framework describes the process for project evaluation and selection. Potential project to which proceeds is used under the Framework will be identified and selected by LG Chem's responsible business units and will be assessed by a dedicated Green Financing Working Group ("GFWG") to ensure the project meets the eligibility criteria. The shortlisted projects will be approved after final review by the Investment Committee. The allocation of proceeds will be reviewed annually by the GFWG to determine if any changes or updates to the allocations would be necessary.

DNV concludes that LG Chem's Green Financing Framework appropriately describes the process of project evaluation and selection.

## 3. Management of Proceeds

The net proceeds of Green Bond/Loan will be used and managed accordingly for financing and/or refinancing of existing or new Eligible Green projects. For effective management of the proceeds LG Chem plans to maintain a Register to manage the allocations of proceeds for Green Bond/Loan. The Green Bond/Loan register will be reviewed annually by the GFWG to account for any re-allocation, repayments or drawings on the Eligible projects and expenditures within the pool.

Pending the full allocation of the net proceeds, all or a portion of the net investment proceeds will be held in accordance with LG Chem's general liquidity management policies. The unallocated can be invested in cash, cash equivalents, investment grade securities or other marketable securities and short-term instruments or other capital management activities. The net proceeds can be swapped or hedged into different currencies subject to the company's needs.

DNV has reviewed the evidence presented and can confirm that the proceeds arising from the future issuances will be appropriately managed.

## 4. Reporting

LG Chem intends to report on the use of proceeds annually for effective communication with related stakeholders including investors.

LG Chem' reporting will include;

- Allocation per Eligible Project Categories: Examples of projects financed by the proceeds, Balance amount of unallocated net proceeds, Portion of financing and refinancing
- Impact Reporting: Environmental impacts resulting from eligible projects

DNV can confirm that LG Chem's Green Financing Framework appropriately describes the procedures of reporting in line with GBP and GLP.


On the basis of the information provided by LG Chem and the work undertaken, it is DNV's opinion that the LG Chem's Green Financing Framework meets the criteria established in the Protocol and are aligned with GBP and GLP. Please refer to Schedule 4. Green Bond/Loan Programme External Review Form for detailed information.

<sup>5</sup> [https://ec.europa.eu/info/sites/default/files/business\\_economy\\_euro/banking\\_and\\_finance/documents/200309-sustainable-finance-teg-final-report-taxonomy-annexes\\_en.pdf](https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/200309-sustainable-finance-teg-final-report-taxonomy-annexes_en.pdf)

<sup>6</sup> <https://www.climatebonds.net/files/files/CBI-Taxonomy-Sep18.pdf>

**for DNV Business Assurance Korea Ltd.**

Seoul, Republic of Korea / 21 June 2021



---

Chang Rok Yun  
**Project Team**

Young Wook Park

---

Mark Robinson  
**Technical Reviewer**

## Schedule 1. Description of Categories to be financed or refinanced through LG Chem's Green Financing Transactions

Eligible Green Project Categories	Eligible Criteria and Description	DNV Findings
Renewable Energy	Capital investments and/or operating expenditures related to the manufacture of raw materials required for the development of renewable energy technology, e.g., Polyolefin Elastomer (POE), a raw material required for the development of solar encapsulant film. Spend may include the expansion of the facility to increase POE production.	<ul style="list-style-type: none"> <li>• POE is the material commonly used as an encapsulant for photovoltaic modules.</li> <li>• LG Chem has confirmed that manufactured POE will be used for the development of solar encapsulant film for Photovoltaics (PV).</li> <li>• Both EU Taxonomy and Climate Bonds Taxonomy are referring to manufacture of Solar PV in the perspective of renewable energy.</li> <li>• In particular, Climate Bonds Taxonomy states that PV related facilities are automatically compatible with the Taxonomy as follows:  <i>SOLAR: "Manufacturing facilities wholly dedicated to onshore solar energy development such as PV cells and components, CSP dishes, troughs and components etc".</i></li> </ul>
Circular Economy	Capital investments and/or operating expenditures related to the production of bio-diesel/naphtha using bio-feedstock, e.g., cooking oil waste, and etc.	<ul style="list-style-type: none"> <li>• LG Chem is making its efforts to increase shares of bio-feedstock in producing plastics.</li> <li>• Bio-diesel/naphtha to be produced by this project is based on 100% bio-feedstock such as cooking oil waste. Palm oil or animal fats will not be used.</li> <li>• Manufactured bio-diesel or bio-naphtha will be used for producing bioplastics. Plastics made of bio-feedstocks are covered in EU Taxonomy.</li> <li>• LG Chem has a plan to receive International Sustainability and Carbon Certification (ISCC) Plus covering the entire supply chain from raw materials to production, purchase and sale of related products.</li> </ul>
	Capital investments and/or operating expenditures related to the production of bio-based plastic from bio-feedstock, e.g., cooking oil waste, and etc.	<ul style="list-style-type: none"> <li>• Bio-based plastics is an important pillar of the circular economy. In 2018 the European Commission adopted a European wide strategy on plastics and bio-based plastics has a crucial role in this transition<sup>7</sup>.</li> <li>• Production of bio-based plastics from bio-feed stock is also covered in EU Taxonomy.</li> <li>• EU Taxonomy highlights that in manufacturing plastics in primary forms from renewable feedstocks, carbon footprint should be reduced when compared to that in manufacturing plastics with fossil fuel.</li> <li>• The issuer is well aware of this threshold and the relevant impact indicator was included in the Framework with "potential CO2 reduction through raw material conversion"</li> <li>• LG Chem plans to receive certification of ISCC Plus for the entire process of this project.</li> </ul>
	Capital investments and/or operating expenditures related to the mechanical and chemical recycling of plastic waste.	<ul style="list-style-type: none"> <li>• Plastic production by mechanical or chemical recycling is covered in EU Taxonomy. The EU has also included chemical recycling of plastic waste in their Circular Economy Action Plan.</li> <li>• EU Taxonomy highlights that in manufacturing plastics in primary forms by chemical recycling, the carbon footprint shall be lower when compared to that</li> </ul>

<sup>7</sup> [https://ec.europa.eu/environment/circular-economy/pdf/new\\_circular\\_economy\\_action\\_plan.pdf](https://ec.europa.eu/environment/circular-economy/pdf/new_circular_economy_action_plan.pdf)



Eligible Green Project Categories	Eligible Criteria and Description	DNV Findings
		<p>of the plastics in primary form manufactured with fossil fuel feedstock.</p> <ul style="list-style-type: none"> <li>The issuer is well aware of this threshold and included the relevant impact indicator in the framework with "CO2 reduction compared to virgin plastics"</li> </ul>
Clean transportation	Capital investments and/or operating expenditures related to the manufacture of raw materials used for the developing EVs, FCEVs and ESS, e.g., CNT (Carbon Nanotube), Precursor, Cathode Materials, Separator, Separator Coating, Copper Foil, Thermal Materials and Nickel Mining/Smelting/Refining, etc.	<ul style="list-style-type: none"> <li>Zero tail pipe emission vehicles such as EVs and FCEVs, and Energy Storage System (ESS) are in alignment with EU Taxonomy.</li> <li>Energy Storage System (ESS) is used for storing renewable energy for timely production of electricity.</li> <li>The raw materials to be manufactured by this project are used for the above-mentioned EVs, FCEVs, and ESS.</li> <li>LG Chem's Supply Chain Management System<sup>8</sup> enables tightened management of suppliers which provides necessary materials for this project related manufacture; LG Chem established responsible sourcing policy for raw materials procurement in 2020. This policy specifies a variety of procurement for raw materials suppliers. LG Chem also complies with the 'OECD Due Diligence Guidance for Responsible Supply Chains'.</li> <li>To strengthen responsible mineral sourcing in line with current global standards, LG Chem has also participated in Responsible Minerals Initiative (RMI) in 2019 for the first time in Korea among electric vehicle (EV) battery makers.</li> </ul>

<sup>8</sup> <https://www.lgchem.com/sustainability/supply-chain-management/responsible-sourcing>

## Schedule 2. Contributions to UN SDGs

Eligible Project Categories	UN SDGs	DNV Findings
Renewable Energy	<p><b>SDG 7.2</b> By 2030, increase substantially the share of renewable energy in the global energy mix</p> <p><b>SDG 7.a</b> By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology</p>	<p>DNV is of the opinion that eligible category outlined in the Framework contributes to the achievement of the UN SDGs.</p>
Circular Economy	<p><b>SDG 7.2</b> By 2030, increase substantially the share of renewable energy in the global energy mix</p> <p><b>SDG 12.4</b> By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment</p> <p><b>SDG 12.5</b> By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse</p> <p><b>SDG 13.1</b> Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries</p>	
Clean Transportation	<p><b>SDG 7.2</b> By 2030, increase substantially the share of renewable energy in the global energy mix</p> <p><b>SDG 9.4</b> By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities</p> <p><b>SDG 13.1</b> Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries</p>	

## Schedule 3. Eligibility Assessment Protocol

### 1. Use of Proceeds

Ref.	Criteria	Requirements	DNV Findings
1a	Type of bond / loan	<p>The bond must fall in one of the following categories, as defined by the Green Bond Principles:</p> <ul style="list-style-type: none"> <li>• Green Use of Proceeds Bond</li> <li>• Green Use of Proceeds Revenue Bond</li> <li>• Green Project Bond</li> <li>• Green Securitised Bond</li> </ul> <p>Loan instrument made available exclusively for Green project (Green use of loan proceeds)</p>	<p>The reviewed evidence confirms that the bond/loan fall in the category: Green Use of Bond/Loan proceeds.</p> <p>The specific type of Green Bond/Loan will need to be further assessed on an individual basis.</p> <p><b>From the Framework</b>  <i>The aim of the Green Financing Framework ("Framework") is to facilitate transparency, disclosure, integrity and quality in LG Chem's Green Bond/Loan for interested investors and stakeholders. LG Chem intends to issue Green Bond/Loan to fulfill its environmental responsibilities, financing investments and R&amp;D activities that contribute to sustainable development by earmarking the proceeds for projects and expenditures that fall within the Eligible Categories.</i></p>
1b	Sustainable Project Categories	<p>The cornerstone of Green Bond/Loan is the utilization of the proceeds of the bond or the loan which should be appropriately described in the legal documentation for the security.</p>	<p>Eligible project categories presented by LG Chem are as follows:</p> <p>[Eligible Green Project Categories]</p> <ul style="list-style-type: none"> <li>• Renewable Energy</li> <li>• Circular Economy</li> <li>• Clean Transportation</li> </ul> <p>The above-mentioned project categories meet the eligible Green Project Categories in GBP and GLP.</p>
1c	Environmental benefits	<p>All designated Green Project categories should provide clear environmentally sustainable benefits, which, where feasible, will be quantified or assessed by the Issuer.</p>	<p>The presented green project categories are aligned with GBP and GLP and detailed explanations are provided in the Schedule I.</p>
1d	Refinancing Share	<p>In the event that a proportion of the proceeds may be used for refinancing, it is recommended that issuers provide an estimate of the share of financing vs. refinancing, and where appropriate, also clarify which investments or project portfolios may be refinanced.</p>	<p>In the Framework, it is clearly indicated that the net proceeds will be used to finance or refinance, in whole or in part, new or existing Eligible Green Project Categories in 2.A Use of Proceeds.</p> <p><b>From the Framework</b>  <i>LG Chem plans to use net proceeds from issuance of the Green Bond/Loan to finance and/or refinance, in whole or in part, the combination of new or existing projects ("Eligible projects") that fall under the Eligible Green Categories as defined.</i></p>

### 2. Process for Project Selection and Evaluation

Ref.	Criteria	Requirements	DNV Findings
2a	Investment-decision process	<p>The Issuer of a Green Bond and Loan should outline the decision-making process it follows to determine the eligibility of projects using</p>	<p>As per the Framework, LG Chem will designate the projects that not only meet the criteria of GBP but also its sustainability vision – Innovative Sustainability.</p> <p><b>From the Framework</b></p>

Ref.	Criteria	Requirements	DNV Findings
		<p>Green Bond and Loan proceeds. This includes, without limitation:</p> <ul style="list-style-type: none"> <li>A process to determine how the projects fit within the eligible Green Projects categories identified in the GBP and GLP;</li> <li>The criteria making the projects eligible for using the Green Bond and Loan proceeds; and</li> <li>The environmental sustainability objectives</li> </ul>	<p><i>LG Chem will designate the projects that meet the criteria of ICMA's Green Bond Principles as well as company's objectives set out in its sustainability management vision, "Innovative Sustainability". The Eligible projects include all projects approved prior to the issuance of Green Bond/Loan that yet to be financed and projects approved after the date of issuance.</i></p> <p>Decision-making process to determine the eligibility of projects are well explained in the Framework, including creation of a dedicated Green Financing Working Group ("GFWG").</p> <p><b>From the Framework</b></p> <p><i>A dedicated Green Financing Working Group ("GFWG") has been created to oversee the entire issuance process and to be responsible for sustainability management. The company has below process in place with regards to project evaluation and selection:</i></p> <ul style="list-style-type: none"> <li><i>Each business unit selects the projects based on internal selection criteria</i></li> <li><i>GFWG verifies the adequacy and eligibility of the selected projects</i></li> <li><i>Eligible projects are approved after final review by the Investment Committee</i></li> </ul> <p>The Framework states that GFWG will regularly meet to review the projects and make necessary steps when replacement / deletion / additions of projects are necessary.</p> <p><b>From the Framework</b></p> <p><i>Annually, the GFWG will review the allocation of the Green Bond/Loan proceeds to the Eligible projects and determine if any adjustment is necessary. The GFWG will ensure that all projects included under the Use of Proceeds are aligned with the Eligible Green Category or determine if replacement / deletion / additions are necessary.</i></p>
2b	Issuer/borrower's environmental and social and governance framework	In addition to information disclosed by an issuer on its Green Bond/Loan process, criteria and assurances, Green Bond and Loan investors may also take into consideration the quality of the issuer's overall framework and performance regarding environmental sustainability.	<p>LG Chem puts sustainability at the heart of its operation. With its clear vision - "We connect science to life for a better future", LG Chem aims to achieve "sustainable growth" by consolidating financial growth and environmental, social, and governance (ESG) criteria across the entire process, from sourcing raw materials to using products to their disposal.</p> <p>In particular, LG Chem's efforts for making environmental sustainability have been well highlighted in its annual publication of Sustainability Report. Since 2007 the report has been an effective communication tool to share its sustainability efforts with investors.</p>

### 3. Management of Proceeds

Ref.	Criteria	Requirements	DNV Findings
3a	Tracking procedure	The net proceeds of Green Bond should be credited to a sub-account, moved to a sub-	The evidence reviewed shows how LG Chem plans to trace the net proceeds of Green Bond/Loan. In particular, LG Chem plans to establish a Register to record the allocations and track the

Ref.	Criteria	Requirements	DNV Findings
		<p>portfolio or otherwise tracked by the Issuer in an appropriate manner and attested to by a formal internal process that will be linked to the Issuer's lending and investment operations for Green/Social Projects.</p> <p>The proceeds of a Green Loan should be credited to a dedicated account or otherwise tracked by the borrower in an appropriate manner, so as to maintain transparency and promote the integrity of the product. Where a green loan takes the form of one or more tranches of a loan facility, each green tranche(s) must be clearly designated, with proceeds of the green tranche(s) credited to a separate account or tracked by the borrower in an appropriate manner.</p>	<p>use of the proceeds.</p> <p><b>From the Framework</b></p> <p><i>The net proceeds of Green Bond/Loan will be used and managed accordingly for financing and/or refinancing of existing or new Eligible Green projects. LG Chem's Finance department will allocate the resources to teams responsible for Eligible projects. The company also plans to establish the Green Bond/Loan Register in order to manage the allocations of proceeds.</i></p>
3b	Tracking procedure	<p>So long as the Green Bond/Loan is outstanding, the balance of the tracked proceeds should be periodically reduced by amounts matching eligible green investments or loan disbursements made during that period.</p>	<p>The details of information to be traced are addressed in the Framework.</p> <p><b>From the Framework</b></p> <p><i>The Green Bond/Loan Register will be reviewed annually by the GFWG to account for any re-allocation, repayments or withdrawing to ensure linkage to Eligible projects and expenditures within the pool.</i></p>
3c	Temporary holdings	<p>Pending such investments or disbursements to eligible Green Projects, the Issuer should make known to investors the intended types of temporary investment instruments for the balance of unallocated proceeds.</p>	<p>LG Chem indicates in the Framework that the unallocated proceeds can be invested in various activities (including cash or cash equivalents) in accordance with its general liquidity management policies.</p> <p><b>From the Framework</b></p> <p><i>Pending the full allocation of the net proceeds, all or a portion of the net investment proceeds will be held in accordance with LG Chem's general liquidity management policies. The unallocated can be invested in cash, cash equivalents, investment grade securities or other marketable securities and short-term instruments or other capital management activities.</i></p>

#### 4. Reporting

Ref.	Criteria	Requirements	DNV Findings
4a	Periodical reporting	<p>Borrowers should make and keep readily available up to date information on the use of proceeds to be renewed</p>	<p>LG Chem has confirmed that it will report on the allocation of net proceeds of its Bond/Loan proceeds (including examples of projects, balance amount, and portion of financing and refinancing) within approximately one year from the issuance</p>

Ref.	Criteria	Requirements	DNV Findings
		<p>annually until fully drawn, and as necessary thereafter in the event of material developments. This should include a list of the Green projects to which the Green Bond/Loan proceeds have been allocated and a brief description of the projects and the amounts allocated and their expected impact. Where confidentiality agreements, competitive considerations, or a large number of underlying projects limit the amount of detail that can be made available, the information is presented in generic terms or on an aggregated project portfolio basis.</p> <p>In addition to reporting on the use of proceeds and the temporary investment of unallocated proceeds, Issuers should provide at least annually a list of projects to which Green Bond/Loan proceeds have been allocated including - when possible with regards to confidentiality and/or competitive considerations - a brief description of the projects and the amounts disbursed, as well as the expected environmentally sustainable impact.</p>	<p>date.</p> <p><b>From the Framework</b></p> <p><i>The allocation reporting will be available to investors within approximately one year from the date of the bond/loan issuance and yearly thereafter until the bond/loan proceeds have been fully allocated and in case of any material changes.</i></p> <ol style="list-style-type: none"> <li>1) <i>Allocation per Eligible Project Categories</i></li> <li>2) <i>Examples of projects financed by the proceeds, including their description (location, category, progress) and the corresponding allocated amount</i></li> <li>3) <i>The balance amount of unallocated net proceeds</i></li> <li>4) <i>Portion of financing and refinancing</i></li> </ol> <p>LG Chem also states in the Framework that it will provide annual impact reporting on relevant environmentally sustainable impact.</p>

## Schedule 4. Green Bond / Green Bond Programme External Review Form

### Section 1. Basic Information

**Issuer name:**

LG Chem, Ltd. ("LG Chem")

**Green Bond ISIN or Issuer Green Bond Framework Name, if applicable:**

LG Chem Green Financing Framework, May 2021

**Independent External Review provider's name:**

DNV Business Assurance Korea Ltd.

**Completion date of this form:**

7 June 2021

**Publication date of review publication:**

21 June 2021

### 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 GBPs and GLPs:

- |  |  |
|--|--|
| <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 INDEPENDENT EXTERNAL REVIEW PROVIDER

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Second Party Opinion  | <input type="checkbox"/> Certification  |
| <input type="checkbox"/> Verification                     | <input type="checkbox"/> Scoring/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)

On the basis of the information provided by LG Chem and the work undertaken, it is DNV's opinion that the LG Chem's Green Financing Framework meet the criteria established in the Protocol and are aligned with the stated definition of green within the Green Bond Principles 2021 and Green Loan Principles 2021.

### 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):**

LG Chem intends to use the proceeds of the Green Bond/Loan issued under its Green Financing Framework to finance or refinance, in whole or in part, new or existing Eligible Green Project Categories. DNV concludes that the LG Chem's Framework are aligned with the GBP and GLP.

**Use of proceeds categories as per GBP:**

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Renewable energy   | <input 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 checked="" type="checkbox"/> Clean transportation   |
| <input type="checkbox"/> Sustainable water and wastewater management   | <input type="checkbox"/> Climate change adaptation   |
| <input checked="" type="checkbox"/> Eco-efficient and/or circular economy adapted products, production technologies and processes                  | <input 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 <i>(please specify)</i> :   |

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

## 2. PROCESS FOR PROJECT EVALUATION AND SELECTION

### Overall comment on section *(if applicable)*:

The Green Bond/Loan proceeds will be allocated to finance and refinance the assets as defined in Schedule 1. DNV reviewed the Framework which describes the process through which projects are evaluated and selected. DNV can confirm the Green Bond/Loan proceeds by LG Chem go through a strict internal process for evaluation and selection. Potentially eligible projects for the Use of Proceeds of each Bond or Loan issued under the Framework will be identified and assessed by LG Chem's Green Financing Working Group ("GFWG"). The GFWG will review eligible projects according to the criteria outlined in Sections 2.B in the Framework. Eligible projects are approved after final review by the Investment Committee.

### Evaluation and selection

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Credentials on the issuer's 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 checked="" type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |
| <input checked="" type="checkbox"/> Summary criteria for project evaluation and selection publicly available                | <input type="checkbox"/> Other <i>(please specify)</i> :  |

### Information on Responsibilities and Accountability

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

## 3. MANAGEMENT OF PROCEEDS

### Overall comment on section *(if applicable)*:

The proceeds from Green Bond/Loan issued under this Framework will be managed by the LG Chem's Finance department. A Register will be created to record the allocations and track the use of proceeds. Pending allocation, the unallocated proceeds can be invested in cash or cash equivalents, or investment grade securities or other marketable securities and short-term instruments or other capital management activities. The net proceeds can be swapped or hedged into different currencies subject to the company's needs.

DNV has reviewed the evidence presented and can confirm that the proceeds arising from future issuances will be appropriately managed.

### Tracking of proceeds:

- Green Bond/Loan proceeds segregated or tracked by the issuer in an appropriate manner
- Disclosure of intended types of temporary investment instruments for unallocated proceeds



- 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 checked="" type="checkbox"/> Allocation to a portfolio of disbursements          |
| <input checked="" type="checkbox"/> Disclosure of portfolio balance of unallocated proceeds | <input type="checkbox"/> Other (please specify):  |

**4. REPORTING**

**Overall comment on section (if applicable):**  
 LG Chem has confirmed it plans to report on the use of proceeds and impacts annually. LG Chem has confirmed that it will report the following information:  
 - Allocation per Eligible Project Categories; Examples of projects financed by the proceeds, including their description (location, category, progress) and the corresponding allocated amount; The balance amount of unallocated net proceeds; Portion of financing and refinancing  
 - Impact metrics for its pre-derived impact indicator

**Use of proceeds reporting:**

- |  |  |
|--|--|
| <input type="checkbox"/> Project-by-project            | <input checked="" type="checkbox"/> On a project portfolio basis |
| <input type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other (please specify):                 |

**Information reported:**

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Allocated amounts | <input type="checkbox"/> Sustainability Bond financed share of total investment |
| <input type="checkbox"/> Other (please specify):      |   |

**Frequency:**

- |  |                                      |
|--|--------------------------------------|
| <input checked="" type="checkbox"/> Annual       | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (please specify): |                                      |

**Impact reporting:**

- |  |  |
|--|--|
| <input type="checkbox"/> Project-by-project            | <input checked="" type="checkbox"/> On a project portfolio basis |
| <input type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other (please specify):                 |

**Frequency:**

- |  |                                      |
|--|--------------------------------------|
| <input checked="" type="checkbox"/> Annual       | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (please specify): |                                      |

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

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> GHG Emissions / Savings | <input type="checkbox"/> Energy Savings   |
| <input type="checkbox"/> Decrease in water use              | <input type="checkbox"/> Number of beneficiaries  |
| <input type="checkbox"/> Target populations                 | <input checked="" type="checkbox"/> Other ESG indicators (please specify):<br>Renewable energy production, Amount of energy saved |

### Means of Disclosure

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Information published in financial report   | <input checked="" type="checkbox"/> Information published in sustainability report |
| <input type="checkbox"/> Information published in ad hoc documents  | <input type="checkbox"/> Other (please specify):                                   |
| <input type="checkbox"/> 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.lgchem.com/sustainability/sustainability-strategy>

### SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

#### Type(s) of Review provided:

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Second Party Opinion | <input type="checkbox"/> Certification  |
| <input type="checkbox"/> Verification                    | <input type="checkbox"/> Scoring/Rating |
| <input type="checkbox"/> Other (please specify):         |   |

#### Review provider(s):

DNV Business Assurance Korea Ltd.

#### Date of publication:

21 June 2021

## ABOUT ROLE(S) OF REVIEW PROVIDERS AS DEFINED BY THE GBP AND THE SBP

- 1. Second Party Opinion:** An institution with environmental expertise, that is independent from the issuer may issue a Second Party Opinion. The institution should be independent from the issuer's adviser for its Green 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 Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.
- 2. Verification:** An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally 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 Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.
- 3. Certification:** An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
- 4. Green Bond Scoring/Rating:** An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.



## About DNV

Driven by our purpose of safeguarding life, property and the environment, DNV enables organisations to advance the safety and sustainability of their business. Combining leading technical and operational expertise, risk methodology and in-depth industry knowledge, we empower our customers' decisions and actions with trust and confidence. We continuously invest in research and collaborative innovation to provide customers and society with operational and technological foresight. With our origins stretching back to 1864, our reach today is global. Operating in more than 100 countries, our 16,000 professionals are dedicated to helping customers make the world safer, smarter and greener.

The trademarks DNV®, DNV® and Det Norske Veritas® are the properties of companies in the Det Norske Veritas group. All rights reserved.