

# DBS GREEN BOND FRAMEWORK

## FRAMEWORK OVERVIEW AND SECOND OPINION BY SUSTAINALYTICS

July 13, 2017



[www.sustainalytics.com](http://www.sustainalytics.com)

---

**Trisha Taneja (Toronto)**

Associate, Advisory Services

[trisha.taneja@sustainalytics.com](mailto:trisha.taneja@sustainalytics.com)

(+1) 647 317 3695

**Catalina Secreteanu (Sydney)**

Associate Director, Institutional Relations

[catalina.secreteanu@sustainalytics.com](mailto:catalina.secreteanu@sustainalytics.com)

(+61) 2 8015 5651

**Charlotte Peyraud (New York)**

Senior Associate, Institutional Relations

[charlotte.peyraud@sustainalytics.com](mailto:charlotte.peyraud@sustainalytics.com)

(+1) 646 518 0184

# TABLE OF CONTENTS

<b>FRAMEWORK OVERVIEW AND SECOND OPINION BY SUSTAINALYTICS</b>	<b>1</b>
<b>1. Introduction</b>	<b>3</b>
<b>2. Overview of Issuer</b>	<b>3</b>
<b>3. Framework overview</b>	<b>4</b>
3.1 Use of Proceeds	4
3.2 Project Evaluation and Selection Process	6
3.3 Management of Proceeds	7
3.4 Reporting	7
<b>4 SUSTAINALYTICS' OPINION</b>	<b>9</b>
Section 1: Sustainability Performance of the Issuer	9
Section 2: Impact of Use of Proceeds	10
Section 3: Sustainalytics Opinion on the DBS Green Bond Framework	11
Conclusion	12
<b>APPENDICES</b>	<b>13</b>
Appendix 1: Comparison of Real Estate Certification Schemes	13
Appendix 2: Green Bond Programme External Review Form	15
<b>SUSTAINALYTICS</b>	<b>22</b>

## 1. INTRODUCTION

DBS (comprising DBS Group Holdings Ltd and its subsidiaries) has developed a Green Bond Framework (Framework) under which it is considering to issue multiple green bonds. DBS has engaged Sustainalytics to provide a second opinion on the Framework and the Framework's environmental credentials. As part of this engagement, Sustainalytics held conversations with various members of DBS' management team to understand the sustainability impact of DBS' business processes and the planned use of proceeds under the Framework. Sustainalytics also reviewed relevant public and internal documents. This document contains two sections: Framework Overview – summary of DBS Green Bond Framework; and Sustainalytics' Opinion – an opinion on the Framework.

## 2. OVERVIEW OF ISSUER

DBS is a financial services group in Asia, with over 280 branches across 18 markets. Headquartered and listed in Singapore, DBS has a growing presence in the three key Asian axes of growth: Greater China, Southeast Asia and South Asia. The Group provides a full range of services in consumer, SME and corporate banking.

DBS states that it has a sustainability strategy that spans its entire value chain. As disclosed in its 2016 Annual Report<sup>1</sup>, the Group has enhanced its responsible lending policies, integrated climate change considerations into its strategy and engaged local and international stakeholders to advance sustainability and climate change reporting. Its sustainability strategy is composed of four pillars<sup>2</sup>: (1) Responsible Banking; (2) Responsible Corporate Citizenship; (3) Creating Social Impact; and (4) being an Employer of Choice. As per its website, DBS also states that it has chosen to focus on four specific Sustainable Development Goals (SDGs)<sup>3</sup> – SDG 7: Affordable and Clean Energy, SDG 8: Decent Work and Economic Growth, SDG 12: Responsible Consumption and Production, and SDG 13: Climate Action. According to DBS, this focus takes into account DBS' unique heritage, strategy, the markets it operates in and its businesses.

To further its four-pronged sustainability strategy, and its commitment to advancing the SDGs, DBS is planning to issue green bonds to finance environmentally impactful assets and projects across the markets it operates in.

<sup>1</sup> [https://www.dbs.com/annualreports/2016/pdf/dbs\\_annual\\_report\\_2016.pdf](https://www.dbs.com/annualreports/2016/pdf/dbs_annual_report_2016.pdf)

<sup>2</sup> <https://www.dbs.com/sustainability/default.page>

<sup>3</sup> <https://www.dbs.com/sustainability/overview/us-sustainable-development-goals/default.page>

## 3. FRAMEWORK OVERVIEW

The Framework sets out the guidelines for DBS' Green Bond issuances in accordance with the four core components of the Green Bond Principles (GBP)<sup>4</sup> issued by the International Capital Market Association (ICMA): use of proceeds; process for project evaluation and selection; management of proceeds; and reporting.

### 3.1 Use of Proceeds

The proceeds from DBS' Green Bond issuances (Proceeds) will be used to finance or refinance new or existing green assets/projects which meet the criteria outlined below (Eligibility Criteria). Where relevant, the Proceeds may also be used to finance companies that derive 90% or more of their revenues from green assets/projects which meet the Eligibility Criteria.

#### Eligibility Criteria

##### 1. GREEN BUILDINGS

- a. Purchase, construction or renovation of commercial and residential buildings that meet recognised standards, such as Singapore Building and Construction Authority (BCA) Green Mark (Gold Plus and above), Hong Kong BEAM Plus (Gold and above), LEED (Gold and above), or China Three Star Green Building Evaluation Standard (Three Star rating).

##### 2. SUSTAINABLE TRANSPORTATION

- a. **Public Transportation:**
  - i. Operation of low-emission mass transportation systems such as rail, metros, trams, cable cars, electric/hybrid buses, and bicycle schemes.
  - ii. Production of public transport vehicles, such as buses, passenger trains, and ferries.
  - iii. Development of infrastructure for mass transportation, such as railway lines and electric lines. This also includes development of supporting infrastructure such as signalling and communication technologies, as well as general information technology upgrades.
- b. **Clean, private, light-duty vehicles:**
  - i. Production and distribution of clean or environmentally-friendly vehicles.
  - ii. Purchase of clean vehicles by consumers.
- c. **Clean, private, electric or hybrid heavy-goods vehicles:**
  - i. Production of clean or environmentally-friendly vehicles.
  - ii. Purchase of clean vehicles by consumers.

Clean vehicles are electric and hybrid vehicles that have been classified as A1 or A2 under the Vehicular Emissions Scheme (VES) as determined by the Land Transport Authority of Singapore (or such other equivalent ratings in other countries).

---

<sup>4</sup> <https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/GreenBondsBrochure-JUNE2017.pdf>

### **3. RENEWABLE ENERGY**

- a. Construction and operation of wind and solar infrastructure.
- b. Production of components destined for wind and solar projects.
- c. Purchase of wind and solar energy products by consumers.
- d. Construction and operation of run-of-river hydro projects <25 MW.
- e. Construction, production, operation and consumer purchase of other generally accepted sources of renewable energy as recognised by the International Renewable Energy Agency (IRENA)<sup>5</sup>.

### **4. ENERGY EFFICIENCY**

- a. Development and production of products or technologies that reduce industrial energy consumption, such as improved chillers, improved lighting technology and enhanced battery capacity.
- b. Purchase and installation of such products or technologies by consumers.

### **5. WASTE MANAGEMENT**

- a. Construction, operation or upgrade of recycling infrastructure, including waste minimisation, filtering, management, recycling and reuse.
- b. Construction, operation or upgrade of waste-to-energy power plants that use environmentally-friendly technologies, such as methane capturing.

### **6. CLIMATE CHANGE ADAPTATION**

- a. Development, production and purchase/installation of products or technologies that enable adaptation to climate change, including information support systems such as climate observation and early warning systems.
- b. Construction, investment or operation of adaptation related-projects that contribute to a reduction in vulnerability to climate change.

The Proceeds may also be used to fund the following eligible assets/projects within DBS' own operations:

- **RENEWABLE ENERGY** - Installation of solar panels or other renewable energy equipment.
- **ENERGY EFFICIENCY**- Purchase and installation of products or technologies that reduce energy consumption, such as improved lighting technology and enhanced battery capacity.
- **WASTE MANAGEMENT**- Purchase and installation of recycling infrastructure, including waste minimisation, filtering, management, recycling and reuse.

<sup>5</sup> <http://www.irena.org>

### Exclusionary Criteria

DBS has developed a list of exclusionary criteria on the use of the Proceeds. In this regard, DBS commits to not knowingly using the Proceeds for the financing of assets/projects included in the exclusionary criteria.

1. Large scale hydro projects (i.e. projects that generate greater than 25 MW of electricity)
2. Transmission infrastructure or systems where 25% or more of electricity transmitted to the grid is generated using fossil fuels
3. Nuclear energy technology, equipment or infrastructure
4. Agricultural or afforestation operations located on land designated as primary forest, high conservation value areas, or legally preserved areas
5. Payday loans and predatory lending activities
6. Production or distribution of adult entertainment
7. Manufacture of alcohol or wholesale of alcoholic beverages
8. Manufacture or wholesale of tobacco products
9. Ownership or operation of gambling establishments/activities
10. Manufacture or retail sale and distribution of weapons and small arms; or the production of products and services supporting the manufacture or retail sale of weapons and small arms
11. Extraction, refining, or transportation of fossil fuels
12. Production or refining of palm oil

## 3.2 Project Evaluation and Selection Process

### Environmental Sustainability Objectives

DBS manages sustainability along four pillars<sup>6</sup>: 1) Responsible Banking; 2) Responsible Corporate Citizenship; 3) Creating Social Impact; and 4) Employer of Choice.

Within these pillars, DBS has chosen to focus on four SDGs where DBS believes it can make the most impactful contributions, taking into account its heritage, strategy, the markets it operates in and its businesses. They are:

- SDG 7 – Affordable and Clean Energy
- SDG 8 – Decent Work and Economic Growth
- SDG 12 – Responsible Consumption and Production
- SDG 13 – Climate Action.

The project evaluation and selection process is guided by DBS' focus on "Responsible Banking", which is one of the four pillars anchoring their sustainability strategy, and is designed to contribute to SDGs 7 and 13.

<sup>6</sup> <https://www.dbs.com/sustainability/default.page>

### **Application of Eligibility and Exclusionary Criteria in Project Selection**

DBS has developed a two-step approach to project evaluation and selection:

1. Relevant business units are responsible for the screening and selection of assets or projects using the Eligibility Criteria and exclusionary criteria, as part of the credit evaluation process; and
2. The DBS Sustainability Council<sup>7</sup> is responsible for the review and approval of the assets or projects proposed by the relevant business units to ensure compliance with the Framework.

### **Process to Mitigate Environmental and Social Risks Stemming from Eligible Projects**

The DBS Responsible Financing Standard sets out DBS' overarching approach to responsible financing and provides structured and detailed guidance to identify and assess potential environmental, social and governance (ESG) risks as part of the credit evaluation process. For more information, see <https://www.dbs.com/sustainability/responsible-banking/responsible-financing/default.page>.

### **3.3 Management of Proceeds**

The Proceeds will be allocated by DBS to finance designated eligible green assets/projects across DBS (Pool), selected in accordance with the Eligibility Criteria and exclusionary criteria, and using the evaluation and selection process mentioned above. DBS will monitor the allocation of the Proceeds and the Pool via internal information systems. A register will be created to facilitate the monitoring and reporting of the issued Green Bonds and the Pool.

DBS intends to designate sufficient green assets or projects into the Pool to ensure that its outstanding balance always exceeds the Proceeds. For each new Green Bond issuance, where necessary, additional eligible green assets or projects will be added to the Pool to ensure sufficient and timely allocation of the incremental net proceeds. Where the allocation of the Proceeds is pending due to there being insufficient assets in the Pool, DBS may deploy the Proceeds at its own discretion in cash or high-quality marketable instruments in accordance with its liquidity management strategy in the interim.

During the life of the issued Green Bonds, if the designated assets or projects cease to fulfil the Eligibility Criteria, DBS will use its best efforts to find and allocate the Proceeds to replacement assets or projects that comply with the Eligibility Criteria as soon as reasonably practicable.

### **3.4 Reporting**

#### **Allocation Reporting**

As long as there are outstanding Green Bonds issued under this Framework, DBS will publish a report on an annual basis on its website that includes, at the minimum, the following information:

1. Allocated Proceeds by eligibility criterion, together with a description of the types of projects or businesses that are being financed; and
2. The remaining balance of unallocated Proceeds at the end of the reporting period.

---

<sup>7</sup> The DBS Sustainability Council comprises senior leaders across business and support units, including Finance, Technology and Operations, Treasury and Markets, Institutional Banking, Consumer Banking, Risk Management, Group Strategic Marketing and Communications and DBS Foundation/. For more information, see <https://www.dbs.com/sustainability/overview/sustainability-governance/default.page>

Where possible, DBS will also provide additional information, case studies or examples of financed projects or businesses, subject to considerations such as confidentiality agreements and competition issues.

The annual reporting will be reviewed and approved by the DBS Sustainability Council. Furthermore, DBS intends to engage an external auditor to provide independent verification and assurance on its reporting and management of Proceeds in accordance with the Framework.

**Impact Reporting**

Where relevant and possible, DBS will also report on selected impact metrics (per project or in aggregate for all projects financed by the Proceeds), as outlined in Table 1 below.

**Table 1**

<b>Eligibility Criteria</b>	<b>Example Impact Metric</b>
<b>Renewable energy</b>	<ul style="list-style-type: none"><li>• kWh of power generated from renewable energy</li><li>• Tonnes of carbon dioxide (CO2) equivalent avoided</li></ul>
<b>Energy efficiency</b>	<ul style="list-style-type: none"><li>• Energy saved per year (kWh/year)</li><li>• Percentage energy efficiency achieved</li></ul>
<b>Certified real estate</b>	<ul style="list-style-type: none"><li>• Energy consumption reduced per square foot</li><li>• List of eligible buildings that received third party-verified green building certification</li></ul>
<b>Public transport</b>	<ul style="list-style-type: none"><li>• Greenhouse gas (GHG) emissions savings/tonnes of CO2 equivalent avoided</li></ul>

## 4 SUSTAINALYTICS' OPINION

### Section 1: Sustainability Performance of the Issuer

#### **Alignment of the DBS Green Bond Framework to DBS' sustainability strategy and the SDGs**

DBS has a clear sustainability strategy with four pillars: (1) a commitment to responsible banking practices, including being the book-runner for two green bond insurances to-date; (2) a commitment to minimise negative environmental and social risks and impacts stemming from its own operations and supply chain; (3) a commitment to create social impact; and (4) a commitment to be an employer of choice.

As reflected in this sustainability strategy, DBS is committed to contributing to positive societal development through responsible products and services as well as responsible conduct within its own operations. Both of these components are addressed by the DBS Green Bond Framework.

Additionally, DBS also states a commitment to advance four SDGs within the context of its sustainability strategy – SDG 7: Affordable and Clean Energy, SDG 8: Decent Work and Economic Growth, SDG 12: Responsible Consumption and Production, and SDG 13: Climate Action. The DBS Green Bond framework will also contribute to the DBS' objective to advance the SDGs 7 and 13 through its Responsible Banking pillar.

Sustainalytics is of the opinion that the DBS Green Bond Framework is aligned with DBS' corporate sustainability strategy, and will contribute to its objective to advance the SDGs.

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

By offering financing services, banks are exposed to risks associated with controversial companies and/or projects they may finance. To reduce exposure and prevent negative impacts, banks are expected to implement ESG standards for assessing companies and projects they choose to finance.

DBS conducts assessments on environmental and social risks when starting relationships with new customers, granting new loans and revising loans. This includes continuous monitoring of ESG risks across its transactions and enhanced due diligence in relation to clients operating in high-risk sectors and performing sensitive activities. Additionally, DBS requires Environmental and Social Impact Assessments and related mitigation plans for all project finance transactions. In cases of non-compliance, DBS is committed to engage with its customers to mitigate ESG risks and terminate relationships, if necessary. An internal escalation procedure exists to resolve any issues with respect to lending practices, where relevant Global Industry Heads, Country Institutional Banking Group Heads and Global Industry Executive Credit Risk Manager are ultimately accountable for a sign-off. Risk assessment procedures are reviewed regularly to incorporate emerging new risks and best practices. DBS' Board Risk Management Committee oversees ESG related risk assessment frameworks.

DBS has strong responsible investment policies, such as a commitment to integrate ESG factors, a commitment to exclusion based on the customers' activities, and a commitment to engage with customers on ESG issues. Monitoring of ESG risks is performed at both customer and portfolio levels, and

is integrated with the Group's existing credit review processes. Overall, Sustainalytics is of the opinion that DBS has comprehensive internal management systems to prevent and mitigate ESG risks in its lending practices.

## Section 2: Impact of Use of Proceeds

### Importance of Green Buildings, Renewable Energy, Energy Efficiency and Climate Change Adaptation in Asia

As of 2013, about half of all carbon dioxide (CO<sub>2</sub>) emissions came from Asia<sup>8</sup>. These emissions are increasing globally, and at a faster rate in Asia than in other parts of the world<sup>9</sup>. In the aftermath of the COP21<sup>10</sup> in Paris, there is a global desire to reduce energy use, increase energy efficiency and implement innovative technologies to combat climate change.

Being located on an island with no natural resources, Singapore especially can be predisposed to continue using energy derived from fossil fuels. Despite this, Singapore has pledged to conserve energy and set greenhouse gas (GHG) emissions reduction targets: by 2020 to reduce its GHG emissions by 16% from business-as-usual levels; and by 2030 to reduce its energy intensity by 35% below 2005 levels. Overall, improving energy efficiency remains one of the key focus areas for Singapore to reduce GHG emissions across various sectors. For example, Singapore has a target to maintain the proportion of Building and Construction Authority (BCA) Green Mark Certified buildings at 80%<sup>11</sup>.

Given this context, financing green buildings, renewable energy, energy efficiency projects and climate change adaptation projects – all of which contribute to climate change mitigation and adaptation – is especially important for Asia.

### Importance of Waste Management in Asia

According to the World Bank, East Asia Pacific and South Asia regions contribute roughly one quarter of global waste. Urbanisation and prosperity growth lead to increased waste generation, and in those regions the urbanisation trend is strong. By 2025 it is projected that the urban population will grow by more than 50%, while projected urban waste will more than double<sup>12</sup>.

Singapore is one of the most densely populated cities in the world. With total population of more than 5.5 million people, it produced 8,559 tonnes of waste per day in 2016, up from 1,260 tonnes in 1970<sup>13</sup>. Population and affluence growth have led to increased levels of waste. To cope with this problem, Singapore's National Environment Agency (NEA) plans, develops and manages its waste management

<sup>8</sup> [http://cait.wri.org/historical/Country%20GHG%20Emissions?indicator\[\]=Total%20GHG%20Emissions%20Excluding%20Land-Use%20Change%20and%20Forestry&indicator\[\]=Total%20GHG%20Emissions%20Including%20Land-Use%20Change%20and%20Forestry&year\[\]=2013&act\[\]=World%20\(sum%20of%20all%20CAIT%20countries\)&sortIdx=NaN&regions=true&chartType=geo](http://cait.wri.org/historical/Country%20GHG%20Emissions?indicator[]=Total%20GHG%20Emissions%20Excluding%20Land-Use%20Change%20and%20Forestry&indicator[]=Total%20GHG%20Emissions%20Including%20Land-Use%20Change%20and%20Forestry&year[]=2013&act[]=World%20(sum%20of%20all%20CAIT%20countries)&sortIdx=NaN&regions=true&chartType=geo)

<sup>9</sup> <https://www.epa.gov/climate-indicators/climate-change-indicators-global-greenhouse-gas-emissions#>

<sup>10</sup> <http://www.cop21paris.org/>

<sup>11</sup> <http://www.mewr.gov.sg/ssb/>

<sup>12</sup> <http://siteresources.worldbank.org/INTURBANDEVELOPMENT/Resources/336387-1334852610766/Chap3.pdf>

<sup>13</sup> <http://www.nea.gov.sg/energy-waste/waste-management>

system. This system is focused on reducing and recycling of waste and includes: promotion of efficient resource use, collection infrastructure, solid waste disposal and recycling infrastructure, and four waste-to-energy incineration plants. This approach to waste management is designed to reach the government's target of 70% national recycling rate by 2030<sup>14</sup>. In 2016, NEA reports that the recycling rate reached 61%, while 38% of waste served as input for energy generation, and only 2% of waste was sent to landfill<sup>15</sup>.

Given this context, allocating proceeds from DBS' Green Bond issuances to enhance infrastructure for waste recycling and waste-to-energy activities is especially important for Singapore. By doing so, DBS will contribute to the enhancement of Singapore's waste management system and consequently to the ambitious national target recycling rate. In the broader Asia region, projects funded by DBS' Green Bond proceeds will contribute to the enhancement of infrastructure and waste management in other Asian cities, leading to improved environment and healthier communities. For example, the World Health Organization (WHO) estimates that globally about 12.6 million people died in 2012 as a result of living or working in an unhealthy environment, including air, water and soil pollution, and chemical exposures<sup>16</sup>. Waste management has the potential to solve this problem and directly contributes to SDG 3: Good Health and Well-being and SDG 11: Sustainable Cities and Communities.

#### **Credibility of Singapore's VES Standards**

Singapore issued new emission standards for cars – Vehicles Emissions Scheme (VES) – that will be mandatory for compliance as of January 1, 2018. These standards include limits for hydrocarbon (HC), carbon monoxide (CO), nitrogen oxides (NOx) and particulate matter (PM) in addition to CO2 emissions<sup>17</sup>. Sustainalytics is of the opinion that VES standards are comparable to the US EPA's SmartWay Certification and EU emission standards. The VES standards also include calculation of CO2 emissions from electricity generated to power electric and hybrid vehicles.

Singapore's VES standards limit air emissions produced by vehicles during the use stage that have most negative impact on the environment and human health. As such, Sustainalytics views the standards as credible and aligned to international best practices.

### **Section 3: Sustainalytics Opinion on the DBS Green Bond Framework**

Overall, Sustainalytics views DBS' eligibility criteria for Use of Proceeds under its Green Bond Framework as credible and robust. All of its Use of Proceeds categories are recognised as eligible by the Green Bond Principles 2017. In addition, Sustainalytics views the following elements of the DBS Green Bond Framework positively:

- DBS' Green Buildings eligibility criterion is based on third-party certification standards, and DBS commits to only funding the top levels of these certifications through its Green Bond proceeds. Sustainalytics has conducted an evaluation of the certifications, and views the focus on the top levels of certification as industry best practice (see Appendix 1).

---

<sup>14</sup> <http://www.mewr.gov.sg/ssb/>

<sup>15</sup> <http://worldwastetoenergy.com/wp-content/uploads/2016/05/Kan-Kok-Wah.pdf>

<sup>16</sup> <http://www.who.int/mediacentre/news/releases/2016/deaths-attributable-to-unhealthy-environments/en/>

<sup>17</sup> <http://www.straitstimes.com/singapore/transport/tighter-standards-to-rein-in-vehicle-emissions>

- With respect to the Climate Change Adaptation eligibility criterion, DBS has committed to asking its borrowers for project-specific studies that assess the risk exposure of funded projects to the effects of climate change. DBS has also disclosed to Sustainalytics that it will not allocate Green Bond proceeds to fund lending to projects that do not have associated studies detailing a risk assessment to the effects of climate change. Sustainalytics is of the opinion that this is aligned with market best practice, as such project-specific studies strengthen the impact of the use of proceeds by establishing a clear case that adaptation infrastructure is being funded as a direct response to climate change risks.
- Finally, DBS has also disclosed to Sustainalytics an intention to review the eligibility criteria annually in order to ensure alignment with evolving market practices (including any updates to the GBP), alignment with its own sustainability strategy, and to address any emerging climate change issues as they arise. This review will be conducted by the DBS Sustainability Council. Changes to the eligibility criteria, if any, arising from this review will be disclosed to investors in its annual reporting.

Sustainalytics also recommends DBS to disclose to investors the eligible categories to be funded at the time of issuance of each green bond, whenever possible, and where project/category review and evaluation has been completed and allocation of proceeds has been determined.

#### **Alignment with Green Bond Principles 2017**

Sustainalytics has determined that the DBS Green Bond Framework aligns to the four core components of the Green Bond Principles 2017. For detailed information please refer to Appendix 2: Green Bond/Green Bond Programme External Review Form.

### **Conclusion**

DBS Green Bond Framework is transparent and provides clarity regarding the use of proceeds. DBS' responsible business operations and investments contribute to transformational SDGs in Singapore and the region, creating positive environmental and social impacts. The Framework is also aligned with the four core components of the Green Bond Principles 2017. Overall, Sustainalytics is of the opinion that DBS Green Bond Framework is credible and robust.

## APPENDICES

### Appendix 1: Comparison of Real Estate Certification Schemes

	LEED	HK BEAM Plus	Singapore BCA Green Mark	CHINA THREE STAR
<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.	BEAM Society Limited (BSL), owner of the Building Environmental Assessment Method (BEAM), is a public body established in 2010. It owns BEAM Plus - a green building assessment tool tailor-made for the high-rise, high density built environment of sub-tropical climate in Hong Kong.	The BCA Green Mark Scheme provides real estate certifications in Singapore to promote sustainability in the built environment (during project conceptualisation and design, as well as during construction.) <sup>18</sup>	The Chinese 3-Star Green Building Standard is a Certification System used in China for residential and public buildings (including commercial, hotel and government-owned) that was introduced in 2006 by MOHURD (Ministry of Housing and Urban-Rural Development).
<b>Certification levels</b>	Certified Silver Gold Platinum	Bronze Silver Gold Platinum	Certified Gold Gold Plus Platinum	1-Star 2-Star 3-Star
<b>Areas of Assessment: Environmental Performance of the Building</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>• Site Aspects (location and design of building, emissions from the site, site management)</li> <li>• Materials Aspects (selection of materials, efficient use of materials, waste disposal and recycling)</li> <li>• Energy Use (annual CO2 emissions or energy use, energy efficient systems and equipment, energy management)</li> <li>• Water Use (water quality, water conservation, effluent discharges)</li> </ul>	<ul style="list-style-type: none"> <li>• Climate Responsive Design</li> <li>• Building Energy Performance</li> <li>• Resource Stewardship</li> <li>• Smart and Healthy Buildings</li> <li>• Advanced Green Efforts</li> </ul>	<ul style="list-style-type: none"> <li>• Land savings and outdoor environment;</li> <li>• Energy savings and utilisation;</li> <li>• Water savings and utilisation;</li> <li>• Material savings and utilisation;</li> <li>• Indoor environment;</li> <li>• Operations and management.</li> </ul>

<sup>18</sup> [https://www.bca.gov.sg/greenmark/green\\_mark\\_buildings.html](https://www.bca.gov.sg/greenmark/green_mark_buildings.html)

		<ul style="list-style-type: none"> <li>Indoor Environmental Quality (IEQ)</li> </ul>		
<b>Requirements</b>	<p>Prerequisites (independent of level of certification) + Credits with associated points</p> <p>These points are then added together to obtain the LEED level of certification</p> <p>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).</p>	<p>Prerequisites for each performance area + Credits with associated points</p> <p>Detailed compliance with legal requirements is a prerequisite for the award of credits.</p> <p>For every performance area BEAM prescribes different prerequisites. Every applicable prerequisite in every BEAM category must be achieved for the project to be assessed.</p> <p>Credits are allocated for each performance area, and every area is weighted as per international consensus.<sup>19</sup> The Overall Assessment Grade is determined by the percentage (%) of the applicable credits gained under each performance category and its weighting factor.</p> <p>Verification of compliance with BEAM criteria is done by an independent BEAM Assessor.</p>	<p>Prerequisites for each performance area (to demonstrate minimum criteria met) + numerical scores achieved in accordance with the criteria in each performance area. Performance Areas have different weights.<sup>20</sup></p> <p>Depending on the level of building performance and numerical score achieved in performance area, building's level of certification is determined.</p> <p>Assessment of compliance with Green Mark criteria is done by the Singapore Building and Construction Authority (BCA).</p>	<p>Prerequisites</p> <p>The system functions on a checklist basis, with 1-Star buildings meeting 26 criteria, 2-Star an additional 43 items, and 3-Star on a further 14 items. Criteria and weighting differ for public and residential buildings. In public buildings, more weight is given to energy and material savings, while the standard for residential buildings places greater importance on urban land saving and outdoor environments.</p>
<b>Performance display</b>				

<sup>19</sup> <https://www.beamsociety.org.hk/files/download/download-20130724174420.pdf>

<sup>20</sup> [https://www.bca.gov.sg/GreenMark/others/Green\\_Mark\\_NRB\\_2015\\_Criteria.pdf](https://www.bca.gov.sg/GreenMark/others/Green_Mark_NRB_2015_Criteria.pdf)

## Appendix 2: Green Bond Programme External Review Form

### Green Bond / Green Bond Programme External Review Form

#### Section 1. Basic Information

**Issuer name:** DBS Group Holdings Ltd and its subsidiaries

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

**Review provider's name:** Sustainalytics

**Completion date of this form:** July 13<sup>th</sup>, 2017

**Publication date of review publication:**

#### Section 2. Review overview

##### SCOPE OF REVIEW

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

- |  |  |
|--|--|
| <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> ):                       |  |

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

Please refer to the Framework and Second-Party Opinion document above.

### Section 3. Detailed review

#### 1. USE OF PROCEEDS

**Overall comment on section**  
DBS will use proceeds to finance/refinance lending to new or existing projects or assets as per the eligibility criteria outlined in the Framework. Where relevant, proceeds may also be used to lend to companies that derive 90% or more of their revenues from products that meet the eligibility criteria. Proceeds from DBS Green Bond issuances may also be used to directly fund renewable energy, energy efficiency and waste management projects that contribute to positive environmental impact in DBS' own operations.

Sustainalytics is of the view that the DBS' Green Bonds are robust and credible as all Use of Proceeds categories are recognised as eligible by the Green Bond Principles 2017.

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

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

#### 2. PROCESS FOR PROJECT EVALUATION AND SELECTION

**Overall comment on section**  
DBS has chosen to focus on four SDGs where it believes that it can make the most impactful contributions in line with its sustainability objectives, considering DBS' heritage, strategy, the markets it operates in and its businesses. They are: SDG 7 – Affordable and Clean Energy; SDG 8 – Decent Work and Economic Growth; SDG 12 – Responsible Consumption and Production; and SDG 13 – Climate Action. The DBS Green Bond Framework is designed to contribute to SDGs 7 and 13.

DBS' relevant business units are responsible for the screening and selection of assets or projects as a part of the credit evaluation process; and the DBS Sustainability Council is responsible for the review and approval of the assets or projects to be admitted for the Use of Proceeds in accordance with the eligibility criteria.

Sustainalytics is of the opinion that project selection processes and commitments are green bond market best practices.

### Evaluation and selection

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories |
| <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 checked="" 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

The proceeds from Green Bond issuances will be allocated by DBS to finance eligible green projects or assets selected in accordance with the eligibility and exclusionary criteria, and evaluation and selection process. DBS will monitor this allocation of the net proceeds and the green assets pool via its internal information systems, where a register will be created to facilitate monitoring and reporting of the issued Green Bonds and designated green assets. Where the allocation of the proceeds is pending due to there being insufficient assets in the asset pool, DBS may will deploy these at its own discretion, in cash or high-quality marketable instruments in accordance with its liquidity management strategy in the interim. This is in line with accepted practices of a green bond issuance and with Green Bond Principles 2017.

### Tracking of proceeds:

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

**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 type="checkbox"/> Disclosure of portfolio balance of unallocated proceeds | <input type="checkbox"/> Other ( <i>please specify</i> ):                               |

**4. REPORTING**

**Overall comment on section:**  
**Allocation Reporting**  
 DBS will provide a report on an annual basis on its website that at the minimum includes: allocated proceeds for each eligibility criterion, together with a description on the types of projects or business financed by these proceeds; the remaining balance of unallocated proceeds at the reporting period end; and where possible, additional information, case studies or examples of financed projects or businesses; subject to permitted disclosure in accordance with confidentiality agreements and competition issues. This is a best practice in the green bond market.

**Impact Reporting**  
 Where relevant, and feasible, and subject to confidentiality considerations, DBS will also report on impact metrics (per project or in aggregate for all projects financed by the proceedings). Sustainalytics believes that DBS has selected Key Performance Indicators (KPIs) that will provide a meaningful measure of the environmental benefits of its green bond.

**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 ( <i>please specify</i> ):        |

**Information reported:**

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

**Frequency:**

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

**Impact reporting:**

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Project-by-project | <input checked="" type="checkbox"/> On a project portfolio basis |
|--|--|

- Linkage to individual bond(s)  Other (please specify):

**Frequency:**

- Annual  Semi-annual  
 Other (please specify):

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

- GHG Emissions / Savings  Energy Savings  
 Other ESG indicators (please specify): see Table 1 for list of all other metrics

**Means of Disclosure**

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

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.dbs.com/sustainability/default.page>

**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**

- (i) **Consultant Review:** An issuer can seek advice from consultants and/or institutions with recognized expertise in environmental sustainability or other aspects of the issuance of a Green Bond, such as the establishment/review of an issuer's Green Bond framework. "Second opinions" may fall into this category.
- (ii) **Verification:** An issuer can have its Green Bond, associated Green Bond framework, or underlying assets independently verified by qualified parties, such as auditors. In contrast to certification, verification may focus on alignment with internal standards or claims made by the issuer. Evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria.
- (iii) **Certification:** An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against an external green assessment standard. An assessment standard defines criteria, and alignment with such criteria is tested by qualified third parties / certifiers.
- (iv) **Rating:** An issuer can have its Green Bond or associated Green Bond framework rated by qualified third parties, such as specialised research providers or rating agencies. Green Bond ratings are separate from an issuer's ESG rating as they typically apply to individual securities or Green Bond frameworks / programmes.

**Disclaimer**

*All rights reserved. No part of this second party opinion (the “Opinion”) may be reproduced, transmitted or published in any form or by any means without the prior written permission of Sustainalytics.*

*The Opinion was drawn up with the aim to explain why the analyzed bond is considered sustainable and responsible. Consequently, this Opinion is for information purposes only and Sustainalytics will not accept any form of liability for the substance of the opinion and/or any liability for damage arising from the use of this Opinion and/or the information provided in it.*

*As the Opinion is based on information made available by the client, Sustainalytics does not warrant that the information presented in this Opinion is complete, accurate or up to date.*

*Nothing contained in this Opinion shall be construed as to make a representation or warranty, express or implied, regarding the advisability to invest in or include companies in investable universes and/or portfolios. Furthermore, this Opinion shall in no event be interpreted and construed as an assessment of the economic performance and credit worthiness of the bond, nor to have focused on the effective allocation of the funds’ use of proceeds.*

*The client is fully responsible for certifying and ensuring its commitments` compliance, implementation and monitoring.*

# SUSTAINALYTICS

Sustainalytics is an independent ESG and corporate governance research, ratings and analysis firm supporting investors around the world with the development and implementation of responsible investment strategies. With 13 offices globally, Sustainalytics partners with institutional investors who integrate environmental, social and governance information and assessments into their investment processes. Today, the firm has more than 300 staff members, including 170 analysts with varied multidisciplinary expertise of more than 40 sectors. Through the IRRI survey, investors selected Sustainalytics as the best independent responsible investment research firm for three consecutive years, 2012 through 2014 and in 2015, Sustainalytics was named among the top three firms for both ESG and Corporate Governance research. The firm was also named the Best SRI or Green Bond Research Firm by Global Capital in 2015. For more information, visit [www.sustainalytics.com](http://www.sustainalytics.com)

Sustainalytics  
[info@sustainalytics.com](mailto:info@sustainalytics.com)  
[www.sustainalytics.com](http://www.sustainalytics.com)

