# Second-Party Opinion BTSG Green Bond Framework

## **Evaluation Summary**

Sustainalytics is of the opinion that the BTSG Green Bond Framework is credible, impactful and aligns to the four core components of the Green Bond Principles 2021. This assessment is based on the following:



**USE OF PROCEEDS** The eligible category for the use of proceeds, Clean Transportation and Supporting Infrastructure, is aligned with those recognized by the Green Bond Principles 2021 and ASEAN Green Bond Standards 2018. Sustainalytics considers that investments in the eligible category will lead to positive environmental impacts by supporting low carbon mobility in Bangkok and advance the UN Sustainable Development Goals, specifically SDG 11.



**PROJECT EVALUATION / SELECTION** BTSG and affiliates Green Bond Working Group (GBWG) will oversee the internal process for evaluating and selecting projects. The GBWG consists of representatives from the Treasury, Corporate Communication, Safety and Security, Service Planning and MIS Departments and Finance team of the projects. BTSG and affiliates's Executive Committee will be responsible for the final approval of eligible projects in accordance with the eligibility process. BTSG and affiliates's is committed to identifying, assessing and managing environmental, health and safety risks during project evaluation. Sustainalytics considers this process to be adequate.



**MANAGEMENT OF PROCEEDS** BTSG and affiliates's Accounting team will oversee the management of proceeds, which will track allocation to eligible assets using internal information systems. Unallocated proceeds will be held in cash or cash equivalents, short-term and liquid marketable securities and/or be used to repay existing debt. BTSG and affiliates intends to reach full allocation within 24 months of date. This process is in line with market practices



**REPORTING** BTSG and affiliates intends to report on the allocation of proceeds on its website on an annual basis until full allocation. Allocation reporting will include the amount of allocated and unallocated proceeds as well as a summary of projects. In addition, when available, BTSG and affiliates will report on relevant environmental impact metrics. Sustainalytics views BTSG and affiliates allocation and impact reporting as aligned with market practice.



Evaluation Date	September 29, 2021
Issuer Location	Bangkok, Thailand

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For inquiries, contact the Sustainable Finance Solutions project team:

Cristhian Veintimilla (Amsterdam) Project Manager cristhian.veintimilla@sustainalytics.com (+31) 20 205 02 09

Arnab Deb (Mumbai) Project Support

Chetna Chauhan (Mumbai) Project Support

Maliha Taj (Mumbai) Project Support

Nicholas Gandolfo (Singapore) Client Relations susfinance.apac@sustainalytics.com (+852) 3008 2391

## Alignment with the ASEAN Green Bond Standards

The ASEAN Green Bond Standards provide guidance to issuers and communicate more specifically what an issuer should do to issue a credible green bond within Southeast Asia. Sustainalytics is of the opinion that the green categories under the BTSG Green Bond Framework align with the ASEAN Green Bond Standards.



# Introduction

BTS Group Holdings PCL ("BTSG", or the "Company") and affiliates operates mass transit, media, property and service businesses in Thailand. Bangkok Mass Transit System PCL ("BTSC"), BTSG's mass transit unit, which accounts for the majority of the group's revenues, operates and maintains the Sky Train system, an elevated trackwork in Bangkok, covering 68.25 kilometers of train tracks, and the Bus Rapid Transit System with 12 stations through 15 kilometers of dedicated bus lane. BTSG was founded in 1968 and is headquartered in Bangkok, Thailand.

BTSG and affiliates has developed the BTSG Green Bond Framework (the "Framework") under which BTSG and affiliates intends to issue a green bond and use the proceeds to finance and/or refinance, in whole or in part, existing and/or future projects that contribute to development of electrified transportation services and related-infrastructures while supporting the Company's strategy and vision. The Framework defines eligibility criteria in one area:

1. Clean Transportation and Supporting Infrastructure

BTSG and affiliates engaged Sustainalytics to review the BTSG Green Bond Framework, dated September 2021, and provide a Second-Party Opinion on the Framework's environmental credentials and its alignment with the Green Bond Principles 2021 (the "GBP")<sup>1</sup> the ASEAN Green Bond Standards 2018 (the "AGBS")<sup>2</sup>. This Framework has been published in a separate document.<sup>3</sup> This Second-Party Opinion is an update to BTSG Green Bond Framework Second-Party Opinion dated October 2020.

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

Sustainalytics' Second-Party Opinion reflects Sustainalytics' independent<sup>4</sup> opinion on the alignment of the reviewed Framework with the current market standards and the extent to which the eligible project categories are credible and impactful.

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

- The Framework's alignment with the Green Bond Principles 2021, as administered by ICMA and the ASEAN Green Bond Standards 2018, as administered by the ASEAN Capital Markets Forum;
- The credibility and anticipated positive impacts of the use of proceeds; and
- The alignment of the issuer's sustainability strategy and performance and sustainability risk management in relation to the use of proceeds.

For the use of proceeds assessment, Sustainalytics relied on its internal taxonomy, version 1.10.1, which is informed by market practice and Sustainalytics' expertise as an ESG research provider.

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

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

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

http://www.theacmf.org/ACMF/upload/GREENBONDACMF.pdf

<sup>&</sup>lt;sup>1</sup> The Green Bond Principles are administered by the International Capital Market Association and are available at <u>https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/</u>.

<sup>&</sup>lt;sup>2</sup> The ASEAN Green Bond Standards are administered by the ASEAN Capital Markets Forum and are available at

<sup>&</sup>lt;sup>3</sup> The BTSG Green Bond Framework is available on BTS Group Holdings PCL's website at: http://www.btsgroup.co.th/en/sustainability/green-bond

<sup>&</sup>lt;sup>4</sup> When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics' hallmarks is integrity, another is transparency.



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

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

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

# Sustainalytics' Opinion

## Section 1: Sustainalytics' Opinion on the BTSG Green Bond Framework

Sustainalytics is of the opinion that the BTSG Green Bond Framework is credible and impactful and aligns to the four core components of the GBP. Sustainalytics highlights the following elements of BTSG's Green Bond Framework:

- Use of Proceeds:
  - The eligible use of category of the BTSG Green Bond Framework, Clean Transportation and Supporting Infrastructure, is aligned with those recognized by the Green Bond Principles 2021 and the ASEAN Green Bond Standard 2018. Sustainalytics is of the opinion that the projects financed will contribute to a reduction in Bangkok's GHG footprint.
  - BTSG and affiliates has established a 30-month look-back period for refinancing activities which Sustainalytics considers to be in line with market practice.
  - BTSG and affiliates intends to finance and refinance investments, purchases, modernization, operating expenditures, maintenance and refurbishment of Clean Transportation and Supporting infrastructure. This includes:
    - Electric-powered vehicles including passenger trains and feeder vehicles such as taxis and motorbikes.
    - Electrical and mechanical systems (E&M) including but not limited to rail platform, support beam, rail depot and workshop facilities, signaling system and automatic fare collection system as supporting infrastructure for Green line North and South Extension.
    - Eligible operating expenditures will include the cost of annual maintenance of assets, upgrades that extend the useful life of assets, and the salaries of maintenance workers. Sustainalytics considers these investments to be in line with market standards.
  - The exclusionary criteria outlined in the Framework exclude the following: exploration, production or transportation of fossil fuel; generation of nuclear power; activities/projects associated with child labor/forced labor. Sustainalytics is of the opinion that these exclusions strengthen the Framework.
- Project Evaluation and Selection:
  - BTSG and affiliates has established a Green Bond Working Group (GBWG), which will comprise
    of representatives from Treasury Department, Corporate Communication Department, Service
    Planning and MIS Department and Finance team of the projects.
  - GBWG will review and select project as per the criteria listed in the Framework and send it across to the Executive Committee for review and final approval.
  - BTSG and affiliates has in place a process to identify and assesses and manage environmental, health and safety (EH&S) risks during project evaluation. Sustainalytics considers this risk assessment and mitigation process to be adequate and to be aligned with market expectation. For additional detail see Section 2 of this document.



- Management of Proceeds:
  - BTSG and affiliates's accounting team will oversee the management of proceeds, which will track allocation to eligible assets using an internal system on a quarterly basis. Unallocated proceeds will be held in cash or cash equivalents, short-term and liquid marketable securities and/or be used to repay existing debts. BTSG and affiliates intends to reach full allocation within 24 months from the bond issuance date and will adhere to the exclusionary criteria. BTSG and affiliates confirmed that at least half of the proceeds will be allocated within one year while full allocation will be completed within two years from the issuance. In accordance with Climate Bonds Standard version 3.0.<sup>5</sup>
  - Based on the presence of an internal tracking system and disclosure on temporary allocation of proceeds, Sustainalytics considers this process to be in line with market practice.
  - Reporting:
    - BTSG and affiliates intends to report on the allocation of proceeds until full allocation of proceeds and impact of net proceeds on the Company's website on an annual basis. BTSG and affiliates's allocation reporting will include the balance amount of allocated and unallocated net proceeds as well as a summary of projects and the portion of proceeds use for financing vs refinancing. In addition, BTSG and affiliates is committed to, where possible, report on impact including relevant impact metrics such as number of passengers using the financed electric transportation per year and the reduction of CO<sub>2</sub> emissions per year.
    - Based on the annual allocation and impact reporting commitment, Sustainalytics considers this process to be in line with market practice.

#### Alignment with ASEAN Green Bond Standards 2018

The ASEAN Green Bond Standards provide guidance to issuers and communicate more specifically what an issuer should do to issue a credible green bond within Southeast Asia. Sustainalytics is of the opinion that the BTSG Green Bond Framework aligns with the ASEAN Green Bond Standards 2018. See Appendix 1: Alignment to the ASEAN Green Bond Standards.

#### Alignment with Green Bond Principles 2021

Sustainalytics has determined that BTSG and affiliates green bond aligns to the four core components of the Green Bond Principles 2021. For detailed information please refer to Appendix 2: Green Bond/Green Bond Programme External Review Form.

## Section 2: Sustainability Strategy and Performance of BTSG

#### Contribution of framework to BTS Group Holdings PCL's sustainability strategy

BTSG and affiliates has implemented a sustainable corporate strategy, The City Solutions Concept, as a guideline to the Company's operations and business model. The strategy includes commitment to execute energy efficiency management as well as the conservation and reduction of natural resources<sup>6</sup> as well as the following initiatives and targets:

- BTSG and affiliates developed an environmental policy in which it commits to a sustainable and environmentally friendly operating railway,<sup>7</sup> i.e. electrified railways as well as initiatives such as a washing plant that reduces water, soap and disinfectants used, and managing significant environmental impacts in a proactive manner through implementing energy consumption measures, as well as promoting environmental impact awareness amongst its employees.<sup>8</sup> BTS also operates one of the world's safest mass transit systems and has so far handled all its passengers with no loss of life or injury.<sup>9</sup> This is accomplished with the help of various train and station operating features laid out by BTSG and affiliates.<sup>14</sup>
- Bangkok Mass Transit System PCL (BTSC) established an Energy Management System Committee in 2014/15 to focus on energy related issues, which includes oversight by the Chief Executive Officer serving

<sup>&</sup>lt;sup>5</sup> Climate Bonds Standard version 3.0 available at: <u>https://www.climatebonds.net/2019/12/climate-bonds-launches-version-3-international-climate-bonds-standarduniversal</u>

<sup>&</sup>lt;sup>6</sup> BTS, "Sustainability at BTSG", at: <u>http://www.btsgroup.co.th/en/sustainability/sustainability-guidelines</u>

<sup>&</sup>lt;sup>7</sup> BTSG identifies environmentally friendly operating railways in terms of CO2 emissions generated and energy consumption

<sup>&</sup>lt;sup>8</sup> BTSG Company Policies: <u>https://bts.podrealm.com/website/eng/info/info-company\_policies.html</u>

<sup>&</sup>lt;sup>9</sup> BTS, "Safety System", at https://bts.podrealm.com/website/eng/library/system-security.html



as head of the committee. Moreover, a third-party audit and verification of the energy related data is conducted on an annual basis.<sup>10</sup>

- BTSG and affiliates has defined energy-related thresholds and targets, such as not exceeding total
  electricity consumption of 2.80 kWh/car-km, traction power of <50 0 kWh/1,000 passengers-km/month,
  and total electricity consumption of <82,000 kWh/Day at train stations by 2020/21.<sup>15</sup> Even though BTSG
  and affiliates has seen an increase in passengers and serviced route expansion, the Company has
  confirmed that it met all three targets in 2019/2020.
- BTSG and affiliates set a target of annual GHG emissions for 2020/21 at 99,210 tonnes CO<sub>2</sub>e and was able to go beyond the target and have emissions of 74,600 tonnes CO<sub>2</sub>e<sup>15</sup>.

Based on BTSG and affiliates's sustainability policies, strategy and initiatives, Sustainalytics believes that BTSG and affiliates is well positioned to issue green bonds and that the Eligible Green Assets will help the Company advance its sustainability strategy as well as the overall climate ambitions of the Government of Thailand.

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

While the eligible category is recognized as impactful by the Green Bond Principles 2018, Sustainalytics also recognizes that development of clean transportation and infrastructure might entail environmental risks related to infrastructure construction, including waste disposal, loss of biodiversity and land use change as well as social risks such as workers' health and safety, and community opposition. Sustainalytics highlights the following measures of BTSG and affiliates and relevant regulation that mitigate related risks:

- According to Thailand's Notification of Ministry of Natural Resources and Environment regarding the types and specifications of projects that require an Environmental Impact Assessment (EIA) Report, land allocation and construction activities related to roads, highway and train lines is subject to the EIA Report requirement.<sup>11</sup>
- In line with its risk management policy, BTSG and affiliates's risk management working group conducts
  risk assessments which include the environmental impact of the Company's operations. BTSG and
  affiliates's Environmental Management System is aligned with ISO 14001<sup>12</sup>and OHSAS 18001<sup>13</sup>
  standards, providing additional assurance that BTSG and affiliates's environmental and occupational
  health and safety management systems are aligned with international standards.
- BTSG and affiliates has established a safety policy to manage occupational health and safety through identifying hazards, minimizing risks and implementing risk reduction and control measures together with regular reviews of safety related processes.<sup>14</sup> Moreover, BTSG and affiliates provides disclosure on the implementation of the policy including frequency of trainings and number of accidents, such as zero employee accident in the workplace in 2017/18.
- BTSG and affiliates has identified engagement channels, and disclosure of information for each stakeholder, including communities to voice their interests and provide feedback during decision making processes.<sup>15</sup> BTSG and affiliates confirmed to Sustainalytics that public consultation had been conducted for the projects financed by the green bonds.
- BTSG and affiliates's Supplier Code of Business Conduct defines environmental, social and governance commitments required from suppliers to ensure sustainable business throughout the Company's supply chain. Moreover, BTSG and affiliates conducts suppliers' risk assessment on an annual basis to identify potential environmental risks resulting from critical suppliers,<sup>16</sup> indicating that the Company's sustainability efforts go beyond its own operations.

Based on the regulatory requirements in Thailand, BTSG and affiliates initiatives on environmental protection and community engagement, Sustainalytics believes that BTSG and affiliates is well positioned to mitigate environmental and social risks associated with the eligible use of proceeds category.

## Section 3: Impact of Use of Proceeds

The use of proceeds category is aligned with those recognized by the GBP. Sustainalytics has focused below on how the impact is specifically relevant in the local context.

<sup>&</sup>lt;sup>10</sup> BTSG Green Bond Framework

<sup>&</sup>lt;sup>11</sup> Notification of Ministry of Natural Resources and Environment: <u>https://www.jetro.go.jp/ext\_images/thailand/pdf/iee\_chonburi.pdf</u>

<sup>&</sup>lt;sup>12</sup> The OHSAS 18001 an international standard designed to enable organizations to control risks and improve performance in the area of occupational health and safety.

<sup>&</sup>lt;sup>13</sup> ISO 14001 is an international standard that specifies requirements for an effective environmental management system (EMS)

<sup>&</sup>lt;sup>14</sup> BTSG, "BTSG Safety Policy", at: <u>http://www.btsgroup.co.th/en/sustainability/sustainable-performances/relevant-policies</u>

<sup>&</sup>lt;sup>15</sup> BTSG, "Sustainability Report 2017/2018" at : <u>http://www.btsgroup.co.th/storage/download/sustainability/sr/bts-sd201718-en.pdf</u>

<sup>&</sup>lt;sup>16</sup> BTS, "BTSG Sustainability Report 2020/2021"(2020) at: <u>https://www.btsgroup.co.th/storage/download/sustainability/sr/sd-report202021-en-for-double-pages.pdf</u>



#### Importance of providing Clean Transportation in Bangkok

Thailand's transportation sector relies 85% on road transportation,17 mainly using private cars and motorcycles. These activities increase urban air pollution, and GHG emissions.<sup>18</sup> In addition, the transport sector accounts for more than one-third of final energy consumption,<sup>19</sup> 33.3% of total GHG emission in Thailand,<sup>20</sup> and 38% of GHG emissions in Bangkok.<sup>18</sup> The rapid development of the Thai economy and its extensive rice-producing capacity made the Bangkok Metropolitan Region (BMR) the country's most significant urban hub, accounting for almost 80% of the total urban area<sup>21</sup> and 22% of the total population<sup>22</sup> in Thailand. Population increase, and land use change have led to a rapid motorization in BMR, reaching a high level of motorcycle and car ownership before a mass transit system was established.23 To mitigate mobility challenges and foster a shift towards mass and low carbon transit, the Government of Thailand adopted several transportation targets in its 12th National Economic and Social Development Plan (2017-2021)<sup>24</sup> such as raising the proportion of passengers using public transportation systems, fostering the construction of mass-transit city-rail projects in the BMR, and expanding the mass rapid transit lines in BMR. In addition, the Government of Thailand set its Intended Nationally Determined Contribution in 2015,<sup>25</sup> aiming to reduce GHG emissions by 20% from the projected business-as-usual (BAU) level by 2030 or a reduction of approximately 555 MtCO2e, compared to 2005 levels. Moreover, the Bangkok Action Plan on Global Warming Mitigation (2013-2023)<sup>26</sup> includes a set of climate change mitigation and adaptation measures including environmentally sustainable transport and green urban planning.

Since BTSG and affiliates intends to use its green bond proceeds to invest in clean transportation assets, including electrified mass transit, and supporting infrastructure, Sustainalytics considers that BTSG and affiliates's investments will contribute to Thailand's mobility and GHG emissions targets and foster a shift towards electrified mass transit in Bangkok.

#### Alignment with/contribution to SDGs

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

Use of Proceeds Category	SDG	SDG target
Clean Transportation and Supporting Infrastructure	11. Make cities and human settlements inclusive, safe, resilient and sustainable	11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

<sup>18</sup> N. Tulyasuwan "Private Motorized Transport, Bangkok, Thailand", (2013), at:

- https://unhabitat.org/sites/default/files/2013/06/GRHS.2013.Case\_Study\_Bangkok.Thailand.pdf
- <sup>19</sup> The World Bank Group, "Thailand: Clean Energy for Green Low-Carbon Growth", (2011), at: <u>http://documents.worldbank.org/curated/en/576401468120848097/pdf/662200WP0p12440e0Clean0Energy0all07.pdf</u>
- <sup>20</sup> A. Chaichaloempreecha, International Energy Journal, "Assessment of Thailand's Energy Policy on CO<sub>2</sub> Emissions: Implication of National Energy
- Plans to Achieve NDC Target", (2019), 47-60, at: <u>https://www.thaiscience.info/Journals/Article/IENJ/10992290.pdf</u> <sup>21</sup> The World Bank, "Urbanization in Thailand is Dominated by the Bangkok Urban Area", (2015), at:

https://www.worldbank.org/en/news/feature/2015/01/26/urbanization-in-thailand-is-dominated-by-the-bangkok-urban-area

- <sup>22</sup> World's Capital Cities, "Capital Facts for Bangkok, Thailand", (2021), at: <u>https://www.worldscapitalcities.com/capital-facts-for-bangkok-thailand/</u>
- <sup>23</sup> P.A. Barter, National University of Singapore, "Transport, urban structure and 'lock-in' in the Kuala Lumpur Metropolitan Area", (2004), at: <u>https://lkyspp.nus.edu.sg/docs/default-source/faculty-publications/paul-a-barter/barter-lockin-in-kl-idpr-paper.pdf?sfvrsn=9230940b\_2</u>

<sup>24</sup> Green Policy Platform, "The 12th National Economic and Social Development Plan of Thailand 2017-2021", (2017), at:

https://www.greengrowthknowledge.org/national-documents/thailand-twelfth-national-economic-and-social-development-plan-2017-

 $\underline{2021\#:-:text=Thailand\%20Twelfth\%20National\%20Economic\%20and\%20Social\%20Development\%20Plan\%20(2017\%2D2021), \underline{2021\#:-:text=Thailand\%20Plan\%20(2017\%2D2021), \underline{2021\#:-:text=Thailand\%20(2017\%2D2021), \underline{2021\#:-:text=Thailand\%20(2017\%2D2021), \underline{2021\#:-:text=Thailand\%20(2017\%2D2021), \underline{2021\#:-:text=Thailand\%20(2017\%2D2021), \underline{2021\#:-:text=Thailand\%20(2017\%2D2021), \underline{2021\#:-:text=Thailand\%20(2017\%2D2021), \underline{2021\#:-:text=Thailand\%20(2017\%2D2021), \underline{2021\#:-:text=Thailand\%20(2017\%2D2021), \underline{2021\#:-:text=Thailand\%20(2017\%2D2021), \underline{2021\#:-:text=Thailand\%20(2017\%2D20200, \underline{2021\%2}), \underline{2021\#:-:text=Thailand\%20(2017\%2D2020, \underline{2021\%2}), \underline{2021\#:-:text=Thailand\%20(2017\%2D200, \underline{2021\%2}), \underline{2021\%2}), \underline{2021\%2}), \underline{2021\#:-text=Thailand\%20(2017\%2D20200, \underline{2021\%2}), \underline{$ 

<sup>&</sup>lt;sup>17</sup> S. Pravinvongvuth, Asian Center for Transportation Studies, "Transportation Infrastructure in Thailand: Go Green or Go Grey", (2017), at: <u>http://www.uncrd.or.jp/content/documents/5602Presentation%205%20%20Module%202%20-%20Mr.%20Surachet%20Pravinvongvuth.pdf</u>

January%202017&text=It%20emphasizes%20the%20use%20of.communities%20along%20transborder%20economic%20corridors <sup>25</sup> UNFCCC, "Thailand's Updated Nationally Determined Contribution", (2020), at:

https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Thailand%20First/Thailand%20Updated%20NDC.pdf <sup>26</sup> Mayors for Peace, "Bangkok Master Plan on Climate Change 2013-2023", (2018), at:

<sup>&</sup>lt;sup>20</sup> Mayors for Peace, Bangkok Master Plan on Climate Change 2013-2023 , (2018), at: http://www.mayoraforpage.org/ongligh/whatenow/activitios/date/2018/Pangkok Master Dlan of



## Conclusion

BTSG and affiliates has developed the BTSG Green Bond Framework under which BTSG and affiliates may issue green bonds and use the proceeds to finance clean transportation projects including electric mass transit and infrastructure supporting clean transportation operations. Sustainalytics considers that the project funded by the green bond proceeds are expected to provide positive environmental impact.

The BTSG Green Bond Framework outlines a process by which proceeds will be tracked, allocated, and managed, and commitments have been made for reporting on the allocation and impact of the use of proceeds. Furthermore, Sustainalytics believes that the BTSG Green Bond Framework is aligned with the overall sustainability strategy of the Company and that the green use of proceeds category will contribute to the advancement of the UN Sustainable Development Goal 11. Additionally, Sustainalytics is of the opinion that BTSG and affiliates has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects funded by the proceeds.

Based on the above, Sustainalytics is confident that BTSG and affiliates is well-positioned to issue green bonds and that the BTSG Green Bond Framework is robust, transparent, and in alignment with the four core components of the Green Bond Principles 2021.

# Appendix

## Appendix 1: Alignment to the ASEAN Green Bond Standards

ASEAN Green Bond Standards' Criteria	Alignment with ASEAN GBS	Sustainalytics' comments on alignment with the ASEAN Green Bond Standards.
Eligibility	Yes	The AGBS requires that issuers must be located in or that the proceeds be directed to assets in an ASEAN country. As a Thailand-based institution, BTSG and affiliates qualifies.
Use of Proceeds	Yes	The AGBS offers specific clarification that fossil fuel power generation projects are excluded; BTSG and affiliates only invests in electric transportation and supporting infrastructure and has an exclusions list for the following activities: exploration, production or transportation of fossil fuel; generation of nuclear power; activities/projects associate with child labor/forced labor.
Process for Project Evaluation and Selection	Yes	The AGBS specifies information that must be clearly communicated to investors before issuance regarding project selection. Within its framework, BTSG and affiliates has described that an internal working group comprising representatives from the company's Treasury Department, Corporate Communication Department, Safety and Security Department, Service Planning and MIS Department and Finance team will select projects, and that its Executive Committee will make the final approval.
Management of Proceeds	Yes	The AGBS mandates that proceeds must be appropriately tracked and that temporary investments be disclosed. Within its framework, BTSG and affiliates disclosed that the green bond proceeds will be segregated into separate accounts within BTSG and affiliates's finance and reporting system. Pending full allocation, the unallocated green bond proceeds will be held in cash or cash equivalents, or invested in short and liquid marketable securities which are not inconsistent with the delivery of a low carbon and climate resilient economy, or applied to temporarily reduce indebtedness of a revolving nature, where the original loan of which is not inconsistent with the delivery of a low carbon and climate resilient economy, before being redrawn for investments or disbursements to eligible green assets. BTSG and affiliates intends to fully allocate within 24 months from the bond issuance date.
Reporting	Yes	The AGBS requires annual reporting on the allocation of funds and the expected impacts. BTSG and affiliates states that it will provide an annual allocation report until full allocation and commits to report on the impact of the use of proceeds, depending on data availability, on an annual basis.
Annual Review	Yes	The AGBS encourages, but does not require, annual reviews. The BTSG and affiliates commits to have a CBI post-issuance assurance report.



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

#### **Section 1. Basic Information**

Issuer name:	BTS Group Holdings PCL and/or affiliates
Green Bond ISIN or Issuer Green Bond Framework Name, if applicable:	BTSG Green Bond Framework
Review provider's name:	Sustainalytics
Completion date of this form:	September 29, 2021
Publication date of review publication:	Update to 2020 Sustainalytics SPO, published October 2020

### Section 2. Review overview

#### SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarise the scope of the review. The review assessed the following elements and confirmed their alignment with the GBP:

$\boxtimes$	Use of Proceeds	$\boxtimes$	Process for Project Evaluation and Selection
$\boxtimes$	Management of Proceeds	$\boxtimes$	Reporting
ROLE(	S) OF REVIEW PROVIDER		

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

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

Rating

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

ease refer to Evaluation Summary above.	

## Section 3. Detailed review

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

#### **1. USE OF PROCEEDS**

Overall comment on section (if applicable):



BTSG and affiliates intends to finance and refinance investments, purchases, modernization, operating expenditures, maintenance and refurbishment of Clean Transportation and Supporting infrastructure. Sustainalytics considers these investments to be in line with market standards.

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

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

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

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

Overall comment on section (if applicable):

BTSG and affiliates's Green Bond Working Group (GBWG) will oversee the internal process for evaluating and selecting projects. The GBWG consists of representatives from the Treasury, Corporate Communication, Safety and Security, Service Planning and MIS Departments and Finance team of the project(s). BTSG and affiliates 'Executive Committee will be responsible for the final approval of eligible projects in accordance with the eligibility process. BTSG and affiliates's is committed to identifying, assessing and managing environmental, health and safety risks during project evaluation. Sustainalytics considers this process to be adequate.

#### **Evaluation and selection**

	Credentials on the issuer's environmental sustainability objectives	Documented process to determine that projects fit within defined categories
$\boxtimes$	Defined and transparent criteria for projects eligible for Green Bond proceeds	Documented process to identify and manage potential ESG risks associated with the project
	Summary criteria for project evaluation and selection publicly available	Other (please specify):



#### Information on Responsibilities and Accountability

- Evaluation / Selection criteria subject to external advice or verification
- □ In-house assessment

□ Other (please specify):

#### **3. MANAGEMENT OF PROCEEDS**

Overall comment on section (if applicable):

BTSG and affiliates's accounting team will oversee the management of proceeds, which will track allocation to eligible assets using internal information systems. Unallocated proceeds will be held in cash or cash equivalents, short-term and liquid marketable securities and/or be used to repay existing debt. BTSG and affiliates intends to reach full allocation within 24 months of date. This process is in line with market practices.

#### Tracking of proceeds:

- Green Bond proceeds segregated or tracked by the issuer in an appropriate manner
- Disclosure of intended types of temporary investment instruments for unallocated proceeds
- $\Box$  Other (please specify):

#### Additional disclosure:

Allocations to future investments only	$\boxtimes$	Allocations to both existing and future investments
Allocation to individual disbursements		Allocation to a portfolio of disbursements
Disclosure of portfolio balance of unallocated proceeds		Other (please specify):

#### 4. REPORTING

Overall comment on section (if applicable):

BTSG and affiliates intends to report on the allocation of proceeds on its website on an annual basis until full allocation. Allocation reporting will include the amount of allocated and unallocated proceeds as well as a summary of projects. In addition, when available, BTSG and affiliates will report on relevant environmental impact metrics. Sustainalytics views BTSG and affiliates's allocation and impact reporting as aligned with market practice.

#### Use of proceeds reporting:

- ☑ Project-by-project
  □ On a project portfolio basis
- $\Box$  Linkage to individual bond(s)  $\Box$  Other (please specify):



○ Other (please specify):   Frequency:   ○ Annual   ○ Other (please specify):    Impact reporting: <ul> <li>Other (please specify):</li> </ul> Project-by-project <li>On a project portfolio basis</li> <li>Other (please specify):</li> Information reported (expected or ex-post):   ○ GHG Emissions / Savings   ○ Decrease in water use   ○ Other ESC indicators (please specify): Number of passengers using electric transportation of project financed   Frequency:   ○ Annual   ○ Other (please specify):    Memory of passengers using electric transportation of project financed  Information published in financial report   ○ Information published in ad hoc   ○ Information published in ad hoc   ○ Other (please specify):    Other (please specify): BTSG website course: Cou		$\boxtimes$	Allocated amounts			Green Bond financed share of tota
Frequency:   Other (please specify):     Impact reporting:   Project-by-project   Chikage to individual bond(s)   Difformation reported (expected or ex-post):   GHG Emissions / Savings   Decrease in water use   GHG Emissions / Savings   Decrease in water use   Other ESG indicators (please specify):   Number of passengers using electric transportation of project financed   Frequency   Annual   Other (please specify):   Information published in financial report   Information published in ad hoc   Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):						investment
□ Annual □ Semi-annual   □ Other (please specify):			Other (please specify):			
○ Annual ○ Semi-annual   ○ Other (please specify):		Fre	quency:			
Impact reporting:       □       On a project portfolio basis         □       Linkage to individual bond(s)       □       Other (please specify):         □       Information reported (expected or ex-post):       □       Energy Savings         □       Decrease in water use       □       Other ESG indicators (please specify): Number of passengers using electric transportation of project financed         Frequency       □       Annual       □       Semi-annual         □       Other (please specify):       Information published in financial report       □       Information published in sustainability report         □       Information published in ad hoc documents       □       Other (please specify): BTSG website documents         □       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.		$\boxtimes$	Annual			Semi-annual
Project-by-project ☑ On a project portfolio basis   Linkage to individual bond(s) ☑ Other (please specify):     Information reported (expected or ex-post):   ☑ GHG Emissions / Savings   □ Decrease in water use   ☑ Other ESG indicators (please specify): Number of passengers using electric transportation of project financed     Frequency   ☑ Annual   □ Other (please specify):   Means of Disclosure   □ Information published in financial report   □ Information published in ad hoc documents   □ Information published in ad hoc documents   □ Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):			Other (please specify):			
Linkage to individual bond(s) ○ Other (please specify):     Information reported (expected or ex-post):   □ GHG Emissions / Savings   □ Decrease in water use   □ Decrease in water use   □ Decrease in water use   □ Other ESG indicators (please specify): Number of passengers using electric transportation of project financed   Frequency □ Annual □ Other (please specify):  Means of Disclosure   □ Information published in financial report   □ Information published in ad hoc documents   □ Information published in ad hoc documents   □ 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.	Impa	act reporting:				
Information reported (expected or ex-post):         □       GHG Emissions / Savings         □       Decrease in water use         □       Other ESG indicators (please specify): : Number of passengers using electric transportation of project financed         Frequency       □         □       Annual       □         □       Other (please specify):           Means of Disclosure          □       Information published in financial report       □         □       Information published in ad hoc       □       Other (please specify): BTSG website documents         □       Information published in ad hoc       □       Other (please specify): BTSG website documents         □       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.		Project-by-proje	ect	$\boxtimes$	On a pro	oject portfolio basis
□ GHG Emissions / Savings □ Energy Savings   □ Decrease in water use □ Other ESG indicators (please specify):: Number of passengers using electric transportation of project financed   Frequency □ Annual □ Semi-annual   □ Other (please specify): □ Information published in financial report □ Information published in ad hoc documents   □ Information published in ad hoc documents □ Other (please specify which parts of the reporting are subject to external review):		Linkage to indiv	vidual bond(s)		Other (p	please specify):
□       Decrease in water use       ○       Other ESG indicators (please specify): Number of passengers using electric transportation of project financed         Frequency       ○       Annual       □       Semi-annual         □       Other (please specify):       ○       Semi-annual         □       Other (please specify):       ○       Semi-annual         □       Information published in financial report       □       Information published in sustainability report         □       Information published in ad hoc       ○       Other (please specify): BTSG website documents         □       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.		Inf	ormation reported (expecte	d or ex	-post):	
Image: Second Street Stree		$\boxtimes$	GHG Emissions / Savings	;		Energy Savings
<ul> <li>Annual</li> <li>Other (please specify):</li> </ul> Means of Disclosure           Information published in financial report         Information published in sustainability report           Information published in ad hoc documents         Other (please specify): BTSG website documents           Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):			Decrease in water use			specify): : Number of passengers using electric transportation of project
<ul> <li>Other (please specify):</li> <li>Means of Disclosure         <ul> <li>Information published in financial report</li> <li>Information published in ad hoc</li> <li>Information published in ad hoc</li> <li>Other (please specify): BTSG website documents</li> <li>Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):</li> </ul> </li> <li>Where appropriate, please specify name and date of publication in the useful links section.</li> </ul>		Fre	quency			
Means of Disclosure         Information published in financial report       Information published in sustainability report         Information published in ad hoc documents       Other (please specify): BTSG website documents         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.		$\boxtimes$	Annual			Semi-annual
<ul> <li>Information published in financial report</li> <li>Information published in ad hoc documents</li> <li>Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):</li> <li>Where appropriate, please specify name and date of publication in the useful links section.</li> </ul>			Other (please specify):			
<ul> <li>Information published in ad hoc documents</li> <li>Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):</li> <li>Where appropriate, please specify name and date of publication in the useful links section.</li> </ul>	Mea	ins of Disclosure				
<ul> <li>documents</li> <li>Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):</li> <li>Where appropriate, please specify name and date of publication in the useful links section.</li> </ul>		Information pul	blished in financial report			ation published in sustainability
external review): Where appropriate, please specify name and date of publication in the useful links section.			blished in ad hoc	$\boxtimes$	Other (p	please specify): BTSG website
				vhich p	arts of th	e reporting are subject to
	Whe	ere appropriate, pl	ease specify name and date	e of pu	blication	in the useful links section.
USEFUL LINKS (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)		<b>FUL LINKS</b> (e.a. t	o review provider methodol	ogy or	credentia	Ils, to issuer's documentation. etc.)

#### SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

## Type(s) of Review provided:

- □ Consultancy (incl. 2<sup>nd</sup> opinion)
- □ Certification

□ Rating

Verification / Audit



 $\Box$  Other (please specify):

## **Review provider(s):**

## Date of publication:

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

- i. 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.
- ii. 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.
- iii. 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.
- iv. 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.



## Disclaimer

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# About Sustainalytics, a Morningstar Company

Sustainalytics, a Morningstar Company, is a leading ESG research, ratings and data firm that supports investors around the world with the development and implementation of responsible investment strategies. The firm works with hundreds of the world's leading asset managers and pension funds who incorporate ESG and corporate governance information and assessments into their investment processes. The world's foremost issuers, from multinational corporations to financial institutions to governments, also rely on Sustainalytics for credible second-party opinions on green, social and sustainable bond frameworks. In 2020, Climate Bonds Initiative named Sustainalytics the "Largest Approved Verifier for Certified Climate Bonds" for the third consecutive year. The firm was also recognized by Environmental Finance as the "Largest External Reviewer" in 2020 for the second consecutive year. For more information, visit www.sustainalytics.com.

2021



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