Second-Party Opinion

Jindal Shadeed Iron & Steel Sustainability-Linked Finance Framework

SUSTAINALYTICS
a Morningstar company
SECOND-PARTY OPINION

Evaluation Summary

Evaluation Date	October 21, 2021
Issuer Location	Sohar, Oman

Sustainalytics is of the opinion that the Jindal Shadeed Iron & Steel Sustainability-Linked Finance Framework aligns with the Sustainability-Linked Bond Principles 2020 and Sustainability-Linked Loan Principles 2021. This assessment is based on the following:

Overview of KPI and SPT:

KPI	SPT	Strength of the KPI	Ambitiousness of SPT
Greenhouse gas emissions intensity scope 1 and 2 (tonnes CO2e/ tonne product)	Reduction of greenhouse gas emissions intensity (scope 1 and 2) by 12.1% by 2024-25	Very Strong	Highly Ambitious

The SPT contribute to the following SDGs:

Climate Transition Finance Handbook

Sustainalytics has evaluated Jindal Shadeed Iron & Steel's transition governance, strategy, decarbonization targets and intentions to report on transition progress and finds the Company to be aligned with the recommendations of the Climate Transition Finance Handbook 2020. JSIS has adopted climate-related short- and medium-term goals for its pathway to carbon neutrality by 2050, in alignment with the Transition Pathway Initiative's (TPI) 2 Degrees and Below 2 Degrees benchmark scenarios, which are consistent with the overall aim of the Paris Agreement. As part of its climate change strategy, JSIS has outlined potential projects that are intended to enable JSIS to reduce its overall environmental footprint.

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Scope of Work and Limitations

Jindal Shadeed Iron & Steel LLC ("JSIS" or the "Company") has engaged Sustainalytics to review the Sustainability-Linked Finance Framework (the "Framework") and to provide an opinion on its alignment with the Sustainability-Linked Bond Principles (SLBP) and Sustainability-Linked Loan Principles (SLLP).[1]

Sustainalytics' Second-Party Opinion reflects Sustainalytics' independent[2] opinion on the alignment of the Framework with current market standards. As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework's alignment with the Sustainability-Linked Bond Principles 2020 and Sustainability-Linked Loan Principles 2021;[3, 4]
- The credibility and anticipated positive impacts of the SPT;
- JSIS' sustainability strategy, performance and sustainability risk management; and
- The Framework's alignment with the recommendations of the Climate Transition Finance Handbook 2020.[5]

As part of this engagement, Sustainalytics exchanged information with various members of JSIS' management team to understand the sustainability impact of its business processes and SPTs, as well as the reporting and verification processes of the Framework. JSIS' representatives have confirmed that:

(1) They understand it is the sole responsibility of JSIS to ensure that the information provided is complete, accurate and up to date;

(2) They have provided Sustainalytics with all relevant information; and

(3) 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 the Framework. Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and Jindal Shadeed Iron & Steel LLC. 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 SPTs of KPIs but does not measure their performance. The measurement and reporting of the KPIs is the responsibility of JSIS. 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 Jindal Shadeed Iron & Steel LLC has made available to Sustainalytics for the purpose of this Second-Party Opinion.

The Second-Party Opinion is valid for issuances aligned with the respective Framework for which the Second-Party Opinion was written and aligned with the methodology to calculate the KPI performance outlined in the Second-Party Opinion up to 24 months or until one of the following occurs:

(1) A material change to the external benchmarks[6] against which targets were set;

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[1] The Sustainability-Linked Bond Principles (SLBP) were launched by ICMA in June 2020. They are administered by the ICMA and are available at: https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2020/Sustainability-Linked-Bond-PrinciplesJune-2020-100620.pdf

[2] 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.

[3] The Sustainability-Linked Bond Principles, Guidelines and Handbooks are administered by the International Capital Market Association, and are available at: https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/

[4] The Sustainability-Linked Loan Principles Principles and Guidelines are administered by the Loan Market Association, Asia Pacific Loan Market Association, and Loan Syndications and Trading Association, and are available at: https://www.lsta.org/content/?_industry_sector=guidelines-memos-primary-market

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

[6] Benchmarks refers to science-based benchmarks.

(2) A material corporate action (such as material M&A or change in business activity) which has a bearing on the achievement of the SPT or the materiality of the KPI.

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Introduction

JSIS is a wholly owned subsidiary of Vulcan Steel (Mauritius) based in the Sultanate of Oman. JSIS operates an integrated steel plant located at Sohar Industrial Port producing a range of steel-related products including hot briquetted iron (a raw material used in electric arc furnace (EAF) for steel making), continuously cast square billets, continuously cast round billets and reinforcement steel bars (rebar). The Company caters to global and local customers from different sectors.

JSIS intends to issue sustainability-linked bonds and loans tying the coupon rate or premium payment amount to the achievement of the Sustainability Performance Target for the KPI related to direct (scope 1) and indirect (scope 2) GHG emissions intensity reduction.

JSIS has engaged Sustainalytics to review the Sustainability Linked Finance Framework and to provide an opinion on the alignment of the Framework with the Sustainability-Linked Bond Principles and Sustainability-Linked Loan Principles.

Tables 1 and 2 below show the KPI and SPT defined by JSIS.

Table 1: KPI Definition

KPI	Definition
Greenhouse gas emissions intensity (scope 1 and 2) (tonnes CO_2e/ tonne product)	The KPI is defined as greenhouse gas emissions intensity, i.e. quantity of CO_2e generated per tonne of product (electric arc furnace crude steel). The KPI is calculated across JSIS' scope 1 and 2 GHG emissions, scope 1 being GHG emissions from JSIS' own operations,[7] and scope 2 being indirect GHG emissions from consumption of purchased electricity used in JSIS' own operations. The methodology to calculate the KPI is consistent with the Australian National Greenhouse and Energy Reporting (NGER), which is based on the IPCC provisions and the GHG Protocol.[8]

Table 2: SPT and Past Performance

KPI[9]	FY2016-2017	FY2017-2018	FY2018-2019 (baseline)	SPT FY2024-2025
Reduction in greenhouse gas emissions intensity (scope 1 and 2) (tonnes CO_2e/ tonne product)	NA	NA	1.142	1.004

[7] JSIS' scope 1 emissions include emissions from burning diesel fuel in mobile and stationary equipment, from consumption of petrol or diesel transport fuels, consumption of natural gas, e.g., in direct reduction furnaces, direct emissions produced from the manufacturing processes and leakage of sulphur hexafluoride (SF_6) from selected electrical switchgear used on premises.

[8] Low Emission Capacity Building Programme, "Improving national GHG inventories with corporate data in Australia", accessed on 5 October 2021, at : https://transparency-partnership.net/system/files/document/Good%20Practice-Australia-Improving%20national%20GHG%20inventories%20with%20corporate%20data.pdf

[9] The year 2018-19 presents the first year of normalized emissions from JSIS' operations. In prior years, JSIS was setting up its steel melt shop (2014-15), steel rolling mill (2015-16) and second caster (2017-18), hence to facilitate a comparison with future emissions, 2018-19 was the year that JSIS has considered as the comparable baseline to reflect changes implemented to achieve energy efficiency improvements.

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the Alignment of the Jindal Shadeed Iron & Steel Sustainability-Linked Finance Framework with the Sustainability-Linked Bond Principles

Sustainalytics is of the opinion that the Sustainability-Linked Financing Framework aligns with the five core components of the Sustainability-Linked Bond Principles 2020 and the Sustainability-Linked Loan Principles 2021.

Selection of Key Performance Indicators (KPIs)

Relevance and Materiality of KPI

In its assessment of materiality and relevance, Sustainalytics considers: i) whether an indicator speaks to a material impact of the issuer's business on environmental or social issues; and ii) to what portion of impact the KPI is applicable.

Sustainalytics considers the KPI to be material and relevant based on the following:

- The steel industry accounts for 7% of GHG emissions globally[10] given that steel production is resource intensive and generates significant carbon dioxide emissions from use of fossil fuels, high energy and electricity consumption. The majority of emissions from the steel industry are scope 1 and 2 emissions.
- Sustainalytics' Industry Report – Steel identifies "Carbon – Own Operations" as a highly material ESG issue for the steel industry.[11,12] Additionally, the Sustainability Accounting Standards Board (SASB) identifies GHG emissions as material for companies in the iron and steel industry.[13] Moreover, JSIS has identified energy use, global warming potential and greenhouse gas emissions to be material environmental issues for the Company and a focal point of its sustainability strategy.
- JSIS steel production facilities consist of a 1.8 mtpa Direct Reduced Iron (DRI) Plant, a 2.4 mtpa Steel Melt Shop (EAF) and a 1.4 mtpa Steel Rolling M7ill to produce a range of steel-related products. The use of electricity, natural gas, liquid fuels (petrol and diesel); and leakage of sulphur hexafluoride (SF_6) switchgear in the JSIS steelwork facilities are the key contributors to CO_2 emissions. Over 50% of JSIS' reported GHG emissions are associated with electricity consumption; around 48% from consumption of natural gas, and the remaining 2% from liquid fuels (petrol and diesel) and SF_6. JSIS' GHG emissions profile is dominated by the consumption of electricity and natural gas. Reducing GHG emission intensity is a strategic imperative for JSIS and its stakeholders in the steel industry.
- In terms of applicability, Sustainalytics notes that JSIS is in the process of assessing its scope 3 emissions intensity. Based on Sustainalytics' research on the industry, scope 1 and 2 emissions represent the majority of steel manufacturers' emissions, accounting for approximately more than 50% of total emissions. Sustainalytics notes that the KPI does not cover scope 3 emissions attributable to emissions from iron making value chain. While these remain an important source of emissions for JSIS, Sustainalytics considers the applicability of the KPI to be high.

Based on the above, Sustainalytics is of the opinion that the KPI chosen by JSIS is material and relevant because it speaks directly to a material environmental issue for the steel industry with a high scope of applicability.

[10] IEA, "Iron and Steel Technology Roadmap", at: https://www.iea.org/reports/iron-and-steel-technology-roadmap
[11] Sustainalytics, "Industry Report - Steel", (2020), accessed on 29 September 2021
[12] "Carbon - Own Operations" refers primarily to a company's management of risks related to its own operational energy use and GHG emissions (scope 1 and 2).
[13] SASB, "Iron and Steel Producers Standard (2018)", accessed on 29 September 2021, at: https://www.sasb.org/wp-content/uploads/2018/11/Iron_Steel_Producers_Standard_2018.pdf

KPI Characteristics

In its assessment of the KPI characteristics, Sustainalytics considers: i) whether a clear and consistent methodology is used; ii) whether the issuer follows an externally recognized definition; iii) whether the KPIs are a direct measure of the performance of the issuer on the material environmental or social issue; and iv) if applicable, whether the methodology can be benchmarked to an external contextual benchmark.

Sustainalytics considers JSIS' definition and methodology to calculate KPI performance to be clear and consistent based on its alignment with the Australian National Greenhouse and Energy Reporting's Measurement Technical Guidelines, which are based on the IPCC provisions and the GHG Protocol. In addition, the scope 1 and 2 definitions and calculated emissions also adhere to the main GHG Accounting and Reporting Principles. The KPI can be benchmarked across different sectoral benchmarks, including from the International Energy Agency (IEA), World Steel Association (WSA) and Transition Pathways Initiative (TPI). Moreover, Sustainalytics considers the chosen KPI to be directly linked to the performance of the issuer regarding the material impact.

Overall Assessment

Sustainalytics overall considers the KPI – GHG emissions intensity (scope 1 and 2) (tonnes CO_2e/tonne product) – to be very strong given that it: (i) corresponds to a relevant and highly material issue to JSIS and the industry it operates in; (ii) is clear and follows a consistent methodology which is externally verifiable; and (iii) is benchmarkable against science-based trajectories.

Greenhouse gas emissions intensity (scope 1 and 2) (tonnes CO_2e/ tonne product)	Not Aligned	Adequate	Strong	Very strong

Calibration of Sustainability Performance Targets (SPT)

Alignment with JSIS' Sustainability Strategy

JSIS has set the following SPT for its KPIs:

- Reduction of GHG emissions intensity (scope 1 and 2) by 12.1% by 2024-25, against a 2018-19 baseline

Sustainalytics considers the SPT to be aligned with JSIS' sustainability strategy (please refer to section 2 for analysis of the credibility of JSIS' sustainability strategy).

JSIS has developed its Climate Change Strategy FY2029-30 in 2021. JSIS' sustainability strategy is informed by the Company's long-term goal of decarbonizing steel production. JSIS is committed to make its operations climate neutral by 2050, doing so through the implementation of various initiatives, and approaches. To achieve this long-term target, JSIS has identified feasible and effective opportunities that will enable JSIS to redirect its sourcing from fossil fuel to renewable energy, allowing JSIS to reduce its GHG footprint. JSIS' mid-term sustainability goals include the reduction of scope 1 and 2 GHG emissions by 12.1% by 2024-2025. Since the completion of JSIS' steel plant, the Company has already reduced its GHG emissions by 7% from 2018 to 2020.

Strategy to Achieve the SPT

JSIS intends to achieve the SPT through the following strategy:

- To reduce its Scope 1 and 2 emissions JSIS continuously works towards advancing and improving the carbon dioxide efficiency of its steel production processes. JSIS has developed a Climate Change Strategy FY2029-30 outlining current and forecasted GHG emissions and intensity, proposed greenhouse gas emissions reduction projects and impact of the measures to meet the GHG reduction commitments for the facility.
- To reduce its carbon footprint, JSIS will be increasing the procurement of renewable energy for its operations. JSIS is planning to meet its energy demand from a solar power plant of 250 MW capacity.
- JSIS will implement a wide range of energy efficiency initiatives in Direct Reduced Iron (DRI) Plant, Steel Melt Shop (Electric Arc Furnace) and a Steel Rolling Mill. Examples of initiatives that will be undertaken by JSIS includes preventive maintenance, energy monitoring and management system, high-efficiency

motors, use of ultra-high power transformers, stirring gas injection, slag foaming, flue gas monitoring and control, eccentric bottom tapping, efficient ladle preheating and tundish heating at steel melt shop; hot link technology for feeding hot DRI to Steel Melt Shop.

- JSIS will strive to increase the percentage of steel scrap used within the steel melt shop; the proportion of scrap usage has also been increasing year on year. JSIS has also formulated The Green Procurement Policy that guides the supplier regarding mandatory requirements and desirable requirements that makes the procurement environmentally sustainable.
- To reach a net zero CO_2e footprint by the year FY2050, the Company will seek to develop and implement green hydrogen infrastructure initiatives and potential carbon capture and storage (CCS) which is subjected to the policy of government of Oman and availability of CCS facilities.

Ambitiousness, Baseline and Benchmarks

To determine the ambitiousness of the SPT, Sustainalytics considers: i) whether the SPT go beyond business-as-usual trajectory; ii) how the SPT compare to targets set by peers; and iii) and how the SPT compare with science.[14]

JSIS has set the baseline for the SPT at 2018-19, as it represents the first year of normalized emissions from JSIS' operations. In prior years, JSIS was setting up its steel melt shop (2014-2015), steel rolling mill (2015-2016) and second caster (2017-2018), hence, to facilitate a comparison with future emissions, 2018-19 was the year that JSIS has considered as the comparable baseline to reflect changes implemented to achieve energy efficiency improvements.

Sustainalytics was able to use the following benchmarks to assess ambitiousness: peer performance, science and the Transition Pathways Initiative benchmark scenarios.

The SPT demonstrates a continued reduction in emissions in line with JSIS' past performance. Achieving the SPT would imply an average annual intensity reduction of approximately 2.4% between 2018-2019 and 2024-2025.

JSIS' SPT is above its peers' performance in the steel industry with respect to scope 1 and 2 emissions intensity reduction targets. Sustainalytics notes that JSIS' transition pathway relies purely on the use of EAF, a technology which is less carbon intensive than the most widely used blast furnace, thus JSIS' emissions intensity has lower thresholds than most peers. Sustainalytics' analysis of JSIS' peer group included global steel companies that have been assessed by TPI according to the management of their greenhouse gas emissions and of risks and opportunities related to the low-carbon transition. Sustainalytics' analysis shows that JSIS is an outperformer with respect to projected emissions intensity by 2024-2025. JSIS' own 2024-2025 emissions intensity target is aligned with the TPI's "Below 2 Degrees" benchmark scenario, which is consistent with the Paris Agreement's overall ambition.

Overall Assessment

Sustainalytics considers the SPT to align with JSIS' sustainability strategy and considers the SPT to be highly ambitious given that it is aligned with industry best practices, and TPI's Below 2 Degrees benchmark scenario.

Reduction of greenhouse gas emissions intensity (scope 1 and 2) by 12.1% by 2024-25	Not Aligned	Moderately Ambitious	Ambitious	Highly Ambitious

Sustainability-Linked Instruments Characteristics

JSIS has disclosed that it will link the financial characteristics of all sustainability-linked instruments issued under the Framework to achievement of the SPT. The financial characteristics may include a step-up in the coupon adjustment or premium payment, as applicable, if the Company fails to meet the stated SPT at the target observation dates or to meet the annual reporting and verification commitments in the Framework. The exact value of adjustments in the financial characteristics selected for each financial instrument will be specified in their respective documentation. JSIS may reformulate the SPT or adjust the KPI in case of an acquisition, divestiture, merger, insourcing or outsourcing that may materially impact the KPI calculation.

[14] We refer here to contextual benchmarks, that indicate the alignment of targets with ecosystem boundaries.

Sustainalytics notes positively on the requirement of meeting the SPT to avoid a coupon adjustment or premium payment, but does not opine on the adequacy of the penalty for not achieving the SPT.

Reporting

JSIS commits to report on an annual basis on its performance on the KPI, and expects to include the relevant figures on its website, which is aligned with the SLBP. JSIS further commits to disclose relevant information including: i) up-to-date information on the performance of the KPI; ii) a verification assurance report relative to the SPT outlining the performance on the SPT; and iii) any relevant information that will enable investors to monitor the progress of the SPT, such as qualitative or quantitative explanation of the main factors behind the evolution of performance on the KPI, performance improvements, illustration of the positive sustainability impact of performance improvement, an explanation of key contributing factors, any reassessments of the KPI and restatement of the SPT, including adjustments of baselines or KPI scope.

Verification

JSIS commits to have an independent and limited assurance report by an external verifier on the performance of the SPT for the KPI. The verification will be done annually, and at any relevant date for assessing the SPT performance leading to a potential adjustment in the bond or loan and will be made available on its website. In addition, the Company will obtain a verification assurance certificate following the target observation date to confirm whether the performance of the KPI meets the relevant SPT and publish it on its website, which is in line with the SLBP on verification.

Alignment against the Climate Transition Finance Handbook 2020

Sustainalytics has assessed JSIS' alignment with the recommendations of the Climate Transition Finance Handbook and considers the Company's transition strategy to be adequate overall. Sustainalytics highlights the following key elements of the assessment:

Key Elements	ICMA Recommendation	Sustainalytics' Assessment	
JSIS' climate transition strategy and governance	- Transition strategy to address climate-related risks and contribute to alignment with the goals of the Paris Agreement - Relevant interim targets on the trajectory towards long-term goal - Governance of transition strategy	- JSIS has developed a climate change strategy in 2021 which outlines a set of proposed GHG emissions reduction projects that will aid JSIS in achieving its medium and long-term climate goals. - See detailed assessment in Section 2. - JSIS has explained to Sustainalytics that the Company's climate change strategy will be overseen by its senior members of the Management (COO, CFO and other heads of concerned Departments) and the implementation of the overall strategy will be supervised by JSIS' Sustainability/ESG Committee. - The Senior management and the Sustainability/ESG Committee is responsible for defining, endorsing, and evaluating the capex spends, investment into innovative technologies, energy efficiency changes to the production processes, and emissions reduction targets and sustainability priorities.	Aligned
Business model environmental materiality	- Transition trajectory should be relevant to the environmentally-material parts of the issuer's business model	- JSIS' transition strategy directly addresses the environmental impact of the core part of its business.	Aligned
Climate transition strategy to be science based, including targets and pathways	- Transition strategy should reference science-based targets and transition pathways	- JSIS has established medium-term emissions intensity targets aligned with TPI's Below 2 Degrees benchmark scenario for the steel industry and aims to achieve carbon neutral operations by 2050. - See detailed assessment in Section 2.	Aligned
Implementation transparency	- Disclosure of capex and opex plans	- JSIS intends to report annually on its overall performance towards its climate change strategy and objectives. Additionally, JSIS will report on the progress on the initiatives identified in the	Aligned

	- Climate-related outcomes and impacts those expenditures are intended to result in	Company's Climate Change Strategy 2029-2030 that will aid JSIS in achieving its net zero goal. - JSIS has confirmed that any capex in connection with its sustainability commitments under the Framework and overall transition strategy will be reported and relevant parties will be notified.	

Section 2: Assessment of JSIS' Sustainability Strategy

Credibility of JSIS Sustainability Strategy

Sustainalytics recognizes that proceeds from debt issuance under this Framework would be for general corporate purpose use, which includes support of the Company's initiatives for transitioning towards low-carbon operations. Within this context, Sustainalytics has assessed JSIS's climate transition strategy below:

Emission-Reduction Targets

JSIS has developed its sustainability strategy in 2021 which is intended to drive the Company's efforts to achieve its long-term goal of reaching net zero carbon emissions by FY2050.[15] This target provides a long-term perspective of JSIS' SPT for the Framework. The Company has also set an intermediary target of reducing its emissions intensity to 1.004 and 0.970 tonnes CO_2e/ tonne product by FY 2025 and FY2030 respectively.

Sustainalytics recognizes the compatibility of JSIS's medium-term target with science-based trajectories such as the Transition Pathway Initiative and considers the set targets to have a positive impact on the Company's transition towards a below 2°C scenario decarbonization pathway (for FY2025) and a 2°C scenario decarbonization pathway (for FY2030).

Decarbonization Pathway and Implementation Plan

Combating climate change has been identified as a key sustainability goal by the Company and the Company focuses on minimizing the environmental impact of its operations, improving productivity as well as material and energy efficiency. Additionally, JSIS' DRI plant has a heat recovery system which uses waste gas to pre-heat different gases and air, resulting in improved energy efficiency. JSIS has committed to reduce its reliance on fossil fuel for power requirements by shifting towards cleaner and renewable sources of electricity. As part of its decarbonization strategy, JSIS has submitted a formal expression of interest letter to the Authority of Public Services Regulation, Oman to procure renewable energy from Ibri II, a 500MW solar photovoltaic power project located in the Ad-Dhahirah region of Oman. JSIS continues to adopt best available technologies across its steelworks to improve energy efficiency and reduce the overall carbon footprint. As part of this process, JSIS has adopted energy-efficient steel manufacturing technologies to reduce energy consumption in its steelworks.

Sustainalytics recognizes that JSIS has prioritized the development of credible options for decarbonization and has reported on steps taken to begin implementing its policy commitments. Sustainalytics encourages JSIS to continue to refine its plan in the face of ongoing technological innovation and to continue to report on the timelines to deploy best available technologies.

JSIS' Environmental and Social Risk Management

Sustainalytics recognizes that JSIS' defined targets are impactful, but acknowledges that achieving the SPT bears environmental and social risks related to carbon from own operations, effluents and waste, resource use, occupational health and safety, corporate governance, human capital and community relations.

In the following section, Sustainalytics comments on JSIS' ability to mitigate such potential risks.

- JSIS has implemented a set of policies and codes of conduct to strengthen the governance and management of its environmental and social risks, which JSIS has shared with Sustainalytics, namely its overarching Sustainability Policy, Green Procurement Policy, Integrated Management System Policy, Responsible Sourcing Guideline and Corporate Social Responsibility Policy.
- JSIS has outlined its environmental mandates and objectives for evaluating and selecting green products and services in its Green Procurement Policy. Through this policy, the Company has committed to procure products and services that reduce its overall environmental impact through improved material and energy efficiency, increased utilization of clean fuels, and prevention and control of toxic release.

[15] JSIS has shared its Sustainability Policy and Climate Change Strategy FY2029-30 document with Sustainalytics.

- The Company has outlined its commitments in the Integrated Management System Policy to improve its quality, health, safety and the environment (QHSE) management systems and processes that comply with international standards related to Quality Management (ISO 9001), Occupational Health, Safety (ISO 45001) and Environmental Management Systems (ISO 14001). In addition, the Company has adopted an Innovation Policy to support the development of innovations that can enable improvements across QHSE.
- Through its Responsible Sourcing Guideline (RSG), JSIS has developed requirements for evaluating its suppliers and their products and services, using global standards and JSIS' policies and commitments. JSIS leverages its RSG to mitigate environmental and social risks associate with its suppliers related to water management, legal compliance, bribery and human rights. For example, The Company addresses forced or compulsory and child labour by upholding Conventions 29, 105, 138 and 182 of the International Labour Organization (ILO).[16]

Overall, Sustainalytics considers that JSIS has strong management programmes and policies to mitigate risks that are material to the Company's sub-industry.

Section 3: Impact of the SPT Chosen

Over the coming decades, global demand for steel is expected to grow to meet the rising needs across many economic sectors. According to the International Energy Agency (IEA), the steel industry is currently responsible for approximately 8% of global final energy demand and 7% of the energy sector's CO_2 emissions (including process emissions),[17] placing the steel industry among the three biggest producers of CO_2.[18] A major challenge in reducing emissions for steelmaking facilities is choosing the most effective site to install energy efficient technology as there are multiple emissions sources on site.[19] The energy efficiency of steelmaking facilities varies and depends on production route, type and quality of iron ore and coal used, the steel product mix, operation control technology, and material efficiency.[20]

With global steel demand expected to rise to 2.5 billion ton per year by 2050, the environmental burden will also be growing.[21] The traditional method of steelmaking (manufactured in blast furnace) involves burning coal, which makes the steel industry one of the leading producers of CO_2.[22] EAF steelmaking production in turn is more flexible, specialized and environmentally friendly in comparison with blast furnace, and emits less CO_2. The proportion of EAFs used in steel production is expected to increase as the industry focuses on transitioning towards carbon neutrality.[23] Steel producers also need to focus on the electricity used to power EAF. Greater use of electricity from renewable sources can also reduce CO_2 emissions from steel production.[18] The use of EAFs allows steel to be made from a 100% scrap metal feedstock, which requires approximately one-eighth of the energy of that used in steelmaking from iron ore.[24] This benefit results in high recycling rates (around 80-90% globally). Steel producers are also working to reduce the CO_2 emissions using carbon capture and storage technologies.[24]

Sustainalytics positively notes JSIS' progress in reducing the carbon footprint from its steel production by adopting renewable energy sources for its operations, energy efficient technologies and increased scrap use.

[16] International Labour Organization, "Labour Standards", at: https://www.ilo.org/global/standards/lang--en/index.htm
[17] International Energy Agency (IEA), "Iron and Steel Technology Roadmap, (2020)", accessed on 27 September 2021, at:
[18] McKinsey, "Decarbonization challenge for steel, (2020)", accessed on 27 September 2021, at: https://www.mckinsey.com/industries/metals-and-mining/our-insights/decarbonization-challenge-for-steel
[19] Carbon Clean, "Cleaning Up the Steel Industry", accessed on 27 September 2021, at: https://www.carbonclean.com/blog/steel-co2-emissions
[20] World Steel Association, " Energy Use in The Steel Industry", accessed on 27 September 2021, at : https://www.worldsteel.org/en/dam/jcr:f07b864c-908e-4229-9f92-669f1c3abf4c/fact_energy_2019.pdf
[21] Atomic News," Can Industry Decarbonize Steelmaking", at: https://inchemistry.acs.org/atomic-news/can-industry-decarbonize-steelmaking.html
[22] White & Case, "The green edge of steel : Cutting through carbon", accessed on 11 October 202, at : https://www.whitecase.com/publications/insight/green-edge-steel-cutting-through-carbon
[23] University of Olu, "Electric arc furnace offers steel production with lowered CO2 emissions", at: https://www.oulu.fi/university/news/electric-arc-furnace-offers-lowered-co2-emissions
[24] World Steel Association, "Steel in the circular economy – A life cycle perspective", accessed on 27 September 2021, at: https://www.worldsteel.org/en/dam/jcr:00892d89-551e-42d9-ae68-abdbd3b507a1/Steel+in+the+circular+economy+-+A+life+cycle+perspective.pdf

Alignment with/contribution to SDGs

The Sustainable Development Goals (SDGs) were set in September 2015 and form an agenda for achieving sustainable development by the year 2030. The sustainability-linked bonds eventually issued under the Framework are expected to contribute to the following SDGs and targets:

KPI	SDG	SDG Target
Reduction in greenhouse gas emissions intensity (Scope 1 and 2) (tonnes CO2e/ tonne product)	7. Affordable and clean energy.	7.2. By 2030, increase substantially the share of renewable energy in the global energy mix 7.3. By 2030, double the global rate of improvement in energy efficiency
	9. Industry, innovation and infrastructure.	9.4. By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

Conclusion

Jindal Shadeed Iron & Steel LLC intends to issue sustainability-linked bonds and loans, tying their financial characteristics (such as coupon rate or premium payment) to the achievement of the following SPT:

(1) Reduction of greenhouse gas emissions intensity (scope 1 and 2) by 12.1% by 2024-25, against a 2018-19 baseline

Sustainalytics considers the KPI chosen to be very strong given that: (i) it is clear and follows a consistent methodology which is externally verifiable; (ii) it is highly material to the industry JSIS operates in; and (iii) it covers more than 50% of the Company's total emissions. Sustainalytics considers the SPT to be highly ambitious given that it is aligned with industry best practices, and TPI's Below 2 Degrees benchmark scenario

Furthermore, Sustainalytics considers JSIS' reporting and verification commitments to be aligned with market expectations.

Based on the above, Sustainalytics considers the Jindal Shadeed Iron & Steel Sustainability-Linked Finance Framework to be in alignment with the five core components of the Sustainability-Linked Bond Principles 2020 and the Sustainability-Linked Loan Principles 2021, and the prospective achievement of the SPT to be impactful.

Appendix 1: Sustainability-Linked Bonds - External Review Form

Section 1. Basic Information

Issuer name: Jindal Shadeed Iron & Steel LLC

Sustainability-Linked Bond ISIN:

Independent External Review provider's name for second party opinion pre-issuance (sections 2 & 3): Sustainalytics

Completion date of second party opinion pre-issuance: October 21, 2021

Independent External Review provider's name for post-issuance verification (section 4):

Completion date of post issuance verification:

At the launch of the bond, the structure is:

☒ a step-up structure ☐ a variable redemption structure

Section 2. Pre-Issuance Review

2-1 SCOPE OF REVIEW

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

The review:

☒ assessed all the following elements (complete review) ☐ only some of them (partial review):

- ☒ Selection of Key Performance Indicators (KPIs)
- ☒ Calibration of Sustainability Performance Targets (SPTs)
- ☒ Verification
- ☒ Bond characteristics (acknowledgment of)
- ☒ Reporting

☐ and confirmed their alignment with the SLBP.

2-2 ROLE(S) OF INDEPENDENT EXTERNAL REVIEW PROVIDER

☒ Second Party Opinion ☐ Certification

☐ Verification ☐ Scoring/Rating

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

2-3 EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW *(if applicable)*

JSIS intends to issue sustainability-linked bonds and loans tying the coupon rate or premium payment amount to the achievement of the Sustainability Performance Target for the KPI related to direct (scope 1) and indirect (scope 2) GHG emissions intensity reduction.

Section 3. Detailed pre-issuance 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.

3-1 SELECTION OF KEY PERFORMANCE INDICATORS (KPIS)

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

Sustainalytics overall considers the KPI – GHG emissions intensity (scope 1 and 2) (tonnes CO2e/ tonne product) – to be very strong given that it: (i) corresponds to a relevant and highly material issue to JSIS and the industry it operates in; (ii) is clear and follows a consistent methodology which is externally verifiable; and (iii) is benchmarkable against science-based trajectories

List of selected KPIs:

- Greenhouse gas emissions intensity (Scope 1 and 2) (tonnes CO2e/ tonne product)

Definition, Scope, and parameters

☒ Clear definition of each selected KPIs

☒ Clear calculation methodology

☐ Other (please specify):

Relevance, robustness, and reliability of the selected KPIs

☒ Credentials that the selected KPIs are relevant, core and material to the issuer's sustainability and business strategy.

☒ Evidence that the KPIs are externally verifiable

☒ Credentials that the KPIs are measurable or quantifiable on a consistent methodological basis

☒ Evidence that the KPIs can be benchmarked

☐ Other (*please specify*):

3-2 CALIBRATION OF SUSTAINABILITY PERFORMANCE TARGETS (SPTs)

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

Sustainalytics considers the SPT to align with JSIS' sustainability strategy and considers the SPT to be highly ambitious given that it is aligned with industry best practices, and TPI's Below 2 Degrees benchmark scenario.

Rationale and level of ambition

☒ Evidence that the SPTs represent a material improvement

☒ Credentials on the relevance and reliability of selected benchmarks and baselines

☒ Evidence that SPTs are consistent with the issuer's sustainability and business strategy

☒ Credentials that the SPTs are determined on a predefined timeline

☐ Other (please specify):

Benchmarking approach

☐	Issuer own performance	☒	Issuer's peers
☒	reference to the science	☐	Other *(please specify):*

Additional disclosure

☒	potential recalculations or adjustments description	☒	issuer's strategy to achieve description
☒	identification of key factors that may affect the achievement of the SPTs	☐	Other (please specify):

3-3 BOND CHARACTERISTICS

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

JSIS has disclosed that it will link the financial characteristics of all sustainability-linked instruments issued under the Framework to achievement of the SPT. The financial characteristics may include a step-up in the coupon adjustment or premium payment, as applicable, if the Company fails to meet the stated SPT at the target observation dates or to meet the annual reporting and verification commitments in the Framework. The exact value of adjustments in the financial characteristics selected for each financial instrument will be specified in their respective documentation. JSIS may reformulate the SPT or adjust the KPI in case of an acquisition, divestiture, merger, insourcing or outsourcing that may materially impact the KPI calculation.

Financial impact:

☒ variation of the coupon

☐ …

☐ Other (*please specify*):

Structural characteristic:

☐ …

☐ …

☐ Other (*please specify*):

3-4 REPORTING

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

JSIS commits to report on an annual basis on its performance on the KPI, and expects to include the relevant figures on its website, which is aligned with the SLBP. JSIS further commits to disclose relevant information including: i) up-to-date information on the performance of the KPI; ii) a verification assurance report relative to the SPT outlining the performance on the SPT; and iii) any relevant information that will enable investors to monitor the progress of the SPT, such as qualitative or quantitative explanation of the main factors behind the evolution of performance on the KPI, performance improvements, illustration of the positive sustainability impact of performance improvement, an explanation of key contributing factors, any reassessments of the KPI and restatement of the SPT, including adjustments of baselines or KPI scope.

Information reported:

☒ performance of the selected KPIs
☒ level of ambition of the SPTs
☒ verification assurance report
☐ Other (*please specify*):

Frequency:

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

Means of Disclosure

☐ Information published in financial report
☐ Information published in sustainability report
☒ Information published in ad hoc documents
☐ Other (please specify):
☐ 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.

Level of Assurance on Reporting

☒ limited assurance
☐ reasonable assurance
☐ Other *(please specify)*:

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

Section 4. Post-issuance verification

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

Information reported:

☐ limited assurance
☐ reasonable assurance
☐ Other (please specify):

Frequency:

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

Material change:

☐ Perimeter

☐ KPI methodology

☐ SPTs calibration

Disclaimer

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. For more than 25 years, the firm has been at the forefront of developing high-quality, innovative solutions to meet the evolving needs of global investors. Today, Sustainalytics 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. Sustainalytics also works with hundreds of companies and their financial intermediaries to help them consider sustainability in policies, practices and capital projects. With 17 offices globally, Sustainalytics has more than 800 staff members, including more than 300 analysts with varied multidisciplinary expertise across more than 40 industry groups.

For more information, visit www.sustainalytics.com

Or contact us contact@sustainalytics.com

Climate Bonds Initiative
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WINNER

CLIMATE BONDS STANDARD
APPROVED VERIFIER

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Winner
External assessment provider of the year