

JSW INFRASTRUCTURE LIMITED

SUSTAINABILITY - LINKED BOND FRAMEWORK

PRE-ISSUANCE 2ND PARTY OPINION BY DNV

Scope and objectives

DNV Business Assurance India Private Limited, India (henceforth referred to as "DNV") has been commissioned by JSW Infrastructure Limited (henceforth referred to as "JSW Infra", "JSWIL" or "Issuer" - (CIN No:U45200MH2006PLC161268)) to provide a 2nd party opinion on JSWIL's Sustainability-Linked Bond Framework – November 2021 (the "Framework").

JSW Infrastructure Limited (JSWIL), one of India's leading private infrastructure companies, is part of the USD 13 billion JSW Group. JSWIL has 10 maritime facilities with advanced infrastructure with capacity of 144 MTPA. JSWIL operates environment-friendly seaports and terminals in India and the United Arab Emirates with mechanised and multi-cargo handling services. Further these ports and terminals have strong rail and road connectivity to the industrial regions of Maharashtra, Goa, Karnataka on the west coast, and Odisha and Tamil Nadu on the southeast shore.

The Framework enables issuance of Sustainability-Linked Bonds (referred to as "Sustainability-Linked Securities" or "Securities"), to finance general corporate purposes in JSW Infrastructure Limited (JSWIL), where JSWIL commits to future sustainability improvements within a predefined timeline and has chosen to develop this Sustainability-Linked Bond Framework (the "Framework") to link its funding with JSWIL's sustainability objectives and leverage ambitious timelines to achieve an improved sustainability performance that is relevant, core and material to both its business and the wider Infrastructure sector they operate in.

JSWIL has chosen to measure performance against the Sustainability Performance Target (SPT) through one Key Performance Indicator (KPI), GHG emissions intensity, calculated as Kg CO₂e per tonne of cargo handled (**Kg CO₂e/tch**) covering its **Scope 1 and Scope 2 emissions** from the operational Ports and terminals in India accounting for 100 % of its GHG inventory for its existing operational assets in India.

JSWIL will assess its sustainability performance against SPT for the period FY 2022 to 2026, providing a target towards reducing the GHG emission intensity from its operational assets in India by ≈15% by FY 2026 to a level equal or less than 1.06 kg CO₂e/tch, compared to FY 2021 GHG emission of 1.25 kg CO₂e/tch taking account of direct (Scope 1) and energy indirect (Scope 2) emissions together.

Our objective has been to provide an independent assessment on whether the Sustainability-Linked Securities to be issued under the Framework meet the criteria established on the basis set out below. The scope of this DNV opinion is limited to the Sustainability-Linked Bond Principles June 2020 (SLBP) set out by the International Capital Market Association (ICMA). Our methodology to achieve this is described under 'Work Undertaken'.

Responsibilities of the Management of JSWIL and DNV

The information and data used by DNV during the delivery of this review has been provided by JSWIL and sourced from publicly available sources that deemed appropriate. Our statement represents an independent opinion and is intended to inform JSWIL's management and other interested stakeholders in the Securities as to whether the established criteria for the framework have been met, based on the

information available with us. DNV is not responsible for any aspect of the nominated assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV shall not be held liable if any of the information or data provided by JSWIL's management and used as a basis for this assessment were not correct or complete.

Basis of DNV's opinion

We have adapted our Sustainability-Linked Bond Principles methodology, which incorporates the five requirements of the SLBP, to create a JSWIL-specific Sustainability-Linked Bond Assessment Protocol (henceforth referred to as "Protocol"). Our Protocol includes a set of suitable criteria that can be used to underpin DNV's opinion. The overarching principle behind the criteria is that a Sustainability-Linked Bond should "provide an investment opportunity with transparent sustainability credentials". As per our Protocol, the criteria against which the Framework has been reviewed are grouped under the five Principles:

- **Principle One: Selection of Key Performance Indicators (KPIs).** The Issuer of a sustainability-linked loan or bond should clearly communicate its overall sustainability objectives, as set out in its sustainability strategy, and how these relate to its proposed SPTs. The KPI should be reliable, material to the Issuer's core sustainability and business strategy, address relevant ESG challenges of the industry sector and be under management control.
- **Principle Two: Calibration of Sustainability Performance Targets (SPTs).** The SPTs should be ambitious, meaningful, and realistic. The target setting should be done in good faith and based on a sustainability improvement in relation to a predetermined performance target benchmark.
- **Principle Three: Bond Characteristics.** The bond will need to include a financial and/or structural impact depending on whether the selected KPIs reach (or not) the predefined SPTs. The bond documentation needs to require the definitions of the KPI(s) and SPT(s) and the potential variation of the SLB's financial and/or structural characteristics. Any fallback mechanisms in case the SPTs cannot be calculated or observed in a satisfactory manner, should be explained.
- **Principle Four: Reporting.** Issuers should publish and keep readily available and easily accessible up to date information on the performance of the selected KPI(s), as well as a verification assurance report (see Principle 5) outlining the performance against the SPTs and the related impact and timing of such impact on the bond's financial and/or structural characteristics, with such information to be provided to those institutions participating in this securities/ loan or to investors participating in the bond at least once per annum.
- **Principle Five: Verification (Post-issuance).** The Issuer should have its performance against its SPTs independently verified by a qualified external reviewer with relevant expertise, at least once per annum. The verification of the performance against the SPTs should be made publicly available.

Work undertaken

Our work constituted a high-level review of the available information, based on the understanding that this information was provided to us by JSWIL in good faith. We have not performed an audit or other tests to check the veracity of the information provided to us except verification of Scope 1 and scope 2 GHG inventory for FY2020-21. The work undertaken to form our opinion included:

- Creation of a project-specific Protocol, adapted to the purpose of the evaluation of the Framework for proposed Securities, as described above and in Schedule 2 to this 2nd Party Opinion.

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- Assessment of documentary evidence provided by JSWIL on the Framework and supplemented by a high-level desktop research. These checks refer to current assessment of best practices and standards methodology.
- Discussions with JSWIL Port and terminal team and Group management, sustainability team and relevant functions/departments, review of relevant documentation including energy conservation/ GHG transition plan and review of historical implemented measures to improve the GHG emissions.
- Review of how the available GHG emission activity data for FY 2020-21 has been applied to derive JSWIL's FY 2020-21 – Scope 1 and 2 GHG inventory and associated emissions including intensity wrt. Cargo handled by JSWIL operations with operational control approach.
- Documentation of findings against each element of the criteria. Our opinion as detailed below is a summary of these findings.

Findings and DNV's opinion

DNV conducted the external review engagement in accordance with the Sustainability-Linked Bond Principles (SLBP). The review included i) checking whether the provisions of the SLBP are consistently and appropriately applied, and ii) the collection of evidence supporting the review. DNV's findings are listed below:

- 1. Principle One: Selection of Key Performance Indicators (KPIs).** DNV confirms that JSWIL's environmental sustainability KPI (GHG emissions intensity) is core, relevant, material, and consistent with the company's overarching sustainability strategy. The rationale and process for KPI selection, as well as its definition, measurability, and verifiability, are deemed to be robust, reliable and in accordance with the SLBP.
- 2. Principle Two: Calibration of Sustainability Performance Targets (SPTs).** DNV concludes that the SPTs are meaningful and relevant in the context of JSWIL's broader sustainability and business strategy and represent a material improvement over a predefined timeline. DNV concludes that JSW's target of a 15% reduction in carbon intensity compared to its FY 2020-21 baseline is ambitious and deemed to go beyond what is considered 'business-as-usual' considering the existing challenges in infrastructure sector including capacity utilisation. DNV has also reviewed the credibility of JSWIL's and group strategy to achieve the SPT by reviewing GHG reduction planned activities and concludes that this macro level plan is viable and possible to meeting the SPT outlined in the Framework and could exceed the Nationally Determined Contributions (NDC) set out by Government of India's. In our opinion the proposed direct and indirect energy reduction /conservation/ optimisation will contribute to advancing SDGs 12 and 13.
- 3. Principle Three: Bond Characteristics.** DNV reviewed the disclosures related to bond characteristics stated in the Framework and in our opinion the financial characteristics of securities to be issued under the Framework that could be impacted based on KPI performance under SPTs, are in line with the SLBP. This impact includes, but is not limited to, margin adjustment, coupon adjustment or re-payment amount adjustment etc. The specific security documentation for an instrument issued under the Framework will determine relevant target observation dates for specified trigger events. The Framework may include appropriate fallback mechanisms as applicable.
- 4. Principle Four: Reporting.** DNV concludes that the Framework includes the required information on annual reporting of JSWIL's GHG annual performance and to include strategy, management approach and measurement and monitoring mechanism including chosen GRI standards (GRI302-1, GRI 305-1,2,4) for reporting in its annual sustainability/integrated reports/Annual Report and shall meet the

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requirement as outlined in the SLBP. JSWIL's and Group sustainability team has confirmed that JSW's sustainability/integrated report will be published at an annual interval and made publicly available, and it is recommended that GHG data may be reported as part of CDP disclosures as a practice by other JSW group entities.

- 5. Principle Five: Verification.** JSWIL and JSW group sustainability team has confirmed to DNV that JSWIL will have its performance against the SPT independently verified annually by an independent third party as part of its GHG/ Sustainability/Integrated annual report verification, and at a more frequent interval if required by the specific terms of an issued security under the Framework, i.e. as to be stated/ specified in the relevant documentation of the specific transaction (e.g. the Final Terms of the relevant Sustainability-Linked Bond).

On the basis of the information provided by JSW and the work undertaken, it is DNV's opinion that JSWIL's Sustainability-Linked Bond Framework meets the criteria established in the Protocol and that it is aligned with the stated definition of Sustainability-Linked Bonds within the SLBP.

for DNV Business Assurance India Private Limited

Bengaluru, India / 03rd January 2022



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About DNV

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

SCHEDULE 1: DESCRIPTION OF JSW'S KEY PERFORMANCE INDICATOR (KPI) AND SUSTAINABILITY PERFORMANCE TARGET (SPT)

KPI

GHG EMISSIONS INTENSITY, CALCULATED AS KILOGRAMS CO₂ PER TONNE OF CARGO HANDLED (Kg CO₂e /TCH - SCOPE 1 AND 2)

JSWIL has chosen to measure performance through one KPI, i.e., GHG emissions intensity, calculated as kg CO₂e per tonne of cargo handled (kg CO₂e/tch) (Scope 1 and Scope 2)

The Scope 1 and Scope 2 GHG emissions are to be voluntarily reported in JSW's Annual Integrated Report on an annual basis. The reported emissions shall be verified by third party on a voluntary basis is publicly accessible to all stakeholders. JSWIL has presented DNV with its verified GHG data for 1st April 2020 to 31st March 2021 (FY 2021) during our assessment.

SPT

Scope 1 and Scope 2 emissions together, measured in kg CO₂e per ton of cargo handled (kg CO₂e/tch), should be equal to or lower than 1.06, by 31st March 2026 (FY 2026), a reduction of ≈15% from a FY 2021 baseline.

JSWIL is committed in playing an important role in the transition to a low carbon economy. The company has developed a multi-prong plan on climate change mitigation and the sustainability linked securities are an important element to demonstrate JSWIL's commitment to their sustainability strategy. JSWIL's SPT is out in the framework are as follows:

Financial Year (end of period)	FY 2021	FY 2026	Sustainability Performance Target	Observation date	Units	Baseline	FY 2026
Projected CO ₂ Intensity, kg CO ₂ e/tch	1.25	1.06			31.03.2026	Kg CO ₂ e/tch	FY 2021

SCHEDULE 2: SUSTAINABILITY LINKED BOND ELIGIBILITY ASSESSMENT PROTOCOL

1. Selection of Key Performance Indicators (KPIs)

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
1a	KPI – material to core sustainability and business strategy	<p>The Issuer’s sustainability performance is measured using sustainability KPIs that can be external or internal.</p> <p>The KPIs should be material to the Issuer’s core sustainability and business strategy and address relevant environmental, social and/or governance challenges of the industry sector and be under management’s control.</p> <p>The KPI should be of high strategic significance to the Issuer’s current and/ or future operations.</p> <p>It is recommended that Issuers communicate clearly to investors the rationale and process according to which the KPI(s) have been selected and how the</p>	<p>Review of:</p> <ul style="list-style-type: none"> - JSWIL - SLB Framework (November 2021) - Sustainability Roadmap (https://www.jsw.in/groups/sustainability-homepage#) - Annual reports (https://www.jsw.in/sites/default/files/assets/downloads/inrastructure/Annual%20Reports/2020-21/JSW%20Infrastructure%20Ltd.%20Annual%20Report%20FY%202020-21.pdf) - Annual Return in Form No MGT -7 for FY 2020-21 - Status of subsidiaries – clarification. - GHG Emission calculation Report - GHG Inventory for 2020-21 - Sustainability Vision and strategy ("www.jsw.in/sustainability/sustainability-about-us-overview") 	<p>DNV has reviewed JSWIL’s Sustainability KPI (GHG emissions intensity, calculated as Kg CO₂e per tonne of cargo handled (kg CO₂e/tch) (Scope 1 and Scope 2)) and can confirm that the chosen KPI is material and relevant to the company’s core sustainability and business strategy for Port and Terminal operations – Transport and storage of cargo including bulk material handling.</p> <p>JSWIL’s has adopted JSW groups climate change policy and sustainability strategy focusses on reducing environmental footprint and more specifically on reducing GHG emissions in its Port and Terminal operations. This is evidenced by the climate change policy, goals, and targets, as adopted by JSWIL i.e., being focused on emission reductions from its Infrastructure Business activities towards a 35% emissions intensity reduction by FY2030-31 against baseline of 2020-21. This is clearly communicated in the Framework. The chosen KPI is outlined in more detail in Schedule 1.</p> <p>The KPI i.e., metrics ((kg CO₂e/tch) is a widely used metric in the Infrastructure sector to monitor and report the annual GHG performance efficiency of a Port and Terminal operations. The set GHG emissions intensity KPI is therefore of high strategic relevance for the Issuer now and for the</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		<p>KPI(s) fit into their sustainability strategy.</p>	<ul style="list-style-type: none"> - Sustainability Policies and policy commitments (https://www.jsw.in/infrastructure/jsw-infrastructure-sustainability-policies) - JSW Sustainability Strategy, based on seven key elements - JSWIL Operations – Website https://www.jsw.in/groups/sustainability-homepage - JSW Policies on climate change, Energy, Resource conservation, Water etc. - JSW Infra policy analysis - GHG emissions reported for baseline year. - The Corporate Value Chain (Scope 3) Accounting and Reporting Standard and relevant guidance documents (https://ghgprotocol.org/standards/scope-3-standard#supporting-documents) - Port Emissions Toolkit Guide No.1: Assessment of port emissions (https://glomeep.imo.org/wp-content/uploads/2018/10/port-emissions-toolkit-q1-online.pdf) 	<p>foreseeable future to measure relative carbon intensity reduction of its Material handling process and associated operations. Further Key factors/elements which make up the KPI (Material handling from ship to designated storage location within the Port/ terminal) that are under management control, JSW has adopted an operational control approach for consolidation of its GHG emissions in line with the ISO14064-1:2018 standards for GHG activity data collection programme and methodology. As per our discussion with JSWIL’s management team, the Scope 3 emissions including purchased goods and services, accounts for less than 30% of the overall emission as estimated by JSWIL.</p> <p>Based on our own review of the Infrastructure sector in India, the selected KPI is material, as carbon intensity impacts JSWIL’s own value creation and is of interest to external stakeholders including JSW group companies and other customers who use port and terminals for inward and outward transport and storage. Further, the Government of India is expecting business to proactively undertake measures to reduce GHG emissions and thereby bring in positive impact on climate change.</p> <p>DNV believes that the focus on deploying GHG Scope 1 and 2 emissions intensity reduction over time as a KPI will enable a targeted effort to deliver on JSW Groups overarching decarbonisation targets. The chosen carbon intensity KPI aligns with JSW’s broader decarbonisation aims and facilitates the incorporation of tangible and</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
			<ul style="list-style-type: none"> - Carbon foot printing of ports, Guidance document by WPCI (https://sustainableworldports.org/wp-content/uploads/Carbon_Foot_printing_Guidance_Document.pdf) <p>Discussions with JSWIL's Operations and GHG management Team along with Corporate sustainability and Environment Team.</p>	<p>transparent annual milestones that will facilitate measurable and transparent implementation of JSW group's broader environmental sustainability/ climate change policy.</p> <p>In terms of JSWIL's broader business strategy, DNV acknowledges that continual improvement including energy audits, technological upgradation including Switchover to Renewable Power from existing thermal connected grid supply at all ports and terminal operations; Conversion of the diesel operated fleet used in operations to Electric Vehicles; Explore alternate fuels such as biodiesel; Various Improvements in process and energy efficiency based on global benchmarking process, adoption of Best available material handling assets, and other measures including guiding and influencing third party infrastructure will help in reducing relative GHG emissions, and will be a key driver of lowering operational costs reducing impact on biodiversity and safety in its operations. As such, the carbon intensity KPI will also be instrumental to JSWIL's performance beyond that of delivering on environmental sustainability targets.</p> <p>DNV acknowledges that, while the JSWIL is exposed to handling of coal (around 30% of coking coal and 25% of thermal coal) for its customers, scope 3 emissions associated with coal throughput are not part of the JSWIL's scope 3 emissions as JSWIL is part of value chain and coal related Scope 3 emissions are accounted by coal importer i.e. the upstream value chain emissions under "goods and</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				<p>services purchased or acquired by the reporting company" for coal are to be accounted by the purchasing party and the downstream emissions are related to "products sold by the reporting company" to be accounted by the selling party as per the upstream and downstream reporting based on The Corporate Value Chain (Scope 3) Accounting and Reporting Standard and relevant guidance documents (https://ghgprotocol.org/standards/scope-3-standard).</p>
1b	KPI - Measurability	<p>KPIs should be measurable or quantifiable on a consistent methodological basis; externally verifiable; and able to be benchmarked, i.e., as much as possible using an external reference or definitions to facilitate the assessment of the SPT's level of ambition.</p> <p>Issuers are encouraged, when possible, to select KPI(s) that they have already included in their previous annual reports, sustainability reports or other non-financial reporting disclosures to allow investors to evaluate historical performance of the KPIs selected. In situations where the KPIs have</p>	<p>Review of:</p> <ul style="list-style-type: none"> - JSWIL - SLB Framework (November 2021) - JSW GHG measurement – SOP based on ISO14064-1:2018 - GHG inventory report - JSWIL Environmental objectives and targets <p>Discussions with JSWIL's Operations and GHG management Team along with Corporate sustainability Team.</p>	<p>DNV concludes that the GHG KPI is measurable (JSWIL has adopted GRI standards 305-1 along with ISO14064-1, Sources of Emission factors such as IPCC, CEA document (CO2 Baseline Database for the Indian Power Sector User Guide Version 16.0 March 2021), GWP from AR6 to determine its Scope 1 and Scope 2 GHG emissions in terms of kgCO₂e and cargo handled by all operational port and terminals in India on a consistent methodological basis, and internally and externally verified disclosures.</p> <p>DNV concludes that the measurement methodology is a robust and reliable metric to measure GHG intensity for Port and terminal Operations . The unit in terms of kgCO₂e/tch is already an accepted industry standard for reporting on GHG intensity.</p> <p>JSWIL plans to report its GHG emissions based on its bespoke validated data collection and gathering system based on fuel/energy consumption on an annual basis. JSWIL's management team is committed to follow the established methodology on a consistent basis and will be</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		<p>not been previously disclosed, Issuers should, to the extent possible, provide historical externally verified KPI values covering at least the previous 3 years.</p>		<p>subjected to externally verification on an annual basis. The KPI can therefore be benchmarked to external references of other Ports and terminal businesses.</p> <p>JSWIL has set out its baseline emission for FY 2020-21 and DNV has reviewed the GHG inventory based on ISO14064-1 to confirm that JSWIL has put in place a reliable and accurate system of GHG measurement and monitoring; further, JSW’s management team confirmed to DNV that adequate resources have been allocated to ensure that the reported GHG performance data is factual, accurate and reliable. GHG data will also be presented at various levels within JSW group reporting, including to the Board level sustainability committee on a regular basis and to other stakeholders as per request.</p>
1c	KPI – Clear definition	<p>A clear definition of the KPI(s) should be provided and include the applicable scope or perimeter as well as the calculation methodology</p>	<p>Review of:</p> <ul style="list-style-type: none"> - Disclosures by other entities in Infrastructure business - GHG calculations – r1 calculation post audit - GRI Standards - SOP on GHG Reporting <p>Discussions with JSWIL’s and group sustainability management team.</p>	<p>DNV confirms that the KPI (GHG emissions intensity) chosen by JSWIL provides a clear scope and calculation methodology. The KPI uses relevant parameters including material, fuel, and energy consumption, and is reported in kg CO₂e/tch.</p> <p>This KPI is already an acceptable industry standard and widely reported on by infrastructure companies in its sustainability reports based on GRI standards (GRI 302-1,305-1,2,4) as outlined in 1b.</p>

2. Calibration of Sustainability Performance Targets (SPTs)

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
2a	Target Setting - Meaningful	The SPTs should be ambitious, realistic, and meaningful to the Issuer's business and be consistent with the Issuers' overall strategic sustainability/ESG strategy.	<p>Review of:</p> <ul style="list-style-type: none"> - JSWIL - SLB Framework (November 2021) - JSWIL and JSW's objectives and targets - Target setting process presentation by JSWIL - JSW Group Strategy on Climate change - GHG Disclosures <p>Discussions with JSW's and JSWIL's team.</p>	<p>DNV confirms that the SPT (GHG emissions intensity reduction to equal or less than 1.06 Kg CO₂e per tonne of cargo handled (kg CO₂e/tch), equivalent to a reduction of 15% from a FY 2020 -21 baseline, by FY 2026) is consistent with the Issuer's overall strategic sustainability/ESG strategy and supports the decarbonisation strategy.</p> <p>This target is meaningful to the issuer considering various challenges in the Port and Terminal business, as it addresses the environmental challenge for Material handling especially bulk cargo handling.</p> <p>After review of JSWIL's GHG reduction plan, discussion on strategy and management approach including commitments and targets set out by the JSWIL board and sustainability committee- DNV concludes that the SPT is specific, realistic, viable and achievable/ possible to meet as outlined in the Framework.</p> <p>DNV notes that the ambition associated with the proposed level of performance is considered in the national context where there is currently a limited availability of green power and biofuels or non-fossil fuel and equipment-based fuel for operations of material handling equipment.</p> <p>JSWIL's target of a 15% reduction in carbon intensity compared to its FY 2020-21 baseline is ambitious and deemed to go beyond what is considered 'business-as-usual' considering the revised NDC of the host country (please refer 2c).</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
2b	Target Setting - Meaningful	SPTs should represent a material improvement in the respective KPIs and be beyond a "Business as Usual" trajectory; where possible be compared to a benchmark or an external reference and be determined on a predefined timeline, set before (or concurrently with) the issuance of the bond.	Review of: <ul style="list-style-type: none"> - JSWIL - SLB Framework (November 2021) - JSWIL Environmental objectives and targets Discussion with JSWIL site operational team and corporate management team.	<p>DNV confirms that the chosen SPT represents a material improvement of the KPI, being year-on-year reductions culminating in a 15% reduction by 2026 and by 35% 2030 -31 vs. 2020/21 baseline.</p> <p>The overall GHG reduction goes beyond "business as usual", as JSWIL will not achieve the targets without the deployment of technical and other operational measures as detailed in the framework – section 5. The planned activities for GHG reduction highlight that improvements beyond what is considered the industry standard will have to occur and can thus be deemed to go beyond what is considered 'business-as-usual'.</p> <p>The SPTs for FY 2026 are a direct reflection of the projected carbon/GHG management plan, the plan highlights the stepped-up incremental approach to GHG reduction over next 5 years and goes beyond India's commitment to the Paris Agreement through its Nationally Determined Contributions (NDC), which has considered a base year of 2005.</p> <p>Further based on our discussion JSWIL and JSW management teams - the SPT as determined by JSWIL are in line with JSWIL's wider ambition to achieve a 35% reduction in GHG emissions intensity (kg CO2e/tch) by FY2030-31 against a FY2020-21 baseline. Further India, as part of NDC under the Paris Agreement, has set a target to reduce the emissions intensity of its GDP by 33-35% between 2005 and 2030 that was amended to 45% during the COP26 at Glasgow. Comparatively, JSWIL is setting a target to reduce carbon intensity by 35% over a 10-year period from FY2020-21 to be achieved by FY2030-31. To achieve this progressively, a target to achieve 15% reduction has been set to be achieved within 5 years. i.e., by 31.03.2026.</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
2c	Target Setting – benchmarks	<p>The target setting exercise should be based on a combination of benchmarking approaches:</p> <ol style="list-style-type: none"> 1. The Issuer’s own performance over time for which a minimum of 3 years, where feasible, of measurement track record on the selected KPI(s) is recommended and when possible forward-looking guidance on the KPI 2. The SPTs relative positioning versus the Issuer’s peers where comparable or available, or versus industry or sector standards 3. Systematic reference to science-based scenarios, or absolute levels (e.g., carbon budgets) or official country/ regional/ international targets or to recognised Best-Available-Technologies or other proxies. 	<p>Review of:</p> <ul style="list-style-type: none"> - JSWIL - SLB Framework (November 2021) - JSW’s Annual Report - JSWIL objectives and targets under EMS <p>Discussions with JSW’s management team.</p>	<p>Based on our discussions and review of documents - DNV confirms that the SPT target setting exercise has been based on an appropriate combination of methodologies including benchmarking approaches:</p> <ol style="list-style-type: none"> 1.DNV has reviewed to confirm – how JSWIL monitors its Energy and Fuel related performance across Ports and Terminal operations and suggest that the Framework may include details of performance monitoring measures for last three years as explained to us during review. Based on our Review we confirm that JSWIL has required information on selected KPI performance (energy and fuel consumption data to derive historical GHG trends) as track-record going back to FY 2018 and provides forward year-on-year guidance leading up to FY 2031 – in accordance with the ICMA Principles. 2.DNV concludes that the SPT outlined goes beyond that of the industry standard as highlighted in Ref 2b. 3.DNV concludes that the SPT is put in an appropriate context of national climate change mitigation efforts. The Framework highlights JSWIL’s ambition to “do what JSWIL can achieve considering the goals of the Paris targets”. We also understand JSWIL is in the process of assessing climate risks and opportunities. <p>The SPT can also be seen as aiming to meet or exceeding NDC’s carbon intensity targets wrt. infrastructure sector and these targets set out are in line with the Paris agreement. Broader aims adopted by JSWIL include:</p> <ul style="list-style-type: none"> - Reduction of GHG emission intensity by 35% by FY 2030-31 compared to FY 2020-21 by energy conservation measures, better resource utilisation, improving

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				<p>operational efficiency through asset management etc including.</p> <ul style="list-style-type: none"> - Asset replacement based on Energy Efficiency and Best Available Technologies (BATs) - Energy audits/ assessments including stakeholder engagement and participation for equipment sourcing. - PPA for sourcing renewable energy - Onsite and offsite generation of Renewable energy - Sustainable sourcing as per ISO 20400 etc. <p>India’s enhanced commitment at COP26 Glasgow is to reduce its emission intensity by 45% by 2030 that calculates to a reverse CAGR of 2.36%. With a 2.36% reverse CAGR rate of reduction, JSWIL’s target for FY 26 calculates to 1.14 kg CO₂e/tch i.e., 8.8% reduction in 5 years. Whereas JSWIL has taken a target much steeper than the enhanced NDC at 15% reduction target in 5 years and 35% in 10 years.</p>
2d	Target setting – disclosures	<p>Disclosures on target setting should make clear reference to:</p> <ol style="list-style-type: none"> 1. The timelines of target achievement, the trigger event(s), and the frequency of SPTs 2. Where relevant, the verified baseline or reference point selected for improvement of KPIs as well as the rationale for that baseline or reference point to be used 3. Where relevant, in what situations recalculations or 	<p>Review of:</p> <ul style="list-style-type: none"> - Review of objectives and targets - JSWIL - SLB Framework (November 2021) <p>Discussions with respective Port and Terminal teams and management team of JSWIL.</p>	<p>Based on our discussions, DNV confirms that the relevant disclosures on target setting are appropriately defined and referenced:</p> <ol style="list-style-type: none"> 1. The timelines of SPT target achievement as of FY2026 are realistic and achievable through adequate planning and deployment of resources. Securities issued under the Framework will need to deliver on applicable SPT(s) – in accordance with corresponding target observation dates, further JSWIL will define the frequency of review of SPT in the Final Terms of the relevant Sustainability-Linked Bond. 2. The reference point for the SPT will be a baseline from FY 2020 -21. The rationale for JSWIL to use its overall FY 2020-21 GHG

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		<p>pro-forma adjustments of baselines will take place</p> <p>4. Where possible and taking into account competition and confidentiality considerations, how the Issuers intend to reach such SPTs.</p>		<p>emissions is that it provides a clear reference point to compare against and the overall business is performing in normal manner.</p> <p>3. Based on the review and discussion with JSWIL’s management team, we are of the opinion that the JSWIL has carried out an interim risk assessment to identify the situations that could lead to a recalculation of the KPI baseline/trajectory, and JSWIL plans to bring this out in the Final Terms of the relevant Sustainability-Linked Bond.</p> <p>4. The Framework provides information on how carbon emissions intensity reduction progress will be achieved, and the likely measures to be implemented to meet the emissions intensity reduction trajectory outlined leading up to FY 2026. Based on our interactions with JSWIL - leading up to FY 2026 and 2035, GHG reductions will be through various energy efficiency measures along with enhanced usage of renewable energy, replacement of assets based on BAT/ energy efficient material handling assets with low-carbon intensity and other measures that will drive GHG improvements.</p> <p>After review of overall policies, strategy, management approach and decarbonisation plan, DNV concludes that the SPT is realistic and that the plan is viable and possible to meeting the SPT outlined in this Framework.</p>

3. Bond Characteristics

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
3a	Bond Characteristics – SPT Financial/structural impact	The SLB will need to include a financial and/or structural impact involving trigger event(s) based on whether the KPI(s) reach the predefined SPT(s).	<p>Review of:</p> <ul style="list-style-type: none"> JSWIL - SLB Framework (November 2021) Discussions with JSW Corporate sustainability Team. 	<p>JSWIL has informed DNV of the potential challenges and trigger event(s) and DNV is of the opinion that JSWIL may bring this out as appropriate in this Framework in line with the requirements outlined by ICMA’s SLBP. Trigger events, with corresponding target observation date(s) and performance requirements under a specific SPT - as outlined in each specific financial security issued under the Framework - will ensure that the financial characteristics of the security changes in accordance with performance.</p> <p>JSWIL has informed that the extent of this impact will be outlined in the specific security documentation. DNV did not carry out a review of an indicative Bond Term Sheet to confirm if it fulfils the requirements of the ICMA SLBP regarding Bond Characteristics.</p> <p>Impacts to the coupon of a Bond issued in relation to this Framework are proposed and associated with the achievement of the SPT as set out in the Bond Terms. This structure is typical within a Sustainability-Linked Bond instrument and appropriate for the format. DNV makes no assessment on the magnitude of the coupon adjustment.</p>
3b	Bond Characteristics – Fallback mechanism	<p>Any fallback mechanisms in case the SPTs cannot be calculated or observed in a satisfactory manner should be explained.</p> <p>Issuers may also consider including, where needed, language</p>	<p>Review of:</p> <ul style="list-style-type: none"> - Risk and opportunities. - JSWIL - SLB Framework (November 2021) <p>Discussions with JSWIL management team and presentation on risk and</p>	<p>Based on the discussion with JSWIL on fall back mechanism-DNV concludes that JSWIL has considered the following events for cases when the SPT cannot be calculated or observed in a satisfactory manner:</p> <ol style="list-style-type: none"> 1. Changes in regulatory framework and GOI policies on Imports.

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		in the bond documentation to take into consideration potential exceptional events.	opportunities by the operational team of Port and Terminals.	<ol style="list-style-type: none"> 2. Serious or adverse impacts of climate change – JSWIL is planning/assessing the risk and opportunities based on TCFD guidelines. 3. Constraints related to availability of energy efficient equipment’s or its integration to existing systems and processes. 4. Industrial relations issues. 5. Others – e.g., pandemic.

4. Reporting

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
4a	Reporting	<p>Issuers of SLBs should publish, and keep readily available and easily accessible:</p> <ol style="list-style-type: none"> 1. Up-to-date information on the performance of the selected KPI(s), including baselines where relevant 2. A verification assurance report relative to the SPT outlining the performance against the SPTs and the related impact, and timing of such impact, on the bond's financial and/or structural characteristics 3. Any information enabling investors to monitor the level of ambition of the SPTs. <p>This reporting should be published regularly, at least annually, and in any case for any date/period relevant for assessing the SPT performance leading to a potential adjustment of the SLB's financial and/or structural characteristics.</p>	<p>Review of:</p> <ul style="list-style-type: none"> - JSWIL - SLB Framework (November 2021) - GHG inventory <p>Discussions with JSW's Corporate sustainability Team</p>	<p>DNV concludes based on the management discussion that JSWIL's existing GHG measurement and monitoring system including the articulations in this Framework and other policies/governance documents has required information including JSWIL's commitment to meet requirements of the SLBP. Further, JSWIL is committed to disclose and publish its GHG emissions on an annual basis in its Sustainability/Integrated Report and other modes of nonfinancial disclosures, and make available the GHG information publicly, including:</p> <ol style="list-style-type: none"> 1. KPI performance relative to the SPT targets will published annually based on GRI standards reporting requirements, as well as after an applicable target observation date making up a trigger event as outlined in the documentation of any specific security issued under the Framework. The information will be made publicly available through the Sustainability/Integrated Annual Report after year-end or the relevant target observation date. 2. JSWIL's performance relative to the outlined SPT will be subject to an annual verification from an independent reviewer and made public alongside JSWIL's Sustainability/Integrated Annual Report. 3. JSWIL's Sustainability/Integrated Report /other nonfinancial disclosures will provide updates on new or proposed regulations, including mandatory reporting relevant to monitoring the level of ambition of the SPT.

5. Verification

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
5a	External Verification	Issuers should have its performance against each SPT for each KPI independently verified by a qualified external reviewer with relevant expertise, at least once a year and for each SPT trigger event.	<ul style="list-style-type: none"> - JSWIL - SLB Framework (June 2021) Discussions with JSW's Sustainability Management Team 	DNV confirms that JSWIL Management team along with JSW sustainability head and JSW's sustainability committee has committed as stated in this Sustainability-Linked Bond Framework to obtain external and independent verification of its annual KPI performance relative to the SPT and in connection with any trigger event as specified in specific security documentation. Further the progress wrt. energy efficiency, resource utilisation, negative environmental impacts and other sustainability targets shall be made available in its website on regular basis and these disclosures shall be internally and externally verified on annual basis and independent verification statement and associated reports shall be available for stakeholders.

About DNV

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