

# Second-Party Opinion

## JSW Hydro Energy Green Bond Framework



### Evaluation Summary

Sustainalytics is of the opinion that the JSW Hydro Energy Green Bond Framework is credible and impactful and aligns to the four core components of the Green Bond Principles 2018. This assessment is based on the following:



**USE OF PROCEEDS** The eligible category for the use of proceeds, Renewable Energy, is aligned with those recognized by the Green Bond Principles 2018. Sustainalytics considers that the eligible projects are expected to provide environmental benefits in India, as they support increased lifespan and/or improved performance of existing hydropower generation projects and advance the UN Sustainable Development Goals (SDGs), specifically SDG 7.



**PROJECT EVALUATION / SELECTION** JSW has established a Green Bond Committee (the “Committee”) which is comprised of members from Finance, Accounts and Sustainability teams which will meet on an annual basis. The Committee will be responsible for evaluating, selecting and approving projects in the Green Project Portfolio. Sustainalytics considers the project selection process in line with market practice.



**MANAGEMENT OF PROCEEDS** A Green Project Portfolio will be established to track the allocation of net proceeds from Green Bonds issued to Eligible Green Projects, which will be reviewed by the Committee and Treasury team on an annual basis. The committee will be headed by the Vice President of Finance. JSW will strive to allocate net proceeds of bonds within 24 months of issuance. Pending full allocation, net proceeds will be held in line with general liquidity guidelines in cash, cash equivalents and/or other liquid marketable instruments. This is in line with market practice.



**REPORTING** JSW intends to report on the allocation and impact of proceeds on its website on an annual basis until full allocation. JSW will publish a Green Bond Report which will disclose the total amount of outstanding green bonds, share of proceeds used for financing vs. refinancing, size of the project portfolio, a breakdown on project category and project basis, any shortfalls in amount of assets unallocated, and illustrative examples of Eligible Green Projects to which Green Bonds net proceeds have been allocated. In addition, JSW is committed to reporting on relevant impact metrics. Sustainalytics views JSW’s allocation and impact reporting as aligned with market practice.

<b>Evaluation Date</b>	April 07, 2021
<b>Issuer Location</b>	Mumbai, India

### Report Sections

Introduction.....	2
Sustainalytics’ Opinion .....	3
Appendices .....	8

**For inquiries, contact the Sustainable Finance Solutions project team:**

#### **Begum Gursoy (Amsterdam)**

Project Manager  
 begum.gursoy@sustainalytics.com  
 (+31) 20 205 0082

#### **Cristhian Veintimilla (Amsterdam)**

Project Support  
 cristhian.veintimilla@sustainalytics.com  
 (+31) 20 205 02 09

#### **Aoife McCarthy (Amsterdam)**

Project Support  
 aoife.mccarthy@sustainalytics.com  
 (+31) 20 299 4690

#### **Marika Stocker (Singapore)**

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

## Introduction

JSW Hydro Energy Limited (“JSW”, or the “Company”) is a subsidiary of JSW Energy Limited. JSW Hydro Energy Limited operates hydropower projects such as the Baspa Hydropower Plant and the Karcham Hydropower Plant, situated in the Himachal Pradesh region in India.

JSW has developed the JSW Hydro Energy Green Bond Framework (the “Framework”) under which it intends to issue green bonds and use the proceeds to refinance, in whole or in part, existing hydropower plants in India, particularly Baspa and Karcham. Sustainalytics believes eligible projects are expected to provide environmental benefits in India, as they support increased lifespan and/or improved performance of existing hydropower generation projects. The Framework defines eligibility criteria in one area:

### 1. Renewable Energy

JSW engaged Sustainalytics to review the JSW Hydro Energy Green Bond Framework, dated March 2021, and provide a Second-Party Opinion on the Framework’s environmental credentials and its alignment with the Green Bond Principles 2018 (GBP).<sup>1</sup> This Framework has been published in a separate document.<sup>2</sup>

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

Sustainalytics’ Second-Party Opinion reflects Sustainalytics’ independent<sup>3</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 2018, as administered by ICMA;
- 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 1.7.1, 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 JSW’s 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. JSW representatives have confirmed (1) they understand it is the sole responsibility of JSW 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 the Framework.

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

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.

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

<sup>2</sup> The JSW Hydro Energy Green Bond Framework is available on JSW Hydro Energy Limited’s website at: <https://www.jsw.in/energy>

<sup>3</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.

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 JSW has made available to Sustainalytics for the purpose of this Second-Party Opinion.

## Sustainalytics' Opinion

### Section 1: Sustainalytics' Opinion on the JSW Hydro Energy Green Bond Framework

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

- Use of Proceeds:
  - The eligible category, Renewable Energy, is aligned with those recognized by the GBP. Eligible projects can be expected to provide environmental benefits in India, as they support increased lifespan and/or improved performance of existing hydropower generation projects.
  - Under the Renewable Energy category, JSW intends to refinance the development, construction, and operation of run-of-river hydropower facilities, namely the Baspa Hydroelectric Project (Baspa) and the Karcham Hydroelectric Project (Karcham). JSW has confirmed that the proceeds will not be invested in any expenditures aimed at the enlargement of the hydro power projects. Sustainalytics views JSW's eligible projects to facilitate ongoing renewable energy generation and capacity in India and to promote positive environmental benefits.
  - Sustainalytics notes that Environmental and Social Impact Assessments (ESIA) were undertaken for Baspa in 2007<sup>4</sup> and Karcham in 2006<sup>5</sup> as required by national regulations. Nevertheless, the facilities have faced controversies, the majority of which occurred during the construction phase of the projects, prior to JSW acquiring the plants in 2015, in the areas of biodiversity loss, land use change, deforestation, local community opposition, displaced populations, occupational health and safety and unfair wages. Sustainalytics has conducted an assessment of the mitigation and management measures taken by JSW and considers them to be sufficient in addressing both early stage and recent controversies<sup>6</sup> associated with Baspa and Karcham. Additionally, Sustainalytics recognizes potential land slides and flash flooding risks associated with large-scale hydropower facilities in Himalayan region in general,<sup>7</sup> and considers JSW's Environmental Management Plans and risk mitigation practices to be adequate in mitigating these potential environmental risks. (For additional detail see Section 2).
- Project Evaluation and Selection:
  - JSW has established a Green Bond Committee (the "Committee") which is comprised of members from Finance, Accounts and Sustainability teams which will meet on an annual basis. The Committee will be responsible for evaluating, selecting and approving projects in the Green Project Portfolio.
  - Based on these elements, Sustainalytics considers this process to be in line with market practice.
- Management of Proceeds:
  - A Green Project Portfolio will be established to track the allocation of net proceeds from Green Bonds issued to Eligible Green Projects, which will be reviewed by the Committee on an annual basis. The committee will be headed by the Vice President of Finance. JSW will strive to allocate net proceeds of bonds within 24 months of issuance.

<sup>4</sup> Baspa Plant Environmental Impact Assessment (2007), at: [Verra Search Page](#)

<sup>5</sup> Karcham Plant Environmental Impact Assessment (2005), at: [Verra Search Page](#)

<sup>6</sup> Recent controversies relate to occupational health and safety and wages issues, and have occurred in the first half of 2015, prior to the acquisition of the facilities by JSW.

<sup>7</sup> The Third Pole, "Opinion: Himalayan hydropower is not a green alternative", (2020), at: [Opinion: Himalayan hydropower is not a green alternative | The Third Pole](#)

- Pending full allocation, net proceeds will be held in line with general liquidity guidelines in cash, cash equivalents and/or other liquid marketable instruments. The Green Project Portfolio will be routinely monitored by the Committee and the Treasury team.
- Based on these elements, Sustainalytics considers this process to be in line with market practice.
- Reporting:
  - JSW is committed to allocation and impact reporting on an annual basis. JSW will publish a Green Bond Report on its website. Reporting will include details such as the total amount of outstanding Green Bonds, share of financing vs. refinancing, size of the project portfolio, a breakdown on project category and project basis, amount of unallocated proceeds, and illustrative examples of Eligible Green Projects to which Green Bonds net proceeds have been allocated. The Company is committed to impact reporting on a best effort basis, including metrics such as renewable energy capacity installed (in MW), annual renewable energy generation (in MWh) and annual CO<sub>2</sub> emission reduction or avoidance (in tonnes of CO<sub>2</sub>e).
  - Based on these elements, Sustainalytics considers this process to be in line with market practice.

### Alignment with Green Bond Principles 2018

Sustainalytics has determined that the JSW Hydro Energy Green Bond Framework aligns to the four core components of the GBP. For detailed information please refer to Appendix 1: Green Bond/Green Bond Programme External Review Form.

## Section 2: Sustainability Strategy of JSW

### Contribution of framework to JSW Hydro Energy Limited's sustainability strategy

Sustainalytics is of the opinion that JSW demonstrates a commitment to incorporating sustainability into its business strategy,<sup>8</sup> with a focus on 17 key areas, including climate change, energy, and water resources, among others.<sup>9</sup>

With regards to climate change, JSW has pledged to becoming carbon neutral by 2050. The Company is committed to the Science-Based Target Initiative (SBTi).<sup>10</sup> JSW's carbon emissions reduction trajectory – in line with the 1.5°C warming scenario to mitigate climate change – is currently undergoing validation by SBTi.<sup>10</sup> To achieve carbon neutrality by 2050, JSW adopted its “Ten Commitments” which define its roadmap to clean power production.<sup>11</sup> According to the roadmap, JSW is committed to increasing renewable energy production to two-thirds of its total installed capacity (from 29% in 2020), reduce water consumption by 50% per unit or energy produced (from 2020 baseline year), and achieve no net loss of biodiversity.<sup>11</sup> The activities financed via the Framework will further enhance JSW's ability to achieve its goals related to carbon neutrality and renewable energy production.

Sustainalytics is of the opinion that the JSW Hydro Energy Green Bond Framework is aligned with the company's overall sustainability strategy and initiatives and will further the Company's action on its key environmental priorities.

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

While Sustainalytics recognizes that an amount equivalent to the net proceeds from the bonds issued under the Framework will be directed towards eligible projects that are expected to have positive environmental impact, Sustainalytics is aware that such eligible projects could also lead to negative environmental and social outcomes. Some key environmental and social risks associated with the eligible projects could include deforestation, land-use change, biodiversity loss, local communities' exposure to adverse effects, public opposition, and occupational health and safety issues. Sustainalytics is of the opinion that JSW is able to manage and/or mitigate potential risks through implementation of the following internal policies:

<sup>8</sup> JSW, “About JSW Sustainability”, at: <https://www.jsw.in/groups/sustainability-homepage>

<sup>9</sup> Resources, waste, water waste, air emissions, biodiversity, local considerations, human rights, indigenous people, cultural heritage, business ethics, employment wellbeing, supply chain management, sustainable mining and social sustainability.

<sup>10</sup> JSW. “Towards carbon-neutrality by 2050, commits to Science Based Targets”, at: <https://www.jsw.in/energy/towards-carbon-neutrality-2050-commits-science-based-targets>

<sup>11</sup> JSW, “The Ten Commitments”, <https://www.jsw.in/sites/default/files/assets/downloads/energy/Sustainability%20Environmental%20clearance/JSW%20Energy%20Sustainability%20Targets.pdf>

- Health and Safety Policy. JSW commits to providing a safe and healthy working environment and achieving an injury and illness free work. JSW will assess risks and provide controls for health and safety hazards in its operations and activities. In addition, JSW will conduct regular assurance programs.<sup>12</sup>
- Water Resource Management Policy. JSW is committed to reducing water stress in the communities it operates by carrying out water assessments at all of its sites to better understand and evaluate how its water use impacts local communities. The policy includes specific actions to minimize JSW's water use.<sup>13</sup>
- Biodiversity Policy. JSW has adopted its biodiversity policy targeting both current and future projects and/or developments. For current operating projects, JSW aims to achieve no net loss of biodiversity and promote the protection and enhancement of biodiversity across all suppliers and business partners. For any planned activities and projects, JSW is committed to carry out assessments of species diversity, habitats and ecosystems, and develop programs to minimize the impact of its operations.<sup>14</sup>
- Local Considerations Policy. JSW acknowledges that its sites and operations can potentially create local environmental issues affecting the communities surrounding them. Thus, the company adopted the Local Considerations Policy to carry out assessments to identify potential risks and opportunities to minimize them. Additionally, the Company is committed to monitoring the effectiveness of the existing and proposed management strategies.<sup>15</sup>
- JSW is committed to consulting and accommodating communities, including indigenous people and marginalized sections of the community, on the terms and conditions of development that affect them, including any human rights matters.<sup>16</sup> Moreover, JSW is committed to undertaking assessments at all its sites to identify any historical or current instances where its activities directly or indirectly impact upon Indigenous Peoples and take immediate and comprehensive action to address any weaknesses or failures identified. If resettlement of indigenous peoples cannot be avoided, JSW is committed to performing a participative process to ensure that the rights, interests, culture, traditions and perspectives of indigenous peoples are respected and protected as much as possible. The Company explicitly prohibits: (i) any removal by force of any indigenous peoples from their lands or territories, (ii) any forced assimilation or destruction of the culture of Indigenous Peoples, (iii) any discrimination against indigenous peoples by way of discriminatory conditions of labour and, inter alia, employment, (iv) any activities or actions which threaten the customs or traditions of Indigenous Peoples.<sup>17</sup>
- With regards to labor rights, the Policy on Labour Practices and Employment Rights was adopted to protect employment rights, further development and enhancement of the labor practices within JSW.<sup>18</sup>

Sustainalytics believes that JSW is well positioned to minimize and manage potential risks associated with its hydro power facilities overall. However, Sustainalytics recognizes the presence of controversies surrounding the Baspa and Karcham that include concerns and allegations related to public opposition, lack of worker security, occupational health and safety, unfair wages, displaced population, biodiversity loss,

<sup>12</sup> JSW, "JSW Health and Safety Policy", at:

[https://www.jsw.in/sites/default/files/assets/downloads/energy/Corporate%20Governance%20and%20Regulatory%20Information/Sustainability\\_Policies/JSW\\_Health\\_and\\_Safety\\_Policy.pdf](https://www.jsw.in/sites/default/files/assets/downloads/energy/Corporate%20Governance%20and%20Regulatory%20Information/Sustainability_Policies/JSW_Health_and_Safety_Policy.pdf)

<sup>13</sup> JSW, "Water Resource Management Policy", (2020), at:

[https://www.jsw.in/sites/default/files/assets/downloads/energy/Corporate%20Governance%20and%20Regulatory%20Information/Sustainability\\_Policies/JSWEL\\_Policy\\_on\\_Water\\_Resource\\_Management.pdf](https://www.jsw.in/sites/default/files/assets/downloads/energy/Corporate%20Governance%20and%20Regulatory%20Information/Sustainability_Policies/JSWEL_Policy_on_Water_Resource_Management.pdf)

<sup>14</sup> JSW, "Biodiversity Policy", (2020), at:

[https://www.jsw.in/sites/default/files/assets/downloads/energy/Corporate%20Governance%20and%20Regulatory%20Information/Sustainability\\_Policies/JSWEL\\_Policy\\_on\\_Biodiversity.pdf](https://www.jsw.in/sites/default/files/assets/downloads/energy/Corporate%20Governance%20and%20Regulatory%20Information/Sustainability_Policies/JSWEL_Policy_on_Biodiversity.pdf)

<sup>15</sup> JSW, "Local Considerations Policy", (2020), at:

[https://www.jsw.in/sites/default/files/assets/downloads/energy/Corporate%20Governance%20and%20Regulatory%20Information/Sustainability\\_Policies/JSWEL\\_Policy\\_on\\_Local\\_Considerations.pdf](https://www.jsw.in/sites/default/files/assets/downloads/energy/Corporate%20Governance%20and%20Regulatory%20Information/Sustainability_Policies/JSWEL_Policy_on_Local_Considerations.pdf)

<sup>16</sup> JSW, "Policy on Social Development and Community Involvement", (2020), at:

[https://www.jsw.in/sites/default/files/assets/downloads/energy/Corporate%20Governance%20and%20Regulatory%20Information/Sustainability\\_Policies/JSWEL\\_Policy\\_on\\_Social\\_Development\\_and\\_Community\\_Involvement.pdf](https://www.jsw.in/sites/default/files/assets/downloads/energy/Corporate%20Governance%20and%20Regulatory%20Information/Sustainability_Policies/JSWEL_Policy_on_Social_Development_and_Community_Involvement.pdf)

<sup>17</sup> JSW, "Indigenous Peoples and Resettlement Policy", (2020), at:

[https://www.jsw.in/sites/default/files/assets/downloads/energy/Corporate%20Governance%20and%20Regulatory%20Information/Sustainability\\_Policies/JSWEL\\_Policy\\_on\\_Indigenous\\_People\\_and\\_Resettlement.pdf](https://www.jsw.in/sites/default/files/assets/downloads/energy/Corporate%20Governance%20and%20Regulatory%20Information/Sustainability_Policies/JSWEL_Policy_on_Indigenous_People_and_Resettlement.pdf)

<sup>18</sup> JSW, "Policy on Labour Practices and Employment Rights", (2020), at:

[https://www.jsw.in/sites/default/files/assets/downloads/energy/Corporate%20Governance%20and%20Regulatory%20Information/Sustainability\\_Policies/JSWEL\\_Policy\\_on\\_Labour\\_Practices\\_and\\_Employment\\_Rights.pdf](https://www.jsw.in/sites/default/files/assets/downloads/energy/Corporate%20Governance%20and%20Regulatory%20Information/Sustainability_Policies/JSWEL_Policy_on_Labour_Practices_and_Employment_Rights.pdf)

deforestation and loss of vegetation cover, and damaged landscape.<sup>19, 20, 21</sup> Sustainalytics notes that the majority of these controversies originated prior to JSW's acquisition of Baspa and Karcham in 2015, and that both plants conducted Environmental and Social Impact Assessments (ESIA) and follow Environment Management Plans to mitigate potential impacts, as required by the applicable regulations. Since taking over the management and operations of Baspa and Karcham plants, JSW has developed the above-mentioned policies to strengthen its companywide risk mitigation systems, and implemented following steps to address controversies associated with Baspa and Karcham:<sup>22</sup>

- Annual restoration and rehabilitation of muck dumping areas through revegetation to remedy land destruction that occurred prior to JSW's management of the plants.
- Community participation in afforestation activities to plant saplings of the following tree species: Chilgoza, Deodhar, Weeping willow, Rubinia, Silver Oak. In fiscal year 2019/2020, around 4000 saplings were planted and a special team is tasked with the maintenance of these saplings. The company is also carrying out afforestation activities on a 40-Hectare expansive land layout which has been used for dumping the excavated muck;
- Interventions to stabilize landslide prone areas in the Kinnaur District, such as use of gabions, retaining structures and Geo Coir Net,<sup>23</sup> and revegetation drives;
- Development of a communal 400-apple tree orchard in a previous barren land which was restored by the Company. The orchard uses drip irrigation and is managed by the local community;
- JSW worker's union and contractors agree on three-year settlement plans, which are registered as a tripartite agreement among the worker union, JSW and Government of Himachal Pradesh Government (GoHP), represented by the Labour Conciliation Officer. The existing settlement plan is valid until the end of March 2021, and a new settlement plan, which is in process of being mutually agreed upon, will enter into effect from 1<sup>st</sup> of April 2021. Additionally, the minimum wages which apply to hydropower projects in Himachal Pradesh are set by the GoHP;
- Every six months JSW submits a compliance report on the environmental clearance to the Ministry of Environment, Forest and Climate Change (MoEFCC) for both, Baspa and Karcham-Wangtoo Plants.

Sustainalytics considers JSW's efforts for addressing social and environmental concerns surrounding the Baspa and Karcham projects as adequate, and encourages the Company to: (i) monitor and evaluate the effectiveness of the interventions, and (ii) identify and prevent potential negative social and/or environmental impact related to the operation of the projects.

### Section 3: Impact of Use of Proceeds

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

#### Impact of hydropower in India's transition to a low carbon economy

India is the world's third largest energy producing country as of 2019, and faces a dual challenge of fostering socio-economic development, while transitioning to a low carbon economy.<sup>24</sup> In line with India's commitment to the Paris Agreement, its Intended Nationally Determined Contribution (INDC) goals include (i) reducing emissions intensity of its GDP by 33-35% by 2030, using a 2005 baseline, and (ii) achieving 40% electric power installed capacity from non-fossil fuel resources by 2030.<sup>25</sup> In recent years India has introduced electricity connections to hundreds of millions of its citizens and has promoted an extensive expansion of renewable energy sources, yet the economy remains primarily reliant on coal, making up 44% of total primary energy demand in 2020.<sup>24</sup>

In 2019 the Government formally recognized large hydropower projects, which allows projects to benefit from the renewable purchase obligation.<sup>26</sup> Additionally, the Prime Minister announced that India's electricity mix would eventually include 450 GW of renewable energy capacity.<sup>24</sup> As a result, growth in renewable energy

<sup>19</sup> EJAtlas, "Baspa II Hydroelectric Project, HP, India", (2016), at: <https://ejatlas.org/conflict/baspa>

<sup>20</sup> EJAtlas, "Karchham-Wangtoo hydel project, HP, India", (2015), at: <https://ejatlas.org/conflict/karchham-wangtoo-project-hp-india>

<sup>21</sup> SANDRP, "Himachal Pradesh Hydropower Projects in 2015", (2016), at: <https://sandrp.in/2016/01/13/himachal-pradesh-hydropower-projects-in-2015/>

<sup>22</sup> JSW provided internal documents, in a confidential basis, to Sustainalytics for assessment of the measures taken to address social and environmental concerns surrounding Baspa and Karcham projects.

<sup>23</sup> Bio-degradable net fabrics made from coir yarn used in landscaping and geo technical engineering which help to control soil erosion, promoting vegetation and retaining the topsoil.

<sup>24</sup> International Energy Agency, "India Energy Outlook 2021, (2021), at: [India Energy Outlook 2021 – Analysis - IEA](https://www.iea.org/india-energy-outlook-2021)

<sup>25</sup> United Nations Framework Convention on Climate Change, India's Intended Nationally Determined Contribution (2015), at: [INDIA INDC TO UNFCCC.pdf](https://www.unfccc.int/india/india_indc_to_unfccc.pdf)

<sup>26</sup> International Hydropower Association, "India Country Profile", (2020), at: [India \(hydropower.org\)](https://www.hydropower.org/country-profiles/india)

increased by 5% in 2020 in India, in line with its INDC goals.<sup>24</sup> Hydropower's share in the electricity mix has decreased in recent years, which accounts for around 10% generation, given delays in complex planning procedures, prolonged land acquisition, community resettlement and lack of enabling infrastructure including transmission.<sup>24</sup> India's growing air conditioning demand requires enhanced flexibility of power sources, with electricity demand growing faster than overall energy demand.<sup>26</sup> In 2020, the country's hydropower sector was recognized for the stability it adds to the electrical grid.<sup>26</sup> To meet India's growing needs in energy requirements, hydropower remains a crucial renewable energy source in helping India meet its climate targets by 2030.

In this context, Sustainalytics considers that through well managed environmental and social risk mitigation, Hydropower projects can have a positive environmental impact in India and contribute towards India's transition to a low carbon economy.

#### 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 bond(s) issued under the JSW Hydro Energy Green Bond Framework advances the following SDG and target:

Use of Proceeds Category	SDG	SDG target
Renewable Energy	7. Affordable and Clean Energy	By 2030, increase substantially the share of renewable energy in the global energy mix.

#### Conclusion

JSW has developed the JSW Hydro Energy Green Bond Framework under which it may issue green bonds and the use of proceeds to refinance hydropower generation facilities. Sustainalytics considers that the eligible projects are expected to provide environmental benefits in India, as they support increased lifespan and/or improved performance of existing hydropower generation.

The JSW Hydro Energy 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 JSW Hydro Energy Green Bond Framework is aligned with the overall sustainability strategy of the company and that the green use of proceed category will contribute to the advancement of the UN Sustainable Development Goal 7.

Based on the above, Sustainalytics is confident that JSW Hydro Energy Limited is well-positioned to issue green bonds and that the JSW Hydro Energy Green Bond Framework is robust, transparent, and in alignment with the four core components of the Green Bond Principles 2018.

## Appendix

### Appendix 1: Green Bond / Green Bond Programme - External Review Form

#### Section 1. Basic Information

Issuer name:	JSW Hydro Energy Limited
Green Bond ISIN or Issuer Green Bond Framework Name, if applicable:	JSW Hydro Energy Green Bond Framework
Review provider's name:	Sustainalytics
Completion date of this form:	April 07, 2021
Publication date of review publication:	

#### 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:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds        | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting                                    |

##### ROLE(S) OF REVIEW PROVIDER

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 <sup>nd</sup> opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification   | <input type="checkbox"/> Rating        |
| <input type="checkbox"/> Other ( <i>please specify</i> ):                       |  |

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

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

Please 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*):

The eligible category for the use of proceeds, Renewable Energy, is aligned with those recognized by the Green Bond Principles 2018. Sustainalytics considers that the eligible projects are expected to provide environmental benefits in India, as they support increased lifespan and/or improved performance of existing hydropower generation projects and advance the UN Sustainable Development Goals (SDGs), specifically SDG 7.

### Use of proceeds categories as per GBP:

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

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

## 2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

JSW has established a Green Bond Committee (the "Committee") which is comprised of members from Finance, Accounts and Sustainability teams which will meet on an annual basis. The Committee will be responsible for evaluating, selecting and approving projects in the Green Project Portfolio. Sustainalytics considers the project selection process in line with market practice.

### Evaluation and selection

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Credentials on the issuer's environmental sustainability objectives            | <input type="checkbox"/> Documented process to determine that projects fit within defined categories               |
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |
| <input checked="" type="checkbox"/> Summary criteria for project evaluation and selection publicly available       | <input type="checkbox"/> Other ( <i>please specify</i> ):  |

### Information on Responsibilities and Accountability

- 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):

A Green Project Portfolio will be established to track the allocation of net proceeds from Green Bonds issued to Eligible Green Projects, which will be reviewed by the Committee and Treasury team on an annual basis. The committee will be headed by the Vice President of Finance. JSW will strive to allocate net proceeds of bonds within 24 months of issuance. Pending full allocation, net proceeds will be held in line with general liquidity guidelines in cash, cash equivalents and/or other liquid marketable instruments. This is in line with market practice..

#### 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
- Other (please specify):

#### Additional disclosure:

- Allocations to future investments only
  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):

JSW intends to report on the allocation and impact of proceeds on its website on an annual basis until full allocation. JSW will publish a Green Bond Report which will disclose the total amount of outstanding green bonds, share of proceeds used for financing vs. refinancing, size of the project portfolio, a breakdown on project category and project basis, any shortfalls in amount of assets unallocated, and illustrative examples of Eligible Green Projects to which Green Bonds net proceeds have been allocated. In addition, JSW is committed to reporting on relevant impact metrics. Sustainalytics views JSW's allocation and impact reporting as aligned with market practice..

#### Use of proceeds reporting:

- Project-by-project
  On a project portfolio basis

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

**Information reported:**

- Allocated amounts  Green Bond financed share of total investment
- Other (*please specify*):

**Frequency:**

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

**Impact reporting:**

- 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  Energy Savings
- Decrease in water use  Other ESG indicators (*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*): Company website
- Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):

Where appropriate, please specify name and date of publication in the useful links section.

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

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

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

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

- Verification / Audit
  Rating
- Other (*please specify*):

**Review provider(s):**

**Date of publication:**

**ABOUT ROLE(S) OF 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

**Copyright ©2021 Sustainalytics. All rights reserved.**

The information, methodologies and opinions contained or reflected herein are proprietary of Sustainalytics and/or its third party suppliers (Third Party Data), and may be made available to third parties only in the form and format disclosed by Sustainalytics, or provided that appropriate citation and acknowledgement is ensured. They are provided for informational purposes only and (1) do not constitute an endorsement of any product or project; (2) do not constitute investment advice, financial advice or a prospectus; (3) cannot be interpreted as an offer or indication to buy or sell securities, to select a project or make any kind of business transactions; (4) do not represent an assessment of the issuer's economic performance, financial obligations nor of its creditworthiness; and/or (5) have not and cannot be incorporated into any offering disclosure.

These are based on information made available by the issuer and therefore are not warranted as to their merchantability, completeness, accuracy, up-to-dateness or fitness for a particular purpose. The information and data are provided "as is" and reflect Sustainalytics' opinion at the date of their elaboration and publication. Sustainalytics accepts no liability for damage arising from the use of the information, data or opinions contained herein, in any manner whatsoever, except where explicitly required by law. Any reference to third party names or Third Party Data is for appropriate acknowledgement of their ownership and does not constitute a sponsorship or endorsement by such owner. A list of our third-party data providers and their respective terms of use is available on our website. For more information, visit <http://www.sustainalytics.com/legal-disclaimers>.

The issuer is fully responsible for certifying and ensuring the compliance with its commitments, for their implementation and monitoring.

In case of discrepancies between the English language and translated versions, the English language version shall prevail.

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



**GlobalCapital**  
SRI Awards

**Named**

**2015: Best SRI or Green Bond Research or Rating Firm**  
**2017, 2018, 2019: Most Impressive Second Opinion Provider**

