



JSW Hydro Energy

Green Bond Framework

Introduction

JSW Energy Limited is one of the leading Private sector power producers in India and part of the USD 12 billion JSW Group which has significant presence in sectors such as steel, energy, infrastructure, cement, sports among others. JSW Energy Limited has established its presence across the value chains of power sector with an installed power generation capacity of 4.6 GW across Thermal (3.2 GW), Hydro (1.4 GW) & Solar (10 MW) portfolios, ensuring diversity in geographic presence, fuel sources and power off-take arrangements.

JSW Energy aims to double its portfolio to 10 GW over the medium term, by primarily growing in renewable energy segment, and increase its Renewable and Hydro portfolio to 60-70% from 30% currently. JSW Energy has also adopted a comprehensive Sustainability Policy encompassing Climate Change, Water Security, Waste Management, Air Emissions & Biodiversity targets for 2030. JSW Energy has committed to 50% reduction in its carbon footprint by 2030 and has a target to reach net-zero emissions by not later than 2050, backed by science-based targets, under SBTi.

JSW Hydro Energy Limited (JSWHEL) became a 100% subsidiary of JSW Energy Limited pursuant to acquisition from Jaiprakash Power Ventures Limited in September, 2015 and owns the Karcham and Baspa hydro-electric power plants.

The Karcham plant is a 1,000 MW (4X250 MW) run of the river hydro-electric power plant located on river Sutlej in District Kinnaur of Himachal Pradesh. It has an in-built capacity of 1,091 MW with 10% overload and design energy of 4,131 million units for 1,000 MW capacity. The project fully commenced operations in September 2011. JSWHEL has a Power Purchase Agreement (PPA) through PTC India Limited for the entire 880 MW saleable capacity of the Karcham plant, net of current 12% free power to Government of Himachal Pradesh (GoHP), with various distribution utilities like Haryana, Uttar Pradesh, Punjab and Rajasthan on long term basis valid till September, 2046.

The Baspa plant is a 300 MW (3X100 MW) run of the river hydro-electric power plant located on the river Baspa, a tributary of river Sutlej in District Kinnaur, Himachal Pradesh with a design energy of 1,213 million units. The project fully commenced operations in June 2003. JSWHEL has a Power Purchase Agreement for the entire 264 MW saleable capacity of the Baspa plant, net of 12% free power to GoHP with Himachal Pradesh State Electricity Board Limited valid till June, 2043.

JSW Energy (Kutehr) Limited, is a 100% owned subsidiary of JSWHEL, set up for the purpose of implementing the 240 MW Kutehr Hydroelectric Project (3x80 MW Kutehr HEP) located in the upper reaches of Ravi Basin in district Chamba of Himachal Pradesh. Kutehr HEP is currently under-construction.

JSW Hydro Energy has developed a Green Bond framework under which it will issue a Green Bond, the proceeds of which will finance and refinance expenditure related to run of the river hydro projects. This Framework represents just one of the actions being taken to accelerate JSW Hydro Energy's portfolio expansion in the direction of renewable energy. JSW Hydro Energy has engaged Sustainalytics to provide a second party opinion on its Green Bond Framework ("the Framework") and the Framework's environmental credentials.

Green Bond Framework




As part of the broader sustainability strategy, JSW Hydro Energy has established this Green Bond Framework (the “Framework”). The purpose of this Framework is to have a single robust methodology in place for all future Green Bonds, ensuring that for each instrument issued the principles of this Framework apply. Generally, the Framework is aligned with the ICMA Green Bond Principles (“GBP”, 2018)¹ which are a set of voluntary guidelines that recommend transparency and disclosure and promote integrity in the development of the sustainable finance market.

The Framework is presented through the following key pillars:

- Use of Proceeds
- Process for Project Evaluation and Selection
- Management of Proceeds
- Reporting
- External Review

Use of Proceeds

JSW Hydro Energy will refinance Eligible Green Projects related to run of the river hydropower projects. An amount equal to the net proceeds raised through any green bonds will be allocated to the financing and refinancing of Eligible Green Projects as defined in the Framework detailed below.

GBP category	Eligible Green Projects	SDG mapping
 <p>Renewable energy</p>	<ul style="list-style-type: none"> – Development, construction and operation of run of the river hydro projects and related infrastructure 	 

JSW Hydro Energy will apply exclusionary criteria and not knowingly be involved in any financing or refinancing of activities that include involvement in fossil fuel or nuclear related activities.

¹ <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>

Process for Project Evaluation and Selection

The evaluation and selection process ensures that the Green Bond net proceeds are allocated to projects that meet the criteria set out in the “Use of Proceeds” section. We have established a Green Bond Committee (the “Committee”) comprised of representatives from Finance and Accounts and Sustainability teams which will meet on an annual basis for the assessment of Eligible Green Projects. The Committee will govern the process and is responsible for:

- 1** **Evaluating** the compliance of proposed projects with the Eligibility Criteria outlined in the “Use of Proceeds” section.
- 2** **Approving** the inclusion of pre-selected Eligible Green Projects in our Green Project Portfolio (the Committee has full discretion to object the inclusion of any project).
- 3** **Monitoring** and managing the Green Project Portfolio and corresponding Green Bond net proceeds. We will maintain a virtual register which captures the initial and continued assignment of Eligible Green Projects to the Green Project Portfolio.
- 4** **Replacing** projects that no longer meet the Eligibility Criteria or due to any divestments.
- 5** **Observing** developments in the sustainable financing markets and approving updates to this Framework accordingly to reflect relevant changes in our corporate strategy or market developments.

Process to mitigate environmental and social risks stemming from eligible projects:

JSW Hydro’s environmental and social risk assessment process ensures that the hydropower projects undergo a formal Environmental Impact Assessment (EIA), stakeholder consultations, preparation of an Environmental Management Plan and receives an environmental clearance from the appropriate authority in line with the requirements of the relevant regulations as formulated by the national Ministry of Environment and Forestry.

JSW Hydro has confirmed to Sustainalytics that selected projects have undergone an EIA/ESIA or have an Environmental Management Plan (EMP), and a stakeholder consultation process as applicable. JSW Hydro has also confirmed that, for all selected projects, the relevant EIA/ ESIA, EMP and stakeholder consultation must conclude negligible environmental or social disruption.

Management of Proceeds

JSW Hydro Energy will establish a Green Project Portfolio and track the allocation of net proceeds from any Green Bonds issued to Eligible Green Projects. All Eligible Green Projects must meet the Eligibility

Criteria throughout the term of the Green Bonds. If an Eligible Green Project ceases to fulfil the Eligibility Criteria or exit our portfolio, JSW Hydro Energy will, on a best effort basis, substitute the project as soon as reasonably practicable.

Eligible Green Projects financed by net proceeds of any Green Bonds will not be affected by ex-ante changes to the Green Bond Framework and will remain in the Green Project Portfolio for as long as they meet the Eligibility Criteria prevailing at the time of the Green Bond issuance and remain internally/virtually allocated to an outstanding Green Bond. The Committee will review the Green Project Portfolio on an annual basis.

It is JSW Hydro Energy's intention to maintain a level of allocation to Eligible Green Projects which matches or exceeds the total net proceeds of all Green Bonds outstanding. We strive to fully allocate the net proceeds of any Green Bonds immediately/ within 24 months after issuance. Prior to full allocation, proceeds will be held in line with our general liquidity guidelines in cash, cash equivalents, and/or other liquid marketable instruments. Unallocated proceeds will not knowingly be placed in investments that include greenhouse gas intensive assets, inconsistent with the transition towards a low carbon economy.

Our Green Project Portfolio will be routinely monitored by our Treasury team and our Green Bond Committee to detect any potential shortfall in a reasonably short time frame.

Reporting

JSW Hydro Energy is committed to be as transparent as possible and will publish a Green Bond Report which will be publicly available on our investor relations page at (<https://www.jsw.in/energy>) within one year from the issuance of any Green Bonds and update annually until full allocation. The reporting is split into two parts (i) the '**allocation reporting**' and (ii) the '**impact reporting**', whereby each report will disclose information including, but not limited to:


Allocation reporting

- Total amount of outstanding Green Bonds
- Share of proceeds used for financing vs. re-financing purposes
- Size of the common Green Project Portfolio as well as a breakdown on project category and project basis
- Any shortfall or amount of assets unallocated
- Illustrative examples describing Eligible Green Projects to which Green Bond net proceeds have been allocated (subject to confidentiality commitments)

Impact reporting

We will report on the environmental impact of Eligible Green Projects financed by Green Bond net proceeds. On a best effort basis and subject to data availability, the impact reporting may include, but not limited to, impact (KPI) metrics as outlined in the table below. Any assumptions made in relation to the units used or the relevant benchmark emissions will be clearly stated in the reporting:

On a best effort basis, we will align the reporting with the portfolio approach described in "Green Bonds – working towards a Harmonized Framework for Impact reporting.

GBP category	Exemplary impact indicators
 <p data-bbox="204 489 440 520">Renewable energy</p>	<ul style="list-style-type: none"> <li data-bbox="521 348 1101 380">– Renewable energy capacity installed (in MW) <li data-bbox="521 411 1118 443">– Annual renewable energy generation (in MWh) <li data-bbox="521 474 1289 506">– Annual CO₂ emission reduction/ avoidance (in tonnes of CO₂)

External Review

JSW Hydro Energy has engaged an external verifier to review the Green Bond Framework. The independent Second Party Opinion (SPO) on the Framework’s environmental credentials and its alignment with the Green Bond Principles has been received by Sustainalytics. The independent SPO is published on our investor relations website at <https://www.jsw.in/energy>.

In order to ensure sustained compliance of all issued Green Bonds with the methodology set out in this Framework, JSW Hydro Energy will audit the allocation of the proceeds in line with their standard internal auditing process, on a regular basis, starting one year after the first issuance under this Framework.