btg pactual

Sector Policy: Renewable Power Generation - Hydropower

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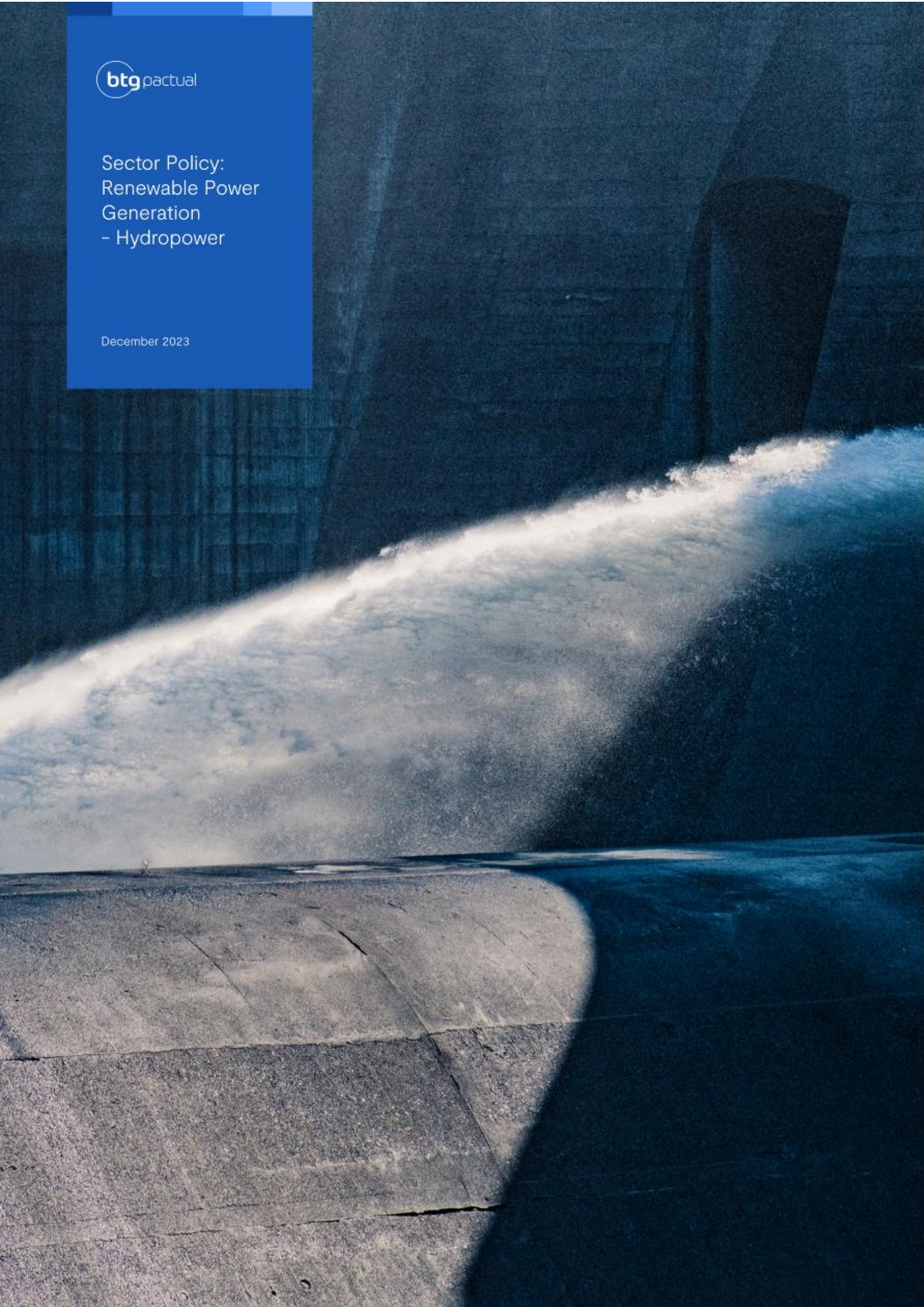

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1. Policy's Purpose

BTG Pactual drafted this Policy with several policies to identify the social, environmental and climate risks of its many operating segments, complying with the principles and grounds outlined in its Social, Environmental and Climate Responsibilities Policy.

To prepare each Sector Policy, a detailed analysis was carried out of the social and environmental issues involving BTG Pactual's many operating segments during all stages of its production processes, i.e., from opening new areas and obtaining raw materials, throughout the production, distribution and closing of all business activities. To this end, reports and documents were consulted from the sector's main players, such as IFC guidelines, international references for social and environmental risk analysis and technical knowledge of BTG Pactual's internal team.

The Hydroelectric Power Generation Policy ("Policy") establishes the 6 social and environmental aspects relevant to the sector and classifies them according to their relevance regarding risks and opportunities for this economic sector. This policy will be reviewed periodically within a period no longer than 3 (three) years.

2. Application Scope

This Policy must be applied by the ESG team, considering the relevance and proportionality principles, in all segments of BTG Pactual, worldwide, that have entered or intend to enter into a relationship with legal entities and/or individuals in the hydroelectric energy sector, including, but not limited to, those carrying out construction, maintenance and generation activities.

3. Notes on the Sector

Hydropower is generated from the driving force produced by the movement of volumes of water in reservoir, which drives turbines and generators transforming gravitational potential energy into kinetic energy, then into mechanical energy and, finally, into electrical energy.

To do this, generally water is captured by building dams and dikes to form reservoirs, so as to accumulate sufficient water volumes to operate the turbines satisfactorily.

The energy derived from hydroelectric sources currently accounts for 51% of the Brazilian energy matrix, representing 108.453MW[1]. Estimates is, in 2027, this percentage will be reduced to 46.4%, mostly by the increase in sources such as wind and solar.

Although considering it a clean energy source producing no significant pollutants and waste in its generation and reuses water resources downstream, its construction is generally associated with significant socio-environmental impacts, related to the flooding of large areas, expropriations, population relocation, vegetation suppression, landscape alteration, among others.

[1] https://www.ons.org.br/paginas/sobre-o-sin/o-sistema-em-numeros

For these impacts, the environmental licensing of these ventures in Brazil is supported by an Environmental Impact Assessment and Environmental Impact Report (EIA/RIMA), which are the most comprehensive and detailed studies used to assess the socio-environmental impacts inherent to the construction and operational activities of the venture, as well as to identify the necessary plans, programs, and projects to prevent, reduce, mitigate, and/or compensate these impacts.

4. Social and Environmental Aspects

Below, we list the six most relevant topics in this sector that BTG Pactual will analyze.

4.1. Fauna

The construction of hydroelectric plants can have significant impacts on the fauna of the areas directly and indirectly affected by the project, such as: (i) loss of vegetation and natural habitats causing changes in the fauna; (ii) increase in human population, noise and dust; (iii) changes in water quality, flow rates of reservoir sections, watercourses and drainage, which can impact regional ichthyofauna and avifauna; (iv) flooding areas with fauna and terrestrial habitats to form reservoirs; (v) loss of habitats for feeding, reproduction, connectivity and shelter for fish and other animals; among others.

During project performance, recommendation is to (i) consider the impacts on fauna in the selection of the location, especially regarding negative impacts on habitats of threatened and/or endemic species; (ii) definition of the pre-project baseline and periodic monitoring; and (iii) implement measures aimed at minimizing and mitigating impacts, such as releasing downstream flows to maintain the ecosystem and habitat restoration, respectively.

The socio-environmental risk analysis will verify whether the company adopts or has adopted the measures mentioned above for the installation and operation of its project.

4.2. Flora

Another significant impact of this activity is related to vegetation clearance for its installation, which results in damage to the vegetation cover and local biodiversity, in addition to the loss of its landscape value. During project performance, recommendation is to: (i) obtain authorization for vegetation clearance from the competent environmental agency and implement compensation measures, if available; (ii) physically outline areas with authorization for clearance; and (iii) adopt practices to prevent accidents that may compromise the vegetation cover (examples: fires, oil spills).

The socio-environmental risk analysis will verify whether the company has adopted or implemented the mentioned mitigation measures for the installation and operation of its project, including, but not limited to, the existence and eventual implementation of the Environmental Plan for Conservation and Use of the Reservoir Surroundings (PACUERA). This plan consists of a set of guidelines and actions to regulate the conservation, recovery, use, and occupation of the surroundings of an artificial reservoir created to serve the hydroelectric plant, aimed at maintaining the environmental quality of the water body. This plan required by Brazilian legislation for projects of this naturemust be elaborated and

discussed jointly with civil society and related governmental entities, and generally performed after the completion of construction work.

4.3. Occupational Health and Safety

The construction of a hydroelectric power plant entails the mass displacement of workers in search of employment and opportunities. These are people with no ties to the region and come from various parts of the country, sometimes requiring the construction of workers' villages to accommodate them and their families. Therefore, the construction company should adhere to the Sector Policy for the Construction Industry of BTG Pactual, also implement specific actions in view of the magnitude of building a power plant. Among these possible plans to be implemented during the construction phase, emphasis should be placed on guidance and monitoring of migrant workers, environmental education for workers (environment, health, good coexistence, diversity, etc.), workforce training and management, and workforce demobilization.

During the socio-environmental due diligence, importantly to verify the structure and management regarding occupational safety. In addition to ensuring compliance with regulatory standards set by the Labor Department (covering key areas such as fall risk, ergonomics, working at heights, etc.) and the presentation of essential programs like RMP, OMHCP, ERPP, WCEP, ICAP[2] and adherence to required Regulatory Standards, importantly to assess the size of the department responsible for this topic, to which area it reports and its respective positions, training (scope, frequency) and management, control and monitoring systems for compliace with the standards and/or other internal requirements proposed by the company are appropriate. .

4.4. Dam Safety

Dams in hydroelectric power generation projects are fundamental to their operation, as they interrupt the natural cycle of the river to create the reservoir to channel water to the turbines responsible for activating the generators and producing electrical energy. Nonetheless, poor construction and/or lack of maintenance of these structures can cause irreparable damage to the environment and society in the event of their rupture.

4.5. Local and Traditional Communities

A project the size of a hydroelectric power plant can cause several socio-environmental impacts on the communities, directly and indirectly, affected by the project, such as (i) generation of expectations regarding the future of the local population, the region and any traditional communities; (ii) population growth and disorderly land use occupation; (iii) increased demand for goods and services to accommodate the population growth; (iv) displacement of communities, traditional or not, for the construction of structures and reservoir flooding; (v) loss of improvements and productive activities of the affected community; (vi) interference in agricultural or livestock areas by flooding or water stress; (vii) irreversible damage to historical, cultural and archaeological heritage in affected communities; (vi) increased noise and dust; (vii) changes in landscapes and leisure areas; among others.

[2] RMP (Risk Management Program); OHMCP (Occupational Health Medical Control Program); ERPP (Environmental Risk Prevention Program); WCEP (Workplace Conditions and Environment Program); ICAP (Internal Commission for Accident Prevention).

To mitigate these risks, recommendation is to develop an appropriate Environmental Management Plan encompassing all the impacts identified during socio-environmental impact studies. Among the plans, those related to urban redevelopment, monitoring of public services, involuntary resettlement (urban and rural), recovery/restoration of livelihoods and ways of life are highlighted, as well as post-relocation monitoring. Additionally, the development of plans related to traditional communities is recommended, such as restoration of ways of life, valorization of cultural and archaeological heritage, health of the traditional population, institutional strengthening and indigenous and/or quilombola rights. In cases of direct or indirect interference in these territories, the company and its suppliers are responsible for carrying out the necessary impact studies on the communities according to state and federal licensing agencies. If necessary, in cases of state omission or high operational risk, a Free, Prior and Informed Consultation should be obtained in accordance with International Labour Organization Convention 169, respecting the communities' right to free choice.

The entrepreneur and operator of the plant are advised to implement a social communication plan, providing various communication channels considering the cultural diversity of the affected community and enable transparency and dialogue with the communities at all stages of the project. This allows the population to understand the activities that will be developed, the socio-environmental impacts, the respective prevention and compensation measures, as well as the economic and social benefits for the region. During socio-environmental due diligence, communication channels will be evaluated based on their dissemination methods, access, confidentiality, non-retaliation against complainants, and transparency of treatment and response procedures.

These measures prevent operational risks related to protests and stoppages, as well as reputational risks for the company and/or project.

4.6. Human Rights

During the installation phase, hydroelectric power plants generate formal and informal employment. The creation of formal jobs in local communities is particularly relevant in promoting regional development, as it can reduce the migration of workers and problems resulting from this migration.

Migratory labor flows can generate negative impacts related to human rights, considering the massive presence of male professionals without a link to that territory can increase the risk of sexual exploitation of children and/or adolescents, increase is STIs[3] rates, transformation of the ways of life of urban and rural communities and violence in the region[4]. There may also be an overload on public services (healthcare, education, social assistance, public security, Child and Adolescent Protection Councils, basic sanitation, among others).

During socio-environmental due diligence, verification is made whether the counterparty: (i) has programs addressing the risks and impacts to human rights in its business; (ii) monitors new risks and the effectiveness of measures adopted through its programs; (iii) promotes transparency and accountability regarding the company's commitments in relation to respect for human rights in the

[3] Sexual Transmitted Infections
[4] Data taken from the Human Rights Impact Assessment Guide prepared by FGV with the NGO Childhood. Guide available at: < https://www.childhood.org.br/publicacao/Guia_de_avaliacao_de_impacto_em_direitos_humanos.pdf>.

workplace, along the supply chains, and around the construction site[5]; (iv) monitor the overload of municipal public services. In general, recommendation is to conduct a specific human rights due diligence by an independent third party, considering the impacts during the implementation and operation phases on the populations directly affected by the power plant.

[5] Human Rights Impact Assessment Guide prepared by FGV with the NGO Childhood details how DD on human rights can be carried out. Guide available at: < https://www.childhood.org.br/publicacao/Guia_de_avaliacao_de_impacto_em_direitos_humanos.pdf>.

Annex: Sector Categorization Matrix - Social, Environmental and Climate Risk Document

Risks	Description	Category
Social Risk	Consolidated assessment	High
	Slave labor	Medium
	Child labor	Low
	Occupational health and safety	High
	Damage to populations or communities	High
	Other factors	High
Environmental Risk	Consolidated assessment	High
	Energy: use and conservation	Low
	Water: use and conservation	High
	Water: pollution	Medium
	Waste: management and disposal	Low
	Air: pollution	Low
	Biodiversity and natural resources: use and conservation	High
	Hazardous materials: disasters	Irrelevant
	Soil: contamination	Low
	Other factors	Irrelevant
Physical Climate Risk	Consolidated assessment	Medium
	Bad weather	Medium
	Long-term changes	Medium
	Other factors	Low
Climate Transition Risk	Consolidated assessment	Low
	Public policies/Legislation	Irrelevant
	Technology	Low
	Markets/Consumers	Irrelevant
	Other factors	Irrelevant