

Classification and Environmental and Social Strategy (ESS) Hydrogen, Ammonia and Green Fertilizer Production Plant - PARAGUAY

Original language of the document: Spanish
Issuance date: February 2024

1. Project Scope and Objective, and IDB Invest Participation

ATOME Paraguay S.A. (the “Client” or “ATOME”), a subsidiary of ATOME Energy PLC, is the first Paraguayan company engaged in the production of hydrogen (H₂), ammonia (NH₃) and green fertilizer (calcium ammonium nitrate¹ or “CAN”), listed on the London Stock Exchange.

The present transaction consists in a financial support to ATOME for the construction and operation of a plant to produce hydrogen, ammonia, and green fertilizer (the “Project”). The plant will be installed in a property of about 30 hectares owned by ATOME and located in Villeta, Paraguay, close to the eastern shore of the Paraguay River, 50 km to the south of Asunción, next to the Villeta-Alberdi road and the Buey Rodeo substation. Once in operation, the plant will produce CAN at an industrial scale (about 270,000 tons/year) through water electrolysis and the use of dolomite (173 ton/day). The energy necessary for this will be 100% renewable (120 MW).

The Project will entail six main processes: (i) generation of hydrogen (H₂) from water and electricity; (ii) nitrogen (N₂) production from the ambient air; (iii) ammonia (NH₃) synthesis from H₂ and N₂ molecules; (iv) nitric acid (HNO₃) production from NH₃ and water; (v) calcium ammonium nitrate (NH₄NO₃) solution, from NH₃ and HNO₃; (vi) CAN production from NH₄NO₃ and dolomite; and (vii) bottling and storage.

The Project’s construction phase, which will start in mid-2024, will be carried out under an engineering, procurement, and construction (“EPC”) contract over a term of 31 months with the precommissioning and testing phases to begin in month 19. The operation and maintenance stage will last 25 years.

2. Classification and Environmental and Social Strategy

The project has been pre-classified in Category B, in accordance with IDB Invest's Environmental and Social Sustainability Policy (“ESSP”) since it could produce the following environmental and social impacts: (i) generation of solid wastes and effluents; (ii) generation of noise and vibrations; (iii) air emissions and dust; (iv) loss of vegetation cover; (v) impact on road access and traffic; and (vi) increase of health and safety in the risks for employees due to the handling of dangerous chemical substances. These impacts are mostly reversible and manageable with measures available within the realm of the Project.

¹ CAN is a fertilizer resulting from mixing 20% to 30% of calcium carbonate (CaCO₃) with 70% to 80% ammonium nitrate (NH₄NO₃).

To date, ATOME has an environmental license granted by the Ministry of Environment and Sustainable Development through Resolution No. 105/2023 issued in September 2023 for the green ammonia production project. Such license is valid for the Project construction, but it is being expanded to include the CAN production chain.

The Environmental and Social Due Diligence (“ESDD”) process will include interviews with executives from ATOME’s and contractors’ key areas (environmental, social, and occupational health and safety areas); analyze the Project’s Environmental and Social Management System (“ESMS”), including the related plans and procedures; and assess any Project social and labor information, among other issues. As a result of the ESDD, IDB Invest will confirm the Project’s categorization, identify any potential compliance gaps with the ESSP and define an Environmental and Social Action Plan (“ESAP”) to close such gaps.

Based on the information received and reviewed so far, the Performance Standards (“PS”) that the Project is likely to trigger are: PS1: Assessment and Management of Environmental and Social Risks and Impacts; PS2: Labor and Working Conditions; PS3: Resource Efficiency and Pollution Prevention; and PS4: Community Health, Safety and Security. The final determination of the PS triggered by the Project will be done by the end of the ESDD.

Once the ESDD is completed, an Environmental and Social Review Summary (“ESRS”) and an ESAP will be prepared and published on this website.

3. Additional Information

For questions about the Project please contact ATOME Paraguay S.A:

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In addition, and as a last resort, affected communities can access IDB Invest’s Independent Consultation and Investigation Mechanism (ICIM) as follows:

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