APU COMPANY

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Mongolia

APU Industrial Pre-treatment Facility and DDGS Plant

Non-Technical Summary

November 2026

Introduction

APU JSC is an open joint stock company established in Mongolia, producing beer, spirits, soft drinks, water and dairy products. Its principal production sites are located in Khan-Uul District, Ulaanbaatar, where it operates seven production plants, including the Natur Agro distillery and, through MBC Asia Pacific, the Heineken and Tiger brewery.

APU JSC is developing two new facilities in that area: an Industrial Pre-treatment Facility (Wastewater Treatment Plant, “WWTP”), which will treat the wastewater for seven existing operational plants before discharge to the municipal sewer, and a Dried Distiller’s Grains with Solubles (DDGS) Plant, which will dry the spent grain arising from beer and spirit production into animal feed ingredient. Together these two components are referred to as the "Project". The seven plants whose wastewater the WWTP will treat are the APU Brewery; RPMM, which collects returnable bottles and washes glass; the Vodka plant; the Packaging plant, which fills water, soft drinks and canned and bottled beer; APU Dairy, producing milk and dairy products; MBC Asia Pacific, brewing Heineken and Tiger; and the Natur Agro distillery. Between them they currently generate about 2,227 cubic metres of wastewater a day. Both facilities will be operated by APU JSC.

The European Bank for Reconstruction and Development (EBRD) is considering providing financing to the Project. The Project is Category B by EBRD in accordance with its 2024 Environmental and Social Policy (ESP). Environmental and Social Due Diligence of the Project was undertaken in 2026, in order to structure the Project so that it complies with EBRD’s Environmental and Social Requirements (ESRs).

Individual Detailed Environmental Impact Assessments (DEIA) have been conducted or are underway in accordance with Mongolian Law for each facility. Permitting for the WWTP resulting from the DEIA are in force. Representations in the Project Finance Documents require the Borrower to obtain, maintain and comply with relevant permits and approvals for the duration of construction, completion and operation of the DDGS. Links for each DEIA in the local language will be disclosed on APU’s website.

The present document aims at providing the public with general information about the Project’s environmental and social characteristics, risks and mitigating actions. It summarises the environmental studies prepared for each facility and does not replace them.

What are these facilities and why are they needed?

An industrial pre-treatment facility is a plant that treats the wastewater generated by industrial processes before it is discharged to a public sewer or to a further treatment facility. It removes solids, oil and grease, breaks down the organic content using naturally occurring bacteria, and filters the result so that a large proportion can be reused within the factories.

At present the seven contributing plants discharge their wastewater to the municipal sewer without on-site pre-treatment, under the discharge arrangements and tariffs that currently apply, and they operate

in compliance with the treatment standards in force. Those standards are changing. Resolution 73 of 2018 of the Government of Mongolia requires industrial enterprises in Ulaanbaatar to install pre-treatment facilities so that wastewater discharged to the central treatment works meets the required standard, and a new and more stringent national standard for industrial effluent, MNS 6561:2024, is being brought into force. The WWTP has been designed against that new standard rather than the prior standard. The Project is therefore anticipatory: APU JSC is adapting its practices ahead of the new requirements taking effect, so that its existing operations are future-proofed against them and compliant with the legislation.

The project is expected to deliver environmental benefits. Treating the flow at source materially reduces the load carried to the municipal system and, once fully treated, ultimately to the Tuul river. This supports the Government's objective of bringing the pollution load received at the central treatment works down to 2013 levels. The facility is also a water circularity measure: about three quarters of the treated water is expected to be recovered and returned to production, reducing demand on the city fresh water supply, volume discharged for the same level of output.

DDGS stands for Dried Distillers' Grains with Solubles. Brewing and distilling leave a wet organic residue, spent grain, which arises at APU JSC in the order of 94,518 tonnes a year. Drying it produces a protein-rich animal feed sold to herders and farmers. The Project therefore converts a waste stream into a product, reduces the quantity sent for disposal, and reduces the organic load carried forward to the wastewater treatment facility.

Project Description

The Project is located in the 3rd khoroo of Khan-Uul District, Ulaanbaatar, within an established industrial zone. The two facilities are presented in Table 1.

Table 1 - The two facilities forming the Project

	Industrial Pre-treatment Facility	**DDGS Plant**
Purpose	Treatment of the wastewater of seven APU JSC plants	Drying of spent grain into animal feed
Site area	Approximately 5,900 m² across four parcels	4,500m²
Capacity	2,227 m³ per day (design basis)	45 tonnes of feed per day
Input	2,227 m³ per day currently, from seven plants	Approximately 94,518tonnes of spent grain per year
Water reuse	Approximately 75 % recovery for reuse in production	Not applicable - drying by steam only
Permanent employment	About 25	About 25
Construction status, August 2026	Approximately 60% complete	Civil works from June 2026; equipment installation from August 2026

	Industrial Pre-treatment Facility	DDGS Plant
Commissioning	First quarter of 2027	June 2027

Figure 1 - Project location



Both sites are owned by APU JSC. The Industrial Pre-treatment Facility site was acquired by commercial purchase from a private third party. The DDGS Plant site adjoins the existing Natur Agro distillery and was previously an unoccupied hard-standing yard within the distillery complex.

Implementation

Industrial Pre-treatment Facility (WWTP):

Construction was approximately 60% complete in August 2026 and commissioning is expected in the first quarter of 2027.

The treatment process comprises a receiving pump station and screening removing solids above 6 mm; an equalisation basin buffering flow and load, with an emergency tank for abnormal loads; a dissolved air flotation unit removing oil and grease; biological treatment in moving bed biofilm reactors, in which bacteria growing on suspended plastic carriers break down the organic content; a final flotation stage;

and ultrafiltration and reverse osmosis producing water suitable for reuse. Sludge is dewatered mechanically and stabilised with lime before removal. Odour is controlled through a dedicated biofilter unit.

DDGS Plant:

Civil works began in June 2026, equipment installation is scheduled from October 2026, and commissioning is expected in June 2027.

The process comprises reception of wet spent grain into buffer tanks; concentration by evaporation using steam; thermal drying; and packing and silo storage of the finished feed. No process water is used in drying, which is carried out using steam. Condensate arising from the process will be routed to the Industrial Pre-treatment Facility. Annual water consumption at the distillery site, including the drying plant, is estimated at about 150,000 m^3.

Physical impacts and mitigation measures

The main physical risks and potential impacts relate to the construction phase and to the operation of the two facilities, and include:

- Increase of vehicle traffic, with associated accident risks, on the access roads and at the junction with the main road;
- Local increase of noise, dust and exhaust emissions during construction;
- Odour arising from wastewater treatment and from the drying of spent grain;
- Emissions to air from the thermal drying process;
- Generation of construction waste, operational waste and sludge from the treatment process;
- Fire and explosion risk associated with the handling and drying of grain dust;
- Storage and handling of treatment chemicals, cleaning agents and fuels at both sites.

Mitigation measures include the preparation and implementation by each contractor of a Health, Safety Plan reviewed and approved by APU JSC before works commence; dust suppression and maintenance of vehicles during construction; positioning of equipment so as to limit noise propagation; a dedicated biofilter and planted buffer strip for odour control at the Industrial Pre-treatment Facility; segregation of waste and its removal by licensed contractors.

Chemicals and major accident prevention: Chemicals and fuels will be held in sealed and bunded stores built to Mongolian standard MNS 6458:2014 and sized for the maximum quantity kept on site, with spill response equipment and trained personnel. A full inventory of the substances used at both facilities will be established, and screened both against the lists of substances prohibited and restricted under Mongolian law and against the qualifying quantities of the European Union major-accident legislation, so that any additional accident prevention measures required are identified and put in place before operation.

Water quality: Treated effluent must meet Mongolian standard MNS 6561:2024 before discharge, and water intended for reuse Mongolian standard MNS 6734:2025.

Sludge: Sludge from the treatment process will be dewatered, stabilised with lime and removed Where any part of the sludge is proposed for use in agriculture or for application to land, it will first be tested against the limit values for heavy metals set by Council Directive 86/278/EEC on the protection of the environment when sewage sludge is used in agriculture, and used only if it complies.

Biodiversity impacts and mitigation measures

Baseline: Site visits, literature review and the national environmental studies were undertaken in order to identify the biodiversity features possibly present in the Project area. Both sites lie within a long-established industrial zone in the 3rd khoroo of Khan-Uul District. The studies record that the sites consist of heavily modified, gravel-surfaced ground, that the fertile topsoil has been removed by past human activity, and that no animals and fauna of any species were found on either site during the field survey. The wider district still supports 41 mammal species, 158 bird species and two species each of amphibian and reptile, among them corsac and red fox, grey wolf, lynx, Pallas's cat, Siberian weasel and badger, Mongolian toad and Siberian frog, and Halys pit viper and Dione ratsnake. All are assessed as of Least Concern internationally, and the Project sites themselves no longer function as habitat for them. The wider district contains a designated green belt, and the Tuul river system is the ultimate receiving water for the area.

Protected areas: The Bogd Khan Uul Strictly Protected Area, which is also a UNESCO Biosphere Reserve, lies to the south of the Project. It was given Strictly Protected Area status under Mongolian law in 1995 and designated a UNESCO Biosphere Reserve in 1996. It was established to conserve the forest-steppe of the northern Khentii range — dense coniferous forest on the northern slopes above open rock and steppe to the south — together with the wildlife that has benefited from centuries of protection from hunting and logging, including musk deer and Arctic hare, and the culturally significant landscape of the mountain and its monastery sites.

Neither site lies within the protected area. Both sites sit within an established industrial zone separated from the reserve by existing development. Neither facility takes any land from the protected area, affects its boundary, or removes or fragments any habitat within it.

It is the assessors' professional opinion that, given this separation and the absence of any land take or hydrological connection, any effects of the Project on the protected area would be indirect and are unlikely to be significant.

Mitigation measures: Approximately 1,282 m² of planting will be established around the Industrial Pre-treatment Facility, comprising pine, elm and caragana selected for their tolerance of dust and vehicle emissions, together with a native grass mix, in accordance with Mongolian standard MNS 5918:2008. At the DDGS Plant, planting and grassing will be established over not less than 10 % of the held land area as required by the Law on Soil Protection and Prevention of Desertification.

Social impacts and mitigation measures

Employment: The Project will create about 50 permanent positions, 25 at the Industrial Pre-treatment Facility and 25 at the DDGS Plant. APU has in place relevant policies regarding labour requirements and these have been cascaded to the contractors.

Land acquisition and livelihoods: Both sites are owned by APU JSC and lie within an established industrial zone. The Industrial Pre-treatment Facility site was bought from a private third party on commercial terms and is currently vacant; the DDGS Plant site was an unoccupied yard within the existing distillery complex. Neither site was acquired compulsorily, and no expropriation, physical resettlement or economic displacement is triggered by the Project. No homes, agricultural land or businesses are affected and no loss of livelihood arises.

Disturbances: Noise, dust and traffic are the main disturbances expected during the construction period, these however will be temporary and concentrated within the existing industrial estate. Odour is addressed through the biofilter and buffer planting at the Industrial Pre-treatment Facility.

Public health: Both sites lie within a fenced industrial area with controlled access, and the Project is not expected to generate health risks for the surrounding population. The Industrial Pre-treatment Facility improves the existing situation, since wastewater currently discharged **without on-site pre-treatment** will be treated before entering the municipal system.

Worker's health and safety: Each contractor will prepare and implement an Occupational Health and Safety Management Plan meeting Mongolian legislation and EBRD ESR4 cascaded through its subcontractor chain. Operational health and safety procedures will be prepared for each facility, addressing in particular confined space entry, hydrogen sulphide and chemical dosing hazards at the Industrial Pre-treatment Facility, and combustible dust, hot surfaces and steam at the DDGS Plant. Emergency preparedness and response plans will be prepared, tested and coordinated with the district emergency services, police and health authorities.

Visual impacts: Both facilities are located within an existing industrial area among comparable structures, and will not materially alter the visual character of the area or affect any valuable landscape.

How Will the Project ensure Communication and Monitoring

In line with EBRD's environmental and social policy requirements, the Project will ensure that relevant information is proactively shared with the host community and other stakeholders. This includes clear communication on the risks and opportunities associated with the Project, planned mitigation measures, and opportunities for feedback.

Consultation carried out to date: Two public consultation meetings have already been held with residents and representatives of the 3rd khoroo of Khan-Uul District. Both meetings were minuted, with an attendance register and a photographic record, and the matters raised and the responses given were recorded. Further engagement will continue through construction, commissioning and operation.

Anonymous grievances are accepted through APU's existing grievance mechanism. To ensure easy access to the Grievance Mechanism, a number of interfaces have been established including a Grievance Form that can be used for submitting a grievance. Complaints are acknowledged and responded to within defined timeframes based on APU's existing policies. Use of the Grievance Mechanism does not affect any person's right to pursue a matter with the authorities or through the courts.

Speak-Up web site: Apu speakup

Speak-Up e-mail: speakup@apu.mn



The tools and the methods to be used for the information disclosure during Project phases will include:

- Internet/Website;
- Information Sheets including the Project Information Leaflet (to be available at the website, the grievance boxes and the khoroo office);
- Publication of the Non-Technical Summaries of the approved environmental studies for both facilities.