



DOC21/936282-2

Department of Planning, Industry and Environment
Via: Major Projects Planning Portal
Attention: Dominic Crinnion

8 November 2021

Dear Mr Crinnion

Snowy 2.0 - Main Works Modification - CSSI 9687- Mod - 1

Thank you for the request for the NSW Environment Protection Authority (EPA) to review the proposed Modification of CSSI 9687 for the Snowy 2.0 Main Works (CSSI - 9687- Mod 1; the Proposal). The EPA understands that the proposal was submitted by Snowy Hydro Limited (the Proponent; SHL) for the Snowy 2.0 Project located in Kosciuszko National Park (the Premises).

The EPA understands that the proposed modification facilitates the construction of a new transmission connection between Main Works and the existing transmission network. This will establish water and electricity services between the Lobs Hole and Marica project sites. The proposal would allow SHL to:

- Undertake Horizontal Directional Drilling (HDD) across an alignment of approximately 2200m
- Utilise drilling fluid consisting of a mixture of water and bentonite (if required)
- Develop two temporary drill pads that contain drill rigs, tanks, pumps, drilling fluid mixing and processing systems, water treatment systems and personnel facilities
- Install temporary water and power services for construction
- Install permanent power and communication services
- Manage wastewater generated during drilling via retention basins, reuse and treatment
- Manage and dispose of spoil in accordance with the approved Spoil Management Plan.

SHL hold Environment Protection Licence 21266 for Electricity Generation as per section 43 and Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act). If the proposal is approved, the EPA understands that no changes to the licence would be required.

The EPA is satisfied the proposed modification is minor and will reduce the amount of clearing and ground disturbance required. Based on the information received, the EPA supports the proposed modification. The EPA reminds SHL that the significant environmental values of the Kosciuszko National Park require a high level of protection from the proposed activity, including the protection of the pristine waters that flow through the Park.

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The EPA provides the further comments and recommendations in **Attachment A**.

If you have any questions about this matter, please contact Meg Edmonds on (02) 6229 7002 or via email at info@epa.nsw.gov.au

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Carlie Armstrong', written in a cursive style.

CARLIE ARMSTRONG
Unit Head - Regulatory Operations

Attachment A

The proposed activity is located in the sensitive receiving environment of the Kosciuszko National Park. The EPA considers it essential that the level of environmental protection is commensurate with the high environmental values of the receiving environment. All controls on the site, including temporary and permanent controls must be implemented to achieve the highest standard of environmental protection.

Surface Water Management

Frac-Outs

The EPA considers that the primary risk from the proposed activity is associated with the discharge of drilling fluids to surface waters. Drilling processes may inadvertently release drilling fluids to the surface via fractured bedrock through a process referred to as frac-out. Frac-outs pose a risk to water quality when drilling fluids containing mud enter surface waters. Although bentonite is considered non-toxic, it is the primary pollutant of concern in drilling mud as it contains fine suspended solids.

The EPA requires SHL to have appropriate procedures and training to identify, respond, retain and mitigate the risk from frac-outs. The EPA recommends that SHL develop a frac-out contingency plan that provides specific procedures and steps to contain the inadvertent releases of drilling mud from horizontal direction drilling near water bodies.

The EPA reminds the proponent that it is an offence under Section 120 of the POEO Act to cause or permit the pollution of waters. This includes both surface and ground water and includes placing in or on, or otherwise introducing into or onto waters whether solid, liquid or gaseous so that the physical, chemical or biological condition of the waters is changed.

Treatment and Processing of Drilling Fluid

The proposal outlines that drilling fluid would be stored and filtered to remove the clay content. Surplus water which cannot be used on-site would be piped to the process water treatment plant at MAT portal for treatment.

The EPA requires the proponent to have robust spill management and incident response procedures for the treatment and transport of drilling fluids. Procedures should include robust supervision and notification requirements.

Groundwater Management

The proposal outlines that drilling works are likely to intercept groundwater. The proposal also states that the drilling methodology will use biodegradable, environmentally friendly additives which are unlikely to alter the groundwater chemistry or present a potential source of contamination during construction works. The proposal outlines that the drilling fluid would be a mixture of water and bentonite.

The EPA recommends that the proponent conducts appropriate risk assessments of all of additives that are proposed for the activity, including any proposed biodegradable, environmentally friendly additives. These risk assessments should include suitable consideration of their ecotoxicity in the receiving environment.

Spoil Management

The EPA understands that the spoil generated during the proposed drilling would not increase the total volume of spoil generated by the Project due to a corresponding reduction in spoil from trenching for service installation. The EPA reminds SHL that as per s120 and 142A of the POEO Act the disposal or emplacement of spoil onsite must not pollute waters or land. All activities must be carried out in a competent manner, including the processing, handling, movement and storage of materials and substances.