

Comments on EIS for proposed Snowy 2.0 project

In the EIS it is stated that Snowy 2.0 is a critical project for NSW and the broader NEM in that it will, along with the existing Snowy Scheme, underpin Australia's transition to a renewable energy future at the lowest cost to consumers by providing large-scale energy storage and on-demand generation.

Pumped-hydro projects currently in operation around the world have a proven track record in energy storage and in being able to quickly respond to changes in peak electricity demand. However, the proposed Snowy 2.0 project raises critical economic and environmental issues that clearly demonstrate that the project should not be implemented - and that works already underway for the so-called Exploratory Works, should be immediately halted and the disturbed areas rehabilitated.

The manner in which this project has been pushed and subsequently agreed to by Snowy Hydro officials and by politicians without first conducting detailed economic and engineering feasibility studies is appalling. It is outrageous that public comment was invited on the EIS for the Exploratory Works more than 12 months ago without being given an opportunity to comment at that time on the impacts of the proposed project as a whole. Given the sensitive nature of the area proposed for the project, and especially as it falls within the iconic Kosciuszko National Park (KNP), it would have been more appropriate to release details of feasibility studies, then release an EIS for the whole project and if all significant issues were able to be satisfactorily resolved, then proceed to the 'exploratory' activities as the next step. The chaotic manner in which the project is being progressed in a compressed timeframe without first fully understanding the cost, engineering and environmental aspects raises the question of whether it will be an environmental disaster and an expensive white elephant that will require ongoing taxpayer support

Key economic issues associated with the project that have not been adequately addressed:

In the EIS, it is noted that other sites in the Snowy Mountains were examined (and this is the project that made the most sense), but sites elsewhere in SE Australia identified by others as having pumped-storage potential are dismissed with comments about "long lead times" and "complex planning", criticisms that could equally be levelled at Snowy 2.0 (especially recognising that expected completion date for the project has already been pushed back from what was originally announced).

Cost estimates of the project have significantly increased since the project was first announced. This must have a significant consequential impact on the price of power needed for the project to be economic. Given the huge cost in developing the project, a significant part of which must be the construction cost of close to 30km of tunnels, how can the project meet the objective of delivering lowest cost power?

The significant cost of connecting the proposed project to the grid is not included in the EIS or in the overall project costs. Snowy Hydro CEO Paul Broad has argued in the media that the cost should be borne by electricity users or by taxpayers generally, rather than by Snowy Hydro, as there is a broad community benefit arising from the project. This is disingenuous as a connection to the grid is a critical and essential part of the project (as with any power generation facility, it is useless without a connection to the grid) and the construction cost of the connect will have a huge impact on overall project costs and hence on the cost of electricity delivered to consumers. The connect infrastructure will also have

no broader benefit if Snowy 2.0 is not completed, or if it subsequently closes or is not operated regularly.

I visited the Tumut 3 pumped-storage operation at Talbingo in 1973 - not long after it opened - and can recall staff commenting on the benefits the project would have in terms of meeting peak load demands and on 'reusing' the water. However, I have read that T3 is basically operated as straight hydro power setup with relatively little use made of its pumped-storage capabilities. Presumably this is for economic reasons. If that is so, what would be different about the proposed Snowy 2.0 project?

Key environmental issues also lead to the conclusion the project should not proceed:

Almost all of the project area identified in the EIS that would be impacted during the construction phase and all of the area that would be permanently impacted during the operational life of the project fall within the KNP. This is an internationally recognised National Park of outstanding beauty and environmental, scientific and recreational value. A project of the size and nature of Snowy 2.0 is inappropriate for construction and operation in the heart of the KNP.

The dispersed nature of the facilities required to operate the project will significantly impact upon the visual, recreational and environmental values of KNP. New roads will be built, existing roads will be widened, ground surfaces and hillsides will be 're-landscaped', structures and exclusion fences will be built and the public will be excluded from additional areas of the Park, something that Snowy Hydro has been increasingly doing over the last 2-3 decades (witness, for example, the diminished public access around Jindabyne Dam, Guthega Power Station, T1, T2 and T3 power station facilities).

The EIS contains figures on the area of disturbance within KNP during the construction phase and also during subsequent operations. Presenting the numbers as a percentage of the total area of the KNP is either designed to deliberately mislead the public or is unbelievably naïve.

The claimed area of disturbance as a percentage of the total area of the park (0.25%) is meaningless. It also appears to be misleading in that it does not seem to include the significant areas of clearing that will be required beneath power lines connecting the power station to the grid and also does not seem to include the areas of subaqueous rock emplacement.

If all of the disturbance area (a claimed 1680 Ha) was contained within a single 1680 Ha polygon, it might be less of a problem. However, the disturbance area is not a single site but is dispersed widely at many sites across the project area. In addition, much of the area is in the form of narrow strips (power line and utility easements, tree clearing strips beside narrow or upgraded roads and resulting from construction of new roads).

What the EIS almost totally fails to recognise about these long narrow disturbance strips is that they significantly increase the 'compartmentalisation' of KNP. These new or widened strips create barriers that will have adverse ecological impacts (mainly on fauna, but potentially also on flora). They also have a visual impact much larger than their area might suggest.

Ground water will be permanently impacted and while modelling work has attempted to gauge the extent and nature of the impact over several decades, the true effects cannot be known for many years and by then it may be too late to address any problems that arise.

I wish to object in the strongest possible terms to the construction of a third access road to the Lobs Hole area (from the Snowy Mountains Highway via Marica to the valley floor). There is no adequate justification for this road (which had not been proposed in the Exploratory Works EIS). If there is a need for ongoing access to installations above the proposed power station, then it should be provided by means of a dead-end road from the tunnel portal end. The proposed alignment of this road is totally new and does not coincide at all with existing fire trails/ management trails that are currently being used Snowy Hydro to access borehole sites.

Since release of the EIS for exploratory Works, changes in the proposed tunnelling method (from drill and blast to TBMs for most of the tunnel length) and the transport means for construction materials and machinery) will have significantly higher levels of impact than was originally envisaged;

- TBM spoil will be a slurry that will be more challenging to deal with, especially for subaqueous emplacement.
- Using road transport for materials and equipment transport will, as I understand it, require considerably more road widening, corner realignment work and tree clearing that had been originally planned. Not only will this significantly increase environmental impacts, but will adversely impact geological features, as noted separately, and raises the question as to why a separate permanent access road via Marica is required.

The proposal to permanently widen and upgrade the Lobs Hole Powerline road (to a significantly greater extent than was originally proposed in the EIS for the Exploratory Works) will result in considerably greater impacts on a range of important geological features such as the block streams, the fossil localities and the tufa deposits.

Construction facilities and works and the dumping of tunnel spoil (even on a temporary basis) in the Lobs Hole area of the lower Yarrangobilly valley will significantly diminish and in many cases destroy cultural and historic features/ values.

For these reasons, I respectfully submit that the Snowy 2.0 project should not proceed.

J Brush