Department of Planning, Industry and Environment
Major Projects Team
Attention: Anthony Ko

6 November 2019

Submission on Snowy 2.0 Main Works Environmental Impact Statement

I oppose the Snowy 2.0 project as described in the Main Works Environmental Impact Statement. I am particularly concerned about:

Environmental impacts

Snowy 2.0 project will have a major impact on KNP:

- The "Project Area", according to the EIS, covers approximately 50 km by 50 km (250,000 hectares), which is a third of KNP - an area twice the size of Greater Sydney.
- While KNP is one of the largest National Parks in NSW (690,000 hectares), the portion containing sub-alpine habitats, the areas to be destroyed by Snowy 2.0, is much smaller. This sub-alpine area has some of the rarest habitat in Australia, and will prove increasingly important for the retreat of alpine species affected by the heating climate.
- This construction will be the largest ever proposed loss of critically important habitats in a NSW National Park. The EIS acknowledges that the construction footprint will 'disturb' 1,680 hectares, clear 1,053 hectares of native vegetation, and destroy 992 ha of threatened species habitat (threatened fauna, threatened flora and Threatened Ecological Communities). The construction footprint acknowledged in the EIS substantially understates the full extent of permanent damage outside the heavy construction zones, including Talbingo and Tantangara Reservoirs, 100 kms of new and upgraded roads, 10 kms of transmission lines with a 120 metre-wide easement swathe, ground water depleted areas above the tunnels, construction camps (for 2,100 workers) and multiple works areas. When all these areas are taken into account, Snowy 2.0 will permanently damage more than 10,000 ha of KNP (100 square kms), rather than the claimed 1,680 ha. This devastation is unjustifiable in a highly significant conservation reserve.

The project requires tunnelling through 27 kms of rock, large scale quarrying, road building and widening and the establishment of large accommodation and construction sites. The EIS does not provide a credible account of how 14 million cubic metres of spoil, some of which is heavily contaminated by asbestos and acidic compounds, can be disposed in KNP without further significant environmental impacts. Over 8 million cubic metres is to be dumped in the active storage areas of Talbingo and Tantangara Reservoirs, depleting their capacities. An outrageous proposal!

Watertable drawdown is predicted to be in excess of 50 m above the tunnel in areas of high hydraulic conductivity. The drawdown at 3 km either side of the tunnel is still 0.5 m in the western plateau. This will have a catastrophic impact on the environment along sections of the 27 km tunnel, will dry up existing creeks, impact the local fish and animals and reduce inflows to the reservoirs and hence water releases.

It is remarkable that Snowy Hydro would show such disregard for the protection of water dependant ecosystems not just in alpine areas but at the headwaters of our major waterways. Such impacts are unacceptable. Experience demonstrates that once ground water systems are disrupted by mining activities the damage is irreversible.

Snowy 2.0 will disperse pest species (including redfin perch, eastern gambusia, wild goldfish, Epizootic Haematopoietic Necrosis Virus (EHNV) and elodea weed) throughout the waterways of KNP and downstream. Redfin is a Class One Noxious Pest - it is illegal to transfer Redfin between waterways in NSW. Snowy Hydro acknowledges that it is inevitable that these noxious species will be transferred from Talbingo to Tantangara. Establishment of the dominant Redfin Perch will be to the detriment of both recreational anglers and significant populations of threatened native fish.

These noxious species are likely, in time, to infiltrate downstream to the Murrumbidgee River Lake Eucumbene and the Snowy and further to the Murray River.

The project will not only impact directly on the areas trashed by the project - the overall aesthetic values and remote experience of the Park landscape will be damaged forever.

Minimal benefits

Snowy Hydro claims that Snowy 2.0 will play a pivotal role in stabilising the national energy market as new renewable generation is added to the grid. However the data provided in the EIS seriously undermines the claimed benefits of the project:

- For the next decade or so most pumping electricity will come from coal-fired power stations, not renewables, belying the claim that Snowy 2.0 will 'store' electricity from renewable generators.
- The claimed 350 GWh would only be available in the most exceptional of circumstances, requiring the top reservoir (Tantangara) to be full. If the full volume was used, at least one-third of the water couldn't 'fit' within the smaller capacity of the lower reservoir (Talbingo) and would be discharged to Blowering and 'lost' to the Snowy 2.0 system. If Talbingo were not empty (historically it is kept near full to provide for operation of the Tumut 3 pumped hydro station), then most of the water from Tantangara would be discharged to Blowering and 'lost' to Snowy 2.0.
- The practical recyclable capacity of Snowy 2.0 is considerably less than the claimed 350 GWh.
- If Snowy 2.0 ever generated its claimed 350 GWh of energy, it would take 500 GWh of pumping energy to re-charge, incurring 150 GWh of losses.

The project is uneconomic. The cost of Snowy 2.0 will be many times greater than the original $2 billion and then $3.8 billion estimates. It is likely that the project, including transmission, will be $10 billion, or even more. At anything approaching this amount the project is totally uneconomic.

Unsatisfactory approval process

The Main Works EIS is only part of the assessment of the broader Snowy 2.0 Project.

It is over 2½ years since Snowy 2.0 was announced (March 2017). Over the intervening period the Snowy Hydro Board has authorised the Final Investment Decision, the Government has approved the project and kicked in $1.38 billion, a $5.1 billion contract has been awarded, construction commenced 8 months ago (February 2019) and major equipment is being ordered. Yet, the Main Works EIS has only just been released and the EIS for the high voltage transmission lines is yet to come.

The effect of this incremental piece-meal planning and assessment process has been to deny the community a holistic view of the full scope and impacts of Snowy 2.0. This approach compromises transparency from both a proposal and assessment perspective. Given the scale of the project this approach can only be seen as designed to obscure the full extent of environmental impact on KNP.

Despite the Environmental Planning and Assessment Regulation 2000 requiring *"an analysis of any feasible alternatives to the carrying out of the development, activity or infrastructure",* no such analysis has been provided. The project must be put on hold until such fundamental information is provided, especially as many alternatives have been identified with far less environmental impacts and better economics, both within and outside KNP.

Conclusion

The scale and intensity of environmental impact described in the EIS is inappropriate in any sensitive sub alpine region, let alone Kosciuszko National Park (KNP), one of our nation's most iconic, National Heritage Listed national parks.

The Snowy 2.0 project, as proposed, does not meet the principles of Ecologically Sustainable Development as mandated in the Environmental Planning and Assessment Act. The project should be refused by the Minister for Planning.

Other pumped storage opportunities already identified in NSW, together with batteries and other forms of storage, must be explored in preference to this project. These are almost certain to be less expensive and have vastly lower environmental impacts.

Yours sincerely,

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