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

6/11/2019

Submission on Snowy 2.0 Main Works Environmental Impact Statement

I am writing to express my extreme opposition and concerns to the Snowy 2.0 project as outlined in the Main Works Environmental Impact Statement (EIS). The project represents a scale of destruction and environmental impact not seen for a National Park in in recent history. The irreparable devastation this project will have to the Park's ecology, hydrogeology, biodiversity and geodiversity cannot be allowed to be continued and as such the project should be refused by the Minister for Planning. My main issues for consideration for refusal for this project are described below.

Environmental Impacts

The staged EIS process fails to consider the full implications for the level of environmental impact for the whole project. Based off the current EIS for review, the report identifies the development impact to be 0.25% of the park, which is completely misleading given it does not factor kilometres of transmission lines with a 120 metre wide easement swathe. It is rather disingenuous to talk about the percentage removal of habitat from the Park given its one of Australia's largest National Parks and it does not take into account further development proposals. This impact is far from minimal given the ecological importance and destruction of critically endangered habits especially within the alpine and sub-alpine regions of the park.

The EIS acknowledges the project will disturb 1,680 hectares of the Park, clear 1,053 hectares of native vegetation, and destroy 992 hectares of threatened species habitat. The EIS highlights there will be loss to Alpine Bogs and Fens which are critically endangered ecosystems, and high value groundwater dependent ecosystems across the Plateau. The removal of these ecosystems cannot be mitigated through the use of biodiversity credits or offsets given these ecosystems are not found anywhere else in Australia. Once you remove these habitats, they are gone forever and there is no other places which can be used to offset these ecosystems given the uniqueness of their location within Australia. The use of biodiversity credits/ offsets is fundamentally flawed in instances like these where there is no potential for moving this loss of diversity to somewhere else as it is already captured within a National Park. Biodiversity offsets and credits should not be used to justify the clearing of land in particular cases like this. This is the last remaining habitat of its kind within Australia and will provide an important retreat for alpine species in the facing of a changing climate. No development of this scale or intensity is appropriate in the sensitive habitats of a declared conservation reserve.

Water Impacts

The EIS identifies impacts to water through tunnelling of the power waterways and underground power station through water drawdown. I find it troubling that the EIS suggest these impacts will be insignificant given the size and extent of tunnelling operations and the sensitivity of the areas that will be affected. Watertable drawdown is predicted to be in excess of 50 m above the tunnel in areas of high hydraulic conductivity (Gooandra Volcanics). 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. The EIS clearly understates the associated impacts to surface waters and the hydrogeology of the project area. Whilst a Trigger Action Plan (TAP) is considered to monitor water drawdown, it really is a case of too little too late in the instance of tunnelling which is permanently disturbing the hydrogeology and associated surface waters. Experience with other underground mining projects within Western Sydney, Southern Highlands and Illawarra demonstrates that once ground water systems are disrupted, the damage is irreversible and can become even more extensive over time.

One other factor which is not considered within the EIS is the potential impacts to cave systems and the water bodies which feed them. My main concern is Yarrangobilly caves which falls within the defined project area. These caves systems range from 440 million years old to newly developing caves like Jersey Cave which is 745,000 years. The caves have immense geological value, bringing in hundreds of thousands of tourists each year to discover their beauty. I am concerned the Snowy 2.0 tunnelling project will disrupt the hydrogeology dynamic of the Yarrangobilly area and the surface tributaries and streams which feed these caves systems. More modelling and greater understanding of the overall impact this project will have on these caves systems is need before a project of this nature is allowed to continue.

Given the large footprint of Snowy 2.0 and the sensitive ecosystems within the project area, I am extremely concerned the EIS is not capturing the full extent of the impact it will have to these water bodies and the ecosystems which they support.

Soil Impacts

Snowy 2.0 is expected to produce 14 million cubic metres of spoil, with over 8 million cubic metres of material to be dumped in the active storage areas of Talbingo and Tantangara Reservoirs. I find this extremely troubling that the proposed location for this excess material is for placement within a water body which will significantly reduce the capacity of the reservoirs, impact water quality and disturb critical habitat for fish and other animals which occupy the area. The EIS fails to provide a credible account for how to dispose of the excess soil material without further damaging the Park, or provide suitable alternatives for disposal which do not impede upon Talbingo and Tantangara Reservoirs.

Pest and Invasive Species

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 Kosciuszko National Park (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.

Even worse than it being accepted that these noxious species will be transferred to Tantangara, it is highly doubtful that the barrier and filtration systems proposed by Snowy Hydro will stop their eventual transfer downstream to the Murrumbidgee River and Lake Eucumbene and thence throughout the rest of the Snowy Scheme and downstream rivers (Snowy, Murrumbidgee and Murray).

The creation of more roads, corridors and electricity transmission lines within KNP will allow for greater access and movement of invasive plants and animals species including horses further into

Park. The EIS fails to provide certainty that there will be useful mitigation measures in place to ensure there is no spread via land of noxious weeds and feral animals as part of the project.

Aesthetic Value

One of KNP's core values is the sense of wilderness and solitude unique to alpine landscapes. These aesthetic qualities, and the experience of visitors, will be seriously diminished by the increases in roads, permanent large structures and especially the transmission lines. The project will not only impact directly on the areas trashed by the project - the overall sense and experience of the Park landscape will be damaged forever. The implication in the EIS that the community will regard the proposed infrastructure as evidence of the nation's engineering prowess offers hollow recompense for the loss of the Park's unique aesthetic qualities.

Uneconomic

Snowy Hydro will be an uneconomic feat which have a far less impact on the National Energy Market than what the project proposes. The project highlights that there will be net consumption of electricity, with 'round-trip' losses of 30%, plus another 10% for transmission. The claimed output of 350 GWh of energy produced appears to be dubious at best when pumping, transmission and dam level requirements are factored into consideration.

It is clear that the cost of Snowy 2.0 will be many times greater than the original $2 billion and then $3.8 billion estimates – a single contract for $5.1 billion has recently been awarded. It is likely that the project, including transmission, will be $10 billion, or even more. The cost blow-outs already associated with this project cannot justify the continuation of this project which will be at the detriment of the Australian public, the ultimate payers of this project.

There are clear alternatives in wind, solar, hydrogen power and other developing renewable alternatives which the NSW and Australian Government could fund, which would deliver far greater energy outputs at a significantly reduced cost, quicker amount of time and with far less environmental impact than Snowy Hydro 2.0.

Conclusion

The Snowy 2.0 project, as described in the Main Works EIS, does not meet the principles of Ecologically Sustainable Development as mandated in the Environmental Planning and Assessment Act. In short, the staggering scale and severity of environmental impacts are by no means commensurate with the environmental, economic and community benefits of the project. I call on the Impact Assessment Team, Planning Team and the Minister for Planning and the Environment to be courageous in standing against this development and protecting Australia's most iconic National Park. By refusing this EIS in full, it will send a strong and clear message that development of this kind is not acceptable within a National Park with such high biodiverse and geodiverse value found nowhere else in Australia.

Regards,

Lynton Hurt