

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

4 November 2019

Submission on Snowy 2.0 Main Works Environmental Impact Statement

I am strongly opposed to the Snowy 2.0 project as described in the Main Works Environmental Impact Statement (EIS). 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.

Kosciuszko National Park is quintessentially Australian. It is significant internationally, nationally, and in its regional setting. The value of its landforms, rivers, streams, native plants, native animals, wilderness, ecosystem processes, aesthetics, cultural significance, recreation and tourism will all be significantly impacted by this project.

In addition to the unacceptable environmental impacts on KNP, the fractured assessment process means the full catastrophic extent of the environmental impacts of the project will not be assessed by the main works EIS. Additionally, there is a distinct lack of credible consideration of less expensive, lower impact alternatives.

Claims about energy storage potential are dubious and the excessive cost will be paid for by the Australian public, the ultimate owners of the Snowy Hydro scheme. Furthermore, alternatives have not been adequately addressed by the proponents.

These failures clearly demonstrate that the **Snowy 2.0 project does not meet the standards required of Environmentally Sustainable Development** and accordingly the project should be refused by the Minister for Planning.

The project is of vast scale and the quantity of documentation makes it very difficult to address all my concerns about the project. The six-week public exhibition period is far too short to allow adequate assessment of such a large-scale project.

Issues of particular concern are described below. Each of these issues in themselves would be reason enough to halt the project. Taken together they overwhelmingly indicate that the project must be rejected.

Environmental impacts

The impact of Snowy 2.0 is major, extensive and unprecedented in a national park in NSW. The EIS consists of more than 8,000 pages of supporting documents. I regard the exhibition period as far too short to enable the community to undertake a comprehensive review of the project. Nonetheless, I can identify the following serious concerns with the environmental impact assessment:

- The EIS repeatedly asserts that the Snowy 2.0 project will have a minor impact on KNP on the basis that the development footprint represents approximately 0.25% of the total area

of the park. The reference to the proportion of KNP appears designed to mask the unprecedented intensity and scale of development impact on the national park (see below). It also suffers from the 'shifting baseline' phenomena, where previous generations of environmental degradation are taken for granted. In this case, the assertion that 'only' 0.25% of KNP is impacted fails to acknowledge those parts of the park which have already been destroyed by the original Snowy project and through the development of the resorts precincts. The result is that the total portion of KNP which is lost to development is far higher than implied by Snowy Hydro.

- 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. These rare habitats provide the appropriate context for assessing the adverse environmental impacts of Snowy 2.0, not the lower altitude landscapes that characterise the majority of KNP.
- This construction will be 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) and 1,053ha of native vegetation will be totally destroyed including 992 ha of habitat for 14 threatened species. In some cases, significant proportions of the species in KNP will be wiped out.
- No development of this scale or intensity is appropriate in the sensitive habitats of a declared conservation reserve. The impacts of a proposal of this scale and intensity cannot be 'mitigated' or 'offset'. This is rare and fragile habitat for threatened species. Once damaged the affected soils, species, landforms and waterways will not be recovered. Such a proposal simply should not be contemplated in an internationally renowned conservation reserve.
- The EIS makes multiple references to mitigating the impacts of Snowy 2.0 through promising future plans and works in consultation with NPWS or through formal offsetting processes. No appropriate offsets for the habitats that would be destroyed by Snowy 2.0 could be provided, given that all of the comparable alpine and subalpine areas of NSW are already included in KNP.
- 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. It is clear that much of the excavated materials will be used in 'landscaping' works that will further exacerbate the damage to the Park. Unbelievably, over 8 million cubic metres is to be dumped in the active storage areas of

Talbingo and Tantangara Reservoirs, depleting their capacities. The leaching of asbestos and likelihood of its dispersal in the park is of major concern. Approval must not be given to dump waste material, some of which is contaminated, in a National Park, let alone 14,000,000 m³ - enough to cover a football field to a height of 3 km.

- The EIS describes extensive impacts on water dependant habitats and species through disruption to ground water systems by the tunnelling as well as in works beside 8 kms of the Yarrangobilly River.
- Water table 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.
- 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. I do not accept the assertion that such impacts are 'acceptable'. Experience demonstrates that once ground water systems are disrupted by mining activities the damage is irreversible and can become even more extensive over time.
- KNP is a significant source of water for the Murrumbidgee, Murray and Snowy River systems. These water sources are in dire need of protection, not further damage.
- 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.
- The barrier and filtration systems proposed by Snowy Hydro will not 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).
- One of Kosciuszko National Park's core values is the sense of wilderness and solitude unique to alpine landscapes. These profound aesthetic values, and the experience of visitors, will be seriously impacted by the increase 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 profound aesthetic values which are of national significance. The unique landscapes of Kosciuszko National Park are as much a part of the Australian heritage as Uluru, the Great Barrier Reef or the Sydney Opera House. They must not be lost to roads and transmission lines.

Minimal contribution to renewable energy

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. Such claims do not justify the extent and severity of environmental destruction that the project will cause to KNP, especially in the absence of a credible assessment of alternative ways of providing this service. In any case, the data provided in the EIS seriously undermines the claimed benefits of the project.

Specifically:

- Snowy 2.0 will be a net consumer of electricity, not a generator, with 'round-trip' losses of 30%, plus another 10% for transmission.
- 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.
- Whenever Tantangara were emptied, it would then require several months of pumping to be returned to full supply.
- 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.

Flawed planning and 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 and the government 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 obscures 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.

Destruction of a place of national significance.

Through its listing on the National Heritage register and the intergovernmental Memorandum of Understanding for the Management of the Australian Alps the NSW Government is obliged to manage, protect and conserve Kosciuszko National Park for all Australians, present and future. If this project were to proceed the NSW government would be in breach of those obligations.

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, aesthetic and cultural impacts are by no means commensurate with the overstated benefits of the project.

Yours sincerely,
Anne Dickson