

Thank you for the opportunity to make a submission objecting to the proposed Shoalhaven Hydro Expansion Project.

OVERVIEW

I am concerned about the manner in which Origin is framing this project as a 'green project' that should go ahead because it is merely an expansion of the original project that can be completed with minimal impacts to an already compromised environment in Kangaroo Valley. The overview of the project in the EIS states that they propose to maximise the 'energy generation benefits' of existing infrastructure while 'minimising impacts through targeting areas of prior disturbance.' This is indicative of the whole tenor of the EIS. It implies that it will generate extra electricity; it will not, it will in fact be a net user of renewable energy and while there will certainly be benefits to the grid in terms of energy storage, I believe the benefits to be disproportionate to the damage caused to the environment and community.

The 'targeting areas of prior disturbance' implies that areas around the proposed expansion are already compromised and that expansion would have minimal impact. It's an example of how the EIS glosses over the facts and fails to adequately address the impacts of construction on the environment and to local residents and businesses. The 'prior disturbance' was in the 1970's; it was then predominately rural in nature, vastly different to today's landscape. Areas disturbed have regenerated and are home to native and endangered wildlife as well as many residents, farms and eco-tourism businesses. The impacts of noise, traffic congestion, pollution etc will be huge to all stakeholders. The EIS lists few mitigation measures other than community consultation. I'm not sure how much of a voice the community would have when community consultation to date has missed vital stakeholders and has been based on misleading assumptions around being a green project which has led to community division, not cohesion.

The short time frame allowed and the specialised knowledge needed to assimilate EIS documents that manage to be both complex and vague at the same time have made this an onerous process for residents of Kangaroo Valley who will be greatly impacted by the proposed project. It has already caused great divisions in our small community, as most who live here want to be 'green' caretakers of the land and this project has been framed by Origin as a green project, generating renewable energy. Those who have raised questions or voiced opinions opposing the project have been vilified on social media and old social divisions around land use, farming vs tourism, progress vs conservation are creating tensions as residents grapple with information overload, media misinformation and political green washing. I am concerned that the quality and quantity of submissions objecting to the project will be impacted and that if this project goes ahead irreparable damage will be done to our valley and our community before a proper assessment of its green credentials can be made.

I know of no hydro-electric power stations planned or in operation that are located so close to residents and businesses. This project involves complex capital works which I believe will impact local residents intolerably over a period of at least 5 years ruining businesses and destroying the quality of life of residents. It has the potential to introduce lasting environmental damage to our waterways, our land and our wildlife. The justification therefore for pursuing this project against all the issues raised in these objections simply does not stand up to appropriate scrutiny.

PERSONAL REFLECTION

At a personal level trying to analyse both the merits and costs of this project has forced me to examine my own 'green' misconceptions about what constitutes 'ecologically sustainable development' as required by the SEARS. I consider myself a 'pragmatic greenie,' committed to doing whatever I can to protect the environment, minimising my carbon footprint and supporting sustainable, regenerative practices and projects while still enjoying the comforts of modern life. I was under the impression, as are many others in the valley, that hydro power generation generated more power than it consumed, when actually the reverse is true. This was not made

clear at any of the community consultations. Origin has employed some very talented communicators to lead the consultation process but no opportunity was taken to explain in plain English what was involved. Instead lots of reassurances were offered about how problems would be mitigated as they arose in the design and implementation stages. Many of our questions were answered with 'that will be resolved in the tendering phase.' This is totally unacceptable. Not only were the most impacted residents offered platitudes instead of answers but the wider Kangaroo Valley community were left with misconceptions about how green this project actually is.

The reality is that with this project Origin proposes to use taxpayer dollars to help fund a scheme that will not actually generate any extra power for the electricity grid. Based on an industry norm for hydro generation of 70% efficiency, this project will consume 30 % more power than it generates. It will consume power when it is cheapest to pump water up from Bendeela to the reservoir at Fitzroy Falls. It will then release that water when power prices are at peak, generating hydroelectricity to sell to consumers at a premium. We as taxpayers would be funding, in essence, a hydro battery so that Origin energy, and soon perhaps Brookfield, a Canadian company, can buy our green energy cheaply and sell 'not so green energy' back to us at a premium price.

Origin is pursuing this project primarily for profit and could pursue alternative projects if they were truly serious about being green. They could look at investing in a suite of carbon capture and storage solutions to help balance the grid instead of pursuing government funding to subsidise a project that in 2020 they decided was not economically feasible. In a letter to residents in 2021 Origin acknowledged that 'market conditions' meant it was more practical for Origin to pause progress on the project. It was not economically feasible then and needs taxpayer funding to be feasible now. Given the huge over runs of the Snowy hydro project, from a projected 2 billion dollars to over 10 billion now, how much overrun can taxpayers expect from the Shoalhaven scheme? Given so much of the project is in Kangaroo Valley with difficulties of access, one road in and one road out, difficult terrain, huge impacts to community and environment to mitigate, water quality to protect, accommodation so very difficult to procure the overrun is likely to be considerable.

Taxpayers will be left with another white elephant hydro scheme that generates only 235 mw or enough power for 80,000 homes. At a recent community meeting we asked how many homes would benefit from this expansion. The answer was 80,000 dwellings. Census data puts the resident population of NSW in 2021 at 8,072,163 living in 3,364,777 dwellings. So a mere 2.37% of dwellings would benefit from expensive peak load 'not so green hydro energy' produced by Origin with a 30% net loss of the solar energy we generated on our rooftops. The scheme does not add up environmentally or financially. It suggests that political greenwashing is occurring. The government needs to look green. Here is a project that looks green. The cost unfortunately will be to the taxpayer, the environment and especially Kangaroo Valley.

Given all the reassurances we had been offered in our meetings with Origin beginning in 2018 I was genuinely horrified when I finally read the EIS and realised how badly we would be impacted by this project. The home and land my partner and I had worked so hard to improve for our peaceful retirement here 6 years ago is located within a small triangle bordered on two sides by proposed tunnels and on the third by the road that will constantly be in use by heavy vehicles transporting workers, machinery and spoil from the tunnelling. We will be hugely impacted by noise from both traffic and construction as well as blasting above ground during working hours and underground blasting 24/7. The abundant wildlife our grandchildren love to watch will disappear from our land during construction and our organic orchard and vegetable patch, our beehives and poultry exposed to pollutants from traffic and dust. Bees are particularly sensitive to vibrations from blasting as this impairs their flight, foraging and feeding abilities. They will naturally swarm to a more peaceful environment. This is not the retirement we have worked so hard to achieve. The value of our property will plummet as who would want to buy land in Kangaroo Valley surrounded by construction. We couldn't sell even if we wanted to.

I also mourn the potential cost to our beautiful valley environment, our pristine waterways, our wildlife as I have come to learn in the last 6 years of living here how fragile and precious that environment is. I have witnessed firsthand the impact of drought, fires, covid and now floods on the farmers, the tourism operators and especially on the environment. The EIS as it stands downplays the potential damage to the environment and the extent of the impacts to our community.

The EIS and related material fails to present evidence based, objective and complying assessment of the risks and impacts of this project. The mitigation measures it proposes are wholly inadequate. Stakeholders have not been presented with factually correct, unbiased understanding of the issues and impacts. This constitutes a grave unfairness to those affected by the project. It should not proceed.

OBJECTIONS IN DETAIL

Non-compliance with SEARS:

Maps:

Maps in the EIS and those used at the various community consultations were not of an adequate scale and did not show current land use and environmental features. Those in the EIS made it difficult to ascertain just where things would go in relation to our land and even when we asked for clarification at community meetings the presenters had trouble using them to answer our questions. At one point Lot numbers on a map were used by an engineer to ascertain the location of our property, we then discussed proposed mitigation measures needed and only later worked out that those lot numbers belonged to a neighbour. Not our land at all.

The maps used in the EIS and for presentations did not show current land use, not even our dwellings. This is totally misleading suggesting that the land is unoccupied and so the impact to stakeholders minimal.

Assessment of the likely impacts of the project on the biophysical and socio- economic environment:

The EIS provides limited detail and lacks objective analysis of the possible consequences on the people and businesses that will be directly or indirectly impacted. The data used has been sourced mainly from Internet searches and is outdated, often from 2019. Current businesses and homes were not included in the data. Analysis on the impacts on residents and businesses is dismissive e.g. 'changes in amenity for occupants of properties surrounding the proposed construction works, possibly diminishing individuals use and enjoyment of their properties.' These 'changes' include construction noise, blasting 24/7, sleep disturbances, increased traffic, road closures, delays etc. There is no possible about it. There is certainty that residents and the local community will be hugely impacted. The 'analysis' focuses on how the NSW community at large would benefit and discounts the very real impacts on local residents and communities with phrases such as 'possible disturbances.' Mitigation measures are often limited to community consultation.

This is unacceptable. An up-to date survey needs to be undertaken of what businesses currently exist and how they will be impacted. Loss of peoples livelihoods needs proper mitigation. Ongoing assessment will also be needed into the impact on the residents closest to the works. Mental health and wellbeing will surely be impacted if people suffer at least 5 years of sleep disturbances and anxiety with noise, vibrations and damage from blasting as well as economic loss.

Traffic modelling:

Again the language used to describe the impact on traffic in the valley and through the highlands is totally misleading. 'Negligible impact' and 'manageable' are not appropriate when applied to Moss Vale Road, the one road in and out of the valley. A road that contains many hairpin bends and has only two overtaking possibilities on the proposed route. A road that was closed for months this year due to water damage and entailed an almost 2-hour detour for those needing access to the highlands from Kangaroo Valley. A road that is closed again one night this week from 8 pm to 5 am as repairs are needed to the guard rail as there was another accident where a car went over the embankment a few weeks ago. Moss Vale Road is still down to one lane on the Nowra side and traffic management are still there 24/7.

The impact to our roads will be huge, both to Moss Vale Road and the local roads used by residents. The numbers cited in the modelling are horrendous. Delays inevitable, accidents likely. The potholes are already awful and under constant repair. This is not negligible impact. It is not manageable.

Noise and Vibration:

The impacts of noise and vibrations are trivialised in the EIS and misleading. Kangaroo Valley is quiet and peaceful. It's why people come to the valley to rest, recreate and enjoy the beauty of nature. It's a major asset. At one of the community meetings the readings from the receivers was described as 'the quietest of any site Origin has monitored.' Yet the EIS uses standard Noise Management Levels (NML) as a base measure. This is totally misleading because our base is so much lower.

The amount of blasting, drilling, crushing, excavation, heavy vehicle movement needed for this project will be horrendously noisy. It will destroy a major asset of the valley, our peace and quiet. It will hugely impact those like me, adjacent to the site, but it will also severely impact all venues and residences along the noise and traffic corridors of our valley. Noise travels in our valley. We can hear noise from kilometres away. Being within 'Project operational noise limits' should not be acceptable here. But worse still the EIS admits that at times these limits will be exceeded. Over a minimum period of 5 years this will decimate businesses in our valley and damage the wellbeing of residents like me.

Surface and Groundwater:

The project is within a sensitive water catchment area. When we moved here 6 years ago Shoalhaven council required us to upgrade our wastewater outflow area so that already treated grey water could dissipate through a series of trenches and hoses to sprinkler heads so that there was no treated water flowing into our dam or nearby creeks. It took nearly a year of negotiation and considerable cost to design and install a system that would meet council's stringent requirements on our rural block. We undertook the work willingly as we understood the need to protect the drinking water catchment.

But how then are Origin able to state in the EIS that 'no significant cumulative impacts with respect to groundwater are identified for the project'? Twenty-nine (29) hectares of land nearby will be used to dump the potentially acid rock and debris excavated. There are many above and underground creeks and waterways that could be impacted by dust and pollutants. There needs to be appropriate scrutiny of these claims.

Air Quality:

Again the EIS claims that dust will not really be an issue. How is this possible? Construction generates dust. Spoilage is being dumped on the surface. We often have strong winds in the valley, the whole month of August is notorious as being especially windy. The winds will carry the

dust kilometres. Surface water contamination is very possible. There is no town water along Jacks Corner Road. We collect water from our roofs. There will be impacts to health from polluted drinking water and no doubt an increase in respiratory issues.

Safety:

Having experienced the dangers and isolation of the Currowan fires three years ago I have safety concerns around the construction phase of the project. This is a mobile black spot, anywhere west of the Power Station has no mobile phone coverage and even landlines are unreliable. Several times this year we have had no mobile, no internet and no landline. A recent public consultation with Telstra illustrated that others in the valley had the same experiences. Bendeela Road and Jacks Corner Road are dead ends. There is only one way in and out. This poses safety issues with so many extra workers using dangerous equipment, including explosives and so many extra vehicles on the road. I note that some safety measures have been described in the EIS but whether they consider all these local factors remains unclear.

Conclusions:

This project should not be approved. The EIS appears to have been rushed to meet timelines for government funding and, I suspect, the timing of the NSW elections next year. The EIS is not compliant with SEARS guidelines. Without taxpayer funding the project would not be economically viable. It is small in terms of generation capacity but has the potential to blow out in terms of construction costs. It will cause significant damage to our peaceful Kangaroo Valley environment and community. It will have a huge detrimental impact on nearby residents and businesses. It will impact our health both physical and mental, robbing us of our peaceful lifestyle and our economic security. Origin is pursuing it only to generate profit and using taxpayer money to this end is wrong.