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## Submission in objection to the Shoalhaven Hydro Expansion Project

### Introduction

As a landowner, resident and business operator on the site of the proposed Shoalhaven Hydro Expansion project (the project), I am one of the 'sensitive receivers' identified in the EIS. I am deeply concerned about the immediate environmental, economic, health and social impacts of this project, of which worrying little research and detail is evident in the EIS.

There is also no indication in the EIS that Origin has met its obligation to properly evaluate, justify or analyse other sustainable or renewable options that could equally provide reliable back up / dispatchable power generation, but with less impact of local communities, environment and wildlife.

If it is possible for this project to be carried out in a way that is environmentally, socially and economically responsible, it must be based on an environmental impact statement that considers alternatives, adequately recognises and mitigates risks, and outlines compensation for individuals and organizations impacted. The current EIS fails in this regard.

If Origin is genuine about community consultation, it should begin again. It should prepare a new statement that addresses the concerns in other submissions and herein, with a view to starting community consultation and engagement afresh and from a meaningful starting point.

This submission will not address all areas of concern. I share the concerns outlined in submission SE-51628711 and endorse that submission.

### Community wellbeing

#### Quality of life

The construction phase of this project – minimum 5 years – will have devastating impact on the livelihood, way of life and mental health of residents at an individual and community level.

People choose to live in and visit Kangaroo Valley for its natural beauty, unique and abundant wildlife and serenity.

The existing soundscape at my property is one of intermittent wind, rain and wildlife. The project will destroy this quietude with noise pollution 'above applicable noise management levels' and 'causing possible sleep disturbance'. This will have dramatic impact on all 'sensitive receivers' and significant impact on others in the area.

Adding to noise pollution, there is the air and dust pollution, potential water contamination, earth tremors and visual pollution, resulting from 24/7 drilling, digging, underground and surface blasting, haulage and dumping.

Over the course of 5 years (best case scenario) this is too much for individuals and the community to bear.

## Timing

Following years of drought, in 2019 devastating bushfires demolished properties and livelihoods within the site location.

For many already traumatised residents, Covid and lockdowns thwarted their ability to return to 'normal life' and, in some cases, earn income.

Three La Ninas in a row hampered agriculture, commercial recreation (eg, kayaking, camping) and reduced demand for holiday rentals. Major road closures in and out of the valley over many months further discouraged visitors and service providers.

The roads in and out of the valley are finally open, but this project will keep them permanently clogged with 'approximately 13,700 bus movements associated with workforce transport' and 'approximately 41,000 light vehicle movements associated with workforce transport', plus 100 daily heavy vehicle movements associated with deliveries.

Now, as we experience a period of rapid inflation and rocketing interest rates, Origin intends to inflict on the community a project that simultaneously devalues their properties while removing their capacity to generate the income they need to sustain them.

## Traffic and transport impact assessment

The figures in the EIS regarding vehicle numbers are truly staggering.

At the same time, it is difficult to calculate actual totals, as some of the numbers provided are vague and some have been averaged out over long periods.

### Impact on motorists and cyclists

The EIS states 'the potential impacts to public transport, pedestrians and cyclists, road safety and parking during the construction and operation of the project are also expected to be manageable'.

There is no mention in that list of other motorists, or a sense of what 'manageable' looks like.

The EIS also states it has not used the NSW Planning Guidelines for Walking and Cycling in its assessment as there are 'limited pedestrian and cycling facilities' in the immediate vicinity of the Project.

Yet organised cycle rides are a regular feature on Bendeela and Jacks Corner roads. It is also a popular activity along the Moss Vale-Nowra Road that will be highly affected by trucks on roads with narrow shoulders.

Cycling is arguably a significant feature of the area. In fact L'Etape Australia was planned to go through the Valley, on the same roads in question, earlier this year. It was only cancelled due to serious landslips on the roads following torrential rains.

Further, on Moss Vale Road the KV pump track enjoys high usage. In particular it attracts a large number of families with young children on bikes. The pump track sits roadside. The constant heavy traffic passing it at peak usage times will present serious danger to children and adults using this facility, and may render it unusable. The EIS describes this danger (also the danger at local school and church areas) as 'perceived'. The EIS offers no explanation as to why the danger should not be considered very real.

### Moss-Vale-Nowra Road

Kangaroo Valley has only one main road through it, the Moss Vale-Nowra Road, which is a single lane road with steep, winding approaches from Moss Vale and Nowra, over the Barrengarry Mountain and Cambewarra Mountain respectively. They are both known sites for major car crashes that can block the road completely for hours. The EIS gives no consideration to car crashes on the mountains.

At peak construction the EIS says there will be 80 truck trips (40 “vehicle movements”) carrying equipment and materials on the Moss Vale-Nowra Road.

That’s a truck every 45 seconds.

There could also be another 40 truck trips per hour for concrete work.

It is not clear when these peak times will occur. Then there could be many more for spoil removal. Again, it is not clear exactly how many trucks will be using the Moss Vale-Nowra Road at any time.

The assessment seems to only consider intersections, not through-traffic.

### Hampden Bridge

The only bridge crossing of the Kangaroo River is the single-lane heritage-listed Hampden Bridge, where southbound vehicles approaching a sharp turn have to give way to northbound vehicles, and only one truck can use the bridge at a time.

The bridge is described in the EIS but the project’s traffic impact does not appear to be modelled. More truck traffic will increase this bottleneck.

The EIS does not study the possible impacts of more traffic on the structure of the Hampden Bridge aside from saying, “The obedience of existing road and heavy vehicle restrictions on the bridge would avoid impacts to this item.”

### Project site

The EIS says about 16 shuttle buses and 30 light vehicles are expected to facilitate the transportation of a workforce of 370 personnel to the Project during each morning and afternoon peak.

That means there will be 46 vehicles entering and possibly leaving site around 7am and 7pm.

### Spoil haulage

Calculating the various daily heavy vehicles movements during the peak construction stage generated by spoil transportation as outlined in the EIS, at peak construction stage there will be up to 320 truck trips around the Kangaroo Valley hydro plant to dump spoil per day. They may need to cross and use Jacks Corner Road. There will be 40 truck trips navigating the Moss Vale-Nowra Road from the plateau to Bendeela Pondage.

Even limiting movement to 12 hours, that’s **30 trips per hour** or **one every two minutes**.

This will make access slow and difficult, and render life unbearable at nearby properties.

There may be even more truck trips because the proponent does not know if the WaterNSW bridge at the Kangaroo Valley Power Station can accommodate 25T trucks.

The EIS says there would be an average of 20 – 60 spoil truck movements spread over the duration of the Project.

Daily numbers on the Moss Vale-Nowra Road will likely be far higher when there will be 360 truck trips carrying spoil to Bendeela Pondage and there is only a limited area for spoil. They will have to slow traffic to make turns into Bendeela Road.

### Concrete

The materials for the lower scheme will come from Nowra and be transported in 20t tipper trucks. There will be an average of four daily heavy vehicle movements (four inbound and four outbound) of aggregate or cement for the period of 18 months to feed the concrete batching plant for the tunnel lining. During peak times there may be up to 10 hourly heavy vehicle movements (10 inbound and 10 outbound) to the lower scheme for trucks carrying materials for concrete.

For the upper scheme, during peak times there may be up to 10 hourly heavy vehicle movements (10 inbound and 10 outbound) to the Promise Land Trail for concrete agitator trucks coming from Moss Vale.

At peak construction there could be 40 truck trips per hour on the Moss Vale-Nowra Road, either to or from Moss Vale or Nowra. The EIS language seems vague but we are presuming hourly movements mean movement per hour. They will have to slow traffic to make turns into Bendeela Road and Promised Land Trail.

### **Delivery of materials and equipment**

A single vehicle 'movement' is assumed to consist of two trips (one inbound trip and one outbound trip). During peak construction periods, an hourly peak of 30 heavy vehicle movements (i.e. 30 inbound trips and 30 outbound trips) are expected to occur at the upper scheme and a peak of 10 heavy vehicle movements (i.e. 10 inbound trips and 10 outbound trips) are expected at the lower scheme. The majority of heavy vehicle movements are expected to occur between 10:00 am and 3:00 pm on weekdays or between 10:00 am to 1:00 pm on Saturdays and would be scheduled to not coincide with peak periods of general background traffic or with peak periods of construction staff shift movements.

At peak construction there will be 80 truck movements for delivery of materials and equipment on the Moss Vale-Nowra Road. That's one every 45 seconds.

### **Oversize/over mass vehicles**

There will be 450 oversize/over mass vehicles truck movements to the site coming mostly from Port Kembla. They cannot use the heritage-listed single-lane Hampden Bridge, so they will need to navigate the steep, winding roads of Barrengarry Mountain, slowing traffic to a near standstill.

In short, the EIS does not come close to adequately addressing the likely impacts of the amount of traffic and types of traffic on Kangaroo Valley roads. It does not adequately address the impacts of significant road closures and delays on all residents and businesses.

Origin's blythe suggestion that all of this will be mitigated through 'traffic management measures' and consultation is alarming. The community deserves to see detailed visual modeling of exactly what all this will look like, and understand what precisely the 'traffic managements measures' will consist of, well before consideration of this project goes any further.

Origin should submit a new EIS that details and clearly, visually models all traffic and road impacts in a way that is easily accessible to everyone. These issues will impact the entire Valley.

### **Possible contamination and subsidence of Kings Creek**

Other submitters will have raised a range of specific and overarching concerns about the impact of the project on the environment, wildlife, endangered species and ecosystems. I fully share their concerns.

In particular, I am concerned about the risk to Kings Creek.

Kings Creek is not only essential to the wildlife and ecosystems it sustains, it is also an important scenic and functional asset to the properties it flows through. It is used for agriculture, horticulture, and provides the sole water source for at least one of the properties.

The EIS notes that further investigation is required for planning of the tunnelling and required tunnel treatments (section 6.4.4.4), and that Kings Creek (beginning nearby and running just to the west of the Bendeela Pondage) forms a part of high and medium potential Groundwater Dependent Ecosystems (GDE - see Figure 6-9).

Contamination, diversion or disappearance of the creek would cause significant harm to the existing ecosystem, diminish property values, and impact agricultural and horticultural activities. Once subsidence occurs it cannot be reversed. It represents a very high impact risk.

Given the importance of Kings Creek, Origin should clearly demonstrate how it will ensure there will be no contamination, subsidence or diversion of the creek.

### Financial impact and compensation

The EIS acknowledges the project will negatively impact local property owners and business operators, yet makes no mention whatsoever of compensation.

The financial and commercial impacts on me and my business are multiple, and doubtless reflect those of other 'receivers'.

- Short-term accommodation. We let our house as a farm-stay experience several times a month. Visitors are attracted to our property for its tranquility and abundant wildlife. We will lose this income for the duration of the project on account of the noise pollution, ground tremors, traffic and dispersal of wildlife.
- Lease of partial property. We lease a section of our property to a full-time tenant. The tenant, who also assists with property maintenance, will end their lease if the project moves ahead. This will deprive us of additional income and property management services the tenant provides.
- Place of business. When the property is not booked for short-term accommodation, it is not only where we live, but our remote office. It will cease to be functional office space amidst ongoing noise and tremors.
- Devaluation of property. The project will significantly diminish the sale value of our property.

The simultaneous devaluation of properties, diminished income opportunities and increased mortgage repayments due to high interest rates are a potentially disastrous combination for property owners and business operators like myself.

Origin should make a public commitment within a new EIS to fairly compensate impacted property owners and business operators. It should clearly set out the principles and processes by which it will do that. These costs must be transparently factored in to feasibility of the overall project.