

Submission regarding Project Application number: SSI-10033 (Shoalhaven hydro expansion project)

I am one of the close neighbours to the proposed expansion of the existing Origin's Shoalhaven's Hydro power plant and I appreciate the opportunity to make this submission.

While I am a supporter of the need to transition away from fossil fuels to green energy, I am not a supporter of the proposed expansion of the Shoalhaven Hydro plant for the following reasons.

- a) The EIS itself is largely conceptual and a very complex document which consists of hundreds of pages of technical detail. This has made it very difficult for affected individuals like myself to read, absorb, understand and make a submission within 28 days of release. Therefore, I find it an unreasonable time expectation as it does not provide sufficient time for due consideration / consultation of impacts and understanding how Origin will mitigate those impacts. In addition, there are many statements within the EIS (and the attached numerous appendices) that require additional investigations during detailed design to better understand impacts and how best to mitigate. As these are not available in the EIS it is difficult to understand both the impact and planned mitigation steps where they are yet to be developed. For example
- Appendix J: Groundwater impact assessment, Executive Summary Pii states *"Key mitigating measures for the Project include additional investigations during detailed design to further assess the risk of potential acid forming materials"*.
 - Appendix K: Section 5, Mitigation Measures, P17 – *"The main safety and environmental risks associated with spoil management are well understood and the measures to control and mitigate these risks will be further developed in the Spoil Management Plan and Construction Environmental Management Plan to be developed during detail design"*.
 - Appendix Q: Socio-economic Impact statement, Pii, Summary of mitigation. *"Preparation of a Workforce Accommodation Strategy for the Project to manage demand for housing and accommodation from the construction workforce during the construction phase"*

These are only some examples which state that there is significantly more detailed work required to better understand both the impact and how best to mitigate. More time needs to be provided to better understand impact and also for additional consultation.

- b) Noise & Vibration assessment (Appendix M) – The Executive summary (Pi & Pii) highlights that receivers in the identified impact area are *"predicted to experience noise levels above applicable noise management levels (NLMs)"*. As the area is normally very quiet, any construction and transport noise from cumulated activities will travel more broadly than anticipated. Add vibration caused by blasting and there is the potential for significant disruption to neighbours near the expansion project site. The summary provided identifies that there will be noise above applicable noise management levels and due to the difficulty in being able to mitigate the immediate community will simply need to live with this disruption.....day and night for 4-5 years. There should be greater efforts made to reduce noise levels to more acceptable levels for the impacted properties.

- c) Appendix J: Groundwater & Impact Assessment - There appears to be considerable seepage during construction and aside from the need to manage collection and disposal of this acidic water there is also mention that the groundwater drawdown areas are quite broad. On P91 there is a comment on the cumulative impacts which acknowledges that the *“Potential groundwater related impacts for the Project during construction and operation are not considered to be significant and are restricted to the vicinity of the Project”*. As Kings Creek is within the project area of impact, and is a water source we rely on, it is difficult to understand what might be ‘insignificant’ to some might be ‘significant’ to others. Therefore, there is a need to provide further definitive statements on whether there will be any impact on the water flows in and around Kings creek itself.
- d) The EIS has numerous mentions to ‘mitigation actions’ (of which there are probably hundreds) to manage the disruption to local communities, biodiversity etc. However, it is also evident that the EIS is largely based on conceptual analysis and that mitigation will only go so far. What is not clear in the EIS is firstly how Origin will monitor these numerous identified mitigation actions and secondly how will they be transparent within the local community. For example
 - There is no mention of how noise will be measured during construction. Will this be spot checking or will there be static, continuous noise measuring throughout the affected areas which will be readily accessible / communicated during the construction phase? What will the actions be if noise is routinely above the anticipated levels? What will be the response?
 - In addition, these type of projects for many reasons will more than likely extend beyond the anticipated timeline which will result in the project team needing to increase the work time beyond what has been identified as ‘standard construction hours’. If this occurs Origin will simply send us a (standard) email 5 days prior which will simply mean 7 days a week, 24 hours a day of construction noise with little or no respite. It is also unclear whether work will progress on public holidays or key holiday periods eg Easter, Christmas etc. There needs to be greater accountability from Origin in the EIS that expanding work hours beyond standard is the last resort and not the first due to the ease of sending an email!

These are just a few of the examples where there has been insufficient detail provided to not only better understand how risks will be managed but also for the local impacted community to have confidence that mitigation processes are robust. These should have provided as part of the EIS or there should be an additional step where the project is not approved unless these ‘gaps’ are more detailed and controlled.

- e) It is understood that the project is only financially viable with Government funding support. As this government funding is to enable Origin (a public company) to achieve a financial return there should be transparency on the business case and how this compares to other business cases the State government and Origin are currently evaluating. Currently there is no transparency on the business case so as a taxpayer (and an affected property owner) it is difficult to understand why this is such a great project that requires Government (taxpayers) funding and the local community to support. In addition, it should be clear in the EIS what the ‘net’ power generation will be as it would help to understand how this contributes to the Governments (and Origin’s) transition to a green power network

- f) Construction is obviously the prime area where many concerns are focused. However, there are also concerns with the ongoing operations. We currently hear ongoing noise from the existing Origin Shoalhaven hydro plant which, on still nights in particular, can be quite noticeable. I understand this may be due to noisy transformers which are still to be replaced. The EIS mentions that the ongoing operations post the construction will be '*Similar*'. I believe with this type of project the intent to be 'similar' is not sufficient. Origin should be more aspirational and after the significant impact this project has on the local community it should be more aspirational for its operations and be aiming that they will be '*better*' – both in terms of existing noise management and how the area looks. How it operates post the project should have been more detailed and aspirational in the EIS.
- g) There are obviously numerous construction methods which could minimise disruption impact on the local community but could cost more to implement / adopt. For example
- Tunnelling with machines verses blasting
 - Use of electric vehicles for transport of spoilage

To minimise impact these alternatives should be explored and the rational for choosing a particular method of construction should be more transparent. In fact, choosing the construction method to minimise disruption for the local community should actually be the priority. Again, there is little understanding on how, why choices will be made.

In Summary, as a property owner in the main impact area of the project, there are still too many 'unknowns' and the EIS appears 'incomplete' so I'm not able to support the project.

Thank you for taking time to read my submission and I look forward to your response.