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**Wave Swell Energy Comments - 24-IEPR-04 - Wave and Tidal
Docket Submission**

Additional submitted attachment is included below.



August 7, 2024

California Energy Commission
Docket Unit, MS-4
715 P Street Sacramento, California 95814-5512

RE: Docket No. 24-IEPR-04 - Wave and Tidal Energy

Wave Swell Energy Limited (WSE) acknowledges the California Energy Commission (CEC) for the excellent work done implementing SB 605 to-date. The recently released draft consultant report, “Wave and Tidal Energy: Evaluation of Feasibility, Costs, and Benefits” is a thorough, useful, and encouraging milestone on the path to the full SB 605 report to be delivered next year.

WSE is an Australian based wave energy technology developer that has demonstrated and proven its wave energy converter technology in real ocean conditions in Australia for a period of more than 2 years. Further background on WSE and our technology that is relevant to the work being undertaken by the CEC is provided in this submission. As WSE forges ahead to commercialize its technology we acknowledge the importance of global markets, and we assess the potential for our technology to contribute to the achievement of net zero targets in countries around the world.

WSE has been observing developments in the US marine energy market for some time. WSE has also been engaged with the US Department of Energy through the Pacific Northwest National Laboratory, the National Renewable Energy Laboratory and the Water Power Technology Office throughout our R&D and commercialization phases. The passing of SB 605 and the work being undertaken by the CEC signals the potential for development of a significant marine energy sector in California, and because of California’s leadership, the expansion of that sector in other US states. WSE is actively investigating requirements for the establishment of US based operations in California. WSE understands the importance of legal and physical presence in the US to drive project deployments of our technology and to participate in US Federal and State-based support programs. The prospect of creating an innovative market leading manufacturing hub in California would provide an uplift in economic activity, create jobs and develop multiple skill sets.

WSE Technology

- WSE’s patented wave energy converter technology is a unidirectional oscillating water column.
- WSE designed, constructed, deployed and operated a 200KW wave energy converter in ocean conditions at King Island, Australia for over 2 years between 2021 and 2023.
- WSE’s technology achieved close to 50% energy conversion efficiency in a full range of sea states.
- The wave energy converter exported electricity to the grid on King Island and the electricity was confirmed as suitable and accepted by the grid operator, Hydro Tasmania.
- The technology was durable and survived in harsh ocean conditions, resulting in high levels of availability.

- WSE's technology is suited to integration with coastal structures such as breakwaters, seawalls and ports, thus providing a source of utility and revenue for critical infrastructure that serves to protect against coastal erosion and rising sea level.
- The findings of an independent environmental impact study concluded there was negligible impact on the marine environment in which the wave energy converter was located for over 2 years.

WSE has collaborated with the National Hydropower Association, AltaSea and industry peers to ensure a consistent and unified voice of industry supports the work the CEC is undertaking in implementing SB 605. WSE is aware of docket submissions made by the National Hydropower Association, AltaSea and CalWave and we are aligned to and agree with the content of those docket submissions.

WSE does however wish to strongly emphasize our support for the following positions expressed in the draft "Wave and Tidal Energy: Evaluation of Feasibility, Costs, and Benefits" report:

Distributed Marine Energy

WSE fully supports recognition in the report of the opportunity to integrate wave energy converter technology in smaller scale deployments and pilot projects involving installations along breakwaters, seawalls and ports. Doing so provides a source of energy to meet local demand and avoids the requirement for extensive transmission investment.

WSE recognizes the impact deploying wave energy converters in projects of this nature has in reducing unit costs through learning and increasing scale of deployment, which provides a bridge between R&D demonstrations and commercial utility scale projects.

WSE is currently engaged in smaller scale project opportunities involving integration of our proven technology in coastal structures.

Near shore applications

WSE acknowledges the importance of assessing offshore, nearshore and onshore marine energy and the benefits associated with harvesting energy from these different resources. WSE fully supports recognition in the report of the cost, reliability, safety and disaster recovery advantages associated with building and operating onshore and nearshore wave energy converters.

We applaud developments under SB 605 thus far and look forward to continued engagement.

Yours sincerely,



Paul Geason
Chief Executive Officer
Wave Swell Energy Limited