

Editorial

The Development of Marine Energy Extraction

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Accompanied with an increase in world population there is a growing demand for energy from both the industrial and domestic sectors. As a consequence of the apparent anthropogenic effects from demand proliferations, there is substantial evidence to suggest that a mandate for clean energy generation is appropriate to reduce global emissions.

To mitigate the potential environmental impacts associated with global pollution many countries are now introducing policies; such policies must be credible in the long-term if they are to have a sustained impact. Moreover, to attain long term sustainability the policies should involve the continued development of new technologies that can add to future energy generation. Globally the interest in marine energy solutions is growing from Europe to Australasia to the Americas. This is reflected in the provenance of the authors of the following papers [1–5].

Across the continents there is considerable effort being made to ensure that commercial scale devices, operating in arrays, can deliver cost-effective marine energy. Given the extreme range of conditions of many marine sites either for tidal velocity magnitudes or wave characteristics, this type of energy generation can be challenging. Therefore, it is crucial that quality research, design, and testing is continued if marine energy generation is to become a commercially viable alternative and creditable sustainable solution.

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References

1. Salunkhe, S.; El Fajri, O.; Bhushan, S.; Thompson, D.; O'Doherty, D.; O'Doherty, T.; Mason-Jones, A. Validation of Tidal Stream Turbine Wake Predictions and Analysis of Wake Recovery Mechanism. *J. Mar. Sci. Eng.* **2019**, *7*, 362. [[CrossRef](#)]
2. Felix, A.; Hernández-Fontes, J.V.; Lithgow, D.; Mendoza, E.; Posada, G.; Ring, M.; Silva, R. Wave Energy in Tropical Regions: Deployment Challenges, Environmental and Social Perspectives. *J. Mar. Sci. Eng.* **2019**, *7*, 219. [[CrossRef](#)]
3. Hernández-Fontes, J.V.; Felix, A.; Mendoza, E.; Cueto, Y.R.; Silva, R. On the Marine Energy Resources of Mexico. *J. Mar. Sci. Eng.* **2019**, *7*, 191. [[CrossRef](#)]

4. Alcérreca-Huerta, J.C.; Encarnacion, J.I.; Ordoñez-Sánchez, S.; Callejas-Jiménez, M.; Gallegos Diez Barroso, G.; Allmark, M.; Mariño-Tapia, I.; Silva Casarín, R.; O'Doherty, T.; Johnstone, C.; et al. Energy Yield Assessment from Ocean Currents in the Insular Shelf of Cozumel Island. *J. Mar. Sci. Eng.* **2019**, *7*, 147. [[CrossRef](#)]
5. Paredes, M.G.; Padilla-Rivera, A.; Güereca, L.P. Life Cycle Assessment of Ocean Energy Technologies: A Systematic Review. *J. Mar. Sci. Eng.* **2019**, *7*, 322. [[CrossRef](#)]



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