OFFSHORE WIND ENERGY FACTSHEET

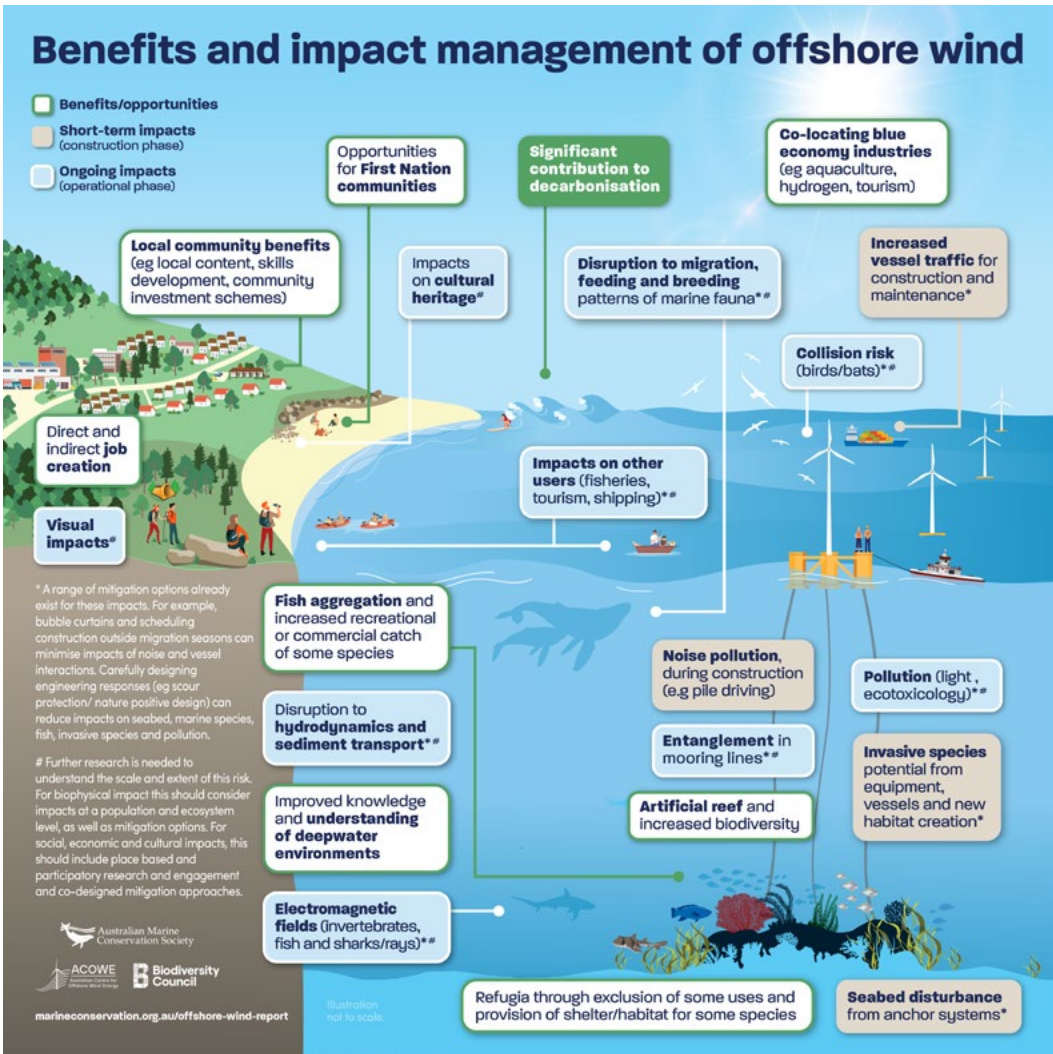
Australian Marine Conservation Society (AMCS) is dedicated to protecting Australia's precious marine environment and we support the responsible transition to 100% renewable energy. Offshore wind energy is set to play a role in this transition. However, as with any large-scale development, it is important to ensure that offshore wind farms are planned and implemented with the utmost care, guided by science.

What is the current process for developing offshore wind farms in Australia?

Australia's oceans are windy, and governments have identified harnessing the power of offshore wind as an important part of the renewable energy mix for the future. Australia is beginning the journey of establishing offshore wind - turbines will unlikely be operating off Australia's coastline before 2029. The Australian Government has declared six priority areas for offshore wind but there are multiple steps, including assessment under Australia's nature laws, before any construction can begin. Australia has the opportunity to do the renewable energy transition in our oceans well.

Why are offshore wind farms being considered and what are the potential benefits and impacts of offshore wind farms?

Climate change represents the greatest threat to our marine environment. Burning coal and gas harms our oceans, driving marine heat waves. In recent years, successive heat waves have damaged some of our most cherished ocean ecosystems, such as the Great Barrier Reef, Ningaloo and Tasmania's kelp forests. Climate change is already impacting whale species, with warmer waters affecting food availability and their ability to reproduce. A rapid transition to renewables can and must be done in a way that protects nature.



What are the biggest threats to whales?

Evidence suggests that the main human-induced direct causes of death for baleen whales is currently collisions with ships and entanglement in fishing gear. These interactions are predicted to increase with increasing climate variability, as are direct consequences of warming oceans. At a population level, climate change is already impacting whale species, with warmer waters affecting food availability and their ability to reproduce.

Whales are already facing some of the most severe impacts of climate change. Scientists have found that humpback whales' pregnancy rates are directly correlated with sea ice © Vanessa Mignon

Do wind farms kill whales?

While offshore wind farm development, like any marine development, has the potential to affect whales, there is currently no evidence that offshore wind farm activities directly kill whales.

A common myth is that windfarms in the US have been causing whale strandings. However, autopsies of stranded whales have found that ship collisions and entanglement have led to increased mortality events as whales have moved into new inshore areas in response to changing prey distribution (a direct result of a changing climate). While there may be genuine issues with the placement of offshore wind farms, there is a lot of misinformation circulating at the moment, fuelled by vested interests seeking to delay the transition to renewable energy and keep coal and gas projects operating for longer.

That said, underwater noise can affect individuals and may ultimately result in population level effects. The potential for impacts from underwater noise is of particular concern within or close to habitat critical to survival for whales, such as reproduction and nursery areas, where they are resident for long periods of time, and pregnant and nursing females and calves are present.

What about other ocean wildlife?

Studies from other countries have shown that offshore wind farms impact seabirds. However, different seabird species respond differently to the development of offshore wind farms. Australia is home to threatened albatross, petrel, and migratory shorebird and parrot species, whose flight pathways overlap with areas proposed for offshore wind farms. Data and analysis is urgently needed to inform science-based decision-making. Current technologies can be harnessed to reduce the risk of collisions and emerging technologies may reduce the risk of harm further.

Australia's oceans are incredibly biodiverse. One significant challenge to implementing the renewable energy transition safely in our oceans is ensuring that in solving the climate crisis we're not worsening the extinction crisis.

What is needed to protect our oceans?

Global warming is profoundly affecting marine species already. To conserve Australia's exceptional marine biodiversity requires the ability to make good decisions now in the face of uncertainty. However, incomplete knowledge is making it difficult for scientists and local communities to consider the full impacts of proposals. We therefore need the Australian Government to urgently coordinate the collection of priority data and conduct analysis to understand potential impacts.

Developers and government need to ensure community and First Nations consultation is genuine, and, based on that engagement, take an extremely precautionary approach to development (for example by employing the best available impact mitigation measures – even if it costs more to do so).

Where uncertainties remain, we need the Australian Government to strengthen our nature laws to put effective safeguards in place – to ensure companies must respond if monitoring reveals harmful impacts down the track. This relies on an effective monitoring regime - so it's critical we gather baseline data on the movement and spatial habitat use by species of concern now, before any development decisions occur.

Australian Marine Conservation Society