

# ALTERNATE ENERGY SOLUTIONS FOR AQUACULTURE



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## PROJECT ID

FRDC 2023-080

## START DATE

April 2024

**DURATION: 20 MONTHS**

## END DATE

Nov 2025

## PROJECT MANAGER

Tom Cosentino,

margo  
consulting



## PRINCIPAL TECHNICAL ADVISORS

- » Angela Williamson, BECRC
- » Julie Petty, SIA
- » Irene Penesis, BECRC
- » Amy White, ERM

Seafood Industry Australia (SIA) and the Blue Economy Cooperative Research Centre have joined forces to deliver FRDC project 2023-080: Alternative energy solutions for aquaculture supported by funding from the Fisheries Research and Development Corporation on behalf of the Australian Government.

Aquaculture is the fastest growing food production sector globally, accounting for more than half of all fish consumed by humans. Aquaculture production has also become a thriving industry in Australia in recent years. This growing industry contributes to the emissions of greenhouse gases through land and sea-based operations. The challenge is to work through the practices and technologies available to reduce the carbon footprint and work through the solutions to transition the industry.

There is a need to support scoping, costing and development of renewable energy solutions to support operation of aquaculture operations in a variety of contexts where solutions are not yet available.

Broader adoption of renewable energy alternatives by Australia's aquaculture industry would likely reduce operating costs and improve reliability in some contexts in the long-term, however existing solutions are not applicable in all use cases, and adoption of existing technologies is not being adequately incentivized.

**This collaboration will bring together the full spectrum of the aquaculture industry, along with the nation's leading blue economy research and commercial teams. This project is targeted at establishing a suite of tools and industry-inclusive activities to build industry wide capacity while also providing options for ready implementation by early adopters and early movers.**



## PROJECT AIMS

1. Understand challenges facing the aquaculture sector relating to a changing climate, building resilience and accelerating decarbonisation
2. Determine opportunities to respond to those challenges, and validate solutions
3. Engage with industry leaders and innovators to explore and validate viable, feasible and scalable options towards climate resilience
4. Demonstrate rapid and practical progress towards climate resilience and elements of SIA's Our Pledge
5. Build partnerships and relationships with national and global leaders to enable advancement of prioritised solutions that will enable improved climate resilience and provide a wholistic decarbonisation decision platform as the aquaculture industry builds its climate resilience.

This project will provide a holistic decarbonisation decision platform as the aquaculture industry builds its climate resilience and will offer both a 'one stop shop' approach for viable available options, as well as emerging solutions that are forecast.

## PATHWAYS TO IMPACT

The project will provide Government with recommendations on industry wide areas of support and funding including:

- IMPACT 1** >>> Pathway to reduce diesel usage
- IMPACT 2** >>> Pathway to increase electrification
- IMPACT 3** >>> Pathway to test novel renewable energy sources
- IMPACT 4** >>> Pathway to build resilience into financial cap ex and op ex forecasting

*"Sustainability has always been at the heart of Huon's operations and underpins our endeavour to produce the highest quality products to feed the world. Sustainable business practices are essential for the longevity of our industry, and we recognise the importance of continuing to improve our operations to meet the changing expectations and needs of our consumers, the community and the environment in which we farm."*

**MATTHEW WHITTLE**  
General Manager Sustainability  
**Huon Aquaculture**

*"As Australia's leading seafood producer, Tassal Group has a decade long dedicated sustainability program that includes a comprehensive and inclusive program of work and reporting on its carbon footprint, as well as efforts to reduce carbon emissions. We look forward to working with SIA as Australia's peak seafood association and the BE CRC as Australia's leading offshore energy research body and their members on this important work."*

**KAYLENE LITTLE**  
Head of People & Communities  
**Tassal Group**

*"Yumbah believes that aquaculture is uniquely placed to provide a sustainable protein source to feed a growing world population, and within the broader industry we are seeking to develop Yumbah as Australia's leading shellfish aquaculture company to develop the importance of shellfish within this mix. However, whilst we recognise that our sustainable use of water to grow food is an advantage, this is only one piece of the environmental footprint and the carbon reduction targets are increasingly a priority on our planning radar. Yumbah is supportive of this proposal and is keen to explore an active role working with SIA, Blue Economy CRC and FRDC in progressing the understanding of and paths to achieve decarbonisation of Australian aquaculture."*

**DAVID WOOD**  
Chief Executive Officer  
**Yumbah Aquaculture**



## Blue Economy CRC

Established in 2019, the Blue Economy CRC-Co Ltd (ABN 64 634 684 549) is an independent not-for-profit company limited by guarantee and a Cooperative Research Centre under the Australian Government’s CRC Program.

With a 10-year life, the Blue Economy CRC brings together 45 industry, government and research partners from ten countries with expertise in aquaculture, marine renewable energy, maritime engineering, environmental assessments and policy and regulation.

The Blue Economy CRC was established to undertake industry focused research and training to support the growth of the Blue Economy with a focus on two new, emerging, and transitioning ocean industries for Australia: offshore aquaculture and renewable energy production.



Seafood Industry Australia  
The Voice of Australian Seafood

## Seafood Industry Australia

Seafood Industry Australia (SIA) is the national peak-body representing wild catch, aquaculture and post-harvest sectors of the Australian seafood industry.

We are committed to a vibrant and prosperous future for our industry, and by 2030 we believe the Australian fishing and aquaculture sectors can achieve \$6 billion in annual gross value. This supports the Australian Government’s goal of growing Australian agriculture to \$100 billion by 2030.



**FRDC**  
FISHERIES RESEARCH AND DEVELOPMENT CORPORATION

## Fisheries Research and Development Corporation

Fisheries Research and Development Corporation (FRDC) takes a leading role in planning and investment in fisheries research and development (R&D) to support the ongoing sustainability of our aquatic sectors and aquatic ecosystems.

We are a co-funded partnership between the Australian Government and fisheries and aquaculture. We are a statutory corporation under the Primary Industries Research and Development Act 1989 (the PIRD Act) and are responsible to the Minister for Agriculture, Fisheries and Forestry.

We plan, invest in and manage R&D for fishing and aquaculture and the wider community, and we encourage adoption of the resulting knowledge and innovation for impact. We coordinate government and industry investment and work with stakeholders to establish and address their R&D priorities.

## EARLY MOVER PARTNERS

