Australian boats go electric

More technology advances are being developed for electric boats across Australia. By Annelie Wressmark

"In Amsterdam the tourist river boats are all powered by electricity."

The Electric Boat Association Australia (EBAA) is a not for profit organisation aiming to promote electric boating in Australia and to serve the needs of those who have an interest in electric boating, both individuals and commercial operators.

EBAA provides a platform for all things electric boating to the public, and their main goal is to inform the boating public that zero emission electric boating is a viable alternative to petrol driven boats and it makes for a very quiet ride too.

EBAA is a rather new initiative and has been running for less than two years even though electric boats have been around since the 1880s. One of the first marine outboard motors, designed by French electrical engineer Gustave Trouve, was electric. Back then, many notables in both the USA and England owned electric launches as they were far more reliable and provided a smoother ride than steam-powered boats.

But when the petrol motor became more popular from the 1920s and the development of the internal combustion engine, it marked the end of electric and steam propulsion for boats. Electric boats could not keep up with the performance that petrol engines offered, and people became more interested in speed rather than enjoying the essence of boating; a relaxing and social event.

There was very little interest in electric boats, until the 1970s when manufacturers such as the Duffy Electric Boat Co. started to design and build electric boats that were perfectly suited for protected waterways.

The Secretary of EBAA and Director of Eco Boats Australia for the past two years, Steven Mullie, said the association is running on a low budget at the moment.

"Until the association grows we will have our website as a tool to promote the product, the internet makes it very effective," he said.

Mr Mullie said the association is funded only by its members, which is a diverse group of individuals and commercial operators.

"We have 20 members in total in Queensland, New South Wales and Victoria, I think only one is from Western Australia," he said.

"Our members range from businesses that supply boats, motors, and batteries to private individuals who own an electric boat or are building their own e-boat. Since the EBAA started some 18 months ago, we notice there is a great increase in interest from the public and also governmental bodies that are discovering the benefits of electric boats."

Already a number of governments worldwide are banning petrol and diesel engines from some of their waterways.

Electric boats are becoming commonplace on Europe's lakes and rivers. And a growing number of sailors seriously consider using electric drive as a direct alternative to diesel engines in offshore cruising yachts.

Mr Mullie said the threat of global warming and rising fuel prices had generated a lot of interest in electric boats in his native Holland.

"Electric boating is getting a lot of attention from Dutch councils who've decided to clean up their act, reducing noise and pollution on their waterways. Some rivers and canals already only allow electric-powered vessels. In Amsterdam the tourist river boats are all powered by electricity," he said.

In the USA, electric boats are a hit with owners of waterfront properties and are popular with both men and women because they are so easy to operate and maintain.

Research shows that a few hours in a petrol powered boat has a bigger environmental impact than a return road trip from Sydney to Melbourne. Gas powered marine engines are among the highest contributors of hydrocarbons, oxides, and nitrogen emissions in the country.

"Over the past five to 10 years we have started to see an increase in environmental responsibility in people. Electric boats are more advanced than petrol boats. I think electric boats are also more powerful and efficient than petrol boats," said Mr Mullie.

Even commercial vessels are now returning to electric drive because it is fundamentally efficient, quiet and reliable. Today's best example is the 150,000 tonne Cunard liner Queen Mary 2, which is driven by four powerful 'pod' style motors, powered by generators.

The only limitation for electric boats is the storing of the electricity.

"The battery is a limiting factor, but if you have unlimited storage for electricity there is no problem," said Mr Mullie.

For recreational boats, eight batteries will last for eight hours if the boat is doing four to five knots.

"Each battery weighs 30-35kg, but if the batteries are mounted low they can replace the keel weights," he added.

Mr Mullie started his company Eco Boats two years ago and has two boats on display in Sydney.

"First time buyers see it as a great advantage to hire the electric boat for two hours and test drive it," he said.

"Many people are surprised that a six to seven metre boat can be powered by electricity," he added.

Since the company started they have sold three boats as well as 25 outboard and inboard motors.

"For me that is a great number and I am very pleased that during the economic downturn we saw some interest," he said.

Types of electric boats

There are many different types and models of electric boats.

Dayboats and Launches are commonly used on sheltered waterways such as lakes, rivers and canals. They are ideally suited to electric drive because these boats are generally fairly small (between four and seven metres) and used for relatively short trips. Most hire boats are of this type and are generally suitable to be fitted with electric motors.

Many fishermen use small electric 'trolling' motors when chasing fish at their favourite spot. Recreational Fishing Boats' electric motors are quiet so the fish do not get scared away. Also the fact that an electric motor does not pollute the waterways makes them sustainable. ■