Wave & Tidal Spend Towards USD1.2 billion

New research released today by energy business analysts Douglas-Westwood reveals the world wave and tidal current stream sectors will see expenditure of USD1.2 billion over the next five years. Annual capital expenditure estimated at USD52 million in 2010 is forecast to rise to USD500 million in 2015.

Installations in 2011 are more than double those in 2010 and a total of 150MW of wave and tidal current stream capacity is forecast to be installed between 2011-2015. The UK, Canada and US are the three biggest markets. The UK leads with 110MW of installations forecast. According to lead report analyst, Ian Jones, Capex here will total almost USD900 million over the next five years, with annual expenditure approaching USD500 million in 2015. An excellent wave and tidal resource, together with encouraging levels of government funding, market mechanisms and site licensing make the country the strongest market for both wave and tidal. Driven by a strong tidal resource, excellent R&D and support, Canada is the second largest market. The US is also making progress, again with much R&D funding attracting developers.

The World Wave & Tidal Market Report 2011-2015 highlights that the challenges facing the growing industry are considerable.

With few commercial-level devices installed to date and fewer still in multiple-unit installations, the full cost of wave and tidal farms remains uncertain. Costs are high at present but there is significant reduction potential as the supply chain develops and dedicated manufacturing begins. As a result, there is recognition that wave and tidal projects will require higher levels of support from appropriate market mechanisms, such as feed-in tariffs or green certificate schemes.

The financing of wave and tidal projects and devices is dependent upon long-term industry confidence and visibility. To ensure sufficient investment appetite is created, individual countries must create the correct environment. “Commitment to long-term market mechanisms and targets must be given so that investors gain confidence; initial commercial projects must have strong support from government, given the high costs involved,” Wright commented. “The financial sector will not respond otherwise,” he warns.

Grid connection represents a major constraint for marine renewables deployment in several countries. The variability of the output together with the remoteness of many sites makes grid connection a challenge to commercial development. With projects often located away from areas of demand, grid upgrades are required. In some countries such as Portugal, this is not a significant issue, but countries such as the UK (in particular Scotland) have much to overcome. Whilst grid upgrades are planned, these have not yet been considered with marine renewables in mind.