



APC Solutions (UK) Limited

## APC SOLUTIONS TAKE PART IN PIONEERING RENEWAL ENERGY PROJECT

Essex based APC Solutions has supplied wireless communication links to a major offshore renewal power project in Northern Ireland.

The SeaGen Tidal System will deliver 1.2MW of power from a turbine in the fast flowing waters of Strangford Narrows, approximately 400 metres off shore. The underwater turbine system operates a little like a windmill and uses currents in the Irish Sea where tidal flows run at a speed of up to 9 miles per hour. The turbine will be almost silent in operation, but SeaGen's manufacturers have allocated up to \$5 million to study whether there is any adverse impact on marine life in the area.

APC's involvement began when they met with Motorola and the British based renewable energy developer, Marine Current Turbines (MCT), at their head offices in Bristol, in October 2006. The brief was for the supply and deployment of a wireless Point to Point Link which could offer stability over water and provide connectivity between the SeaGen Turbine and Queens University in Portafeery where remote monitoring of the SeaGen Turbine could be carried out. APC selected the Motorola PTP400 Lite Solution because of its reliability, ease of deployment and high speed data throughputs. Motorola boasts "best in Class Radios", which Incorporate powerful transmitters and super-sensitive receivers that deliver a system gain as much as 25 times better than the nearest competitor. As the largest Motorola installer in the UK & Ireland, APC worked closely with MCT to design the wireless system prior to deployment.



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The Tidal System has been endorsed by Secretary of State for Energy, John Hutton, who has described it as a pioneering project that will make a “significant contribution to our energy generation needs”. If successful, MCT states that tidal generators could be placed throughout the UK in locations where local conditions produce strong and reliable tidal flows.

The project saw the first installation phase successfully completed in April 2008, when MCT installed the 1000 tonne turbine structure on to the seabed. This has been followed by work to pin pile the turbine to the seabed and a commissioning phase. When fully operational, the rotors will operate up to 20 hours each day to produce green electricity to 1,000 homes – four times the amount currently generated by any tidal stream project.



David Bell, Sales Director at APC Solutions said: “Our company was delighted to get involved in a project of this nature that has so much promise for renewable energy. We sent a team of two engineers to Northern Ireland. They were required to deploy the Motorola link within a 2 day window; during which time they had to travel out to the SeaGen Turbine by boat to carry out the installation at the turbine structure.

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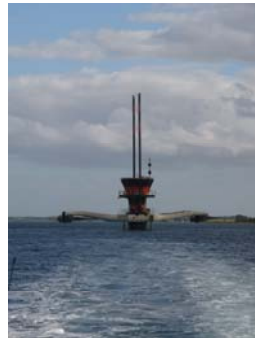


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This was a tricky operation because the boat could only dock at the turbine at certain times of day due to tidal currents, so it was crucial that the engineers were able to work within the given time frame and deliver the project efficiently. In fact, the deployment and installation procedure only took one day, allowing the second day to be used for testing and monitoring to ensure that the link was optimised for best performance.”

The link now provides a resilient data path between the SeaGen turbine and the University with data throughput up to 17Mbs. If additional throughput is required at a later stage APC can upgrade the link to 43Mbs – a simple operation that can be carried out remotely in a matter of minutes, thus eliminating downtime or hardware replacement.

For more information visit [www.apcsolutionsuk.com](http://www.apcsolutionsuk.com).



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