

# RES designs new cable to revolutionise offshore power transportation

RES Offshore has designed a game-changing new rating method for export power cables which was announced in a poster presentation at EWEA 2015. The design, developed by RES Offshore and the University of Southampton, is set to vastly improve power transportation from offshore wind farms, with currents improved by up to 22%.

The new cable rating method has moved away from the traditional power transmission models, which presume that maximum power will be transmitted through the cables at all times. RES Offshore has applied its statistical understanding of wind speed distribution and power flow variation, and incorporated this into the thermal design of the cable, allowing for peaks and troughs in current transmission. Where the traditional model is conservative, due to the expectation that enough copper is required to support constant operation at full capacity, RES' revised method requires less copper to be used by taking advantage of the cooling down periods that come with decreased wind speed.

Simon Catmull, Project Engineer at RES Offshore, commented;

*"We know that developers are looking to reduce the cost of offshore wind farm development and our new power exporting cable design can enable this. These new cables can be used for Round Three projects and offer a significant improvement in current delivery over the traditional method. We think this innovation could be a real revelation for offshore power transmission."*

Chris Morgan, CEO RES Offshore said:

*"This cabling shows that RES Offshore is at the forefront of offshore wind innovation and leading the industry in embracing lower costs and efficient thinking. A great advantage is that this offering can be designed for specific wind farms, taking location, turbine model/number and wind speed variation into account. I'm thrilled that we are launching this innovation at such a key industry event as EWEA and to have the opportunity to showcase our expertise to peers."*

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RES Offshore offers integrated development, engineering, construction and AO&M services for utility-scale offshore wind, wave and tidal energy projects internationally. RES Offshore has more than 15 years' experience in offshore wind development. It has worked on the development of over 5GW, of which more than 350MW has been consented and is now in operation. RES Offshore is part of RES, one of the world's leading independent renewable energy companies, which has successfully developed and/or built over 9GW of wind energy capacity worldwide. RES' core activities are in Wind and Solar, and technologies that enable a low carbon future - Energy Storage, Transmission and Demand Side Management. For more information, visit [www.res-offshore.com](http://www.res-offshore.com)

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