

## Evening Technical Meeting: The Wind & the Waves... Renewable Energy Developments Through Learnings from Oil & Gas

Report on SUT Perth Branch Evening Technical Meeting  
Wednesday, 10 October 2018

*By Sarah Elkhatib, Perth Branch Committee Member*



The Perth Branch of the SUT held an Evening Technical Meeting (ETM) in October 2018 at the Parmelia Hilton. The event was opened by the Perth Branch Manager, Jennifer Maninin, who welcomed the audience of 126 professionals and provided an overview of SUT's activities. The SUT Perth Branch Chair, Chris Saunders, then introduced the theme of the evening and thanked the sponsors, The University of Western Australia (UWA), the Wave Energy Research Centre (WERC) and Norwegian Energy Partners (NORWEP). The baton was then passed to Sarah Elkhatib, who was the Chair for the evening.

The aim of the ETM was to showcase the recent developments in renewable energy, including both wind and wave energy projects. A key element requested from all the presenters was to link the technical challenges and learnings to projects from the Oil & Gas sector, thereby demonstrating that skills and knowledge are transferrable across both industries.

The first presentation was from Christophe Gaudin of the University of Western Australia (UWA) who talked about some of the work being undertaken at the recently established Wave Energy Research Centre in Albany. The focus of his talk was on research being carried out to assist Carnegie Clean Energy (CCE) in the development and deployment of a novel 1.5 MW wave energy converter in Torbay, Albany. The research spans across geotechnical engineering, coastal engineering, oceanography and hydrodynamics. In the presentation, Christophe highlighted the multi-disciplinary scientific challenges faced by the development of offshore renewable energy. He also demonstrated how learnings between the Oil & Gas and Renewable industries can be two-way.

Next up was Laith Tapper of NGL presenting on the use of suction caisson foundations in offshore wind energy developments. The first part of Laith's presentation provided an overview of the growth of the offshore wind market and its current expansion into the Asia Pacific region. The next part of the presentation discussed how suction foundations, which were first used in the Oil & Gas industry, are now being used as foundations for both fixed bottom and floating wind turbines. An overview was provided of how the suction foundation experience from the Oil & Gas industry is being transferred for applications in renewable energy. The Aberdeen Offshore Wind Farm (UK) and the Hywind Floating Wind Farm (UK) projects were shown as examples of knowledge transfer, but also to highlight that there are important differences that require particular consideration for renewable energy projects.

The final presentation of the evening was by Andre Andringa of Boskalis who presented on design and installation aspects relating to monopile and jacket foundations for wind turbine generators. Andre provided some background on the European offshore wind market which has grown considerably over the last few years with many installations taking place across various sectors of the North Sea. His presentation then guided the audience through the design, logistical and installation aspects of monopile and jacket foundations. Specific projects from the European offshore wind market were presented as case studies, including Veja Mate (Germany), Wikinger (Germany) and East Anglia (UK). In particular, focus was given to the aspects of noise mitigation strategies to align with environmental regulations and the application of grouted and bolted connections.

The technical presentations were followed by an extended period of networking over finger food and drinks where the audience members had a chance to have one-on-one discussions with the presenters and fellow peers. It was great to see that the theme of the evening and the stellar line-up of presentations attracted new members from the Perth community.

Thank you to all the presenters for their enthusiasm about being part of this event and making it a successful evening. Thank you also to our sponsors whose support made this event possible.