


# The importance



Being an expert in any industry is a great responsibility. Being an expert in assessing the risk of potentially dangerous situations in an industry is an even greater responsibility. It is not only financial investments that rely on expert advice, lives also depend upon the policies and decisions made by these experts. Costa Renewables is such a company that has a reputation for taking on that responsibility based on their experience and lessons learned in offshore wind.



# of risk analysis

An aerial photograph of a large industrial port facility, likely the Port of Esbjerg. The image shows a complex of buildings, a prominent tall smokestack emitting a plume of white smoke, and various industrial structures situated along a waterfront. The water is a light blue-grey color, and the sky is a pale, hazy blue. The overall scene depicts a busy industrial hub.

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By anonymously recording their experiences, and those of others, with a combined time line of over 25 years they now have a database of facts, lessons learned and experience. ([www.riskmitigator.org](http://www.riskmitigator.org)) Using every tool a computer can supply to, they have built the Risk Mitigator to share this knowledge with the industry. Offshore WIND Magazine spoke to Rob Tegel and Ed Wehnes of Costa Renewables about their risk mitigation for offshore wind.

### Identify, assess and avoid

The offshore wind sector is young and experience is therefore spread very thinly, quite simply there is not enough

of it to go around. The oil and gas sector always had an answer for such problems, ... although perhaps not so obvious today as in the past. Their answer was to throw money at the problem until it went away. Even today the LCOE for oil and gas is still lower compared to that of offshore wind so there is still a big difference between the amount of money the offshore wind sector can spend and the amount that oil and gas has. In the offshore wind sector the risk has to be identified, assessed and avoided, it will not go away otherwise.

To mitigate unnecessary risks in the construction and operation stages



Rob Tegel and Ed Wehnes



of a wind farm project it is important to include risk management already in the planning stage. Here the Risk Mitigator can provide guidance. Take the selection of marine equipment, for example. The difference between a vessel being 'fit for use' and 'fit for purpose' is not always recognised.

### Sufficient purpose builds?

"Take a situation where," explained Wehnes, "a crane vessel is booked for a certain job. If it should be delayed for whatever reason then there is a problem as day-rates range in €100K a day. To avoid further project delays another crane vessel may be deployed.

This could be a vessel that is 'fit for use', however, not 100 per cent 'fit for purpose'. A cable layer, in another example, that has been adapted from its original purpose as rock dumper. These situations create potential risks; we see it as our task to mitigate these risks as early as possible." "As the industry matures purpose built vessels are being built", Tegel added, "the question remains, will there be sufficient purpose built vessels to meet the demand when already with the current offshore wind projects in the EU most vessels are booked years in advance?"

Contractual risk is another type of risk which is identified by the

Costa men. The different forms of contracts on offer, EPC, EPCM, EPCI and Lump sum turnkey (LSTK), do not suit every company and every situation. A mistake made at this level is catastrophic; accepting a wrong definition of the risk can cost too much. Technically a contract may be sound, but the risk assessment, or lack of it, for example, concerning the weather risk, may not be so very strong, which results in a weakened contract. Using the example of the crane vessel again, avoiding the risk that the crane vessel could be delayed is not easy especially when the previous work for the vessel is with another company. →

