# INTEGRATING RENEWABLE ENERGY AND

Offshore oil and gas platforms require energy to power their primary and tertiary activities. Traditionally this power requirement has been satisfied thought the use of gas turbines and diesel generators. As we all seek to reduce our carbon footprint Government Authorities and firms are looking at the potential of an integrated offshore energy solution, with renewable energy being used as part of the power mix for offshore oil and gas installations.

Ali Ellesawy, Senior Adjuster with Integra Technical Services offers four tips for firms pursuing this strategy:

## 1 Maintain protection systems and an uninterrupted power supply

These provide temporary power when the main source of power fails and allow safe run-down of heavy equipment and machinery. These protection systems traditionally come in the form of Diesel Generators and Battery Systems. Without these systems in place there is a significant risk of physical damage to property during this run-down phase.

Firms should make sure they have adequate systems in place, including appropriate testing and maintenance regimes. Where Loss of Production Insurance is purchased Insurers may want to consider obtaining full details of these auxiliary power systems, including how much power can be generated and for how long. Mobilising repair equipment and conducting works offshore can take a considerable amount of time, particularly during poor weather or sea conditions.

# TRADITIONAL OIL AND GAS OPERATIONS

## 2 Consider the potential for damage to existing property during construction

The renewable energy source will be integrated into an existing platform and infrastructure, creating a risk of damage to the existing property. This risk can be in the form of power umbilical cables laid in close proximity to the platform and subsea infrastructure, vessels manoeuvring and lifting equipment onto the platform, etc.

## 3 Alternate power management system

Given the cyclical nature of renewable energy (for example, wind farms experiencing low, medium and high wind conditions), the power management system should be able to alternate and distribute power loads between the main generator and the renewable source. It should take into account that producing a higher than required load can be inefficient, adversely a lower load can result in physical damage to equipment.

## 4 Prototypical technology

The concept of tidal energy is well established, however whilst the technology is fast developing its implementation remains in its infancy.
(Re)Insurers will be well versed with risks involved with new technology, including but not limited to: lack of expertise in the particular field; long lead time for spare parts and equipment; and limited experience in fault finding or root cause analysis. (Re)Insurers should look to work with the Insured to understand the technology and the components which would form part of the critical path in the event of a failure. It will equally require clear discussions between the (Re)Insurer, Broker and Insured about the policy wording for defective design and fortuity.