

# Offshore Wind

## Environmental Risks and Insurance Challenges

BY MEAGAN L. MOORE &

KEVEN DRUMMOND EIBER

The world around us is changing. While still the primary energy source, use of fossil fuels is decreasing as the growing need for responsible, secure and affordable energy has opened the door to increased development of alternative energy technologies. Emerging alternative energy technologies, whether aimed at new ways to extract oil and gas or, increasingly, focused on renewable sources, present new risks and new challenges for owners, investors, contractors, and their brokers and insurers.

A case in point is the generation of electricity from wind turbines. While initially wind turbine farms were located on land, with relatively small turbines, as the technology has advanced, wind turbines have vastly increased in size and have moved offshore, in both the oceans and fresh waters. There are currently no offshore wind farms in operation in the United States, but there are several projects at various stages of development throughout the country, including Project Icebreaker. In December 2012, the U.S. Department of Energy committed \$4 million to Project Icebreaker, the wind turbine project that hopes to build five to nine wind turbines seven miles off the coast of Cleveland in Lake Erie. The electrical generation goal of this project, slated to be completed by 2017, is to generate 20 megawatts of power.

Offshore wind farms offer a vast untapped energy potential. Open bodies of water are ideal locations for wind farms because they generally have more wind due to fewer obstructions and the absence of land formations that could slow the winds. Nonetheless, despite having an idyllic wind source, offshore wind farm development is an extraordinary undertaking. At some sites, concrete and steel foundations must be built in water that may be hundreds of feet deep and up to 50 miles offshore. Even with respect to Project Icebreaker, which will be

located relatively close to shore in waters that are less than 100 feet deep, towers to support the turbines must be assembled on shore and ferried to the offshore site on specialized ships. The turbine blades, generators, and other equipment also must be delivered by ship to the offshore location, and then assembled on the water. Transmission cables must be laid from the offshore location to land, in varying depths, and must be protected from dredging activities, ships' anchors, and natural hazards.

Although wind power offers an emission-free (at the point of use), renewable energy source, there are environmental risks related to the development and utilization of offshore wind farms. Because of the relatively new technology, the industry has not amassed a great deal of experience regarding what might go wrong in the construction of offshore wind turbines or once operation of the wind turbine commences. Accordingly, the risks of offshore wind development are wide-ranging and difficult to predict and to quantify; available insurance products on the market today offer only limited coverage for many of these risks.

The environmental risks related to the development and utilization of offshore wind farms, specifically offshore fresh waters like Lake Erie, range from the potential effects on bird and fish populations to subsurface effects, like earthquakes or subsidence, to potential water pollution concerns should a turbine be damaged from a collision or simple wear and tear. Some of the more specific potential risks that have been identified are:

- Disruption of the flight patterns of some migrating birds due to the expansive turbine blades.
- Damage to fish populations as a result of construction and operation of the wind turbine and as a result of noise from wind turbine's operations.
- Electromagnetic fields from underwater cables stretched across the lake bed could disrupt the freshwater ecosystem.
- Sediment in a lake bed could be disturbed as a result of the construction process.
- Lake water contamination could result from leakage of oil from the wind turbine due to

wear and tear of the turbine's generator, as a result of collisions with ships, or due to catastrophic events such as fire.

- The construction of the wind turbine farm could impact subsurface conditions and cause earth movement, subsidence, or even earthquakes.
- There is a potential for damage to the turbines and the lakeshore from fire, electrical shock or other problems from the large underwater cables being stretched along the lake bed.

As already noted, the offshore wind industry is new territory in the United States; therefore the potential or validity of these risks is not fully known, especially for fresh water wind farms. However, with guidance from European countries that have been utilizing this technology much longer, we are able to evaluate the risks and the currently available insurance options for offshore wind projects that may provide coverage for these potential environmental risks.

### Property Insurance

The starting point for any consideration of the insurance needs for an offshore wind project is first-party property insurance. A project owner or the general contractor unquestionably will purchase some form of builder's risk coverage during the construction phase. Engineers, contractors and subcontractors, transporters and others involved in the project will have their own insurance, including professional liability and/or errors and omissions insurance, with all their varied and confusing additional insured endorsements, or all may be covered under a single comprehensive "wrap" policy issued for the particular construction project.

After construction is complete, the owner or operator will purchase "all risk" or "defined peril" property insurance. "All risk" property policies insure against "all risks of direct physical loss or damage to Insured Property, except as excluded." Both builder's risk and all risk policies typically provide some limited pollution coverage subject to a relatively small sublimit of coverage, and will contain broad pollution exclusions. A typical pollution exclusion is:

The Company does not insure for loss or damage caused directly or indirectly by any of the following. Such loss of damage is excluded regardless of any other cause or event contributing concurrently or in any sequence to the loss or damage. These

exclusions apply whether or not the loss event results in widespread damage or affects a substantial area...

e. The actual, alleged or threatened release, discharge, escape or dispersal of Pollutants or Contaminants, all whether direct or indirect, proximate or remote in whole or in part caused by, contributed to or aggravated by any Covered Cause of Loss under this Policy.

In addition, however, property policies typically also contain exclusions for damage caused by “wet or dry rot,” “corrosion,” “erosion,” “settling or cracking of foundations,” “defective workmanship,” “earth movement,” “flood,” and “freezing.” Such policies also do not cover damage to certain types of property, including “land,” “water,” “growing crops, standing timber, animals,” “docks, piers, wharves and property located offshore,” “underground or underwater piping,” “drilling and producing platforms,” and more.

Policyholders must carefully scrutinize standard insurance policies with the particular risks associated with offshore project in mind, and consult insurance professionals with particular experience with offshore and marine risks. From the standpoint of the potential environmental risks described above, it is important to understand that typical property policies will contain very limited coverage for pollution cleanup, and will contain broad exclusions for pollution damage. However, even the limited pollution coverage provided may not apply to the property damage that may occur at an offshore wind generation facility.

### Liability Insurance

Most, if not all, standard commercial general liability (CGL) insurance policies written today will contain broadly written pollution exclusions. Industry-specific “operations insurance” may provide additional specific coverage extensions unique to the industry, for example the power generation industry, but are unlikely to provide broad environmental coverage. The owner and/or operator of an offshore wind facility faced with environmental claims will need to resort to more specialized pollution liability insurance for coverage, which may be combined with traditional CGL coverage or as a stand-alone policy of insurance.

Contractor’s Pollution Liability insurance and Pollution Legal Liability (PLL) insurance are widely available. Contractor’s Pollution Liability insurance covers a contractor’s operations or activities that cause new pollution or that exacerbate previously known contamination. Coverage is provided for

cleanup costs, property damage and bodily injury claims brought by third-parties, natural resource damage claims, claims for diminution in property value claims, mold and, importantly, defense costs. It can be written to cover a particular project or a particular insured contractor.

Pollution Legal Liability insurance covers both unknown pre-existing contamination and new pollution events. It is written to cover liability to perform cleanup at a particular location or locations, including the insured’s property and/or other third-party owned sites. In addition to providing cleanup cost coverage, PLL insurance will provide coverage for toxic tort claims, and claims for natural resource damages, diminution in value, third-party property damage, bodily injury, and importantly, defense costs.

These insurance policies are not without limitations in the form of conditions and exclusions. They typically are claims-made and reported policies, often include large deductibles or self-insured retention requirements, and provide that defense costs are included within limits, and not in addition. Furthermore, the underwriting process can be difficult and time-consuming, as it requires the disclosure of extensive environmental assessment information regarding the properties or sites to be insured.

PLL insurance policies also contain exclusions that should be carefully reviewed and negotiated. For example, PLL policies may or may not include coverage for transportation-related incidents. Regardless, they commonly exclude coverage for damage arising out of the use of watercraft. An example: “This insurance does not apply to any occurrence, damage, expense, claim or suit for, due to, or arising out of ... ownership, maintenance, use or entrustment to others of any ... watercraft owned or operated by or rented or loaned

to any insured. Use includes operation and loading or unloading.” This exclusion, while unremarkable in a policy issued to a land based facility, could well be implicated in connection with an offshore incident.

Other types of insurance that may respond to an environmental claim are professional liability insurance, errors and omissions (E&O) insurance, and directors and officers liability (D&O) insurance. These policies also may have a form of pollution exclusion, and other potentially applicable exclusions, and must be read carefully. However, there is a great deal of variability in the language of such policies, which are often written on non-standard forms. Like PLL coverage, these policies are most often written on a claims-made basis.

Finally, businesses involved in offshore wind energy projects should look to the marine industry for insurance solutions that may be able to be tailored to their specialized needs, and should look to the experiences of their European colleagues who have been engaged in building, operating, and insuring offshore wind energy projects for many years.

Project Icebreaker presents exciting opportunities and challenges for a wide array of Ohio businesses and professionals, including those practicing in the environmental and insurance fields.

---

*Meagan L. Moore and Keven Drummond Eiber both are partners in Brouse McDowell’s Cleveland office where they focus their practice in the areas of environmental law and insurance recovery for policyholders. Meagan is past chair of the CMBA Environmental Law Section and is a member of the CMBA Green Initiative Committee. Keven currently chairs the CMBA Insurance Law Section. Meagan can be reached at [mmoore@brouse.com](mailto:mmoore@brouse.com). Keven can be reached at [keiber@brouse.com](mailto:keiber@brouse.com).*

**ROSNER  
ORTMAN  
& MOSS**  
PARTNERS  
COUNSEL FOR IMMIGRATION

THE CAXTON BUILDING  
812 HURON ROAD, STE 601  
CLEVELAND, OHIO 44115

t 216 771 5588  
f 216 771 5894  
[www.rosnerlaw.com](http://www.rosnerlaw.com)

**Helping with worldwide immigration  
needs since 1994.**