

Renewable Energy

Contributing editor
Eric Pogue

HUNTON &
WILLIAMS



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GETTING THE
DEAL THROUGH 

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Renewable Energy 2018

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Global overview

Eric Pogue

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Although there are, of course, deviations among jurisdictions, applicable laws and programmes, there is general agreement that ‘renewable energy’ consists of energy produced by renewable resources. Wind and solar tend to dominate the discussion, but hydropower, geothermal, biomass and wave resources almost universally qualify as sources for renewable energy.

‘Clean power’, on the other hand, encompasses a much broader scope of generation sources. In most cases clean power includes energy produced from nuclear generation along with energy sourced from natural gas and frequently even coal (provided carbon sequestration or other technologies are employed).

Our focus, in this inaugural edition of the *Renewable Energy* volume, is the more narrow renewable energy category. Without discounting the importance of, and interesting legal issues arising from, the broader category of clean power – some of which are touched upon here and in other volumes of the *Getting the Deal Through* series – the intent here is to do a deeper dive into the legal issues surrounding power generated by renewable sources of energy.

As will become apparent from a review of the country-specific discussions, some common themes emerge across the globe with respect to the legal issues that practitioners face in the renewable energy space.

The role of governmental incentives

A lawyer practising in the renewable energy space will need to be attentive to the government programmes and incentives that are almost always an important component of developing and financing renewable projects. This is the case across the world.

In Brazil government-sponsored auctions were held in 2016 resulting in the procurement of more than 200MW of small hydropower and almost 200MW of biomass projects (IRENA (2017), ‘Renewable Energy Auctions: Analysing 2016’ IRENA, Abu Dhabi).

In the United States federal tax credits continue to be integral to the development of renewable energy projects. The American Wind Energy Association reports that the production tax credit helped fuel the addition of 8,203MW of new wind power capacity in the United States in 2016. Similarly, the Solar Energy Industries Association reports that the investment tax credit helped drive the 14,800MW of new solar capacity that was installed across the United States in 2016.

In India renewable development is surging forward in large part owing to RPOs (renewable purchase obligations). With respect to solar alone, the government of India’s Ministry of New and Renewable Energy reports that to meet the RPO (of 3 per cent by 2022), over 34,000MW of solar will need to be online in India in the next seven years (<http://mnre.gov.in/information/solar-rpo/>).

In Denmark a government-sponsored auction was held in 2016 that was limited to offshore wind. The results of this auction, aimed at incentivising offshore wind development, was procurement of approximately 600MW of new offshore wind generation (IRENA (2017), ‘Renewable Energy Auctions: Analysing 2016’ IRENA, Abu Dhabi).

Vast range of project sizes

Similarly, a lawyer practising in the renewable energy space will need to be prepared for a wide range of project sizes – and the resulting variations in applicable permitting, real estate rights and transaction structuring, generally. While on-site or inside-the-fence generation has

always made up a portion of the conventional generation market (eg, on-site diesel generators at industrial sites), renewable energy, and in particular solar, lends itself to a variety of on-site applications. At the same time, ‘utility-scale’ renewable energy projects are also quite prevalent, with some of the largest in the world being developed recently. Interestingly, the modular nature of renewable projects (eg, one can add a wind turbine for two additional megawatts of generation or simply add another panel or row of panels to a solar project if you have the space) allows for anything in between these two ends of the spectrum.

At one extreme, and perhaps the smallest application of renewable energy, is residential solar. These are projects installed at or on individual homeowners’ houses. Although these systems are very small when viewed on a stand-alone basis (typically in the \$kW/\$15,000 US\$ size range), collectively these installations make up a substantial, and growing, segment of the market. In Italy, for example, *PV Magazine* reports that over 369MW of new solar generation were added in 2016 (or over 22 per cent more growth than in 2015) based in large part on the installation of new residential solar systems. (<https://www.pv-magazine.com/2017/03/02/italy-installed-369-mw-of-new-pv-systems-in-2016/>) Similarly, in the United States, it is now estimated that over one million homes have solar systems installed.

At the other end of the spectrum, utility-scale renewable energy projects are also prevalent. Each of the five largest power generation projects in the world are hydroelectric projects, the largest being the Three Gorges Dam in China, which came online in 2012 with a generating capacity of 22.5GW. Utility-scale solar and wind projects are also widespread around the world – such as the Kurnool Ultra Mega Solar Park (a 1GW solar project in India, the world’s largest single-location solar project, which came online in 2017) and the Wind XI project (a 2GW wind project under development in the United States, which will be North America’s largest wind project when completed).

Each of these project types and sizes carries with it a unique set of legal considerations. By way of example, residential solar installations are frequently financed on a portfolio basis. Considerations unique to these types of transactions include:

- organising technical and legal diligence for a portfolio consisting of thousands of projects that may be spread apart significantly from geographic perspective;
- real estate and commercial issues arising from the simple fact that residential systems are located on the roofs of individual homeowners – for example, what insurance is appropriate and what happens when there is a casualty event, someone moves or even the owner just needs to reshingle their roof; and
- as most residential solar systems are interconnected to the power grid, the energy regulatory issues that arise with respect to the interaction between the systems, their owners (sometimes homeowners and often third-party developers) and incumbent utilities – such as ‘net metering’.

While many of the foregoing considerations may carry over to larger rooftop solar installations or other distributed generation projects, it goes without saying that utility-scale renewable projects (such as the several-hundred-megawatt wind farms and behemoth hydropower projects referenced above) bring along an entirely separate set of legal issues (environmental, real estate, permitting, construction law, etc).

Prominence of non-traditional players

For a number of reasons, including the scalability of projects as referenced above, the environmental benefits and related social issues, and the simple fact that a separate fuel supply is not required, renewable energy continues to bring non-traditional players into the market. Just like a legal practitioner in the renewable energy segment needs to be prepared for a wide range of project sizes and structures, lawyers in this market frequently need to interface with entities that are new to the power space. This can be as simple and discrete as negotiating a real property lease for siting a wind turbine on an individual farmer's field or as complex as integrating a renewable energy programme into a Fortune 500 company that lacks prior energy experience.

On this latter point, over the past several years, corporate interest in the renewable energy and related transactions market has exploded. Corporate entities, including retailers, manufacturers and technology companies, are either entering the renewable energy arena for the first time or significantly bolstering their current positions. A number of factors are at play, including:

- shareholder pressure from funds that invest in green companies;
- corporate responsibility initiatives, such as the desire to promote positive brand publicity and align with international and global sustainability best practices (for example, related to the Paris Agreement);

- the potential for companies with high demand for electricity (such as companies that rely on data centres or that use large amounts of electricity in manufacturing processes) to lock in power prices over 10–25 years rather than rely on sometimes volatile market prices from their local utility; and
- the significant fall in the cost of solar and wind projects over the past several years.

While many of these companies have started procuring some renewable energy based on the foregoing considerations, more recently many of the largest companies have committed to procuring all their power from renewable energy. The RE100 initiative keeps an updated list, which as of this writing identifies 96 companies that have committed to this one 100 per cent goal. (See <http://there100.org>). These include many of the largest and most influential companies in the world — Facebook, Diageo, Goldman Sachs, Nestlé, General Motors, etc. The opportunities presented to these companies (ranging from social to economic benefits) come along with a host of new legal issues (securities reporting considerations, energy regulatory matters, etc), which again present unique challenges to legal practitioners in this space.

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