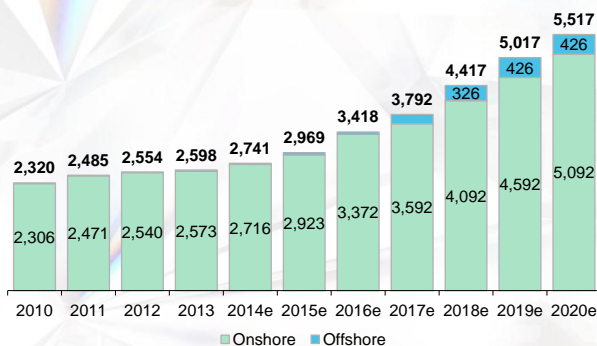


JAPAN WIND CAPACITY TO DOUBLE BY 2020

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日本の風力累積発電容量予測、2010-2020年(MW)



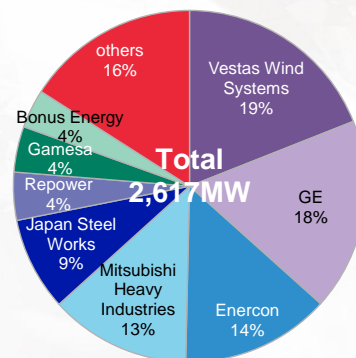
Source: Bloomberg New Energy Finance

Prior to the launch of the feed-in tariff programme, Japan had an installed base of 2,506 MW of onshore wind capacity. These installations were carried out under the previous renewable portfolio standard (RPS) programme. After the launch of the feed-in tariff (FiT) programme in July 2012, existing installations were allowed to switch to the FiT programme to be compensated at a rate of 22 JPY/kWh (183\$/MWh) for onshore installations above 20kW. Despite the FiT rate being the highest in the world, development of wind in Japan has been slow due to 1) the lengthy environmental impact assessment process, 2) challenging terrain and 3) limited grid infrastructure in the regions with best wind resources. Despite these challenges, developers have made gradual progress, and we foresee the current installed base of 2,716MW at the beginning of 2015 to increase to 5,092MW by 2020.

Unlike the solar market, the wind market in Japan is dominated by foreign turbine suppliers. Additionally while the pace of market development has been slow, experienced project developers can achieve attractive returns on investment thanks to the generous FiT rate, thus resulting in significant international interest. Earlier this March, one of the world's largest private equity firms Bain Capital decided to acquire Japan Wind Development (2766 JT), Japan's second largest and

only listed wind project developer. Earlier this January, Pattern Energy, one of the world's largest renewable IPP players invested in Green Power Investment, which has a 1GW worth of pipeline of projects in Japan. Longer term, the ongoing electricity market reform process, as well as significant government support for offshore wind is attracting both domestic and international players.

Turbine suppliers market share in Japan as of March 2014
日本の風力タービンメーカーの市場シェア、2014年3月



Source: Bloomberg New Energy Finance

2020年までに日本の 風力発電容量は2倍に

固定買取価格制度が導入される以前、日本の陸上風力発電導入量は 2,506MW であった。これらのプロジェクトは、再生可能エネルギー利用割合基準(RPS)プログラムの下で稼働を開始した。2012年7月の固定買取価格制度(FiT)導入後、既存設備のうち出力 20kW 以上の陸上風力発電プロジェクトは、22 JPY/kWh (183\$/MWh)のレートで新しい固定買取価格制度を利用することが認められた。しかし、世界の中で最も高い買取価格にもかかわらず、日本の風力発電の発展は進展が遅い。理由として、1) 環境影響評価プロセスが長いこと、2) 地形が複雑であること、3) 最適な風力源のある地域に系統インフラが整っていないことなどが挙げられる。これらのような課題はあるものの、開発は少しずつ前に進ん

であり、弊社では、2015年初頭の設備容量2,716MWが、2020年までに5,092MWに増加すると予測している。

太陽光市場と異なり、日本の風力発電市場は外国のタービンサプライヤーに支配されている。市場発達が緩やかになるに加え、寛大なFiTレートにより経験豊富なディベロッパーは魅力的な投資効果を達成でき、大きな国際的関心を取り込んでいる。

今年の3月初めに、世界最大プライベート・エクイティの一つBain Capitalは、日本で2番目の規模で唯一の上場風力開発企業である日本風力開発(東証2部2766)に対して、買収を決定した。今年1月初めには、世界最大の再生可能エネルギーIPP企業であるPattern Energyは、日本で1GW相当の計画中プロジェクトを所有するグリーンパワーインベストメントに出資した。長期的には現在進行中の電力市場改革が行われ、政府の支援が洋上風力市場にも行われると、国内外の多くの事業者が惹きつけられるであろう。

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