

## **Asia Becoming Attractive Wind Energy Investment**

With global installed capacity of wind power reaching 282.5 GW, and a long-term pattern of 19 percent increase annually, the sector is seeing a surge in growth following a slower season. According to The Global Wind Energy Council, which recently published their Annual Market Update, the expectation is that there will be an uptick in activity in wind energy development worldwide in 2014, with an expected growth of 13.7 percent to 2017. According to the report, this will result in a near doubling of global capacity of wind energy by 2017.<sup>i</sup> In particular, there are strong trends toward expanded development in many Asian countries, including China and India, which means there are plenty of reasons for European and American wind experts to pay close attention to the developments in this region in the coming years.

### **China Pulling Ahead of the US in Wind; Other Asian Nations Following Suit**



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On the whole, wind energy is gaining importance in the Asia-Pacific region. Take, for instance, China. With 13.2 GW of wind power installed in 2012<sup>ii</sup> and 18 GW anticipated to be installed in 2013 when the year closes, China leads the way when it comes to wind energy installations. In fact, China has actually trebled its installed capacity from 25.8 GW in 2009 to 75.3 GW at the end of 2012.<sup>iii</sup>

The nation has the largest market in the world amounting to over 75 GW of installed capacity.<sup>iv</sup>

What's more, in China wind energy is cost competitive with solar energy development, making it attractive for Chinese government investments. More importantly is that wind energy is even able to compete with gas and coal.<sup>v</sup> Considering all of these factors, if the country can mature its wind energy sector in a timely and safe fashion, it's just a matter of time before wind takes on an even larger role in the country's energy mix.

India has also seen a surge in wind energy installations in the last few years, with 2.3 GW of wind energy installations completed in 2012.<sup>vi</sup> Though there was a policy slow-down in 2013, the country is expected to resume its push for greater wind energy development in 2014.<sup>vii</sup> Similar growth is also being seen in other parts of Asia, including Pakistan, the Philippines, Mongolia, and Thailand where predictions show this region undergoing significant development in 2013 and into the years ahead.<sup>viii</sup>

This is true in all areas of wind development in Asia, including offshore wind. Some estimates suggest that by 2020, countries such as Japan, China, South Korea, and Taiwan will be investing upwards of €4.8 billion combined, adding 1.5 GW of new annual capacity. This is a huge increase over their current investments of €1.6 billion and 400 MW of annual additions.<sup>ix</sup> Growth in onshore wind will also continue to drive the wind power market in the region.

### **Mixed Government Involvement with Wind Energy Expansion in Asia**

One of the reasons the wind power sector is seeing such a boom in Asia Pacific is because of the favourable government policies in the region. According to research from Globaldata in their Asia-Pacific Renewable Energy Policy Handbook 2013, there has been positive support for wind energy development by many Asian governments. In light of shrinking fossil fuel reserves and concerns about climate change, many countries in Asia have made the call for renewables including wind energy. To support their aims at boosting wind installations, these countries are employing a variety of measures, including low-rate loans, grants, tax exemptions and credits, capital subsidies, and rebates.



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One of the best examples of this is Japan. Following their Fukushima disaster, the government moved to diversify their energy mix by approving feed-in tariffs for renewables starting in 2012 that are some of the most generous in the world.<sup>x</sup>

Likewise, the Chinese government has developed both new laws to support renewable energy expansion and financial incentives for development, which is one

of the biggest reasons China is fast becoming the largest market for wind in the world. There has also been government support for wind energy development in India.<sup>xi</sup>

In Thailand, the government has taken action to support things like wind energy development as well. They have set a goal to increase renewables to 25 percent of their total mix in the next 10 years. This ambitious target is being boosted by feed-in tariffs and renewable energy portfolio standards.<sup>xii</sup>

Despite encouraging government support in many areas of the Asia-Pacific region, one of the issues that is holding up some wind development projects has been the politicians. As the GWEC spokesperson pointed out, "Wind power may be variable, but the greatest threat to the continued stable growth of the industry is the variability and unpredictability of the politicians who set the frameworks for the energy sector. However, all of the fundamentals which have driven wind power to date are still in place: energy security, price stability, local economic development, climate change mitigation and local air and water pollution issues; and wind is now competitive in an increasing number of markets, despite fossil fuel subsidies which last year amounted to an *incentive* to emit CO<sub>2</sub> of about \$110/tonne."<sup>xiii</sup>

### **Asia to Boost Global Wind Energy Development, Overtaking Europe**

The growth in the Asian wind energy market has been so encouraging that many are saying it will be the force that catapults the wind power market to take a strong role in the energy global mix in the next 15+ years. In fact, Siemens, a world leader in wind turbine manufacturing, recently stated that they anticipate a strong showing from Asia to push the global wind market to quadruple by 2030 to 1,107 GW.<sup>xiv</sup>

According to Markus Tacke, CEO of the wind power division of Siemens, "The market will shift away from Europe significantly." He anticipates that the Asia-Pacific region will account for 47 percent of the mix, which will be up from the 34 percent market they're now at.<sup>xv</sup> In fact, by some estimates the Chinese clean energy market alone is worth between US \$60 billion and \$70 billion, with wind being the third largest contributor to the country's electricity.<sup>xvi</sup>

Looking at the picture as a whole, with increased government support, the low cost of wind development in these areas, and financial weight being thrown behind wind development, investors from other regions such as Europe are increasingly

interested in Asia. And so they should be. The opportunities there are substantial. That said, given that this is still a fledgling market with much less experience than firms out of Europe and with vast differences from country to country in landscape, policy, and expertise, the industry will need to step with caution as they move to compete for a piece of the Asian wind power pie.

Maryruth Belsey Priebe



Maryruth can't help but seek out the keys to environmental sustainability - it's the fire that gets her leaping out of bed every day. With green writing interests that range from sustainable business practices to net-zero building designs, environmental health to cleantech, and green lifestyle choices to social entrepreneurship, Maryruth has been exploring and writing about earth-matters and ethics for over a decade. You can learn more about Maryruth's work on JadeCreative.com.

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