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Will Wind Turbine OEMs Assert Patents Against Developers or Utilities?
What developers and financiers of wind farm projects need to know.

by Philip Totaro, Principal, Totaro & Associates

I attended the AWEA Fall Symposium in Carlsbad in November 2011. While it was a good industry gathering, I was intrigued by a panel discussion in which a representative from a major US developer and O&M service provider to wind farms indicated that his organization will sometimes sidestep the turbine OEM when it comes to sourcing spare parts.

Largely speaking, the turbine supply agreements which wind turbine OEMs sign with their own customers cover the breadth of their patent protection, but typically only a use license is provided. The ability to modify turbines or use substitutes may not be implicitly provided to the owner/operator of the turbine, calling into question some of the proposed methods developers and O&M service providers may use to help control cost.

Aspects of this topic were covered in a post on The Green Patent Blog by Eric Lane, entitled 'Infringement Issues in an Emerging Wind Power Cottage Industry' http://www.greenpatentblog.com/2009/02/19/infringement-issues-in-an-emerging-wind-power-cottage-industry/

Interestingly, in other industries, like automotive, we have seen the OEMs create features of certain key components which mean the components or the service can only be provided by an OEM representative or certified technician. This locks in an aftermarket revenue stream for the OEM, and is something they will not want to lose out on as more 'modern' turbine fleets begin to come off warranty and age.

As the O&M cost structure and optimization of wind farm operations becomes more of a hot button issue, we will see what steps if any OEMs will take to ensure revenue streams in this increasingly competitive market. Assertion of patent rights is certainly a tool in the toolbox.

Nevertheless, this topic got me to thinking about other areas in which there may be vulnerability of developers, and thus the financiers of wind farm projects, to assertion of patent rights from turbine OEMs.

As we have seen in other industries, as competition emerges and the industry matures, IP owners will begin to assert their rights if they feel there is diminishment of their commercial enterprise. We have seen GE assert their rights against many other turbine OEMs on variable speed technology, and even go to court with Mitsubishi in a suit which could have profound implications on future assertion within the industry. AMSC also recently made public the theft of trade secrets by one of their customers.

This begs an important question: Will the turbine OEMs, who have accumulated over 4100 US patents and applications on all aspects of wind turbine technology, begin to seek targets other than their OEM competition for licensing revenue in a US market which is increasingly cost competitive?

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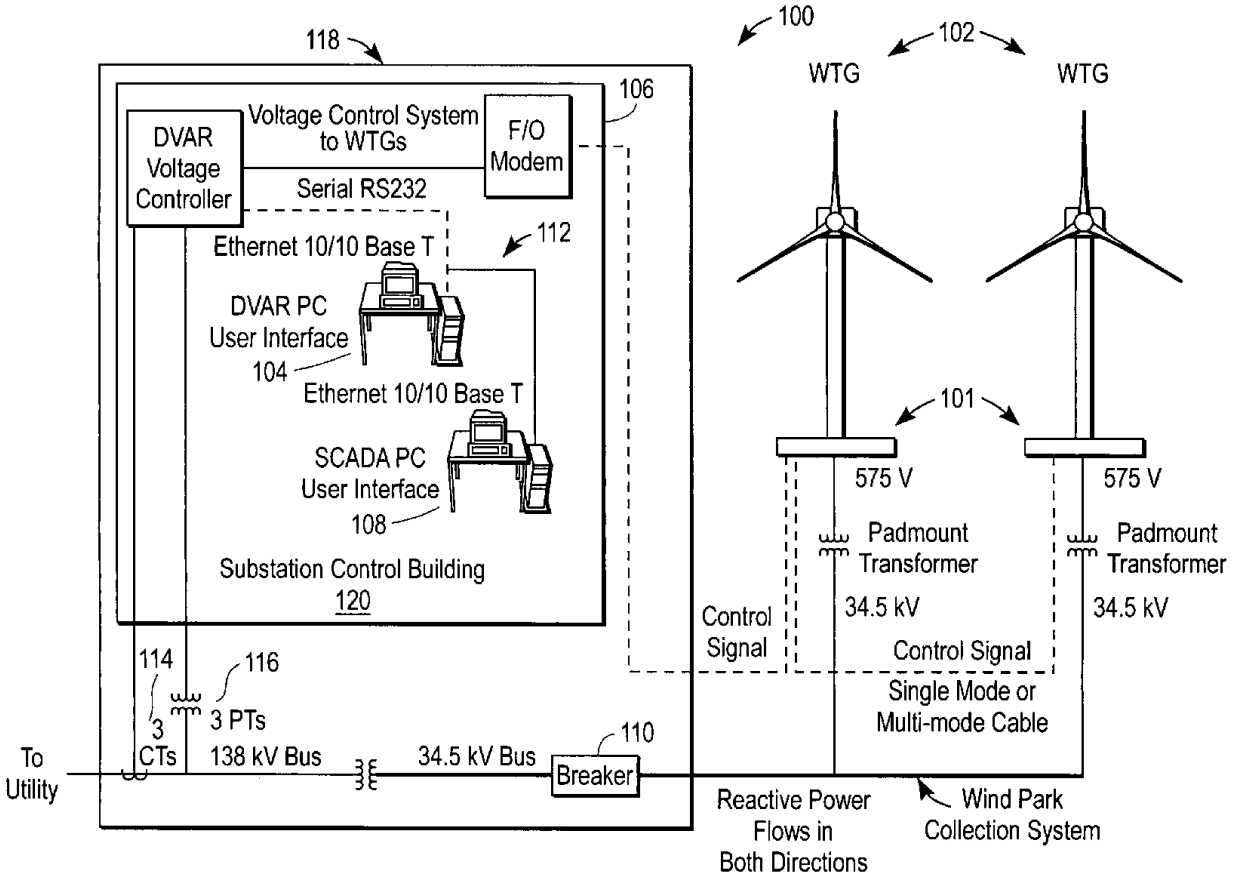
For instance, there are many OEMs and key component suppliers with patents on methods of power factor control and curtailment for wind farms. These are two particular aspects of wind farm operation and optimization which are. US6479907 from ABB, US6891281 from Enercon, and US7663260 from Nordex are good examples of hardware and control methodologies already being employed. What recourse does a wind farm operator or turbine OEM have to refuse a curtailment order from an ISO if they know that it would infringe on a third party or competitor's patent?

Also, US7318154 from GE which enables remote monitoring and control of wind farms via the SCADA system could potentially be important to anyone operating a wind farm.



Now even connection of energy storage technology or use of HVDC is becoming more pervasively talked about and deployed in wind, with plenty of pioneering patents and applications on both aspects of technology already in process.

The question is whether or not an OEM would jeopardize a customer or potential customer relationship and turbine sales to assert their patent rights on developers, O&M providers or owners/operators of wind farms for which they did not supply turbines (and the aforementioned use licenses).

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Is there a need to add IP due diligence to wind farm development efforts? Perhaps, but there is a long way to go from patents which 'may be highly relevant' to getting lawyered up in an effort to fend off opposition. That being said, being proactive will likely avoid excessive damage awards.

As FERC continues to evolve their regulations regarding operation of wind farms, we will see if the OEMs can remain one step ahead with patent protection on technologies which could become the new standard for optimized performance of a wind farm or cost mitigation of O&M.

To get a deeper look into the patent landscape of the horizontal axis, utility-scale wind industry please visit www.totaro-associates.com and ask about **Wind Patent Watch™**, a subscription service providing a weekly digest and analysis of the published patents and applications from the wind industry.