AIR TRAFFIC VS. WIND TURBINES: CAN WIND POWER AND AVIATION COEXIST?

Resolution of FAA and military concerns delaying multiple wind farms shows that deeper cooperation between government and industry is crucial for unlocking wind energy's potential

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As wind power gathers more attention for its promise to foster U.S. energy independence and green jobs, maximizing the industry's potential depends on closer cooperation with federal authorities worried about wind turbines' impact on air safety and national security, according to noted Pillsbury attorneys. To address persistent questions over whether wind farms can coexist with busy flight paths, commercial and military use of airspace, air traffic control systems, and radar sites, industry leaders and federal authorities must work together early on to share information, identify potential conflicts and better understand each others' technology.

"The increasing popularity, investment, and potential of wind power can come to a grinding halt over Pentagon and FAA objections," explains Washington partner Kenneth P. Quinn, co-leader of Pillsbury's Aviation practice and former FAA Chief Counsel. "Wind developers would be well advised to consult with leading experts and engage agencies early on to fully explore potential airspace or radar interference," Quinn says. He emphasizes that "not only physical height, but potential line-of-sight and electromagnetic effects on air navigation and national defense systems can be hard to assess, but critical to review."

Quinn and fellow Washington Aviation partner Jennifer E. Trock have been involved in several wind energy projects, including a recent landmark case involving the nation's largest wind turbine farm, the $2.0 billion Shepherds Flat Wind Farm project in Oregon.

Trock notes that wind energy's reliance on relatively new technologies and the fact it must coexist in air traffic systems, means wind project backers must increasingly work with multiple federal agencies to document wind turbines' effects on air navigation and national defense and to develop solutions and mitigation measures addressing them.

"Federal civil and military aviation authorities and the wind power industry need to embark on a new era of cooperation to carefully balance their competing needs, while ensuring successful development of clean energy," she adds, explaining that the coexistence of wider renewable energy, aviation and military interests requires stakeholders on each side - intently focused on their own missions, budgets, and engineering - to appreciate the nature of the other's technology and constraints and work together to address issues.

Quinn and Trock suggest wind project planners apply for FAA approvals with enough time to account for potential mitigation that may be necessary. They encourage military and FAA authorities operating sensitive airspace systems – many of which are based on older, less adaptive technologies, yet are tasked with critical missions - to support their

stated concerns with verifiable data and work with developers to enhance technology – on all fronts – that preserves the safe and efficient use of airspace, while at the same time promoting important sources of alternative energy.

Pillsbury attorneys expect aviation and renewable energy to confront other potential conflicts as demand for renewables gains ground and new technologies emerge that could potentially interfere with air navigation. In addition to Oregon's Shepherds Flat project, the attorneys helped secure FAA approval for a wind farm in San Patriciao County, Texas. The project was held up due to the FAA's initial concern that its 109 turbines would interfere with signals from a nearby aircraft navigational aid first installed in the 1940s.

Reconciling the need to maintain the safety and security of the skies would give a timely boost to wind power's slice of the clean technology sector by affording greater certainty for investors, which could boost wind power research and job creation, according to Silicon Valley partner Sylvia Burks, leader of Pillsbury's Clean Technology Group.

"Wind energy is not limited to terrestrial-based wind turbines. A number of companies are at work on airborne wind energy generation, utilizing various types of kite-like craft, which are tethered to the ground, to generate energy using the higher winds present at high altitudes," Burks says. "Resolving where real-world wind power and aviation conflicts exist, establishing best practices for mitigating them, and setting aside commercial airspace for deployment of airborne wind energy systems would prevent these lingering questions from chilling investment in this industry."

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Pillsbury stands apart from other law firms for its deep experience in the areas of law, regulation and policy critical to successful development and deployment of clean technologies. Pillsbury's Clean Technology Group helps entrepreneurs and investors not only with initial financing, but also guides them through legal and regulatory mazes. With one of the most comprehensive energy practices in the world and decades of experience representing energy and technology industry leaders, Pillsbury is a "go-to" firm in the clean technology sector.

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