



SYSTEM HIGHLIGHTS

- Utility Grid Connected; 20 AVX1000 Turbines
- Rated Capacity of 20kW
- Mounted on Steel-framed Building
- Complements Logan Terminal's USGBC LEED Gold Certification

CASE STUDY:

ARCHITECTURAL WIND™ INSTALLATION AT BOSTON'S LOGAN INTERNATIONAL AIRPORT

With energy prices on the rise and concerns over air quality and greenhouse gas emissions growing, airports have begun to address how to meet these challenges in their own operations. One such airport, Boston's Logan International, operated by the Massachusetts Port Authority (Massport), is developing a comprehensive energy management plan for all its facilities that includes making greater use of clean, renewable energy resources.

As part of this plan, Massport turned to AeroVironment, Inc. in the spring of 2008 to install its Architectural Wind system at Logan's Airport Office Center. AeroVironment's Architectural Wind is a small, modular building-integrated wind turbine system designed for quick and easy installation onto the parapet of low-profile commercial buildings – with little or no structural impact or need for tall support towers. Moreover, the system takes advantage of a building's aerodynamic properties, thus capturing 15% faster wind speeds and generating more than a 50% increase in electrical power.

The Architectural Wind system installed at Logan International comprises 20 five-bladed wind turbines, and AeroVironment worked closely with Massport to incorporate the turbines on the building without any occupancy disruptions. Each turbine has a rated capacity of one kilowatt and is expected to generate 60,000 kilowatt-hours of electricity every year.

Says Massport Project Manager Terry Civic: "At Massport, we are continually striving to improve our facilities – making them more energy efficient as well as environmentally and user friendly. The installation of the Architectural Wind turbines at Logan Airport is one of the many initiatives underway designed to exceed national standards for energy efficiency, and we look forward to significant energy-saving results."

The Architectural Wind system provides not only reliable, non-polluting, renewable energy but also a visual enhancement to Logan International that demonstrates Massport's commitment to clean energy. Passengers using Terminal A – the nation's first airport terminal awarded Gold Level certification for Leadership in Energy and Environmental Design (LEED®) by the U.S. Green Building Council – have a great view of the 20 turbines generating power, as do pedestrians on the nearby Boston Harbor Walk. Also, airport visitors can see the system up close on the roof during one of the weekly tours the airport offers.

With its Architectural Wind installation, Logan International is the first commercial airport to generate power using wind turbines. It's a smart fit, because airport facilities use large amounts of energy, produce high levels of carbon emissions, and have significant safety concerns and requirements. The Architectural Wind system reduces demand for electricity generated by fossil fuels and – extending to a height of only eight feet from the building parapet – does not interfere with airplanes, navigation systems or control tower functions, thus posing no safety risk to aviation operations.

More information about the Architectural Wind system is available via email at wind@avinc.com or on the Web at www.avinc.com/wind.