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For Immediate Release

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## **Aircuity Helps Masdar Institute of Science and Technology Realize Significant Energy and Capital Cost Savings**

*One of the World's Most Sustainable Communities Leverages Aircuity's Intelligent Airside Measurement Solutions to Lower Operating and First Costs, Improve Lab Safety and Cut Emissions*

**ABU DHABI, United Arab Emirates (UAE) and NEWTON, Mass., USA – September 27, 2010** – Aircuity, the smart airside efficiency company, today announced that it recently completed the installation of its OptiNet® system into the first phase of the [Masdar Institute of Science and Technology](#) campus buildings to help the university achieve significant first cost reductions and sustained energy savings in these facilities. Masdar Institute, which is located in Masdar City, a cleantech cluster that aims to be one of the most sustainable cities in the world, is the Middle East's first graduate research institution dedicated to alternative energy, environmental technologies, and sustainability.

Aircuity's OptiNet system comprises both intelligent ventilation measurement and optimization technologies to cost effectively implement energy efficiency solutions. For example, Aircuity is helping to implement Demand Control Ventilation (DCV) in the university's classrooms, conference rooms and library areas to vary outside air ventilation based on sensing occupancy and indoor environmental quality (IEQ).

Additionally, Masdar Institute is using Aircuity technology to implement Demand Based Control for laboratory ventilation. This varies the building's use of outside air based on real-time analysis of the lab room environment. The ventilation flow is dynamically adjusted as needed to provide a safe lab environment while reducing the use of outside air on average by almost two thirds, to as low as 2 air changes per hour. In the first phase of the Masdar Institute project, these two approaches will generate energy savings of slightly over 3,000 MWh or about 32.5 KWh per square foot, representing a 55% average reduction in the total HVAC energy consumption of the affected lab and non-lab areas. Additionally, this energy savings reduces the university's solar PV capacity requirements by almost 1.5 megawatts.

"Leveraging state-of-the art energy efficiency technology like Aircuity is helping us to move toward our goal of making Masdar City one of the world's most sustainable cities. Most significantly, it is helping us do so in a commercially viable manner," said Alan Frost, director of Masdar City. "Optimizing the use of fresh air in our facilities with Aircuity's technology will significantly reduce our energy consumption, as well as our renewable energy requirements and cooling equipment sizing. This resulted in significant capital cost savings and will also provide a superior indoor environment."

The first campus buildings comprise an area the size of a city block and are the first structures to be built in Abu Dhabi's Masdar City. The city has been planned to support a growing population using the desert sun as an energy source. A 10 megawatt solar field has already been completed to help fuel construction, as well as Masdar's temporary corporate offices, and is reportedly the largest such plant in the Middle East.

In addition to being a technology provider to the project, Aircuity also recommended an improved sequence of operation for the University's labs based on recent changes in lab standards that Aircuity's chairman helped implement. These changes safely reduced the minimum flow rate of the lab fume

hoods by over 60%, and alone represented annual energy savings of over 1,000 MWh and almost 0.5 megawatt of solar PV capacity requirement reduction.

“What Masdar Institute, Masdar City and the government of Abu Dhabi are striving to accomplish is nothing short of revolutionizing the sustainability of the world’s commercial buildings, and goes far beyond the scale of what anyone else has yet accomplished - even with net zero projects.” added Gordon Sharp, chairman, Aircuity. “We are proud to be a part of such an important project and look forward to continuing to work together with Masdar on economically reducing their facilities’ carbon footprint and helping them become a platform for innovation and green technologies.”

### **About Masdar**

Masdar is Abu Dhabi’s multifaceted renewable energy and clean-technology Company. As a new kind of energy company, Masdar takes a holistic approach to the renewable energy and clean technology sector by integrating research, development and innovation with investment, sustainable production, deployment and export. Masdar is wholly owned by the Mubadala Development Company, the Abu Dhabi government investment vehicle. For more information on Masdar, please visit [www.masdar.ae](http://www.masdar.ae).

### **About Masdar City**

Masdar City is a clean-technology cluster located in a sustainable city. This special economic zone in Abu Dhabi seeks to become a global centre for innovation, research, product development and light manufacturing in the fields of renewable energy and sustainable technologies. Leading multinational companies in the cleantech sector, as well as small- and medium-sized enterprises and entrepreneurial start-ups will locate R&D labs, marketing offices and headquarters in the city. The International Renewable Energy Agency (IRENA) will base its headquarters in the city, while GE will build its first Ecomagination Centre at Masdar City.

### **About the Masdar Institute of Science and Technology**

The Masdar Institute is a world-class, graduate-level research-driven institution based in Abu Dhabi. Developed with the support and cooperation of the Massachusetts Institute of Technology (MIT), the university offers Masters and (eventually) PhD programs in science and engineering disciplines, with a focus on advanced energy and sustainable technologies. The university integrates theory and practice to incubate a culture of innovation and entrepreneurship and in so doing, provides the applied research “feedstock” for Masdar projects and other activities across the wider UAE. It seeks to partner with industry and government to foster a diversified knowledge-based economy in Abu Dhabi and the UAE. For more information, see: <http://www.masdar.ac.ae/home/index.aspx>.

### **About Aircuity**

Aircuity is the smart airside efficiency company providing building owners with sustained energy savings through its intelligent measurement solutions. By combining real-time sensing and continuous analysis of indoor environments, the company has helped commercial, institutional and lab building owners lower operating costs, improve safety and become more energy efficient. Founded in 2000 and headquartered in Newton, MA, Aircuity’s solutions have benefited organizations such as the University of Pennsylvania, Eli Lilly, Masdar City the Bank of America Tower and the University of California-Irvine. For additional information on the company and its solutions, please visit: <http://www.aircuity.com>.

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Eleanor Crow

fama PR (for Aircuity)

Phone: +1 617-758-4143

E-mail: [aircuity@famapr.com](mailto:aircuity@famapr.com)