



## NEWS RELEASE

### **City of Dubuque Teams with IBM to Provide Citizens Smarter Water Services** *Smarter City Cloud Service Delivers Real-time Insights to Increase Conservation, Lower Costs*

**Dubuque, IA, October 4, 2010** -- IBM and the City of Dubuque, Iowa today announced the launch of the Smarter Sustainable Dubuque Water Pilot Study. Dubuque is in the process of installing smart water meters throughout the city. Initially 300 volunteer citizens in Dubuque have joined the program to understand water consumption and conservation. Over the next several months, data will be collected and analyzed, providing information and insight on consumption trends and patterns that will enable both the volunteers and city management to conserve water and lower costs.

The study's goal is to demonstrate how informed and engaged citizens can help make their city sustainable. By providing citizens and city officials with an integrated view of water consumption, the project will encourage behavior changes resulting in conservation, cost reduction and leak repair.

The city is now reaching out to its citizens and business leaders for help on the path toward sustainability. The study will run from September to December, and initial study results will be available by the end of the year. Dubuque 2.0, a local initiative of the Community Foundation of Greater Dubuque and the Dubuque Area Chamber of Commerce to engage citizens in sustainability, is collaborating with IBM and the City on the pilot study to facilitate participant involvement.

“This is a cutting edge partnership where Dubuque's balanced approach to achieving a sustainable future involves merging the civic engagement of our citizens and business partners with IBM's superior technology and knowledge,” said Dubuque Mayor Roy D. Buol. “What our volunteer households are accomplishing is the first step to understanding waste and ultimately the conservation of valuable resources to sustain life quality for generations to come. We are grateful for their leadership.”

New technologies are capable of digitizing and connecting city systems, so they can sense, analyze and integrate data, and respond intelligently to the needs of citizens. IBM, together with the City of Dubuque and business partners will revitalize the city's systems to become smarter and more efficient in order to meet the city's vision for sustainability.

Dubuque has implemented a city-wide water meter upgrade project and has worked with local manufacturer A.Y. McDonald to integrate a device called an Unmeasured Flow Reducer (UFR). This locally manufactured device is designed to augment the water meter in providing the most accurate measurement possible during low-flow use. The new system will allow consumers to identify waste and consider corrective measures which will translate into better water utilization and energy savings. Reduction in water use will reduce use of both energy and chlorine, resulting in significant savings and environmental benefit.

As the City of Dubuque enhances its water management system, IBM's technology will interface with the water systems to ingest water consumption data and provide near real-time visibility into

the overall city water consumption. To accomplish this, IBM has built the IBM Smarter City Sustainability Model, which is a cloud delivered asset that provides the city with an integrated view of its water consumption, and energy management. This system is being piloted in 311 residences throughout the city of Dubuque.

The smarter meter system will monitor water consumption every 15 minutes and will collect and communicate to the IBM Research Cloud. Cloud computing is Internet-based computing, whereby shared resources, software, and information are provided to computers and other devices on demand. Organizations are looking to cloud computing to foster rapid innovation and decision making, for the agility needed to respond quickly in today's highly competitive environment, to reduce capital and operational costs, and an environment that scales easily to effectively meet customer needs. The data being collected will be anonymous and contain no confidential information. In the cloud the data will be analyzed with triggers to spot potential leaks and anomalies, and help volunteers understand their consumption in greater detail. Volunteers can only view their own consumption habits while city management can see the aggregate data.

The vision is for an integrated sustainability system where data from many different city systems and citizen activities can be used to inform sustainability efforts; for example, learning how to reduce electricity costs by saving water and learning how to improve health and wellness outcomes by reducing vehicle miles traveled. A pilot study on electricity usage in nearly 1,000 Dubuque households is also underway and is funded by a grant from the Iowa Office of Energy Independence.

“Cities gather massive amounts of useful data every day that can improve the living conditions for citizens while increasing the efficiencies of its infrastructure,” said Robert Morris, vice president, IBM Research. “The challenge is in accessing that data, integrating it and making sense of it. The IBM Smarter City Sustainability Model is an asset that will help citizens, city management, businesses and utilities understand and jointly manage resource consumption and optimization.”

In September 2009, IBM and Dubuque announced a collaboration aimed at making this community of 60,000 one of the first “smarter” sustainable cities in the U.S. Dubuque is recognized as a national leader in sustainability with its forward-thinking public policy and, together with IBM, will address the ever-increasing demands of cities to deliver vital services such as water management, energy and transportation, all while reducing the community's impact on the environment.

Additionally last year, IBM and leaders of Iowa's business and governmental communities opened an IBM technology services delivery center -- located in the historic Roshek Building in downtown Dubuque – and will employ 1,300 by the end of this year.

###

**Media Contacts:**

Randy Zane  
IBM Media Relations  
914-945-1655  
rzane@us.ibm.com

David Lyons  
Project Manager, City of Dubuque  
563-564-7232  
dlyons@cityofdubuque.org

Eric Dregne, Community  
Foundation of Greater Dubuque  
563-588-2700  
eric@dbqfoundation.org