#### Communiqués de presse

# IBM annonce sa collaboration avec CPFL Energia Holdings et Korea Electric Power Ccompany sur des projets de Smart Grids à l'occasion de la réunion bi-annuelle du GIUN (Global Intelligent Utility Network Coalition)

**São Paulo - 29 juin 2011:** *IBM collabore avec CPFL Energia Holdings, le plus important fournisseur d'énergie privé du Brésil, afin de mettre en œuvre une stratégie smart grid visant à optimiser le réseau de communication et l'efficacité opérationnelle afin d'améliorer le service client et la gestion des effectifs.* 

*IBM collabore avec Korea Electric Power Company (KEPCO) autour de la construction du Total Operations Center dans le complexe de démonstration de smart grid de Jeju. Ce centre permettra aux 160 sociétés et 11 membres des consortiums opérant sur le complexe de Jeju de collecter et gérer l'information sur tous les marchés internationaux et de gérer les systèmes de smart grid et l'échange des données.* 

\*\*\*\*

# IBM TEAMS WITH CPFL TO CREATE A SMARTER ENERGY NETWORK IN BRAZIL

### IBM Helps Energy Utility in Brazil Add Digital intelligence to its Network

São Paulo, June 29th, 2011 – In conjunction with the semi-annual Global Intelligent Utility Network Coalition (GIUNC) meeting, IBM (NYSE: IBM) today announced its collaboration with CPFL Energia Holdings (NYSE: <u>CPFL</u>), the largest privately owned energy provider in Brazil, to make its energy networks more efficient and resilient. Together, the two companies will develop a smart grid strategy that drives operational efficiency and optimizes the communication network to improve customer service and workforce management.

IBM is assisting CPFL by providing consulting and assessment services to implement three of its *SmartGrid* projects: "Automatic Meter Data Collection," "Meter Data Management", and "Optimized Communications Network." The projects are part of an investment strategy confirmed in 2009 when CPFL Energia became a member of the GIUNC, a group of energy and utility companies determined to further the adoption of smarter energy grids around the world.

"Investing in a smart grid is more than a trend; it is a market requirement, especially here in Brazil where power consumption and population are expected to increase over the coming years," said Rubens Bruncek Ferreira, Director at CPFL Energia. "Our collaboration with IBM ensures that we have the guidance, assessment tools and methodologies in place at the onset – all instrumental components to creating a roadmap that matches our current and future needs."

After CPFL joined the GIUNC, IBM teamed with the energy provider in 2010 to create a strategic plan, using the Smart Grid Maturity Model that was originally developed by the GIUNC. This model was used to outline the capabilities and technologies needed to implement an intelligent grid in Brazil. The resulting proposal served as a blueprint for the *SmartGrid* projects, and was instrumental in CPFL's current business restructuring.

As part of the first "Automatic Meter Data Collection" project, CPFL plans to install 25,000 intelligent meters by the end of 2012. Each installed meter will be connected online and will operate as a network sensor, helping the operations center to quickly identify potential faults and other events. The automated meters will also enable technicians to perform remote preventive service, reducing downtime and unnecessary field visits.

In order to support the incoming and outgoing data flow from the 25,000 intelligent meters, IBM will offer recommended technologies for the "Meter Data Management" project. The chosen solutions will manage both meter functionalities and data, and integrate with CPFL's business operations, as well as offer the scalability to support CPFL's planned roll-out of 6.5 million residential smart meters. The Meter Data Management project will allow CPFL to create a business model that incorporates end-to-end service management with real-time monitoring of all devices across the entire network.

Along with the Automatic Meter Data Collection phase, IBM also will evaluate the communication requirements for CPFL's planned smart grid capabilities, and develop an architecture for a new communication network. This analysis will cover core corporate communications, including voice, e-mail, and video, as well as business applications support, such as workforce communication, supervisory control and data acquisition (SCADA), and advanced meter management. The objective of this assessment is to develop a strategy and roadmap for the Optimized Communications Network project to better utilize CPFL assets and prepare for the migration from a traditional electric infrastructure to a smart grid.

"The CPFL *SmartGrid* projects illustrate how utilities worldwide are adding digital intelligence to their operations, with the goal of fundamentally changing how power is managed and distributed in their regions," said Guido Bartels, General Manager, Energy and Utilities industry at IBM and Chairman, Global Smart Grid Federation. "Through the Global IUN Coalition, CPFL and fellow members are able to share expertise and best practices that every member company can leverage to make its network even more responsive."

As they are implemented, CPFL's *SmartGrid* projects will improve reliability of the electricity network with faster identification of energy faults, and losses; greater speed and automation in connecting and disconnecting services; and faster detection of outages. Additionally, CPFL will enhance its customer service quality by leveraging tools that identify the energy consumption and load profile of its customers – all in real time. This will enable CPFL to better inform its customers while also ensuring high dependability with improved automation, management, and control of energy flow.

The CPFL project demonstrates the continuing acceleration of smart grid advances in growth markets. Utilities worldwide are transforming their operations and reevaluating business models to ensure power infrastructures are more robust, adaptive, and cost-effective. This year marks IBM's centennial and Energy and Utilities continues to be one of its most important areas of industry focus, with 150 smart grid engagements with clients in mature and emerging markets.

# About the Global Intelligent Utility Network Coalition (GIUNC)

In 2007, IBM formed a coalition of innovative utility companies to accelerate the use of smart grid technologies

and move the industry forward through its most challenging transformation. The Global Intelligent Utility Network Coalition wants to change the way power is generated, distributed and used by adding digital intelligence to the current systems to reduce outages and faults, manage demand, and integrate renewable energy sources such as wind and power. Members include Alliander, CenterPoint Energy, CPFL, DONG Energy, ERDF, Essential Energy, KEPCO, North Delhi Power Limited, Oncor, Pepco Holdings, Inc, Progress Energy, San Diego Gas & Electric, and TEPCO.

\*\*\*\*\*

#### **IBM CONTINUES TO ADVANCE SMART GRID DEVELOPMENTS IN KOREA**

São Paulo, June 29th, 2011: In conjunction with the semi-annual Global Intelligent Utility Network Coalition (GIUNC) meeting, IBM (NYSE: IBM) today announced its collaboration with Korea Electric Power Company (KEPCO), on the building of the Total Operations Center at the Jeju Smart Grid Test-Bed Demonstration Complex. The center will allow the 160 companies and 11 consortia members operating at the Jeju Complex to collect and manage information on all international markets, and monitor smart grid systems and data exchange.

The Total Operations Center is an addition to Korea's Jeju Smart Grid Test-Bed project, the world's largest smart grid community established for smart grid research and testing. As part of the project development, KEPCO has leveraged the International Electrotechnical Commission (IEC) Common Infrastructure Model (IEC CIM), a comprehensive and integrated management model that can be utilized by energy and utility companies worldwide during smart grid transformations.

"Operating the smart grid involves implementing a flexible management strategy that takes into consideration the various application standards, development speeds and requirements of that particular region," said Park Jong-man, Deputy General Manager at the integrated control center of KEPCO's Jeju demonstration complex. "This collaboration with IBM allows KEPCO to create a model based on international standards, such as CIM that can be used to infuse intelligence into any smart grid infrastructure."

IBM provided consulting services and software to develop an integrated energy management system for the Total Operations Center. As part of the collaboration, IBM helped design guidelines for IEC CIM, creating an open standard for information exchange and management across the demonstration complex. This international information standards model is the most commonly used management model by energy and utilities organizations worldwide.

"This collaboration with KEPCO will not only improve operational efficiencies at the complex but will also help drive the development of international standard technologies in the Korean smart grid market -- allowing domestic businesses to operate and compete at an international level," said Guido Bartels, General Manager, Energy and Utilities industry at IBM and Chairman, Global Smart Grid Federation. "IBM's continued work with KEPCO demonstrates a host of new opportunities and initiatives that will provide a new level of insight for organizations not only in the GIUNC, but around the world." The Total Operations Center will integrate Rational Software Architect (RSA), an offering within the IBM Solution Architecture for Energy and Utilities (SAFE) framework, to create a service-oriented architecture for the Jeju Test-Bed. In using this solution, KEPCO can implement a standards-based system that incorporates existing applications, data services and hardware from participating members of the project. This will help build a flexible test-bed that enables data management and reporting for all of the systems and processes being tested.

Since joining the <u>GIUNC</u> in February, 2011, KEPCO has been working alongside other Coalition members to further the adoption of smarter energy grids around the world. The Jeju Smart Grid Demonstration Test-Bed project builds upon the Korean Government's Smart Grid Strategy which focuses on greater energy security, sustained economic growth, and reduced environmental impact, by bringing together smart technologies across the areas of generation, power grid, electrical service, buildings and transportation.

Through the Total Operations Center, KEPCO will continue developing international energy service models such as dynamic pricing. Additionally, the 160 Korean companies and 11 consortia members of the KEPCO demonstration project can now leverage verified message and international standards guidelines and apply their results using this secure infrastructure.

IBM is helping to lead Korea's smart grid transformation, contributing to the Korean Ministry of Knowledge Economy's smart grid roadmap, and assisting in developing the strategic plan for the Jeju demonstration complex, alongside KEPCO and KEPCO-KDN. Additionally, IBM developed jointly with POSCO ICT, the country's first integrated management system (EMS, energy management system) for renewable energy. IBM Korea is also a board member of the Korea Smart Grid Association.

# About the Global Intelligent Utility Network Coalition (GIUNC)

In 2007, IBM formed a coalition of innovative utility companies to accelerate the use of smart grid technologies and move the industry forward through its most challenging transformation. The Global Intelligent Utility Network Coalition wants to change the way power is generated, distributed, and used by adding digital intelligence to current systems to reduce outages and faults, manage demand, and integrate more energy from renewable sources such as wind and solar. Members include Alliander, CenterPoint Energy, CPFL, DONG Energy, ERDF, Essential Energy, KEPCO, North Delhi Power Limited, Oncor, Pepco Holdings, Inc, Progress Energy, San Diego Gas & Electric, and TEPCO.