Communiqués de presse

IBM rejoint le Consortium européen « EcoGrid » afin de bâtir un réseau intelligent utilisant l'énergie renouvelable

Paris, France - 13 oct. 2011: IBM annonce sa participation à un consortium collaboratif pour aider à développer un réseau d'énergie qui fonctionne avec, à minima, 50% d'énergies renouvelables, telles que l'énergie éolienne, l'énergie solaire et le biogaz. Mené par un consortium financé par l'Union Européenne, le projet « EcoGrid » mettra en avant un réseau d'énergie intelligent qui permettra à des dispositifs intelligents d'utiliser l'électricité renouvelable en fonction d'une tarification et d'une disponibilité calculées quasiment en temps réel.

Le projet EcoGrid sera expérimenté dans l'île danoise de Bornholm auprès de 2 000 résidents et acteurs commerciaux. En utilisant des compteurs intelligents et une application Web - disponible sur smartphones, tablettes et PC - les consommateurs pourront prévoir à quel moment et à quel prix acheter l'électricité en ligne. Les scientifiques rattachés au projet estiment qu'en rendant ces données facilement accessibles, les Danois dotés d'une conscience écologique choisiront d'acheter de l'énergie renouvelable à la place de combustibles fossiles, ce qui permettra une réduction de la facture globale. Le portail permettra également aux fournisseurs d'énergie de gérer leur tarification en fonction de l'offre, de la demande et de la capacité de stockage disponible. La phase de test débutera vers la fin de l'année prochaine pour les participants sélectionnés.

Avec 16 partenaires dans dix pays différents, ce projet s'étendra sur 48 mois avec comme objectif d'augmenter l'intérêt du Grand Public pour les réseaux intelligents, de développer les technologies qui permettront de fluidifier la distribution de l'énergie sur le réseau, de réduire les pertes grâce à une meilleure anticipation des besoins et des coûts.

Les premiers acteurs de ce projet seront les consommateurs dont les maisons auront été dotées de contrôleurs intelligents. Ces derniers seront utilisés pour optimiser l'utilisation de certains appareils comme des lave-vaisselle, des pompes à chaleur et des chauffe-eau électriques en tenant compte du prix de l'énergie, actualisé toutes les cinq minutes. De plus, les résidents recevront des informations précises sur leur production et consommation d'électricité et sur les tarifs pratiqués, aiguisant ainsi un nouveau niveau de conscience qui devrait conduire tout un chacun à de plus grandes économies d'énergie.

EcoGrid fait suite au projet EDISON (*Electric Vehicles in a Distributed and Integrated Market using Sustainable Energy and Open Networks*) qui arrive bientôt à son terme. En 2009, EDISON avait pour objectif de développer une « infrastructure intelligente » (smart grid), nécessaire à l'adoption à grande échelle de véhicules électriques fonctionnant grâce à l'énergie éolienne. EcoGrid prendra en compte les meilleures pratiques du projet EDISON en les appliquant au-delà du simple véhicule électrique jusque dans le cadre de la maison et du bureau.

A l'image du projet EDISON, l'énergie non utilisée sera stockée sur des batteries de véhicules électriques, mais EcoGrid permettra en plus l'optimisation des appareils qui y seront connectés.

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IBM Joins European Consortium to Build a Smart Grid Using Renewable Energy

Armonk, NY and Copenhagen, Denmark—13 October 2011: IBM today announced it has joined a collaborative consortium to help develop an energy grid that uses at least 50 percent of renewable energy sources, such as wind power, solar energy and biogas. Led by a European Union-funded consortium, the ECOGrid project will demonstrate a smart energy grid that will allow smart devices to use renewable electricity based on near real-time pricing and availability.

The EcoGrid project will be piloted on the Danish island of Bornholm with 2,000 residents and commercial users. Using smart meters and a Web-based app, that runs on smartphones, tablets and PCs, consumers can schedule when to purchase electricity online and at what price. Project scientists believe that by making this data easily available, eco-conscience Danes will chose to purchase renewable energy over fossil fuels, which will result in cost savings. The portal will also enable utilities to manage pricing based on supply, demand and available storage capacity. Selected participants will begin the testing phase towards the end of next year.
With 16 partners from ten different countries, the demonstration will continue for the next 48 months with set goals to increase consumer interest in smart grids, and develop new technologies that will improve energy forecasting and cost balancing, as well as reduce the congestion and losses across the distribution grid.

EcoGrid is in support of the European Commission's 20/20/20 plan, which is to cut greenhouse gas emissions by 20 percent, increase renewable energy usage by 20 percent and to reduce energy consumption through improved efficiencies by 20 percent by the year 2020. This goal is consistent with the progressive efforts in Denmark to increase its production of renewable energy to 50 percent of total generation by 2020 to support increased usage. The Danish Energy Agency has recently reported that renewable energy use is up by 14 percent.

"EcoGrid EU is an incredibly promising pilot project, in which Bornholm will become a test island in the future intelligent electricity system," said Lykke Friis, the Minister for Climate and Energy, Denmark. "The results will not only be usable in Denmark and Europe, but all over the world. We need an intelligent electricity system which can integrate more wind power and other renewable energy sources. In order to make the setup work in the future, it is necessary to turn all resources in regional grids into active players, exactly as it will happen in Bornholm."

Consumers will be at the forefront of this project with smart controllers being installed in all of the participating homes. These will be used to automate select appliances such as dishwashers, heat pumps and electric water heaters as energy prices adjust in five minute increments. In addition, residents will receive relevant information about their electricity production, consumption, and price points, adding a new level of awareness and participation that should lead to increased energy savings.

ECOGrid will follow the soon to be completed EDISON (Electric Vehicles in a Distributed and Integrated Market

using Sustainable Energy and Open Networks) project. In 2009, EDISON was launched to demonstrate a smart grid for the large-scale adoption of electric vehicles powered by wind energy. EcoGrid will take best practices and expand on EDISON by going beyond just electric vehicles into the home and office. Similar to EDISON, unused energy will be stored on electric vehicle batteries, but in addition, ECOGrid will also optimize appliance operation.

“By taking into account real-time conditions we can increase the use of renewable energy, balance grid load, reduce failures, and accommodate consumer preferences and their desire to reduce energy consumption,” said Guido Bartels, General Manager, Energy and Utilities industry at IBM and Chairman, Global Smart Grid Federation. “The ECOGrid project combined with lessons learned from EDISON, demonstrates our steady movement towards a sophisticated smart grid that will be capable of managing the future requirements for energy.”

Several partners from EDISON will also be part of ECOGrid, including Østkraft, Siemens and IBM. Within the EDISON project, IBM researchers from IBM Denmark and Switzerland successfully developed a Cloud with advanced analytics that synchronized the charging of electric vehicles with the availability of renewable energy on the grid. This smart technology will also be the basis for the ECOGrid project to optimize the usage of the energy grid by monitoring demand to reduce outages and to set the real-time market price for energy. IBM is also teaming with Siemens to design the Web-based app that will allow consumers to better manage their energy consumption based on price.

About the ECOGrid Consortium

The total budget for EcoGrid EU is € 21 million of which approximately half is financed by the European Union. The international and multidisciplinary consortium was initiated by Energinet.dk, Denmark and coordinated by SINTEF Energi AS, Norway. Additional partners include; Østkraft Holding AS, Denmark; Danmarks Tekniske Universitet, Denmark; Siemens Aktieselskab, Denmark; IBM, Denmark; EnCT GmbH, Germany; ELIA System Operator, Belgium; Fundación Technalia Research & Innovation, Spain; Österreichisches Forschungs- und Prüfzentrum Arsenal Ges.m.b.h, Austria; Stichting Energieonderzoek Centrum Nederland, The Netherlands; TNO, The Netherlands; Eandis cvba, Belgium; Tallinna Tehnikaülikool, Estonia; EDP Distribuição, Portugal and Landis+Gyr, Denmark.

For more infortmation: www.eu-ecogrid.net

IBM and Smart Grid

IBM is involved in more than 150 smart grid engagements around the world, in both mature and emerging markets. IBM is the founding member of the Global Intelligent Utility Network Coalition, a unique collaboration of utilities from around the globe who are working to accelerate the use of smart grid technologies and move the industry forward through its most challenging transformation. More about IBM's vision to bring a new level of intelligence to how the world works—how every person, business, organization, government, natural system,

and man-made system interacts, can be found here: http://www.ibm.com/smarterplanet.

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