

Issy-les-Moulineaux, 12 December 2011

"IssyGrid®", the 1st district smartgrid in France, is taking great steps forward

After a six-month phase of research, IssyGrid®, located in the Seine Ouest business district in Issy-les-Moulineaux on the outskirts of Paris, is now entering the operational phase and is taking great steps forward.

The municipality of Issy-les-Moulineaux, Bouygues Immobilier and eight leading industrial players - Alstom, Bouygues Telecom, ERDF, ETDE, Microsoft, Schneider Electric, Steria and Total - announced in May 2011 the creation of IssyGrid®, France's first district smartgrid.

A new partner - EDF Direction Commerce, which will provide its expertise in terms of innovation for the development of the service offering - has now joined this consortium.

A number of start-ups, all specialising in the fields of energy and the digital economy, have also chosen to team up with the consortium.

This groundbreaking smartgrid aims to create an energy management model for a whole district. Its objective is to oversee:

- renewable energy production: solar panels, etc.
- energy consumption: in housing, commercial property, shops, electric cars, etc.
- and energy storage: batteries, etc.

To be gradually rolled out within the Seine Ouest business district in Issy-les-Moulineaux, IssyGrid® will eventually cater for the needs of 10,000 employees in an area of 160,000 m² as well as of 4,500 inhabitants living in Issy-les-Moulineaux.

After being completed in record time, the research phase is now over. The financing plan and the governance model have been defined with all the partners of this project.

The operational schedule has also been agreed. It will be based around three main phases:

- Up to the end of March 2012; the district will be monitored in order to assess both energy consumption and production.
- Between March and December 2012, complementary sources of energy production will come on stream and energy consumption will be optimised in order to avoid consumption peaks, factoring in the consumption of buildings and the management of electric vehicles,
- In 2013, Fort d'Issy, the first HQE-certified eco-neighbourhood on the outskirts of Paris, with its 1,600 housing units on a surface area of 12 hectares, will be also connected to IssyGrid®.



ELECTRICITE RESEAU DISTRIBUTION FRANCE



POLE ENERGIES SERVICES



Complementary expertise

All benchmark players in their respective sectors, Alstom, Bouygues Immobilier, Bouygues Telecom, EDF Direction Commerce, ERDF, ETDE, Microsoft, Schneider Electric, Steria and Total all boast the strategic and technical skills required to cover all the various components of this project

Alstom: a specialist in grid management and power generation solutions, Alstom is committed to developing systems to manage energy resources in eco-communities and smart cities (smart buildings, electric cars, electricity storage, power demand management) Embix, a joint-venture combining the expertise of Bouygues and Alstom, contributes a portfolio of energy management services for eco-neighbourhood projects in France and Europe. Embix and Alstom are overseeing the smart grid aspects of the IssyGrid® project, using energy management technology that will minimise the eco-neighbourhood's carbon footprint and energy bills.

Bouygues Immobilier: drawing on the innovative sustainable development policy launched in 2006, Bouygues Immobilier will be playing the role of developer and coordinator in the IssyGrid® project. It will provide expertise in urban planning, property development and energy optimisation of residential and office buildings. Bouygues Immobilier has acquired advanced expertise in this area, primarily through Green Office®, the first large-scale positive-energy building project.

Bouygues Telecom: energy efficiency is key to Bouygues Telecom's sustainable development policy and also to efforts to globally reduce its own and its customers' eco-footprint. For IssyGrid®, Bouygues Telecom will be providing the telecom connectivity necessary to market new consumer services relating to energy consumption in the home.

EDF Direction Commerce: as a supplier of energy, EDF Direction Commerce, which is a benchmark partner for local authorities, has been helping the latter for a number of years to improve the energy efficiency of their local projects (improvements and rehabilitation, management of energy demand, helping the disadvantaged with their energy requirements, the development of renewable energies, aid with upstream dialogue and actions to increase awareness and gain the support of the users and inhabitants concerned, etc.) For local authorities, smartgrids provide major leverage in improving the energy efficiency and appeal of their areas (innovation, modernity), as part of their commitment to promoting sustainable development at the local level.

ERDF: as manager of the power distribution grid, ERDF will be responsible for operating, managing and optimising electricity distribution. As part of the IssyGrid® project, it will manage the grid at district level, taking account of changing habits (electric vehicles, etc.) and the development of distributed generation and energy storage (renewable energies, etc.). Using a smart power meter called Linky, ERDF will be able to optimise its activities and help consumers manage energy use more effectively.

ETDE: the Energy and Services division of Bouygues Construction ranks among the leading European experts in sustainable construction and energy efficiency for infrastructure projects. It is investing heavily in the technologies of the future that will be used to design, build and run neighbourhoods which are self-sufficient in energy production and storage. For IssyGrid®, ETDE is in charge of the engineering work and installation of energy production systems (solar photovoltaic panels, cogeneration, etc.) and recharging stations for electric vehicles. It will also design and install the energy storage systems, a first in France at neighbourhood level.

Microsoft: The company has long been working with energy sector leaders such as Alstom to create smart grid solutions. The aim is to optimise energy consumption, cut CO₂ emissions and respond to new energy needs. Microsoft is involved in several aspects of the IssyGrid[®] project: interconnecting smart building management systems, ensuring the interoperability of the data exchanged between eco-community players, and developing ergonomic management software. The Microsoft France Campus will be integrated into IssyGrid[®] to deploy scenarios for offices, consumer applications, (the Explorer digital loft), restaurants, electric vehicles and a data centre (Microsoft Technology Center).

Schneider Electric: the Group's aim is for customers everywhere to be able to manage their energy use more effectively, and to have access to a smart grid connection in order to take advantage of all the benefits. The Group is applying its core technologies and expertise at all levels of IssyGrid[®], with energy-efficient solutions for office buildings and homes, smart grid connection and automation systems, renewable energy installations and electric vehicle recharging infrastructure.

Steria: through its experience in the energy sector and the development of an innovative system for managing energy performance contracts in office buildings, this European IT services firm is a key player in smart cities. Steria uses its capabilities in integrating software building blocks for collecting, processing and analysing data, and for ensuring secure interchange between systems. Steria is also providing expertise in hosting solutions.

Total: the company has been involved in solar energy since 1983 and has acquired tried-and-tested expertise in the solar photovoltaic chain, making this technology more reliable, rational and competitive. For IssyGrid[®], Total will manage aspects relating to local energy production. The group will design and apply integrated solar photovoltaic solutions, such as solar panels and systems, on local buildings, to optimise solar energy production. Total will also develop an innovative communication system, connected to the smart grid, for intelligent management of the energy generated.

About Alstom

Alstom is a world leader in power generation, power transmission and rail infrastructure. The Group sets the standard with innovative technologies that respect the environment. Alstom builds the fastest trains and the highest capacity automated metros in the world, and provides turnkey integrated power plant solutions, equipment and associated services for a wide variety of energy sources, including hydro, nuclear, gas, coal and wind. It delivers a wide range of solutions for power transmission and supply, particularly in the field of smart grids. Alstom employs some 92,700 people in 100 countries. In 2010/11, it had sales of €20.9 billion
www.alstom.com

About Bouygues Immobilier

Bouygues Immobilier is a leading private property developer in France and Europe, with 1,440 employees at 31 December 2010 and sales of €2,418 million in 2010. With 33 branches in France and four elsewhere in Europe, the company has over 50 years' experience in developing residential, corporate and commercial projects for customers in more than 230 towns and cities. Embracing an active approach to sustainable development and innovation, Bouygues Immobilier is committed to continuously improving both the technical and architectural quality of its buildings and customer satisfaction. Bouygues Immobilier was the first property developer in France to achieve ISO 9001 certification. On 1 July, 2010, more than two and a half years ahead of schedule, it initiated a systematic approach to obtaining BBC-Effinergie certification for all of its residential properties.
www.bouygues-immobilier.com

About Bouygues Telecom

Founded in 1994, Bouygues Telecom has 11,217,000 mobile customers and 1,119,000 fixed broadband customers. Bouygues Telecom is committed to continually enhancing the customer experience for its mobile and fixed telephone, TV and Internet services: each day, the company's 9,200 employees develop solutions aligned with changing customer needs and deliver efficient support.

After pioneering the mobile talk-plan concept in France in 1996, Bouygues Telecom introduced groundbreaking unlimited call plans: Millennium (1999) and neo (2006).

Bouygues Telecom acquired its own fixed network in 2008 and became an Internet Service Provider (ISP), launching the Bbox broadband router.

In 2009, Bouygues Telecom invented the "all-in-one" solution with ideo the first quadruple play offer in the market.

In 2010, Bouygues Telecom launched Bbox fibre, its very-high-speed offer, and began investing in Fibre-To-The-Home in high-density areas.

Bouygues Telecom's mobile network covers 99% of the population. Its 3G+ network provides mobile Internet access for 90% of the population.

Bouygues Telecom is the only operator to be awarded "NF Service Centre de Relation Client" certification from French standards agency Afnor Certification for all its consumer activities (mobile and fixed) and in 2011 it was also ranked No. 1 for its customer relations in both its mobile (the 5th year running) and fixed* activities. Customer relations centres, a distribution network of 630 Clubs Bouygues Telecom stores and a website available 24/7 combine to ensure optimum customer service.

**BearingPoint-TNS Sofres Customer Relations Quality League Table (April 2011)*

www.bouyguetelecom.fr

About EDF Direction Commerce

The EDF group, which is one of the leading energy groups in Europe, is an integrated player present in all the business lines of the industry, namely energy production, transport, distribution, trading and selling. As the biggest producer of energy in Europe, most of the group's power production in France is nuclear and hydroelectric-based and therefore its electricity is 95% carbon dioxide-free. In France, its electricity transportation and distribution subsidiaries operate 1,285,000 km of overground and underground medium and high voltage power lines and around 100,000 km of high and very high voltage power lines. The group supplies energy and services to nearly 28 million clients in France. In 2010, the group posted consolidated sales of € 65.2 billion, of which 44.5% outside France. EDF, which is listed on the Paris stock exchange, is also a member of the CAC 40 index. In 2010, the EDF group received the *Palme de l'Entreprise Citoyenne* award for its actions in favour of improving the accessibility of its client reception areas and of its services.

www.edf.com and www.edf.fr

About ERDF - Electricité Réseau Distribution France

ERDF manages the electricity distribution grids for 95 per cent of mainland France. The company, which has 36,000 employees, operates, develops and maintains 1,274,600 km of power lines serving 35 million customers. This role involves managing connections to the grid, as well as commissioning, repairs, and changes in electricity suppliers.

www.erdfdistribution.fr

About ETDE

ETDE, the energy and services division of Bouygues Construction, designs, installs, maintains and operates energy (utility networks and telecoms, M&E and HVAC engineering, urban services, etc.) as well as facilities management and industrial maintenance solutions in order to guarantee the sustainability of infrastructures and equipment and improve lifestyle quality.

www.etde.fr

About Microsoft France

Founded in 1975, Microsoft (Nasdaq: MSFT) is the worldwide leader in software. The company develops and markets a wide range of software, accessories and services for business and personal use. Microsoft uses its expertise, its capacity for innovation and the passion that drives the business to support its customers' and partners' projects, ambitions and creativity, in order to ensure that its technology is the best ally when it comes to realising their potential. Founded in 1983, Microsoft France employs almost 1,400 people. Eric Boustouller has been President of Microsoft France since 1 February 2005.

www.microsoft.com

About Schneider Electric

As a global specialist in energy management with operations in more than 100 countries, Schneider Electric delivers integrated solutions across multiple market segments, with leading positions in public utilities and infrastructure, industry and OEMs, non-residential buildings, data centres and networks, and residential applications. Focused on making energy safe, reliable, efficient and clean, the company's workforce of more than 110,000 employees achieved sales of €19.6 billion in 2010 through an active commitment to helping individuals and organisations "Make the most of their energy™".

www.schneider-electric.com/groupe

About Steria

Steria delivers IT-enabled business services which help organisations in the public and private sectors operate more efficiently and profitably. By combining in-depth understanding of its clients' businesses with expertise in IT and business process outsourcing, Steria is able to take on its clients' challenges and develop innovative solutions to address them. Through the Group's highly collaborative consulting style, it is able to work with its clients to transform their business, enabling them to focus on what they do best. Its 20,000 people, working across 16 countries, support the systems, services and processes that make today's world turn, touching the lives of millions around the globe each day.

Founded in 1969, Steria is present in Europe, India, North Africa and South-East Asia. The Group generated sales of € 1.7 billion in 2010. Employees have a 20%* stake in its capital. Steria, whose head office is in Paris, is listed on Euronext Paris.

*this includes the Employees Shares Trust in the UK

www.steria.com

About Total

Total is one of the world's leading oil and gas companies, with operations in more than 130 countries. It is also a world-class chemical producer. To help meet global energy demand today and tomorrow, Total's 93,000 employees deploy their skills across the entire oil and gas chain, from exploration and production to refining and marketing, trading, and gas and power

www.total.com

About Issy- les-Moulineaux

The town's motto - "Issy the audacious" - best sums up the spirit of innovation of this suburb, located on the south-western outskirts of Paris. It was the cradle of aviation at the beginning of the 20th century and is now one of the most technologically-advanced towns at the beginning of the 21st, having been selected as one of the "Top 7 Intelligent Communities" for 2011 by a US think tank. It is one of the very few European towns to have more jobs than inhabitants (70,000 versus 64,000), thanks to the shift towards the digital economy made in the 1990s and a strategy of rolling out new attractive electronic services for the population and businesses. More than half of these jobs are in the information technology and communication sectors and around 90% of the local population are connected to the web. This success story, based on the desire of the mayor André Santini, to modernise over the long term a town that was hard hit by the de-industrialisation of the 1970s and 1980s, underlines better than anything else the impact of the digital economy on local development. With IssyGrid®, the municipality of Issy-les-Moulineaux has taken another step forward, by supporting the initiative of an ambitious and prestigious consortium around an audacious project.

www.issy.com

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