Press Release

4 November 2014

Alstom's Smart Grid open innovation put forward at European Utility Week

Alstom is committed to Smart Grid innovation, and participates once again to European Utility Week, the annual landmark event for energy leaders, in Amsterdam, Netherlands November 4 to 6 2014. Alstom reaffirms its open innovation strategy, announcing collaborations with two research institutes – new SystemX technical cluster (Institute for Technological Research) near Paris and Nanyang Technological University (NTU) in Singapore – and high potential French start-ups – DotVision and CoSMo - to introduce new smart grid concepts and solutions.

With SystemX, Alstom will expand its **e-terra**ODM platform for Grid Operational Data Management towards new Smart City use cases, launching near real-time, cloud-based big data solutions to handle the city's 'Internet of things' for energy and transportation, including smart meters, distributed photovoltaic systems, electric vehicles, distributed storage, and new distributed generation. The real-time energy analytics platform will support decision-making for grid operators, aggregators, city energy managers and prosumers.

Alstom and NTU signed a Memorandum of Understanding to collaborate in the Renewable Energy Integration Demonstrator in Singapore ("REIDS") to leverage its latest MicroGrid Controller technology. REIDS will foster technology development and commercialisation efforts in the broad energy market to support Singapore commitments towards more rational energy use and a broader energy mix, including growing renewable energy.

Alstom also signed strategic 3-year partnership with DotVision, a start-up developing innovative solutions and services in the field of the 'Internet of Things' to improve energy efficiency. DotVision's smart metre and sensor Spoony will complement Alstom's Demand Response solution **e-terra**DRbiznet to optimise electrical consumption management within the city.

Finally, Alstom signed a partnership with The CoSMo Company, a French and Silicon Valley based software editor developing applications based on a predictive analytics platform for complex systems. CoSMo's software simulation engine will be integrated into Alstom's Community Energy Management Solutions (CEMS). This alliance aims to build the next generation of scheduling and optimisation applications to integrate renewable and distributed energy generation into the grid. The CoSMo Company is the first simulation solution combining big data, complex systems and predictive analytics to the benefits of smart cities and smart grid.

Laurent Schmitt, Vice President of Strategy and Innovation at Alstom Grid, said, "We collaborate with leading universities and research laboratories all over the world. We have



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developed a strong ecosystem of industrial partners and energy system experts which bring complementary expertise and experience to our Smart Grid strategy, enabling us to expand usage of our **e-terra** and MiCOM platforms to broader Smart City use cases."

At Alstom, open innovation is key to building the future of the sector and anticipating the demand for new services. Alstom connects with customers, partners and standards organisations that define the new smart grid solutions and technological innovation projects. Today, Alstom collaborates in more than 30 Smart Grid demonstrators.

Discussions at European Utility Week will be centred on flexibility, renewable integration, cybersecurity and energy storage.

Alstom @ European Utility Week Pavilion France (D55-4)

About Alstom

Alstom is a global leader in the world of power generation, power transmission and rail infrastructure and sets the benchmark for innovative and environmentally friendly technologies. Alstom builds the fastest train and the highest capacity automated metro in the world, provides turnkey integrated power plant solutions and associated services for a wide variety of energy sources, including hydro, nuclear, gas, coal and wind, and it offers a wide range of solutions for power transmission, with a focus on smart grids. The Group employs 93,000 people in around 100 countries. It had sales of over €20 billion and booked €21.5 billion in orders in 2013/14.

Alstom Grid has one clear vision: to develop innovative solutions for a flexible, reliable, affordable and sustainable electrical grid, everywhere. We design, manufacture, install and service the power transmission and distribution products and systems that empower the planet's low carbon economy... for now and for the future.

Alstom Grid has over 130 years' experience and ranks among the top three in the electrical transmission sector with an annual sales turnover of €3.8 billion. Alstom Grid's 17,000 employees are spread across 87 manufacturing and engineering sites worldwide and have one common mission: be our customers' trusted partner, from the source to the city.

We are energising a smarter world... with Alstom.

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