

25 August 2014

Connecting innovation for a sustainable world **Alstom unveils latest innovations at CIGRE 2014**

Alstom Grid unveils its latest innovations at CIGRE 2014, the biennial worldwide forum of the electrical power industry, held in Paris, France. Alstom's experience and expertise are once again the creative springboard towards technological developments, which combine invention and innovation for today and tomorrow's electrical challenges. This year, Alstom experts are present to launch its latest innovations, set to transform the grid for a sustainable world.

Technological launches include:

- **g³**: Alstom is the first in the world to launch a clean alternative to SF₆, a gas commonly used in high-voltage equipment. The revolutionary SF₆-free solution, g³ – green gas for grid – was jointly developed with 3M™, a leader in environmentally sustainable solutions. g³ has 98 per cent less impact on global warming than SF₆. With performances comparable to SF₆, it is a suitable technology for the development of today's new generation of clean high- and ultra-high voltage equipment. Alstom and RTE have already initiated a partnership to put in operation a pilot equipment.
- **Direct Current (DC) Breaker**: In the framework of the Twenties European programme,¹ Alstom has developed an ultra-fast DC Circuit Breaker, taking a major step towards creating the Supergrid, which effectively integrates large amounts of renewables and enables intercontinental energy trade. Alstom's prototype successfully interrupted a 5200-ampere current at 160 kV with full extinction of DC in less than 5.5 milliseconds – under the real operational constraints of a high-voltage DC transmission grid.

Alstom also launches **Asset Management Solution**, a comprehensive business solution that maximises the value and reliability of customers' electrical assets. Alstom inspects and collects data from all types of electrical assets, including third-party equipment. The solution uses advanced analytics to provide a comprehensive assessment of asset conditions, so that informed decisions can be taken for maintenance and asset replacement. The solution also integrates real-time condition monitoring of equipment to anticipate failures, thus reducing failure rates by up to 70 per cent and maintenance costs by up to 30 per cent.

¹ [TWENTIES](#) research project, co-funded by the European Commission's FP7 programme aims to develop and implement new technologies, facilitating the integration of renewable energy into Europe's electric power system.

Note to editors: g³ is an Alstom trademark.

Finally, Alstom releases **Digital Substation 2.0**, a smart digital technology that brings together the powerful potential of primary and secondary plant smart digital technologies, and is already under execution with our customers. This latest compact, universal solution extends substation automation monitoring and control applications, improves personnel safety, and reduces footprint. Digital Substation 2.0 enhances Smart Grid management and operation using intuitive dashboards for enhanced situational awareness. It ensures optimum real-time performance of the grid by monitoring availability, health, and dynamic loading capability of the substation assets and connected circuits.

Innovation is at the heart of Alstom Grid, with 4 per cent of sales invested in Research & Development, each year. Alstom's experts collaborate closely with international standardisation organisations and work hand in hand with leading universities. Innovation teams, based across more than 25 global Technology and R&D Excellence centres around the world, are preparing the future of electrical networks.

Visit us at CIGRE 2014 Technical Exhibition

25 - 29 August 2014 – Paris – Palais des Congrès

Level 3, Booth 336

For more information, please visit Alstom Grid CIGRE Press Corner:

<https://www.partners.alstom.com/Assets/Information/?AssetID=a5de5f5c-6b29-40d0-8274-9cfdda164942>

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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