



About Us

GreenTechEurope.org

(GTE) is a production of London Research International, a global research and consulting firm with expertise in the energy, environment, and chemical sectors. GTE is a video-based technology platform showcasing innovative technologies from Europe.

The GTE Newsletter

Our interview-based newsletter features innovative energy technologies and businesses from around the world.

Announcements

GreenTechEurope.org launches this month! A single platform for all of Europe's environmental technologies relating to energy, transport, carbon reduction, energy efficiency, water, and more. Check in to see Europe's latest technologies or to submit your own innovations.



Becoming Smart Grid Technologists

Atos is a comprehensive and experienced IT consulting and services firm with roots in Europe and sizeable operations worldwide. Atos offers a full spectrum of IT solutions, from consulting to systemic integrations, and from application management to long-term business strategy. The company is the leading IT firm in Europe, with overall group revenues of €8.5 billion and 74,000 employees.

Atos is always on the watch for new trends, and view Energy as the business most-ripe for revolution. The shift will imply a huge transformation in the way utilities operate and package their services. To Atos, the development of a smart grid implies an interconnection between all stakeholders; from supply to generation, and from distribution to end user. In March 2010, Atos Group decided to spin-off its energy business and to create a dedicated subsidiary—Atos Worldgrid—with the sole purpose of tackling the new challenges around transforming the energy sector.

The last few years have yielded impressive results, with Atos Worldgrid translating over the functional knowledge of its real-time IT business processes

Featuring: Atos Worldgrid

In the latest edition of the newsletter, LRI Staff interviewed Atos Worldgrid's Mr. Pierre Marlard, Director of Innovation, and Mr. Antoine Garibal, VP of Business Development. Atos Worldgrid provides Smart Energy solutions across the oil & gas, power, and water sectors. Operating in over 15 countries, with a unique full-service approach, Atos Worldgrid offers the efficient management of data generated all along the industry value chain. They recently deployed "Linky", the world's largest smart metering system to date.

to create cutting-edge energy IT systems for some of the top utilities in the world. Atos Worldgrid employs some 1,600 engineers.

intelligence
for energy and utilities

Key Worldgrid Products

ASGS (Atos Smart Grid Suite):

Smart Metering system completely interoperable and Smart-Grid ready; first in the world

MRA: Massive Roll-Out Accelerator

eCarga: Electric Vehiclecharging stations management

ADACS™ "Smart Nuclear": fully digital control command system for nuclear power plants + full scope simulators + predictive maintenance.

Installations in 70 units worldwide

GIS & Asset Management: designed specifically for power and gas industry

Lynx SCADA DMS: suite of software for utilities to automate their medium voltage networks

Waveglobe: marine energy system control software

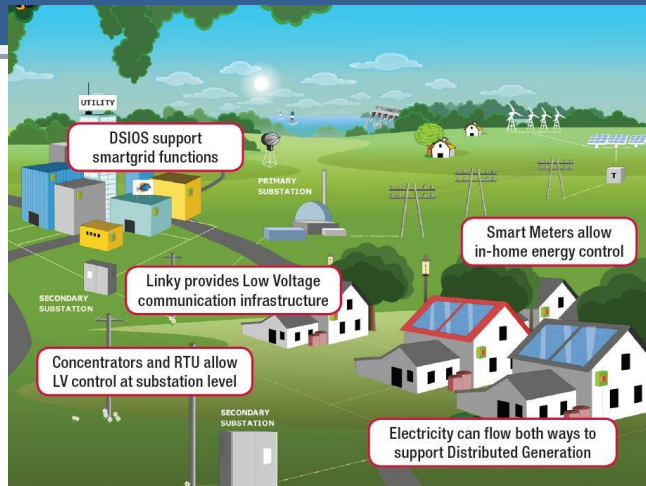
What it means...

...to be smart-grid ready.

An important consideration for developers of “smart” products is that they are compatible and “interoperable” with next-generation power grids, or “smart grids”. These future grids will transform aging electric power systems into advanced networks that integrate modern communication technologies with power-delivery infrastructure. As a myriad of devices connect to the grid—from large power generators to small household appliances—all of these will need to adhere to similar standards in order to function effectively as part of the grid.

...to utilize “local intelligence”.

As smart meters gather data, they send this information to local data concentrators, where it is then forwarded to a central hub. When a smart grid comes online, these data concentrators become smart grid “nodes”—or decision points. When optimizing supply and demand, the more nodes available, the more exact response can be delivered. See the bottom of Pg. 3 for more details.



Smart Meters

Over the past few years, Atos has worked with French utility ERDF on the “Linky” program, initiating the largest ever smart metering project in the world. The Linky solution is a layered infrastructure composed of smart meters, PLC communication, concentrators, GPRS communication and a Distributed Information System. The system is simultaneously industrial and residential, and uses “local intelligence” nodes and is “SmartGrid-ready”; meaning that with Atos’ software, the smart metering data can help utilities optimize their operations and not have to change their smart metering foundation to incorporate future smart grid functionalities. Atos is currently offering this software program to play the Central DSP (Data Service Provider) role in the UK, where a 53 million meter program is in the works.

A 35 Million Unit Rollout

Atos Worldgrid’s unique solution, Linky, was designed, developed, and delivered in collaboration with Landis+Gyr, Itron, and Iskraemeco.

The Linky system benefits ERDF and any other utility through increased interoperability of different metering equipment, a combination of a central information system with multiple decentralized Smart Data concentrators, and real-time IT supervision.

The system is also “Smart Grid Ready”, in that distribution network managers can progressively upgrade their networks to turn Smart Data Concentrators into Smart Grid Nodes, allowing for Advance Distribution Automation that can accommodate intermittent renewables (e.g. wind, solar) and electric vehicles. Other features also enable the consumer to interact with the system to determine how best to manage their home energy use.

In late 2011, the French government gave approval for 35 million Linky meters to be installed starting in 2013. The announcement followed a successful one-year trial of the meters in Lyon and Tours, where 300,000 meters were installed and monitored by ERDF. Atos plans to provide similar solutions to other nations preparing their grids for similar Smart innovations.

Future Proofed Metering End-to-End & Smart-Grid Ready



eCar & eMobility

A criticism of large public ownership of electric vehicles (EVs) is that the grid will be thrown into turmoil when drivers all plug in their cars at once. Atos is seeking to address this issue with their eCar and eMobility solutions, which help enable EVs to deliver excess power back to the grid (V2G), while also functioning as charging points when supply exceeds demand. R&D is underway in France, Spain and Germany.

ADACS™ “Smart Nuclear”

Atos has developed unique expertise in nuclear power systems, developing the first digital system for nuclear power plants. The intelligent system is one of the most reliable in the world, with 70 units functioning across the globe at 65 GW. It is most widely used across the French and UK nuclear sectors, with eight new units recently awarded in China.



Achieving Smart Growth

The Complete Package Deal

Considering the competition, companies like ABB, GE, Alstom and Siemens all have the knowledge necessary to manage a utility grid. Yet despite the advanced capabilities of these firms, they are not IT companies. Atos is unique in its knowledge of the entire energy sector: from the residential meter all the way back to the fuel source. They have the hardware and software to complement a complete solution, as well as a management service to assist in operation.

Word of Mouth

Atos Worldgrid grows by attracting clients through the success of past work. Unlike other players in the smart grid market who manufacture single products or provide services for a specific element of the whole smart grid system, Atos offers a complete package deal. Building upon their established levels of expertise in Europe, and forged by working with top utilities like EDF, Atos Worldgrid is able to replicate and improve upon completed projects.

Unique Guarantees

Along with the proven quality of its products and the credibility of its IT expertise, Atos Worldgrid also enjoys a competitive edge due to its unique ability to offer long-life guarantees to the client; in many cases for over twenty years. This service guarantee is not easy, says Mr. Marlard, which is why it is so unique in the industry. Utilities find the long-term commitment especially complementary to their investment models.

Future Smart Grids: Electric Vehicles, Wind & Solar

An important variable in smart grid design is the ability to incorporate intermittent power sources and activate storage facilities in the event of sudden supply surges. This demand forms the basis of Atos Worldgrid's sub-station smart system, which decentralizes the grid and enables smart management at the local LV (Low Voltage) level for a faster, more-efficient response to energy fluctuations. Atos foresees this playing a large role when more electric vehicles are on the road and charged domestically, and more homes and businesses install solar PV. Atos is putting their designs into action in France with an R&D smart grid project that will manage distributed generation via the Linky smart meters to store excess energy within electric vehicles at the local LV network level.

"Local management is very important," Mr. Garibald concluded. "The more intelligence you have decentralized, the faster you are. If you want to manage 10 million electric vehicles in France, you cannot manage them all from Paris—there must be a local solution."

Work with Atos Worldgrid

With a rich history in successful partnerships, Atos Worldgrid is always seeking new opportunities to expand their portfolio and yours. Get in touch for questions on products or to discuss potential collaborations or projects

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Related Upcoming Events – Smart Grids & Metering

• **Distribution Automation 2012**

17-18 April 2012 | Nashville, Tennessee

Drawing on 20+ utility case studies, the agenda covers the latest approaches to justifying the DA business case to ensure lasting returns on investment and provide a road map for distribution automation.

• **1st International Conference on Smart Grids and Green IT Systems**

19-20 April 2012 | Porto, Portugal

This event brings together researchers, designers, developers and practitioners interested in the advances and applications in the smart grids, green information and communication technologies, sustainability, energy aware systems and technologies.

• **Smart Gridtec 2012**

9-11 May 2012 | Shanghai, China

Topics will include intelligent network technology standards, distributed energy, smart power distribution automation, intelligent home and building, electric vehicle charging stations and other major applications.

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Electric Vehicle Charging Posts*

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