



Case study

building tomorrow's city

with better energy management and consumption

Atos Worldgrid builds a smart grid for a large sustainable urban development project in Grenoble

A flagship project in France's ÉcoCité urban planning program, Grenoble Presqu'île aims to create a new, sustainable living space between the science campus and the historic Grenoble city. The smart grid, which is being developed by Atos Worldgrid in partnership with Gaz Électricité de Grenoble, will enable better energy management, which is one of the key challenges for this trailblazing ÉcoCité program.



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“Smart management of energy data is a key lever in energy transition for our region.”

Vincent Fristot, Deputy Mayor of Grenoble with responsibility for urban planning, accommodation/living environment and energy transition

The context

EcoCités: windows to the future

Launched by the French government in October 2008 as part of the “Ville de demain” investment program for the future, the EcoCité approach encourages showcase projects for sustainable living in order to support the growth and appeal of cities and encourage innovative solutions for responsible urban planning. Selected as one of the 19 EcoCité visions of the future, the Grenoble Presqu’île project aims to fully integrate a 250-hectare science and university campus into the city.

[A client with an eye to the future](#)

The challenge

Ambitious environmental targets

The Grenoble Presqu’île project was entrusted to architect and urban planner Christian de Portzamparc. The requirement was for new buildings and amenities to create a quality living space which is ecological, integrated, and represents ‘joined-up’ planning. Grenoble Presqu’île has set itself ambitious environmental targets, including development of carbon-free energy (renewable energies, regenerative energy, and biomass), control of consumption for the living environment, and sustainable transportation. To enable energy to be managed more effectively, individually and collectively, the challenge is to provide the project stakeholders (residents, business community and suppliers) with all the information required to precisely tailor production and consumption for their needs. One of the most important requirements for Grenoble Presqu’île is therefore implementation of a multi-fluid and multi-energy platform which can centralize, process, cross-check, and restore data for the various networks.

[Speeding up progress](#)

The solution

Unprecedented monitoring of the region

The smart grid project is called Smart Grid EcoCité, and is led by Gaz Electricité de Grenoble (GEG, the local grid’s managing company) in partnership with Atos Worldgrid, and with the cooperation of local utility companies (water, district heating, etc.). It uses technical infrastructures and software supplied and implemented by Atos Worldgrid, including multi-fluid smart meters for electricity, network sensors, data aggregators, monitoring system, displays and “energy boxes” in the living environment, and real-time data restoration applications. This creates a smart grid with unrivaled scope, able to adapt to the intermittent nature of local urban production, recharging needs for electric vehicles, and street light requirements. It is a unique approach to regional energy monitoring. The data it generates will be communicated via displays in residents’ homes and in public places. It will help energy decision-making for the local community, and raise public awareness. The city of Grenoble will have precise real-time information to focus its climate and energy strategy.

[Atos - combining technology and expertise](#)

The results

Testing on the right track

Smart Grid EcoCité will equip 500 new homes with new-generation smart meters and data displays, and provide 50 energy boxes to residents in the pilot group in existing buildings. It will also deploy public displays in the city, and create an internet portal to access information. The project entered its operational phase at the start of 2014 with the installation and commissioning of the first pieces of equipment. Testing is set to continue until 2019. The project is on schedule, and GEG, Atos Worldgrid and other stakeholders are already learning valuable lessons.

[Tangible, lasting progress thanks to technology](#)

References

“The city of Grenoble has considerable ambitions when it comes to energy savings and efficiency. Smart management of energy data is a key lever in energy transition for our region. By making this information accessible while respecting the privacy of individuals and protecting their data, the project will allow everyone in the city to get more involved and become more aware. This should help to reduce energy consumption and greenhouse gas emissions, and facilitate the integration of renewable energies. The development of a collaborative platform to manage energy data - VivaCité in the case of the EcoCité project - offers a unique opportunity to benefit the community. The success of VivaCité is based on an unparalleled collaboration between local stakeholders and the City of Grenoble and Grenoble-Alpes Métropole. I would like to pay tribute to the involvement of Atos which, along with GEG, is piloting this approach and contributing its technical expertise on smart data integration.”

Vincent Fristot

Deputy Mayor of Grenoble with responsibility for urban planning, accommodation / living environment and energy transition

“Cooperation between Atos Worldgrid and GEG - two active and complementary players in the region - was the catalyst for the VivaCité project, which is now a benchmark for successful collaboration and a source of inspiration in building the city of tomorrow. It stems from a solid relationship based on trust and close partnership between our two workforces, and that relationship is strategic for GEG. Atos Worldgrid’s delivery of resources, skills, and expertise is always pragmatic and effective. I am convinced that there is a vast and enthusiastic field of development for a tool like this as part of the development of the city!”

Nicolas Flechon,

Deputy Director of Grids,
Gaz Électricité de Grenoble



About Grenoble Presqu’île

An EcoCité project located on a 250-hectare site at the heart of an innovative city, Grenoble Presqu’île is one of the largest public / private investments in France: 1.3 billion euros invested over 15 years. This urban program aims to turn an innovation campus into an integrated area of the city, with all of the functions and services for a lasting union between the city and the environment. Grenoble Presqu’île is set to grow from 15,000 to 25,000 properties, from 3,000 to 10,000 students and from 300 to 1,800 homes.

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