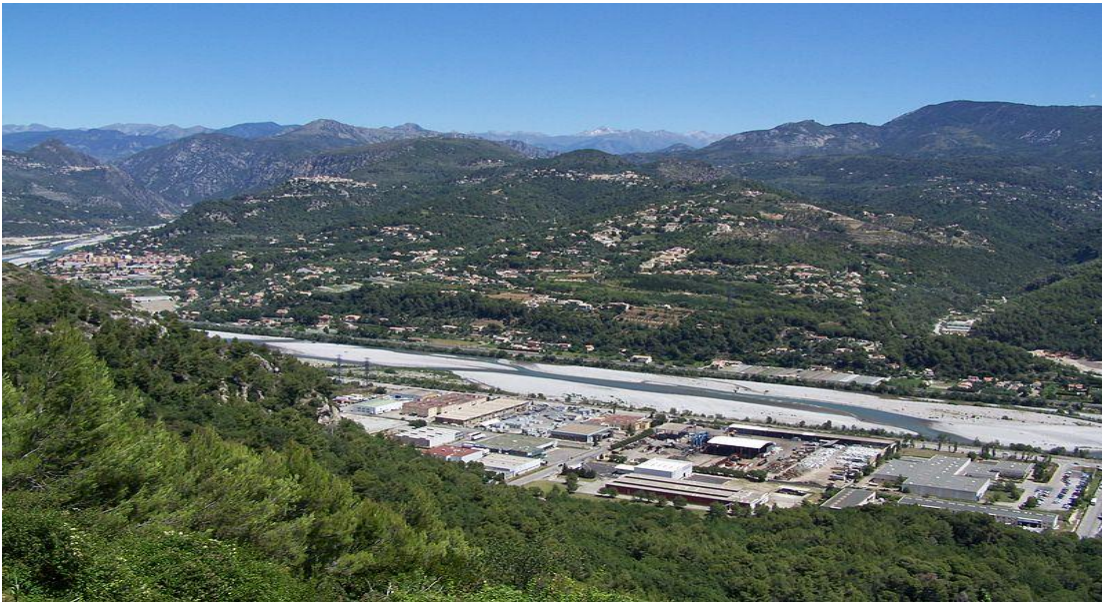


NICE, FRANCE BETS ON SOLAR POWER EXPERIMENT FOR ENERGY SOLUTIONS



Since 2011, the program Nice Grid, based outside of Nice, France, has been testing the integration of solar panels within industrial enterprises and individual homes. Their grand-scale experiment could allow them to develop solutions that are applicable to all, particularly the creation of a Smart Grid energy-network that is more reactive to community energy use.

For inhabitants of the Alpes-Maritimes department, this could mean avoiding blackouts caused by snowfall every winter.

When one lives in an area prone to blackouts like this, all methods are good for reducing dependence on the current grid. Thanks to this regional need for a solution, the experiment attempted in Carros has been very well-received. Carros is located next to Nice and is known, above all, for its industrial zone where one can find enterprises such as Malongo, Arkopharma, Schneider Electric, and Rica Lewis.

The Smart Grid experiment in Carros is being led by a consortium made up of ERDF(the project coordinator), Alstom Grid, EDF, Saft, Armines, RTE, Daikin, NetSeenergy, Socomec, and small and medium-sized Wateco enterprises located in the Var department (All are specialists in intelligent electricity networks).



The project benefited from a sizeable budget of 30 million euros. Notably, the Agency for Environmentalism and Energy Management (ADEME) provided 4 million euros for future investments. The European Commission gave 7 million euros (as part of the European Grid4EU project, of which Nice is the French recipient). Members of the consortium also donated.

Energy Levels

Since summer 2011, smart “Linky” computers have been installed via Nice Grid. Jean, Director of Clients and Territories for ERDF’s Mediterranean Branch, specifies: “We have 2,500 in all, based in the homes of 300 volunteer families and 11 large industrial spaces.” This is in addition to solar panels being installed in the same locations. Energy storage is then completed via slanted lithium-ion batteries, which are spread across three distinct levels of the network. One is posed at the source-point of the zone in order to assure the connection between the RTE network and ERDF. Three others are integrated in the low-tension portion of the network in order to manage energy consumption peaks and solar-power production. Finally, several were installed at individual homes and within the enterprises who volunteered to be guinea pigs.

Advanced Phases of Experiments



“Two phases of experiments have been conducted: one during the summer, and the other in the winter,” explains Jean-Christophe Delvallet. “We asked the tester families and enterprises to adapt their consumption to match solar production. For example, this meant agreeing to reduce their heating use during long winter nights and allowing us to trigger their water heater in the summer when solar production was elevated. We still have a full year of experiments to conduct, then we will release our information, which is to say a report allowing us to generalize based on this experience.”

Nice Grid, which was founded three years ago, has owned a 200-square-meter showroom since 2013.

The showroom contains the details of the current work being conducted and explains what the electricity network of the future could look like. Installed in the heart of Carros, its goal is to show and explain (via a tactile wall) how the experiments are being carried out to maximize energy storage and efficiency. The goal is to convince industries and individuals of the project's merits, and above all to convince them of what they can offer as future users of (hopefully) a Smart Grid Network.



As of the past few days, enthusiastic project participants can access the website dedicated to the results of said experiments. In a few days, two new batteries will be installed and community policing will be attempted. This is to say that the solar-powered neighborhood will be temporarily disconnected from the principal energy network and will be run completely on solar power.

Source: <http://www.globalsiteplans.com/environmental-design/nice-france-bets-on-solar-power-experiment-for-energy-solutions/>