



SOLAR SOLIDARITY-BASED ELECTRICITY: IN LEBANON, THE TAANAYEL CENTER IS CELEBRATING ITS FIRST YEAR OF POWER SUPPLY WITH SOITEC

This facility that hosts a range of services for the local community has been given access to electrical power through the installation of Plug&SunTM equipment. This is the result of a project run by the Arcenciel association, a winner of the Sunidarity call for projects.

Paris, October 16th, 2014 – The Taanayel center, in the Bekaa Valley in Mid-Eastern Lebanon, has been independently powered using solar power from Plug&SunTM concentrator photovoltaic (CPV) equipment for a year now. This power supply system was awarded to the Arcenciel association after its electrification project was selected by the jury of Sunidarity, an initiative launched by Soitec to support humanitarian projects.

"The Taanayel center hosts a workshop for the distribution and repair of technical aids (wheelchairs, crutches, etc.), a medical center, specialized classes for children in difficulty, a day-care center, a youth club, a dental clinic, a dispensary, and many other activities for people with the greatest needs," explains Kim Issa, marketing manager for the Arcenciel association that runs the facility.

"As power generation in Lebanon is not sufficient to ensure continual power, the population uses temporary generators based on fuel oil engines. But these are highly polluting and often break down" she explains. "In Taanayel, we therefore wanted to put in place a new way of generating electricity which would be more reliable and environmentally friendly, particularly for the children that are given specialized classes or go to the day-care center."

The Arcenciel association therefore presented its electrification project as part of the first Sunidarity call for projects. This initiative, created by Soitec -a world leading manufacturer and supplier of CPV systems- assists NGOs, associations and foundations that wish to use solar power to boost economic development. The winning projects receive Plug&SunTM equipments.

At Taanayel, the Plug&SunTM equipment (that includes two CPV trackers connected to a power management system and to a set of batteries) was installed on the building's flat roof. This means that the ground area used for the children's recreation activities could be left untouched and it helps to keep the equipment secure.

"The Sunidarity jury was won over by Arcenciel's intention to use solar energy to improve the welcome of young children in a country where access to electricity is not always easy" recalls Fabio Mondini, vice-president of Middle East, Asia Pacific and LATAM of the Soitec's Solar Energy Division. "A member of our team gave three days of training to a representative of the association to facilitate the installation and use of the Plug&SunTM equipment on site. A year after the equipment was installed, we're proud to see that the electricity that is produced not only provides lighting, but also powers fans, water fountains, computers and even TVs and games for the children."

Focus on concentrating photovoltaic (CPV) technology:

Each Soitec CPV module is made of a glass plate on which triple-junction cells are mounted. Fresnel lenses, manufactured from silicone and arranged on another glass plate, concentrate 500 times the light that reaches these high-efficiency cells. The cells then convert the concentrated light into electricity using Soitec technology, which holds the world record for efficiency of solar cells and modules. The two glass plates are held together by a metallic frame. This design provides the units with their strength, durability and resistance. The units are mounted on trackers, and, by means of their biaxial movement, these systems can track the course of the sun, automatically optimizing the units' position to maximize energy generation throughout the day.

The Plug&SunTM system was designed to meet the energy needs of isolated sites. The system comprises two or three trackers linked to an energy management system and to a set of batteries. Each tracker has a peak power of 1.14 kWp. Electricity generated during the day by the trackers can be stored using the batteries, and be used to power all kinds of electrical equipment. Plug&SunTM takes only a few hours to install, so it can be deployed quickly where needed. Where electricity needs are greater, the new solar power generating system Plug&SunTM can achieve output levels of 7.65 kWp per tracker.

About Sunidarity:

Sunidarity is an initiative launched by Soitec, the world leader in semiconductor materials for the electronics and energy industries (www.soitec.com). It supports fair and sustainable local development projects initiated by NGOs, foundations and non-profit organizations. This way, these organizations are able to enjoy independent electricity generation from the sun (Plug&SunTM) which helps improve living conditions for populations who remain on the margins of economic growth because of a lack of access to energy.

The projects put forward cover various areas such as education, information, communication, health or agriculture. They have to constitute a major step forward in terms of local development and respond to a previously unresolved issue by means of the use of solar energy that fits in with the applications of Plug&SunTM technology.

Three other projects were selected alongside Zanmi Lasanté Paris for the first round of Sunidarity awards in December 2012. To find out more, please visit www.sunidarity.com

About Arcenciel

Arcenciel in a nonprofit association with no religious or political affiliations that was founded in 1985 during the civil war. It was recognized of being of public interest in France by Presidential decree No. 7541 in 1995. It aims to contribute to sustainable development by supporting groups who have been weakened and by integrating those on the fringes of society **Arcenciel** carries out its operations through 8 programs and 13 centers across Lebanon.

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