

g2e launches first installation at Geneva International Airport



During the large-scale pre-industrialisation phase, glass2energy (g2e) will exploit the potential of its technology with a photovoltaic balustrade, which has been installed in the area situated in front of the check-in at Cointrin.

Yverdon-les-Bains, 4 April 2013 – Photovoltaic glass panels within the main building at Geneva International Airport (GIA): this is the first installation launched by g2e since its creation at the end of 2011. The company has equipped a section of the balustrade overlooking the airport's departure hall with a series of glass solar panels capable of converting ambient light energy. This installation will allow g2e to exploit its technology in the field and to showcase the advantages and differences of its systems compared with other solar technologies currently on the market. This new technology – more familiarly known as Dye-Sensitized Solar Cells (DSSC) – will be on show at the airport to run in parallel with an international event hosted by AIG, the "Passenger Terminal Expo", which will be held between 9 and 11 April at Palexpo, Geneva

Integrating solar panels in façades

g2e is the first company to develop an industrial process for the manufacture of large-sized (100 cm x 60 cm) dye-sensitized solar cells encapsulated in glass. The benefits emanating from this technology, developed by the Swiss Federal Institute of Technology in Lausanne (EPFL), are multiple. The photovoltaic panels are designed to be incorporated in the structure of buildings, particularly in their façades – something more difficult for other existing technologies. Compared with polymer seals, glass is currently the only means of guaranteeing the long-term impermeability of DSSC solar panels. By replacing the windowpanes in a property, the technology guarantees greater energy efficiency for the building while in no way sacrificing the transparency required maintaining natural light within it.

"Until now, photovoltaic panels had always been relegated to roofs or had monopolised whole hectares of land in the form of solar farms. Our technology makes it possible to take advantage of whole building façades, which are rarely used at present for the production of environmentally compatible energy", underlines Stefan A. Müller, CEO of glass2energy.

The high density required in building construction in Switzerland – which will favour high-rise development – and the trend currently prevailing among architects for the use of glass in design and construction provide a favourable outlook in this respect. Other outlets, such as street furniture, bus shelters or anti noise barriers on roads, motorways and train lines are likewise envisaged.

Furniture design elements capturing ambient light

Within buildings, the coloured and transparent panels manufactured by g2e can convert diffuse light, which is difficult with traditional S-ci technology solar panels. The transparency of the glass elements favours their integration in modern interiors and may even carry a particular design, such as a logo, pattern or inscription, without detracting from the product's primary function. Unique transparent panels operating on both sides, g2e panels work all day long, regardless of brightness, and can thereby become integral parts of the building endowed with an additional function and used in relation to surfaces which are currently passive.

Imminent industrialisation

Beyond the technological demonstration, this g2e project in Geneva, like others, which will quickly follow, will enable the company to prepare for the next stage in its development, that of larger volume production and the transition from technological craftsmanship to industrial manufacture. The company envisages raising funds in the immediate future to allow it gradually to embark upon its industrial transformation.

About g2e

glass2energy (g2e) is a Swiss company established at the end of 2011 and based in Yverdon-les-Bains. Its business model is based on the evaluation and commercial exploitation of dye-sensitized solar cell technology (DSSC) developed by the laboratory of Professor Grätzel of the Swiss Federal Institute of Technology in Lausanne (EPFL) – winner of the Millennium 2010 prize, which is the equivalent of the Nobel prize in this field of technology. The management team is made up of Stefan A. Müller (CEO) and Asef Azam (CTO/COO). The company has several shareholders encompassing the field of construction, energy and technology, such as Swisscom, Sottas, Fibag and the Société Suisse des Explosifs.

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