



ENGIE is installing innovative ASCA® (ARMOR) solar films at the Nantes Cité des Congrès conference center

As part of the European project mySMARTLife funded by the European research and innovation program Horizon 2020, ENGIE is setting up a pilot photovoltaic installation at the Nantes Cité des Congrès conference center. This world first, which went into operation on March 1st, 2020, involves fitting ASCA® organic photovoltaic films (OPV) made by the ARMOR company onto an existing building's sunscreens, with no reinforcements to the existing structure. The installation can power a fully autonomous video information terminal and smartphone recharging station, thanks to the self-consumption of the solar power generated.

The main value of this "photovoltaic pilot" is to demonstrate **the implementation on existing structures of a new flexible OPV film technology** produced by the local Nantes company ARMOR. These ASCA® films are particularly light, **cut-to-measure**, **"ready-to-stick"** and are **very easy to install** on sunscreens made of metal or other material, **without any need to structurally reinforce the building**.

A flagship building of the Metropolis, the Cité des Congrès, was chosen for the implementation of this innovation to allow visibility to the general public and **raise awareness among citizens of this new renewable technology**. The public will not only be able to recharge their mobile phones but also find out the amount of solar power self-consumed at the site via an information display. This project, coordinated by Nantes Metropolis, meets mySMARTLife's objective: to roll out innovative solutions in cities in order to test them and replicate them at wider scales elsewhere in the city or in other metropolises.

These semi-transparent OPV films (yearly production of 500 kWh and power of 972 Wc) generate solar power which is stored in a 1,000 Wh battery before being used by two types of loads at the Cité des Congrès: the 12-volt electrical supply of a video totem pole with the capacity to recharge telephones and IT equipment, as well as a rechargeable battery for temporary lighting. In order to meet the requirements of the mySMARTLife European project, the installation will be monitored by ENGIE to analyze electrical output in different lighting conditions (direct light and diffuse light).

This novel carbon footprint-reducing solution demonstrates the vitality of the organic photovoltaic industry in France **with photovoltaic films being produced at industrial scale in the Nantes metropolis** thereby boosting local jobs.

"This installation at the Cité des Congrès puts innovation at the service of the green transition. Our Cité des Congrès has become a place to experiment innovative technologies Made in Nantes, thanks to ARMOR and ENGIE," declared Johanna Rolland, Mayor of Nantes and Chair of Nantes Metropolis.

"It is proof once again that in Nantes we are acting at all levels to make of our area a benchmark in energy transition," she concluded.

This project received funding from the European Union's Horizon 2020 research and innovation program pursuant to subsidy agreement no. 731297.



*mySMARTLife is a project funded by the European Union's Horizon H2020 research and innovation program involving 3 cities **Nantes** | **Hamburg** | **Helsinki** and whose objective is to promote the reduction of CO2 emissions and the development of renewable energies via innovative solutions in the areas of mobility, energy and IT.

<https://mysmartlife.eu/mysmartlife/>

<https://metropole.nantes.fr/mysmartlife>

This project received funding from the European Union's Horizon 2020 research and innovation program pursuant to subsidy agreement no. 731297.

ENGIE Group press contact:

Tel. France : +33 (0)1 44 22 24 35

Email : engiepress@engie.com

Investor relations contact:

Tel: +33 (0)1 44 22 66 29

Email : ir@engie.com

ARMOR press contact:

Gratiane Sametin

06 62 30 89 24 / g.sametin@giotto-cr.com

Nantes Metropolis press contact:

Camille Cosmao – camille.cosmao@nantesmetropole.fr – 02.40.99.49.28 – 06.49.36.42.08

Nantes Cité des Congrès press contact:

Gaëlle Delehelle

06 22 27 49 83 / gaelle.delehelle@lacite-nantes.fr



Photo credits: G. Satre



About ENGIE

We are a worldwide energy and services group, centered around three key business streams: low-carbon electricity production, in particular from natural gas and renewable energies, energy infrastructures and client solutions. Driven by our ambition to contribute to harmonious progress, we are tackling the major global challenges such as the fight against global warming, access to energy for all, or mobility, and offer our individual customers, businesses and local authorities energy production solutions and services that reconcile individual interests and collective stakes.

Carbon-sober, our integrated, high-performance and sustainable offers are based on digital technologies. Beyond energy, they facilitate the development of new practices and promote new ways of living and working. Our ambition is carried every day by each of our 150,000 employees in 70 countries. Together with our clients and partners, they form a community of *imaginative builders* who dream and build today the solutions for the future.

Turnover 2017: 65 billion euros. Listed in Paris and Bruxelles (ENGI), the Group is represented in the major financial indexes (CAC 40, BEL 20, Euro STOXX 50, STOXX Europe 600, MSCI Europe, Euronext 100, FTSE Eurotop 100, Euro STOXX Utilities, STOXX Europe 600 Utilities) and extra-financial indexes (DJSI World, DJSI Europe et Euronext Vigeo Eiris - World 120, Eurozone 120, Europe 120, France 20, CAC 40 Governance). To find out more: www.engie.com



About ENGIE Entreprises & Collectivités (Business and Local Authorities)

Within the ENGIE group, the mission of BE ENGIE Entreprises & Collectivités is to design and market natural gas and electricity supply offers to businesses, local authorities and condominiums, integrating renewable energy solutions to support its customers' zero carbon transition.

- 45,000 clients
- 400,000 sites supplied with natural gas, electricity, solar power, biogas, PPA (Power purchase agreement).

About ARMOR

ARMOR specializes in the industrial formulation of inks and the coating of thin layers onto thin films. The Group is the global market leader in the design and manufacture of thermal transfer ribbons for printing variable traceability data on labels and flexible packaging. The European market leader in innovative and sustainable printing services and consumables, the Group is a pioneer in the development and production of industrial inks and innovative materials, such as organic solar films, coated collectors for electric batteries and bespoke filaments for additive manufacturing. With an international presence, ARMOR has nearly 1,900 employees in some 20 different countries. In 2018 it posted annual revenue of €265m. Each year the group invests nearly €30m in industrial equipment and R&D. ARMOR is a responsible company committed to stimulating innovation within society. www.armor-group.com

About NANTES METROPOLIS

Nantes Metropolis is:

- 24 municipalities,
- more than 638,500 inhabitants,
- more than 344,626 jobs,
- a surface area of more than 50,000 hectares.

It is the sixth largest urban area of France and, as of January 1st, 2015, one of 9 metropolises instituted by the MAPTAM law. Nantes Metropolis is chaired by Johanna Rolland, the mayor of Nantes. Internationally recognized, Nantes Metropolis was the Green capital of Europe in 2013. Johanna Rolland was chair in 2015 and 2016 of the Eurocities network which connects 130 European metropolises.

In 2019, Nantes was designated European Innovation Capital. Investing in innovation in all fields, digital technology (French Tech label), economics, technology but also social and environmental, Nantes Metropolis is applying new public policy development methods where greater space and weighting is given to the expertise of citizens and to co-construction.

About the CITE DES CONGRES IN NANTES

Created in 1992, the Cité des Congrès conference center in Nantes is one of the main conference centers in France. By hosting and staging professional, cultural and societal events, it contributes to the country's cultural influence, attractiveness and development. The Cité is ISO 20121 (event management industry standard) certified, ISO 9001 certified, is a member of France Congrès' Quality & Sustainable Development Charter, and signatory to the United Nations Global Compact. It is the only French center, among 28 countries worldwide, to be certified AIPC* certified at Gold level, the highest certification level based on quality standards established by the AIPC (*International Association of Convention Centers). The Cité des Congrès conference center in Nantes has an occupancy rate of 50.4% compared to a national average of 30%. <https://lacite-nantes.fr>