



## **MORE POSSIBILITIES: SUSTAINABLE, ENERGY EFFICIENT BUILDINGS WITH BIPV SOLUTIONS**

The use of solar power to achieve higher energy ratings and reach Nearly Zero Energy Building (NZEB) levels for commercial buildings is a topic of increasing interest to architects, owners and developers of new builds and external envelope refurbishments.

Current regulations in Europe are driving the demand for more innovative building solutions, particularly advanced energy saving and energy generation technologies.

In January 2019, an EU Directive came into force that aims to drive the large-scale deployment of Nearly Zero Energy Buildings (NZEB).

**The objective of this directive is to considerably lower the energy consumption of buildings while using to a significant extent renewable energy, including energy produced on-site or nearby.**

# BIPV SOLUTIONS WITH GUARDIAN GLASS

## How it works

Building-Integrated Photovoltaics (BIPV) is the integration of solar cells into the building envelope. Photovoltaic materials are used to replace conventional building materials in parts of the building envelope such as the roof, skylights, facades, canopies and spandrel glass.

By simultaneously serving as building envelope material and power generator, BIPV systems may help reduce electricity costs, the use of fossil fuels and emission of ozone-depleting gases, as well as increase the value of the building.

## A powerful strategic partnership

Guardian has partnered with ML System S.A., a leading, well established company with more than 13 years' experience in BIPV applications, to offer a complete range of BIPV product solutions, both semi-transparent and opaque, that help satisfy NZEB regulations.





## SEE WHAT'S POSSIBLE WITH BIPV GLASS

Among the key benefits of BIPV is the contribution into transforming the building into a Nearly Zero Energy Building and helping to achieve the best green building certifications such as BREEAM and LEED.

Guardian can help you find the right BIPV solutions for energy-generating façades, both in terms of power and aesthetics, together with the best solar control glass coatings from the Guardian SunGuard® range – all integrated in a way that makes them almost unnoticeable. Just imagine the possibilities.

### Benefits at a glance:



Perfect integration of photovoltaics in all available surfaces.



Contributes to the value of the building for owners and developers.



Energy generating facades that do not compromise on aesthetics.



Helps achieve NZEB requirements and best green certification (BREEAM, LEED, DGNB, HQE, etc.).



Vast experience in BIPV installations.



Cost efficiencies due to combining the costs of building materials and energy generation.



Enables reductions in the building's carbon footprint by use of renewable energy.



Technology advancements allow the photovoltaics to be integrated in a way that makes them almost unnoticeable.



## MAXIMISE THE VALUE OF YOUR INVESTMENT

By using BIPV solutions with Guardian glass, investors will be able to boost the environmental performance of commercial buildings, which shall help to achieve the best green certification ratings. This in turn will increase the value of their investment, with a possibility of ROI being higher due to better resell prices and higher rents.

We recognise that the needs and requirements of every project are unique. If you are interested in learning more about our BIPV solutions or if you would like to discuss the requirements of your project, please contact your local Guardian Glass expert.

### Why you should work with us:

1. ML System has long expertise and a wide range of products for BIPV applications. Guardian together with ML System may offer an upfront advice, guidance and expertise on BIPV solutions (aesthetics, performance and integration to the building envelope) in addition to consultation about traditional façade areas.
2. Best performing BIPV glass (colour-neutral, reliable).
3. Fast response times and reactivity to customer enquiries.
4. Tailored BIPV product solution to match your project requirement.
5. After sales support services available from ML System.

Guardian Glass is committed to helping owners, architects, designers and façade consultants and those involved in the construction of buildings achieve new possibilities with glass whilst offering solutions that are safer, regulation-compliant and which may help to reduce energy bills for building owners and tenants.