



PHOTOVOLTAIC SOLAR ENERGY BIPV-BUILDING INTEGRATED PVNB-PHOTOVOLTAIC NOISE BARRIERS



PhotoVoltaic Noise Barriers are physical obstructions with photovoltaic panels designed to produce renewable energy and also to lower noise levels between noise sources and sensitive receptors, such as hospitals, schools and residential areas.

Traffic noise has been recognised by the World Health Organization as a major factor contributing to environmental pollution. Besides causing annoyance, it has significant negative health impacts on populations living close to road infrastructure.

The sounds emerging from the roads are considered among the most annoying. According to studies carried out, the acceptable level of sound coming from the communication channels during the day is approximately $L=50-65$ dB, depending on the type of building in the area. The noise level emitted by the existing communication routes should be limited to this range.

Acoustic screens or anti-noise screens allow reducing noise levels in residential, urban and industrial areas thanks to the attenuation of noise pollution from roads, railways or industries.

Solar Innova performs an acoustic study to find the optimal solution for each problem, adapting the acoustic screens to each situation both within the urban environment and in the industry.

The photovoltaic acoustic barriers of Solar Innova are manufactured with semitransparent photovoltaic panels, thus reducing the visual impact produced by other types of conventional barriers.



The advantages of this type of barriers are: the remarkable power of soundproofing, the excellent light transmission, very good resistance to weathering, to UV rays, are fully recyclable and simultaneously generate renewable energy.

Our designs not only radically reduce the noise pollution but also adapt to the environment due to its aesthetics, minimizing the aesthetic and environmental impact.

The maintenance of our system is minimal since the material does not suffer any type of deterioration neither in its structure nor in the photovoltaic modules, being able to guarantee a durability of more than 30 years.

All the metallic elements that form the acoustic barrier are conveniently protected against oxidation.

In addition to helping reduce greenhouse gas emissions into the atmosphere, the adoption of PVNB also provides other positive economic, social and environmental benefits.

Areas of application

- Transparent and opaque acoustic screens for railway infrastructures and road transport.
- Acoustic insulation protections.
- Industries that require anti-noise acoustic screens and with a visual control of the area in which the noise emission source is located.
- Architecture, urbanism.
- Special glazing.