



## Torre Bassano Hotel



Operazione co-finanziata dall'Unione Europea, Fondo Europeo di Sviluppo Regionale, dallo Stato Italiano, dalla Confederazione elvetica e dai Cantoni nell'ambito del Programma di Cooperazione Interreg V-A Italia-Svizzera. (Codice progetto 603882)

## Introduction

The Torre Bassano Hotel is located between the slopes of the Vesuvius and the Tyrrhenian Sea, on a sheer cliff face that follows the shoreline. The area around the structure takes its name from an ancient watchtower that holds Roman and Pre-Roman archaeological finds. The hotel balustrades are made up of BIPV modules.

## Aesthetic integration

The hotel's terraces and balconies have been equipped with glass balustrades, which incorporate thin amorphous silicon film so that the presence of photovoltaic technology is not noted. The BIPV modules create uniform surfaces, which would not be possible if installed on iron parapets.

## Energy integration

The photovoltaic balustrades generate 11000 kWh per year. The building's consumption related to the heating, cooling, and ventilation systems is reduced by 31%.

## Technology integration

The photovoltaic balustrades are made up of custom-made glass-glass type BIPV (Onyx Solar) modules. A thin amorphous silicon film is positioned between the safety glass on the modules, ensuring 30% semi-transparency, which allows an unobstructed view of the coastline and the Tyrrhenian Sea.

## Lessons learnt

It is estimated that the energy produced prevents the emission of almost 7 tonnes of CO<sub>2</sub> in the atmosphere. The calculated return on investment time is less than four years.

## PROJECT DATA

<b>Project type</b>	renovation
<b>Building use</b>	receptive
<b>Heritage constraint</b>	conservation area
<b>Building construction technique</b>	pre-industrial
<b>Building address</b>	Via Bassano 1, Torre del Greco (NA), Italy

## BIPV systems

### BIPV SYSTEM DATA

<b>Architectural system</b>	Balustrade/parapet
<b>Integration year</b>	2018
<b>Active material</b>	Amorphous silicon
<b>Module transparency</b>	semi-transparent
<b>Module technology</b>	glass-glass, hidden PV, customized modules
<b>System power [kWp]</b>	11
<b>System area [m<sup>2</sup>]</b>	366
<b>Module dimensions [mm]</b>	1,128 x 950 x 19
<b>Modules orientation</b>	Several
<b>Modules tilt [°]</b>	90
<b>Annual FV production [kWh]</b>	11000

### BIPV SYSTEM COSTS

## Stakeholders

### **BIPV system designer**

Onyx Solar

### **BIPV components producer**

Onyx Solar

C/ Río Cea 1, Ávila, Spain

info@onyxsolar.com +34 920 21 00 50

<https://www.onyxsolar.com/>



© Onyx Solar



© Onyx Solar

Case study author:

Eurac Research