



Hotel des Associations - Neuchâtel, Switzerland

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Roof-integrated PV installation

Solar

What is the solution?

Located in the protected area of ISOS, the Hotel des Associations is a five-storey building whose socio-cultural identity is based on a foundation created by the City of Neuchâtel. The 27.7 kWp PV installation was commissioned in November 2014. It generates 27,600 kWh/a and thus covers 13% of the 205,400 kWh/a consumed by the building. Based on modules special and blind, it integrates perfectly with the entire roof surface and preserves in addition the historical character of the building. Together with the Hôtel des Associations, the canton of Neuchâtel has a perfect example of how PV systems and historic buildings can coexist.

Why does the solution work in terms of compatibility with conservation and technical aspects?

The 27.7 kWp PV system is carefully integrated into the upper roof surfaces. It produces 27,600 kWh annually and covers 13% of the total energy demand or 93% of the electricity requirement. The aim was to ensure that the roof and edges were as clean as possible and to make the system as homogeneous as possible. The client therefore installed 110 dummy modules. Because of the vertical orientation and to preserve the character of the building, the bricks were retained in the mansard zone. The 171 m² facility is oriented to the north, south, east and west and thus achieves good solar power yields all year round. Due to the east-west orientation, the solar yields are relatively constant throughout the day. In winter, production is relatively stable due to the strong 30° inclination of the modules quite high.

Description of the context:

The historical building "Hôtel des Associations" in the old town of Neuchâtel belongs to the "Fondation du Home de l'Ermitage & des Rochettes" and is located in the ISOS protection zone. The rooms are available to associations with an ecological and socio-cultural orientation. In just a few years the "Hôtel des Associations" has developed into a central place of urban interaction.

Pros and cons of the solution:

The technologically modern facility takes the traditional, architectural building culture into account in every respect and fits perfectly into the cityscape. Therefore, deserves the "Hôtel des Associations" the Swiss Solar Prize 2015.

Type of data available (level of information, simulation):

Solaragentur Swiss Solar Prize 2015; Link (German and French):

[https://www.solaragentur.ch/sites/default/files/g-15-09-](https://www.solaragentur.ch/sites/default/files/g-15-09-02_hotel_des_associations_neuchatel.pdf)

[02_hotel_des_associations_neuchatel.pdf](https://www.solaragentur.ch/sites/default/files/g-15-09-02_hotel_des_associations_neuchatel.pdf) The roof of the building has been equipped on all four sides with a Meyer Burger Megaslate solar system integrated into the building. To ensure a homogeneous appearance, dummy modules were used as edge seals. Information PV Modules: Orientation: East, West Tilt angle: 30° PV surface area: 172 m² Rated power: 27.7 Wp Energy production: 27,600 kwh/a Final yield: 996.38 KWh/Wp Active solar ratio: 25%-50% (roof) Manufacturer: MegaSlate Module technology: monocrystalline Cell color: Blue Type of glass: tempered glass

Are there any related publications or pictures of the solution?



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Swiss Solar Prize 2015, C Category - Energy Installations