

Toulouse Oncopole solar power plant

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Year of commitment : 2020



12 300 000 €

Builder

Urbasolar

Manager / Dealer

Oncopole solar power plant

GENERAL INFORMATION

The ground-based photovoltaic solar power plant on the Toulouse Oncopole site was born from the desire of Toulouse Métropole elected officials to enhance and develop land in the eastern zone of the Oncopole site, unsuitable for any construction for residential use or industry since the tragic explosion of the Grande Paroisse (AZF) factory in 2001. The solar power plant thus enables the rehabilitation and upgrading of a heavily polluted site which is being reborn thanks to an emblematic environmental project.

The solar power plant covers an area of 19 hectares for a power of 15 MWp, or around 35,000 panels. Each year, it will produce 19,350 MWh, or the equivalent of the electricity consumption of 4,100 households.

The first solar power plant in France to be located in an urban environment, it also has the particularity of integrating an artistic dimension 'Land Art' validated by the Architects and Buildings of France and creation of a visual artist from Toulouse, Damien Aspe. This pixelated graphics allows a modification of the image according to the viewing angle, from certain planes in the landing or take-off phase, the surrounding hillsides or the future cable car above the Garonne.

Progress Status

Delivered

Data Reliability

Self-declared

Funding Type

Public/Private Partnership

Sustainable Development

Attractiveness :

Well Being :

Social Cohesion :

Preservation / Environmental Improvement :

For the Urbasolar group, the development of each energy source calls for an exemplary nature in compliance with other criteria of sustainable development, namely biodiversity, natural resources, heritage and landscape, the quality of the environment and the risks.

The Oncopole photovoltaic solar park adjoins the Natura 2000 site "Garonne, Ariège, Hers, Salat, Pique et Neste" and two Natural Areas of Ecological Faunistic and Floristic Interest (ZNIEFF): "Garonne and riparian environments, downstream of Montréjeau "and" La Garonne from Montréjeau to Lamagistère ".

During the development of the project, several naturalist campaigns took place on the grounds of the Oncopole to identify the species of flora and fauna present on the grounds and its immediate surroundings and various measures were put in place:

- Adaptation of the work schedule, to reduce disturbance to nesting birds and avoid indirect mortality of individuals of protected birds, with the completion of preparatory work between August and February inclusive;
- Ecological management of the photovoltaic plant to maintain an attractive habitat for certain species, via late mechanical mowing (autumn) and the non-use of phytosanitary products;
- Ecological assistance upstream and during the works, by an expert ecologist.

A conservation of shrub and tree vegetation has also been worked on to create natural breathing spaces between the photovoltaic modules and the users of the cycle path. These natural spaces will also play the role of ecological corridor.

Ecological monitoring of the site, to assess the impact of the solar park on flora and fauna and the relevance of the measures implemented, will be carried out in years N + 1, N + 2, N + 3, N + 5, then every 5 years, year N being the year of installation of the park.

Resilience :

The Oncopole solar power plant is located in a flood zone. In order to preserve the expansion field from floods, the driven piles supporting the tables will be spaced 4 m from each other in the East-West direction and 6.5 m in the North-South direction to comply with the recommendations related to the flooding nature of the area (medium to low risk PPRI). The driven piles will be driven into the ground to an average depth within a range of 100 to 150 cm. In addition, the height of the lower edge of each table will be positioned 1.20 m above the ground.

Responsible use of resources :

ISO 14001 certified, Urbasolar is committed to ensuring rigorous environmental management of all the projects it carries out. The group ensures rigorous environmental management of its sites and for this has adopted the rules for green sites.

Urbasolar is also a founding member of PV Cycle France, an eco-organization approved by the French government for the organization of the recycling sector for end-of-life photovoltaic panels.

Testimony / Feedback

"This initiative demonstrates Toulouse Métropole's commitment to renewable energies and is fully in line with our regional Climate Air Energy Plan. This project has been part of our ambition since 2014 to double our production of alternative energies in the metropolis and illustrates a real renewal for this heavily polluted site, marked by tragedy, and which will soon house one of the largest ground-based solar power plants to see during the day in an urban area in a large city in France. Due to its particular nature, the site required the expertise of our partner Urbasolar to make this beautiful project viable and adapt it to technical constraints. In addition, an aesthetic effort has been made to integrate the photovoltaic field into its environment by means of a land art treatment. I am delighted with the work accomplished, which attests to successful public-private cooperation. We are very proud of the uniqueness of this project which is also a signal to the people of Toulouse to encourage them to exploit the solar potential of their roofs ".

Jean-Luc MOUDENC, Mayor of Toulouse and President of Toulouse Métropole (31)

Governance

Oncopole solar power plant

Holder Type : Private Company

Urbasolar

Builder Type : Other

Oncopole solar power plant

Manager / Dealer Type : Private

Toulouse Métropole has joined forces with the Municipal Electricity Board of the city of Toulouse, the Regional Energy Climate Agency, Citoy'enR and URBASOLAR, through the company Centrale Solaire de l'Oncopole, to revalue these land without vocation by a solar photovoltaic plant on the ground. For the first time, a project of this magnitude is the subject of a majority investment by local authorities.

The project also allows Toulouse residents to invest in the plant through the SCIC Citoyen'R.

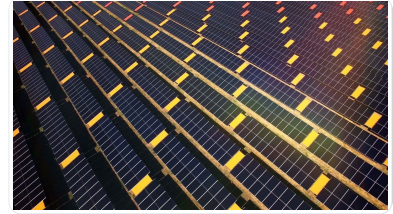
Designed, built and operated by Urbasolar, the Oncopole solar power plant is an exemplary environmental project and a successful collaboration between local communities and a specialized private operator.

Sustainable Solutions

Insertion of colored panels

Description :

The innovative solution of the Oncopole solar power plant lies in the technical layout which incorporates rectangular panels of different colors into the rows of photovoltaic modules. From distant points of view, these colored rectangles give a "pixelation" effect to the solar power station. Across the site, around 1,500 colored panels are staggered in a north-south direction. This innovation gives a plastic dimension that goes beyond the purely technical aspect of a solar power plant.



- Renewable energies

Company (es) Website :

Photo credit

Urbasolar

Contest

Reasons for participating in the competition(s)

La centrale solaire de l'Oncopole est un projet emblématique à plusieurs titres :

- réhabilitation et revalorisation d'un site fortement pollué en source de production énergétique renouvelable,
- insertion paysagère unique en Land Art,
- procédés d'installation innovants avec des panneaux colorés,
- mesures environnementales avec la gestion écologique du parc solaire,
- 1ère centrale solaire d'envergure située en milieu urbain,
- 1ère fois qu'un projet de cette taille fait l'objet d'un investissement majoritaire des collectivités locales.

Building candidate in the category



Grand Prix Infrastructure Durable

