Floating systems close to completion

Changing the face of solar power in Europe

Europe's largest floating solar park, Les Ilots Blandin, is nearing completion after six years of development by Q ENERGY and its partners. With strong collaboration, local support and a commitment to sustainability, the project is setting new standards for floating PV and paving the way for future initiatives.

As you drive along the nearby motorway, you can already get a glimpse of the plant´s impressive size, but the true extent of Europe's largest floating PV park, Les Ilots Blandin, can only be realised from the air. Spread over 127 hectares and five disused quarries, there are around 135,000 solar modules with a total output of 74.3 MWp.

For nearly six years, Q ENERGY has been working with its partner consortium on the Les Ilots Blandin project. Now, the power plant is near completion. It is a perfect time to explore this extraordinary project in more detail with the team's Corentin Sivy and Jean-Luc Lopez.

'While the installation of a system of this size on solid ground would already be a huge task, the realization on water was an even greater challenge that required an extremely high level of expertise,' Jean-Luc Lopez, Q ENERGY's EPC director in France, emphasises.

This starts with the logistics. Although the abandoned ponds may initially suggest otherwise, gravel is still being mined in other basins on the same site. This means that the gravel pit had to continue operating while the construction site was being set up and the continuous deliveries of equipment had to be well coordinated. Just one example to illustrate the dimensions: over 8,000 floating elements alone were delivered each week. But space was an issue. Water is predominant, with numerous channels and banks. This not only limited the available storage area but also meant that almost all parts of the plant had to be installed directly on the water.

'It was clear from the beginning that no standardised solutions could be used here, but that we needed specialised partners who could provide us with the best technical and economic options. We therefore selected a consortium with Perpetum, Solutions 30 and Ciel & Terre, each of which has extensive experience in their field,' explains Corentin Sivy, Q ENERGY's Development Director France.

The company began the development six years ago. Ciel & Terre was one of the first to join forces to develop the design of the floating plant for the successful CRE tender. CRE is the French energy regulation commission. In 2022, Solutions 30 and Perpetum came on board as experienced EPC service providers to create a global solution.

Each party had clearly defined areas of responsibility. Q ENERGY was the EPC main contractor of the project company, taking care of financing and purchasing the modules. Ciel & Terre was the manufacturer and developer of the special floating platforms and oversaw the anchoring and installation of the modules and inverters. Solutions 30 was responsible for the central coordination as a general contractor and took over the cabling, connections and commissioning. Perpetum took care of purchasing the inverters and the 16 distribution and transformer stations. It was also commissioned to construct a 2 MWp ground-mounted PV system to complete the floating solar park on shore.

'This way, all parties brought their strengths and expertise to the table,' says Lopez. The floating platforms were specially designed for this project and produced in France. The Sungrow inverters, which are suitable for high humidity, were also carefully selected and installed on the water instead of along the shore. For the first time in France, all cabling was combined in large groups on floaters and routed to land in a large, bundled cross-section.

This led to further design optimisation and a significant increase in output. The original 60 MWp that was submitted in the first CRE tenders was followed by a further 14.3 MWp in later tenders, bringing the total output of the project to 74.3 MWp.

'The challenge was to maintain cost efficiency despite these many innovative solutions. The feed-in tariff was fixed and set clear limits,' emphasises Corentin Sivy, Head of Development. He continues, 'We are located in the northern half of France, but in terms of tariffs we had to compete with conventional projects on land, even from the much sunnier south of France. The fact that we were able to prevail despite this tough competition was already an enormous success for the entire team.'

Good local conditions helped here. The five pools, with their gently sloping banks, are largely square and could therefore be optimally utilised. The low water depth of two metres on average also made it easier to anchor the floating islands. And, not insignificant either, there were no conflicts of use. The gravel layers had been completely removed and the areas had no further economic prospects.

'We immediately found open doors and a lot of support for our idea of a floating solar park. We were able to agree on a mutually attractive lease price with the owner and the local community has also acknowledged the potential and given us the best possible support. The smooth application process and execution were essential to the rapid implementation of this project,' underlines the development director.

The environmental impact assessment, on the other hand, took significantly longer, as is typically the case with all floating PV projects. However, three additional aspects came into play here. First, the sheer size of the project with the various water areas. Second, old quarries have already been renovated. Thus, it was necessary to ensure that the new use was successfully integrated into its environment. And thirdly, the park's siting area is based in a region where several ponds serve as resting places for avifauna.

'We had a lot of meetings on biodiversity topics, in which a wide range of environmental measures was defined onsite and in the immediate surroundings. Together with the regional environment agency DREAL, we were ultimately able to put together a good package of measures that satisfied all the auditors and stakeholders onsite,' recalls Sivy.

Construction work for the last floating PV islands

These measures included strict water quality monitoring during the construction phase and restoring a wetland at the site. The impact on the existing flora and fauna will continue to be monitored throughout the entire lifecycle of the plant, thus enabling important long-term observations.

Despite all the special challenges, construction went according to plan and was largely completed after just one and a half years. Up to 60 employees on site and many more in production and logistics are ensuring that the plant will be able to start operations on time this summer.

A great success that goes far beyond the project itself, according to Jean-Luc Lopez: 'The rapid implementation was the result of excellent cooperation between all parties involved, of which we are all proud. Not only did we gain a tremendous amount of experience for the next floating solar projects, but we also strengthened a network of specialised companies that the entire industry can benefit from. We worked with French companies and manufacturers wherever possible and they have emerged from this project stronger and able to apply their expertise in many other projects across the country.'

The high level of professionalism and profitability also convinced lenders and investors. External financing totaling EUR 50.4 million was provided by the French banks Crédit Agricole Transitions & Energies and Bpifrance. In March 2025, Q ENERGY also announced the successful transaction of the project to Velto Renewables, a pan-European independent power producer fully owned by the global investor CDPQ.

'Velto acquired this landmark project in France and Europe because it leads the way to more innovative renewable energy solutions, which is precisely what we need to drive the energy transition in Europe forward,' said Lucas de Haro, CEO of Velto Renewables. 'We will ensure that the long-term operations of Les Illots Blandin excel in continuity, building on the development and construction work carried out by Q ENERGY and its partners.'

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Floating cables and inverters