



Press release

Floating solar plant installed at Mortkasee artificial lake

- RWE, Fraunhofer ISE and BTU Cottbus-Senftenberg present "PV2Float" research project to public
- Three different systems being tested with capacity of about 30 kW each; pilot plant to operate for up to three years
- Focus on technical refinement of PV systems, public acceptance and environmental compatibility
- Research project sponsored by German Federal Ministry of Economic Affairs and Climate Action

Lohsa, 15 November 2024

Photovoltaic installations on roofs or in fields is nothing unusual. However, it is probably not widely known that solar installations can also float. That may be about to change, as more than 190 floating solar modules have been installed on the Mortkasee artificial lake in Lohsa, Saxony. This joint project between RWE, the Fraunhofer Institute for Solar Energy Systems (ISE) and Brandenburg University of Technology Cottbus-Senftenberg (BTU) investigates the extent to which floating solar islands can be implemented and operated in harmony with aquatic ecology. The project is being sponsored by the German Federal Ministry of Economic Affairs and Climate Action.

The plant was officially inaugurated today in the presence of guests from the worlds of science, industry and politics, including representatives of the Saxon Ministry of Energy, Climate Protection, Environment and Agriculture, and Thomas Leberecht, the mayor of Lohsa. Interested citizens also had the opportunity to learn about floating solar islands and the "PV2Float" research project.

Thomas Leberecht, mayor of the Lohsa municipality: "Originally created by flooding the Werminghoff opencast lignite mine, the Mortkasee artificial lake has become one of the first research sites for floating solar islands in Germany. This technology promises a higher power yield, since the cold water can have a positive impact on the efficiency of the solar modules. Another advantage is that previously unused mine lakes, which are not intended to be used for recreation, can be developed for green electricity generation. That offers major potential for the energy transition in Germany and here in our region."

Solar modules learn to float

Three different floating solar islands have been installed on the Mortkasee. With a rated capacity of about 30 kilowatts each, these are relatively small, but still provide important insights into the benefits of various technological solutions, how costs can be reduced, and how larger, future floating solar installations can be implemented in harmony with the environment. The research plant on the Mortkasee will operate until the end of 2027.

Experienced partners from science and industry

RWE, Fraunhofer ISE and BTU Cottbus-Senftenberg are the three expert partners driving this research project forward. RWE has many years of experience in the construction and operation of utility-scale solar plants and already operates a floating photovoltaic plant on a former cooling water lake in the Netherlands. Fraunhofer ISE is Europe's largest solar research institute. It develops solutions for floating photovoltaics and other integrated photovoltaic technologies, in addition to carrying out research into public acceptance of these technologies. BTU Cottbus-Senftenberg has extensive scientific expertise in the field of aquatic ecology.

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Pictures of the PV2Float system for media use (credit: Ecotec Deutschland GmbH) are available at the <u>RWE Media Centre</u>

RWE

RWE is leading the way to a clean energy world. With its investment and growth strategy Growing Green, RWE is contributing significantly to the success of the energy transition and the decarbonisation of the energy system. Around 20,000 employees work for the company in almost 30 countries worldwide. RWE is already one of the leading companies in the field of renewable energy. RWE is investing billions of euros in expanding its generation portfolio, in particular in offshore and onshore wind, solar energy and batteries. It is perfectly complemented by its global energy trading business. RWE is decarbonising its business in line with the 1.5-degree reduction pathway and will phase out coal by 2030. RWE will be net-zero by 2040. Fully in line with the company's purpose - Our energy for a sustainable life.

Fraunhofer ISE

The Fraunhofer Institute for Solar Energy Systems ISE in Freiburg, Germany is the largest solar research institute in Europe. With a staff of about 1 400, we are committed to promoting a sustainable, economic, secure and socially just energy supply system based on renewable energy sources. We contribute to this through our main research areas of energy provision, energy distribution, energy storage and energy utilization. Through outstanding research results, successful industrial projects, spin-off companies and global collaborations, we are shaping the sustainable transformation of the energy system.

BTU Cottbus-Senftenberg

Brandenburg University of Technology Cottbus-Senftenberg (BTU) is a campus university in the heart of the Lusatian region and is a driving force with regard to regional structural change. Combining basic and applied research, BTU develops innovative solutions in the areas of sustainable energy and environmental technologies. As part of the "PV2Float" project, it conducts research into the environmental compatibility of floating solar systems and contributes its expertise in aquatic ecology to utilise unused water areas for green electricity generation. In the context of working with partners from science and industry, BTU bolsters the regional economy and provides an important contribution to the energy transition in Germany. The impact of its research results and innovations extends beyond the region and supports the development of a climate-friendly future.

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