



Challenge Accepted.

ENERGY MOVES FROM LAND TO WATER

 **AVIENT™** >> CASE STUDY: PHOTOVOLTAIC FLOATING POWER STATION





FLOATING SOLAR POWER STATIONS GET WEATHERING PROTECTION FROM ANTI-UV COLOR CONCENTRATE

THE CHALLENGE

Demand for energy is rising in lock step with economic growth in multiple nations around the world. While solar power is touted as a viable option to meet the growing demand, development of land-based photovoltaic power stations is limited in some cases by the cost of land, and in others by less-than-optimal amounts of sunlight.

There is an alternative: floating photovoltaic power stations that operate on large bodies of water. These power stations sidestep high land costs and remove all obstacles to light absorption. In addition, power generation efficiency is enhanced by roughly 10% when water cools photovoltaic panels and cables.

Floating generators also provide shielding that inhibits algal growth and reduce evaporation.

While a move to floating photovoltaic power stations has decided advantages, water-based power stations also pose new challenges. In particular, innovative solutions are needed to address weathering issues.

THE SOLUTION

China is committed to boosting the development of 'green' photovoltaics. Provincial governments are supporting national policy goals by rolling out their own complementary policy initiatives. Against this backdrop, an industry leader in floating photovoltaic power stations, is working with Avient to introduce its technology in China.

This manufacturer is using Avient's Smartbatch™ Concentrates, an integrated colorant and anti-UV solution. This masterbatch extends the lifespan of thermoplastic parts within the power stations, and minimize costs by reducing weathering-related damage.

THE IMPACT

Avient offers specialized solutions targeted at helping the fast-growing solar energy industry in China to meet government objectives for reducing carbon footprint.

In addition, the company's expertise and Smartbatch anti-UV concentrate extends the manufacturer's pontoon part's ability to withstand outdoor exposure.

Finally, the manufacturer reported it was able to win market share and increase profitability as a result of the Smartbatch concentrate.

**To learn more, contact Avient
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