



STORK & SOLAR

How Stork helps support the energy transition through next technologies

PHOTO-VOLTAIC SOLAR FIELDS IN THE USA

Stork operates & maintains two large PV solar fields for LS Power in the west of the USA.

In a nation-wide survey (S&P Global – Market Intelligence Report - Dec 2020) showed that the average capacity factor of the LS Power fields (31.7%) are significantly higher than that of other companies (second best is 27.4%!).

A direct quote from the survey:

"LS Power's lead among solar project owners is thanks to two large projects — the 125.4-MW Arlington Valley Solar Energy Project II in Arizona and the 170-MW Centinela Solar Project in California — which were two of the best performing large-scale solar projects in the country in 2019, both having capacity factors higher than 30%."

PHOTO-VOLTAIC SOLAR FIELDS IN THE NETHERLANDS

Stork (Istimewa) provides E&I maintenance for a 54.5 MW solar field Scaldia for Vogt Solar GmbH (built in 2019). This field is located under the high voltage lines on the edge the Sloehaven in Zeeland, between Vlissingen and Borssele.

CONCENTRATED SOLAR PLANTS

In 2020 Stork turbo-services inspected Contour Global's 50 MW turbine in Palma del Rio (Spain). Thanks to our understanding of load cycle fatigue (thermal creep) and ageing limitations we were able to determine the root cause of their problems. This was followed up in January 2022 with the major overhaul of their turbine.

Stork Thermeq in Hengelo (Netherlands) are performing studies on how to include CSPs on/close to (petro)chemical facilities; typically these facilities don't require electricity, but do need heat / steam. So installing a CSP for direct steam generation would seem to make sense. We are currently identifying which areas would be suitable to place mirrors (pipe racks, roofs, unused lots, parking lot roofs) and which are no-go areas (e.g. process installations, roads, floating tank roofs, electric switching stations, ...). Initial signs are promising, though clearly the feasibility of such a system will go up in warmer locations around the world.



OTHER EXAMPLES: SOLAR TRANSPORT

Solar power boat: The student team of the Technical University of Delft worked together with Stork's Turbo-blading group in Sneek (NL) to manufacture hydrofoils for their revolutionary dual-hydrofoil, soil powered boat. After gaining some speed, the main hull could completely be raised out of the water, gliding through the water. This boat won many prizes.

Solar powered car: The student team from the University of Twente worked together with Stork's Thermeq group to heat and cure the molds in a specially designed temporary oven.

Solar power assisted bike: A student team in Amsterdam needed super light gears in their solar powered bike. Stork Gears helped them design & manufacture these gears at our workshop in Rotterdam.

