



GREEN NEWS TECHNO – OCTOBER 9th 2009

## Exosun blows out its trackers first birthday candles

Created in 2007, Exosun, up until now, chose to communicate discreetly, preferring to refine its technological developments. With the validation of one year of production on the pilot solar plant of Montesquieu (100 kWp), the company enters into an industrial phase with its trackers. *“We have demonstrated that our trackers allow an increase in production of 25% over a year (and even 27% this past year due to a great amount of sunshine), or 1584 hours of energy sold back to the network, for a 10% investment surcharge”*, explains Frédéric Conchy, the company’s President. These very good results for the Bordeaux region confirm the company’s technical choices that are based on many arguments to distinguish itself from the growing market of solar trackers. *“Exotrack trackers are the only ones guaranteed for wind resistance of up to 200 km/h”*, notes as an example Frédéric Conchy. But they also consume very little energy (the distribution of the mass of panels allows the use of motors ten times less powerful) and have a reduced land occupation. While one megawatt of installed power capacity requires a land occupation of 4 to 5 hectares with traditional trackers to avoid panel shading, Exosun’s technology settles for 2,5 ha. This is made possible with a technique called *“backtracking”* that optimizes shadow management, choosing a compromise between the panels’ maximum exposure to the sun, and the shadowing of the plant in its totality. Frédéric Conchy also counts on exploiting concrete in the plant’s construction. *“We are less dependent on the price of steel and we limit transport since concrete can be produced near the site and with a local workforce”*, explains the President of Exosun. These arguments already seem to be showing results. In addition to the future plant of Losse (2MW) near the end of its construction in the Landes (with EDF EN), Exosun reveals its imposing book of projects representing 150 MW in Europe and the United States, and wants to be known as engineers for plant projects and not just as a supplier of solar trackers. In parallel to the trackers’ industrialization phase, Exosun is preparing for a power plant evolution to solar concentration. For this promising future market, the company is working on developing its tracker and in particular the technique of following the sun. For traditional photovoltaic plants, astronomical tracking provides sufficient precision (one degree precision in regards to the sun) and avoids a too frequent movement of the trackers. For concentrating technologies, precision must drop to one-tenth of a degree. Exosun therefore put together a mixed technique, associating astronomical tracking and a precision captor developed for this use. The company has already developed a prototype and should dispose of a pilot site by 2010 using solar concentration with Fresnel lenses. This work on tracking precision would also be useful for other thermodynamic solar concentration technologies. In all, five pilot projects are underway on concentrating technologies. One idea is to offer solutions that produce heat (vapor and hot air) by pairing solar concentration and biomass combustion to supply motors for electricity production. After working internally on new hot air or vapor motors (purpose of external combustion), Exosun was at the origin of its spin-off Exoès, that now develops the offer for motors that can be applied to other uses outside the solar market.

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