RMOSA

Rocky Mountain Section of the Optical Society of America

Joint RMOSA/IEEE-LEOS Seminar & Meeting

Thursday, April 17, 2008

Refreshments: 7 p.m. :: Seminar: 7:30 p.m. BUS 340 Leeds Business, CU, Boulder

Solar Grand Plan

Ken Zweibel

Abstract: Zweibel, Mason, Fthenakis published in January 2008 Scientific American a purported path to an immediate, practical solution to climate change and energy shortages in the US. It is their contention that this solution is essentially 'off the shelf', and with minimal incentives could become self-sustaining within ten years. The basis is economical, dispatchable solar electricity out of the US Southwest, carried on high-voltage DC lines throughout the country. Solar dispatchability is attained through thermal storage with concentrating solar power plants; and through compressed air energy storage for photovoltaics. Transportation must be electrified to allow solar to power the entire economy. All technologies except electrified transportation are demonstrated at the necessary scale and economics.

Bio-Sketch: Ken Zweibel was President at PrimeStar Solar in Golden. Before that, he was at the National Renewable Energy Lab (NREL) for twenty-seven years. At NREL, he led the Thin Film Photovoltaics (PV) Partnership program, which was instrumental in developing thin film PV, including cadmium telluride, copper indium diselenide, and amorphous silicon. He also collaborated with Brookhaven National Laboratory scientists on life-cycle environment, safety, and health analysis of CdTe PV. He has a BS in Physics from the University of Chicago (1970) and is the author of two books and numerous articles on PV, including one recently in Scientific American, "The Solar Grand Plan" (January 2008). He has started a nonprofit organization (ASAP – American Solar Action Plan) with co-author James Mason to help further the Solar Grand Plan.

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