

EPFL STI IMT-NE PV-LAB

Seminar

Wednesday 2nd May 2012 MT 2 14.00

Rue A.-L. Breguet 2, CH-2000 Neuchâtel

Overview of Potential-Induced Degradation Studies at NREL

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ABSTRACT

Over the past decade, there have been an increasing number of field observations of power loss in PV modules associated with the stress that system voltage exerts—a mode known as potential-induced degradation. This talk deals with observations in the laboratory and in the field of the long-term effects of system voltage stress combined with humidity in crystalline silicon modules, methods for test, the relationships between the degradation rates outdoors and indoors for the determination of acceleration factors, and results of analytical studies carried out to develop an understanding of the nature of the degradation.