## Sun Materials starts construction on Taiwan's first solar-grade poly-Si plant

Nuying Huang, Taipei; Adam Hwang, DIGITIMES [Thursday 27 November 2008] Taiwan-based Sun Materials Technology on November 26 held a groundbreaking ceremony for constructing the country's first solar-grade polycrystalline silicon (poly-Si) plant at the Letzer Industrial Park in northeastern Taiwan. Sun Materials uses self-developed eco-friendly process to produce poly-Si from sodium fluosilicate, a waste from producing fertilizer, the company indicated. Sun Materials has one existing poly-Si production line temporary installed at a factory of its affiliated company—an equipment maker—with an annual capacity of 500 tons which can be used to turn out 50MWp (megawatt-peak) solar cells, the company indicated. The production line at the affliate is yet to be in volume poduction, but Sun Materials said it will deliver poly-Si to Sino-American Silicon Products, a Taiwan-based maker of silicon wafers, for trial production in January 2009. The first production line of 3,500 tons in annual capacity at the new Letzer plant will be completed in mid-2009 and production will kick off in the third quarter of that year, Sun Materials noted. The total annual production capacity will thus reach 4,000 tons by the end of 2009, Sun materials said. Sun Materials will set up five more production lines at the plant, aiming at a total annual capacity of 20,000 tons by 2015, with the volume approximately enough to meet the total demand for poly-Si by Taiwan-based solar cell makers, Sun Materials said. The silicon purity of its poly-Si is 7N (99.99999%) currently, and will be upgraded to 9N in 2009, Sun Materials indicated. In addition, Sun Materials sets a goal of gradually reducing the production cost of its poly-Si to attain a selling price of US\$20-25/kg, a level to make solar cells competitive with conventionally generated power in cost, the company pointed out.



Sun Materials chairman WS Chang, center, displays solar-grade polysilicon the company produces

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