Wacker opens polysilicon plant

Competition in a difficult market faces $2.5 billion Tennessee facility

By Michael McCoy

Wacker Chemie is starting up a $2.5 billion plant in Charleston, Tenn., that will make polysilicon for the solar panel industry. The German firm is opening the facility in a market that has bottomed out but is still struggling to turn a profit.

The new facility will reach its full capacity of more than 20,000 metric tons of solar-grade polysilicon per year by the third quarter, Wacker says. The company’s largest-ever investment, the plant will be the starting point for a fully integrated silicon chemistry site, according to executives.

Wacker began the project five years ago when polysilicon was in light supply and selling for almost $80 per kg. But capacity additions around the world pulled down prices, which reached a low in January of about $13 per kg.

For competitor Dow Corning, the outlook became so dire that it dropped a similar project. In late 2014, the company announced that it was abandoning a 10,000-metric-ton polysilicon plant, also in Tennessee, that was complete but not yet running. The firm took a charge against earnings of about $1.6 billion.

At a plant opening event in Charleston last week, Wacker CEO Rudolf Staudigl acknowledged the market deterioration but emphasized growth opportunities due to photovoltaics’ continued adoption around the globe. Staudigl predicted an increase in new photovoltaic (PV) capacity this year of roughly 20%, notably in China, India, Japan, and the U.S.

Thanks to strong growth, global polysilicon demand will exceed supply by more than 25,000 metric tons next year, according to Jens Ulfteit-Moe, the chairman of polysilicon maker REC Silicon, who spoke at an energy summit last month. Ulfteit-Moe’s presentation noted that prices have begun to rise.

However, Johannes Bernreuter, who runs the polysilicon consulting firm Bernreuter Research, is less optimistic and doesn’t see appreciable improvement in the supply-demand balance. “Growth of global PV installations in 2017 will be very low or even flat,” he says, “while there is still ample polysilicon capacity on the market.” Bernreuter expects any price increase to be short-lived.