Bankruptcy court approves GCL purchase of SunEdison FBR polysilicon tech

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The acquisition narrows the number of companies that are developing FBR, and further consolidates the transfer of this technology to Chinese companies.

Last week, a bankruptcy court approved the sale of SunEdison assets including its fluidized bed reactor (FBR) polysilicon operations to Chinese polysilicon and wafer maker GCL-Poly for $150 million.

Under the arrangement $50 million may be returned to GCL-Poly if certain post-closing conditions are not satisfied. The deal must still go through standard closing processes, including approval by the Committee on Foreign Investment in the United States.

If approved, GCL-Poly will get SunEdison's legacy FBR project in Pasadena, California, as well as its 65% share of the SMP polysilicon joint venture in Korea. The Pasadena plant has been operating since the 1980s, but costs were high and SunEdison announced that it would shut the plant down in February, weeks before it filed for bankruptcy.

The status of the SMP plant, which uses a high-pressure FBR process, is also uncertain. In October 2014 the plant began its first trial production, and in February SunEdison curiously stated that the project is "on track to meet key polysilicon production and cost targets" and was "ramping up towards full operating capacity", without giving any timelines.

However, in May the SMP project filed with Korean authorities for reorganization. SunEdison has missed past milestones for the plant, and polysilicon expert Johannes Bernreuter of Bernreuter Research says that the prospects for the SMP project are dubious.

"I don't think GCL will successfully commercialize the SunEdison technology," Bernreuter told **pv magazine**. "SMP is more or less dead. They would need new investors for a successful reorganization."

FBR has been tough to bring to scale for many companies. Despite projects by GCL and SunEdison, REC Silicon is the only company that is currently operating large commercial-scale FBR production. Wacker Chemie also has a 650 metric ton project, which is on the small end of commercial production.

There is also the matter of the politics of the polysilicon trade. In the face of crushing import duties from China, REC was forced to shut down its plant in Washington State for several months and since October 1 is only operating its FBR production at half capacity.

GCL's acquisition of SunEdison's FBR will mean fewer companies in the FBR space. It also means increasing Chinese presence, as three of the five active FBR polysilicon projects will now either be located in China or majority owned by a Chinese company.