



Pipeline™ Exclusive - Solar Thermal Project Developer Seeks Multi-Billion Project Financing for US pipeline

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Solar Millennium AG (XETRA: [S2M.DE](#)), an Erlangen, Germany-based developer of solar thermal power projects, is looking to raise in excess of \$3 billion to finance construction of a series of solar thermal projects in the US in 2010 and 2011, its first installations in this region. During an interview with VB/Research Stefan Eckhoff, Head of Investor Relations at Solar Millennium, explained that there is a financing requirement for two projects in California, Blythe 1 and 2, each of 242MW in size, and a further 242MW capacity project in Nevada. Each project will require financing of approximately \$1 billion, where no storage capabilities are needed (as is the case with the Californian projects), moving up to \$1.4 billion where storage systems are required (as may be the case with the Nevada project). The projects are being implemented by Solar Trust of America LLC (Solar Trust), a joint venture 70% owned by Solar Millennium and 30% owned by German industrial service provider Ferrostaal AG. Solar Trust has been formed to manage project development in North America and has a current pipeline of nine solar thermal power plants of 242 MW capacity. These plants are situated in the southwestern US at four sites – Blythe, Ridgecrest and Palen in California and the Amargosa Valley near Las Vegas, Nevada.

To gain further insight into this major investment, VB/Research also interviewed Solar Trust's newly appointed CFO, John D.Clapp. He said that the initial projects, two facilities at the Blythe site, will be financed through a two stage capital structure, one during construction and the other on commencement of operations. Funding for the construction phase is expected to consist of 80% debt and 20% equity. The entirety of the debt financing requirements will be arranged through the US Department of Energy's section 1703 Loan Guarantee Program. This renewables-focused program guarantees up to 100% of all project debt financing through the Federal Financing Bank ("FFB"), a US Treasury Department agency. The FBB is offering loans with tenures up to 30 years at a combined interest rate of less than 4%. The 20% equity portion will be funded through contributions from the JV partners Solar Millennium and Ferrostaal, and from additional third party investment. Citigroup and Deutsche Bank have been mandated as advisors for the debt and equity financing respectively. The second stage of financing commences from the project's Commercial Operation Date ("COD") onwards. During this phase, tax equity investments will fund a portion of the capital structure, paying down the FFB loans and deleveraging the project towards investment grade status.

Clapp said that the third party equity solicitation for the Blythe 1 and 2 projects is in process, and that Solar Trust is targeting a financial close on these projects by the end of October. Clapp said that Solar Trust has received strong indicative offers of equity investment and that it has no objection to being a minority equity partner in any of the plants it builds. The company has already signed a deal with an established Engineering, Procurement and Construction ("EPC") contractor to build both Blythe projects. The two plants have already been entered into power purchase agreements ("PPAs") with the utility Southern California Edison. The third project in Nevada also has a memorandum of understanding in place with Nevada Energy. Clapp said that the company is in negotiations for PPAs for several other plants, and expects to reach financial close on one or two plants in 2011, with one or two to be financed per year after that. Solar Trust plans to remain as operator of the plants past COD through an Operations and Maintenance agreement. Solar Trust of America is aiming to secure 20% of the US solar thermal market by 2020. During that time, it is targeting 20% reduction in costs and a 20% increase in energy output. Solar Trust is also capable of acquiring any businesses or technology that reduce overall costs.

The 242MW projects that Solar Millennium is seeking to construct in the US represent a scaling-up of the projects it has developed in Europe. In December 2008, the company's first solar thermal project, called Andasol 1, became operational, which at the time was the first parabolic trough power plant in Europe. Andasol 1 has a total capacity of 50MW, but its solar field is sized to 100MW to supply both the grid and the plant's thermal storage system which allows the plant to continue at full output for hours after the sunsets. In the immediate vicinity, Andasol 2 was completed in 2009. Together with Stadtwerke München, RWE Innogy, Rhein Energie and Ferrostaal, Solar Millennium is currently developing Andasol 3, construction of which was completed in June 2010. The company initially owns 100% of a project, before looking to sell stakes during the development and construction period to de-risk the project and to provide financing for future projects. The Andasol 1 and Andasol 2 projects have been sold to ACS Cobra, a solar-focused engineering, operations, installation and maintenance services company.

Solar Millennium generated revenues of Eur201 million in FY2009, up 529% on \$32 million in FY2010. EBITDA was Eur44 million in FY2009, up 274% on Eur12 million in FY2008. The company presently has a market capitalisation of

Eur236 million. Spanish competitors include Abengoa Solar, Acciona and ACS Cobra. US competitors include Bright Source Energy and eSolar.

Interested investors should contact Stefan Eckhoff, Head of Investor Relations, at: eckhoff@solarmillennium.de for more information on Solar Millennium AG. Investors interested in Solar Trust of America should contact John D. Clapp at john.clapp@solartrustofamerica.com.