

Avenal Solar: Appealingly PV

24/02/2011

Eurus Energy America and NRG Energys 45MW Avenal Solar plant is one of the first utility-scale photovoltaic solar plants, and certainly the largest, to close commercial bank debt in the US. Lenders on the \$209.5 million deal were so eager to take part in the deal that, despite the technology risk associated the relatively untested thin-film PV panels, it closed at pricing below the market rate for renewables in September 2010.

Natixis and UniCredit, joint lead bookrunners, provided the \$132.5 million fully amortising 16-year construction and term loan, \$53.9 million cash grant bridge loan that matures shortly after commercial operations start and \$23.1 million of seven-year letters of credit. Banco Santander, Credit Agricole CIB, Mizuho and Sumitomo Mitsui Banking Corporation joined as joint lead arrangers.

The deals structure, including a 20-year power purchase agreement with Pacific Gas & Electric (PG&E, BBB+/A-3 Standard & Poors/Moodys), a more than 25-year warranty from rated Sharp Electronics (A, S&P) for the solar panels, and a well-crafted construction contract with Ryan Company made it very appealing to lenders. The sponsors invited 15 banks to participate in the debt but decided to limit participation to only the four lead arrangers. The financing was over-subscribed and priced at roughly 225bp over Libor, a discount compared to renewables project finance pricing at the time. The sponsors contributed roughly \$32 million in equity, split equally between them.

It was a great combined effort from both the sponsors and the lenders group to put the financing in place in a tight timeframe, says Gaetan Frotte, assistant treasurer at NRG Energy, who worked on the deal. Being the biggest PV construction financing in the North American market so far, it should serve as a reference for structuring future projects.

The strong bank appetite is a positive sign for other solar PV projects currently in the pipeline. These include First Solar's 50MW Silver State North plant in Nevada, NRG's 290MW Agua Caliente plant in Arizona and Recurrent Energys 50MW Southern California Solar Farms.

The Avenal plant includes three neighbouring but separate facilities the 9MW Avenal Park, 20MW Sun City and 19MW Sand Drag. It is located in the town of the same name, roughly 92.5km south-west from Fresno in the states Central Valley. All facilities use Sharp thin-film tandem-junction amorphous silicon PV panels, which are backed by the manufacturers warranty. Ryan holds a fixed-price, date-certain construction contract with the sponsors. Operations are expected to start in June 2011.

Eurus, a joint venture between Tokyo Electric Power Company (60%) and Toyota Tsusho (40%), has been actively developing the plant since February 2009. That December it signed the PPA with PG&E, which was approved by the California Public Utilities Council in August 2010. The Japanese developer entered talks with NRG Energy about investing in the plant in late 2009 and the two parties reached an agreement to split the equity 50-50 during the first half of 2010. They worked together on securing the financing and final permits throughout 2010 and financing signed on 22 September.

NRG Energy Services, a subsidiary of NRG, is responsible for operations and maintenance of the plant once it opens. Eurus Avenal Affiliates, a subsidiary of Eurus, is responsible for the facilities administrative services.

Avenal Solar Holdings

Status: Closed 22 September 2010

Size: \$241.5 million

Location: Southern California

Description: 45MW three facility solar PV plant

Sponsors: Eurus Energy America and NRG Energy

Equity: \$32 million

Debt: \$132.5 million construction/term loan, \$53.9 million grant bridge loan, \$23.1 million in letters of credits

Bookrunners: Natixis and UniCredit

Lead arrangers: Banco Santander, Credit Agricole CIB, Mizuho and Sumitomo Mitsui Banking Corporation

Legal counsel: Orrick Herrington & Sutcliffe (sponsors) and Milbank (lenders)

Independent engineer: RW Beck

Solar resource consultant: BEW Engineering

Insurance consultant: Moore-McNeil

ITC cash grant adviser: KPMG

Construction contractor: Ryan Company

Panel manufacturer: Sharp Electronics

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