

Financing Renewable Energy: The Role of Ex-Im Bank



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U.S. Ex-Im Bank

- ▶ Independent agency of the U.S. government established in 1934 to finance the export sales of U.S.-made goods and services
- ▶ Provides Loan Guarantees, Export Credit Insurance, Working Capital Guarantees, and Direct Loans.
- ▶ Ex-Im Bank's support for renewable energy and environmental exports mandated in its Congressional Charter since 1992
- ▶ FY2010 tripled its portfolio of renewable energy projects to \$330 million, and doubled this to \$721 million in FY2011.
 - Created the Office of Renewable Energy & Environmental Exports in 2008
 - Created a *Renewable Energy Express* Program in 2010
- ▶ Environmental Exports Program offers enhancements:
 - Terms of up to 18-years for renewable energy projects
 - Up to 30% local cost support within the U.S. scope of supply.
 - Capitalization of interest during construction
- ▶ Ex-Im Bank financing is usually the most cost-effective source of financing for international customers to purchase U.S.-made technology

Direct Loan

- Direct Loans made by Ex-Im Bank to a foreign buyer
- Fixed interest rates based on a 1% spread over Treasury notes
 - Interest rate for an 18-year Direct Loan is 2.95% (as of November 14, 2012)
- The international borrower submits the Direct Loan application.
- Ex-Im Bank requires the buyer to make a cash payment to the exporter equal to at least 15% of the U.S. supply contract.
 - 15% cash payment can either be borrowed from a lender or the exporter, or be from the buyer's own funds.
- Exporter paid with disbursement L/C or buyer is reimbursed
- A negotiated credit agreement required for a Direct Loan
- Shipping must be made on U.S.-flag vessel (except air shipments)

Case Study: Gas Verde, S.A. - Brazil

- ▶ Ex-Im Bank approved a 12-year \$48.5 million Direct Loan in May 2012 to finance the export of equipment and services for a biogas treatment facility in Rio de Janeiro.
- ▶ Ex-Im Bank's current 12-year fixed-interest Direct Loan in U.S.\$ = 2.43%
- ▶ Gas Verde S.A. will install U.S. biogas technology to process raw landfill gas into high-grade methane to be sold to a Petrobras refinery under a 15-year sales contract..
- ▶ The exporter is FirmGreen®, of Newport Beach, CA who along with its subcontracted companies supplied proprietary biogas-cleaning equipment run by FirmGreen's patented VerdeControls™ operating software and other related services.
- ▶ Repayment for the loan is based on the creditworthiness of the main shareholders of Gas Verde S.A. who will provide the repayment guarantee for the loan.
- ▶ The new biogas plant will capture and treat 20,000 normal cubic meters per hour (nM³/hr) of raw landfill gas to produce 9,000 nM³/hr of fuel-grade biomethane gas.
- ▶ Reclamation of the biogas at the site will significantly reduce passive landfill emissions to the atmosphere.
- ▶ Biogas from the Novo Gramacho plant will directly replace an estimated 10% of the natural gas derived from fossil-fuel sources that is consumed at the Petrobras refinery.
- ▶ One of the world's largest solid-waste landfills, Jardim Gramacho was the subject of "Waste Land," an acclaimed documentary nominated for an Academy Award in 2011.

Case Study: Gamesa – Cerro de Hula, Honduras

- ▶ **Ex-Im Bank's \$159 million 18-year fixed rate Direct Loan to the project sponsor, Energía Eólica de Honduras S.A., ("EEHSA") financed its purchase of 51 Gamesa G87 2-MW wind turbines for the 102-MW Cerro de Hula project.**
- ▶ **EEHSA has a 50-year concession to operate the project, and 20-year PPA with the Honduran state-owned utility ENEE.**
- ▶ **The 18-year Direct Loan has a tailored semi-annual repayment term with a weighted average life of 10.5 years = 21-year loan term.**
- ▶ **The project will be the largest in Central America, and will generate 6% of Honduras power, and is the first utility-scale wind project in Honduras.**
- ▶ **The wind turbines will be manufactured at Gamesa's Pennsylvania manufacturing facilities.**
- ▶ **The project company is owned by Mesoamerica Energy is a renewable-energy company that develops, builds, owns and operates wind projects and other renewable-energy facilities in Central and Latin America.**

Loan Guarantee

Guaranteed Loans made by commercial banks (U.S. or foreign) to a foreign buyer with a 100% *unconditional* repayment guarantee from Ex-Im Bank

- **Guarantee covers 85% of the U.S. content of the transaction.**
- ***Negotiated* interest rates, often floating rates based on spread over 6-month U.S. dollar LIBOR rate; banks can also arrange fixed interest rates**
- **Loan fully transferable, can be securitized**
- **Banks often finance the 15% required cash payment**
- **Guarantee available in major foreign currencies**
- **Ex-Im Bank's Local Currency Loan Guarantees can in turn support capital market issues in local currency**

Ex-Im Bank + India

- ▶ Ex-Im Bank is the first international financing institution to approve a solar-power project under India's National Solar Mission, and one of the first for Gujarat.
- ▶ Reliance Power Ltd. - 16.5-year Ex-Im Bank Direct Loan of \$84.3 million to finance the 40MW Dahanu Power Project in Rajasthan using First Solar modules under the National Solar Mission.
- ▶ In July 2012, Solar Field Energy Two, wholly owned by Kiran Energy Solar Private Power Ltd., was approved for a \$23 million Loan for a 20-megawatt (MW) solar facility in Rajasthan.
- ▶ In July 2012 Mahindra Surya Prakash, owned by Kiran Energy and Mahindra Holding Ltd., was approved for a \$34.3 million Loan for two solar facilities (one 20 MW and one 10 MW) in Rajasthan
- ▶ Ex-Im Bank 12-year Loan Guarantee to PNC Bank for a \$19 million loan to ACME Solar to finance First Solar thin-film modules for 15MW project in Gujarat; 25-year PPA with GUVNL.
- ▶ Ex-IM Bank authorized a \$16 million 16.6-year Direct Loan in July 2011 to finance a 5MW solar power project in Rajasthan for Azure Power that used First Solar thin-film modules.
- ▶ In May 2012 Ex-IM Bank authorized a \$70.4 million 18-year Direct Loan to finance a 35MW solar power project in Rajasthan for Azure Power
- ▶ Ex-Im Bank authorized financing for \$3.7 million corporate loan to Universal Solar for a 2MW ground-mount PV project in Ahmedabad using Miasole thin-film modules.

Areva Solar: Rajasthan Concentrated Solar

- ▶ Ex-Im Bank's \$80 million 16.5 year fixed rate Direct Loan financed the purchase of Areva's concentrated solar technology to Reliance Power in Rajasthan, India.
- ▶ The project, "Rajasthan Sun Technique Energy Private Limited," is a subsidiary of Reliance Power and is being co-financed by the Asian Development Bank and FMO, the Dutch development bank.
- ▶ Reliance Power was one of the successful bidders to develop 470 MW of concentrating solar power capacity under the first phase of the NSM.
- ▶ This project uses a concentrated solar power technology known as compact linear Fresnel reflector (CLFR) from AREVA Solar Inc., Mountain View, CA
- ▶ This project (along with the Kogan Creek Solar Project in Australia) is the first to use technology of this kind from AREVA Solar on a large commercial scale.
- ▶ "Our strategic tie-up with Ex-Im is unmatched in terms of its scope and size. This partnership plays an important role in meeting India's growing energy needs."
- Jayarama P. Chalasani, Chief Executive Officer of Reliance Power

Northern Power – Italy Community Wind

- ▶ Ex-Im Bank provided a 15-year Loan Guarantee in Euros worth U.S. \$6.4 million to Raiffeisen Bank (RBI International Finance) to finance the export of 15 Northern Power™ 100 kilowatt permanent magnet direct drive wind turbines to community wind projects in Italy.
- ▶ *ARG Energie S.R.L.* of Avelino, Italy is the borrower on the transaction with PurEnergy, a leading wind energy developer based in Bisaccia, Italy, providing the installation, operation, and maintenance of the turbines.
- ▶ This transaction represents the largest-ever U.S. export of small wind turbines!
- ▶ This transaction, processed under the Bank's Renewable Energy Express Program, marks the first time Ex-Im Bank has financed a community wind power project supported on a project finance basis.
- ▶ The Italian Government has created an incentive program to promote the expansion of grid-connected small wind power projects under 200 kilowatts.
- ▶ Energy produced by the small wind projects is eligible for an attractive feed-in-tariff price that is fixed for 15 years.

Northern Power – Italy Community Wind



Case Study: Jeoden Geothermal - Turkey

- ▶ Ex-Im Bank approved a \$1.5 million Loan Guarantee in 2011 to finance the export of 3 modular Pratt & Whitney PureCycle geothermal power units.
- ▶ *Jeoden Elektrik*, the project sponsor, is an Istanbul-based company formed in 2010 to develop, construct, own, and operate renewable energy projects.
- ▶ *Jeoden* will own and operate a 750kW geothermal power plant project in Sarakoy, Denizli, Turkey.
- ▶ Electricity generated by the project will be sold under a 10-year PPA to TEDAS, the Turkish state-owned distribution company.
- ▶ The Turkish Renewable Energy Law provides a 10-year official feed-in-tariff of 10.5 U.S. cents per kW guaranteed by the Ministry of Energy.
- ▶ World Business Capital made the Loan with repayment guaranteed under Ex-Im Bank's Medium-Term Insurance program.
- ▶ The loan was made to *Jeoden* on a corporate finance basis.

Case Study: - Generadora Trasandina - Chile

- ▶ **Ex-Im Bank approved a 10-year \$1.9 million Loan Guarantee in 2011 to finance the export of equipment for a biogas-to-energy system to Generadora Trasandina, S.A. of Chile**
- ▶ **The exporter, Applied Filter Technology, Inc. of Snohomish, WA, custom designs, installs and operates biogas-to-energy systems .**
- ▶ **Generadora Trasandina, S.A. will use the equipment in the “Proyecto Central Los Colorados” to capture methane gas from a municipal landfill to generate electricity.**
- ▶ **The electricity generated by the project will be sold under a 10-year PPA to KDM Energia y Servicios.**
- ▶ **The electricity from the project provides power to hundreds of homes and businesses in the City of Til-Til, in Central Chile**
- ▶ **PNC Bank made the Loan with repayment guaranteed under Ex-Im Bank’s Medium-Term Insurance program.**

Case Study: Barbados Solar Roof Project

▶ Ex-Im Bank provided a 10-year Loan Guarantee to PNC Bank to finance a 1.4MW rooftop-solar project

▶ Sustainable (Barbados) Recycling Centre, Inc. will use the electricity to power SBRC's operations.

☀ SBRC is wholly-owned by Williams Industries.

▶ This project one of the largest-ever Caribbean solar roof projects.

▶ The project provides significant savings in electricity costs.

▶ SolarWorld (U.S.) supplied the solar modules

Williams Industries Barbados: Roof-Top Solar



Export Credit Insurance

Enables U.S. exporters to offer short- and medium-term *credit directly to their customers*, or for banks to insure credit lines and L/Cs.

Export credit is an attractive substitute to cash-in-advance, letters of credit and costly local bank financing.

Insures credit repayments up to 180 days from date of importation of the goods; capital goods terms of 360 days-7+ years.

▶ Ex-Im Bank offers both Multi-buyer and Single-Buyer Insurance

Process:

1. The U.S. supplier submits the application along with the required information to establish a credit limit for the foreign customer.

2. Information requirements for the foreign buyer credit limits:

- ▶ \$10,000 credit - a favorable trade or bank reference.
- ▶ \$10,000-\$50,000 credit - a current credit report
- ▶ \$100,000-\$300,000 credit a current credit report + favorable bank or trade reference.

3. Ex-Im Bank's Loan Officer analyzes the application and makes a decision on the amount of credit to be supported.

Case Study: Wireless Energy - Chile

- ▶ *Sunwise Technologies Inc.* is using Ex-Im Bank's Short-Term Insurance to offer "open account" credit to customers worldwide.
- ▶ *Sunwise* exports both modules and turnkey solar power systems.
- ▶ *Sunwise* use of Ex-Im Bank Insurance is supporting their growth in exports as financing to overseas dealers enables financing to *their* customers, and projects.
- ▶ *Wireless Energy Chile* is using a \$300,000 180-day credit line from *Sunwise* to finance their expanding operations, and to provide financing to their customers.
 - Cost to *Wireless Energy Chile* for the 180-day credit line = 1.15%
 - ▶ Financing is often THE critical factor in financing export sales, open account credit has advantages for international buyers of U.S.-made equipment:
 - "Supplier credit" attractive substitute to buyer using L/Cs
 - Interest rates high in many international markets
 - Increase order quantities to existing customers/distributors

Case Study: *Southwest Windpower*

- ▶ *Southwest Windpower, Inc.*, exports wind turbines to distributors and customers in Turkey, and worldwide.
- ▶ Ex-Im Bank's Short-Term Credit Insurance enables *Southwest Windpower* to offer "open account" credit terms to its distributors that enables them to place larger orders.
- ▶ Credit terms can range up 360-days open account; longer terms from 2-18 years also available under Ex-Im Bank's Long-term programs.
- ▶ Replaces bank financing and payment by L/Cs, enables customers to offer credit to their customers.
- ▶ The insured receivable also support *Southwest Windpower's* working capital needs.

Working Capital Guarantee

- ▶ Ex-Im Bank provides 90% repayment Guarantee for working capital loans, revolving or transaction based, made by commercial lenders to small businesses to finance export sales.
- ▶ The Working Capital Guarantee serves as the collateral to the commercial lender by mitigating the risk inherent when the source of repayment for the loan is an overseas contract.
- ▶ Enables exporters to finance materials, labor, and overhead to produce goods/services for export.
- ▶ Enables exporters to cover standby letters of credit for bid and performance bonds, or payment guarantees.
- ▶ Enables the exporters to finance foreign sales receivables.
- ▶ Most Working Capital Guarantees provided by Delegated Authority Lenders (see www.exim.gov for a list) without prior Ex-Im Bank approval.
- ▶ In FY 2011, Calisolar, Amonix, Suniva, Miasole, Southwest Windpower, and others used this program to finance production for export sales.

Conclusion

- ▶ **Ex-Im Bank: top priority to support renewable energy & environmental exports**
- ▶ **Ex-Im Bank supports short, medium, and long-term financing to creditworthy international customers, and working capital guarantees to U.S. exporters**
- ▶ **Ex-Im Bank often plays a critical early-stage role in helping small clean tech companies finance their operations.**
- ▶ **With Ex-Im Bank's early-stage intervention these companies can grow their international business, increase profitability, and ultimately attract significant equity investment.**
- ▶ **Ex-Im Bank is interested in any size project**
- ▶ **We will work with you to create “bankable” projects**
- ▶ **We welcome your projects and your ideas!**

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