

# VIEW ON VALUATION

A NEWSLETTER FROM BDO VALUATION ADVISORS



## SOLAR ENERGY IS RAPIDLY BECOMING A VIABLE ALTERNATIVE FORM OF ENERGY GENERATION IN THE UNITED STATES AND AROUND THE WORLD.

Solar energy is rapidly becoming a viable alternative form of energy generation in the United States and around the world. It has moved from the probable to the mainstream, and all signs point to its continued growth. As indicated in Figure 1 (pg. 2), the growth for 2011 is projected to be near double-digit in all areas except for Europe.

There are several reasons why there has been steady growth in solar energy which includes the mandate of renewable energy sources at the state and Federal level, the drop in price for the primary components (modules and inverters) in a solar collections system, as well as the recognition and understanding of solar energy by the leasing and financial community.

Previously, the financial community looked at solar energy as a fad or unrealistic investment due primarily to a lack of understanding. If it's something that they can't conceivably "wrap their heads around", then they tend to shy away from transactions involving "unusual" assets. But slowly the financial community and lease investors have begun to understand the reality and potential profitability of solar collection systems. In a way they don't have a choice, with the instability of the oil market from a price per barrel perspective and the cost of energy increasing at almost twice the rate of annual inflation, the need for alternative energy solutions has opened their eyes to the possibility of solar energy.

## CONTACT

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### ANTHONY ALFONSO

President  
310-557-8565  
aalfonso@bdovaluation.us.com

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### RICK DAUBENSPECK

National Director  
617-422-7514  
rdaubenspeck@bdovaluation.us.com

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We are relied upon by a number of the world's largest and most successful financial institutions as one of the leading authorities on solar energy in the financial industry.

The two lease structures that are most commonly used to finance solar collection installations are the Sale Leaseback Structure and the Inverted Lease Structure.

### SALE-LEASEBACK STRUCTURE

Under the sale-leaseback structure (Figure 2), the system is sold by the Developer to the Investor and then leased back to the Developer, and the Developer delivers the power to the Off-taker via a Power Purchase Agreement ("PPA"). The Investor would be the owner, and would claim the tax depreciation and the ITC/Grant. In addition, the Developer would have a purchase option at the end of the lease term.

The advantages of a Sale-Leaseback Structure include;

- Common project finance structure
- Provides 100% financing for the System
- Transfers 100% of the tax benefits to the Investor
- Sale-Leaseback Structure can commence up to 3-months after the System has been placed into service
- ITC/Grant based upon FMV rather than Developer's cost

The disadvantages of a Sale-leaseback Structure include;

- Generally not available for Production Tax Credit ("PTC") because of ownership requirements

FIGURE 1: REGIONAL PV MARKET SIZE FORECASTS

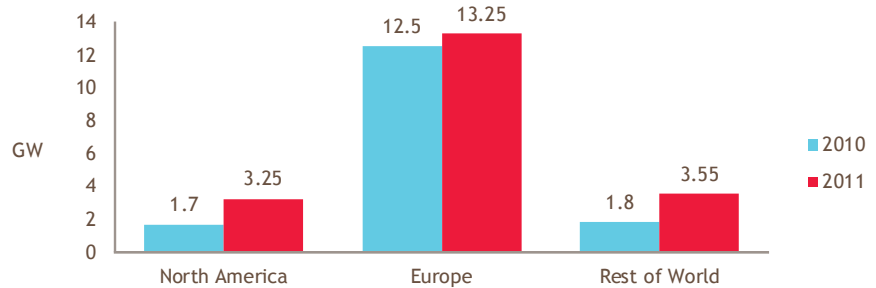
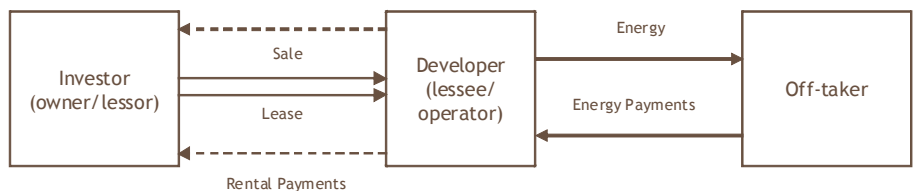


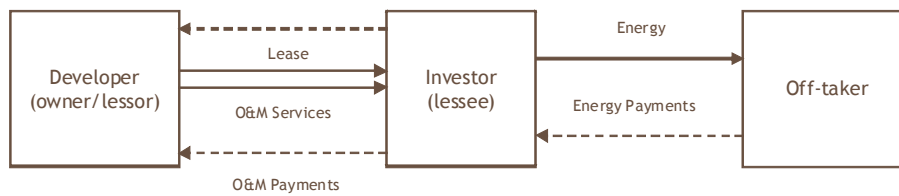
FIGURE 2: THE SALE-LEASEBACK STRUCTURE



In addition to the valuation of solar collection assets, we have the ability to support any valuation requiring expertise in machinery and equipment for a variety of applications.



**FIGURE 3: INVERTED LEASE STRUCTURE**



- Developer's purchase option is more expensive
- Tax-exempt or government entities can't be the Developer or Investor
- Lease must qualify as a true lease for US federal tax purposes

## INVERTED LEASE STRUCTURE

Under the inverted lease structure (Figure 3), the Developer leases the System to the Investor. The off-taker receives the energy from the System via a PPA, and in turn pays the Investor for the energy produced. The Developer may operate the System on behalf

of the Investor pursuant to an Operation & Maintenance ("O&M") Agreement. The Developer (as owner) claims any tax depreciation, and can elect whether the Investor can claim the Investment Tax Credit ("ITC") or Grant. The Investor (as lessee) claims any tax deductions for the lease payments. At the conclusion of the Lease Term, the System automatically reverts to the Developer.

The advantages of the Inverted Lease Structure include;

- Popularity and understanding of lease structures
- Developer retains the residual interest
- Easy exit for the Investor

- Develop may capture some upside during lease term under an O&M Agreement
- ITC/Grant based upon FMV of the System rather than the Developer's cost
- Achieves separation of ITC/Grant and depreciation

The disadvantages of the Inverted Lease Structure include;

- Generally not available for PTC because of ownership requirements
- Investor recognizes income equal to 50% of ITC or Grant over initial 5 years of lease term
- Tax-exempt or government entities can't be Developer or Investor
- Lease must qualify for credit pass-through election
- Lease must qualify as a true lease for US federal tax purposes

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