

Welcome to

Solar System Financing

Michael R. Kuhn, Vice President

Projects Financed to Date

- A 500 kw system on Deer Island, Boston, MA
- A 102 kw system in Lunenburg, MA
- A 50 kw system in Watertown, MA
- A 146 kw system in Lynn, MA
- A 4.4 MW system in Westford, MA
- A 3 MW project in Metro-West - in process

In addition to the above projects, we had the opportunity to review approximately 40 additional projects over the past two years

Sample Cash Flow

2 MW Sample Project

\$0.14 per/kwh with 3% inflation

\$200 per SREC value

PRODUCTION

Project Output	Start-Up 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Annual Generation (kWh)		2,246,064	2,234,834	2,223,660	2,212,541	2,201,479	2,190,471	2,179,519	2,168,621	2,157,778	2,146,989

INCOME

Income Statement	Start-Up 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
REVENUE											
Electricity Revenue		\$313,730	\$321,526	\$329,516	\$337,705	\$346,097	\$354,697	\$363,512	\$372,545	\$381,803	\$391,290
Solar Energy Certificate Revenue		\$449,213	\$446,967	\$444,732	\$442,508	\$440,296	\$438,094	\$435,904	\$433,724	\$431,556	\$429,398
Class 1 Energy Certificate Revenue		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Revenue		\$762,943	\$768,493	\$774,248	\$780,213	\$786,393	\$792,792	\$799,415	\$806,269	\$813,358	\$820,688
EXPENSES											
Operations & Maintenance Expenses		\$0	\$0	\$0	\$0	\$0	(\$39,090)	(\$39,037)	(\$40,007)	(\$41,001)	(\$42,020)
G&A		(\$82,500)	(\$82,875)	(\$83,261)	(\$83,659)	(\$84,068)	(\$84,491)	(\$84,926)	(\$85,373)	(\$85,835)	(\$86,310)
Insurance Expense		(\$69,000)	(\$69,810)	(\$70,640)	(\$71,494)	(\$72,369)	(\$73,266)	(\$74,186)	(\$75,129)	(\$76,097)	(\$77,089)
Property Taxes		(\$81,125)	(\$78,975)	(\$76,851)	(\$74,760)	(\$72,701)	(\$70,673)	(\$68,676)	(\$66,709)	(\$64,771)	(\$62,862)
Total Operating Expenses		(\$120,625)	(\$119,660)	(\$119,452)	(\$119,183)	(\$118,929)	(\$118,675)	(\$118,418)	(\$118,159)	(\$117,907)	(\$117,652)
Annual Cash Flow (EBITDA)		\$642,318	\$648,834	\$655,691	\$661,030	\$667,464	\$673,117	\$679,038	\$685,110	\$691,351	\$697,766
Cumulative Income		\$642,318	\$1,291,152	\$1,950,843	\$2,621,873	\$3,304,737	\$3,961,853	\$4,630,891	\$5,312,366	\$6,002,215	\$6,696,096

DEBT

Debt Schedule		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Initial Disbursement	\$4,800,000										
Beginning Balance		\$4,800,000	\$4,376,949	\$3,942,156	\$3,495,295	\$3,036,029	\$2,564,016	\$2,078,902	\$1,580,322	\$1,067,903	\$541,260
Debt Service		(\$549,330)	(\$549,330)	(\$549,330)	(\$549,330)	(\$549,330)	(\$549,330)	(\$549,330)	(\$549,330)	(\$549,330)	(\$549,330)
Principal		(\$423,031)	(\$434,793)	(\$446,862)	(\$459,265)	(\$472,013)	(\$485,115)	(\$498,580)	(\$512,419)	(\$526,642)	(\$541,260)
Interest		(\$126,280)	(\$114,537)	(\$102,468)	(\$90,065)	(\$77,317)	(\$64,215)	(\$50,750)	(\$36,911)	(\$22,688)	(\$8,070)
Ending Balance		\$4,376,949	\$3,942,156	\$3,495,295	\$3,036,029	\$2,564,016	\$2,078,902	\$1,580,322	\$1,067,903	\$541,260	\$0
DSCR		1.17	1.18	1.20	1.22	1.24	1.20	1.22	1.24	1.26	1.26

Sources of Revenue

- Sale of generated electricity or Net Metering Credits
- Sale of Solar Renewable Energy Credits (SRECs)

General Types of Agreements Used to Sell Electricity

- Long-term fixed price contracts, typically with modest annual price increases
- Long-term variable rate contracts, typically based on the value of the host customer's Net Metering Credit less a negotiated discount

Key Differences between the two types of Projects

- Long-term fixed rate contracts have predictable prices for electricity over the life of the project.
- Long-term variable rate contracts based on a discount on the net metering credit are subject to changes in the electricity rates charged by the utility.

Solar Renewable Energy Credits

What is an SREC?

SRECs are the environmental attributes from a solar facility, and are produced each time a solar system produces one thousand Killowatt-hours (KWh) of production. For every 1000 kilowatt-hours of electricity produced by an eligible solar facility, one SREC is awarded. They represent the bulk of the revenues for the project.

What is the value of an SREC?

The value of an SREC is determined by current Market conditions. In years when the market is undersupplied, the value is high; when the market is oversupplied the value is low

SRECs - Continued

What about the auction floor rate?

The DOER has done an excellent job developing the SREC program and implementing a floor rate for the auction. In addition, they have been proactive by working to modify the formula for compliance to alleviate the short-term oversupply.

Despite the strong framework and DOER's actions to modify the compliance levels, unfortunately the market dictates the value of the SRECs. Due to the oversupply in 2012, the price of SRECs on the spot market fell below the floor rate. Although, the developer has the ability to enter SRECs into the auction to possibly achieve a greater value; many need ongoing cash flow to service debt obligations. As a result, many developer's are willing to accept the price today rather than realize a greater value in an uncertain future.

SRECs - Continued

In conclusion, SREC risk remains the largest singular risk to financing a solar project.

Understanding the current and predicted future SREC market, each project's sensitivity to price fluctuations and understanding the counterparty risks involved in each SREC contract signed is key to mitigating the associated risks.

Typical Project Expenses

- Insurance
- General and Administrative Expenses (accounting, legal, ongoing remote monitoring services, snow removal, etc)
- Maintenance - Most projects have a maintenance contract included for a few years. Upon expiration, having a maintenance contract would prudent to protect the collateral.
- Reserves for Replacement – A reasonable reserve should be built for the replacement of parts not covered under warranty or have shorter warranty periods; i.e. Invertors.
- Taxes or PILOT payments
- Rent if applicable

Sample Project Pictures



Sample Project Pictures



Sample Project Pictures



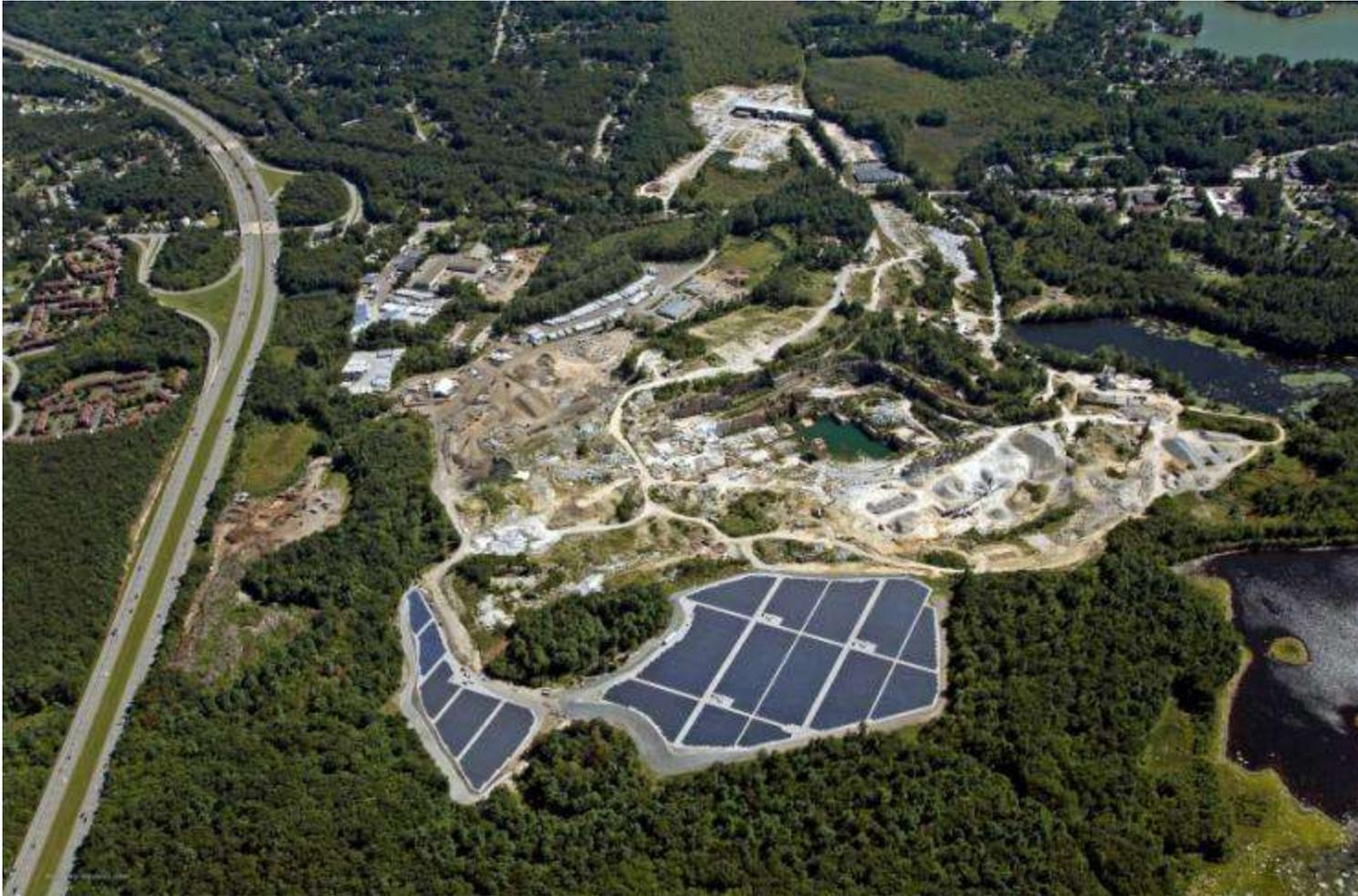
Sample Project Pictures



Sample Project Pictures



Sample Project Pictures



Questions????

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