

# **Solar Energy System Installations and Energy Efficiency Retrofits (SEER)**

## **Executive Summary**

This project for Solar Energy System Installations and Energy Efficiency Retrofits (SEER) is designed to be financially profitable, technically feasible and good for investors, customers, staff, the community at large, and the environment.

### **Vision**

The modern world offers huge potential. More people are better educated than ever before and scientific knowledge and technology offers solutions to most of the world's problems. The responsibility of business is to ensure that there is economic activity that helps the world to progress, and initiatives that address the subject of solar energy and energy efficiency are a priority for this.

### **Goals and Objectives**

The goals of this project for Solar Energy System Installations and Energy Efficiency Retrofits (SEER) is to be an efficient organization to implement these SEER activities and to do it in a way that the organization is financially profitable and therefore sustainable, so that investors have a low risk and safe investment opportunity, that customers get a good outcome and society as a whole gets a positive impact.

### **The Investment Opportunity**

The energy industry is a major area for investment, and policy makers in the US and elsewhere are looking to this sector to be the driver of future prosperity. The basic economics of energy and developments in technology are making the area of Solar Energy System Installation and Energy Efficiency Retrofits increasingly attractive. SEER is positioned to grow in this segment of the energy market.

Sector studies show the vast potential of this segment of the market. Some well known investors including Warren Buffet have make long term investments in the sector.

But the studies do not explain why the growth of that sector has been quite slow relative to the potential. Our financial analysis suggests that this is because there are mismatches between the needs of the consumer and the structure of the suppliers of the systems and the financing. The SEER project addresses this constraint.

## **Strategy. Organization and Management**

Accordingly, SEER has a strategy is to build to the maximum extent possible on what exists rather than to do create something new. The working level of the project uses existing contractors who are good at the practical work but get constrained by complex incentives, regulations and paperwork.

The strategy responds to the fragmented nature of the contracting market and respects the unique strengths of this community, including the role that local business plays in strengthening local community.

At the same time the project is organized so that the major issues of financing, negotiating incentive opportunities and ensuring good design and quality control are handled with units that address these matters: (1) A 'holding' entity with financing unit; and (2) A project management and oversight entity.

## **Financing Plan and Profitability**

The proposed financing is a \$25 million loan instrument with an effective interest of 4% per annum and repayment in 15 years.

The base scenario shows that that this funding will enable the SEER project to become profitable in Year 3, and grow in profitability thereafter. Repayment of the loan will be possible well before the maturity.

## **Risk**

While there are all the normal risks of business, the financial and economic risk is small. The trends of technology should make the future of this segment of the energy sector more profitable not less, and future higher prices for fossil based energy makes the SEER project more attractive, not less.

## **Keys to Success**

The key to SEER's success will be the careful matching of competence and cost.

The project is based on:

- the availability of modern technology that enables solar systems to be economical; and
- old fashioned hard work and supervision that makes it possible for decent wages to be paid while achieving low cost results.

<b>Key Operating Statistics</b>						
United States Dollars						
		Year 1	Year 2	Year 3	Year 4	Year 5
<b>Solar Energy Systems</b>						
Installations completed	KW	700	1,200	1,200	1,200	1,200
of which sold outright	KW	280	480	480	480	480
Installations under lease	KW	390	1110	1830	2550	3270

<b>Key Financial Elements</b>						
United States Dollars						
		Year 1	Year 2	Year 3	Year 4	Year 5
<b>Key balance sheet items</b>						
Construction in progress		1,050,000	1,050,000	1,050,000	1,050,000	1,050,000
Solar energy systems on lease		1,860,000	4,990,000	8,110,000	11,240,000	14,360,000
Total assets less cash		\$2,900,000	\$5,790,000	\$8,500,000	\$11,020,000	\$13,360,000
<b>Total assets including cash</b>		<b>\$4,140,000</b>	<b>\$13,730,000</b>	<b>\$23,990,000</b>	<b>\$25,240,000</b>	<b>\$27,210,000</b>
Financed by:						
Loan finance instrument		5,000,000	15,000,000	25,000,000	25,000,000	25,000,000
Other creditors		0	0	80,000	400,000	710,000
Retained earnings		-860,000	-1,270,000	-1,090,000	-160,000	1,500,000
<b>Total liabilities and equity</b>		<b>\$4,140,000</b>	<b>\$13,730,000</b>	<b>\$23,990,000</b>	<b>\$25,240,000</b>	<b>\$27,210,000</b>
<b>Key income items</b>						
Outright sale of solar installations		1,400,000	2,400,000	2,400,000	2,400,000	2,400,000
Income from owned solar installations		220,000	1,400,000	2,700,000	4,000,000	5,290,000
Sales of energy efficiency retrofits		0	0	0	0	0
<b>Total Revenue</b>		<b>\$1,620,000</b>	<b>\$3,800,000</b>	<b>\$5,100,000</b>	<b>\$6,400,000</b>	<b>\$7,690,000</b>
Sales of solar installations		220,000	380,000	380,000	380,000	380,000
Margin from owned solar installations		220,000	1,400,000	2,700,000	4,000,000	5,290,000
Sales of energy efficiency retrofits		0	0	0	0	0
<b>Total Gross Margin</b>		<b>\$440,000</b>	<b>\$1,790,000</b>	<b>\$3,080,000</b>	<b>\$4,380,000</b>	<b>\$5,680,000</b>
Total general expenses		1,040,000	1,360,000	1,410,000	1,450,000	1,520,000
Financing costs		200,000	600,000	1,000,000	1,000,000	1,000,000
Depreciation and amortization		60,000	230,000	420,000	600,000	790,000
Tax on corporate profit		0	0	80,000	400,000	710,000
<b>Profit after tax</b>		<b>-\$860,000</b>	<b>-\$410,000</b>	<b>\$180,000</b>	<b>\$930,000</b>	<b>\$1,660,000</b>