Everybody wants it; nobody wants to pay for it

Green is the most popular color in the world right now and many businesses are jumping on the bandwagon in green practices for their own business and/or for the products & services they provide. However, there are still many businesses that see the value but are not willing to pay for it. Photovoltaics (PV) or Solar Electricity in particular has been the biggest question mark. Concerns: Cost, Lifespan, ROI, the list goes on. Most of it is just a lack of education on how much money you can actually save while caring for the environment.

This case study serves as a great example of what a typical commercial project can cost and where the tax credits, rebates and incentives come into play. This is a Building Integrated Photovoltaic (BIPV) system, which means in this case, the solar electric panels were added to the existing roof.

Commercial Building – San Diego, CA

Total Installed System Cost		**$1,010,000**
Federal 30% Tax Credit	**(30% of Net System Cost)**	**$303,000**
Modified Accelerated Depreciation	**(Over 5 years. See Schedule below)**	**$343,400**
Production Based Cash Rebate**	**(5 years)**	**$290,039**
Energy Savings over 6 years	**(Based on 6% annual utility increase)**	**$199,780**
System Cost After All Incentives and 6 Years Energy Savings	**=**	**($126,219)**

****Results may vary**

Schedule:

Yr.	Utility Rate	Utility Savings	Tax Incentive & Depreciation	Cash from Performance	Net Cost
					$1,010,000
1	$0.170	$29,004	$371,680	$58,008	551,308
2	$0.180	$30,599	$109,888	$58,008	352,813
3	$0.191	$32,282	$65,993	$58,008	196,591
4	$0.202	$34,058	$39,560	$58,008	64,996
5	$0.215	$35,931	$39,560	$58,008	68,533
6	$0.227	$37,907	$19,780		126,219
7	$0.241	$39,992			166,211
8	$0.256	$42,191			208,403
9	$0.271	$44,512			252,915
10	$0.287	$46,960			299,875

MACRS Depreciation Schedule

Based on 100% of Net System Cost **$1,010,000**

Yr	Accelerated Depreciation
1	$68,680
2	$109,888
3	$65,933
4	$39,560
5	$39,560
6	$19,780
$0	$343,400
TOTALS	**$343,400**

MACRS (Modified Accelerated Cost Recovery System)

MACRS is the current method of accelerated asset depreciation required by the United States income tax code. Under MACRS, all assets are divided into classes which dictate the number of years over which an asset's cost will be recovered.

Carbon Dioxide Reductions

Based on estimated production, this system will reduce Carbon dioxide emissions by:

5,617 ***tons over 25 years***

Equal to not driving ***14,042,500 miles***

Equal to planting **63** ***acres of trees***

Carbon Footprint

A **carbon footprint** is a "measure of the impact human activities have on the environment in terms of the amount of greenhouse gases produced, measured in units of carbon dioxide". It is meant to be useful for individuals, nations and organizations to conceptualize their personal (or organizational) impact in contributing to global warming.

One misconception is the bigger square footage of your building, the more expensive solar will be. That is not always the case. The system cost is determined more on your electricity needs than your total square footage of your building. Your electricity needs determine how powerful the panels need to be (along with how much sun exposure you get). Lifespan is determined like anything else you purchase. How much abuse does it take? Is it on a maintenance schedule? Was it installed properly? Typically, you can expect a 10-25 year warranty on the system along with a 10 year warranty on the inverter.

Something not mentioned among all of the rebates is the business deductions you can receive:

Business Spending Incentives: If your system is installed and fully commissioned and placed into service before 12-31-08, you can qualify for a 50% Bonus Depreciation. If your system costs more than $250,000, then you can get 100% Bonus Depreciation. This is because for tax years beginning in 2008, the IRS has nearly doubled the amount of deductible Code Section 179 expensing. Businesses can deduct $250,000 for qualified depreciable tangible personal property used in the active conduct of a trade or business. (The threshold for reducing the deduction has been raised to $800,000). Contact your tax advisor as to how this might affect your corporate year-end tax planning.

To conclude, I challenge you to make that first step in switching to solar. Instead of paying a bill that will continue to go up each year with the utility company, get locked into a fixed loan that can be paid off after the first 60 months. There are many alternatives on financing your customized system, just make that $4500/mo check out to your financier instead of the utility company. There is no better time then now to take advantage of all of the tax credits, rebates and incentives. Start…..now!

For more information regarding solar, please contact the writer, James Adams of **RSI Roofing** jadams@thinkrsi.com or visit their website at www.ThinkRSI.com