Glen,

Richmond BySolar offers to any Virginia Sierra Club Member a PV Micro-inverter based system with a 25 year manufacturer's warranty and lifetime monitoring for:

2k Watts (8 panels) $3.70 per watt upfront cost of $7,400
3k Watts (12 panels) $3.15 per watt upfront cost of $9,450
4k Watts (16 panels) $2.90 per watt upfront cost of $11,600

Offer conditions are populated areas, shingle roof, two story home or less and done as part of the Sierra Club members solarize groups. Installations will be typically done in small regional groups which saves members money. Other conditions can be quoted. Residential financing is available from Admirals Bank

Virginia doesn't have any state incentives like many of the surrounding states do so it may not be as cheap to install solar here as some of our neighboring states but we strive to provide the best value using renewable energy as possible. Virginia does have Net Metering (more details). Hopefully the work of the Sierra Club and their many partners will help Virginia to catch up to its neighboring states someday and that our utility companies will install solar for us.

We have added the financial analysis for the offerings in the table below. This analysis is provided to *assist* in member evaluation, individual locations will vary. Analysis was done using NCSU Solar Financial Modeling Tool (funded by DOE). Financial analysis involves more than just payback/Break Even (BE) you should also consider Internal Rate of Return (IRR) and Net Present Value NPV) as a business does. **You should see a financial professional for financial advice.**

The Federal Tax Credit of 30% will reduce cost and improves the payback/breakeven; Financing will increase cost and payback/break even shown below depending on the rate and terms. You should consult your financial/tax advisor for more information on what payback period, internal rate of return and net present value fit your financial situation.

System Wattage	Cost per Watt	System Cost	Annual kWh Produced *	1st year Savings *	PV Energy Cost per Watt/ITC*	Break even yr **	Internal rate of return % **	Net present value **
2 kW (8 panels)	$3.70 per watt	$7,400	2,782	$319	$0.23/.15	8	11.51	$9,915
3 kW (12 Panels)	$3.15 per watt	$9,450	4,172	$478	$0.19/.13	7	13.69	$16,027
4 kW (16 panels)	$2.90 per watt	$11,600	5,563	$637	$0.18/.12	6	14.91	$22,077
Notes:								

* from PVWATTS, location Richmond, VA panels facing South. If facing East or West reduce kWh by 19%.

** from NCSU Solar Financial Modeling Tool with 3.76% DOE energy escalation rate

Approximate Roof Space Requirements	
System Wattage	Roof Space
2 kW (8 panels)	About one 12' x 12' room
3 kW (12 Panels)	About one 12' x 20' room
4 kW (16 panels)	About two 12' x 12' rooms

We use solar panels which are built and certified with UL, CEC and IEC by the manufacturer which integrate the micro-inverter into the panel. We are TRUEAC certified installers by the manufacturer.

We have found using ACPV systems we have been able to:
Reduce our installation cost
Maximize energy harvest for the owner
Deliver the safest solution
Provide superior reliability

The process from permit application to final inspection typically takes five to six weeks.

Note about other installation conditions:
Remote areas; ground mounting; small systems; roofs with tile, slate, metal, many dormers or very steep roofs, roofs facing east or west will lengthen payback time. If you have multiple of these conditions you may find your financial payback unacceptable.

Pricing is contingent on vendors continuing to provide material and services at current pricing.

Dave STEtS
Renewable Energy Researcher/Trainer/Installer
NABCEP Certified Solar Heating Installer TM
TRUEAC certified
Richmond BySolar

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