



GRAFTON COMMUNITY SOLAR

PRESENTATION BY REX JAMES PROJECT DEVELOPER

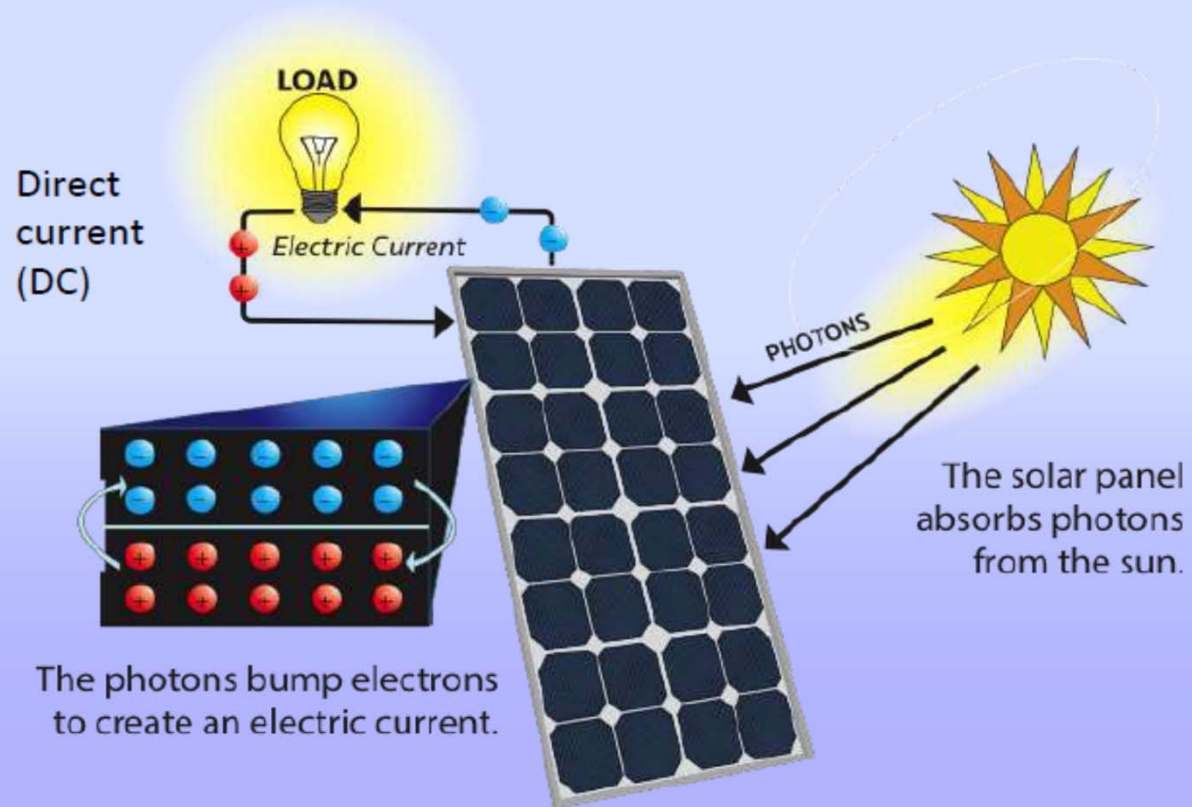
Will not be visible from the road or neighboring properties



Site of old computer forms printing company in Cambridgeport



How PV Panels Produce Electricity



Why Community Solar is a better investment than putting Solar on your home or business !

1. The solar panels are at an ideal angle and without shade
2. Snow can freely slide off panels in winter
3. Green Mountain Power pays more for the power generated at the Community Solar field because it is utilizing a contaminated site.
4. If you move you can take it with you.
5. If you need cash, you can sell it .
6. No holes in your roof
7. Maintained, monitored and insured so it will perform at its best.
8. Qualifies for Tax credits just as it would if on your home or business.

Anatomy of a PV System: Inverters

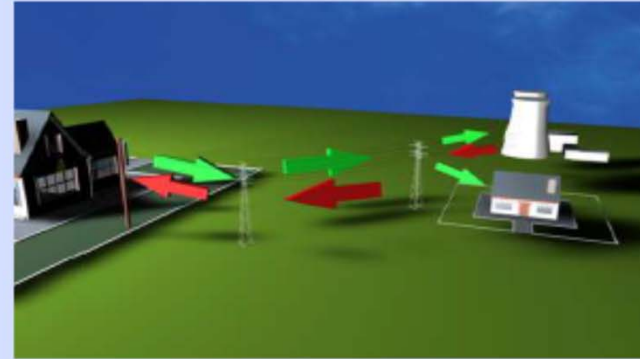
INVERTERS CONVERT THE DC CURRENT FROM THE PANELS TO AC CURRENT FOR THE GRID

THERE ARE SOME LOSSES IN THE CONVERSION THOUGH EFFICIENCIES ARE APPROXIMATELY 98%

OTHER LOSSES COME FROM ELECTRICAL WIRING, AND TEMPERATURE.



NET METERING VERMONT



CPG - CERTIFICATE OF PUBLIC GOOD
Establishes the rate at which credits will be made
by GMP.

- HAVING APPLIED BEFORE JULY 2018 GRAFTON COMMUNITY SOLAR RECEIVES A 3 CENT HIGHER RATE THAN IS CURRENTLY AVAILABLE FOR NEW SIMILAR PROJECTS
- RATE BASIS IS THE RESIDENTIAL RATE (WHICH IS CURRENTLY 16.4 CENTS)
- THERE IS A RATE REDUCTION OF 1 CENT FOR BEING A LARGE SYSTEM, BUT A 3 CENT PLUS FOR BEING ON A PREFERRED SITE. THIS "ADDER" IS FOR THE FIRST 10 YEARS OF OPERATION
- VALUE IS NOW \$.184 PER KILOWATT GENERATED

NOTE: GMP HAS A REQUEST IN TO INCREASE THEIR RATES BY 3% FOR EACH OF THE NEXT 3 YEARS.

6/12/2019

PWatts Calculator



Caution: Photovoltaic system performance predictions calculated by PWatts® include many inherent assumptions and uncertainties and do not reflect variations between PV technologies nor site-specific characteristics except as represented by PWatts® inputs. For example, PV modules with better performance are not differentiated within PWatts® from lesser performing modules. Both NREL and private companies provide more sophisticated PV modeling tools (such as the System Advisor Model at <https://sam.nrel.gov>) that allow for more precise and complex modeling of PV systems.

The expected range is based on 30 years of actual weather data at the given location and is intended to provide an indication of the variation you might see. For more information, please refer to this NREL report: The Error Report.

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<https://pvwatts.nrel.gov/pvwatts.php>

RESULTS

6,420 kWh/Year*

System output may range from 6,121 to 6,703 kWh per year near this location.

Month	Solar Radiation (kWh / m ² / day)	AC Energy (kWh)	Value (\$)
January	3.26	409	75
February	4.04	452	83
March	5.27	635	117
April	5.56	624	115
May	5.78	663	122
June	5.89	642	118
July	6.10	679	125
August	5.66	634	117
September	5.29	579	107
October	3.78	444	82
November	2.97	347	64
December	2.51	313	58
Annual	4.68	6,421	\$ 1,183

This calculator is showing the amount of kwh's which would be expected to flow back to the utility at different months of the year based on 30 year local weather data for a 5kw share.

SOLAR LOAN

Example: (2019 MASCOMA BANK)

- UNSECURED
- NO INCOME CHECK
- 650 MINIMUM CREDIT SCORE
- \$40,000 MAXIMUM
- 5.49% (with Mascoma Account, autopay)
- 15 year term
- 1st year interest only (creates payment similar to the after tax credit loan)



\$20,000 loan

First year monthly payment : approx. \$ 91.50

Second year monthly payment will remain approximately the same if the tax credit is used to reduce the principal

Value of solar energy produced at 18.4 cents/kwh \$ 98.00/avg mo.

TAXES

FEDERAL

- **THE RESIDENTIAL AND BUSINESS TAX CREDITS APPLY TO COMMUNITY SOLAR THE SAME WAY THAT IT APPLIES TO BUILDING SOLAR AT YOUR HOME OR BUSINESS.**
- **YOUR TAX LIABILITY IS REDUCED BY 30% OF THE COST OF THE SYSTEM . EXAMPLE: \$20,000 INVESTMENT RECEIVES A \$6,000 TAX CREDIT. TAX DEDUCTIONS ARE NOT THE SAME AND WORTH CONSIDERABLY LESS.**
- **THE TAX CREDIT MAY BE TAKEN THE FIRST YEAR OR SPREAD OVER MANY YEARS.**
- **BUSINESSES ALSO GET TO USE ACCELERATED DEPRECIATION, EVEN 100% FIRST YEAR**

VERMONT

- **HERE IS NO LONGER A RESIDENTIAL TAX CREDIT ALLOWED FOR SOLAR**
- **BUSINESSES GET A 7.2% TAX CREDIT**

<http://tax.vermont.gov/business-and-corp/corp-and-business-income-taxes/tax-credits>

Pollinator-Friendly Solar Resources



Flexibility of Community Solar Investment

May be resold

If you have taken the solar tax credit you will have to give part of that back if you sell it before 5 years

May be transferred or gifted

Take it with you If you move anywhere in GMP territory

Give to anyone with a Green Mountain Power Account

Included it in the sale of your property

Donate to your favorite cause: Library , Church, ...other

To become a shareholder

Request a sizing calculator and a copy of the contractual agreement.

by email:

rex@solarstrategies.net

Or phone:

802 289-4492 Rex James