



YOUR UTILITY RATE SPECIALISTS
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POWER NOTES - APPALACHIAN POWER EDITION

WINTER 2016 ISSUE - POWER NOTES

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**SOLAR ENERGY TAX CREDITS
 EXTENDED**

The U.S. Congress just extended the Investment Tax Credit (ITC) for solar energy through 2022.

Between 2016 and 2019, the ITC on solar energy installations is 30%. That means if you spend \$30,000 on a solar energy installation, the federal government will give you a \$9,000 credit towards your tax bill for the year. If you don't owe any taxes, they will write you a check for your credit.

Between 2020 and 2022, the credits will gradually decline to 10%.

**SOLAR PHOTOVOLTAICS VS.
 SOLAR HOT WATER**

Solar photovoltaics (PV) involves using solar panels to directly generate electricity from the sun's rays. PV is the most common type of solar energy today and is the focus of this newsletter.

Solar hot water involves using solar panels to heat water. These types of systems were common in the 1970's, but are not seen very often today. They are limited to facilities that need large quantities of hot water like laundromats, car washes, hotels, spas and some industrial facilities.

**APPALACHIAN POWER'S
 RATES & RIDERS FOR POWER GENERATORS**

Appalachian Power offers a variety of rates and riders for customers who wish to generate electricity. A brief description of each follows:

Schedule Cogen/SPP

Cogeneration and/or Small Power Production Service provides the terms and conditions for customers who wish to run their own generating equipment and sell all of the output from that equipment to APCO. The payment from APCO to the generator owner is based on the real time market price for electricity and therefore is not spelled out in the rate. This rate could be used for solar or wind farms.

Schedule VWS

Voluntary Wind Service provides the terms and conditions under which APCO will buy the power produced from wind generation. This schedule is only available to customers with a peak demand of more than 1,000 KW and receiving service under APCO's Schedule LPS.

Optional Rider DIR—Distribution Interconnection Rider:

Provides the technical, legal, contractual and regulatory rules and guidelines that apply to customers who wish to connect generating equipment in parallel with the APCO system.

Optional Rider N.M.S. – Net Metering Service Rider

This is for customers who produce electricity through a renewable source (solar, wind, hydro, etc.) and wish to use the energy they produce to offset the energy they purchase from APCO. On this rider, a customer effectively receives a price for generated electricity that is equal to the price APCO charges for electricity.

If a customer produces more energy than he uses in any given time period, the customer is credited for the excess energy and can use the credit towards future purchases.

This is an attractive rate for customers who wish to install solar photovoltaic panels on the roof of their home or business.

For additional details about all of the above rates, call UMS President Brian Coughlan at (910) 793-6232 x 102 or go to the below link:

https://www.appalachianpower.com/global/utilities/lib/docs/ratesandtariffs/Virginia/Approved_Tariff_25-Feb-2016.pdf



SOLAR ENERGY INSTALLATIONS

The two most common ways to install solar panels is to mount them on the roof of a building or put them in an open field.

Rooftop installations tend to be somewhat smaller and may be more costly to install. However, they have the advantage of not taking up additional land.



Many field based installations are relatively large, covering several acres of land. These are often funded by companies that specialize in installing solar farms in many locations.



POWER LINES NECESSARY FOR SOLAR ENERGY

Appalachian Power must have power lines on your property with adequate capacity to receive your solar energy.

For most rooftop installations that is not a problem because Appalachian Power already has power lines on the property to serve the building.

For field based installations, availability of adequate power lines can be a problem. Always verify the availability of adequately sized power lines before proceeding with a solar farm. The cost of extending power lines to the property can be quite significant and can make the overall project uneconomical.

IS SOLAR ENERGY COST-EFFECTIVE?

By itself, solar energy is not cost effective compared to other sources of electricity. However, when you include the effects of the Investment Tax Credit and the incentives described above, solar energy is very cost effective in many cases.

It is often a long-term investment that provides a competitive return on investment for many years.

IS SOLAR ENERGY FOR YOU?

If you have a large unshaded flat roof or a southern-facing roof and you are willing to make a significant capital investment, solar energy might be a good alternative for you.

If you have an unshaded lot that you do not need for other purposes and are willing to invest the capital, you might be a good candidate for a solar farm.

LEASE YOUR ROOF OR LAND FOR SOLAR ENERGY

There are companies that will lease your roof or land to install their solar panel equipment.

If you want to support solar power, but you don't have the capital to buy and install the panels on your own, may want to use this approach.

You can help the environment and earn money from your roof or land.

Questions?

Contact Brian Coughlan at (910) 793-6232 ext. 102. I will be glad to talk with you.

UMS ACCEPTS CREDIT CARD PAYMENTS

To pay your UMS bill by credit card, please contact Mary Mooney at (888)867-3230 ext. 109.

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