



**YOUR UTILITY RATE SPECIALISTS**  
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**POWER NOTES - DUKE ENERGY PROGRESS (DEP)**

**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.

**DUKE ENERGY PROGRESS' SOLAR RATES**

Duke Energy Progress buys the energy produced by solar energy installations. Two rates are available.

**Cogeneration and Small Power Producer Schedule:** This rate pays customers who install solar generating equipment and sell all of the energy produced to DEP. A separate meter is installed to measure the output of the solar generating equipment. The rate pays about \$.08/KWH; which is slightly less than what the average commercial customer pays for electricity.

**Net Metering For Renewable Energy Facilities:** This is a rider that works with your existing rate. This rider applies to customers who use their solar energy to meet some of their needs and occasionally sell surplus solar energy to DEP. Under this rider, the customer is essentially earning the same amount that he would have paid DEP for the energy that is produced. This rider is a good alternative for customers who both consume electricity and generate electricity.

**NORTH CAROLINA ADVANCED ENERGY CORPORATION-NCGREENPOWER**

The North Carolina Advanced Energy Corporation (NCAEC) administers a program called NCGreenPower. NCGreenPower provides payments to solar generators in North Carolina. These payments subsidize the production of solar energy in NC. Funding for the NCAEC and NCGreenPower primarily comes through voluntary contributions to Duke Energy through the NCGreenPower Program Rider. See the link below for details:

<http://www.ncgreenpower.org/become-a-generator/>

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## 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

Duke Energy Progress must have power lines on your property.

For most rooftop installations that is not a problem because Duke Energy Progress 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, you 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.

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