

Public Utilities Commission Generating Your Own Electricity: Net Metering

Interested in producing your own electricity? Let us provide you with general information to assist you in making an informed decision.

If you are an electric utility customer and are interested in generating your own electricity from renewable sources Ohio law allows you to do so if you meet the following criteria:

- The generating equipment for producing electricity must be intended primarily to offset part or all of the your own electricity requirements;
- Acceptable generation include solar, wind, biomass, landfill gas, hydropower, microturbines, and fuel cells;
- Such generating equipment must also be located on a your own premises; and
- Must be connected in parallel to the electric utility's system.

What is net metering?

Net metering is a billing arrangement where customers who produce their own electricity can receive a credit on their electric utility bills for any extra electricity produced by the customer that flows back onto the electric utility's distribution system.

Generating your own electricity may reduce your electric bill in two ways:

1. The electricity you produce displaces electricity you would otherwise have purchased from the electric utility (or from a competitive supplier); and
2. Your electricity bill is lowered by the amount of electricity your generating system may feed back onto the electric utility's system.

How does net metering work?

If you want a net metering billing arrangement, your generating equipment must be connected to the local electric utility's distribution system. Whenever your generating equipment produces more electricity than you need, the extra electricity flows backward through the utility meter on your property making it turn in reverse. This reverse metering may result in a lower monthly meter reading by the electric utility, thus lowering your electric bill.

Days I've been there:

8/30/2011	4:00 - 7:00	3		9/8/2011	4:00 - 6:00	2
8/31/2011	5:45 - 8:00	2 1/4		9/14/2011	8:30 - 5:30	9
9/1/2011	4:00 - 5:00	1		9/19/2011	8:30 - 11:00	2 1/2
9/6/2011	4:00 - 5:00	1		9/28/2011	9:00 - 10:30	1 1/2
9/7/2011	8:00 - 11:00	3				

0.5 1/4 hours

What is done right now:

- Tiffany, Paula, and Cathy's computers have been migrated to Windows 7 Professional 32-bit Edition
 - All files were safely backed up and restored to new installation of Windows 7
 - Microsoft Office 2010 Professional Plus was installed and properly licensed with Microsoft
 - McAfee Anti-Virus from before has been reinstalled on all three machines
 - All users have been given a quick tour on how to best utilize new features in Windows 7 and Microsoft Office 2010
 - BIOS updates were done to fix compatibility issues with Windows 7

What is next to be done:

- Kevin's computer is a model older than Tiffany, Paula, and Cathy's computers (OptiPlex 745 vs OptiPlex 755)
 - Kevin's computer is still just as fast as as the OptiPlex 755's for what it will be used for
 - Kevin's computer only had 512 MB of RAM installed; the OptiPlex 755's have 2 GB of RAM installed; 4 GB of RAM was ordered for Kevin's computer on 9/28/2011 and should be in the following week. At that point, his machine will be backed up, updated, upgraded and restored with Windows 7 and Office 2010

What I am proposing to be done:

- A server should be purchased to help prevent data and productivity loss in the future.
 - Attached is a quote for an entry level server.
 - This server is only designed to handle a small amount of users (under 25)
 - The server will be about the size of a normal desktop computer with about the same noise level
 - The server will have redundant hard drives so in case of a hard drive failure, the system will let someone know and continue working off the other three hard drives without any data loss
 - The server does have the potential to be upgraded further down the road. However, just like every other computer, it will not last forever. You can expect the server to last longer than the normal computer replacement life cycle (every 6 years or so)

- A purchase of a Server/Client Security Software is also recommended.
 - Attached is a quote from Symantec for Symantec Endpoint Protection Small Business Edition
 - The Small Business Edition allows the software to be installed on the server and on the workstations.
 - The software installed on the server will be able to monitor security on the workstations and keep a log of any unusual activity
 - The software will notify someone if there is a problem.
 - A new license will need to be purchased every year
 - Buying licenses in bulk for multiple years will cut costs on additional licenses
 - McAfee does not have a comparable software solution that fits BOPA's needs

Isolating the BOPA network from the rest of the building would be recommended as well:

- Currently, all computers in the Village Town Hall are connected on network switch, router, and share an Internet connection with Time Warner Cable.
 - Traffic from the BOPA network can be viewed by anyone in the building connected to the network, including anyone on the wireless. Viruses can also travel to and from any computers on the network as well.
- Purchasing a small router and switch for the BOPA network lines will be enough to separate the network
- Cathy and I have been trying to contact Time Warner Cable about costs for a separate line. We left a voicemail with someone in the Business Class Government Sector and are currently still waiting on a response.

Costs:

- Would not be cost effective for BOPA if I charged a per hour rate
- \$250 per computer for the upgrade to Windows 7, upgrading hardware firmware, backing up and restoring data, resetting up databases, research into new software and hardware specs and training on any questions with the new software
 - 4 computer X \$250 = \$1,000
- Cost for the new server will be \$300 for setup of server, migration of data and databases, installation of new security software on all computers, and setup for router and switch for network segmentation