Happy New Year!

Each year seems to start all shiny and new, with great expectations. Many of us come up with several resolutions of things that we want to accomplish…or at least start. Here are a few more that you may not have considered. Each is fairly simple and can even help save you money, while being good for the environment.

• Take a soil sample of your yard; in fact, take several. Currently, soil samples are analyzed for FREE by the NC Department of Agriculture & Consumer Services (NCDA&CS). The results can help you make better fertilizer and liming decisions for your grass, bushes, garden, and other vegetation. When you bring your soil samples to your local NC Cooperative Extension office for transport to Raleigh, you can also pick up educational materials about your plants and how to best grow them. This can save you time, money, and a lot of frustration.

• Continue (or start) switching to compact fluorescent lights (CFLs). Over the course of a year, these can have a big impact on your electric usage. For example, replacing ten 60-watt incandescent bulbs with 15-watt CFLs can save you roughly $59 dollars per year, assuming electricity costs $0.09 per kilowatt-hr (http://www.gelighting.com/na/home_lighting/products/pop_lighting_calc.htm).

Other calculators let you adjust for different types of light fixtures and the amount of time that they are used each day:

Jones-Onslow EMC also has a calculator:
http://c03.apogee.net/contentplayer/?coursetype=misc&utilityid=joemc&id=17634

• CFLs come in different light output ranges, from “warm” to “cool”. These can affect how colors look in your home. If you didn’t like the light from a particular CFL, try a different type. Newer styles also offer “instant on”, rather than slowly getting brighter; as well as dimmable bulbs. The size of the bulbs has also changed, so that they fit in more fixtures. The Energy Independence and Security Act of 2007, requires that incandescent bulbs be phased out by 2014.
• Conduct an energy audit of your home. There are many websites out there that provide online audit information, including those offered by your electric service provider. If you don’t have a computer, you can contact your electric utility and request a printed version of the audit that you can then complete.

These online audits can help you see where changes may have the biggest impact on your electric costs. For example:

For the home graphed above, more than 60% of the annual electric cost is for heating (41.3%) and cooling (20.3%). The water heater is the next largest item. The monthly breakdown shows the typical seasonal pattern of higher electric costs in the winter (heating) and summer (cooling), with lower electric costs in the spring and fall.

This particular website also provides information about how changes in outdoor temperatures impact your utility bill:

**Difference from Last Month**

<table>
<thead>
<tr>
<th>Usage Summary:</th>
<th>256 kWh</th>
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</thead>
<tbody>
<tr>
<td>The November 2011 usage was about 236 kWh higher than the October 2011 period.</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Cost Summary:</th>
<th>$25</th>
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</thead>
<tbody>
<tr>
<td>The November 2011 costs were about $25 higher than the October 2011 period.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weather Summary:</th>
<th>5.8°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>The average temperature for November 2011 was 5.8 degrees colder than October 2011.</td>
<td></td>
</tr>
</tbody>
</table>

| Weather Impact: | 5.8°F lower cost about $25 and 262 kWh |

**It’s the differences...**

The main driver to higher seasonal heating and cooling costs with heat pumps is the difference in temperature from what you want the indoor temperature to be, compared to the outdoor air that you are working with. In other words, when it is 35°F outside, the heat pump has to work harder than when it is 55°F outside, to get your home heated to 70°F.

If the heat pump doesn’t have to make as big of a temperature change, it doesn’t have to work as hard. That saves on electricity use, which lowers your utility bill. This is why your thermostat settings are very important, and why you often see or hear commercials advising you to adjust your thermostat lower in the winter and higher in the summer.

Help your home stay warm! Be sure to caulk, plug, insulate, wrap, and otherwise reduce drafts and air leaks in your home. If you would like to help others stay warm and lower their heating costs, contact your county to see what volunteer groups are assisting those in need. They are often in search of helping hands or materials.

**Don’t forget ...**

Help save paper, postage, and your tax dollars! This newsletter and the annual reader survey are available online at:

[http://onslow.ces.ncsu.edu/content/Envedarchive](http://onslow.ces.ncsu.edu/content/Envedarchive)
The sun’s path...

Have you ever paid much attention to the sun’s path across the sky at various times of the year? It’s easy to notice the days getting longer and shorter, but we often pay much less notice of where the sun rises and sets, or how high it gets in the sky. This information can be very useful when deciding where to place plants in your yard, especially if you want to provide shade from the summer sun. It can also help you plan changes to your home; such as best placement of awnings, porches, and overhangs.

There are websites that will provide you with information about the sun’s movement across the sky for your geographic location and date. The image below, for Jacksonville, is one example.

![Sun's Path Image](source: http://www.gaisma.com/)

The shaded band represents where the sun passes during the year. The top arc of the band shows the sun’s path on June 21st, from east to west, and the height that the sun reaches in the sky. The bottom arc of the band shows the sun’s path on December 21st. The light gray arc in the middle, that begins due east and ends due west, occurs on the spring and autumn equinoxes.

The circles indicate the height of the sun in the sky (10°, 20°, 30°, etc.) during the day. For example, at noon on Dec. 21st, the sun was due south and 32° above the horizon. On June 21st, the sun will reach 78° above the horizon. That is a big difference in sun elevation. During the summer, the higher position of the sun gives us the opportunity to block the sun with natural vegetation or built structures. During the winter, the lower elevations provide less warmth, but do let us sneak the light in under overhangs and through deciduous branches.

Home positioning, placement of porches and outdoor structures, and layout of gardens and trees can make both your yard and your home more comfortable throughout the year. Paying attention to the sun’s movement is an important part of this process. There are numerous books, courses, and professional services that discuss this topic further. You can also contact your local Cooperative Extension office for more information.

**Become a Master Gardener Volunteer**

The Onslow County Master Gardener volunteers work with the Cooperative Extension staff to assist gardeners in our area. Master Gardener volunteers make it possible to reach out to a larger portion of our gardening community, by supporting a wide variety of gardening projects and programs in the County.

Master Gardeners are gardeners who want to learn more about growing plants, while giving back to the community. Master Gardeners complete an initial training course, and then continue to learn while volunteering. The initial training course offers a minimum of 40 hours of instruction and covers topics including: lawns, ornamental trees and shrubs; insect, disease and weed management; soils and plant nutrition; vegetable gardening; home fruit production; garden flowers and water conservation. Members also receive a comprehensive Master Gardener manual that is theirs to keep.
At the successful completion of the training program, members begin a volunteer internship. Master Gardeners volunteer 40 hours the first year and 20 hours each subsequent year to maintain their membership. This ongoing volunteering and training is where the Master Gardeners really learn more about plants and the people that grow them.

If you think you might want to be a Master Gardener volunteer, ask yourself these questions:

- Do I want to learn more about growing and caring for many types of plants?
- Am I eager to participate in a practical and intense training program?
- Do I look forward to sharing my knowledge with people in my community?
- Do I have enough time to attend training and to serve as a volunteer?

If you answered yes to these questions, the Master Gardener program could be for you.

Our Master Gardeners can choose from a wide range of volunteer opportunities. Master Gardener volunteers:

- Help diagnose plant, insect, and disease problems.
- Answer gardening questions in the Plant Clinic, at the Onslow County Farmers Market and other events in the community.
- Design and install demonstration gardens in cooperation with Extension.
- Grow and sell plants suitable for Onslow County.
- Provide educational opportunities to other gardeners and the public.

Our next Master Gardener Volunteer Class is scheduled from February 7 through April 3, 2012. Classes meet Tuesday and Thursday mornings from 9 am until noon. Cost for the class is $100 (this includes the cost of the manual). For more information or to request an application, please call 910.455.5873

North Carolina Cooperative Extension Service
North Carolina State University
Onslow County Center
4024 Richlands Hwy.
Jacksonville, NC 28540