

## **May 2016 EnergyWise<sup>SM</sup> Tip: SEERing Summer**

Cooling efficiency of air conditioners and air-source heat pumps is often rated by the Seasonal Energy Efficiency Ratio or “SEER” rating. The SEER rating of a unit is the cooling output during a typical cooling-season divided by total electric energy input during the same period. The higher the unit's SEER rating the more energy efficient it is. Another way to think of it is the lower the unit's SEER rating, the more you will be paying to cool your home.

Typically, older cooling systems will be less efficient than newer models. Much of that has to do with improvements in compressor technologies, variable speed air handlers, and refrigerants. Also, successive federal energy codes have mandated increases in efficiency over recent years. In 1992, central air conditioners and heat pumps were required to have a minimum 10 SEER rating. In 2006, that minimum jumped to 13 SEER. As of January 1, 2015, those requirements went up one more point to 14 SEER.

If you're one of those people who have an air conditioner or heat pump that has outlasted the national average of 15 years, your system is likely rated at less than 13 SEER. Moreover, the Air Conditioner Contractors of America (ACCA) states that most systems degrade about 5 percent per year due to wear, dust collecting on the coils, unbalanced or leaky ducts, etc. In reality, that old unit is probably performing at 10 SEER or less.

So maybe you are wondering if a new unit would provide some “cool” savings this summer. Assuming your current system's efficiency is 10 SEER, this is the percentage of energy you can expect to save depending on the efficiency of your new system:

SEER 14 28%  
SEER 15 35%  
SEER 16 42%  
SEER 17 49%  
SEER 18 56%

If your existing system is in worse shape (8 SEER), the savings are even more impressive:

SEER 14 42%  
SEER 15 49%  
SEER 16 56%  
SEER 17 62%  
SEER 18 69%

Today, new units are available that offer a SEER rating up to 26! So, does all this mean that you should get the air conditioner with the highest SEER possible? Not necessarily. SEER ratings only represent potential efficiency of the system under perfect conditions. Over half of the system's efficiency depends on correct equipment sizing for your home and proper installation. While looking for a system with the EnergyStar® label is a great way to right start, what you really want and need is the right sized equipment operating at its optimal ratings within varying conditions in order to provide optimal comfort and savings.

Your local electric utility and Nebraska Public Power District want to help customers keep their homes and businesses comfortable this summer. That help includes providing EnergyWise<sup>SM</sup>

energy efficiency financial incentives to help with the cost of purchasing and installing a new heat pump system Contact your local utility or visit [www.nppd.com](http://www.nppd.com) to find more details.