

Energy Commandment No. 4: “Thou shalt cool it”



Doug Rye
www.dougrye.com

With summer on the way, it is still important that you make your home more energy efficient. In just a few weeks, the temperature will start rising and attics will become much hotter.

Well, I say, “cool it.” The worst-case scenario for home energy efficiency is to have a roof without shade, inadequate attic insulation and ductwork in the attic. The attic could easily be 140 degrees on a hot summer day. How would you like to sit in that attic and try to make homemade ice cream?

Most likely you would keel over before the ice cream was ready. Now you understand why it is better not to place any part of your cooling system in the attic.

For years I have been teaching this but most still install the cooling system in the worst possible environment.

So, let's look at a solution. If you install a radiant barrier on both the roof rafters and the west or southwest gable end of the attic, you can reduce the 140-degree temperature by about 30 degrees. From a cooling cost standpoint, this is huge. The attic is 30 degrees cooler, the insulation is 30 degrees cooler and the ductwork is 30 degrees cooler. Basically, this radiant barrier is a strong, reinforced aluminum foil and should be installed on the bottom of the rafters.

It comes in 1,000-square-foot rolls. Check with your local home center for availability or call me at 501-653-7931 and I will help you. For new construction, the radiant barrier can simply be a part of the roof decking.

I look forward to writing this column every month.

And I think that you can tell my heart is in it.

Many of you have told me at my seminars, on my radio show and at my office that you have implemented my suggestions and that they work. Actually, I never even think about them not working because they always do.

They always have a payback and once again, they are good investments.

About a week ago, my wife and I were at our favorite sandwich shop to order a toasted turkey sandwich.

A family of four was in line ahead of us. The wife just kept looking at us and finally she just blurted out, “Are you Doug Rye?” To which I replied, “Does that scoundrel owe you money, too?” She grabbed her husband's arm and said, “Honey, Doug Rye is here, right behind us.”

I have to admit that I like it when this happens. He shook my hand and told me that he was so glad that a subcontractor suggested that he order the

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Doug Rye New House video before they started construction. He and his wife watched the video every night for several nights to be sure that their house was built correctly. Actually, his words were, “We did it and it worked.” He then thanked me. Isn't that great?

I was able to help another family, just like I help you with these columns. Now, I was hoping he would offer to buy me a sandwich with the money he saved. Oh well ... I guess I better “cool it.”

Reprinted courtesy of Rural Arkansas magazine and Electric Cooperatives of Arkansas. Doug Rye, a licensed architect living in Saline County, Ark., is the popular host of the “Home Remedies” radio show and a promoter of energy efficiency building. To reach Doug, call him at 501-653-7931.

DOE Receives \$57M Payment

Dakota Gasification Company

(DGC) made a \$57.2-million payment to the U.S. Department of Energy as part of a revenue sharing agreement signed more than 20 years ago. The payment was made based on 2008 revenues.

The payment is the eighth one made under the terms of a revenue-sharing agreement signed when DGC bought the Great Plains Synfuels Plant – a coal gasification plant near Beulah, N.D. This brings the total amount paid to DOE as part of the revenue-sharing agreement to \$379.8 million since the sale of the plant to DGC's parent company – Basin Electric Power Cooperative, Bismarck, N.D.

Basin Electric was selected by DOE in 1988 as the successful bidder for the facility. DGC was formed by Basin Electric to own and operate the gasification plant.

DGC is one of the largest CO2 capture and sequestration projects in the world.

Co-ops Score Rail Victory

In February, the Surface Transportation Board (STB) ruled that freight rates were unlawful and unreasonable for transporting coal to a power plant in Wyoming operated by Basin Electric Power Cooperative, Bismarck, N.D.

In what the STB has called “the single largest reduction in rail rates ever ordered by this agency,” transportation rates charged by BNSF Railway to deliver coal to the Laramie River Station, near Wheatland, Wyo., were ordered to be reduced by about 60 percent. In its ruling, STB said BNSF must provide reparation and rate reductions of an estimated \$345 million to Basin Electric and Western Fuels Association. The Laramie River Station is owned by the Missouri Basin Power Project (MBPP), a group of six consumer-owned electric utilities. Basin Electric is the operating agent of the plant on behalf of the MBPP.

In October 2004, Basin Electric and Western Fuels Association filed a protest with the STB claiming transportation

rates were higher than those charged to other utilities and were “captive” to whatever rate BNSF set because there wasn't any other option to deliver fuel to the power plant.

Commenting on behalf of the MBPP, Ron Harper, Basin Electric CEO and general manager, agreed with the STB board chairman, Charles Nottingham, in the decision announcement. “Monopoly pricing and unrealistic pricing is not fair to our rural electric customers in nine states. We've felt all along that the freight rates charged were excessive,” he said. “We have no other means of getting coal delivered to Laramie River because we are a captive customer to whatever rates BNSF wants to set. While a long time coming, we're very pleased with the STB decision. It's obvious the STB spent a lot of time and analysis before ruling on this case.”

STB also ordered BNSF to immediately lower its current transportation rates to levels prescribed in this decision and keep those rates at that level through 2024.

Youth News

Aberdeen Students Capture State Science Bowl Title

Aberdeen Central High School Team won the 16th Annual South Dakota Regional Science Bowl Saturday, Feb. 28, 2009, at the Huron Event Center, Huron, S.D. earning the opportunity to compete at the U.S. Department of Energy's National Science Bowl in Washington, D.C., April 30 through May 5, 2009

Since the program began in 1991, the National event has brought together more than 60,000 high school mathematics and science students from across the country. The contest tests knowledge in astronomy, biology, chemistry, math, physics and earth, computer and general science.

Members of the Aberdeen Central High School team are Jed Dumire, David Jarman, David Peck, Dane Rasmussen and Eric Swain. Their coaches are Jan Palmer and Charles Hermansen.

Twenty-eight teams from high schools through-

out South Dakota competed in this year's event.

Second place went to members of the Greater Sioux Falls Home School Association team, the Hill City High School team captured third place and fourth place honors went to the team from Brookings High School.

In January, a team from St. Paul (Minnesota) Central High School emerged from a field of 27 teams representing 14 schools to become the 15th Minnesota team to qualify for the national bowl.

Electric cooperatives in both states were sponsors of the state science bowls.



Photo Courtesy Western Area Power Administration

The Aberdeen Central team poses with their first place trophy. Pictured, from left, are Coach Jan Palmer, Eric Swain, David Peck, Dane Rasmussen, Coach Charles Hermansen and Jed Dumire.