



John and Penny Milazzo relax on their back porch in front of a bay of windows that fills their home with light, but remain energy efficient with low-E glass and reflective solar screens.

If ‘Energy Stars’ Were People

Husband and wife John and Penny Milazzo have bought, lived in and also custom-built too many houses to mention. And while those houses have been located in every region of the United States—reaching from Florida to New Mexico and points in between, there has been one constant characteristic to those houses, at least while the Milazzos owned them, and that is an extremely low electric bill. The homes the Milazzos have owned in Lindale are no exception.

John and Penny Milazzo first bought a home in Stallion Lake Ranch in 2004 and occupied it seasonally for a while. They treated that home like all the others before it, by first changing all of the lightbulbs to fluorescents. John says this move is just a no-brainer because they are so much more efficient than conventional bulbs. Other practices they have always implemented include installing programmable thermostats, insulating garage doors, installing mini blinds and putting ceiling fans in every room, even in

the garage. John really recommends fans, saying, “They are not that expensive for anybody to install and are always a good investment.” It seems John knows his stuff.

Ceiling fans do bring enormous benefits in energy savings when used properly. They generally use the same amount of energy as a 100-watt lightbulb and can be used in both summer and winter to reap energy-saving benefits. A fan running clockwise in the winter pushes warm air down into a room and helps lower heating costs by recircu-

lating that warm air. In the summer, running counterclockwise, fans create a breeze in the room. While not necessarily cooling the room, they do make the room feel cooler, reducing reliance on air conditioning.

Beyond ceiling fans, when the Milazzos decided to build a new custom home from the ground up, John said, “My very first consideration was saving power.” And he says one of the first ways he thought of doing that was to insulate well. “We blew insulation in by the ton. We had our builder, Mike Nance, foam insulate everything you can see,” he said. There is also open-cell foam insulation throughout the house, and even the garage has a foam-insulated ceiling and walls covered with Masonite. Also, all interior walls of the house are insulated with fiberglass.

The Milazzos had the builder install a titanium synthetic roof wrap instead of the standard tarpaper that usually serves as the foundation for shingles. This wrap is an air, water and vapor barrier offering much greater efficiencies over standard roof coverings. Another energy saver they used was flashing behind the brick to act as a radiant barrier.

Rather counterintuitive and usually counter to energy efficiency, the Milazzos’ house is filled with many windows, including a bay of soaring windows in the main living room. To have that and retain energy efficiency, the Milazzos installed what he calls, “The best and most energy-efficient windows possible,” which are vinyl with low-E glass, tinted, and then filled with argon. The windowsills have flash panning. He said that although he may have paid just a bit more for the windows, over the life of the house they will more than make up for the cost through energy savings.

Windows were one of the most important features to both of the Milazzos when designing their home. They like having a lot of natural light, and they achieved that and more with several skylights and windows in some very unusual places. For example, there is a transom window in their master closet that lets in light from another exterior window. And there are planned windows and skylights in places like the stairwell leading to the bonus room above the garage. In addition to buying extremely energy-efficient windows and skylights, the Milazzos went the extra step with solar or insulated shades on every window. The shades serve to radiate heat back out, while letting in light. And in the case of the solar blinds, they almost act like sunglasses for the windows, allowing a very clear view out while blocking the heat and letting the light stream in.

When equipping their home with appliances, the Milazzos only considered Energy Star-

rated products. And what’s really amazing is that their home is outfitted with three air-conditioning units, including one 16.5-SEER and two 19-SEER units, but their 12-month average electric bill is only \$94.42 a month. And that is with an extremely harsh winter and the record-breaking, consecutive 100-plus-degree days of summer 2011.

One thing that does help keep the electric bill low is that the Milazzos use gas for heating, and also have a gas clothes dryer, stovetop and fireplace, along with gas fire logs. But even then, their propane bill is extremely conservative for the size of their house and the comfort level. John says, “We don’t skimp on electric, and we don’t live in the corner and sit in the dark.” His and Penny’s methods have always been to install sensible energy-conservation methods while ensuring comfort. With that methodology, it may cost a little more money up front, but they enjoy the continuous benefits of comfort and low bills.

For example, there are only fluorescent lights and compact fluorescent lightbulbs used in the Milazzo home. Also, if you walk into a closet or pantry, those lights are automatic, turning on when the door opens, and turning off when the door shuts. There is also foam sealant behind every outlet or light switch to stop air infiltration or escape. Those may be little things, but those touches throughout make a big difference collectively.

The Milazzos say they have lived in their share of rural properties and areas where harsh weather events can cause power outages, so having their own backup power has always been important to them. To that end, John has installed a backup power receptacle to plug in his tractor-driven backup generator. Their generator is 25 kilowatts, which John proudly states will run his whole house whenever needed.

The Milazzos are a pretty remarkable couple, having lived a “green” lifestyle in many different areas of the U.S. They have also had too many electricity providers to count, but Penny goes on the record with her preference, saying, “I like electric co-ops. I think they are phenomenal.”

While we at the cooperative humbly agree with Penny, we

also take our hats off to both the Milazzos for their efficient ways and their willingness to share their lessons with other cooperative members. As they’ve shown, with a thoughtful approach to energy efficiency, whether making small changes to an existing home, or building from the ground up, wise choices can make a difference every single month when the electricity bill comes. John and Penny Milazzo, energy stars that they are, have been members of Wood County Electric Cooperative since 2004.

The attic of the Milazzo home, even on the 105-degree day when this picture was taken, remains cool and comfortable because of the foam insulation, as well as other energy-efficient methods.



WCEC Names Distributed Generation Liaison

Back in 2009, Wood County Electric Cooperative (WCEC) paved the way for members to participate in distributed generation (DG). DG is the process in which a member independently purchases equipment to generate electricity. DG systems can include solar systems, wind turbines, hydro turbines and geothermal installations to produce electricity. In East Texas and the WCEC service territory, solar (photovoltaic) and wind turbine systems are most commonly used.

These DG systems can be interconnected to WCEC's system after the co-op completes a standard safety and quality inspection. The member may then use the electricity gener-

WCEC has seen increased interest from those thinking of installing their own generation systems. Because of this, the cooperative has designated a specific person to contact: Brian A. Morgan. Brian joined WCEC in 2010 as a system engineer. He is an engineer licensed by the State of Texas with a Bachelor of Science in engineering technology from Texas A&M University, and a Master of Business Administration from the University of Dallas. Before joining WCEC, Brian gained experience with another electric cooperative, and he also worked several years in the telecommunications industry.

Brian's main responsibilities at WCEC include assisting in the general design and maintenance of the cooperative's distribution system, working to help manage construction projects and conducting various studies to ensure optimum system performance. Throughout his career, Brian has taken courses related to electrical engineering, physics and emerging technologies. He is a Certified Energy Manager with a primary interest in using the best available technology for the efficient use and generation of electricity with clean and sustainable resources. Because of his expertise, Brian is a perfect fit to serve as WCEC's member liaison for DG and work with members who wish to install their own small-scale power generation technologies.

Members interested in installing their own WCEC interconnected system should begin by determining the amount of electricity they'd like to produce each month and then review the capabilities of the various systems, along with the costs of those systems. For systems of 25 kilowatts or less, members should familiarize themselves with the Customer Generation Manual that can be downloaded from www.wcec.org. Because DG can affect the safety and reliability of the distribution system, WCEC has developed technical interconnection requirements to mitigate any issues while ensuring that federal and state codes are met.

To gain the largest economic advantage, a member should design the size of their DG unit to make use of as much of the electricity they produce as possible, therefore avoiding buying electricity at the retail rate of 0.09267 cents per kilowatt-hour (kWh). Members will be paid for the energy that they put on WCEC's system and they will pay a \$7 administration fee for this to be tracked, calculated and for a check to be generated. They'll be paid 0.0582 cents per kWh, the same price WCEC pays for power purchased from wholesale providers.

Once a member has identified a system to possibly purchase, WCEC recommends that before purchasing, they should contact Brian for an initial review and some guidance. Brian enjoys working with members to provide the information required to interconnect a DG installation to the WCEC system and help them choose solutions they will be most happy with based on their desired outcome.



Brian Morgan, left, congratulates WCEC member Dale Fisher on the successful installation of his solar system as Larry Sandifer, WCEC foreman and power quality technician, looks on. Fisher's new 4.83-kilowatt Solar PV System is grid-tied to WCEC's distribution lines. Fisher's system employs an auto-disconnect upon recognition of WCEC system power loss. This is a UL 1741 standard safety feature for inverters, meant to prevent voltage backfeed to WCEC's grid to keep WCEC personnel safe during outage recoveries.

ated or sell any excess power to WCEC for use elsewhere on the system. A popular reason many think about adopting their own DG system is that these systems are typically environmentally friendly and utilize natural resources while supplementing the power that a member uses.

REMINDER



WOOD COUNTY ELECTRIC COOPERATIVE

73RD ANNUAL MEETING



FRIDAY, OCTOBER 7, 2011

Governor Jim Hogg City Park • Quitman
 Entertainment 12:30 p.m. • Meeting 2 p.m.



Lots of prizes, including an HD flat-screen TV grand prize!



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There's Still Time for Energy Tax Credits

If you need new windows, roofing or air conditioning, try to buy them before the end of 2011. That's when the federal government's tax credits for energy-efficient home improvements will expire.

Bigger, better tax credits for insulation, roofs, doors, windows, heating/air conditioning and water heaters—up to \$1,500—expired at the end of 2010. But the government extended smaller tax credits through this year.

They include a credit for 10 percent of the cost, up to \$500, for biomass stoves; heating, ventilating and A/C; insulation; metal and asphalt roofs; nonsolar water heaters; and windows and doors.

Through 2016, you can take a credit of 30 percent of the cost with no limit for geothermal heat pumps; small, residential wind turbines; and solar energy systems.

You'll need to have the product installed by December 31 to claim the credit on your 2011 taxes.

For more details, visit www.energystar.gov.

Don't Let Hazards Haunt Halloween!

Halloween is the most festively frightening night of the year. Here are some safety reminders to help keep yours free of danger:

- As you're decorating, make sure to check for cracked sockets, frayed, loose or bare wires and loose connections.
- Fasten all outdoor lights securely to trees and other firm supports. Do not use nails or tacks that could puncture insulating cords and damage wires.
- Make sure decorative lighting is well ventilated, protected from weather and a safe distance from anything flammable, such as dry leaves and shrubs. Do not coil extension cords while in use or tuck them under rugs or drapes.
- Make sure all outdoor electrical lights and decorations are plugged into an outlet protected with a ground-fault circuit interrupter (GFCI). If your outlets aren't equipped with GFCIs, have an electrician install them or buy a GFCI adapter plug. Don't overload outlets with too many extension cords and strands of lights.
- Keep power cords off walkways and porches that trick-or-treaters might use. You don't want them to trip.
- Leave the porch light on for trick-or-treaters, and be sure to turn off all spooky lights and decorations before leaving home or going to bed. This will also save energy.

For more tips visit www.safeelectricity.org.

Source: *Electric Consumer*