



Build or Save?

BY SHIRLEY DUKES

If you have your most recent electric bill handy, take a look at the bottom line. Most likely it's a scary number compared with what your bill was several years ago. And it could continue to grow if the challenges of increasing electricity demand, coupled with lagging growth in supply and climate-change legislation, are not met with solutions that keep ratepayers in mind.

According to the U.S. Department of Energy, demand for electricity nationally will increase by 40 percent during the next 22 years. Industry worldwide is growing by leaps and bounds, and as the industrial sector expands, so does the consumption of our natural resources. By 2025, world electricity consumption is projected to be 57 percent higher than 2002 levels.

The Electric Reliability Council of Texas (ERCOT) grid handles 85 percent of Texas' electricity load. ERCOT's goal is to keep a reserve power production capability in Texas of 12.5 percent. As a result of the state's sustained growth, industry experts had predicted that the generation reserve margin

would fall to about 10 percent by 2012. However, as of April 16, the Public Utility Commission (PUC) has expanded on that, saying that ERCOT reserve margins have improved to about 13 percent for the next three to five years. This improvement is attributable to three new coal plants coming on line. Even still, the state continues to experience a 2 percent growth in demand for electricity, and PUC's spokesman noted that, "a serious gap will continue to develop between available generation and demand, especially with older units retiring."

The way I see it, we have three options: 1) build more power plants; 2) use less power; or 3) both.

BUILDING NEW POWER PLANTS

Right now, attention is focused worldwide on climate change and the resulting economic and environmental implications. Coal-fired power plants are being blamed for a whopping 39 percent of the nation's carbon emissions, according to the Natural Resources Defense Council. Whether

this figure is correct is still being debated, but because of this allegation, construction of new plants is being challenged globally, making it increasingly difficult to attain the necessary backing to put new plants into operation. And it is not just the United States facing this challenge. All across the world, countries are faced with the same shortage of generated power

that we in the U.S. face. China, India, Brazil and others have shown a huge growth in their industrial sector, just as we have. Industry demands lots of power. And as the industry in each of these growing countries increases, so does consumption of all of our natural resources. As consumption worldwide increases, the market for energy tightens, and prices rise accordingly.

The Wall Street Journal reported in February that, "China is doing for coal what it once did for oil, pushing prices to new heights, adding more pressure to the creaking global economy."

Even as the debate continues over the connection between power plants and climate change, Congress is debating laws to limit carbon emissions, and advocacy groups are going to court to curtail the construction of new coal-fired power plants.

Until a decision is made as to how carbon emissions will be controlled, it will most likely continue to be a time-consuming and difficult process to get the necessary backing and permits to begin construction of any new plant. In the meantime, consumption continues to rise, and our reserves continue to fall at alarming rates. And if new plants are built, they will be extremely costly. As consumers of that power, we will have to share in the costs.

This leads us to our second option.

USE LESS POWER

As the debate continues over the construction of new power plants, and as consumption continues to rise, brownouts and blackouts become a possibility across the nation. Here in rural Texas, we tend to think that because of how small we are we couldn't possibly have much impact on the growing consumption of electric power. Rest assured, what little we do here does have an

TABLE 1: Annual Energy Savings for ENERGY STAR Qualified CFLs

| Incandescent Wattage | Replacement CFL Wattage | Savings/Year (3 hrs/day) | Savings/Year (4 hrs/day) |
|----------------------|-------------------------|--------------------------|--------------------------|
| 100 W | 32 W | 74 kWh | 99 kWh |
| 100 W | 25 W | 82 kWh | 110 kWh |
| 100 W | 23 W | 84 kWh | 112 kWh |
| 75 W | 25 W | 56 kWh | 73 kWh |
| 75 W | 20 W | 50 kWh | 80 kWh |
| 60 W | 15 W | 49 kWh | 66 kWh |
| 60 W | 13 W | 51 kWh | 68 kWh |
| 40 W | 9 W | 34 kWh | 45 kWh |

Note: The 13-Watt CFL is the most popular among consumers.

COMANCHE ELECTRIC COOPERATIVE

TABLE 2: Dollar Savings for ENERGY STAR Qualified CFLs

| Incandescent Wattage | Replacement CFL Wattage | Savings/Year (3 hrs/day) | Savings/Year (4 hrs/day) | Lifetime (6,000 hours) | Lifetime (8,000 hrs) |
|----------------------|-------------------------|--------------------------|--------------------------|------------------------|----------------------|
| 100 W | 32 W | \$7.45 | \$9.93 | \$40.80 | \$54.40 |
| 100 W | 25 W | \$8.21 | \$10.95 | \$45.00 | \$60.00 |
| 100 W | 23 W | \$8.43 | \$11.24 | \$46.20 | \$61.50 |
| 75 W | 25 W | \$5.48 | \$7.30 | \$30.00 | \$40.00 |
| 75 W | 20 W | \$6.02 | \$8.03 | \$33.00 | \$44.00 |
| 60 W | 15 W | \$4.93 | \$6.57 | \$27.00 | \$36.00 |
| 60 W | 13 W | \$5.15 | \$6.86 | \$28.20 | \$37.60 |
| 40 W | 9 W | \$3.39 | \$4.53 | \$18.60 | \$24.80 |

Note: The 13-Watt CFL is the most popular among consumers.

TABLE 3: Cost Effectiveness of ENERGY STAR Qualified CFLs

| CFL Wattage | Investment (cost of CFL) | Annual Savings (3 hours/day) | Simple Payback | Internal Rate of Return |
|-------------|--------------------------|------------------------------|----------------|-------------------------|
| 9 | \$5 | \$3.46 | 1.45 years | 78% |
| 13 | \$4 | \$5.24 | 0.76 years | 143% |
| 25 | \$6 | \$8.37 | 0.72 years | 148% |

TABLE 4: ENERGY STAR Lifetime Claims Chart

| ENERGY STAR Qualified CFL—Rated Lifetime (hours) | Residential Use—Number of Years Claims (based on 3 hours/day) |
|--|---|
| 6,000 | 5 years |
| 8,000 | 7 years |
| 10,000 | 9 years |
| 12,000 | 11 years |
| 15,000 | 13 years |

impact, both on the national consumption of electricity and on the bottom line on our electric bills.

Some experts say that if Texas consumers reduced their peak usage by just 10 percent, they would save 7,000 megawatts of generating capacity, the output of multiple power plants.

But how do we as individuals do that without compromising our already stretched budgets? One inexpensive and simple start is to change our light bulbs. Compact fluorescent light bulbs (CFLs) have certainly found their way into the spotlight in recent months. The biggest reason for this is

legislation. Congress recently approved a new energy law that will phase incandescent bulbs out of the U.S. market beginning in 2012. At that time, we will no longer have the option of which bulb we will use. But right now, we do, and there is a very good reason why we should opt for CFLs.

If you have priced these bulbs, you know that they are more expensive than incandescents, but there are other facts that need to be taken into account. For instance, CFL bulbs will last up to 10 times longer than incandescent bulbs. You may pay more up front for the purchase of the bulb, but

you should not have to replace it for approximately five years. And it will consume 75 percent less power than the incandescent.

Changing out just 10 of these bulbs will save you about \$44 per year—\$398 over the expected lifetime of the bulbs. I would say that makes the initial cost bearable, and if you spread out the costs by replacing your incandescent bulbs as they burn out, you probably will not even realize the difference in cost. The charts provided by the National Rural Electric Cooperative Association should give you an idea of the benefits of CFLs over incandescent bulbs.

This is just one of the many ways you can cut back on energy consumption and, ultimately, the bottom line on that monthly bill. We will discuss other options each month in this section of *Texas Co-op Power*.

BOTH

There is no doubt we are going to have to implement both of these options to keep our country and our lives on track. If we all conserve on a personal level, we can have an effect on usage at the global level. We need to do our part to help decrease the need for new generating plants. As new power plants are constructed, we as consumers of that power will pay the price. The cheapest power plant to construct and maintain continues to be the one we don't have to build.

Comanche Electric Cooperative has made a commitment to help you become more informed concerning energy conservation in an effort to curtail usage and hopefully cut back on the number of plants built. Check these pages each month as we present new ideas and information concerning energy conservation.

If you would like to speak with a representative of Comanche Electric Cooperative concerning ways to make your home more energy efficient, or if you would like a free, in-home energy audit conducted by a Member Service representative, contact the Member Service department at (325) 356-2533 or 1-800-915-2533 or memberservices@ceca.coop.

Progress Rolls into Town

BY SHIRLEY DUKES

The year was 1889. The Johnstown Flood took the lives of 2,209 people in Pennsylvania; George Eastman placed the Kodak camera on sale for the first time; the New York Giants beat Brooklyn in the World Series; and a group of 10 men decided Comanche, Texas, needed a railway station.

Strange as it may seem, the Fort Worth and Rio Grande Railway from Fort Worth to Brownwood probably would not have come into being had it not been for a lawsuit. Somewhere around the spring of 1877, Capt. B.B. Paddock of Fort Worth became involved in a lawsuit in Brownwood. What the suit was about is a mystery to me, but since Paddock was an attorney at the time it is a great possibility that he was defending someone in Brown County. What the suit was about is not important, but one of the results of that suit made a lasting imprint on this part of the country.

Having to travel that route consistently on horseback became such a burden to Paddock that he began giving much thought to the need of a railway line through this untamed territory.

In 1880, Paddock made a first (unsuccessful) attempt at procuring building funds for the project. Not to be deterred, another unsuccessful attempt was made in 1882 or 1883. Success was finally achieved in 1885. On June 1, 1885, a charter was obtained for a standard gauge railroad, to be called the Fort Worth and Rio Grande Railway, the first rail lines to be built from Fort Worth to Brownwood.

In those days, the success of a town could often be determined by the absence or presence of a railroad. With the arrival of a rail line, it became more convenient to ship goods, such as farm products and cattle, in and out of town. The railroad also offered a mode of transportation between stops. A group of 10 citizens from Comanche recognized the importance of the rail line possibly running through their town and petitioned the railroad to pass

through Comanche. The Fort Worth and Rio Grande Railroad agreed to bring its train to Comanche if the town would acquire rights-of-way from the county line coming from Dublin to the county line toward Brownwood. These men agreed to this, plus they gave the railroad company property for the depot and loading docks. What a boon this coming railroad would be to Comanche and its citizens! At that time, it was imperative that a town have a railroad to be prosperous, and the prospect of a railroad coming through town gave the citizens great cause for celebration.

But the celebration was short-lived.

Passage of a bond was not enough. Although a contract had been signed in 1885 to build the railway through Comanche for a sum of \$20,000, Paddock, after conducting a survey south of town, decided that a more appropriate route would be through Cox's Gap a few miles south of Comanche. At this time, that group of 10 men with enough foresight, gumption and determination decided that the railway was an essential element for the town if it was going to survive. They knew that if it were to become a reality, they were going to have to fight for it.

During preliminary negotiations, many individuals and families prom-



FROM TOP: The Frisco Depot as it looked in 1912. The Frisco Depot as it looks today. The artist's rendering of the depot at its completion, which is projected to coincide with the depot's 100th birthday in 2012.



ised the donation of rights-of-way to secure the railroad. But when it came time to make good on their promises, few of those people actually delivered, and the procurement of rights-of-way wound up costing about \$8,000 more than what was on hand.

Having made up their minds that Comanche would not survive without the railroad, these men put their money where their mouths were. Eight of those original 10 took it upon themselves to personally borrow the money—a substantial amount at that time—from the First National Bank and the Comanche National Bank. Those men were: J.W. Greene, L.B. Russell, T.C. Hill, T.R. Hill, G.A. Bee-man, W.B. Cunningham, N.R. Lindsey and J.D. Campbell.

In October 1890, amid much fanfare and hoopla, the first train pulled into the Comanche County Depot. A headline from *The Comanche Chief* read “World Market Now at Doors of Local Folks.” This date in county history could possibly be the most important one recorded when it came to Comanche County’s future.

Without this much-needed mode of transportation, Comanche probably would have dwindled away to nothing, like so many of the other small towns not fortunate enough to have a railway. Now, Comanche could compete with the rest of the world in the cattle market and the trade of dry goods, foods and eventually peanut crops. Then there was the huge boon the town was to enjoy from travelers visiting or passing through. It had a profound effect on farmers because the proximity of a railroad helped determine what land could make a profit by cultivation. In other words, the land near a railroad hub would be profitable because those crops had a way to reach market.

It is unclear what was used as a train station at this time. It could have been just a stop in the road or a platform to help with loading and unloading. But most likely there was some type of small structure placed there for convenience and shelter. The depot that stands today was built in 1912 by the Frisco System, which bought out

the Rio Grande Railroad in 1910, thus earning the name of Frisco Depot.

And a beautiful depot it was. The Frisco Line spared no expense when it came to quality construction. Built of red brick, with a red-tile terra-cotta roof and a brick herringbone walk on the south side, the Frisco Depot in Comanche was one of the finest of its era, complete with electric lights. According to railroad records, stock pens and indoor plumbing were added in 1931.

The dream of those original men to bring a railway through town, to keep the town alive, was not wasted. Within 30 years after the railroad came, the town’s population was almost double what it is today. The depot became the hub of activity, with people and goods coming and going on a regular basis. Business boomed and the town flourished. A telegraph was housed within the depot, where one could go to exchange news with relatives and friends from afar. It was from this depot that Comanche would hear a wide range of breaking news, such as the end of a war or the results of an out-of-town football game.

Today, the Frisco Depot still sits at the edge of the tracks in an amazingly unaltered state. It has been placed on Preservation Texas’ list of Texas’ Most Endangered Historic Places and has been determined eligible by the Texas Historic Commission for the National Register of Historic Places. Although it needs restoration, the depot is still a beautiful site. And thanks to another group of dedicated citizens, much like the original 10 who had a vision, plans are being made to rehabilitate the building. The crumbling roof has been repaired, and work has begun to revitalize the building’s interior to house the local Chamber of Commerce and Agriculture, a visitors bureau and a small Comanche Railroad Museum.

The goal is to have the project completed by 2012, the depot’s 100th birthday. For more information on the city of Comanche or the Depot Restoration project, log on to www.comanchecelebrates.org or e-mail comms@htcomp.net.



COMANCHE ELECTRIC COOPERATIVE

HEADQUARTERS

201 W. Wright St.
Comanche, TX 76442
(325) 356-2533
1-800-915-2533

EASTLAND OFFICE

1311 W. Main St.
Eastland, TX 76448
(254) 629-3358
1-800-915-3358

EARLY OFFICE

1801 CR 338
Early, TX 76801
(325) 641-1111
1-800-915-2533

OFFICE HOURS

7:30 a.m. to 4:30 p.m.
Monday through Friday

FIND US ON THE WEB AT WWW.CECA.COOP

YOUR “LOCAL PAGES”

This section of *Texas Co-op Power* is produced by Comanche EC each month to provide you with information about current events, special programs and other activities of the cooperative. If you have any comments or suggestions, please contact Shirley at the Comanche office or at sdukes@ceca.coop.

COMANCHE ELECTRIC COOPERATIVE



Your Touchstone Energy® Cooperative