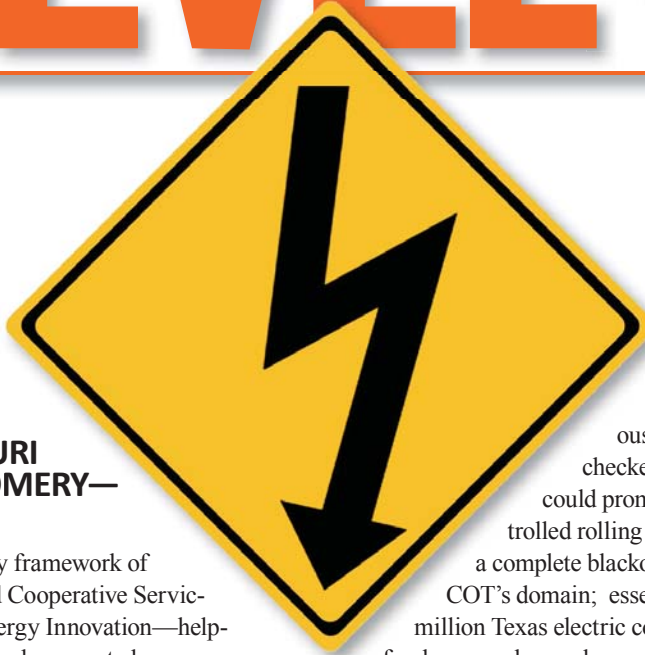




POWER TALK

LEVEL 3



—By MAURI MONTGOMERY—

The very framework of United Cooperative Services' Energy Innovation—helping members waste less energy—was born on the cusp of fears the co-op has for the last five years expressed to its members about Texas' diminishing power resources, and the increasing cost volatility of the entire energy market. Those fears became a bit more apocalyptic when the Electric Reliability Council of Texas (ERCOT) determined in February the state's grid was close to cardiac arrest. Shortly after a brutal arctic weather front blanketed the state last month, the agency sounded a dire, urgent alarm to electric utilities and media outlets that safe operating margins for Texas'

electric generation supply were nearing a critical mass—a precarious state that, left unchecked and unheeded, could prompt a wave of uncontrolled rolling blackouts, or even a complete blackout throughout ERCOT's domain; essentially rendering 22 million Texas electric consumers powerless for days, maybe weeks.

ERCOT, which supervises 85 percent of the state's daily electric load, put into action its contingencies for evaluating and safeguarding the grid's electric traffic on a February day when temperatures peaked at 18 degrees in Dallas—30 degrees below normal—and which went on record as the area's coldest temperature extreme in 15 years. Such safety protocols are especially essential during cyclical season peak usage periods often driven by extreme weather events and they

Please see LEVEL 3, PAGE 2

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UNITED DOES ITS PART TO HELP ALLEVIATE ERCOT EMERGENCY, CONTINUED PAGE 2

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RATE WATCH COMPARES UNITED RATES TO OTHER PROVIDERS, PAGE 11

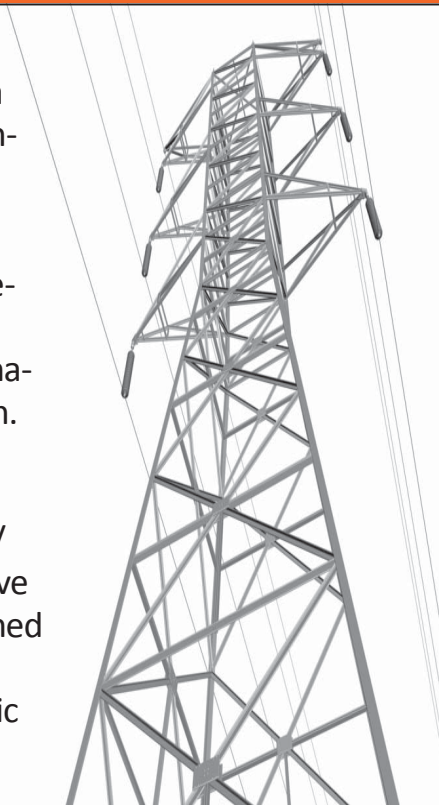
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ERCOT RELIABILITY WARNING LEVELS

LEVEL 1 — Appeal to media outlets to advise need for conservation and preparedness among consumers.

LEVEL 2 — Media outlets receive updated status reports on grid, with continued emphasis for consumer conservation. ERCOT requests engagement of Loads Acting as Resources (LAARs), large commercial/manufacturing plants that have guaranteed the capability to shed large volumes of electric load quickly in exchange for electric power rate concessions.

LEVEL 3 — ERCOT requests all power providers on the grid to shed load within the hour through a series of controlled, temporary and rotating power interruptions (outages).



by the numbers

- Combined, United shed a total of 321 MW during the event, which accounts for about 60 percent of its load.
- 47,150 meters were involved in the load curtailment, which is about 63 percent of the cooperative's meters.
- Average outage time per meter was 23.5 minutes
- United performed 89 different controlled outages throughout the event.
- United set a record system peak—533 MW during the event.

LEVEL 3 continued from PAGE 1

are the grid operator's guard against system failures such as peak events can cause.

However, after frigid temperatures and widespread icing blitzed into the state the first week of February, ERCOT and the electric consumers it protects, received another reminder that the state's fragile generation resources are stretched more thinly now than at any other time in history. In effect, it doesn't take very many straws to break the camel's back these days. Construction commitments for new generation resources are still lagging behind rising electric demand stemming from Texas's immense population and commerce growth. The disparity leaves ERCOT with less ma-

neuvering room and thus increases the risk of grid dysfunction.

In this particular instance, Texas roads, painted with thick ice, caused massive school and business closures. Sub-freezing temperatures drew greater electricity demand from thousands of consumers left idled at home because of the shutdowns in routine work and school days. And when you further consider that there were mechanical failures of more than 50 electric power generation plants (losses equivalent to 7,000 MW), and subsequent offline trips of other generators that each contributed to the day's grid stress, you can better understand ERCOT's Level 3 warning at 5:45 a.m. on Feb. 2 that demand for electricity was close to surpassing the grid's ability to provide it if the agency was to

sustain a reserve capacity safety net.

Under a Level 3 advisory, affiliated power generation system operators and the distribution utilities they serve are not only mandated by ERCOT to shed load incrementally throughout their systems, but they are requested to begin that process within the hour. United Cooperative Services began to institute controlled outages on a rotational basis across circuits in its distribution system shortly after the ERCOT request was received early on the morning of Feb. 2. These outages lasted no longer than 25 minutes, with the majority falling below that level. Overall, the cooperative shed varying amounts of load that ranged from 7 to 30 megawatts intermittently throughout an 8-hour period before ERCOT suspended the emergency event at 2 p.m. that day.

Beyond the immediate ERCOT emergency, electric utilities like United were also answering outage calls that were not part of the controlled, temporary interruptions. Though United's system exposure to those incidental weather-related outages was light

compared to other areas, the cooperative's operations crews responded to approximately 6 outages that affected 100 members at the height of those outage reports.

Still, United's underlying culture is one that invites constant scrutiny of its day-to-

day operations, and its readiness to meet every member's needs in every possible situation. With such appraisal, the cooperative determined some improvements could be made in the extra consideration United gives already to the special needs of its critical care accounts. As a result, a letter (shown at left) was sent to those special needs members following the February emergency.

Another unfortunate byproduct of the Feb. 2 event was an example of simple supply and demand economics. During certain intervals, the price for a megawatt-hour of electricity topped out at \$3,000/MWh, according to ERCOT CEO Trip Doggett. The price is typically less than \$100/MWh this time of year, he said.

"When that kind of market activity exists, even if its only for one or two 15-minute intervals, we consumers shoulder the brunt of it," said United CEO Ray Beavers. "Generators selling into the market are able to capitalize on this type of event at our expense," he added.

As a distributor of electricity, United relies on its nonprofit generation and transmission (G&T) provider, Brazos Electric Cooperative, to provide the electricity delivered to every United member home and business. Brazos has a stable of generating facilities to manage a large percentage of its obligations, but it also purchases some of the required electricity on the wholesale market. The G&T utilizes a conservative, reduced-risk approach to its market purchases by buying the bulk of its market needs in forward contracts. This helps to protect members from most of the market volatility that occurs when demand outpaces supply.

The bottom line here is that long after February's events have passed, United will have already been preparing for the next event—learning from every experience, refining its ability to surpass member expectations for service reliability at the lowest possible costs, and providing the best service value possible in an environment that the cooperative can't always control.

Dear United Member:

As a member-focused electric cooperative, United Cooperative Services strives to provide the highest quality electric service at all times. It's our core mission and one every single United employee approaches with the utmost commitment. The recurring theme within this electric cooperative is that United employees "Look Out For the Members' Best Interests." That is the reason we reach out to you today.

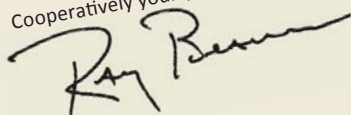
The cooperative's employees, electric distribution system (poles, lines, transformers etc.) and technology (automated outage notification, for example) offer the ability to achieve our core mission. Many times, however, events occur that present challenges beyond our control or the capability of our advanced technology. As I'm sure you're aware, we were recently confronted by such a challenge when the extremely frigid temperatures, compounded by multiple power plants shutting down, created a need by the state's electric system operator (ERCOT) to mandate utilities conduct rotating outages. This extraordinary emergency event was never before experienced by our state's industry and one that was beyond the control of United Cooperative Services.

As a result, we wish to ensure our members are aware that emergency events are out of our control—such as the one recently called by ERCOT, an ice storm or tornado, or even a truck colliding with a utility pole—and that such events could occur at any moment. Because of this potential, we urge members who require critical care, medical attention and/or life support equipment, to have a contingency plan that includes back-up generation or a safe haven in which to evacuate. Uninterruptible electric service is always our goal, but one that is impossible to guarantee due to events that are out of our control.

In keeping with our mission to provide the highest quality electric service, we also have an enduring commitment to improve. One of those improvements will be implemented in the coming months and involves our telecommunications technology. This advancement will contain a feature that allows United to distribute a recorded notice when events occur (or will occur) in which we have reasonable forewarning. However, unforeseen events that are out of our control could take place without any warning, so we encourage members to put into place their contingency plans.

We value your safety and hope you will take precautionary measures so that you're prepared in the event we encounter an emergency situation.

Cooperatively yours,



Ray Beavers, CEO
United Cooperative Services

RENEW- ABLE ENERGY and UNITED



—By MARTY HAUGHT—

To

say the nation has a lot riding on renewable and alternative energy sources to meet escalating domestic energy demand would be a gross understatement. There are many arguments for and against various sectors of the renewable energy sector. One thing is certain, at least from United Cooperative Services' perspective—the state and nation will rely heavily on all types of electricity generation. And with the country's seemingly insatiable appetite for energy, there's a growing sentiment that renewable energy should and will play a more significant role

than in the past in meeting future demand for electric power—especially as technologies evolve to allow for more efficient generation capacities. But even though renewable energy eases mounting legislative pressures to mitigate carbon dioxide emissions from power plants that use fossil fuels, such as coal and natural gas, to create electricity, the environment-friendly resource still faces hurdles in proving itself as a reliable power generating solution.

“When you look at the demand forecasts of our nation, it's clear that we're going to have to meet them with a range of solutions, including energy efficiency and conservation, but also with a stable of efficient, affordable generating capabilities,” United CEO Ray Beavers said during a recent presentation to the Johnson County Leadership Forum. “While we don't consider renewable energy technologies to be the ‘silver bullet’ to solve our domestic energy needs, they will become more essential within our nation's generation portfolio,” he said.

Renewable energy has already carved out a convincing niche in the nation's unofficial energy capital, Texas. On a national level, renewable energy accounts for a little more than 10 percent of the country's electric generating capacity with wind generation accounting for about 2 percent of the total renewable portfolio, according to the Energy Information Administration (EIA). By contrast, Texas wind generation accounts for more than 8 percent of the generating capacity within the Electric Reliability Council of Texas (ERCOT) market (ERCOT is the independent system operator of the electric generation and transmission grid serving the majority of Texas).

Because of the potential for greater wind production in the Texas panhandle (see map page 5), wind will certainly play a greater role in the future. Of nearly 200 generation interconnection requests ERCOT currently tracks—comprising close to 65,000 MW—wind generation accounts for nearly 38,000 MW. While that ratio could lead one

to presume that all new generation could or should be generated by wind, it's essential to understand that capacity and *actual* energy are two very different animals.

While 38,000 MW is a sizeable piece of the potential new capacity, it's important to acknowledge how that relates to ERCOT's capacity portfolio today:

- **50,000 MW of natural gas-fired generation**
- **18,000 MW of coal generation**
- **5,000 MW of nuclear generation**
- **9,000 MW of wind generation**

“Natural gas is still the darling of the state’s generation capacity and with carbon regulations putting coal-fired units in a stranglehold, natural gas’ popularity with generation investors will most certainly

surge,” said Beavers.

The U.S. Supreme Court decided in 2007 that the Environmental Protection Agency (EPA) has the authority under the Clean Air Act to regulate CO₂, and following that ruling the agency has begun to take action. In the absence of congressional action on carbon legislation, EPA will require electricity generators to obtain permits for generating facilities and the rules would also apply to major plant expansions, both of which will add costs to consumers.

“Carbon regulation requires a delicate analysis, especially in today’s economic climate,” said Beavers. “With EPA regulating carbon emissions under the Clean Air Act, electricity consumers will shoulder the brunt of the costs that go toward meeting the rules. The reality is that the industry has already made steady gains in plant efficiency and will continue to do so without government regulation, in our opinion,” he added. “We anticipate the Congress will debate this issue for quite some time and our hope is that our members won’t be adversely affected by the decisions being made in Washington, D.C.,” said Beavers.

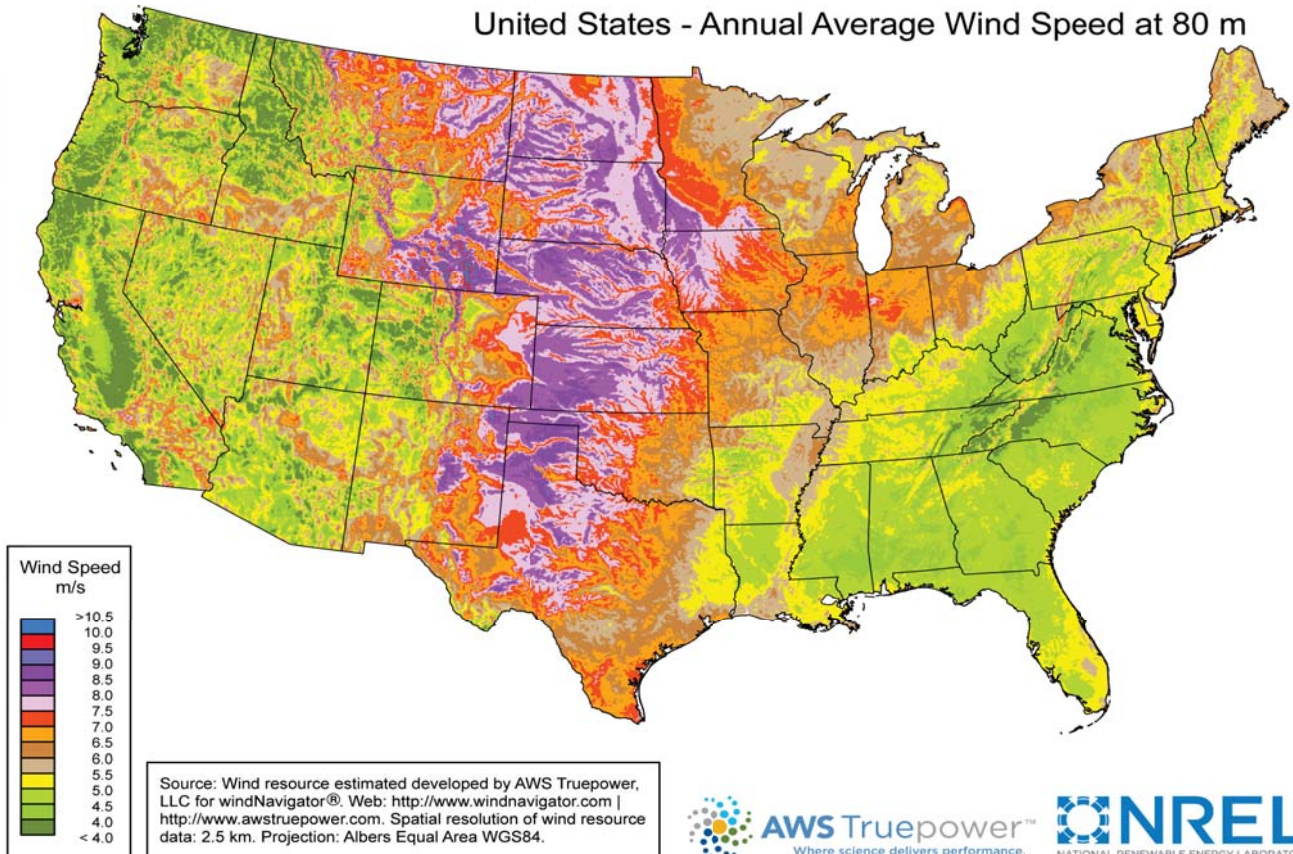
Regulation aside for a moment, renewable energy technologies have left their mark within the ERCOT market. As recently as Dec. 11, 2010, ERCOT registered a record peak for wind generation when the turbines hit **7,227 MW**. That represented about 25 percent of the load at the time. Unfortunately, ERCOT peaks during the summer, which is when all of the wind generation capacity would be welcomed with open arms by ERCOT and its participating entities, but which hasn’t been when the wind blows. For example, during the Aug. 23 ERCOT peak of 65,715 MW, only 793 MW of the 9,115 MW of gross wind capacity was effectively contributing that day—less than 10 percent.

“Wind generation has proven a worthy contributor to the Texas grid at certain times of the year,” said Beavers. “The challenge for the industry will be proving it can be counted on when it’s most needed, because dependable back-up generation must be available if the wind isn’t blowing,” he added.

The additional costs of building capac-

Please see **RENEWABLE ENERGY, PAGE 8**

United States - Annual Average Wind Speed at 80 m



**ENERGY
INNOVATION**

► **It may seem cold-hearted, but sometimes the kindest thing you can do is to let them go.**

An old refrigerator can eat up energy and money...

Does this sound familiar? You bought a new ENERGY STAR-qualified refrigerator and moved your old fridge to the garage to keep a few drinks cold. While the additional fridge capacity adds some convenience and maybe allows folks to buy their sodas, bottled water or other beverage of choice in super-sized bulk options at the local big box retailer, there's an additional cost that should be considered.

Old refrigerators, especially those more than 17 years old, tend to use a lot of energy. A refrigerator bought before 1993 uses more than twice as much energy as a new ENERGY STAR refrigerator. Simply put, putting that extra refrigerator to use only adds expense and putting it in the garage compounds energy use—and costs—to an even greater degree. What's more, refrigerant wears out and seals start to leak over time, causing a decline in the performance of an older refrigerator.

"A fridge in a 90 degree environment, for example, uses nearly 50 percent more energy than one in a 70 degree environ-

“Goodbye Faithful Ser

ment,” said Energy Conservation Coordinator Seth Rosser. “And if the temperature falls below about 40 degrees in the winter, the refrigerator’s thermostat may not run its cooling and defrost cycles for the appropriate amount of time,” he added.

So just by pulling the plug on that old refrigerator, you can save hundreds of dollars each year in many cases, especially in Texas where garages can routinely get into the triple digits on a hot July or August afternoon.

Once it’s realized how much energy—and money—it was costing just to keep a few drinks cold, United members often pull the plug on the old beast. But what should they do now that the old, inefficient fridge is taking up space in the garage? It’s not an old blender that can be tossed in the garbage can.

The best way to dispose of an old fridge is to recycle it, especially if it’s more than 18 years old. That’s because the refrigerant and insulation in older refrigerators may contain chemicals—chlorofluorocarbons or CFCs—that are a potent greenhouse gas. Recycling a refrigerator



bought before 1993 can go a long way toward preventing CFCs from being released into the atmosphere.

YOU CAN REST EASIER KNOWING THAT ALL GOOD FRIDGES GO TO HEAVEN!

If it’s too late to have the retailer who sold the new ENERGY STAR fridge remove the old one, check with the local city public works office for guidance as to whether they’ll provide such a service or provide direction on a company or scrap recycling center that will do it for a fee. In some cases, the cities or scrap recycling centers will require that the coolant be removed before they will accept it. While there is a fee for having this service conducted, the energy savings associated with getting rid of the energy hog refrigerator will likely cover any recycling fees in just a few months.

ervant, Rest in Peace”

Co-op's Energy Innovation Focus Expands To Include Onsite Renewable Energy Labs

Painting A Realistic Picture



United CEO Ray Beavers, standing at left, explains the future outlook for renewable energy to Johnson County leaders as another cooperative outreach program to inform and educate electric consumers about industry issues.

RENEWABLE ENERGY continued from PAGE 5

ity (generation resources) ultimately make their way to the consumer's bill. For instance, a large-scale wind generator has overnight capital costs of about \$2,400 per kW (A kW is enough capacity to power a 1,000-watt hair dryer.), according to EIA's 2011 Annual Energy Outlook. If the grid is dependent on that generation, but the wind isn't blowing, then that kilowatt needs to come from somewhere else. In Texas, and probably throughout the nation for the foreseeable future, that kilowatt will likely come from a natural gas-fired generator. The overnight capital costs of a natural gas generator are about \$1,000 per kW, according to EIA.

"Because of that necessary back-up generation, the industry has invested about \$3,400 per kW to power that hair dryer, so to speak," said Beavers. "We anticipate, however, that the cost of building wind generation will come down a little as mass production increases and as carbon regulation forces the industry to incorporate wind as a larger part of the generation portfolio," he said.

Wind generation's surge in popularity hasn't become only a fixture in large West Texas wind farms. United has also witnessed a growing interest among its membership to implement small-scale wind generation—and solar to a lesser extent—within its service territory. Because it's on the distribution system and at the point of utilization, this type of resource is called renewable distributed gen-

United Employees Weigh In on High

Service satisfaction seems to get a cursory glance from many establishments today, much probably attributed to a "me first" attitude. Fortunately, that type of negativity hasn't found its way into the ranks of United employees, a group that believes "member first" when they report for duty every day, or whether that duty extends well into the night. That attitude recently translated into another high consumer satisfaction score when United's members awarded the cooperative with an 88 in the 4th quarter 2010 American Customer Satisfaction Index (ACSI).

"This is my co-op. I'm an employee and a



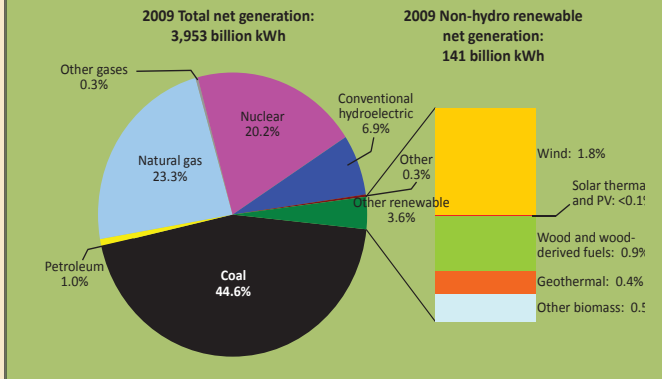
PATTI WAGNER

member, so I see both sides of the picture," said Patti Wagner, a member service representative II in the cooperative's Meridian office. "I know how hard the employees work to make our members happy, and those efforts turn into beneficial results for the members and United," she added.

United measures satisfaction each quarter to ensure members are receiving the high level of service that the co-op is committed to providing. By comparison, Energy Future Holdings (the neighboring for-profit electric utility previously known as TXU) received an ACSI score of 74, while Reliant Energy obtained a 76 for the fourth quarter of 2010, well below the United satisfaction score.

by the numbers

In 2009, electricity generation was 70% fossil fuels, 20% nuclear, and 10% renewable



eration (DG). Demand for DG expertise has increased so much over the last few years that the cooperative has designated a significant amount of responsibility to one of its electrical engineers.

“Since January 2010, we’ve helped interconnect 14 member distributed generation technologies, both wind and solar applications,” said United Electrical Engineer Jameson Parker. “That’s an

increase of more than a third of the total number of DG systems (35) operating in our membership territory,” he added.

Increasing member interest in DG each year prompted United to launch a recent effort that will allow members personal local access to information about the true costs and complexities of installing DG technologies at their homes. Using a grant from the U.S. Department of Agriculture, United recently unveiled a 3-kW solar generation system at its Stephenville office, with plans to implement additional “Energy Innovation Learning Labs” at its other offices.

“We know our members want accurate information and with all of the vendors out there trying to capitalize on this market, we feel it’s our job as energy experts and our responsibility as a trusted entity within our communities to provide our members convenient access to such information,” said Beavers.

The information that most members first seek is cost. Today, United estimates a cost of about \$5,000-\$8,000 per kW for a wind generator with the cost impacted by tower size and height. Solar arrays fall in a range of about \$6,000-\$10,000 per kW. Those costs will surely come down or be deemed more reasonable as energy costs go up, reducing the payback period for such an investment.

“As manufacturers lower the costs, we know we’ll see more interest from our members and we plan to be a valuable resource they can depend on,” said Beavers. “With our nation’s growing appetite for new generation resources, our members need for affordable electricity, and our need as a cooperative to serve reliably, it’s essential that renewable energy play a role in our future resource plans. Whether it’s large-scale or distributed generation, United will be the information source members can depend on to get the straight talk on renewable energy,” he said.

High Customer Satisfaction Score



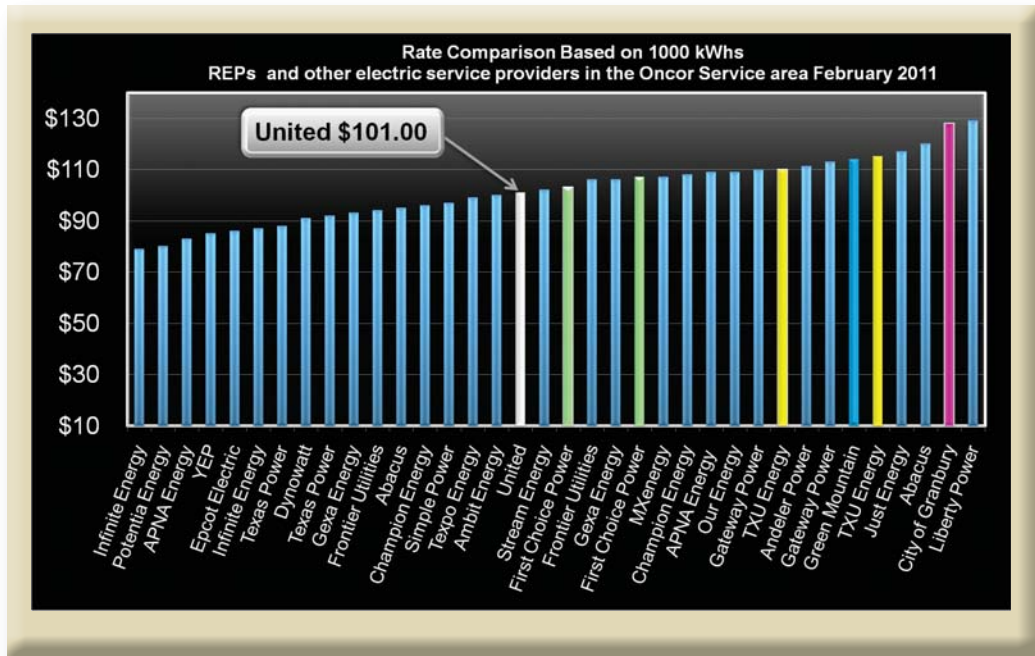
CHASE NOLAND

“Getting an ACSI score of 88 is something we take pride in at the co-op,” said Chase Noland, a lineman out of United’s Stephenville office. “We strive to make our members feel like they are always part of the co-op team by giving them the service they deserve and keeping them informed about what’s going on at their co-op,” he said. “Getting a high score means that the members see we’re keeping our word when we say we ‘look out for you.’ And, we’ll continue to try to improve,” said Noland.

The ACSI, sponsored by the American Society for Quality and administered by the business school at the University of Michigan, tracks consumer satisfaction levels across 45 industries and 225 corporations, including electric utilities like United.

“In 31 years of tenure with the cooperative, it’s evident that

Please see **ACSI, PAGE 11**



The rate comparisons shown at left represent a portion of all rates offered in the North Texas utility market for the month of FEBRUARY 2011 and do not include new participants that have posted only temporary or introductory rates. Even though they are often lower than the average among all deregulated retail providers, those introductory rates are often short-lived retail enticements. A complete comparison of rates offered in Texas' electric retail market may be found at www.powertochoose.org.

RATE WATCH COMPARISON



SCOTT CODY

United Nets 88 on Survey

ACSI
continued from PAGE 9

United has strived to improve all aspects of its business to benefit its membership," said Scott Cody, field engineering representative III in United's Cleburne office.

"To continue to meet and exceed the needs and desires of United's membership, the cooperative must and will continue to grow with the tremendous wave of technology that becomes available and we'll do this so that United can provide

high-quality electric service at the lowest possible cost to our membership," he said.

Since the third quarter of 2004, United has obtained an ACSI score ranging between 85 and 89, while the industry average has been well below that benchmark. The cooperative's 152 employees take the score seriously and seek to improve upon it every day.

"I'm very proud of my cop, and that pride makes me do my best to keep our members thinking so highly of us!" exclaimed Wagner.

POWER TALK
Ray Beavers, CEO

We take some good-natured ribbing from some of our members who often joke that co-op employees must surely get their electricity for free.

Yes, working for an electric cooperative can be challenging, especially when costs and electric bills are rising. But between United directors and co-op employees who are also United members, there are 74 people at this cooperative today who not only work on your behalf, but also pay the same electric costs that you and other members do.

As we've discussed at length before, we believe these types of conversations will continue because the cost of electricity will increase due to climbing power generation costs, and environmental regulations. Nevertheless, we can use these conversations as an opportunity to strengthen the trust United has earned with its mem-

- We need to build new power plants, requiring a long-term investment of time and money.
- We are committed to keeping you informed about policy changes that will impact your electric bill.

Controlling Costs Through Innovation:

- Our energy efficiency programs help members manage their energy use.
- Deploying state-of-the-art solutions helps us control operating costs and improve service reliability.
- New technology helps us keep electric bills affordable and reduces our environmental impact
- Co-ops like United are meeting members' power needs with a diverse fuel mix, including renewable energy.



Generating Trust and Loyalty

bers. Folks, the simple truth is that United Cooperative Services has worked very hard to be affordable, innovative, and member focused. We're *Looking Out for You*.

We share our concerns with members by breaking down complicated issues and presenting within these monthly pages, and across every affordable avenue available to us. We feel it is imperative for us to make that concerted effort so that we can effectively communicate our message about the various energy challenges we face. The three key concepts supporting the latest *Looking Out for You* commitment are: (1) Working Together to Keep Your Electric Bills Affordable; (2) Controlling Costs Through Innovation; and (3) Continuing to Put You, Our Members, First.

If we drill down into those ideals further, this is what they mean to United employees, and they are the focus of our everyday work in serving United members.

Working Together to Keep Your Electric Bills Affordable:

- Government regulations will increase the cost of electricity.
- Prices for fuel, materials, and equipment will continue to rise.

Continuing to Put You, Our Members, First:

- We are member controlled and locally operated.
- As a member, you have a voice in how your co-op operates.
- Member control means we are accountable to those we serve, and are dedicated to assisting our communities— your money stays at work close to home.
- Our rates are set simply to cover the cost of doing business, not generate profit for distant stockholders.
- As a not-for-profit organization, we give money back to you when revenues exceed costs.
- We exist only to serve you and meet your needs for safe, reliable, and affordable power.

The future may be uncertain, but one thing seems clear: the cost of doing business will rise. As that happens, members will become more concerned with managing their energy use. We are here to arm you with the information to be prepared because our genuine interest is to educate and help our members understand that we **Look Out for You** in everything we do.