

Winter 2018

# Energy Com



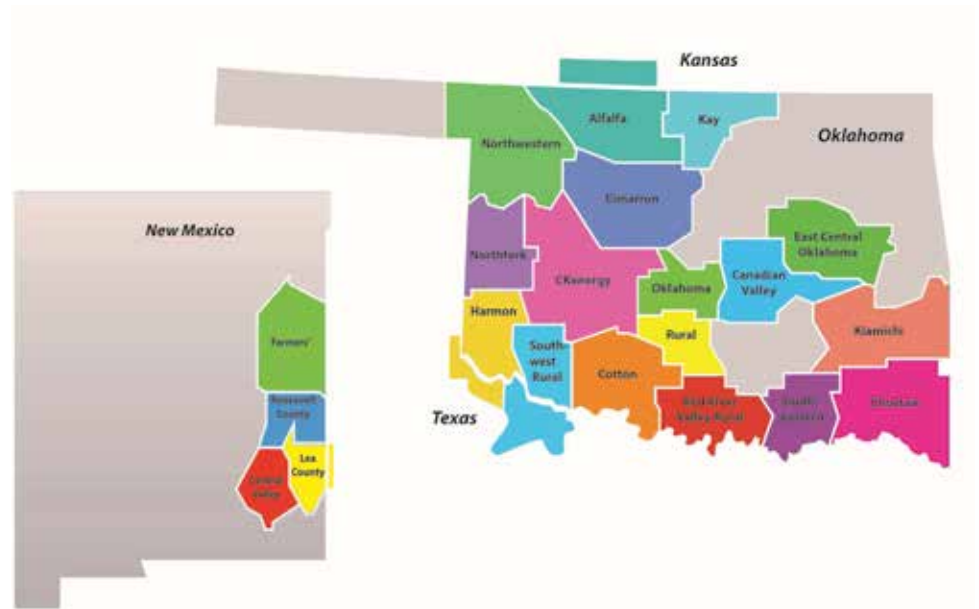
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## WFEC Service Territory



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# Transition agreement terminated early by three N.M. member co-ops

In January 2019, three of the four New Mexico member cooperatives, including Farmers', Lea County and Roosevelt County, will terminate their transition agreement that was signed upon joining Western Farmers Electric Cooperative (WFEC) in 2010. This transition would have automatically ended in May 2026, however, New Mexico members each had the option to end their agreement quicker if they chose to do so and had Board of Trustee approval.

At the request of the New Mexico members, and over the course of several months, WFEC staff had a number of meetings with the four cooperatives, individually, to discuss a transition termination as early as January 1, 2019. To be fair to all New Mexico members, staff prepared various combinations and individual impacts of the transition termination.

WFEC management also met with New Mexico Statewide Manager Keven Groenewold and the New Mexico Public Regulation Commission staff. Information was sought regarding the process to file tariffs, avoided costs, and other items, in order to move the affected member cooperatives to the R-16 tariff.

Following discussions and WFEC Board approval, these three members, representing over 2/3 of the New Mexico load, elected to terminate their transition agreement in 2019. The other N.M. member, Central Valley Electric Cooperative, will likely transition no later than 2022, but possibly earlier. WFEC filed the R-16 tariff in New Mexico for the three members that have terminated the transition agreement and has re-filed the TR-16, to accommodate one member that elected to stay on the transition rate.

There was no pressure from WFEC staff to terminate the transition agreement early, as the available options, 2022 or 2026, or earlier were all acceptable.

When ratified, the transition for the requesting member(s) goes away, leaving the same Wholesale Power Contract and Supplemental Agreement as all other members.

The original transition agreement with the New Mexico cooperatives consisted of the following phases:

- 2012 - Phase I Load Reduction - 41 MW  
(Self Generate, PPA, SPS Buy Through – No WFEC Obligation)
- 2017 - Phase II Load Reduction - 36 MW
- 2022 - Phase III SPS Contract Capacity - Between 56-79 MW  
(WFEC becomes the Load Serving Entity and SPS provides a block of capacity and energy)
- 2024 - Phase IV Fixed SPS Contract Capacity - 45 MW
- 2026 - SPS Contract Terminates

One major reason to end the transition early involved wholesale power costs. Simply, WFEC's wholesale cost of power on the R-16 rate was lower than the TR-16 rate in the transition agreement. Also, there is less risk from being in a rate base of 1,600 megawatts (MW) versus 550 MW. Other reasons are there is likely less administrative work, less legal and regulatory fees and overall fewer complications.

For 2018, WFEC is projected to sell nearly 8,400 gigawatt-hours (GWh) of member sales on the R-16 tariff. In 2019, with the addition of the three New Mexico members, it is likely that WFEC will sell over 11,000 GWh on the same tariff. Outside the initial budget transition, the quicker transitioned system will be a lot less administrative work and effort by WFEC staff.

"Concluding was a lot of work and involved a number of staff in various positions throughout WFEC," CEO Gary Roulet noted. "The resulting single set of members under one tariff will serve WFEC going into the future. Why? Simply because all 21 members will be working on a single set of goals for all of the membership."



# Moore Office interior construction on schedule; move-in date in March

Construction remains underway at Western Farmers Electric Cooperative's (WFEC) new office building in Moore, with an actual move-in date for affected employees set for March 2019.

The exterior of the office building is a little behind schedule due to inclement weather during the late summer and fall months. The interior of the facility remains on schedule, with completion expected in January. Furniture delivery is currently set for late February or early March.

About the time the construction on the interior is finishing up, the audio/visual and computer set-up and installation will begin to allow for a March completion. WFEC staff is hoping to host the Annual Meeting in April at this location.

Moore-based employees will work on the second floor of the new facility, which can comfortably accommodate 64. The assignment of individual workstations will be handled through a random selection process, with departments not assigned to one particular area. Initially, each quad of workstations, will have at least one left unassigned allowing future new employees a chance to work more closely with existing, longer term employees.

The intention of the new work area is to promote an environment where all employees are more aware

and informed about all business functions and current events at WFEC. "We want to encourage the acquisition of casual industry knowledge and collaboration with fellow employees across defined business units. Ultimately, this should result in having a well-rounded work

*Text & photos by Maria Crowder & Sondra Boykin*

group, not dependent on attending a meeting to discover basic corporate information," commented CEO Gary Roulet.

While there will be offices, conference rooms and workstations in the southeast corner of the first floor to comfortably accommodate 28 employees, they will

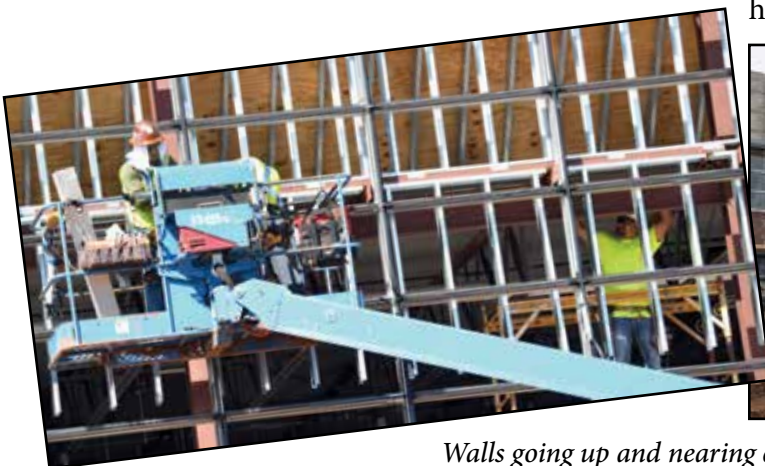
be utilized primarily for future expansion when the second floor nears full utilization. Initially, no one will be assigned space on the first floor.

The Moore Office will also include "check out" offices, conference rooms, private work areas, common work space, and collaboration areas for use by all employees. Among other features are a wellness room and large breakroom. A board room that can be separated by dividers to accommodate smaller meetings, is also included.

Executive and senior management level staff will have an assigned office at their primary designated



*WFEC CEO Gary Roulet (right) and Myron Martin, manager, Procurement Services, visit with a contractor during a recent on-site tour of the Moore Office facility.*



*Walls going up and nearing completion at new Moore Office site.*

location - Moore Office or Anadarko Headquarters. Other offices will be determined at a later time, if appropriate.

Energy efficiency was also considered when plans were drawn for the Moore site. One large project involved the installation of 84 geothermal wells, bored to a depth of 500 feet. Insulated glass, which is tinted and Low 'E' coated, along with LED lighting will be used to improve energy efficiency.



As for safety, staircases are reinforced with steel and concrete and can be used during dangerous weather situations, such as a tornado or strong thunderstorm. There will also be 48 covered parking spots for employees. Four electric vehicle chargers will be installed, with future plans for additional chargers.

The Moore Office, located at 3000 S. Telephone Road, will be served by Oklahoma Electric Cooperative, headquartered in Norman.

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*Interior work continues at the new Moore facility and is remaining on schedule, with completion expected in January. Furniture delivery is currently set for late February or early March, with an actual move-in date for affected employees scheduled for March 2019. (left & below photos)*



*One large project, designed for greater energy efficiency, involves the installation of 84 geothermal wells, bored to a depth of 500 feet. Insulated glass, which is tinted and Low 'E' coated, along with LED lighting will also be used for a high energy efficient workplace.*



# Electric vehicles: fast - fun - the future



*Josh Kirby, real time systems supervisor at WFEC, prepares to charge his new Tesla Model 3, which he purchased in December. Kirby is pleased with the increasing availability of EV chargers, plus associated charging costs.*

An increasing number of Americans are being enticed to becoming electric vehicle (EV) owners through advertising and marketing, plus the recommendations of others. A recently released AAA report indicated that 20 percent of U.S. drivers, or 50 million Americans, said they will likely go electric when they make their next vehicle purchase. That's up from 15 percent in 2017.

With the number of EVs constantly growing, the industry is expecting to see plenty of innovations for 2019 and following years. Many manufacturers will introduce new models that will have much more to offer through amazing driving experiences, paired with range increases, which has been a drawback of electric cars in the past.

**Article & photos by Sondra Boykin, Editor**

Several Western Farmers Electric Cooperative (WFEC) employees have joined the electric vehicle movement within the past few months. Three new EV owners are targeted for this article.

While certain aspects of the EV market may appeal to one owner, another feature might influence someone else considering an EV purchase.

For Josh Kirby, real time systems supervisor at WFEC, the lingering appeal of owning a Tesla, led to his purchase of a Tesla Model 3 in early December.

"I've long been an early adopter of new technology and rented a Tesla about three or four years ago for my birthday. I have been in love with them since and finally decided I needed to jump and take advantage of the federal tax credits," Kirby commented.

The increasing availability and accessibility of EV chargers, plus the costs of charging, were also factors contributing to his purchase decision.

"My truck gets 16 to 17 miles per gallon (mpg) and I am spending \$400 to \$500 a month in gas costs," Kirby pointed out, adding that he estimates he will be spending less than \$100/month in electricity costs. "That's going from 12 to 13 cents a mile to less than 3 cents."



*Robert Cotner, a senior generation engineer at WFEC, purchased a 2018 Chevy Volt, about six months ago. WFEC is in the process of installing and/or planning to install Level 1 and 2 chargers.*

Mandi Howell, WFEC senior operations analyst, had been paying attention to the growing electric vehicle market for a while prior to purchasing her Chevrolet Bolt in June of this year.

Previously, she drove a Chevrolet Colorado Z71, but wasn't fully utilizing the truck's bed due to the smaller capacity that wasn't quite large enough to do farm work. Also, she was not using the four-wheel drive feature, except for the occasional ice or snow storm. "The Kelly Blue Book said the truck was still worth more than I owed, so I decided it was time for a change," she said.

Howell's only regret resulting from her EV purchase was not buying one with a DC charging option. "I just didn't realize how long a Level 2 charger would take to fully charge, when on trips away from home. This option is one of the shortfalls of EVs that are not equipped for certain charging infrastructures, such as Teslas. Most of my charging away from home has been at RV sites, as there aren't many quality Level 2 chargers in between larger cities," Howell explained.

She said that the highest number of miles put on her vehicle is commuting back and forth from Oney to Anadarko each workday. "I knew that even one of the EVs with a small range could handle that," she noted.

"Besides Tesla, the Bolt had the longest range in a style that I liked. Plus, I have driven a Chevy for a while and have gotten use to the bowtie on the front of my vehicle."

Robert Cotner, a senior generation engineer at WFEC, purchased a 2018 Chevy Volt, about six months ago, as he wanted to try out an EV. But, he



*Mandi Howell, WFEC senior operations analyst, purchased her Chevrolet Bolt in June. She says her Bolt is one of the best driving cars she has ever owned.*

admitted, he still has a gasoline engine as back-up.

Phil Schaeffer, principal resource planning engineer at WFEC, purchased a 2016 Nissan Leaf, with a 30 kW-hour battery, in December 2015.

"Economics was the largest factor for me in deciding to buy an EV. The electric utility I had when I purchased the vehicle offered a \$0.05 / kWh rate from 10 p.m. to 6 a.m. for EV owners," Schaeffer noted. The convenience of not needing to stop for gas weekly or oil changes quarterly, also helped in his decision, in addition to the brakes lasting longer in an electric vehicle, generally because of the regenerative braking system they use, he explained.

"I did a moderate amount of research before I bought this EV and it is close to what I expected. Some unexpected items were how much air resistance at high speeds and cold temperatures drop the efficiency of the vehicle," commented Schaeffer. Although air resistance occurs with any vehicle, he pointed out that it is more noticeable on the smaller-range vehicle.

Cold temperatures, not necessarily cabin heating, temporarily drops the efficiency of the battery. "So, if you live in a colder climate, the stated range of the vehicle is likely less. Around 65 F ambient temperature seems to be close to the sweet spot for the battery," he said.

### **Expectations**

Even though Kirby is still learning the ins and outs of some of the vehicle's features, one thing he knows for



*The Chevy Volt features a high voltage system, which contains nine individual components working together.*

*(Continued on Page 8)*



sure is it is “absolutely” living up to his expectations.

“Adapting to a little more planning ahead of time for any big trips is an adjustment, but I love the car. I wish I’d planned on having a home charger when the car arrived instead of adding one like I am now. The Level 1 charge rate is painful, but is better than nothing,” Kirby explained.

Kirby believes that gas vehicles are still the best way to go for an unplanned trip. “My electric car didn’t have enough range to make it to my sister’s home to help with a leaky pipe the other day, so I jumped in the truck and just went,” he commented.

“No range anxiety. No planning. There’s definitely still an advantage to gas vehicles in some cases,” Kirby pointed out.

Cotner also said his Volt is meeting his expectations.

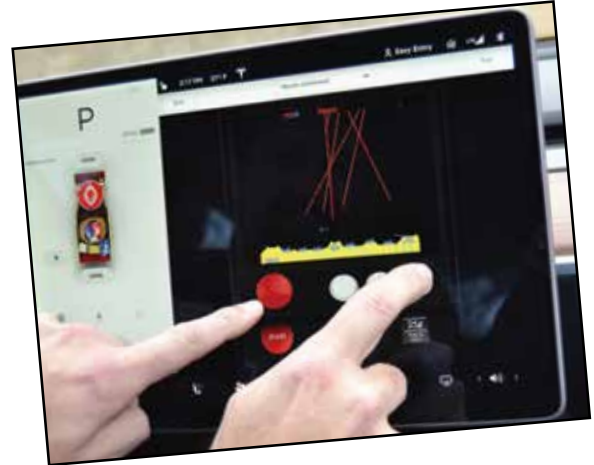
### ***Adjustments: Gas versus EV***

When returning to his old vehicle, Kirby found the display screen to be so small compared to the Model 3. “It’s not tiny by any means, but it was a shock how quickly you get used to the new,” he said.

Acceleration is another change as it is instant in an electric vehicle, without experiencing any shifting, which is something you are reminded of when driving gas vehicles, Kirby pointed out.

While the coldest temperatures have not set in for the winter, WFEC’s new EV owners are evaluating possible effects that cold temperatures might have on their vehicle.

“Before the recent cold snap, I was getting about 1 mile to just under 300 Watt hours (Wh). The



*The large display panel in the Tesla Model 3 can be utilized for consumption details, overall vehicle data, and even games. These are only a few of the capabilities available.*



*The trunks of EVs may look small, but looks can be deceiving, as ample trunk space is available, some with the seats down and others in both the front and back of the vehicle.*

cold snap really took a toll on the battery, as I was getting more like 1 mile to 360 Wh, which is basically decreasing driving range by about 20 percent,” Kirby estimated.

Howell has found another difference with cold weather is that an EV doesn’t need to wait until the





engine is warm in order to save wear and tear. “I have read that keeping the car plugged in before driving helps precondition the batteries during cold weather. The flip side of that being the batteries take a big hit from the cold,” she pointed out.

However, Howell has found ways to help with cold weather. “To save energy, which I wouldn’t need to do on a daily basis as I have plenty of range, I use the seat and steering wheel warmers and only use the defrost on a cooler level,” she noted.

For the opposite extreme weather during the summer, she immediately tinted her windows to save energy. “Since I purchased the car during the summer, it was easy to see how much juice the air conditioner was poaching.”

“Driving an EV efficiently is exactly opposite of driving an internal combustion engine (ICE). Where one gets the most mileage from an ICE vehicle is generally traveling at a constant speed. In an EV, one wants to let the car slow itself down to generate (regen) energy,” Howell noted.

Cotner pointed out that he pays more attention to how he drives with his Chevy Volt, when adjusting between gas and electric vehicles. “I can see the effects of bad driving on how many miles I have left on my battery as I drive,” he commented. “I have learned that I just don’t drive - I energy manage. When we drive, we are always using energy, we just don’t pay that much attention, rather we just keep filling up the gas tank,” Cotner explained.

“It appears to me an electric vehicle at idle uses a lot less energy than a gas engine. The acceleration rate on an electric vehicle generally can outperform a gas engineer of similar class,” Shaeffer explained, adding that gas engines are better at towing heavy loads. “But,



*Phil Schaeffer, principal resource planning engineer at WPEC, purchased a 2016 Nissan Leaf, with a 30 kW-hour battery, in December 2015. For him, economics was the largest factor in deciding to buy an EV. (Photo by Howie Jackson)*

I think that’s one of the next advancements the electric vehicle market is working on improving in their vehicles,” he noted.

#### **Mileage – charge and distance?**

As for charging an electric vehicle, new locations are being added frequently, along major highways.

“I’m still new, but I’ve used Level 1, Level 2 and Tesla Superchargers,” Kirby said. “With a Level 1, or the familiar home outlet, I get about 5 miles per hour of charge. Level 2 is close to 24 miles per hour. The Tesla Superchargers are a phenomena unto themselves, as I was getting closer to 400 miles per hour of charge,” Kirby explained. He tries to charge as often as he can, taking advantage of plugging in if convenient.

“I paid \$5.30 for 150 miles of added range at the Supercharger. At \$2.20 gas prices that would have been closer to \$20 in gas for my truck. The Supercharger did take 40 minutes to charge that



*Mandi Howell is pleased with her Chevrolet Bolt and the features it offers.*

*(Continued on Page 10)*

amount though, so there is a trade off,” he commented.

“I tend to go all in when I get a new toy, so I bought a ChargePoint Level 2 charger and had it installed. I could have saved money and installed a NEMA 14-50 outlet and bought the adapter cable. However, the ChargePoint has network capability that provides stats compared to other Oklahoma EV users that have ChargePoint chargers. It also tells how much CO2, etc. one avoided putting into the air,” Howell pointed out.

While she charges her Bolt nightly, she sets it to only “fill up” to 90 percent. “EV batteries, like cell phone batteries, hold their conditioning better if they aren’t completely charged and drained each time,” she said, adding “If I’m planning a longer trip the next day, I’ll charge it completely.”

As for Howell’s mileage, if she drives semi-conservatively, she said she can get 3.8 mi/kWh. “If I really work at it, I can get 4+ mi/kWh.”

Cotner noted that so far he has driven about 95 percent on battery power and is averaging over 250 mpg for the car. “I get about 3.7 miles per kWh, and about 40 mpg on the engine. I get a discount on my electric bill for charging at night, so my cost per mile on battery power is under 2 cents per mile,” he pointed out.

Cotner charges his Volt every day, as it only has a 53-mile range on battery power.

Shaeffer explained that in the summer he gets about 120 miles per charge, while during the winter, it’s more like 100 miles per charge. “In the next few years, it’s likely many vehicles will have at least 300 miles per charge,” he predicts.

“I plug my car in every night when I don’t plan on going out again that day, and, there’s a timer in the car that doesn’t allow it to start charging until 10 p.m., when the utility company’s discounted EV rate starts,” Shaeffer commented. He has a Level 2 charger at his house that charges at a rate of 6.6 kW/hr.

### ***Driving Reports***

“The vehicle is a blast to drive, from the acceleration to the autopilot offerings. I feel like I’ve really jumped to the next level of our driving future. Over the Air (OTA) updates are great, and the car just keeps getting better. There’s plenty of space with both a front and rear trunk and plenty of room inside. I really like the car and hope to use it as a daily driver for years to come,” Kirby explained.



*Josh Kirby, and his Tesla Model 3, Lightning Bolt. (Courtesy Photo)*

“The car is honestly one of the best driving cars I’ve ever owned. It’s responsive and smooth, not to mention quiet,” Howell said. She has driven it to Arlington, Texas and Little Rock, Ark., and besides the fact that it takes a while without the ability of DC charging, she noted it was never uncomfortable.

“The thing my family likes best is the torque. It will put you back in the seat almost immediately,” Howell said that she has already recommended her EV to others, but, also told them that if they don’t necessarily want the Chevy Bolt to investigate other EV models.

Cotner has enjoyed driving the Volt and recommends the vehicle to others. “It is fun, and I enjoy not having to stop at the gas station two to three times a week,” he noted. “My savings from not purchasing gasoline are offsetting the cost of the new car.”

Shaeffer noted that he likes the convenience of not needing to stop at a gas station once a week to fill up, plus not needing to have his oil changed. The shorter range of early EVs was an issue at one time, but now that 300+ mile ranges are being offered, he believes that issue will be going away.

Electric vehicle popularity looks promising, as innovative technologies will likely be implemented into future designs to take EVs well into the future.

“There seems to be a camaraderie among EV owners right now. That’s nice and I hope it doesn’t go away,” Kirby said.



# *WFEC often considered a leading force in renewable energy resources*

**W**ithin the electric utility industry, Western Farmers Electric Cooperative (WFEC) is often recognized as a trendsetter. One that isn't afraid of going beyond the boundaries of typical fuel sources while investing in America's energy infrastructure – sustainably and responsibly.

When it comes to renewable energy sources, WFEC evaluates what is available to combine with gas and coal-fired sources to create a diverse portfolio. The more varied the fuel portfolio, the more it helps in offsetting possible higher prices of one fuel source, plus it continues to lower costs for its members.

So, just where does WFEC stand in terms of renewable energy? Its renewable portfolio, following the completion of several current and future projects, will consist of 270 megawatts (MW) of solar generation\* (up from the current 50 MW, once a solar project is commercial in 2022); 955 MW of wind generation\* (up from the current 705 MW, with a large development in 2019); and 260 MW of hydroelectric generation\*.

## *Wind Energy*

In 2003, WFEC's signing of the state's first Purchase Power Agreement (PPA) between a wind farm developer and a purchaser, set in motion a trend that was soon followed by other utilities. Today, some 15 years later, Oklahoma ranks second nationwide for installed wind power capacity and total wind energy generation, according to a recent report from the American Wind Energy Association.

Overall, Oklahoma's wind is providing enough electricity to power the equivalent of 3 million average U.S. homes, based on 2017 numbers.

WFEC's first renewable energy venture, a 74 megawatt (MW) facility (Blue Canyon Wind Farm), began commercial operation in December of 2003, signaling a new era for WFEC and most of the state's member distribution cooperatives.

From that point in 2003, WFEC has added long-term PPAs with 12 additional wind farms, located in Oklahoma and New Mexico, bringing its combined wind energy total to 705 MW, as of the end of 2018, when an additional wind farm went commercial.

But wait, WFEC negotiated and executed another

Renewable Energy Purchase Agreement (REPA) with a developer in November. This agreement is for the purchase of energy produced by a future wind farm facility to be located in Alfalfa, Major and Garfield Counties in Oklahoma. This site will go commercial in December 2019, and will consist of a nameplate capacity of 250 MW\*, marking the largest wind energy purchase to date for WFEC.

With the latest REPA, WFEC's wind generation purchase will jump to 955 MW\*.

## *Solar Technology*

Solar energy is on track to become a greater portion of WFEC's overall fuel mix in the next few years. For WFEC, Oklahoma and New Mexico are among the states in which solar technology will work, sources have said. Now, in its second full year of production, WFEC's solar production numbers are "right on target."

Currently, WFEC owns or contracts some 50 MW of solar\*, which includes 18 MW from five utility-scale solar farms in Oklahoma; 30 MW from two utility-scale sites in New Mexico; and almost 3 MW from 13 community solar locations, from 11 member distribution cooperatives.

However, the current 50 MW\* purchase is about to make a drastic leap as WFEC has negotiated a long-term PPA for the purchase of energy, capacity rights and renewable energy attributes from the Tip Top Solar Energy Center to be in located in southeast New Mexico. This proposed project is projected to be a 220 MW\* nameplate capacity site, to be commercially operational by December 2022.

Phillip Schaeffer, principal resource planning engineer at WFEC, explained that all solar facilities associated with WFEC are performing well and as expected. He noted that the solar technology helps reduce costs for cooperative members because it typically is generating at maximum output when demand loads and energy costs are highest.

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\*WFEC purchases or produces energy from various wind and solar resources. However, WFEC has not historically, nor may not in the future, retain or retire all of the renewable energy certificates associated with the energy production from these facilities.

# Anadarko Plant outage involved repairs, overhauls & routine maintenance projects

Im6000 Units 7, 8, 9, 10 & 11 at the Anadarko Plant have been involved in an outage that began on Dec. 1, with the removal of Unit 8's gas turbine engine, which was sent to Dallas for hot section and air oil seal replacements. Work during the outage consisted of both routine maintenance, as well as several more larger and involved projects.

On-site personnel performed bore-scoping and package inspections of the other four Im6000 turbines and replaced three rows of HPC compressor blades on Anadarko 9 and 11.

Following repairs in the Dallas shop, the engine for Unit 8 arrived back on-site Dec. 14, with reinstallation completed on Dec. 16.

Other work being performed during this outage included:

- Transformer maintenance, performed by WFEC's Transmission & Distribution department
- Generator work, performed by WFEC and contractors.
- Partial discharge equipment installed on Anadarko 7 & 8.
- "C" gas compressor overhaul at the Orme Plant, contractor and WFEC personnel.
- Repairs to the Genco cooling tower.
- Welding repairs to all five turbine exhausts.
- Testing of the CO<sub>2</sub> fire suppression systems.
- Annual calibrations, motor megging and switchgear maintenance.



*Randy Ryans, a mechanic at WFEC's Anadarko Plant, assists a contractor with unloading engine parts during recent outage.*



*Installing Unit 8's engine after being returned to the Anadarko Plant following repair work in Dallas.*



*On-site contract crews, assisted by plant personnel, position Unit 8's engine, in preparation of installation at the Anadarko Plant.*

*Information and photos provided by Clem Cassmeyer, maintenance superintendent at WFEC's Anadarko Plant.*

*wfec*



# Hugo Plant outage reaches new heights

Demolishing, upgrading and replacing were large tasks undertaken during a recently completed planned maintenance outage at the Hugo Plant,

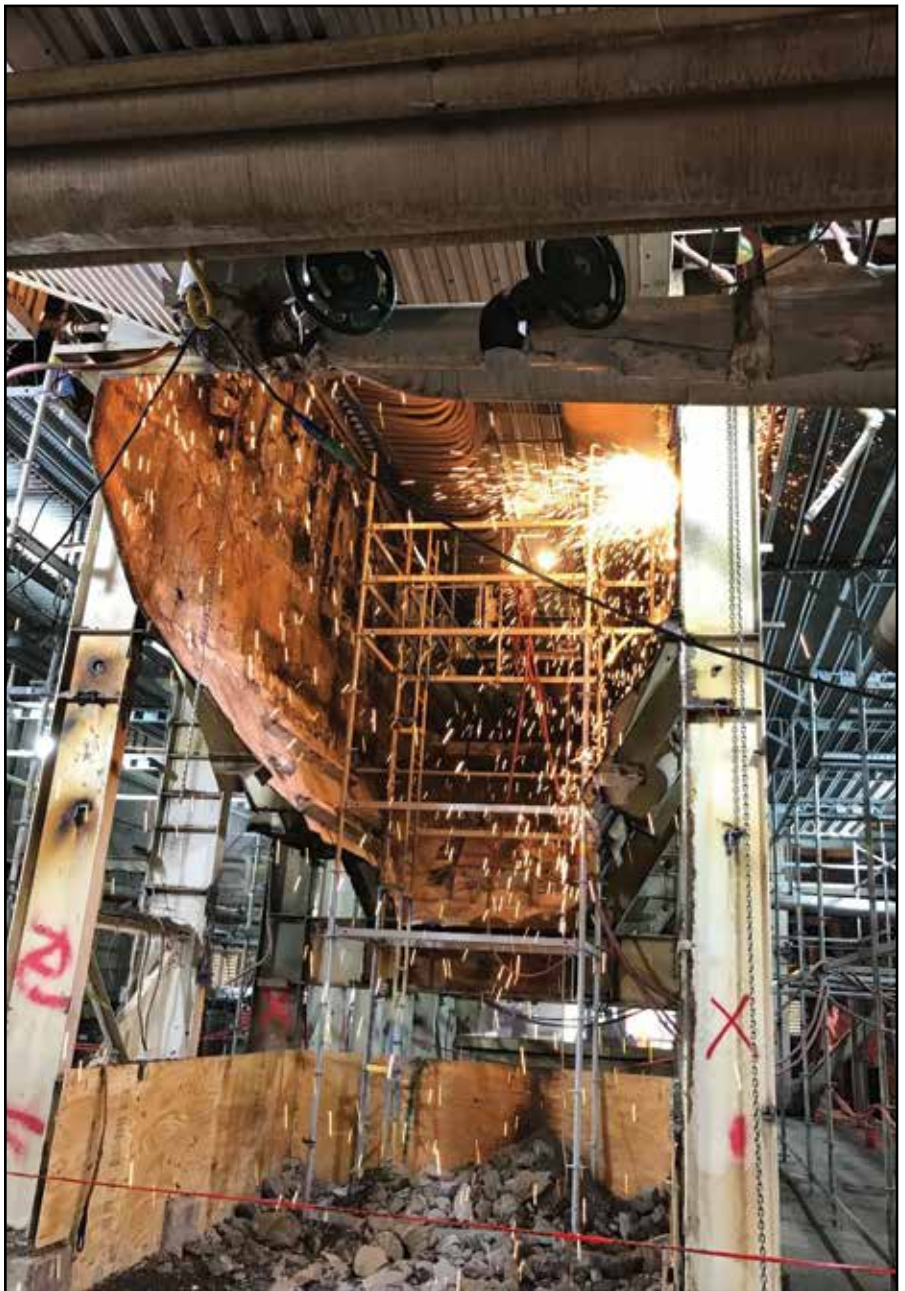
“In order to comply with the requirements of the Environmental Protection Agency’s (EPA) Coal Combustion Residuals Rule, the Hugo Plant was required to replace the existing wet sluicing bottom ash system, located under the boiler, with a new dry bottom ash system,” explained Paul Luhring, engineering superintendent at the plant.

The bottom ash system is used to remove heavy ash produced by coal combustion in the boiler that drops directly to the bottom of the boiler furnace, Luhring pointed out. A new conveyor system was purchased from Kraft Werks Engineering (Howden) and installed by TEi Construction Services, as a part of this project.

It was “out with the old, and, in with the new,” which was certainly a large undertaking to prepare the site.

In order to make room for the new system, it was necessary to demolish the existing bottom ash system and existing auxiliary boiler. In addition to installation of the new conveyor, it was also necessary to build a storage bunker outside the boiler house to receive and temporarily store the ash removed from the boiler, Luhring explained.

The project scope also included an upgrade to the plant’s boiler control system to include control of the new conveyor and other ash handling systems. Work on the project started in August of this year and was completed during a maintenance outage that started in mid-September and ended just before Thanksgiving of this year.



*Demolition of the old bottom ash hoppers was one of the many duties included in the recently completed Hugo Plant outage. Demolition was required to allow room for the new system.*

wfec

*Photos & information provided by Paul Luhring, engineering superintendent at WFE’s Hugo Plant*





*Conveyor sections await installation during the planned Hugo Plant maintenance outage.*

*A conveyor belt trough was installed during the outage, as a part of the overall new conveyor system.*



*In order to make room for the new system, it was necessary to demolish the existing bottom ash system and existing auxiliary boiler. Removal required the use of large cranes to reach the affected areas.*





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