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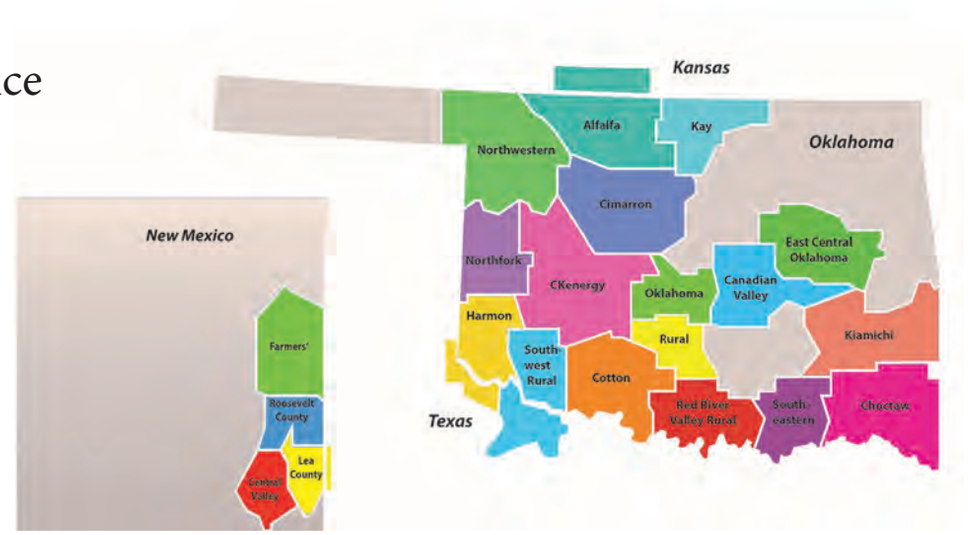
Western Farmers Electric Cooperative
P. O. Box 429
Anadarko, OK 73005
(405) 247-3351
www.wfec.com

Cover Photo:
With the coming of spring and summer, also comes the harvesting of crops, as farmers head to their fields.
(Courtesy)

WFEC Service Territory



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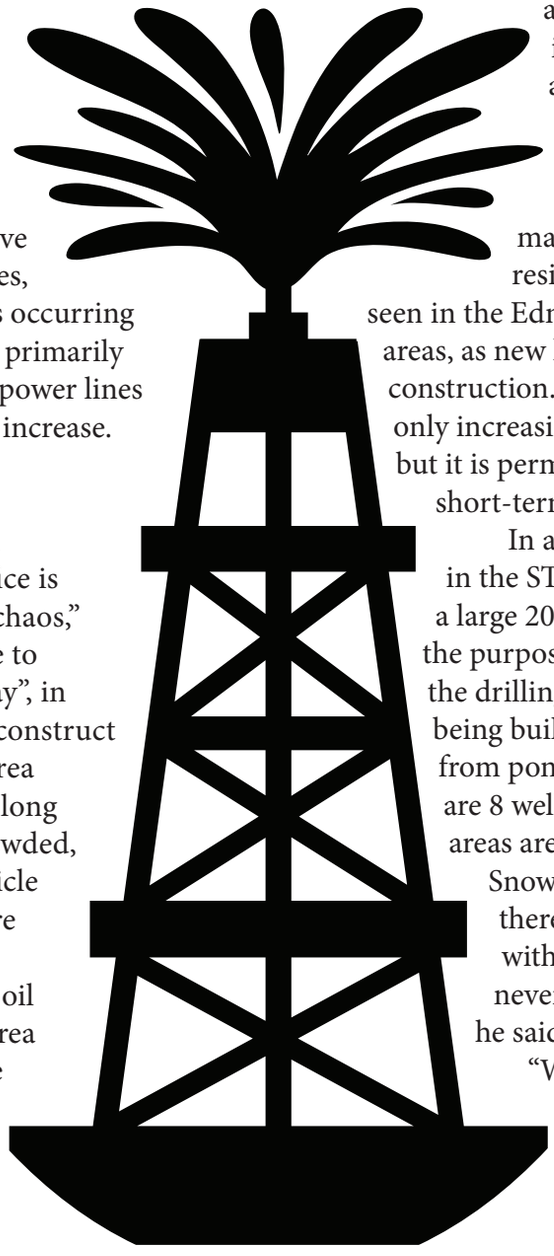
SCOOP oil play drilling leading to rapid growth for cooperative

Story & Photos by Sondra Boykin

The SCOOP and STACK oil plays in the Anadarko Basin area of Oklahoma have been attracting a great deal of positive attention in the past few years. This popularity is creating unprecedented load growth for electric utility companies in the affected area. For one central Oklahoma electric cooperative, increased drilling activity added some 30 megawatts (MW) of load between January 2016 and January 2018.

Cimarron Electric Cooperative (Cimarron/CEC), headquartered in Kingfisher, is undergoing a rapid growth cycle, with new gas wells being constructed, new oil rigs dotting the landscape and electric substations and power lines being built to serve this load. While positive for the economy of area communities, the pace at which the load growth is occurring has brought about some challenges, primarily dealing with the infrastructure and power lines to accommodate this extraordinary increase.



Cooperative Perspective

Cimarron CEO Mark Snowden explained that the cooperative's office is essentially in a state of "organized chaos," adding that it is almost comparable to "dealing with an ice storm every day", in terms of finding contract crews to construct new lines. All of the hotels in the area are completely full and booked for long periods of time, restaurants are crowded, camping sites and recreational vehicle parks are all occupied and stores are always busy.

Plus, oil and gas pipeline crews, oil field employees and workers from area wind farm construction projects are also contributing to the rapid residential load growth in this area that already has a shortage of temporary or short-term housing.

"All of this is good, but it makes finding accommodations for contract crews a difficult task," Snowden pointed out. Reportedly, there are new businesses, restaurants and a hotel coming to Kingfisher in the near future, Snowden pointed out. "This growth is really changing the town."

Snowden explained that this growth cycle has not only increased their load, but has also contributed to system improvements, residential and commercial increases and improvements in reliability.

Mark Andrews, key account and special projects manager at CEC, noted that residential growth is also being seen in the Edmond, Piedmont and Guthrie areas, as new homes are constantly under construction. This residential growth is not only increasing the area's overall population, but it is permanent expansion, rather than short-term.

In addition to the oil and gas load in the STACK play, Snowden noted that a large 20 MW load is being added for the purpose of mining sand to be used in the drilling process. Large ponds are also being built, with pipelines moving water from pond to pond. On average, there are 8 wells per mile, however, some areas are now up to 16 wells per mile, Snowden pointed out, adding that there are currently 47 wells located within two miles of his home. "It is never dark at my house anymore," he said.

"What amazes me is Cimarron was a 50 MW cooperative in 2008, when I became manager. At year's end,

(Continued on Page 4)

Oil play growth

(Continued from Page 3)

projections indicate that we will be a 125 MW cooperative," Snowden commented. "And, they are just getting started."

In particular, Andrews pointed out that CEC recorded a peak load of 60 MW in January 2016, and, just two years later in the same timeframe, had a 91 MW peak load. If projections hold true for future load growth, Cimarron will be looking at more than doubling their load of two years ago, he said.

Andrews noted that the initial load growth started in early 2016, and by mid-to-late year, they were seeing a constant trend. He explained that Kingfisher, Canadian and Blaine counties, located in the STACK play of the Anadarko Basin, are currently the center of the largest growth in Cimarron's service area.

"In 1999, Cimarron's membership basically included 63 percent residential and 37 percent commercial. Now, we are seeing a complete inversion of these numbers," Andrews noted.

Cimarron Electric staff have meetings to update progress for the week, discuss any changes and future projects. Those pictured are (from left) Mark Andrews, key account & special projects manager; Reed Emerson, senior vice president of Operations & Engineering; and Eric Roberts, project manager. (Cimarron Electric Photo)

WFEC's Response to Demand

To date, WFEC has constructed three new substations to accommodate load demands in this area. These include Omega Substation (located between Kingfisher and Watonga); Geary Substation (near Geary, Canadian County) and Park Community Substation, (located west of Okarche). These three substations have been completed and are energized. Another substation, Fay, is in the planning stages. Several substations and transmission lines were also upgraded in Cimarron's service territory, including voltage conversions.

WFEC has constructed three new substations to accommodate load demands in this area. Pictured above is the newly constructed Park Community Substation, located in Kingfisher County, west of Okarche.This 138/26.4 kilovolt substation has three equipped circuits and one spare to serve the MarkWest Omega Plant, plus the growing oil load in the area.

SCOOP Play

Load growth from oil and gas projects has also been seen in counties surrounding Cimarron's service territory, in the SCOOP play. However, growth is reportedly moving at slower pace, compared to the STACK play. Parts of Caddo, Grady, Garvin, McClain, Murray, Carter, Love, Jefferson and Stephens

The MarkWest Omega Plant (shown above), has been constructed to accommodate the oil and gas growth in Cimarron Electric's service territory. MarkWest has plans to expand this current plant in the future. There are also other loads coming online in the future in other areas of Cimarron Electric's system. The MarkWest Plant is processing product from the area.

counties are included in the SCOOP play. Growth from this particular area is being carried through several WFEC member cooperatives, including Oklahoma Electric, Rural Electric and Cotton Electric.

Crews from Maslonka Powerline Services, from Spokane, Wash., are shown constructing transmission lines in Cimarron Electric's service territory. This project consists of approximately 11 miles of new 138 kilovolt transmission line from the new Park Community Substation to the Kingfisher Switch Station.

Improvements in an existing technology have boosted oil field business, some believe, as horizontal drilling is being utilized more frequently in the industry. Horizontal drilling is the process of drilling a well from the surface to a subsurface location just above the target oil or gas reservoir - then deviating the well bore from the vertical plane around a curve to intersect the reservoir at the "entry point" with a near-horizontal inclination.

Previous Growth Trend

A few years back, Alfalfa Electric and Kay Electric cooperatives, both in northwest Oklahoma, experienced a similar growth spurt within their respective service territories. However, this load surge was fairly short-lived due to several factors.

WFEC CEO Gary Roulet noted that these two cooperatives were initially projecting a 400 MW load growth. However, this growth did not materialize as expected with an approximate 150 MW outcome. WFEC built

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Oil play growth

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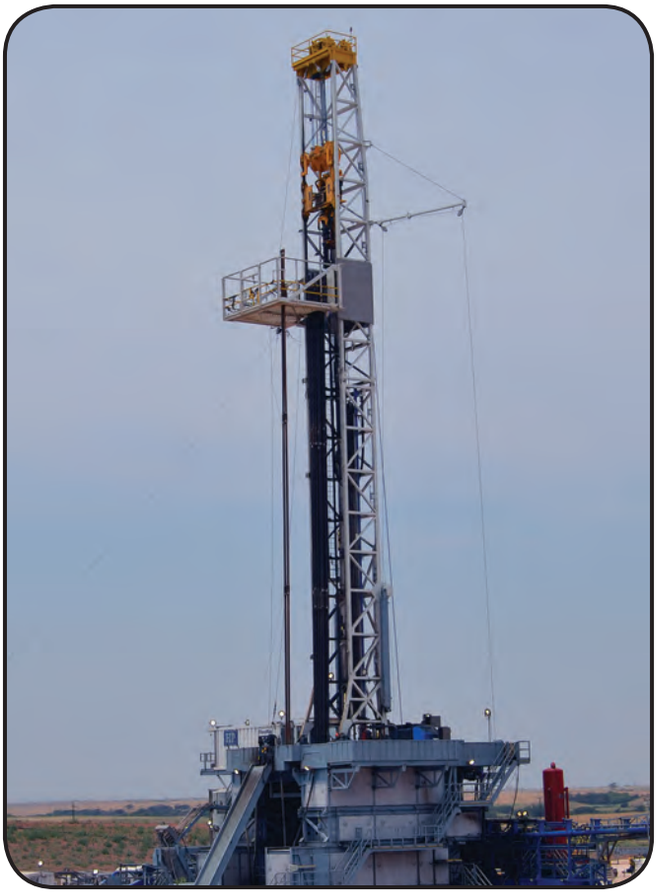

A sign of the times in the service territory of Cimarron Electric and surrounding areas.

infrastructure for 200 MW for this potential oil and gas load growth, he said, adding that this load has now dropped to about 100 MW.

"However, the existing transmission in this area (at the time of the growth spurt), could only have supported less than 5 MW of growth. All-in-all, the Alfalfa/Kay outcome was positive," Roulet noted.

"I would expect Cimarron's situation to be similar in some ways, as WFEC is preparing for over 200 MW of load growth in this area," Roulet commented. "It may drop off slower than Alfalfa and Kay's growth, but it will likely reduce over time. It all depends on strong oil prices or at least prices closer to $50 a barrel versus $30," Roulet explained.

Overall, the future looks promising for WFEC and its member cooperatives. "WFEC is ramping up to meet the demands of our membership, as a lot of work is on the radar between now and 2022. WFEC is committed to meeting our members' needs," Roulet added.

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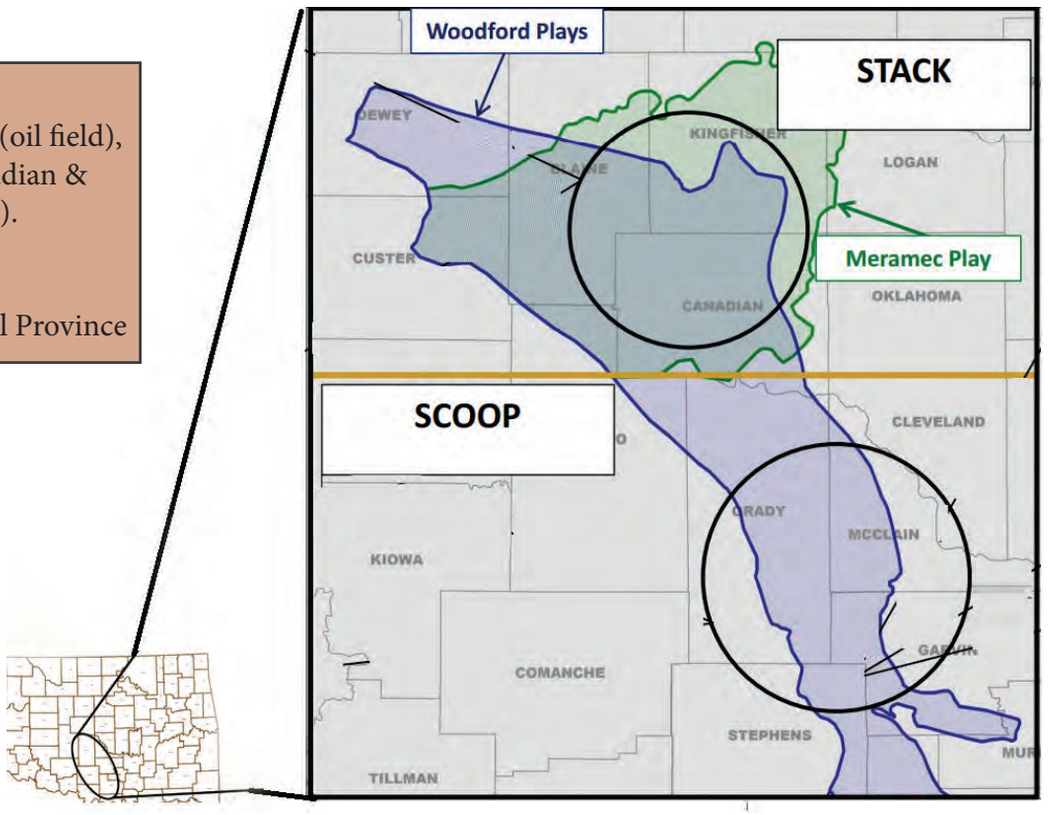
STACK
Derived from Sooner Trend (oil field), Anadarko (basin) & Canadian & Kingfisher (counties).

SCOOP
South Central Oklahoma Oil Province



Map source:
OK Energy Today
website

Spring into Summer Savings

Special Loan Rates

New	As Low As	Term
Computers, Appliances,	5.75%	up to 24 months
Furniture, Lawn/Garden,	6.25%	up to 36 months
Tools, Equipment,	6.75%	up to 48 months
Sporting Goods, Misc.		
Storm Shelter (up to $6000)		

Offer good through
August 31, 2018

http://www.cecuok.virtualcu.net/

Powerful winds, storms take a toll on WFEC's transmission system

Western Farmers Electric Cooperative (WFEC) transmission and distribution line crews and substation crews have been dealing with the effects of high winds and strong thunderstorms during the past several weeks. Over 80 transmission structures were impacted, mostly in northwestern and western parts of Oklahoma. This total includes both single-pole and H-structures.

In late May, some 30 transmission structures were damaged or downed in the Mooreland and neighboring areas. Six 69 kilovolt (kV) H-structures were lost on the Eagle Chief to Cherokee line. Also, 16 - 69 kV H-structures were damaged on the Arapaho to Gotebo line. Additionally, eight 138 kV H-structures were down on the Mooreland to Morewood line, due to extremely high winds estimated to be near 90 mph in some areas.

Scattered weekend storms in late June once again caused damage in the northwest and western portions of WFEC's service territory. Over 50 structures were affected in the Mooreland, Woodward, Okeene and Gotebo areas. On the Woodward SW to Curtis Junction, 31 (138 kV) structures were damaged or broken. Four structures were affected on the Mooreland to Okeene line, with seven structures down on the Gotebo to Lake Creek line. The stormy weekend ended with an additional eight structures damaged on the Ft. Supply to Clearlake line.

WFEC line crews prepare a 138 kilovolt (kV) structure for installation along the Woodward SW to Curtis Junction, where some 31 single structures were downed in a weekend storm that passed through the northwest part of the state. Crews worked in this area during the last week of June to replace these damaged structures. The project should be completed by the first week of July. WFEC lineman, including (from left) Tony Dyer, light equipment operator; Eric Hunt, power line technician; Jerrad Wilkins, power line technician (partially hidden); and Jordan Marsh, journeyman power line technician, make preparations to lift the new structure in place. Additional WFEC crews/trucks are shown in the background, as they arrive at this location to assist with the efforts.

Wildfires cause extensive damage

Storms were not the only culprit to cause significant damage to transmission structures, power lines, substations and other equipment during the spring months.

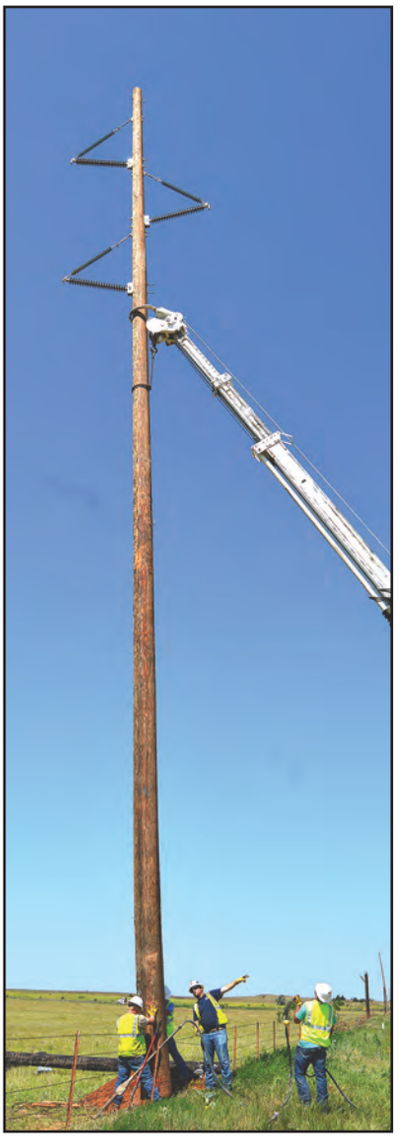
In April, wildfires raged out of control, being fueled by dry conditions. These fires burned hundreds of thousands of acres, primarily across Dewey, Woodward and Roger Mills counties in northwestern Oklahoma.

WFEC Transmission & Distribution Services employees spent lots of hours near the path of the wildfires, as structures were going down quickly. Overall, WFEC lost some 190 transmission structures during the weeks the fire burned out of control.

Repairs are still underway from the destruction in some areas.

Jordan Marsh (on truck) utilizes a dual cylinder pole puller to remove a partial broken pole from the ground, while Eric Hunt, Kaleb Riner, a journeyman power line technician, and Jerrad Wilkins, assist on the ground. This hydraulic-powered equipment enables crews to pull utility poles up in less time than using chains, connected to a utility-type of vehicle or equipment.

Tony Dyer (left), Chris Dempsey and Jerrad Wilkins unload a dual cylinder pole puller to remove a broken pole from the ground. This piece of equipment is much safer for workers in the field, as it greatly reduces the risk of injury from a chain that could snap loose.



Eric Hunt (center) calls out directions for the operator, while Chris Dempsey, apprentice II power line technician (left) and Tony Dyer (partially hidden) guide a new 80-foot structure into place. At right, Kaleb Riner prepares to tamp the dirt area surrounding the structure to make it more compact.

Photos by Howie Jackson

Anadarko Plant Unit 3 passes all operational, environmental testing

Relief Shift Supervisor Eric Ladyman (front) adjusts the steam admission valves to "stretch" the turbine prior to rolling up to synchronous speed. Relief Auxiliary Operator Steve Mopope observes this phase during the annual operational testing on Anadarko Unit 3.

Relief Control Room Operator Matt Connally (below) operates Unit 3 from an Ovation control system once the unit is online.

Anadarko Plant Maintenance Superintendent Clem Cassmeyer monitors sealing pressure steam at Unit 3 front standard. Sealing steam prevents air leakage and vacuum loss around the turbine shaft.

Anadarko Plant crews recently completed the annual operational testing on Unit 3, which also consisted of environmental testing.

This unit passed all of the testing "with flying colors."

Unit 3, a 1958 model Allis-Chalmers turbine and generator; and a 1958 Riley Stoker natural gas fired boiler, was commissioned in 1958.

Even though Unit 3 is rarely called on to run, it is available in the Southwest Power Pool (SPP) Day Ahead Market each day.

Relief Control Room operator Mike Anderson (right) adjusts voltage to match system conditions prior to closing the main generator breaker. This work was performed during a recent test of Anadarko Unit 3.

Steve Mopope monitors the drum level using a mirror system that allows the hydro-step (located at the drum) to be monitored from the operating floor. This monitoring is an important aspect of an operational unit test.

Photos by Sondra Boykin

Have you considered purchasing an electric vehicle (EV)? Have you researched the various models that are currently available in today's market? Or, perhaps you are waiting to see just what happens with this growing technology?

Whatever the answers to the above questions, EVs may or may not be right for everyone, primarily depending on driving habits,

A growing popularity has been prevalent over the past few years, as more drivers are hitting the road with a safe and convenient car that can save money on fuel costs, while also slashing emissions. Charging stations are also becoming more prevalent along major highways and in some cities.

While it's difficult to imagine where the future will take electric vehicles, one thing is clear: they have a potential for creating a more sustainable future, industry sources have said, indicating that the future is arriving sooner than expected.

Western Farmers Electric Cooperative (WFEC) is currently looking into what options might be available for both its own fleet of vehicles, as well as potential future projects for its member cooperatives. The electric utility industry is quickly changing, and promoting the EV is one existing possibility of stepping ahead of the curve, while also taking advantage of the EV's progress.

One step taken by WFEC was to become a part of the Oklahoma Electric Vehicle Coalition, which was formed to help develop the electric vehicle market in Oklahoma. EVs represent big opportunities for the state to save money, drive cleaner and utilize available energy resources.

As part of their participation in the OK EV Coalition, WFEC supported the development and launch of a new statewide website dedicated to providing accurate and unbiased information regarding EVs for Oklahoma. This website, www.ChooseEV.com/OK, serves as a central point for information on EVs in Oklahoma.

Again, EVs may not be right for everyone - yet, but the future holds some unique opportunities. There are also some ways for households with multiple vehicles or those with long, expensive commutes, to save money and drive more efficient.

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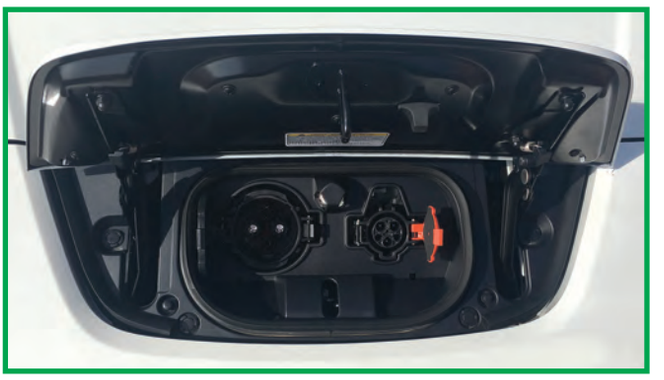
Benefits to expect from today's EV

- Electric vehicles cost less to operate.
- Charge your EV at home.
- EVs are more environmentally friendly.
- EV range-per-charge is sufficient for most commutes.
- Most auto manufacturers offer EV models.
- Use electricity generated from local resources.



Charging port for the 2018 Nissan LEAF

ChooseEV Oklahoma

Group's purpose to promote awareness of EV market; WFEC a part of these efforts

The Oklahoma Electric Vehicle Coalition is a diverse group of stakeholders working toward the development and expansion of the electric vehicle market in Oklahoma. The group's mission is to facilitate the adoption and awareness of EVs and EVSE in Oklahoma through this active and cohesive group of diverse EV stakeholders.

The Oklahoma EV Coalition was formed in early 2016 through a partnership of Oklahoma's two Clean Cities organizations – Central Oklahoma Clean Cities (COKCC) and Tulsa Area Clean Cities (TACC) – along with multiple in state stakeholders. The COKCC and TACC are housed within the Association of Central Oklahoma Governments (ACOG) and the Indian Nations Council of Governments (INCOG) organizations respectively, with both coalitions working aggressively to increase EV adoption.

The Coalition meets every other month to discuss ways to increase the number of registered electric vehicles in Oklahoma, coordinate and facilitate the deployment of EV charging stations, and conduct marketing and event outreach to increase public knowledge about electric vehicles.

Coalition members are working to increase EV adoption in Oklahoma through efforts such as increasing availability of EV charging locations, targeted marketing to commuters and early adopters, ride and drive events, promotional incentives and fleet investments. Additionally, members are identifying and investigating policy, legislative and regulatory opportunities to support EV adoption.

(Source: http://choseev.com/ok/)

There are a handful of key factors to review to determine if a household is a good fit for today's electric vehicles. Consider the following list before purchasing an EV:

Is your daily commute over 100 miles round trip?

Most of today's electric vehicles have a driving range-per-charge over 100 miles, which is far more than most daily commutes. The average commuter in the U.S. spends around $2,000 annually on gas (Source: EIA 2016), depending on your utility rate, you could save 50 to 75 percent on your fuel bill by going EV. If your daily commute is under 100 miles round trip, you might be a good candidate for an electric vehicle.

Do you frequently take trips that are over 130 miles one way?

Long road trips can present challenges for today's electric vehicles. Charging infrastructure and technology is continually improving, but planning is still required for long trips. If you live in a household with multiple cars, an EV can be a great choice for the daily commuter car.

Do you have off-street parking at your home?

Plugin electric vehicles require charging. The most ideal scenario is to have a Level 2 240V charger installed in your garage or driveway. Charging can also be done with a normal 120V outlet, like the standard outlets in your home.

(Source: http://choseev.com/ok/)

High winds from the same storm that took out almost 50 transmission structures, also damaged a cooling tower at the Mooreland Plant. Louvers, that help keep the cooling tower water inside the tower, suffered the most damage. The plant also had damage from a previous storm in late May, with a contractor on-site at the plant making repairs to Unit 2 and 3 cooling towers, from the May storm. So, it was authorized for Midwest Towers to continue with both sets of repairs. Work is expected to be completed in early July. Despite the damage, the Mooreland Plant remained available for service, while repairs were being made.

Moore Office Progress

Photos by Howie Jackson

WFEC proactive in minimizing transitions due to retirements, workplace turnovers

By Sondra Boykin

Workplace turnovers, whether it's a retirement or any type of job change, can often create some challenges, as years of valuable experience may be walking out the door. Western Farmers Electric Cooperative (WFEC) has been on that "bumpy ride" of staff changes for several years now for various reasons.

However, it now appears the cooperative may be on a downhill slide, explained Rodney Palesano, senior manager, Human Resources.

Focusing on retirements in particular, WFEC's Human Resource's staff estimates that the cooperative is about 60 percent through a retirement phase that has included many long-time employees. Still to come within the next few years or so are even more retirements of seasoned employees from all of WFEC's locations, and from all levels of employment, with supervisory and management levels likely to be included.

"We (NRECA) will be experiencing higher than average retirements for the near future, with a peak in approximately 2021. While this wave of retirements will be significant, it is not quite so dramatic as to be unprecedented. It will affect management to a greater degree than regular employees," Jim Antetomaso (NRECA) predicts.

Turnover in the Workplace

Some factors creating turnovers within a company, other than retirements, include business needs and growth, competition and technology. The state of the economy also has an impact, as interest rates and stock market performance have a definite impact on retirement accounts and employees' interest in deciding when to retire.

"One important thing to keep in mind is that retirements in a particular year are sometimes driven by things like expectations regarding interest rates," explained Antetomaso.

"The nature of lump sum payments is that they are subject to significant swings based on interest rates, so sometimes folks will delay retirement and then retire all at once the next year because interest rates have changed, thus increasing their payout," he noted, adding that "…retirement timing is not just a function of age…".

Low Turnover Rate

Another factor for job turnover involves generational preferences and expectations. The generation in which one is born, may or may not influence the length that one stays at any one particular job. However, there are some indications of a difference, according to some sources.

For example, beginning in the late-nineties, WFEC experienced very little turnover, as employees were content to work at the same place for numerous years, with job stability being the norm. But, as retirements began among the last of the Baby-Boomer generation, numerous employees became eligible for retirement.

Some took advantage of retiring when hitting that age when additional benefits kick in or when reaching their eligible service years. Still, others continued on and reached 35, 40 and even 45 years of service. And, some are still going.

Changing Times

But, a major sign of change involved the number of job postings. For the longest time, it seemed, new job postings were sporadic. Employees were staying put and not changing professions, with a sense of permanence among the WFEC workforce.

WFEC Employment Basics

- *Some 250 positions filled over last three years.*
- *Result - 142 employees - new to WFEC.*
- *Over 240 new employees hired in past 10 years.*
- *Based on authorized headcount of 410 - over 58 percent change.*
- *Thirty-one jobs posted since beginning of 2018.*
- *A total of 55 postings for all of 2017.*
- *Average retirement age of 61.3.*

However, times have changed. WFEC has filled approximately 250 positions over the last three years, which resulted in 142 new employees.

More than 240 new employees have been hired in the past 10 years. Based on an authorized headcount of 410, that is a 58 percent change.

Job postings are now commonplace, with 31 jobs posted since the beginning of 2018. Last year, there were 55 postings, according to HR statistics.

Now, while not a negative factor, the younger generation seems to have differing aspirations, among which include flexibility and movement, along with consistently evolving.

Positive Steps

However, WFEC has been proactive in taking measures to minimize and manage the effects of transition, including those at a managerial level," explained Palesano.

"With a high number of WFEC employees eligible to retire within a relatively short period, the Board of Trustees had the foresight to take action and help smooth the transition," Palesano noted. These efforts included the approval of both new and flex positions, both of which would allow the person retiring the chance to train someone new to possibly take over his or her position.

The Board of Trustees also authorized the construction of a new building in Moore to house additional employees and increase office capacity. These endeavors have been beneficial for WFEC

Retirement Trends

As far as recent retirement trends, Antetomaso compiled the following data that shows very little deviation from age 61, a trend he said has been consistent for decades.

Average Retirement Age

NRECA

- For 2000 to 2009 - **61.8**
- For 2010 to 2018 - **62.6**

WFEC

- For 2000 to 2009 - **61.3**
- For 2010 to 2018 - **61.3**

So, while it may occasionally feel like employees are "clocking out" earlier to live the dream of retirement, the majority, at least among WFEC and NRECA employees, are following the mindset of working towards a financial goal, but "The Times – They are A-Changin'.

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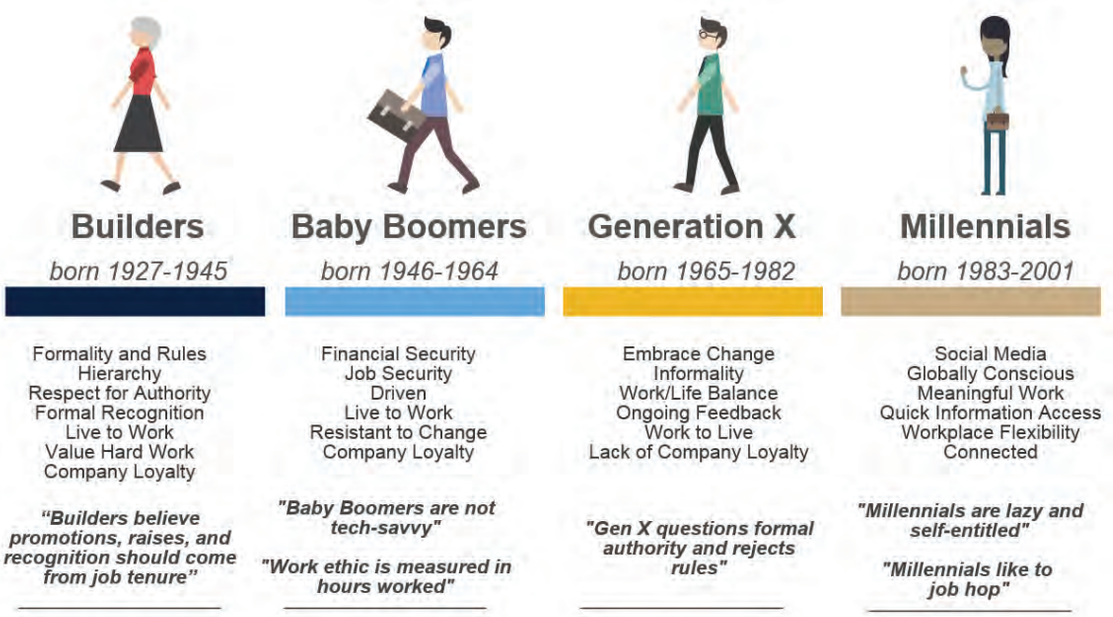

There are currently four generations in the workplace, with a fifth (Generation Z), soon to enter. Each generation brings different perspectives, needs, and values to the workplace. Each generation also often faces stereotypes and biases that can impact inclusiveness of the workforce. Examples of these stereotypes can be seen in some of the characteristics and myths included in this infographic.

Source: National Diversity Council Website

Western Farmers Electric Cooperative
P. O. Box 429
Anadarko, OK 73005-0429

www.wfec.com

The cooperative difference

Electric co-ops are local energy and technology providers. They are shaped by the specific needs of the communities they serve. This local, member-owned structure is one reason why cooperatives enjoy the highest consumer-satisfaction scores within the electric industry, according to J.D. Power and Associates and the American Consumer Satisfaction Index.

- Co-ops **earned the top spot** in the J.D. Power and Associates 2017 Electric Utility Customer Satisfaction Study.
- Electric cooperatives, on average, **score three points higher** than all other energy utilities, according to the 2017 American Consumer Satisfaction Index.

Committed to serving the last mile

- Co-ops serve an average of **8 consumers per mile** of electric line; collect annual revenue of $19,000 per mile of line.
- All other utilities average **32 customers** per mile of line; collect $79,000 per mile.

Electric cooperatives are guided by seven principles:

1. Voluntary and open membership
2. Democratic member control
3. Members' economic participation
4. Autonomy and independence
5. Education training and information
6. Cooperation among cooperatives
7. Concern for community