

# Power for the Plains upgrades

## 2016 accomplishments

Xcel Energy continues the build out of the power grid in Texas and New Mexico. Nearly 100 miles of new 115 kilovolt (kV) transmission line were energized in the two states in 2016 totaling a \$105 million investment. The projects completed this year include the Curry-Bailey 115 kV transmission line spanning 37 miles between the Curry County Substation east of Clovis, N.M., to the Bailey County Substation south of Muleshoe, Texas. The approximately \$38 million project will improve system reliability as customer load growth and new generation resources are added in the region.

“Before this line was completed, we had only one transmission line coming into the Bailey County Substation,” said Donnie TeBeest, Xcel Energy project manager. “The new line opens up other options on the transmission system in the area and helps prevent reliability issues.”

Other 2016 achievements include completing two projects in Texas, the 38-mile Bowers-Howard 115 kV line in March and the 20-mile Ochiltree-Lipscomb 115 kV line in June. The two-mile

Andrews-National Enrichment Facility line was also energized in New Mexico. These new projects will enhance reliability and open up pathways for more renewable energy.

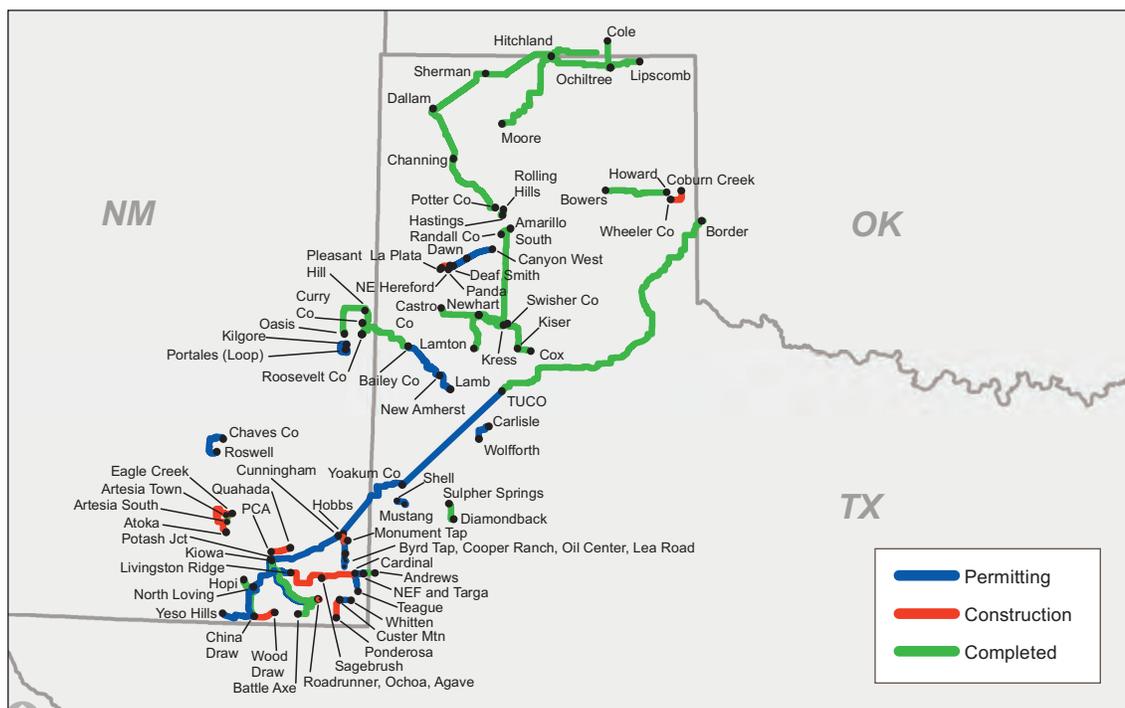
An additional 100 miles of new transmission will be built in Texas and New Mexico in 2017 and more than 500 miles by 2021.

Xcel Energy has invested in nearly 800 miles of new transmission lines and ten substations since 2011 in New Mexico and Texas. The transmission expansion represents more than \$1.6 billion in investment. Learn more about the current and upcoming projects at [PowerforthePlains.com](http://PowerforthePlains.com).



**Crews construct a foundation on the China Draw-Wood Draw project south of Carlsbad.**

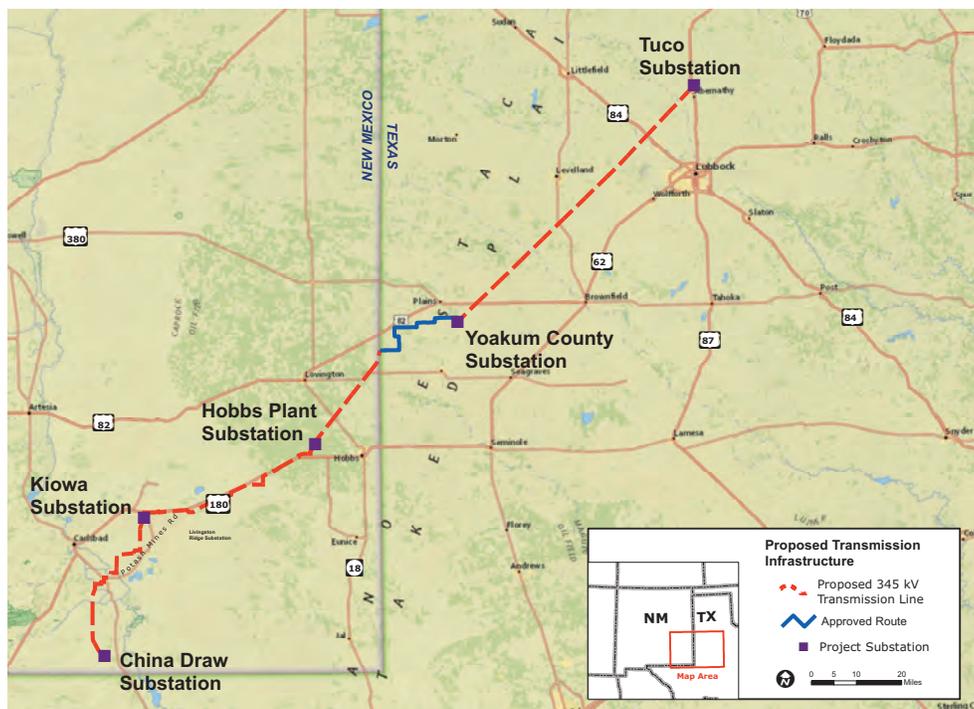
### Power for the Plains projects



## First New Mexico regulatory approval expected for 240-mile 345 kV line

Xcel Energy is seeking route approvals to build an approximately 240-mile 345 kV transmission line to deliver more reliable and abundant energy in New Mexico and Texas. The transmission line will connect the TUCO Substation north of Abernathy, Texas, to the China Draw Substation in southern Eddy County, N.M. The combined cost of the TUCO-China Draw 345 kV transmission line is estimated at \$400 million. The line is expected to be in-service in 2020.

## TUCO-China Draw 345 kV transmission line



### TUCO-China Draw project milestones

- March 2016: Public Utility Commission of Texas approves Certificate of Convenience and Necessity (CCN) for Yoakum Substation to the state line portion of the line.
- June 2016: TUCO to Yoakum CCN filed with the Public Utility Commission of Texas
- December 2016: CCN approval anticipated from the New Mexico Public Regulation Commission on the 86-mile Hobbs-China Draw portion of the line. If approved, construction would begin in April 2017, with an estimated in-service date in 2018.
- 2017: CCN to be filed in New Mexico for the state line to Hobbs Substation portion of the line.

### Projects under construction

Name	State	Voltage	Estimated cost (millions)	Estimated length	Estimated in-service date
Atoka-Eagle Creek	NM	115 kV	\$21	25	June, 2017
Livingston Ridge-Sage Brush-Cardinal	NM	115 kV	\$40	47	6/1/2018
Wheeler-Coburn Creek	TX	115 kV	\$12	11	2/15/2017
Custer Mountain-Ponderosa	NM	115 kV	\$11	11	6/1/2017
PCA-Quahada	NM	115 kV	\$10	13	May, 2017
Roadrunner-Agave-Ochoa	NM	115 kV	\$6	2	4/28/2017
China Draw-Wood Draw	NM	115 kV	\$16	14	6/15/2017

# Construction highlights

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## Livingston Ridge-Sage Brush-Cardinal

The first segment of the 47-mile 115 kV transmission line is expected to be energized this year. The completed 19 mile section of the line spans between the new Sage Brush Substation about 50 miles east of Carlsbad and the new Cardinal Substation about 60 miles east of Carlsbad. The remaining 28-mile line between the Livingston Ridge Substation about 14 miles east of Carlsbad and the Sage Brush Substation is expected to be complete in 2018.

## China Draw-Wood Draw

All foundations are complete and structure setting is underway on the 14-mile 115 kV transmission line. The project, expected to be complete in 2017 is being built between the new China Draw Substation about 20 miles south of Carlsbad and the Wood Draw Substation about 30 miles southeast of Carlsbad.

### How transmission works

Transmission lines can deliver electricity over long distances from power sources to substations closer to homes and businesses.

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## PCA-Quahada

Construction began this month on the 13-mile 115 kV transmission line. The current line, located northeast of Carlsbad, is being removed and rebuilt in the existing right of way to increase reliability and alleviate overload conditions. The project is expected to be energized in 2017.



Substation work has begun on the Custer Mountain-Ponderosa 115 kV transmission line near Jal, N.M. Crews work on excavating and framing the control house that will sit at the new Ponderosa Substation about eight miles west of Jal.

## Renewable connection

A celebration was held in October to commemorate the commissioning of New Mexico's largest solar facilities. The Roswell and Chaves County Solar Energy Centers feature 600,000 solar panels with the capacity to generate 140 megawatts of clean, renewable energy, enough to power more than 400,000 homes. Local and state leaders, together with executives from NextEra Energy Resources and Xcel Energy gathered to celebrate the completion. The Xcel Energy Chaves County Substation in Roswell was upgraded to interconnect the new solar facilities to the power grid.



## Economic impact

The Roswell and Chaves County Solar Energy Centers have created a significant economic boost for the Chaves County and Roswell area creating about 300 jobs during the construction phase, as well as five full-time positions to operate the energy centers. From labor and materials, to housing, health care and construction – a wide variety of local businesses benefitted from the influx of economic activity. Over their operational life, the two energy centers are expected to generate payments in lieu of property taxes of \$660,000 per year for the local area, with a portion going to Chaves County and a portion directly to the Roswell Independent School District.

## Historic find

Crews conducting archaeological excavations for an Xcel Energy transmission line project in Eddy County, New Mexico hit the historical jackpot earlier this year. They uncovered roughly 26,000 artifacts in the area, some thought to date back over 5,000 years.

The archaeological finds include an extremely rare shallow basin pit house, which was a form of shelter dating back to the archaic time period. Inside the pit house was a storage pit, fire hearth and sockets for wooden supports to form a roof over the structure. The pit house would be the only archaic period habitation structure ever uncovered in Eddy County.

"Xcel Energy has been a great partner on this. We would never have uncovered these finds without their help," said Bruce Boeke, Bureau of Land Management Archaeologist. "It is a great opportunity to learn something about the people who lived here and understand the challenges they faced."

Bedrock mortars used by Native Americans to process plant foods were also discovered, in addition to ancient stone arrow heads, small trade beads and a very rare rolled metal cone, typically used for decorating clothing, baskets and horse bridles.

After being analyzed the artifacts will be turned over to the Museum of Indian Arts and Culture in Santa Fe to be curated.

