

| NTC ID | PID | UID | Facility Owner | 2017 Project Type | Cost Estimate | Cost Estimate Source | Upgrade Description | TO Projected In-Service Date | RTO Determined Need Date | STEP Date | Project Lead Time (Months) | From Bus Number | From Bus Name | To Bus Number | To Bus Name | Circuit Code | Voltage (kV) | New Miles | Rebuild / Reconductor Miles | Voltage Conversion Miles | Ratings (kV) |
|--------|-------|-------|----------------|----------------------|---------------|----------------------|---|------------------------------|--------------------------|-----------|----------------------------|-----------------|---------------|---------------|----------------|--------------|--------------|-----------|-----------------------------|--------------------------|--------------|
| 20003 | 138 | 10176 | WFEC | ITP | \$1,050,000 | SPS | Upgrade WFEC Woodward sub to 1200 A and reconductor from 336.4 ACSR to 795 ACSR; new rating 91/110 MVA. | 5/1/2017 | 4/1/2009 | | 12 | 514782 | WOODWRD 2 | 521096 | WOODWRD2 | 1 | 69 | | 3.5 | | 91/114 |
| 200397 | 242 | 10308 | WFEC | ITP | \$3,240,000 | WFEC | Rebuild 10.8-mile 69 kV line from Elmore to Paoli. | 9/1/2017 | 6/1/2009 | 6/1/2009 | 24 | 520898 | ELMORE 2 | 521022 | PAOLI 2 | 1 | 69 | | 10.8 | | 91/114 |
| 200395 | 409 | 10533 | SPS | ITP | \$2,468,463 | SPS | Replace first existing 115/69 transformer at Hereford Interchange. | 11/13/2018 | 6/1/2017 | 6/1/2017 | 24 | 524606 | HEREFORD 3 | 524602 | HEREFORD_TR1 1 | 1 | 115 | | | | 83/95 |
| 200395 | 409 | 10534 | SPS | ITP | \$2,437,078 | SPS | Replace second existing 115/69 transformer at Hereford Interchange. | 11/13/2018 | 6/1/2017 | 6/1/2017 | 24 | 524606 | HEREFORD 3 | 524603 | HEREFORD_TR2 1 | 2 | 115 | | | | 83/95 |
| 200216 | 451 | 10583 | AEP | ITP | \$12,705,537 | AEP | Rebuild and reconductor 11.1-mile 161 kV line from Chamber Springs to Farmington REC with 2-959.6 ACSR/TW. Upgrade wavetraps, CT ratios, and relay settings at Chamber Springs. | 6/1/2017 | 6/1/2013 | 6/1/2013 | 36 | 506944 | CHAMSPR5 | 504020 | FARMINGTN 5 | 1 | 161 | | 11.1 | | 294/360 |
| 200296 | 30390 | 10600 | WR | ITP | \$41,100,000 | WR | Rebuild 27-mile 230 kV line from East Manhattan to Jeffrey Energy Center to 345 kV standards but operate as 230 kV using bundled 1590 ACSR conductor. Upgrade terminal equipment at East Manhattan and Jeffrey Energy Center to a minimum emergency rating of 2000 Amps. | 6/1/2017 | 6/1/2017 | 6/1/2017 | | 532861 | EMANHAT6 | 532852 | JEC 6 | 1 | 230 | | 30 | | 797 |
| 200379 | 468 | 10604 | WR | Transmission Service | \$229,690 | WR | Install any necessary terminal upgrades at Arkansas City and/or Paris to increase the rating of the 69 kV line between the two substations. | 6/1/2017 | 6/1/2017 | 6/1/2017 | | 533548 | PARIS 2 | 533542 | ARKCITY2 | 1 | 69 | | | | 73 |
| 200216 | 501 | 10646 | AEP | ITP | \$11,980,465 | AEP | Rebuild 6.4-mile 69 kV line from Everside to Northwest Henderson with 1233.6 ACSR/TW. Replace breaker at Everside. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 24 | 509061 | EVENSID2 | 509075 | NWHENDR2 | 1 | 69 | | 6.4 | | 71/96 |
| 200216 | 504 | 10649 | AEP | ITP | \$16,401,035 | AEP | Rebuild 4.7-mile 69 kV line from Brownlee to North Market with 1233.6 ACSR/TW. Rebuild MKEC portion of the 5.6 mile Clearwater-Milan Tap 115 kV with bundled 1192.5 kcmil ACSR conductor (Bunting). | 12/31/2016 | 6/1/2013 | | 24 | 507718 | BROWNLE2 | 507745 | NMARKET2 | 1 | 69 | | 4.7 | | 136/143 |
| | 30208 | 10991 | MKEC | ITP | \$2,501,569 | MKEC | Rebuild Westar portion of the Clearwater-Milan tap 115 kV with bundled 1192.5 kcmil ACSR conductor (Bunting). | | 3/1/2022 | 3/1/2022 | | 533036 | CLEARWT4 | 539675 | MILANTP4 | 1 | 138 | | 5.6 | | 261/314 |
| | 30209 | 10992 | WR | ITP | \$11,839,190 | WR | Rebuild Westar portion of the Clearwater-Milan tap 115 kV with bundled 1192.5 kcmil ACSR conductor (Bunting). | | | 3/1/2022 | | 533036 | CLEARWT4 | 539675 | MILANTP4 | 1 | 138 | | 6.1 | | 261/314 |
| 200256 | 766 | 11010 | SPS | ITP | \$8,313,726 | SPS | Add second 230/115 kV 250 MVA transformer at Newhart substation. | 12/2/2016 | 6/1/2015 | | | 525461 | NEWHART 6 | 525460 | NEWHART 3 | 2 | 230 | | | | 250 |
| 200229 | 772 | 11017 | SPS | ITP | \$30,000,000 | SPS | Build new 16.8-mile 230 kV line from Carlisle to Wolfforth South and install necessary terminal equipment. | 12/20/2017 | 6/1/2017 | 6/1/2017 | 36 | 526525 | WOLFFORTH 6 | 526161 | CARLISLE 6 | 1 | 230 | 16.8 | | | 478 |
| 200381 | 777 | 11027 | SPS | Transmission Service | \$5,000 | SPS | Replace CT at East Plant 115 kV substation to increase the rating of the 115 kV line from East Plant to Manhattan. | 6/1/2017 | 6/1/2017 | | 12 | 524162 | EAST_PLANT 3 | 524224 | MANHATTAN 3 | 1 | 115 | | | | 174 |
| 200214 | 802 | 11064 | SPS | ITP | \$4,022,313 | SPS | Upgrade Eddy County 230/115 kV transformer Ckt 1 to 250 MVA. | 4/18/2017 | 6/1/2016 | 6/1/2016 | 24 | 527800 | EDDY CNTY 6 | 527798 | EDDY CNTY 3 | 1 | 230 | | | | 250 |
| 200397 | 844 | 11113 | WFEC | ITP | \$4,725,000 | WFEC | Rebuild 10-mile 69 kV line from Sara Road to Sunshine Canyon. | 4/1/2018 | 6/1/2020 | 6/1/2020 | 18 | 521005 | MUSTANG2 | 521058 | SUNSHIN2 | 1 | 69 | | 10 | | 89 |
| 200256 | 856 | 11127 | SPS | ITP | \$11,526,448 | SPS | Build new 5.1-mile 115 kV line from Centre St. to Hereford NE. Convert distribution transformer high side at Centre St. from 69 kV to 115 kV. Install any necessary terminal equipment at Hereford NE. | 2/1/2018 | 6/1/2014 | 2/1/2018 | | 524567 | NE_HEREFORD3 | 524555 | | 1 | 115 | 5.1 | | | 245/275 |
| 200207 | 865 | 11142 | OPPD | ITP | \$475,340 | OPPD | Increase line clearances and upgrade terminal equipment on Sub 917 - Sub 918 69 kV line to allow the use of a higher conductor rating. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 18 | 647917 | S917 8 | 647918 | S918 8 | 1 | 69 | | | | 89 |
| 20110 | 910 | 11207 | OGE | Transmission Service | \$225,000 | OGE | Replace wavetraps | 6/1/2019 | 6/1/2019 | | 12 | 514839 | BRYANT 4 | 514835 | MEMRIAL4 | 1 | 138 | | | | 478 |
| 20096 | 936 | 11236 | AEP | High Priority | \$185,751,250 | AEP | Build a new 76 mile 345 kV line from Valliant to NW Texarkana with at least 3000 A capacity. Upgrade the Valliant and NW Texarkana substations with the necessary breakers and terminal equipment. | 12/16/2016 | 10/1/2014 | | 51 | 510911 | VALIANT7 | 508072 | NWTXARK7 | 1 | 345 | 76.25 | | | 1330/1940 |
| 20097 | 938 | 11239 | TSMO | High Priority | \$81,407,015 | TSMO | Build a new 345 kV substation at Mullin Creek (formerly Maryville) with a ring bus and necessary terminal equipment. Build a new 65 mile 345 kV line with at least 3000 A capacity from the new Mullin Creek substation to the Missouri/Nebraska state border towards OPPD's Nebraska City substation. | 12/15/2016 | 6/1/2017 | | 72 | 645458 | S3458 3 | 541197 | SMARYVL7 | 1 | 345 | 64 | | | 2496 |
| 20098 | 939 | 11240 | OPPD | High Priority | \$70,361,776 | OPPD | Build a new 45-mile 345 kV line with at least 3000 A capacity from the Nebraska City substation to the Missouri/Nebraska state border towards KCPL's Mullin Creek (formerly Maryville) substation. Upgrade the Nebraska City substation with the necessary breakers and terminal equipment. | 12/31/2016 | 6/1/2017 | | | 645458 | S3458 3 | 541197 | SMARYVL7 | 1 | 345 | 45 | | | 2496 |
| 200404 | 1001 | 11315 | SPS | Transmission Service | \$10,316,217 | SPS | Construct approximately 2 miles of new 115 kV line from Randall Co. Interchange towards Osage Substation connecting to South Georgia line. Tie new 115 kV line into existing circuit V70 near Osage Substation. Reconfigure the 115 kV transmission lines around Osage Substation: remove circuit V04 termination from Osage Substation and remove circuit back to Manhattan Tap (remove 3 - terminal condition); remove circuits V67 and V05 terminations from Osage Substation and tie them together around Osage Substation; leave only circuits V43 and T75 terminated at the Osage Substation. Add new 115 kV terminal at Randall Co. Interchange and rebuild Randall 115 kV bus to breaker and one-half design. Upgrade terminal equipment and reset relays at South Georgia Interchange. | 12/15/2017 | 6/1/2016 | 6/1/2016 | 24 | 524364 | RANDALL 3 | 524322 | GEORGIA 3 | 1 | 115 | 2 | | | 160 |
| 20110 | 1021 | 11343 | OGE | Transmission Service | \$18,000,000 | OGE | Add 3rd 345kV line from Arcadia to Redbud | 6/1/2019 | 6/1/2019 | | 36 | 514908 | ARCADIA7 | 514909 | REDBUD 7 | 3 | 345 | 5 | | | 1248/1426 |
| 200166 | 1033 | 11358 | SPS | ITP | \$6,300,000 | SPS | Reconductor 4.1 miles of 6.1-mile 115 kV line from Randall County to South Georgia. Convert 1.04 miles of 233 to 115 kV service by tapping the 115 kV line from Sunset Substation to Coulter Interchange at I-40 & Soncy Street. At Soncy Sub split the converted 233 line off the 69 kV bus and terminate to a new 115/13.2 kV transformer to serve the Soncy distribution load. Install new 115/13.2 kV distribution transformer. Leave 69 kV underground cable to Lawrence Park to be fed by Y72 out of Coulter Interchange. | 7/1/2017 | 6/1/2017 | 6/1/2017 | 18 | 524364 | RANDALL 3 | 524322 | GEORGIA 3 | 1 | 115 | | 4.1 | | 246/270 |
| 20130 | 1036 | 11372 | SPS | ITP | \$4,041,273 | SPS | Rebuild 23.7-mile 138 kV line from Welsh Reserve to Wilkes with 1926.9 ACSR/TW conductor. Upgrade switches at Welsh Reserve and Wilkes and wave traps, jumpers, CT ratios, and relay settings at Wilkes. | 3/31/2017 | 6/1/2015 | | 18 | 524252 | | 524254 | | 1 | 115 | | | 1.04 | 157/173 |
| 200305 | 1083 | 11423 | AEP | ITP | \$24,880,495 | AEP | Rebuild 23.7-mile 138 kV line from Welsh Reserve to Wilkes with 1926.9 ACSR/TW conductor. Upgrade switches at Welsh Reserve and Wilkes and wave traps, jumpers, CT ratios, and relay settings at Wilkes. | 6/1/2019 | 6/1/2019 | 6/1/2019 | | 508355 | WELSHRE4 | 508840 | WILKES 4 | 1 | 138 | | 23.7 | | 395/592 |
| | 795 | 11487 | SPS | ITP | | | Tap Pleasant Hill 115 kV substation into Norton - East Clovis 115 kV | 6/1/2013 | | 6/1/2013 | | 524502 | NORTON 3 | 524768 | PLSNT_HILL 3 | 1 | 115 | | | | 159/160 |
| | 795 | 11488 | SPS | ITP | | | Tap Pleasant Hill 115 kV substation into Norton - East Clovis 115 kV | 6/1/2013 | | 6/1/2013 | | 524768 | PLSNT_HILL 3 | 524773 | E_CLOVIS 3 | 1 | 115 | | | | 159/160 |
| | 795 | 11489 | SPS | ITP | | | Tap Pleasant Hill 115 kV substation into North Clovis - FE-Holland 115 kV | 6/1/2013 | | 6/1/2013 | | 524768 | PLSNT_HILL 3 | 524777 | N_CLOVIS 3 | 1 | 115 | | | | 160 |
| | 795 | 11490 | SPS | ITP | | | Tap Pleasant Hill 115 kV substation into North Clovis - FE-Holland 115 kV | 6/1/2013 | | 6/1/2013 | | 524768 | PLSNT_HILL 3 | 524831 | FE-HOLLAND 3 | 1 | 115 | | | | 160 |
| 200297 | 1139 | 11501 | SPS | Transmission Service | \$622,932 | SPS | Rebuild 6-mile 115 kV line from Lubbock South Interchange to Allen substation. | 6/1/2019 | 6/1/2019 | 6/1/2019 | | 526268 | LUBBCK_STH 3 | 526213 | ALLEN 3 | 1 | 115 | | 6 | | 174 |
| 200369 | 1142 | 11506 | SPS | Transmission Service | \$12,806,065 | SPS | Rebuild 13.5-mile 4/0 segment of 115 kV line from Canyon East Sub to Randall County Interchange. | 12/31/2020 | 2/1/2014 | | | 524364 | RANDALL 3 | 524523 | CANYON_EAST3 | 1 | 115 | | 13.8 | | 104 |
| 200262 | 1144 | 11508 | SPS | Transmission Service | \$4,525,487 | SPS | Add second 230/115 kV 250 MVA transformer at Hitchland. | 12/15/2016 | 6/1/2019 | 6/1/2023 | 24 | 523095 | HITCHLAND 6 | 523093 | HITCHLAND 3 | 2 | 230 | | | | 250/288 |
| 200359 | 1146 | 11509 | SPS | Transmission Service | \$4,061,797 | SPS | Upgrade 230/115 kV transformer at Carlisle. | 12/31/2017 | 10/1/2015 | 6/1/2023 | 24 | 526161 | CARLISLE 6 | 526160 | CARLISLE 3 | 1 | 230 | | | | 171 |
| | 1145 | 11524 | SPS | ITP | \$4,714,312 | SPS | Reconductor 3.98 miles of Carlisle - Murphy 115 kV. | | | 6/1/2021 | | 526160 | CARLISLE 3 | 526192 | MURPHY 3 | 1 | 115 | | 3.98 | | 273/300 |
| 20017 | 30160 | 50168 | OGE | Transmission Service | \$16,051,280 | OGE | Convert Ft. Smith 161KV to 1-1/2 breaker design and install 3rd 500-161KV transformer bank. | 5/1/2018 | 6/1/2017 | | 36 | 515305 | FTSMITH8 | 515300 | FTSMTHES | 5 | 500 | | | | 493 |
| 20080 | 30201 | 50208 | NPPD | ITP | \$700,000 | NPPD | Add a 18 Mvar capacitor bank at Clarks substation 115 kV bus. | 6/1/2018 | 11/1/2012 | | 24 | 640436 | CLARKS 7 | | | | 115 | | | | |
| 20080 | 30203 | 50210 | NPPD | ITP | \$741,050 | NPPD | Add a second 18 Mvar capacitor bank at Oneill 115 kV substation for a total of 36 Mvar at this location. | 6/1/2018 | 11/1/2012 | | 24 | 640305 | ONEILL 7 | | | | 115 | | | | |

| NTC ID | PID | UID | Facility Owner | 2017 Project Type | Cost Estimate | Cost Estimate Source | Upgrade Description | TO Projected In-Service Date | RTO Determined Need Date | STEP Date | Project Lead Time (Months) | From Bus Number | From Bus Name | To Bus Number | To Bus Name | Circuit Code | Voltage (kV) | New Miles | Rebuild / Reconductor Miles | Voltage Conversion Miles | Rating (kV) |
|--------|--------|-------|----------------|----------------------|---------------|--|--|------------------------------|--------------------------|-----------|----------------------------|-----------------|-----------------|---------------|-----------------|--------------|--------------|-----------|-----------------------------|--------------------------|-------------|
| 200414 | 30326 | 50372 | WR | Transmission Service | \$9,308,090 | WR | Build 6.7-mile Clay Center Switching Station to TC Riley 115 kV line with Single 1192.5 kcmil ACSR (Bunting). | 6/1/2018 | 10/1/2012 | | | 533320 | CLAYCSS3 | 533319 | RILEY 3 | 1 | 115 | 6.7 | | | 233/245 |
| | 30329 | 50376 | SPS | ITP | \$944,754.00 | SPS | Install 28.8 Mvar capacitor at Lamb County 69 kV. | | | | | | | | | | | | | | |
| | | | | | | | Build new single circuit 345 kV line from new Chisholm substation to point of interconnection with Oklahoma Gas & Electric Co. (OGE) towards Gracemont. The approximate line length for the Chisholm - Gracemont 345 kV line is 100 miles, of which AEP will construct approximately 70 miles from Chisholm to the OGE intersection point. | 3/1/2018 | 3/1/2018 | 3/1/2018 | 60 | 700345 | CHISHOLM7 | 515800 | GRACMNT7 | 1 | 345 | 72 | | | 1792 |
| | 200255 | 30361 | 50413 | AEP | ITP | \$93,361,588 | AEP | | | | | | | | | | | | | | |
| 200255 | 30361 | 50414 | AEP | ITP | \$20,410,547 | AEP | Build 55 mile new 345 kV line from Welsh to Lake Hawkins (or Perdue). | 3/1/2018 | 3/1/2018 | 3/1/2018 | 60 | 700345 | CHISHOLM7 | 700231 | CHISHOLM6 | 1 | 345 | | | | 675 |
| | 30362 | 50416 | AEP | ITP | \$100,504,688 | AEP | Expand Lake Hawkins (or Perdue) substation (or build new station). Install a 345/138 kV transformer at Lake Hawkins (or Perdue). | | | | | | | | | | | | | | |
| | 30362 | 50417 | AEP | ITP | \$16,666,456 | AEP | Reconductor 26 mile Glass Mountain - Mooreland line to 795 AS33 | 3/1/2022 | | | | 700346 | LHAWKIN7 | 508358 | LHAWKIN4 | 1 | 345 | | | | 675 |
| | 30363 | 50418 | OGE | ITP | \$15,990,000 | SPP | Reconductor 26 mile Glass Mountain - Mooreland line to 795 AS33 | | | | | | | | | | | | | | |
| | | | | | | | Build new 30-mile single circuit 345 kV line from the Gracemont substation to the interconnection point with American Electric Power, toward the new Chisholm substation. Install any necessary terminal equipment at Gracemont. | 3/1/2018 | 3/1/2018 | 3/1/2018 | 60 | 700345 | CHISHOLM7 | 515800 | GRACMNT7 | 1 | 345 | 29.8 | | | 1792 |
| | 200240 | 30361 | 50419 | OGE | ITP | \$43,853,500 | OGE | | | | | | | | | | | | | | |
| 200223 | 30364 | 50420 | OGE | ITP | \$59,522,400 | OGE | Build second circuit of new 61-mile 345 kV line from Tatonga to new Mathewson substation. | 7/1/2018 | 3/1/2021 | 3/1/2021 | 25 | 515375 | WWRDEHV7 | 515407 | TATONGA7 | 2 | 345 | 49 | | | 1792 |
| 200223 | 30364 | 50421 | OGE | ITP | \$65,785,650 | OGE | Reconductor 3.21 miles from Blue Springs to Prairie Lee 161 kV to 795 ACSS. Upgrade substation equipment to 2000 Amps. | 7/1/2018 | 3/1/2021 | 3/1/2021 | 25 | 515407 | TATONGA7 | 515497 | MATHWSN7 | 1 | 345 | 61 | | | 1792 |
| | 30365 | 50422 | GMO | ITP | \$3,039,096 | KCPL | Reconductor 2.5 mile from Blue Springs South - Blue Springs East 161 kV to 795 ACSS. Upgrade substation equipment to 2000 Amps. | 6/1/2018 | | | | 541211 | BLSPP 5 | 541206 | PRALEE 5 | 1 | 161 | | 3.21 | | 558 |
| | 30365 | 50423 | GMO | ITP | \$2,399,248 | KCPL | Reconductor 2.5 mile from Blue Springs South - Blue Springs East 161 kV to 795 ACSS. Upgrade substation equipment to 2000 Amps. | | | | | | | | | | | | | | |
| 200222 | 30367 | 50425 | ITCGP | ITP | \$42,024,978 | ITCGP | Build new 345 kV line from the Elm Creek substation to the Westar Energy, Inc. interconnection point from the Summit substation. | 3/1/2018 | 3/1/2018 | 3/1/2018 | 48 | 750011 | ELMCREK7 | 532773 | SUMMIT7 | 1 | 345 | 29.77 | | | 1792 |
| 200222 | 30367 | 50426 | ITCGP | ITP | \$4,928,468 | ITCGP | Install new 345/230 kV transformer at Elm Creek. | 12/31/2016 | 3/1/2018 | 3/1/2018 | 48 | 750011 | ELMCREK7 | 539639 | ELMCREK6 | 1 | 345 | | | | 448 |
| 200222 | 30367 | 50427 | ITCGP | ITP | \$12,154,733 | ITCGP | Install terminal equipment on the 345 kV side of the Elm Creek substation. | 12/31/2016 | 3/1/2018 | 3/1/2018 | 48 | 750011 | ELMCREK7 | | | 1 | 345 | | | | |
| 200222 | 30367 | 50428 | ITCGP | ITP | \$2,165,198 | ITCGP | Install terminal equipment on the 230 kV side of the Elm Creek substation. | 12/31/2016 | 3/1/2018 | 3/1/2018 | 48 | 539639 | ELMCREK6 | | | 1 | 230 | | | | |
| | 30368 | 50430 | WR | ITP | \$11,501,055 | WR | Tear down/rebuild 12.3 mile Abilene East - Chapman 115 kV line as single circuit with bundled 1192 ACSR conductor. | 6/1/2022 | | | | 533365 | EABILEN3 | 533362 | CHAPMAN3 | 1 | 115 | | 12.3 | | 240 |
| | 30368 | 50431 | WR | ITP | \$3,806,178 | WR | Tear down/rebuild Abilene East - Abilene Energy Center 115 kV as single circuit with bundled 1192 ACSR conductor. | | | | | | | | | | | | | | |
| | 30368 | 50432 | WR | ITP | \$19,949,242 | WR | Tear down/rebuild Abilene Energy Center - Northview 115 kV as single circuit with bundled 1192 ACSR conductor. | 6/1/2022 | | | | 533365 | EABILEN3 | 533361 | AEC_3 | 1 | 115 | | 3.33 | | 240 |
| | 30368 | 50433 | WR | ITP | \$19,949,242 | WR | Tear down/rebuild North Street - Northview 115 kV as single circuit with bundled 1192 ACSR conductor. | | | | | | | | | | | | | | |
| | 30368 | 50433 | WR | ITP | \$5,131,249 | WR | Tear down/rebuild North Street - Northview 115 kV as single circuit with bundled 1192 ACSR conductor. | 6/1/2022 | | | | 533370 | NORTHST3 | 533371 | NORTHVW3 | 1 | 115 | | 3.2 | | 240 |
| | 30372 | 50437 | WFECE | ITP | \$16,866,500 | SPP | Reconductor Owens - Dover Switching Station 138 kV to 795 ACSS. | | | | | | | | | | | | | | |
| 200500 | 50439 | MKEC | ITP | \$9,613,332 | MKEC | Reconductor 22.1 mile Harper to Milan Tap 138 kV line. | 3/1/2020 | | | | | 539668 | HARPER_4 | 539675 | MILANTP4 | 1 | 138 | | 22.11 | | 261/314 |
| 200253 | 30374 | 50441 | NPPD | ITP | \$9,574,507 | NPPD | Build new substation at Neligh. Install a new 345/115 kV transformer and all necessary 345 kV equipment at Neligh. | 4/1/2018 | 6/1/2016 | 6/1/2016 | 39 | 750013 | NEUGH_3 | 640293 | NEUGH_7 | 1 | 345 | | | | 458/474 |
| | | | | | | | Build new 110-mile 345 kV line from Gerald Gentleman Station substation to new Cherry County substation. This upgrade is contingent upon approval from Western Area Power Administration ("WAPA") to tap the Grand Island - Fort Thompson 345 kV line. | 10/1/2019 | 1/1/2018 | 1/1/2018 | 72 | 640500 | CHERRYC3 345.00 | 640183 | GENTLMN3 | 1 | 345 | 110 | | | 1792 |
| | 200220 | 30375 | 50442 | NPPD | ITP | \$139,090,440 | NPPD | | | | | | | | | | | | | | |
| 200220 | 30375 | 50444 | NPPD | ITP | \$9,936,752 | NPPD | Build new 117-mile 345 kV line from new Cherry County substation to new Holt County substation. This upgrade is contingent upon approval from WAPA to tap the Grand Island - Fort Thompson 345 kV line. | 10/1/2019 | 1/1/2018 | 1/1/2018 | 72 | 640500 | CHERRYC3 345.00 | | | 1 | 345 | | | | |
| 200220 | 30375 | 50445 | NPPD | ITP | \$179,002,660 | NPPD | Build new Holt County 345 kV substation tap on the Grand Island - Fort Thompson 345 kV line owned by WAPA. Install necessary terminal equipment at new substation. This upgrade is contingent upon approval from WAPA to tap the Grand Island - Fort Thompson 345 kV line. | 10/1/2019 | 1/1/2018 | 1/1/2018 | 72 | 640500 | CHERRYC3 345.00 | 640503 | HOLT.CO3 345.00 | 1 | 345 | 117 | | | 1792 |
| 200220 | 30375 | 50446 | NPPD | ITP | \$13,119,129 | NPPD | Build new Holt County 345 kV substation tap on the Grand Island - Fort Thompson 345 kV line owned by WAPA. Install necessary terminal equipment at new substation. This upgrade is contingent upon approval from WAPA to tap the Grand Island - Fort Thompson 345 kV line. | 10/1/2019 | 1/1/2018 | 1/1/2018 | 72 | 640503 | HOLT.CO3 345.00 | | | 1 | 345 | | | | |
| 200395 | 30368 | 50447 | SPS | ITP | \$128,473,352 | SPS | Construct new 107-mile 345 kV line from Tucco to Yoakum. Install any necessary 345 kV terminal equipment at Yoakum associated with new 345/230 kV transformer. | 6/1/2020 | 6/1/2017 | 6/1/2017 | 72 | 525832 | TUCCO_INT_7 | 526462 | AMOCO_SS_7 | 1 | 345 | 107 | | | 1792 |
| 200395 | 30368 | 50451 | SPS | ITP | \$5,047,344 | SPS | Install new 345/230 kV 644 MVA transformer at Yoakum substation. Install any necessary 230 kV terminal equipment. | 6/1/2020 | 6/1/2017 | 6/1/2017 | 72 | 526462 | AMOCO_SS_7 | 526460 | AMOCO_SS_6 | 1 | 345 | | | | 560/644 |
| 200309 | 30376 | 50452 | SPS | High Priority | \$16,204,449 | SPS | Expand existing Hobbs substation to accommodate 345 kV terminals. Install 345/230 kV 644 MVA transformer at Hobbs. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 72 | 527896 | HOBBS_INT_7 | 527894 | HOBBS_INT_6 | 1 | 345 | | | | 448/644 |
| 30377 | 50454 | SPS | ITP | \$1,581,080 | SPS | Reconductor 1.5 miles line from Indiana to Stanton. | | | | | | | | | | | | | | | |
| | 30377 | 50455 | SPS | ITP | \$1,604,810 | SPS | Reconductor 4 miles from Indiana to SP-Erskine. | 6/1/2020 | | | | 526146 | INDIANA_3 | 526109 | SP-ERSKINE_3 | 1 | 115 | | | 4 | 240 |
| | 200309 | 30376 | 50457 | SPS | High Priority | \$90,628,750 | SPS | | | | | | | | | | | | | | |
| | 30391 | 50473 | ITCGP | ITP | \$6,000,000 | SPP | Install second 345/230 kV 448 MVA Post Rock Transformer | 6/1/2020 | 6/1/2020 | 6/1/2020 | 72 | 526462 | AMOCO_SS_7 | 527896 | HOBBS_INT_7 | 1 | 345 | 52 | | | 1792 |
| | | | | | | | | | | | | | | | | 1 | 345 | | | | 448 |
| | 30391 | 50474 | TBD | ITP | \$121,500,000 | SPP | Build new 108 miles Mingo - Post Rock and associated terminal equipment | | | | | | | | | | 345 | 108 | | | 1792 |
| | 30392 | 50475 | TBD | ITP | \$79,875,000 | SPP | Build new 71 miles of 345 kV line - Iatan - Jeffrey Energy Center and associated terminal equipment | | | | | | | | | | | | | | |
| | 30393 | 50476 | TBD | ITP | \$85,840,000 | SPP | Build 79 miles of 345 kV Spearville - Mullergren and associated terminal equipment | | | | | | | | | | 345 | 79 | | | 1792 |
| | 30393 | 50477 | TBD | ITP | \$85,840,000 | SPP | Build 79 miles of 345 kV Mullergren - Circle and associated terminal equipment | | | | | | | | | | | | | | |
| 30393 | 50478 | WR | ITP | \$6,519,500 | SPP | Build six miles of 345 kV Circle - Reno and associated terminal equipment | 1/1/2030 | | | | | | | | | 1 | 345 | 6 | | | 1792 |
| 30394 | 50479 | NPPD | ITP | \$5,625,000 | SPP | Build 5 miles of 345 kV Keystone - Ogallala and associated equipment. | 1/1/2030 | | | | | | | | | 1 | 345 | 5 | | | 1792 |
| 30394 | 50480 | NPPD | ITP | \$6,000,000 | SPP | Install new 345/230 kV 448 MVA Ogallala Transformer | 1/1/2030 | | | | | | | | | 1 | 345 | | | | 448 |
| 30393 | 50481 | MIDW | ITP | \$6,000,000 | SPP | Install new 345/230 kV 448 MVA Mullergren Transformer | 1/1/2030 | | | | | | | | | 1 | 345 | | | | 448 |
| 30393 | 50482 | WR | ITP | \$6,000,000 | SPP | Install new 345/230 kV 448 MVA Circle Transformer | 1/1/2030 | | | | | | | | | 1 | 345 | | | | 448 |
| 30395 | 50483 | TBD | ITP | \$64,125,000 | SPP | Grand Island - Holt Co. rebuild 76 miles of 345 kV | 1/1/2030 | | | | | | | | | 1 | 345 | | 76 | | 1792 |
| 30396 | 50484 | NPPD | ITP | \$69,750,000 | SPP | Build new 69 miles 345 kV Holt Co. - Shell Creek and associated terminal equipment | 1/1/2030 | | | | | | | | | 1 | 345 | 69 | | | 1792 |
| 30396 | 50485 | NPPD | ITP | \$6,000,000 | SPP | Install 2nd 345/230 kV MVA Shell Creek Transformer | 1/1/2030 | | | | | | | | | 2 | 345 | | | | 336/420 |
| 30397 | 50486 | NPPD | ITP | \$30,656,000 | NPPD | Build new 16 miles 345 kV Holt - Neligh and associated terminal equipment | 1/1/2030 | | | | | | | | | 1 | 345 | 16 | | | 1792 |
| 30398 | 50487 | NPPD | ITP | \$6,000,000 | SPP | Install new 345/115 kV 420 MVA Columbus East Transformer | 1/1/2030 | | | | | | | | | 2 | 345 | | | | 336/420 |
| 30399 | 50488 | NPPD | ITP | \$6,000,000 | SPP | Install 2nd 345/230 kV 420 MVA Hoskins Transformer | 1/1/2030 | | | | | | | | | 2 | 345 | | | | 336/420 |

| NTC ID | PID | UID | Facility Owner | 2017 Project Type | Cost Estimate | Cost Estimate Source | Upgrade Description | TO Projected In-Service Date | RTO Determined Need Date | STEP Date | Project Lead Time (Months) | From Bus Number | From Bus Name | To Bus Number | To Bus Name | Circuit Code | Voltage (kV) | New Miles | Rebuild / Reconductor Miles | Voltage Conversion Miles | Ratings (kV) |
|--------|-------|-------|----------------|----------------------|---------------|----------------------|--|------------------------------|--------------------------|-----------|----------------------------|-----------------|---------------|---------------|--------------|--------------|--------------|-----------|-----------------------------|--------------------------|--------------|
| | 30399 | 50489 | NPPD | ITP | \$6,000,000 | SPP | Install 2nd 345/115 420 MVA kV Hoskins Transformer | | | 1/1/2030 | | | | | | 2 | 345 | | | | 336/429 |
| | 30399 | 50490 | TBD | ITP | \$193,380,000 | NPPD/OPPD | Build 120 miles 345 kV new Hoskins - Ft. Calhoun and associated terminal equipment | | | 1/1/2030 | | | | | | 1 | 345 | 120 | | | 1792 |
| | 30400 | 50491 | OPPD | ITP | \$46,875,000 | SPP | Build new 23 miles 345 kV Ft Calhoun - S3454 and associated terminal equipment | | | 1/1/2030 | | | | | | 1 | 345 | 23 | | | 1792 |
| | 30401 | 50492 | TBD | ITP | \$33,126,800 | SPP | Build new 28 miles 345 kV Cass Co. - S.W. Omaha (aka S3454) and associated terminal equipment | | 1/1/2033 | 1/1/2033 | | 645740 | S3740 3 | 645454 | S3454 3 | 1 | 345 | 28 | | | 1792 |
| | 30402 | 50493 | OPPD | ITP | \$12,600,000 | SPP | Install 2nd 345/161 kV S60 MVA S3459 transformer | | 1/1/2033 | 1/1/2033 | | 645459 | S3459 3 | 646209 | S1209 5 | 1 | 345 | | | | 558/560 |
| | 30403 | 50494 | SPS | ITP | \$133,875,000 | SPP | Build 119 new miles 345 kV Hitchland - Potter Co. and associated terminal equipment | | | 1/1/2030 | | 523097 | HITCHLAND 7 | 523961 | POTTER_CO 7 | 2 | 345 | 119 | | | 1792 |
| | 30405 | 50496 | WR | ITP | \$54,000,000 | SPP | Build 40 miles of 345 kV Wichita-Viola and associated terminal equipment | | | 1/1/2030 | | | | | | 2 | 345 | 40 | | | 1792 |
| | 30405 | 50497 | WR | ITP | \$54,000,000 | SPP | Build 40 miles of 345 kV Viola-Rose Hill and associated terminal equipment | | | 1/1/2030 | | | | | | | 345 | 40 | | | 1792 |
| 200262 | 30420 | 50513 | SPS | Transmission Service | \$321,786 | SPS | Upgrade 800 Amp wave trap at both Bushland Interchange and Deaf Smith Interchange. | 12/15/2017 | 2/1/2014 | | | 524267 | BUSHLAND 6 | 524623 | DEAFSMITH 6 | 1 | 230 | | | | 478/502 |
| 200325 | 30427 | 50520 | SEPC | ITP | \$8,229,189 | SEPC | Install a second 345/115 kV transformer at Mingo. Install any necessary 115 kV terminal equipment. | 12/31/2016 | 6/1/2015 | 6/1/2015 | 24 | 531451 | MINGO 7 | 531429 | MINGO 3 | 2 | 345 | | | | 289/308 |
| | 511 | 50524 | AEP | Transmission Service | | | Build 0.5 miles of 161 kV from Kings River to the Grandview-Osage Creek 161 kV tapping this line creating a new circuit from Kings River-Grandview 161 kV ckt 1. Install 161 kV terminal equipment for the new circuit the new Kings River substation | | 6/1/2016 | 6/1/2016 | | 338099 | Grandview | 506988 | KINGRIV5 | 1 | 161 | 0.5 | | | 363 |
| | 511 | 50525 | AEP | Transmission Service | | | Build 0.5 miles of 161 kV from Kings River to the Grandview-Osage Creek 161 kV tapping this line creating a new circuit from Kings River-Osage Creek 161 kV ckt 1. Install 161 kV terminal equipment for the new circuit from the Kings River substation | | 6/1/2016 | 6/1/2016 | | 338682 | SOSAGE# | 506988 | KINGRIV5 | 1 | 161 | 0.5 | | | 363 |
| 200242 | 30437 | 50532 | WR | ITP | \$20,530,196 | WR | Build new Geary County 345/115 kV substation south of Junction City where JEC - Summit 345 kV and McDowell Creek - Junction City #2 115 kV circuits separate. Install 345/115 kV 440 MVA transformer and 115 kV terminal equipment. | 6/1/2018 | 6/1/2014 | 6/1/2014 | 24 | 532767 | GEARY 7 | 533336 | GEARY 3 | 1 | 345 | | | | 400/440 |
| 200241 | 30438 | 50533 | GRDA | ITP | \$161,100 | GRDA | Replace 1200 Amp switch with a 2000 Amp switch at Kerr substation 161 kV bus. | 6/1/2017 | 6/1/2017 | 6/1/2017 | 12 | 512637 | 412SUB 5 | 512635 | KERR GR5 | 1 | 161 | | | | 356/432 |
| 200242 | 30437 | 50534 | WR | ITP | \$27,938,225 | WR | Build new 15.1-mile 115kV line between the new Geary County substation and Chapman Tap. 10.4 miles of the line will be built as a 2nd circuit to the existing Summit - McDowell Creek 345 kV line. | 6/1/2019 | 6/1/2014 | 6/1/2014 | 36 | 533336 | GEARY 3 | 533362 | CHAPMAN3 | 1 | 115 | 15.1 | | | 218/262 |
| 200241 | 30440 | 50535 | GRDA | ITP | \$161,100 | GRDA | Replace 1200 Amp switch with a 2000 Amp switch at Kansas Tap substation 161 kV bus. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 12 | 512637 | 412SUB 5 | 512714 | KANSATP5 | 1 | 161 | | | | 356/432 |
| 200384 | 30444 | 50539 | SPS | Transmission Service | \$1,808,805 | SPS | Install 28.8-MVAR capacitor bank at Cochran 115 kV (two 14.4-MVAR stages). | 11/15/2018 | 6/1/2016 | 6/1/2016 | 12 | 526361 | COCHRAN 3 | | | | 115 | | | | |
| 200214 | 30451 | 50546 | SPS | ITP | \$20,808,000 | SPS | Build new 12-mile 115 kV line from Atoka to Eagle Creek and install necessary terminal equipment. | 12/31/2016 | 6/1/2015 | 6/1/2015 | 36 | 527786 | ATOKA 3 | 527711 | EAGLE_CREEK3 | 1 | 115 | 12 | | | 249 |
| 200229 | 30469 | 50563 | SPS | ITP | \$4,736,510 | SPS | Build new 5.3-mile 115 kV line from the switching station east of Kilgore substation to South Portales and install necessary terminal equipment. | 3/31/2018 | 6/1/2018 | 6/1/2018 | | 524935 | ZODIAC 3 | 524949 | S_PORTALES 2 | 1 | 115 | 5.3 | | | 159/175 |
| 200229 | 30469 | 50564 | SPS | ITP | \$9,499,650 | SPS | Build new 6-mile 115 kV line from South Portales to Market St. and install necessary terminal equipment. | 11/13/2017 | 6/1/2018 | 6/1/2018 | 24 | 524949 | S_PORTALES 2 | 524950 | MARKET_ST 2 | 1 | 115 | 6 | | | 159/175 |
| 200229 | 30469 | 50565 | SPS | ITP | \$14,770,647 | SPS | Build new 10.4-mile 115 kV line from Market St. to Portales and install necessary terminal equipment. | 6/8/2017 | 6/1/2018 | 6/1/2018 | 24 | 524950 | MARKET_ST 2 | 524924 | PORTALES 3 | 1 | 115 | 10.4 | | | 159/175 |
| | 30480 | 50576 | NPPD | Transmission Service | \$8,062,000 | NPPD | Replace 187MVA Victory Hill transformer with 336MVA Victory Hill transformer | | 12/1/2016 | | 36 | 640396 | VICTRYH4 | 640397 | VICTRYH7 | 1 | 230 | | | | |
| 200228 | 30484 | 50582 | WR | ITP | \$14,331,670 | WR | Install new 345/138 kV transformer at Viola substation. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 36 | 532798 | Viola 345 | 533075 | Viola | 1 | 345 | | | | 448/492 |
| 200228 | 30484 | 50583 | WR | ITP | \$35,992,903 | WR | Build new 21.8-mile 138 kV line from new Viola substation to Clearwater 138 kV substation. | 12/31/2018 | 6/1/2018 | 6/1/2018 | 36 | 533075 | Viola | 533036 | CLEARWT4 | 1 | 138 | 21.8 | | | 534/586 |
| 200228 | 30484 | 50584 | WR | ITP | \$22,234,744 | WR | Build new 27.9-mile 138 kV line from new Viola substation to Gill 138 kV substation. | 12/31/2018 | 6/1/2018 | 6/1/2018 | 36 | 533075 | Viola | 533045 | GILL W 4 | 1 | 138 | 27.9 | | | 534/586 |
| 200212 | 30487 | 50593 | WR | ITP | \$767,165 | WR | Install 9.6 Mvar capacitor bank at Potwin 69 kV bus. | 6/1/2018 | 6/1/2013 | 6/1/2013 | | 533601 | POTWIN 2 | | | | 69 | | | | |
| 200200 | 30491 | 50600 | WFEC | Transmission Service | \$237,000 | WFEC | Install two 4.8 Mvar capacitors at Hazelton 69 kV for total of 9.6 Mvar. | 12/31/2016 | 1/1/2013 | 1/1/2013 | | 520937 | HAZELTN2 | | | | 69 | | | | |
| | 511 | 50602 | AEP | Transmission Service | | | Build 1 mile of 161 kV from Kings River to the Berryville-Osage Creek 161 kV tapping this line creating a new circuit from Kings River-Osage Creek 161 kV ckt 1. Install 161 kV terminal equipment for the new circuit from the Kings River substation | | 6/1/2016 | 6/1/2016 | | 506988 | KINGRIV5 | 338682 | SOSAGE# | 2 | 161 | 1 | | | 223 |
| | 511 | 50603 | AEP | Transmission Service | | | Build 1 mile of 161 kV from Kings River to the Berryville-Osage Creek 161 kV tapping this line creating a new circuit from Kings River-Berryville 161 kV ckt 1. Install 161 kV terminal equipment for the new circuit from the Kings River substation | | 6/1/2016 | 6/1/2016 | | 506988 | KINGRIV5 | 338100 | SBERRYV | 1 | 161 | 1 | | | 223 |
| 200242 | 30437 | 50605 | WR | ITP | \$16,190,561 | WR | Install 345 kV ring bus at the new Geary County substation. | 6/1/2018 | 6/1/2014 | 6/1/2014 | 24 | 532767 | GEARY 7 | | | | 345 | | | | 1793 |
| 200400 | 30496 | 50608 | NPPD | ITP | \$5,928,479 | NPPD | Install new 345/115 kV 400 MVA transformer at the new Bobcat Canyon 345 kV substation (adjacent to the existing Stegall 345 kV substation owned by Basin Electric Power Cooperative) and any necessary 115 kV terminal equipment. | 6/1/2017 | 6/1/2014 | 6/1/2014 | 48 | 659135 | STEGALL3 | 640530 | STEGALL7 | 1 | 345 | | | | 400/440 |
| 200400 | 30496 | 50609 | NPPD | ITP | \$26,027,015 | NPPD | Install new 22-mile 115 kV line from Bobcat Canyon to Scottsbluff and install any necessary terminal equipment. | 6/1/2017 | 6/1/2014 | 6/1/2014 | 48 | 640530 | STEGALL7 | 640338 | SCOTBLF7 | 1 | 115 | 23 | | | 400/440 |
| 200228 | 30484 | 50612 | WR | ITP | \$5,007,657 | WR | Install 345 kV breakers at Viola substation. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 36 | 532798 | Viola 345 | | | 1 | 345 | | | | 448/492 |
| 200400 | 30496 | 50616 | NPPD | ITP | \$4,072,936 | NPPD | Install any necessary 345 kV terminal equipment at the new Bobcat Canyon substation up to the dead end structure in the Stegall 345 kV substation owned by Basin Electric Power Cooperative. | 6/1/2017 | 6/1/2014 | 6/1/2014 | 48 | 659135 | STEGALL3 | | | 1 | 345 | | | | |
| 200234 | 30502 | 50626 | WFEC | Transmission Service | \$185,004 | WFEC | Install new 138 kV 4.8-Mvar capacitor at Renfrow-Sandridge substation. | 6/1/2017 | 6/1/2017 | 6/1/2017 | | 520409 | SAND ROG_138 | | | | 138 | | | | |
| 200234 | 30503 | 50628 | WFEC | Transmission Service | \$185,004 | WFEC | Install new 69 kV 4.8-Mvar capacitor at Hazelton substation. | 12/31/2016 | 6/1/2017 | 6/1/2017 | | 520937 | HAZELTN2 | | | | 69 | | | | |
| | 30505 | 50632 | AEP | Transmission Service | \$5,352,000 | SPP | Build second circuit. | | | | | 511511 | FALCNRD4 | 511458 | ELUKTY-4 | 2 | 230 | | 4.39 | | |
| | 30506 | 50633 | GRDA | Transmission Service | \$350,000 | GRDA | Add new pole to increase line clearance to at least 1187 MVA Summer Rate B. | | | | | 512750 | TONECE7 | 512650 | GRDA1 7 | 1 | 345 | | | | |
| 200264 | 30508 | 50635 | OGE | Transmission Service | \$1,720,000 | OGE | Rebuild 3.58-mile 138 kV line from Division Ave to Lakeside. | 6/1/2019 | 6/1/2019 | | 24 | 514853 | DVISION4 | 514849 | LAKESID4 | 1 | 138 | | 3.6 | | 315 |
| 200369 | 30509 | 50636 | SPS | Transmission Service | \$4,991,564 | SPS | Rebuild 3.73-mile 115 kV line from Canyon East Sub to Canyon West Sub. | 12/31/2017 | 2/1/2014 | | | 524523 | CANYON_EAST3 | 524516 | CANYON_WEST3 | 1 | 115 | | 3.7 | | 107 |
| 200262 | 30510 | 50637 | SPS | Transmission Service | \$19,100,000 | SPS | Construct new 7.7-mile 115 kV line from Mustang to Shell CO2. | 12/15/2017 | 6/1/2015 | 6/1/2015 | | 527146 | MUSTANG_N 3 | 527062 | SHELL_GAS 3 | 1 | 115 | | 7.7 | | 276/299 |
| | 30512 | 50639 | SWPA | Transmission Service | | | Replace one structure and make two structures floating deadends to at least 227 MVA Summer Rate B and 236 MVA Winter Rate B. | | | | | 505460 | BULL SH5 | 504440 | BUFORD | 2 | 161 | | | | |
| | 30518 | 50645 | MIDW | Transmission Service | \$580,979 | | Rebuild 0.23 miles to at least 109 MVA Summer Rate B. | | | | | 530562 | HAYS 3 | 530591 | VINE 3 | 1 | 115 | | 0.25 | | |
| | 30525 | 50656 | MKEC | Transmission Service | \$0 | | Rebuild 4 miles and increase terminal limits to at least 146MVA Summer Rate B. | | | | | 539652 | CMRIVTP3 | 539654 | CIM-PLT3 | 1 | 115 | | 4 | | |

| NTC ID | PID | UID | Facility Owner | 2017 Project Type | Cost Estimate | Cost Estimate Source | Upgrade Description | TO Projected In-Service Date | RTO Determined Need Date | STEP Date | Project Lead Time (Months) | From Bus Number | From Bus Name | To Bus Number | To Bus Name | Circuit Code | Voltage (kV) | New Miles | Rebuild / Reconductor Miles | Voltage Conversion Miles | Ratings (kV) |
|--------|-------|-------|----------------|-------------------|---------------|----------------------|--|------------------------------|--------------------------|-----------|----------------------------|-----------------|-------------------------|---------------|-------------------|--------------|--------------|-----------|-----------------------------|--------------------------|--------------|
| 200410 | 30552 | 50690 | SPS | ITP | \$1,017,774 | SPS | Rebuild 0.5-mile 115 kV line from Oxy Permian Sub to West Bender Sub. | 10/28/2016 | 6/1/2018 | 6/1/2018 | | 528575 | OXYPERMIAN 3 | 528449 | W_BENDER 3 | 1 | 115 | | 0.5 | | 276/303 |
| 200246 | 30559 | 50697 | AEP | ITP | \$6,651,694 | AEP | Rebuild 4.4-mile 138 kV line from Chapel Hill REC to Welsh Reserve. | 6/1/2019 | 6/1/2019 | 6/1/2019 | | 508337 | CHAPELH4 | 508355 | WELSHRE4 | 1 | 138 | | 4.39 | | 395/592 |
| 200296 | 30560 | 50698 | WR | ITP | \$51,513,963 | WR | Build new 28-mile 138 kV line from Viola to Sumner County. | 6/1/2020 | 6/1/2019 | 6/1/2019 | | 532984 | SUMNER4 | 533075 | Viola | 1 | 138 | 28 | | | 262/314 |
| 200245 | 30563 | 50702 | WFEC | ITP | \$504,000 | WFEC | Add 20 Mvar of capacitance at Sandy Corner 138 kV. | 6/1/2017 | 6/1/2017 | 5/1/2015 | 18 | 520204 | SANDY_CN_138 | | | | 138 | | | | |
| 200242 | 30568 | 50706 | WR | ITP | \$1,390,166 | WR | Install 10.8-Mvar capacitor bank at Clay Center Switching Station (Bus No. 533320). Rebuild 1.7-mile 69 kV line from Fort Humburg to Broadmoor with 1233.6 ACSR/TW conductor. Upgrade jumpers at Fort Humburg along with jumpers and bus at Broadmoor. | 6/1/2018 | 6/1/2016 | 6/1/2016 | | 533320 | CLAYCS53 | | | | 115 | | | | |
| 200246 | 30573 | 50718 | AEP | ITP | \$6,695,986 | AEP | Rebuild 1.3-mile 69 kV line from Daingerfield to Jenkins REC T with 959.6 ACSR/TW conductor. | 6/1/2019 | 6/1/2019 | 6/1/2019 | | 507716 | BROADMR2 | 507730 | FTHUMB62 | 1 | 69 | | 1.7 | | 136/143 |
| 200246 | 30574 | 50719 | AEP | ITP | \$2,819,806 | AEP | Rebuild 6.6-mile 69 kV line from Longview Heights to Hallsville with 1233.6 ACSR/TW conductor. Upgrade jumpers, CT ratios, and relay settings at Longview Heights. | 6/1/2019 | 6/1/2019 | 6/1/2019 | | 508288 | DAINGER2 | 508293 | JENKNST2 | 1 | 69 | | 1.3 | | 132/178 |
| 200246 | 30575 | 50720 | AEP | ITP | \$10,340,533 | AEP | Rebuild 11.2-mile 69 kV line from Hallsville to Marshall with 1233.6 ACSR/TW conductor. Upgrade jumpers, CT ratios, and relay settings at Marshall. | 6/1/2018 | 6/1/2014 | 6/1/2014 | | 508543 | HALLSVL2 | 508553 | LONGVHT2 | 1 | 69 | | 6.6 | | 68/89 |
| 200246 | 30576 | 50721 | AEP | ITP | \$16,571,092 | AEP | Rebuild 5-mile 69 kV line from Chaves to Price converting to 115 kV. Install any necessary terminal equipment at Chaves. | 6/1/2018 | 6/1/2014 | 6/1/2014 | | 508556 | MARSHAL2 | 508543 | HALLSVL2 | 1 | 69 | | 11.2 | | 68/89 |
| 200256 | 30577 | 50722 | SPS | ITP | \$5,961,279 | SPS | Rebuild 3-mile 69 kV line from CV Pines to Price converting to 115 kV. | 12/30/2017 | 6/1/2017 | 6/1/2017 | | 527482 | CHAVES_CNTY3 | 527543 | PRICE 3 115 kV | 1 | 115 | | 5 | | 250 |
| 200256 | 30577 | 50723 | SPS | ITP | \$3,793,668 | SPS | Rebuild 5-mile 69 kV line from Capitan to CV Pines converting to 115 kV. | 12/30/2017 | 6/1/2017 | 6/1/2017 | | 527543 | PRICE 3 115 kV | 527542 | CV-PINES 3 115 kV | 1 | 115 | | 3 | | 245 |
| 200256 | 30577 | 50724 | SPS | ITP | \$3,793,063 | SPS | Build new 9.4-mile 115 kV line from Bailey Co. to Bailey Co. Pump. Install any necessary terminal equipment at Bailey Co. | 12/30/2017 | 6/1/2017 | 6/1/2017 | | 527542 | CV-PINES 3 115 kV | 527541 | CAPTAN 3 | 1 | 115 | | 5 | | 245/265 |
| 200333 | 30578 | 50725 | SPS | ITP | \$8,208,578 | SPS | Build new 11.7-mile 115 kV line from Bailey Co. Pump to Sundan Rural and convert high side voltage of the distribution transformers at Bailey Co. Pump and Sundan Rural from 69 kV to 115 kV. | 9/1/2019 | 6/1/2016 | 6/1/2016 | | 525028 | BAILEYCO 3 | 525040 | BAILEY_PMP 3 | 1 | 115 | 9.4 | | | 276/304 |
| 200333 | 30578 | 50729 | SPS | ITP | \$8,038,605 | SPS | Install new 115/69 kV 84 MVA transformer at New Amherst. Install any necessary 69 kV terminal equipment. | 9/1/2019 | 6/1/2016 | 6/1/2016 | | 525040 | BAILEY_PMP 3 | 525594 | SUDANRURAL 3 | 1 | 115 | 11.7 | | | 276/304 |
| 200333 | 30578 | 50731 | SPS | ITP | \$5,367,770 | SPS | Build new 8.6-mile 115 kV line from New Amherst to Sudan Rural. | 9/1/2019 | 6/1/2016 | 6/1/2016 | | 525600 | LC Sandhill | 525599 | LC-SANDHILL2 | 1 | 115 | | | | 84 |
| 200333 | 30578 | 50732 | SPS | ITP | \$5,074,202 | SPS | Rebuild 1.74-mile 69 kV line from Kenmar to Northeast with single 1192 ACSR to achieve 1200 Amp minimum ampacity. | 9/1/2019 | 6/1/2016 | 6/1/2016 | | 525594 | SUDANRURAL 3 | 525600 | LC Sandhill | 1 | 115 | 8.6 | | | 276/304 |
| 200242 | 30580 | 50733 | WR | ITP | \$6,740,273 | WR | Rebuild 1.74-mile 69 kV line from Kenmar to Northeast with single 1192 ACSR to achieve 1200 Amp minimum ampacity. | 6/1/2017 | 6/1/2014 | 6/1/2014 | | 533822 | NOEASTE2 | 533811 | KENMAR 2 | 1 | 69 | | 1.74 | | 131/143 |
| 200333 | 30578 | 50734 | SPS | ITP | \$3,028,707 | SPS | Install 115 kV terminal equipment at New Amherst to accommodate new 115/69 kV transformer. | 9/1/2019 | 6/1/2016 | 6/1/2016 | | 525600 | LC Sandhill | 525608 | AMHERST 3 | | 115 | | | | 276/304 |
| 200333 | 30578 | 50735 | SPS | ITP | \$16,737,611 | SPS | Build new 13.9-mile 115 kV line from Lamb Co. to New Amherst. Convert high side voltage of the West Littlefield distribution transformer from 69 kV to 115 kV. | 9/1/2019 | 6/1/2016 | 6/1/2016 | | 525608 | AMHERST 3 | 525615 | W Littlefld 3 | 1 | 115 | 13.9 | | | 276/304 |
| 200401 | 30578 | 50736 | SPS | ITP | \$3,187,532 | SPS | Tap the existing 115 kV line from Lamb Co. to Plant X at a location approximately 0.6 miles to the west of the West Littlefield substation to construct new West Littlefield Tap substation. Install three-way switch at new West Littlefield Tap substation. Install new 0.6-mile 115 kV line from West Littlefield to new West Littlefield Tap substation. | 9/1/2019 | 6/1/2016 | 6/1/2016 | | 525615 | W Littlefld 3 | 525636 | LAMB_CNTY 3 | 1 | 115 | 0.6 | | | 276/304 |
| 200247 | 30582 | 50738 | OGE | ITP | \$740,254 | OGE | Install a 9-Mvar capacitor bank at 69 kV at Wildhorse substation. | 6/1/2017 | 6/1/2017 | 6/1/2017 | 18 | 515127 | WLDHRST2 | | | | 69 | | | | |
| 200242 | 30584 | 50739 | WR | ITP | \$16,110,343 | WR | Rebuild 9.7-mile 69 kV line from Elk Junction to Montgomery to achieve new emergency rating of 72 MVA. | 12/1/2017 | 6/1/2018 | 6/1/2018 | | 533698 | MONTGOM2 | 533690 | ELK JCT2 | 1 | 69 | | 9.7 | | 72 |
| 200242 | 30584 | 50740 | WR | ITP | \$19,015,228 | WR | Rebuild 18.8-mile 69 kV line from Elk Junction to Sedan to achieve new emergency rating of 72 MVA. | 12/1/2018 | 6/1/2018 | 6/1/2018 | | 533690 | ELK JCT2 | 533544 | CVSEDA2 | 1 | 69 | | 19 | | 72 |
| 200320 | 30588 | 50745 | OPPD | ITP | \$2,416,277 | OPPD | Install new 161/69 kV transformer at Fremont to accommodate a new 161 kV interconnection. | 10/1/2018 | 6/1/2016 | 6/1/2016 | 60 | 646301 | s1301 5 161kV | 647801 | S6801 8 69kV | | 161 | | | | 134 |
| 200320 | 30588 | 50746 | OPPD | ITP | \$3,606,519 | OPPD | Build new 3-mile 69 kV line from Fremont to new substation S6801. | 10/1/2018 | 6/1/2016 | 6/1/2016 | 60 | 647422 | FREM B 8 | 647801 | S6801 8 69kV | | 161 | 3 | | | 144 |
| 200320 | 30588 | 50747 | OPPD | ITP | \$29,069,150 | OPPD | Build new 17-mile 161 kV line from S1226 to new substation S1301. | 10/1/2018 | 6/1/2016 | 6/1/2016 | 60 | 646226 | S1226 5 | 646301 | s1301 5 161kV | | 161 | 17 | | | 377 |
| 200258 | 30590 | 50748 | OPPD | ITP | \$1,360,327 | OPPD | Rebuild 1.34-mile 69 kV line from S906 to S924 to achieve a new emergency rating of 143 MVA. | 6/1/2018 | 6/1/2019 | 6/1/2019 | 24 | 647906 | S906 S 8 | 647924 | S924 8 | 1 | 69 | | 1.34 | | 143 |
| 200258 | 30590 | 50749 | OPPD | ITP | \$69,679 | OPPD | Install terminal upgrades at S924 to increase emergency rating of S924 - S912 69 kV Ckt 1 to 99 MVA. | 6/1/2018 | 6/1/2019 | 6/1/2019 | 24 | 647912 | S912 8 | 647924 | S924 8 | | 69 | | | | 99 |
| 200256 | 856 | 50754 | SPS | ITP | \$0 | SPS | Convert distribution transformer high side at Hereford from 69 kV to 115 kV. | 12/15/2016 | 6/1/2014 | 6/1/2014 | | 524606 | HEREFORD 3 | | | | 115 | | | | |
| 200294 | 30596 | 50757 | NPPD | ITP | \$29,870,084 | NPPD | Build a new 35-mile 115 kV line from Ord to Broken Bow Wind and install necessary terminal equipment. | 3/1/2018 | 6/1/2014 | 6/1/2014 | 48 | 640445 | Broken Bow Windd 115 kV | 640308 | ORD 7 | 1 | 115 | 35 | | | 160/176 |
| 200392 | 30597 | 50758 | OGE | ITP | \$4,009,000 | OGE | Build new Lane 138 kV substation adjacent to existing Knob Hill substation. Install a new 138 kV terminal at Knob Hill. Tie the Knob Hill and Lane substations together with one span of 138 kV line. Build new 1.5-mile 138 line from Lane to Noel. Install fiber optics on 138 kV circuit connecting Knob Hill to Lane to Noel. | 12/31/2017 | 6/1/2017 | 6/1/2017 | 24 | 514795 | KNOBHILA | 514794 | KNOBHIL2 | | 138 | 1.5 | | | 268 |
| 200361 | 30598 | 50759 | AEP | ITP | \$1,409,347 | AEP | Install 16.2-MVAR 69 kV capacitor bank at Letourneau. | 6/1/2017 | 6/1/2017 | 6/1/2017 | | 508536 | LETRNST2 | 508594 | Letourmw12 69 kV | | 69 | | | | 150 |
| 200294 | 30596 | 50760 | NPPD | ITP | \$498,320 | NPPD | Increase line clearance on 115 kV line from North Loup to Ord to 100 degree C. Upgrade disconnect switches, CTs, and jumpers at North Loup. | 6/1/2018 | 6/1/2014 | 6/1/2014 | 24 | 640284 | N.LOUP 7 | 640308 | ORD 7 | 2 | 115 | | | | 137/151 |
| 200255 | 30361 | 50768 | AEP | ITP | \$5,326,722 | AEP | Install approximately 2 miles of 230 kV transmission line for a cut-in to existing 230 kV line from Sweetwater to Elk City, creating termination points at new Chisholm substation. | 3/1/2018 | 3/1/2018 | 3/1/2018 | | 700345 | CHISHOLM7 | | | 1 | 230 | 2 | | | 353 |
| | 30599 | 50769 | AEP | ITP | \$12,600,000 | SPP | Install new 345/161 kV Transformer at South Fayetteville. | | 1/1/2033 | 1/1/2033 | | | | | | 1 | 345 | | | | 4/00/440 |
| | 30599 | 50770 | TBD | ITP | \$21,295,800 | SPP | Build new 345 kV line from Chamber Springs to South Fayetteville and associated terminal equipment. | | 1/1/2033 | 1/1/2033 | | | | | | 1 | 345 | 18 | | | 1792 |
| | 30600 | 50771 | GMO | ITP | \$12,600,000 | SPP | Install new 345/161 transformer at Maryville. | | 1/1/2033 | 1/1/2033 | | 541197 | SMARYVL7 | 300097 | SMARYVL | 1 | 345 | | | | 400/440 |
| | 30601 | 50772 | KCLP | ITP | \$12,600,000 | SPP | Increase rating of Nashua transformer to 650/715 MVA. | | 1/1/2033 | 1/1/2033 | | | | | | 1 | 345 | | | | 650/715 |
| | 30602 | 50773 | TBD | ITP | \$130,141,000 | SPP | Build new 110 mile 345 kV line from Keystone to Red Willow and associated terminal equipment. | | 1/1/2033 | 1/1/2033 | | 640252 | KEYSTON3 | 640325 | REDWIL03 | 1 | 345 | 110 | | | 956 |
| | 30603 | 50774 | TBD | ITP | \$75,718,400 | SPP | Build new 64 mile 345 kV line from Tolk to Tuco and associated terminal equipment. | | 1/1/2033 | 1/1/2033 | | 525549 | TOLK 7 | 525832 | TUCO_INT 7 | 1 | 345 | 64 | | | 1792 |
| | 30604 | 50775 | SEPC | ITP | \$12,600,000 | SPP | Install 2nd 345/115 kV transformer at Holcomb. | | 1/1/2033 | 1/1/2033 | | 531449 | HOLCOMB7 | 531448 | HOLCOMB3 | 2 | 345 | | | | 435 |
| | 30605 | 50776 | TBD | ITP | \$117,126,900 | SPP | Build new 99 mile 345 kV line from Neosho to Wolf Creek and associated terminal equipment. | | 1/1/2033 | 1/1/2033 | | 532797 | WOLFCRK7 | 532793 | NEOSHO 7 | 1 | 345 | 99 | | | 1792 |
| | 30606 | 50777 | TBD | ITP | \$15,701,325 | SPP | Rebuild 29 mile 161 kV line from Clinton to Truman. | | 1/1/2033 | 1/1/2033 | | 300071 | SCUNTIN | 505502 | TRUMAN 5 | 1 | 161 | | 29 | | 554 |
| | 30606 | 50778 | TBD | ITP | \$1,082,850 | SPP | Rebuild 2 miles of 161 kV line from North Warsaw to Truman. | | 1/1/2033 | 1/1/2033 | | 505502 | TRUMAN 5 | 541314 | NWARSAW5 | 1 | 161 | 2 | | | 554 |
| | 30608 | 50779 | WR | ITP | \$12,600,000 | SPP | Install new 345/115 kV transformer at Auburn. | | 1/1/2033 | 1/1/2033 | | | | | | 2 | 345 | | | | 435 |
| | 30608 | 50780 | TBD | ITP | \$20,112,700 | SPP | Convert 17 mile Auburn - Swissvale 230 kV line to a 345 kV line. | | 1/1/2033 | 1/1/2033 | | | | | | 1 | 345 | | | 17 | 1792 |
| | 30608 | 50781 | TBD | ITP | \$35,493,000 | SPP | Convert the 30 mile Auburn - Jeffrey EC 230 kV to 345 kV. | | 1/1/2033 | 1/1/2033 | | | | | | 1 | 345 | | | 30 | 1792 |
| | 30607 | 50782 | OGE | ITP | \$34,605,675 | SPP | Upgrade terminal equipment at Muskogee and Pecan Creek substations to increase Muskogee - Pecan Creek 345 kV Cts 1 & 2 ratings to 1195/1195 MVA. | | 1/1/2033 | 1/1/2033 | | 515224 | MUSKOGEE7 | 515235 | PECANCK7 | 1 | 345 | | | | 1195 |
| 200258 | 30609 | 50783 | OPPD | ITP | \$3,141,600 | OPPD | Rebuild 3.3-mile 69 kV line from S907 to S919 to achieve a new emergency rating of 143 MVA. | 6/1/2019 | 6/1/2019 | 6/1/2019 | 36 | 647907 | S907 8 | 647919 | S919 8 | 1 | 69 | | 3.3 | | 143 |

| NTC ID | PID | UID | Facility Owner | 2017 Project Type | Cost Estimate | Cost Estimate Source | Upgrade Description | TO Projected In-Service Date | RTO Determined Need Date | STEP Date | Project Lead Time (Months) | From Bus Number | From Bus Name | To Bus Number | To Bus Name | Circuit Code | Voltage (kV) | New Miles | Rebuild / Reconductor Miles | Voltage Conversion Miles | Ratings (kV) |
|--------|-------|-------|----------------|----------------------|---------------|----------------------|--|------------------------------|--------------------------|-----------|----------------------------|-----------------|---------------|---------------|-----------------|--------------|--------------|-----------|-----------------------------|--------------------------|--------------|
| 200269 | 30612 | 50786 | OGE | Transmission | \$1,131,409 | OGE | Reconductor 1.25-mile 138 kV line from Hefner to Tulsa with 1590 ASS2 conductor. Install two 115 kV breakers at Curry County Interchange to convert the high side of the Curry County distribution transformer to 115 kV. | 6/1/2019 | 6/1/2019 | | 26 | 514848 | HEFNER 4 | 514847 | TULSA 4 | 1 | 138 | | 1.25 | | 404/465 |
| 200256 | 30616 | 50794 | SPS | ITP | \$1,400,000 | SPS | Construct AEP's portion of new 25-mile 138 kV line from Darlington to Roman Nose (OGE). | 6/1/2018 | 6/1/2018 | 6/1/2018 | | 524822 | CURRY 3 | | | | 115 | | | | |
| 200310 | 30619 | 50802 | AEP | High Priority | \$11,652,107 | AEP | Construct new 138 kV SW Station switching station. Construct new 13-mile 138 kV line from new SW Station switching station to Warwick Tap. | 5/31/2017 | 6/1/2015 | 6/1/2015 | 36 | 511559 | DARLINGTONRD4 | 514823 | ROMNOSE4 | 1 | 138 | 25 | | | 278/316 |
| 200311 | 30622 | 50805 | OGE | High Priority | \$12,767,120 | OGE | Construct new 18-mile 138 kV line from Linwood to new SW Station switching station. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 36 | 515012 | SPVALLY2 | 515047 | WARWICK4 | 1 | 138 | 13 | | | 268/286 |
| 200311 | 30622 | 50806 | OGE | High Priority | \$9,899,440 | OGE | Construct new 5-mile 138 kV line from Knipe to new SW Station switching station. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 36 | 515401 | P532 4 | 515012 | SPVALLY2 | 1 | 138 | 18 | | | 268/286 |
| 200311 | 30622 | 50807 | OGE | High Priority | \$8,218,020 | OGE | Construct new 18.2-mile 345 kV line from North Loving to China Draw. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 48 | 528185 | NLOV_PLT 7 | 515012 | SPVALLY2 | 1 | 138 | 5 | | | 268/286 |
| 200309 | 30638 | 50819 | SPS | High Priority | \$19,255,234 | SPS | Construct new Kiowa 345 kV substation adjacent to Potash Junction. 345 kV bus will be ring, expandable to minimum 6 line or transformer terminals. Install terminal equipment as needed. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 48 | 528185 | NLOV_PLT 7 | 528223 | CHINA_DRAW 7 | 1 | 345 | 18.2 | | | 1792 |
| 200309 | 30638 | 50820 | SPS | High Priority | \$25,716,516 | SPS | Install new 345/115 kV 448 MVA transformer at new China Draw substation. Install any necessary 115 kV terminal equipment and ring/breaker and a half 115 kV bus for 4 line or transformer terminals. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 48 | 528223 | CHINA_DRAW 7 | 528222 | CHINA_DRAW 3 | 1 | 345 | | | | 448 |
| 200335 | 30644 | 50827 | MKEC | High Priority | \$13,354,771 | MKEC | Construct new 21-mile 138 kV line from Anthony to Harper. | 2/18/2018 | 6/1/2018 | 6/1/2018 | | 539001 | ANTHONY | 539668 | HARPER 4 | 1 | 138 | 21 | | | 190 |
| 200276 | 30645 | 50828 | MKEC | High Priority | \$11,475,555 | MKEC | Construct new 15-mile 138 kV line from Harper to new Rago substation. | 12/31/2017 | 6/1/2015 | 6/1/2015 | | 539668 | HARPER 4 | 539017 | RAGO | 1 | 138 | 15 | | | 190 |
| 200309 | 30638 | 50849 | SPS | High Priority | \$4,649,045 | SPS | Construct new 115 kV Toboso Flats substation. Install any necessary 115 kV terminal equipment. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 48 | 528223 | CHINA_DRAW 7 | | | 1 | 345 | | | | 1792 |
| 200309 | 30638 | 50850 | SPS | High Priority | \$4,172,734 | SPS | Construct new 345 kV ring bus, expandable to breaker and a half for 6 line or transformer terminals at China Draw. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 48 | 528223 | CHINA_DRAW 7 | | | 1 | 345 | | | | 1792 |
| 200309 | 30637 | 50851 | SPS | High Priority | \$11,249,526 | SPS | Construct new Kiowa 345 kV substation adjacent to Potash Junction. 345 kV bus will be ring, expandable to minimum 6 line or transformer terminals. Install terminal equipment as needed. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 48 | 527965 | POTASH_JCT 7 | | | 1 | 345 | | | | 1792 |
| 200309 | 30638 | 50852 | SPS | High Priority | \$5,950,217 | SPS | Install new 345/115 kV 448 MVA transformer at new North Loving substation. Install any necessary 115 kV terminal equipment. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 48 | 528185 | NLOV_PLT 7 | 528186 | NLOV_PLT TR1 | 1 | 345 | | | | 448 |
| 200309 | 30638 | 50854 | SPS | High Priority | \$7,873,653 | SPS | Install 345 kV line terminals at North Loving substation for Kiowa and China Draw. Install any necessary 345 kV terminal equipment necessary to install 345/115 kV 448 MVA transformer at North Loving. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 48 | 528185 | NLOV_PLT 7 | | | 1 | 345 | | | | 1792 |
| 200309 | 30639 | 50868 | SPS | High Priority | \$5,443,140 | SPS | Install 345/115 kV 448 MVA transformer at Kiowa substation. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 48 | 527965 | POTASH_JCT 7 | | | 1 | 345 | | | | 448/644 |
| 200282 | 30675 | 50869 | SPS | High Priority | \$14,583,586 | SPS | Construct new 18.4-mile 115 kV line from China Draw to new Yeso Hills substation. Construct 1-mile of double circuit structures from the new Kiowa substation to Potash Junction. Construct Circuit 1 with 345 kV conductor and Circuit 2 with 115 kV conductor. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 36 | 528222 | CHINA_DRAW 3 | 528246 | YESO_HILLS 3 | 1 | 115 | 18.4 | | | 276/304 |
| 200309 | 30639 | 50871 | SPS | High Priority | \$2,176,451 | SPS | Construct new 115 kV Toboso Flats substation. Install any necessary 115 kV terminal equipment. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 48 | 527965 | POTASH_JCT 7 | 528027 | RDRUNNER 345 kV | 1 | 345 | 1 | | | 1792 |
| 200282 | 30672 | 50872 | SPS | High Priority | \$822,700 | SPS | Construct new 7.4-mile 115 kV line from new Toboso Flats substation to Dollarhide. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 36 | 528566 | SUB#5_SVC 1 | | | 1 | 115 | | | | 239/304 |
| 200282 | 30672 | 50874 | SPS | High Priority | \$5,062,341 | SPS | Construct new 47.2-mile 345 kV line from Kiowa to Hobbs. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 48 | 528561 | DOLLARHIDE 3 | 528566 | SUB#5_SVC 1 | 1 | 115 | 7.4 | | | 276/304 |
| 200309 | 30637 | 50875 | SPS | High Priority | \$59,808,956 | SPS | Construct new 115 kV Ponderosa substation. Install any necessary 115 kV terminal equipment. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 36 | 527965 | POTASH_JCT 7 | 527896 | HOBBS_INT 7 | 1 | 345 | 47.24 | | | 1792 |
| 200282 | 30694 | 50877 | SPS | High Priority | \$972,364 | SPS | Tap the existing 115 kV line from Ochoa to Whitten to construct new 115 kV Ponderosa Tap substation. Install any necessary 115 kV terminal equipment. | 6/1/2017 | 6/1/2018 | 6/1/2018 | 36 | 528240 | PONDEROSA 3 | | | 1 | 115 | | | | 239/304 |
| 200282 | 30694 | 50879 | SPS | High Priority | \$4,859,000 | SPS | Construct new 115 kV Sage Brush substation with 3 ring bus configuration. Install any necessary 115 kV terminal equipment. | 6/1/2017 | 6/1/2018 | 6/1/2018 | 36 | 528239 | DISTSUB3TP 3 | | | 1 | 115 | | | | 239/304 |
| 200277 | 30678 | 50889 | NPPD | High Priority | \$9,306,000 | NPPD | Install new 345/115 kV 400 MVA transformer at Theford substation. Install any necessary 115 kV terminal equipment. | 10/1/2019 | 6/1/2016 | 6/1/2016 | 48 | 640500 | CHERRYCY3 | 640381 | THEDFRD7 | 1 | 345 | | | | 239/304 |
| 200309 | 30690 | 50918 | SPS | ITP | | | Install a second 230/115 kV transformer at Plant X. | 6/1/2022 | 6/1/2022 | 6/1/2022 | 24 | 525481 | PLANTX 6 | 525480 | PLANTX 3 | 2 | 230 | | | | 250/288 |
| 200395 | 30692 | 50920 | SPS | ITP | \$3,621,405 | SPS | Replace first existing 230/115 transformer at Seminole. | 5/15/2018 | 6/1/2017 | 6/1/2017 | 24 | 527276 | SEMINOLE 6 | 527275 | SEMINOLE 3 | 1 | 230 | | | | 246/283 |
| 200395 | 30692 | 50921 | SPS | ITP | \$3,621,405 | SPS | Replace second existing 230/115 transformer at Seminole. | 5/15/2018 | 6/1/2017 | 6/1/2017 | 24 | 527276 | SEMINOLE 6 | 527275 | SEMINOLE 3 | 2 | 230 | | | | 246/283 |
| | 30693 | 50922 | SPS | Transmission Service | \$3,790,207 | SPS | Replace 230/115 kV transformer at Wolfroth substation. | | 6/1/2021 | 6/1/2023 | | 526525 | WOLFFORTH 6 | 526524 | WOLFFORTH 3 | | 230 | | | | 196 |
| 200411 | 30694 | 50923 | SPS | High Priority | \$6,204,344 | SPS | Construct new 9.3-mile 115 kV line from new Ponderosa substation to new Ponderosa Tap substation. | 6/1/2017 | 6/1/2018 | 6/1/2018 | 36 | 528239 | DISTSUB3TP 3 | 528240 | PONDEROSA 3 | 1 | 115 | 9.3 | | | 276/304 |
| 200395 | 31067 | 50924 | SPS | ITP | \$4,880,122 | SPS | Convert Livingston Ridge from 69 kV to 115 kV. Install any necessary 115 kV terminal equipment. | 8/31/2017 | 6/1/2017 | 6/1/2017 | 36 | 527953 | LIVSTNRIDGE3 | | | 1 | 115 | | | | 276/304 |
| 200309 | 30695 | 50925 | SPS | High Priority | \$2,108,012 | SPS | Construct new 115 kV Sage Brush substation with 3 ring bus configuration. Install any necessary 115 kV terminal equipment. | 12/16/2016 | 6/1/2018 | 6/1/2018 | | 527955 | RDRUNNER 3 | | | 1 | 115 | | | | 239/304 |
| 200411 | 30695 | 50926 | SPS | High Priority | \$13,187,417 | SPS | Construct new 13.9-mile 115 kV line from Livingston Ridge to new Sage Brush substation. | 11/30/2017 | 6/1/2018 | 6/1/2018 | 36 | 527953 | LIVSTNRIDGE3 | 527955 | RDRUNNER 3 | 1 | 115 | 13.9 | | | 276/304 |
| 200309 | 30695 | 50927 | SPS | High Priority | \$1,200,057 | SPS | Construct new 115 kV Lagarto substation. Install any necessary 115 kV terminal equipment. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 36 | 527957 | LAGARTO 3 | | | 1 | 115 | | | | 239/304 |
| 200309 | 30695 | 50928 | SPS | High Priority | \$6,186,323 | SPS | Construct new 10.4-mile 115 kV line from new Lagarto substation to new Sage Brush substation. | 12/15/2016 | 6/1/2018 | 6/1/2018 | 36 | 527957 | LAGARTO 3 | 527955 | RDRUNNER 3 | 1 | 115 | 10.4 | | | 276/304 |
| 200411 | 30825 | 50931 | SPS | High Priority | \$12,300,000 | SPS | Construct new 14-mile 115 kV line from China Draw to Wood Draw. | 6/15/2017 | 6/1/2018 | 6/1/2018 | | 528222 | CHINA_DRAW 3 | 528228 | WOOD_DRAW 3 | 1 | 115 | 14 | | | 276/304 |
| 200309 | 30695 | 50951 | SPS | High Priority | \$5,304,552 | SPS | Construct new 115 kV Cardinal substation. Install any necessary 115 kV terminal equipment. | 12/15/2016 | 6/1/2018 | 6/1/2018 | 36 | 528596 | NA_ENRICHTP3 | | | 1 | 115 | | | | 239/304 |
| 200360 | 30914 | 50952 | SPS | ITP | \$5,846,342 | SPS | Rebuild 9.5-mile 115 kV line from Livingston Ridge to IMC #1 Tap. | 11/16/2018 | 6/1/2015 | 6/1/2015 | 30 | 528035 | IMC1_TP 3 | 527953 | LIVSTNRIDGE3 | 1 | 115 | | 9.5 | | |
| 200365 | 30708 | 50954 | SPS | Transmission Service | \$7,032,376 | SPS | Rebuild 9.1-mile 115 kV line from Ochoa to Ponderosa Tap. | 8/31/2016 | 6/1/2018 | | 24 | 528232 | OCHOA 3 | 528239 | DISTSUB3TP 3 | 1 | 115 | | 9.1 | | 178 |
| 200360 | 30914 | 50955 | SPS | ITP | \$3,943,853 | SPS | Reconductor 5.9-mile 115 kV line from Ponderosa Tap to Whitten. | 12/1/2017 | 6/1/2015 | 6/1/2015 | 30 | 528239 | DISTSUB3TP 3 | 528540 | WHITTEN 3 | 1 | 115 | | 5.9 | | 276/304 |
| 200360 | 30914 | 50957 | SPS | ITP | \$3,196,240 | SPS | Rebuild 1.5-mile 115 kV line from Intrepid West Tap to Potash Junction. | 11/16/2018 | 6/1/2015 | 6/1/2015 | 30 | 527999 | INTREPDW_TP3 | 527962 | POTASH_JCT 3 | 1 | 115 | | 1.5 | | 276/304 |
| 200360 | 30914 | 50958 | SPS | ITP | \$3,121,473 | SPS | Rebuild 3.9-mile 115 kV line from Intrepid West Tap to IMC #2. | 11/16/2018 | 6/1/2015 | 6/1/2015 | 30 | 527999 | INTREPDW_TP3 | 528035 | IMC1_TP 3 | 1 | 115 | | 3.9 | | 276/304 |
| 200309 | 30695 | 50967 | SPS | High Priority | \$7,315,580 | SPS | Construct new 17.5-mile 115 kV line from Lagarto to Cardinal. | 12/15/2016 | 6/1/2018 | 6/1/2018 | 36 | 528596 | NA_ENRICHTP3 | 527957 | LAGARTO 3 | 1 | 115 | 17.5 | | | 276/304 |
| 200282 | 30675 | 50988 | SPS | High Priority | \$1,046,485 | SPS | Construct new 115 kV Yeso Hills substation. Install any necessary 115 kV terminal equipment. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 36 | 528246 | YESO_HILLS 3 | | | 1 | 115 | | | | 239 |
| 200362 | 30732 | 50991 | MKEC | High Priority | \$17,226,557 | MKEC | Construct new 8-mile 138 kV line from Anthony to Bluff City. | 6/1/2018 | 6/1/2015 | 6/1/2015 | 36 | 539001 | ANTHONY | 539004 | BLUFF_CITY | 1 | 138 | 8 | | | 190 |
| 200297 | 30755 | 50992 | SPS | Transmission Service | \$4,020,488 | SPS | Upgrade 230/115 kV transformer at Tucco to 288 MVA. | 6/1/2018 | 6/1/2019 | 6/1/2022 | | 525830 | TUCO_INT 6 | 525828 | TUCO_INT 3 | 1 | 230 | | | | 252/288 |
| 200362 | 30732 | 50993 | MKEC | High Priority | \$9,378,604 | MKEC | Construct new 18-mile 138 kV line from Bluff City to Caldwell. | 6/1/2018 | 6/1/2015 | 6/1/2015 | 36 | 539004 | BLUFF_CITY | 539005 | CALDWELL | 1 | 138 | 18 | | | 190 |
| 200362 | 30732 | 50994 | MKEC | High Priority | \$7,527,066 | MKEC | Construct new 13-mile 138 kV line from Caldwell to Mayfield. | 6/1/2018 | 6/1/2015 | 6/1/2015 | 36 | 539005 | CALDWELL | 539006 | MAYFIELD | 1 | 138 | 13 | | | 190 |
| 200362 | 30732 | 50995 | MKEC | High Priority | \$6,608,453 | MKEC | Construct a new 3-way switch at Milan. Construct new 5-mile 138 kV line from Mayfield to new switch at Milan. | 6/1/2018 | 6/1/2015 | 6/1/2015 | 36 | 5390 | | | | | | | | | |

| NTC ID | PID | UID | Facility Owner | 2017 Project Type | Cost Estimate | Cost Estimate Source | Upgrade Description | TO Projected In-Service Date | RTO Determined Need Date | STEP Date | Project Lead Time (Months) | From Bus Number | From Bus Name | To Bus Number | To Bus Name | Circuit Code | Voltage (kV) | New Miles | Rebuild / Reconductor Miles | Voltage Conversion Miles | Rating (kV) |
|--------|-------|-------|----------------|----------------------------|---------------|----------------------------------|---|------------------------------|--------------------------|-----------|----------------------------|-----------------|---------------|---------------|--------------|--------------|--------------|-----------|-----------------------------|--------------------------|-------------|
| 200298 | 30761 | 51033 | AEP | Transmission Service | \$6,566,218 | AEP | Rebuild 2.3 miles of 138 kV 954 ACSR conductor with 1590 ACSR conductor from Cedar Grove to South Shreveport. Replace breaker, switches, and jumpers at South Shreveport. Replace switch at Cedar Grove. | 6/1/2020 | 6/1/2020 | 6/1/2018 | | 507771 | CEDARGR4 | 507755 | 5 SHV 4 | 1 | 138 | | 2.3 | | 266 |
| 200339 | 30762 | 51034 | AEP | Transmission Service | \$6,629,465 | AEP | Rebuild existing 3.2-mile 69 kV line from Ellerbe Road to Lucas. | 3/1/2019 | 3/1/2019 | 3/1/2019 | | 507723 | ELLERBE2 | 507739 | LUCAS 2 | 1 | 69 | | 3.2 | | 119 |
| 200339 | 30762 | 51035 | AEP | Transmission Service | \$652,658 | AEP | Replace jumpers at 69 kV substations Ellerbe Road and Lucas. Replace relay panel at Ellerbe Road. Change relay setting at Lucas. | 3/1/2019 | 3/1/2019 | 3/1/2019 | | 507723 | ELLERBE2 | | | | 69 | | | | 119 |
| 200262 | 30766 | 51039 | SPS | Transmission Service | \$3,632,101 | SPS | Upgrade Yoakum County Interchange Ckt 1 230/115 kV transformer to 250 MVA. | 6/1/2019 | 6/1/2019 | | | 526935 | YOAKUM 6 | 526934 | YOAKUM 3 | 1 | 230 | | | | 250 |
| 200262 | 30766 | 51050 | SPS | Transmission Service | \$3,432,506 | SPS | Upgrade Yoakum County Interchange Ckt 2 230/115 kV transformer to 250 MVA. | 6/1/2019 | 6/1/2019 | | | 526935 | YOAKUM 6 | 526934 | YOAKUM 3 | | 230 | | | | 250 |
| | 30786 | 51069 | NPPD | Generation Interconnection | \$5,750,000 | GIA for GEN-2010-051 (SA 2299R3) | 230kV Line Terminal including four (4) breaker substation addition | 11/1/2018 | | | | | | | | | 230 | | | | |
| | 30787 | 51070 | NPPD | Generation Interconnection | \$100,000 | GIA for GEN-2010-051 (SA 2299R3) | Increase clearances to accommodate 320MVA facility rating | 11/1/2018 | | | | | | | | | 230 | | | | |
| 200382 | 30809 | 51096 | AEP | Transmission Service | \$4,319,501 | AEP | Rebuild 2.0-mile 69 kV line from Keystone Dam to Wekiwa to 138 kV operation. | 6/1/2021 | 6/1/2021 | 6/1/2023 | 24 | 505610 | KEYSTON4 | 509757 | WEKIWA-4 | 1 | 138 | | 2 | | 159 |
| 200395 | 30817 | 51109 | SPS | ITP | \$9,756,809 | SPS | Rebuild 13.7-mile 115 kV line from Canyon West to Dawn. | 12/15/2018 | 6/1/2017 | 6/1/2017 | 30 | 524516 | CANYON_WEST3 | 524590 | DAWN 3 | 1 | 115 | | 13.7 | | 249/274 |
| 200395 | 30817 | 51110 | SPS | ITP | \$5,901,274 | SPS | Rebuild 8.4-mile 115 kV line from Dawn to Panda. | 12/15/2018 | 6/1/2017 | 6/1/2017 | 30 | 524590 | DAWN 3 | 524597 | PANDAHFD 3 | 1 | 115 | | 8.4 | | 249/274 |
| 200395 | 30817 | 51111 | SPS | ITP | \$3,501,534 | SPS | Rebuild 3.5-mile 115 kV line from Deaf Smith to Panda. | 12/15/2018 | 6/1/2017 | 6/1/2017 | 30 | 524622 | DEAFSMITH 3 | 524597 | PANDAHFD 3 | 1 | 115 | | 3.5 | | 245/265 |
| 200297 | 30820 | 51112 | SPS | Transmission Service | \$362,250 | SPS | Replace the wave trap at Carlisle substation. Replace the wave trap on the Carlisle line terminal at Tucco substation. | 9/1/2016 | 10/1/2015 | 10/1/2015 | | 525830 | TUCO_INT 6 | 526161 | CARLISLE 6 | | 230 | | | | |
| 200311 | 30619 | 51117 | OGE | High Priority | \$12,701,091 | OGE | Construct OGE's portion of new 138 kV line from Darlington (AEP) to Roman Nose. | 12/31/2016 | 6/1/2015 | 6/1/2015 | | | | | | | 1 | 138 | 13.2 | | 316 |
| 200307 | 30839 | 51127 | OPPD | Transmission Service | \$0 | OPPD | Accelerate the rebuild of 1.34-mile 69 kV line from S906 to S924 to achieve a new emergency rating of 143 MVA. | 6/1/2018 | 6/1/2018 | | 24 | | | | | | 1 | 69 | | 1.34 | |
| 200307 | 30839 | 51128 | OPPD | Transmission Service | \$0 | OPPD | Accelerate the installation of terminal upgrades at S924 to increase emergency rating of S924 - S912 69 kV Ckt 1 to 99 MVA. | 6/1/2018 | 6/1/2018 | | 24 | | | | | | | 69 | | | |
| 200360 | 30914 | 51131 | SPS | ITP | \$3,163,083 | SPS | Rebuild 3.8-mile 115 kV line from Monument Tap to Byrd Tap. | 11/16/2018 | 6/1/2015 | 6/1/2015 | 30 | 528582 | BYRD 3 | 528568 | MONUMNT_TP 3 | 1 | 115 | | 3.8 | | 239 |
| 200330 | 30838 | 51133 | OPPD | ITP | \$6,588,939 | OPPD | Install new 345/161 kV transformer at Sub 3459. Install any necessary 161 kV terminal equipment. | 6/1/2018 | 6/1/2019 | 6/1/2019 | 24 | 645459 | S3459 3 | 646209 | S1209 5 | 1 | 345 | | | | 400/440 |
| 200330 | 30838 | 51136 | OPPD | ITP | \$3,604,757 | OPPD | Install any 345 kV terminal equipment required for new 345/161 kV transformer at Sub 3459. | 6/1/2018 | 6/1/2019 | 6/1/2019 | 24 | 645459 | S3459 3 | | | | 2 | 345 | | | |
| 200416 | 30843 | 51139 | OGE | ITP | \$1,500,000 | SPP | Upgrade CT and wavetraps at both Cimarron and Draper 345 kV substations to increase the rating of the 345 kV line from Cimarron to Draper. | 4/1/2019 | 4/1/2019 | 4/1/2018 | 18 | 514901 | CIMARON7 | 514934 | DRAPER 7 | 1 | 345 | | | | 1195 |
| 200395 | 30844 | 51140 | SPS | ITP | \$1,829,856 | SPS | Upgrade switches and wave traps at Sundown and Amoco and increase the line clearance to increase the rating of the 230 kV line from Amoco to Sundown. | 12/14/2018 | 1/1/2019 | 1/1/2019 | 18 | 526435 | SUNDOWN 6 | 526460 | AMOCO_SS 6 | 1 | 230 | | | | 497/547 |
| 200316 | 30848 | 51146 | GRDA | ITP | \$11,200 | GRDA | Replace CT at Claremore to increase the rating of the 161 kV line from Claremore to GRDA 1. | 6/1/2018 | 6/1/2018 | 6/1/2018 | 18 | 512651 | CLARMR 5 | 512656 | GRDA1 5 | 1 | 161 | | | | 261 |
| | 30849 | 51148 | NPPD | ITP | \$29,610,781 | SPP | Rebuild 39.4-mile 115 kV line from North Platt to Stockville to achieve a new emergency rating of 240 MVA. | | 1/1/2019 | 1/1/2019 | 30 | 640287 | N-PLATT7 | 640365 | STOCKVL7 | 1 | 115 | | 39.4 | | 240 |
| | 30849 | 51149 | NPPD | ITP | \$16,665,000 | SPP | Rebuild 21-mile 115 kV line from Red Willow to Stockville to achieve a new emergency rating of 240 MVA. | | 1/1/2019 | 1/1/2019 | 30 | 640365 | STOCKVL7 | 640326 | REDWILO7 | 1 | 115 | | 21 | | 240 |
| 200328 | 30850 | 51151 | KCPL | ITP | \$3,263,000 | KCPL | Install any terminal upgrades required at Iatan to convert existing 18.2-mile 161 kV line from Iatan to Stranger Creek to 345 kV operation. | 1/1/2019 | 1/1/2019 | 1/1/2019 | 36 | 542982 | IATAN 7 | | | | 345 | | | 18.2 | 1195 |
| | 30852 | 51153 | LEA | ITP | \$1,495,913 | SPP | Install a second 115/69 kV transformer at Lovington. Install any necessary 69 kV terminal equipment. | | 6/1/2015 | 6/1/2015 | 24 | 528618 | LE-LOVINTON2 | 528334 | LE-LOVINTON3 | 2 | 115 | | | | 100 |
| | 30854 | 51156 | WR | ITP | \$7,686,209 | SPP | Rebuild 3.1-mile 115 kV line from Forbes to Underpass North using single 1192.5 ACSR conductor to achieve a new emergency rating of 262 MVA. Rebuild Underpass 115 kV substation with ring bus breaker configuration and new 2000 A terminal equipment. | | 6/1/2021 | 6/1/2021 | 24 | 533157 | FORBES 3 | 533189 | UNDERPN3 | 1 | 115 | | 3.1 | | 218/262 |
| | 30855 | 51157 | WR | ITP | \$6,033,488 | SPP | Rebuild 6.3-mile 138 kV line from Murray Gill East Energy Center to Interstate to achieve new emergency rating of 286 MVA. Replace jumpers at Interstate and Murray Gill East Energy Center. | | 6/1/2024 | 6/1/2024 | 24 | 533044 | GILL E 4 | 533051 | INTERST4 | 1 | 138 | | 6.3 | | 286 |
| | 30856 | 51158 | SPS | ITP | \$7,789,804 | SPP | Tap the existing Northwest to Bush 115kV line approximately 2 miles from Northwest substation to create new Bush Tap substation. Build new 3-mile 115 kV line from Bush Tap to Hastings with 795 ACSR conductor. | | 6/1/2022 | 6/1/2022 | 30 | 524122 | Bush Tap 3 | 524136 | HASTINGS 3 | 1 | 115 | 3 | | | 384/422 |
| | 30857 | 51159 | WR | ITP | \$9,974,068 | SPP | Add four (4) new 345 kV terminals to the Moundridge substation, configured in a ring bus breaker scheme. Tap the existing 345 kV line from Reno County to Wichita and terminate both ends into new 345 kV terminals at Moundridge. Install any necessary 345 kV terminal equipment. | | 6/1/2024 | 6/1/2024 | 24 | 532779 | Moundrg7 | 532796 | WICHITA7 | 1 | 345 | | | | |
| | 30857 | 51161 | WR | ITP | \$4,389,083 | SPP | Install a new 345/138 kV transformer at at Moundridge. Install any necessary 115 kV terminal equipment. | | 6/1/2024 | 6/1/2024 | 24 | 532779 | Moundrg7 | 533013 | MOUND 4 | 1 | 345 | | | | 280/308 |
| | 30858 | 51162 | SPS | ITP | \$809,640 | SPP | Install one (1) 14.4 MVAR capacitor bank at Alfred 115 kV. | | 6/1/2021 | 6/1/2021 | 24 | 527024 | ALLRD&CORTZ3 | | | | 115 | | | | |
| 200336 | 30859 | 51163 | SPS | ITP | \$1,256,572 | SPS | Install one (1) 14.4-MVAR capacitor bank at the Plains Interchange 115 kV substation. | 11/15/2017 | 6/1/2019 | 6/1/2019 | 24 | 526928 | LE-PLAINS 3 | | | | 1 | 115 | | | |
| | 30860 | 51164 | SPS | ITP | \$1,619,280 | SPP | Install two (2) stages of 14.4 MVAR capacitor banks at China Draw 115 kV. | | 6/1/2022 | 6/1/2022 | 24 | 528222 | CHINA_DRAW 3 | | | | 1 | 115 | | | |
| | 30860 | 51165 | SPS | ITP | \$1,619,280 | SPP | Install two (2) stages of 14.4 MVAR capacitor banks at North Loving 115 kV. | | 6/1/2022 | 6/1/2022 | 24 | 528182 | NORTH_LOVNG3 | | | | 1 | 115 | | | |
| | 30862 | 51167 | SEPC | ITP | \$337,350 | SPP | Install one (1) 6 MVAR capacitor bank at Grinnell 115 kV. | | 6/1/2023 | 6/1/2023 | 24 | 531412 | GRINNEL3 | | | | 1 | 115 | | | |
| 200326 | 30866 | 51170 | SPS | ITP | \$31,198 | SPS | Replace wave trap at Amarillo South to increase the rating of the 230 kV line from Amarillo South to Swisher County. | 4/1/2020 | 4/1/2020 | 4/1/2020 | 18 | 524415 | AMA_SOUTH 6 | 525213 | SWISHER 6 | 1 | 230 | | | | 478/502 |
| | 30867 | 51171 | SPS | ITP | \$3,051,300 | SPP | Install 3rd 230/115 kV transformer at Tucco with an emergency rating of 252 MVA. | | 6/1/2022 | 6/1/2022 | 24 | 525830 | TUCO_INT 6 | 525828 | TUCO_INT 3 | 1 | 115 | | | | 252/288 |
| | 30868 | 51172 | AEP | ITP | \$251,887 | SPP | Rebuild 0.32-mile 138 kV line from Enogex Wilburton Tap to Lone Oak to achieve a new emergency rating of 286 MVA. | | 4/1/2023 | 4/1/2023 | 30 | 510897 | LONEOAK4 | 510944 | ENOWILT4 | 1 | 138 | | 0.32 | | 286 |
| | 30868 | 51173 | AEP | ITP | \$16,726,892 | SPP | Rebuild 22.5-mile 138 kV line from Enogex Wilburton Tap to Sardis to achieve a new emergency rating of 286 MVA. | | 4/1/2023 | 4/1/2023 | 30 | 510944 | ENOWILT4 | 510926 | SARDIS 4 | 1 | 138 | | 22.5 | | 286 |
| | 30868 | 51174 | AEP | ITP | \$3,353,250 | SPP | Rebuild 3.6-mile 138 kV line from Clayton to Sardis to achieve a new emergency rating of 286 MVA. | | 4/1/2023 | 4/1/2023 | 30 | 510926 | SARDIS 4 | 510919 | CLAYTON4 | 1 | 138 | | 3.6 | | 286 |
| | 30868 | 51175 | AEP | ITP | \$8,152,603 | SPP | Rebuild 11.6-mile 138 kV line from Clayton to Nashoba to achieve a new emergency rating of 286 MVA. | | 4/1/2023 | 4/1/2023 | 30 | 510919 | CLAYTON4 | 510927 | NASHOBA4 | 1 | 138 | | 11.6 | | 286 |
| | 30868 | 51176 | AEP | ITP | \$17,844,360 | SPP | Rebuild 22.4-mile 138 kV line from Bethel to Nashoba to achieve a new emergency rating of 286 MVA. | | 4/1/2023 | 4/1/2023 | 30 | 510927 | NASHOBA4 | 510928 | BETHEL 4 | 1 | 138 | | 22.4 | | 286 |
| | 30868 | 51177 | AEP | ITP | \$12,992,400 | SPP | Rebuild 16.3-mile 138 kV line from Bethel to Broken Bow to achieve a new emergency rating of 286 MVA. | | 4/1/2023 | 4/1/2023 | 30 | 510928 | BETHEL 4 | 505614 | BRKN BW4 | 1 | 138 | | 16.3 | | 286 |

| NTC ID | PID | UID | Facility Owner | 2017 Project Type | Cost Estimate | Cost Estimate Source | Upgrade Description | TO Projected In-Service Date | RTO Determined Need Date | STEP Date | Project Lead Time (Months) | From Bus Number | From Bus Name | To Bus Number | To Bus Name | Circuit Code | Voltage (kV) | New Miles | Rebuild / Reconductor Miles | Voltage Conversion Miles | Rating (kV) |
|--------|-------|-------|----------------|----------------------------|---------------|--|--|------------------------------|--------------------------|-----------|----------------------------|-----------------|--------------------|---------------|----------------------|--------------|--------------|-----------|-----------------------------|--------------------------|-------------|
| | 30864 | 51178 | AEP | ITP | \$171,990 | SPP | Upgrade relays and relays settings at Sand Springs to achieve a new emergency rating of 309 MVA on the Prattville - Sand Springs 138 kV line . | | 6/1/2023 | 6/1/2023 | 18 | 509815 | S.S.--4 | 509758 | PRATTV-4 | 1 | 138 | | | | 265/309 |
| 200325 | 30427 | 51180 | SEPC | ITP | \$4,151,656 | SEPC | Install any 345 kV terminal equipment required for second 345/115 kV transformer at Mingo. | 12/31/2016 | 6/1/2015 | 6/1/2015 | 24 | 531451 | MINGO 7 | | | 2 | 345 | | | | 289/308 |
| | 30852 | 51181 | LEA | ITP | \$689,063 | SPP | Install any 115 kV terminal equipment required for second 115/69 kV transformer at Lovington. | | 6/1/2015 | 6/1/2015 | 24 | 528334 | LE-LOVINTON3 | | | 1 | 115 | | | | |
| 200314 | 30873 | 51187 | AEP | ITP | \$15,821,763 | AEP | Rebuild 16.5-mile 138 kV from Southwestern Station to Carnegie. | 12/31/2017 | 6/1/2016 | 6/1/2016 | 30 | 511477 | S.W.5 -4 | 511445 | CARNEG-4 | 1 | 138 | | 15.5 | 138 | 272/376 |
| 200326 | 30875 | 51189 | SPS | ITP | \$7,264,308 | SPS | Rebuild 11.1-mile 115 kV line from PCA Interchange to Quahada. | 6/15/2017 | 6/1/2016 | 6/1/2016 | 30 | 527930 | PCA 3 | 528394 | Quahada 115 kV | 1 | 115 | | 11.1 | | 239 |
| 200360 | 30914 | 51194 | SPS | ITP | \$3,659,456 | SPS | Install one(1) 100-MVAR capacitor bank at Potash Junction 230 kV substation. | 11/16/2018 | 6/1/2015 | 6/1/2015 | 30 | 527963 | POTASH_JCT 6 | | | 1 | 230 | | | | |
| 200318 | 30883 | 51200 | NPPD | ITP | \$5,163,000 | NPPD | Tap the existing 115 kV line from Ainsworth to Stuart to construct the new Bassett substation. | 6/1/2018 | 6/1/2016 | 6/1/2016 | 24 | 640580 | Bassett | | | 1 | 115 | | | | |
| 200319 | 30884 | 51202 | OGE | ITP | \$2,786,625 | SPP | Install 138/69 kV bus tie transformer at Stillwater and interface Stillwater 69 kV substation with existing Stillwater Municipal 69 kV transmission system. | 6/1/2019 | 6/1/2019 | 6/1/2019 | 24 | 515011 | STILWTR4 | 999919 | STLWTR2 | 1 | 138 | | | | 123/134 |
| 200326 | 30888 | 51206 | SPS | ITP | \$1,695,000 | SPS | Replace 115/69 kV transformer at Lynn County substation. | 6/1/2019 | 6/1/2019 | 6/1/2019 | 24 | 526656 | LYNN_CNTY 3 | 526655 | LYNN_CNTY 2 | 1 | 115 | | | | 84 |
| 200406 | 30889 | 51207 | AEP | ITP | \$5,285,437 | AEP | Rebuild the 2.4-mile 138kV line from Linwood to Cedar Grove to South Shreveport. Upgrade the jumpers at Linwood. | 6/1/2018 | 6/1/2017 | 6/1/2017 | | 507738 | LINWOOD4 | 507771 | CEDARGR4 | 1 | 138 | | 2.42 | | 272/376 |
| 200325 | 30916 | 51209 | SEPC | ITP | \$3,892,077 | SEPC | Replace breaker, switches, CTs, and relay(s) at the Buckner and Spearville 345 kV substations to increase the rating of the 345 kV line from Buckner to Spearville. | 12/31/2017 | 6/1/2015 | 6/1/2015 | 18 | 531469 | SPERVIL7 | 531501 | BUCKNER7 | 1 | 345 | | | | 1526 |
| 200390 | 30892 | 51212 | GRDA | ITP | \$134,800 | SPP | Upgrade breaker and relay(s) at CPPXF#22 69 kV substation. | 12/31/2016 | 6/1/2015 | 6/1/2015 | 18 | 512661 | CPPXF#22 | | | 1 | 69 | | | | 102/123 |
| 200326 | 30894 | 51214 | SPS | ITP | \$1,262,485 | SPS | Install one (1) 14.4-MVAR capacitor bank at Cargill 115 kV substation. | 6/1/2019 | 6/1/2019 | 6/1/2019 | 24 | 524648 | CARGILL 3 | | | | 115 | | | | |
| | | | | | | | Rebuild 0.8-mile 69 kV line from Brooks Street to Edwards Street. Upgrade jumpers at both substations. | 6/1/2018 | 6/1/2016 | 6/1/2016 | 24 | 507717 | BROOKS 2 | 507722 | EDWARDS2 | 1 | 69 | | 0.85 | | 136/143 |
| | 30897 | 51217 | LEA | ITP | \$647,712 | SPP | Install one (1) 14.4 MVAR capacitor bank at the Bronco 69 kV substation. | | 6/1/2015 | 6/1/2015 | 24 | 528727 | LE-BRONCO 2 | | | 1 | 69 | | | | |
| | 30902 | 51222 | LEA | ITP | \$449,800 | SPP | Install one (1) 10-MVAR capacitor bank at the Williams 69 kV substation. | | 6/1/2015 | 6/1/2015 | 24 | 528659 | LE-WILLIAMS2 | | | 1 | 69 | | | | |
| 200390 | 30909 | 51230 | GRDA | ITP | \$160,200 | GRDA | Replace CTs and relays at both Collinsville and Skiatook substations to increase the rating of the 69 kV line from Collinsville to Skiatook. Upgrade breaker at Collinsville. | | 6/1/2017 | 6/1/2017 | 6 | 512676 | COLNSGR2 | | | 1 | 69 | | | | 51/61 |
| 200343 | 30912 | 51235 | SPS | ITP | \$13,831,957 | SPS | Tap the existing 345 kV line from Finney to Hichland to construct the new Stevens Co. substation. Install any necessary 345 kV terminal equipment. | 6/1/2018 | 6/1/2015 | 6/1/2015 | 36 | 531512 | WALKTAP7 | | | 1 | 345 | | | | 956/1052 |
| 200343 | 30913 | 51237 | SPS | ITP | \$4,811,635 | SPS | Convert RIAC substation to 115 kV. Install a new 3-way 115 kV line switch tapping the 115 kV line from Brasher to Roswell Interchange. Remove the existing 69 kV transmission lines terminating at RIAC and rebuild the 1.5-mile 69 kV line from the north with a new 115 kV line to RIAC. Add a new 115 kV terminal at Roswell Interchange and build a new 0.1-mile line out of Roswell Interchange to connect to the Roswell City 115 kV circuit. | 6/1/2018 | 6/1/2015 | 6/1/2015 | 24 | 527552 | RIAC 2 | | | 1 | 115 | | 1.5 | | 276/304 |
| 200344 | 30912 | 51240 | SEPC | ITP | \$767,645 | SEPC | Construct new 1-mile 115 kV line from Walkemeyer to the new Stevens Co. substation. | 6/1/2018 | 6/1/2015 | 6/1/2015 | 24 | 531405 | WALKMYR3 | | | 1 | 115 | 1 | | | 281/304 |
| 200344 | 30912 | 51241 | SEPC | ITP | \$5,668,987 | SEPC | Install 115 kV terminal equipment at the existing Walkemeyer substation required to accommodate the terminations of the new 1-mile 115 kV line from the new Stevens Co. substation and the new 21-mile 115 kV line from North Liberal. | 6/1/2018 | 6/1/2015 | 6/1/2015 | 29 | 531405 | WALKMYR3 | | | 1 | 115 | | | | |
| 200360 | 30914 | 51245 | SPS | ITP | \$2,667,006 | SPS | Rebuild 3-mile 115 kV line from Cardinal to Targa. | 5/31/2018 | 6/1/2015 | 6/1/2015 | 30 | | | | | 1 | 115 | | 3 | | 276/304 |
| 200360 | 30914 | 51250 | SPS | ITP | \$4,430,052 | SPS | Rebuild 4.3-mile 115 kV line from National Enrichment Plant to Targa. | 8/15/2017 | 6/1/2015 | 6/1/2015 | 30 | 528603 | NA_ENRICH 3 | 528540 | WHITTEN 3 | 1 | 115 | | 4.3 | | 276/304 |
| 200319 | 30884 | 51269 | OGE | ITP | \$611,398 | SPP | Install 138 kV terminal equipment required to install new 138/69 kV transformer at Stillwater. | 6/1/2019 | 6/1/2019 | 6/1/2019 | 24 | 515011 | STILWTR4 | | | 1 | 138 | | | | |
| 200326 | 30888 | 51270 | SPS | ITP | \$0 | SPS | Install 115 kV terminal equipment at Lynn County substation necessary to replace 115/69 kV transformer. | 6/1/2019 | 6/1/2019 | 6/1/2019 | 24 | 526656 | LYNN_CNTY 3 | | | 1 | 115 | | | | |
| 200394 | 30917 | 51271 | SEPC | ITP | \$2,983,396 | SEPC | Install two stages of 12-MVAR capacitor banks (24 total MVAR) at Ellsworth 115 kV. | 6/1/2018 | 6/1/2017 | 6/1/2017 | 18 | 539662 | ELLSWTH3 | | | 1 | 115 | | | | |
| 200365 | 30918 | 51272 | SPS | Transmission Service | \$3,044,258 | SPS | Rebuild 3.5-mile 115 kV line from Cooper Ranch to Oil Center. | 6/1/2021 | 6/1/2021 | | 24 | 528554 | OIL_CENTER 3115.00 | 528554 | COOPER_RANCH 3115.00 | | 115 | | 3.5 | | |
| 200365 | 30918 | 51273 | SPS | Transmission Service | \$3,261,324 | SPS | Rebuild 4.9-mile 115 kV line from Byrd Tap to Cooper Ranch. | 6/1/2021 | 6/1/2021 | | 24 | | | | | 1 | 115 | | 4.9 | | |
| 200318 | 30921 | 51276 | NPPD | ITP | \$209,500 | NPPD | Rebuild 7.1-mile 115 kV line from Ainsworth to Ainsworth Wind. | 6/1/2020 | 6/1/2020 | 6/1/2020 | 24 | 640051 | AINSWRT7 | 640050 | AINSWND7 | 1 | 115 | | 7.7 | | 140 |
| 200318 | 30883 | 51277 | NPPD | ITP | \$902,000 | NPPD | Install one(1) 9-MVAR capacitor bank at the new Bassett 115 kV substation. | 6/1/2018 | 6/1/2016 | 6/1/2016 | 24 | | | | | | 115 | | | | |
| 200337 | 30850 | 51283 | GMO | ITP | \$6,237,000 | GMO | Convert GMO's portion of the existing 18.2-mile 161 kV line from Iatan to Stranger Creek to 345 kV operation. | 1/1/2019 | 1/1/2019 | 1/1/2019 | 36 | 541350 | IATAN5 | 541231 | STRANGRS | 1 | 345 | | | 7.4 | 1195 |
| 200338 | 30850 | 51284 | WR | ITP | \$28,010,000 | | Convert WR's portion of the existing 18.2-mile 161 kV line from Iatan to Stranger Creek to 345 kV operation. Install any necessary terminal equipment at Stranger Creek. | 12/31/2018 | 1/1/2019 | 1/1/2019 | 36 | 541350 | IATAN5 | 541231 | STRANGRS | 1 | 345 | | | 10.8 | 1195 |
| | | | | | | | New transmission owner 115 kV switching station, construct a new three (3) breaker 115 kV ring bus station and install the following equipment to interconnect Interconnection Customer's Generating Facility, Disturbance Monitoring Device, 3 Breaker 115 kV Ring Substation, Right of Way, Crosby County - Floyd County (Circuit T-65): Work to tap and pull into and out of new Transmission Owner Switching Station; New Transmission Owner Switching Station - Crosby County 115 kV; Replace existing static from new Transmission Owner Switching Station to Crosby County with fiber optic static; Crosby County 115 kV; Upgrade 115 kV terminal at Crosby County; Floyd County 115 kV; Upgrades 115 kV terminal at Crosby County. | 3/31/2017 | | | | | | | | 115 | | | | | |
| | 30933 | 51291 | SPS | Generation Interconnection | \$4,043,580 | GIA for GEN-2011-025 (SA 304182). | | | | | | | | | | | | | | | |
| | 30934 | 51292 | NPPD | Generation Interconnection | \$500,000 | GEN-2010-051 & GEN-2011-027 (SA 2880 SO) | | 11/1/2018 | | | | | | | | | 230 | | | | |
| | 30937 | 51299 | SPS | Generation Interconnection | \$1,500,377 | SPS - Estimate from GIA for GEN-2012-020 (SA 2896) | Add one (1) new 230kV breaker (breaker and one-half configuration). Replace one (1) 230kV breaker. Replace five (5) 230kV switches. Includes dead end structure. | 4/30/2017 | | | | 525830 | TUCO_INT 6 | | | | 230 | | | | |
| | 30938 | 51300 | ITCCP | Generation Interconnection | \$1,286,407 | GIA for GEN-2012-024 (SA 3006) | Install one (1) 345 kV, 3000 Amp breaker, line relaying, disconnect switches, and associated equipment. | 10/7/2016 | | | | | | | | | | 345 | | | |
| | 30945 | 51314 | BEPC | ITP | \$86,000,000 | BEPC | Construct new 58-mile 345 kV line from Judson to Tande. | 10/31/2017 | 12/1/2017 | | | 659333 | JUDSON | 659336 | TANDE | 1 | 345 | 58 | | | 956/1052 |
| | 30945 | 51315 | BEPC | ITP | \$18,000,000 | BEPC | Construct new 345 kV Tande substation adjacent to the existing 230 kV Neset substation. Install new 345/230 kV transformer at Tande. | 10/31/2017 | 12/1/2017 | | | 659336 | TANDE | | | | 345 | | | | |
| | 30945 | 51316 | BEPC | ITP | \$3,000,000 | BEPC | Install new 2-mile 230 kV line from Neset to new Tande substation. | 10/31/2017 | 12/1/2017 | | | 659138 | NESET 4 | 659336 | TANDE | 1 | 230 | 2 | | | |
| | 30945 | 51317 | BEPC | ITP | \$4,000,000 | BEPC | Install any necessary terminal upgrades at Neset 230 kV to accommodate new 230 kV line from new Tande substation. | 10/31/2017 | 12/1/2017 | | | 659138 | NESET 4 | | | | 230 | | | | |

| NTC ID | PID | UID | Facility Owner | 2017 Project Type | Cost Estimate | Cost Estimate Source | Upgrade Description | TO Projected In-Service Date | RTO Determined Need Date | STEP Date | Project Lead Time (Months) | From Bus Number | From Bus Name | To Bus Number | To Bus Name | Circuit Code | Voltage (kV) | New Miles | Rebuild / Reconductor Miles | Voltage Conversion Miles | Ratings (kV) |
|--------|-------|-------|----------------|---|---------------|--|--|------------------------------|--------------------------|-----------|----------------------------|-----------------|---------------|---------------|-------------|--------------|--------------|-----------|-----------------------------|--------------------------|--------------|
| | 30946 | 51318 | BEPC | ITP | \$31,500,000 | BEPC | Construct new 65-mile 230 kV line from Lower Brule to Witten. | 1/1/2018 | 12/1/2016 | | | 659312 | LOWERBRULE 4 | 659310 | WITTEN 4 | 1 | 230 | 65 | | | 400/440 |
| | 30946 | 51319 | BEPC | ITP | \$4,500,000 | BEPC | Install any necessary terminal upgrades at Lower Brule 230 kV to accommodate new 230 kV line from Witten. | 1/1/2018 | 12/1/2016 | | | 659312 | LOWERBRULE 4 | | | | 230 | | | | |
| | 30946 | 51320 | BEPC | ITP | \$2,000,000 | BEPC | Install communication facilities associated with the new 230 kV line from Lower Brule to Witten. | 1/1/2018 | 12/1/2016 | | | 659312 | LOWERBRULE 4 | 659310 | WITTEN 4 | | 230 | | | | |
| 200344 | 30912 | 51327 | SEPC | ITP | \$11,695,379 | SEPC | Install new 345/115 kV transformer at the new Stevens Co. substation. Install any necessary 115 kV terminal equipment. | 6/1/2018 | 6/1/2015 | 6/1/2015 | 29 | | | | | | 345 | | | | |
| | 30951 | 51331 | NPPD | Generation Interconnection Transmission Service | \$2,047,174 | Estimate from GIA for GEN-2013-032 (SA 3054) | Rebuild/Upgrade the Antelope - County Line 115kV to rerate line segments to greater than 125 MVA. | 5/1/2017 | | | | | | | | 1 | 115 | | 12.26 | | |
| 200376 | 30952 | 51332 | SEPC | Transmission Service | \$5,522,823 | SEPC | Install two-stage 24-MVAR capacitor bank at Ingalls 115 kV. | 4/10/2018 | 6/1/2017 | 6/1/2017 | | 531407 | INGALLS3 | | | | 115 | | | | |
| 200376 | 30953 | 51333 | SEPC | Transmission Service | \$3,852,343 | SEPC | Install 12-MVAR capacitor bank at Lane Scott 115 kV. | 4/10/2019 | 6/1/2017 | 6/1/2017 | | | | | | | 115 | | | | |
| | 30955 | 51335 | OGE | Generation Interconnection | \$2,807,651 | Estimate from GIA for GEN-2014-064 (SA 3116) | Install four (4) 138 kV, 2000 Amp breakers, line relaying, disconnect switches, and associated equipment. | 6/30/2017 | | | | | | | | | 138 | | | | |
| | 30957 | 51336 | SPS | Generation Interconnection | \$1,250,017 | GIA for GEN-2014-040 (SA 3106). | Install one (1) new 115kV line terminal to accept 115kV transmission line from GEN-2014-040 Generating Facility, including all main aluminum tubing bus conductor and associated equipment. | 11/14/2016 | | | | | | | | | 115 | | | | |
| | 30958 | 51337 | SPS | Generation Interconnection | \$11,537,056 | GEN-2014-012 (SA 3098) | Construct new 230 kV three (3) breaker ring bus 230 kV substation (operated at 230kV but constructed and insulated for 345kV operation) to interconnect the Interconnection Customer's Generating Facility | 9/30/2019 | | | | | | | | | 230 | | | | |
| | 30956 | 51339 | NPPD | Generation Interconnection | \$2,300,000 | GEN-2013-032 (SA 3054) | Install two (2) 115 kV circuit breakers and associated switches, structures, and associated equipment. Add one (1) 115 kV dead-end tower, arresters, line switch, revenue meter and other line relaying equipment necessary to interconnect the Interconnection Customer Interconnection Facilities; Replace one (1) 115 kV circuit breaker due to short circuit over-duty. | 5/1/2017 | | | | | | | | | 115 | | | | |
| | 30951 | 51340 | NPPD | Generation Interconnection | \$1,952,826 | GEN-2013-032 (SA 3054) | Rebuild/Upgrade the Battle Creek - County Line 115kV to rerate line segments to greater than 125 MVA. | 5/1/2017 | | | | | | | | 1 | 115 | | 10.34 | | |
| | 30960 | 51341 | OGE | Generation Interconnection | \$3,952,199 | GEN-2013-030 (SA 2964R1) | Convert from ring bus to breaker-and-a-half configuration by installing additional rung to the existing bus layout and install five (5) 345 kV, 3000 Amp breakers, line relaying, disconnect switches, and associated equipment. Add one (1) 345 kV line terminal including dead-end structure, substation steel, substation bus, interconnection metering, line switch and associated equipment. | 12/31/2017 | | | | | | | | | 345 | | | | |
| | 30950 | 51348 | LES | Generation Interconnection | \$0 | GEN-2013-002 & GEN-2013-019 (SA 3023). | Build new 115 kV Interconnection Substation on Sheldon - Folsom & Pleasant Hill 115kV circuit #2 (LN-1197) transmission line to accommodate a new 115 kV generator interconnection. | | | | | | | | | 2 | 115 | | | | |
| | 30950 | 51349 | NPPD | Generation Interconnection | \$92,000 | GEN-2013-002 & GEN-2013-019 (SA 3023). | Replace protective relays and communication equipment at Sheldon that protects the 115kV line to the new 115kV substation for GEN-2013-002 & GEN-2013-019. | 10/15/2016 | | | | | | | | | 115 | | | | |
| | 30965 | 51351 | ITCGP | Generation Interconnection | \$3,118,020 | GEN-2011-008 (SA 2868R2) | Clark County 345kV Substation - Add one (1) 345kV breaker and a half leg to the ring. Work to include circuit breakers, switches, structural steel and associated equipment to terminate the 345kV line to the generating facility. (GEN-2011-008) | 10/7/2016 | | | | 539800 | CLARKCOUNTY7 | | | | 345 | | | | |
| | 30969 | 51356 | OGE | Generation Interconnection | \$2,554,395 | GEN-2011-049 (SA 2869R1) | Border Substation - Install one (1) 345kV breaker, line relaying, disconnect switches and associated equipment to existing Border Substation.; Right-of-Way for new 345kV Terminal Addition | 3/1/2017 | | | | 515458 | BORDER 7 | | | | 345 | | | | |
| 200384 | 30971 | 51358 | SPS | Transmission Service | \$2,254,282 | SPS | Rebuild 4.5-mile 69 kV line from Cochran to Whiteface Tap to 115 kV standards (operated at 69 kV). | 11/15/2018 | 6/1/2016 | 6/1/2016 | | | | | | 1 | 69 | | 4.5 | | 50 |
| | 30955 | 51362 | OGE | Generation Interconnection | \$410,000 | GEN-2014-064 (SA 3116) | Add one (1) 138 kV line terminal including dead-end structure, line switch, line relaying, revenue metering, CTs, PTs, and associated equipment. | 6/30/2017 | | | | | | | | | 138 | | | | |
| | 30973 | 51363 | AEP | Generation Interconnection | \$1,869,249 | GEN-2014-057 (SA 3129) | Construct new 345 kV Terry Road switching station including a three breaker ring bus configured for future expansion to breaker-and-a-half. The Terry Road switching station will be located on property acceptable to Transmission Owner in the vicinity of the structure 29/2 of the existing Lawton Eastside - Sunnyside (OKGE) 345 kV line. The Terry Road switching station will have line terminals for transmission lines to Lawton Eastside 345 kV, Sunnyside (OKGE) 345kV and the Generating Facility. The substation will include three (3) 3000A circuit breakers, disconnect switches, line relaying, monitoring equipment (DME, SDR and PMU's on both transmission lines), and all associated and miscellaneous equipment. The Terry Road switching station will include two 50 MVAR reactors with reactor switchers, one on the line to Lawton Eastside and one on the line to Sunnyside.; Install turning structures and loop the existing Lawton Eastside - Sunnyside (OKGE) transmission line in and out of the new Terry Road switching station.; Engineering support, project oversight and construction supervision of Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades constructed by Interconnection Customer. | 11/30/2016 | | | 15 | | | | | | 345 | | | | |
| | 30973 | 51364 | AEP | Generation Interconnection | \$13,026,889 | GEN-2014-057 (SA 3129) | | 11/30/2016 | | | | | | | | | 345 | | | | |

| NTC ID | PID | UID | Facility Owner | 2017 Project Type | Cost Estimate | Cost Estimate Source | Upgrade Description | TO Projected In-Service Date | RTO Determined Need Date | STEP Date | Project Lead Time (Months) | From Bus Number | From Bus Name | To Bus Number | To Bus Name | Circuit Code | Voltage (kV) | New Miles | Rebuild / Reconductor Miles | Voltage Conversion Miles | Ratings (kV) | |
|--------|-------|-------|----------------|----------------------------|---------------|---------------------------|--|------------------------------|--------------------------|------------|----------------------------|-----------------|---------------|---------------|-------------|--------------|--------------|-----------|-----------------------------|--------------------------|--------------|--|
| 200402 | 30973 | 51365 | OGE | Generation Interconnection | \$20,000 | GEN-2014-057 (SA 3129) | Sunnyside (OKGE) 345kV Substation: Verify relay settings are compatible with relays at Transmission Owner 345 kV Interconnection Substation. | 11/23/2016 | 11/23/2016 | 11/23/2016 | 15 | 515136 | SUNNYS07 | | | | 345 | | | | | |
| | 30974 | 51366 | SPS | Generation Interconnection | \$307,375 | GEN-2010-014 (SA 2489) | Add 345 kV Line Terminal; Communications; Revenue Metering; 345kV Line Arrestors | 11/17/2017 | | | | | | | | | 345 | | | | | |
| | 30974 | 51367 | SPS | Generation Interconnection | \$2,443,882 | GEN-2010-014 (SA 2489 R1) | Build 345 kV Line Terminal; 345 kV Line Terminal for GEN-2010-014; Transmission Line Work; Right-Of-Way | 11/17/2017 | | | | | | | | | 345 | | | | | |
| | 30975 | 51368 | SEPC | Generation Interconnection | \$4,000,000 | GEN-2010-045 (SA 2866) | At the Buckner Substation: Add structural steel, switches, and all associated terminal equipment required for the 345 kV transmission line.; Add all equipment for 345 kV metering.; Add one (1) 345 kV breaker and one (1) 345 kV reactor. | 10/15/2017 | | | | | | | | | 345 | | | | | |
| | 30975 | 51369 | SEPC | Generation Interconnection | \$8,200,000 | GEN-2010-045 (SA 2866) | Buckner Substation: Add a third 345kV breaker and a half leg to the ring bus.; Add two (2) 345 kV breakers and all associated network equipment needed for the 345 kV line terminal.; Spearville Substation: Replace terminal equipment on Buckner circuit. | 10/15/2017 | | | | | | | | | 345 | | | | | |
| | 30976 | 51370 | OGE | Generation Interconnection | \$1,099,958 | GEN-2011-019 (SA 2593) | Add a single 345 kV line terminal to the Woodward District EHV Substation. Dead end structure, line switches, line relaying, revenue metering including CT's and PT's. | 6/1/2018 | | | | | | | | | 345 | | | | | |
| | 30976 | 51371 | OGE | Generation Interconnection | \$2,554,395 | GEN-2011-019 (SA 2593) | Woodward District EHV Substation: Add 1-345 kV breaker, line relaying, disconnect switches, and associated equipment. No Additional ROW. | 6/1/2018 | | | | | | | | | 345 | | | | | |
| | 30977 | 51372 | OGE | Generation Interconnection | \$1,099,958 | GEN-2011-020 (SA 2594) | Add a single 345 kV line terminal to the Woodward District EHV Substation. Dead end structure, line switches, line relaying, revenue metering including CT's and PT's. | 6/1/2019 | | | | | | | | | 345 | | | | | |
| | 30977 | 51373 | OGE | Generation Interconnection | \$2,554,395 | GEN-2011-020 (SA 2594) | Woodward District EHV Substation: Add 1-345 kV breaker, line relaying, disconnect switches, and associated equipment. No Additional ROW. | 6/1/2019 | | | | | | | | | 345 | | | | | |
| | 30979 | 51377 | SPS | Generation Interconnection | \$270,000 | GEN-2011-022 (SA 2595R1) | SPS 345kV Hitchland Interchange Substation; Communications; Revenue Metering; 345kV Line Arrestors | 11/4/2016 | | | | | | | | | 345 | | | | | |
| | 30979 | 51378 | SPS | Generation Interconnection | \$2,895,365 | GEN-2011-022 (SA 2595R1) | Interconnection Equipment to accommodate Interconnection request: Transmission Line Work & R.O.W.; 345kV Line Terminal for Wind Farm GEN-2011-022 | 11/4/2016 | | | | | | | | | 345 | | | | | |
| | 30980 | 51379 | AEP | Generation Interconnection | \$983,000 | GEN-2011-050 (SA 2637R1) | Install dead-end structure and disconnect switch in the Santa Fe switching station for the 138 kV line from the Generating Facility; install CVT, revenue metering including 138 kV CT's and PT's at the Santa Fe switching station on the line from the Generating Facility; Install entrance duct at the Santa Fe switching station to accommodate OPGW from the Drift Sand substation, adequate space in the Santa Fe switching station control building to accommodate Interconnection Customer's fiber and splice termination equipment, and associated equipment; and Install RTU, SDR rack, and DME panel to be located at the Generating Facility collector station. | 12/1/2016 | | | | | | | | | 138 | | | | | |
| | 30980 | 51380 | AEP | Generation Interconnection | \$1,100,000 | GEN-2011-050 (SA 2637R1) | Install a new 138 kV circuit breaker, associated disconnect switches and bus to connect to the 138 kV ring in Transmission Owner's Santa Fe switching station. | 12/1/2016 | | | | | | | | | | 138 | | | | |
| | 30981 | 51381 | OGE | Generation Interconnection | \$1,099,958 | GEN-2011-051 (SA 2902 R1) | Add a single 345kV line terminal to a new substation that taps the Tatonga to Woodward District EHV-345kV transmission line. Dead end structure, line switch, line relaying, revenue metering including CT's and PT's. | 9/1/2017 | | | | | | | | | 345 | | | | | |
| | 30981 | 51382 | OGE | Generation Interconnection | \$8,176,915 | GEN-2011-051 (SA 2902 R1) | New 345kV Substation - Construct new substation that taps the Tatonga to Woodward District EHV-345kV transmission line. Substation to include three (3) 345kV breakers, line relaying, disconnect switches, and associated equipment.; Right-of-Way for new 345kV Terminal Addition | 9/1/2017 | | | | | | | | | 345 | | | | | |
| 200380 | 30984 | 51392 | GRDA | Transmission Service | \$550,000 | GRDA | Install 161 kV ring bus at Claremore substation to increase the rating of the Claremore 161/69 kV Ckt 1 Transformer. | 6/1/2021 | 6/1/2021 | | 18 | 512651 | CLARMR 5 | | | 1 | 161 | | | | 171 | |
| 200380 | 30984 | 51393 | GRDA | Transmission Service | \$340,000 | GRDA | Replace 69 kV switches at Claremore substation to increase the rating of the Claremore 161/69 kV Ckt 1 Transformer and Claremore 161/69 kV Ckt 2 Transformer. | 6/1/2021 | 6/1/2021 | | 18 | 512651 | CLARMR 5 | | | 2 | 69 | | | | 171 | |
| 200362 | 30732 | 51394 | MKEC | High Priority | \$4,414,629 | MKEC | Install new 3-breaker ring bus at Viola 138 kV substation. Tap existing 138 kV line from Milan to Milan Tap approximately 0.25 miles from the Viola substation and terminate both end points at Viola. MKEC and Westar Energy, Inc. shall decide who shall build how much of these Network Upgrades and shall provide such information, along with specific cost estimates for each DTO's portion of the Network Upgrades, to SPP in its response to this NTC. | 6/1/2018 | 6/1/2015 | 6/1/2015 | 36 | | | | | | 138 | | | | | |
| 200363 | 30732 | 51395 | WR | High Priority | \$3,915,388 | WR | Install new 3-breaker ring bus at Viola 138 kV substation. Tap existing 138 kV line from Milan to Milan Tap approximately 0.25 miles from the Viola substation and terminate both end points at Viola. WR and Mid-Kansas Electric Company shall decide who shall build how much of these Network Upgrades and shall provide such information, along with specific cost estimates for each DTO's portion of the Network Upgrades, to SPP in its response to this NTC. | 6/1/2018 | 6/1/2015 | 6/1/2015 | | | | | | | 138 | | | | | |
| | 30985 | 51396 | AEP | Generation Interconnection | \$668,626 | GEN-2014-020 (SA 3137) | Dead-end structure and disconnect switch in the Leonard switching station for the 138 kV transmission line from the Generating Facility; Install CVT and revenue metering including 138 kV CT's and PT's in the Leonard switching station on the transmission line from the Generating Facility; Install entrance duct in the Leonard switching station to accommodate OPGW from the Interconnection Customer's step-up substation and ensure adequate space in the Leonard switching station control building to accommodate Interconnection Customer's fiber and splice termination equipment, and associated equipment; and Transmission Owner will install an RTU, SDR rack, and DME panel to be located at the Generating Facility step-up substation (Transmission Owner's name for this asset will be "Malcolm"). | 10/31/2017 | | | | | | | | | 138 | | | | | |

| NTC ID | PID | UID | Facility Owner | 2017 Project Type | Cost Estimate | Cost Estimate Source | Upgrade Description | TO Projected In-Service Date | RTO Determined Need Date | STEP Date | Project Lead Time (Months) | From Bus Number | From Bus Name | To Bus Number | To Bus Name | Circuit Code | Voltage (kV) | New Miles | Rebuild / Reconductor Miles | Voltage Conversion Miles | Ratings (kV) | |
|--------|-------|-------|----------------|----------------------------|---------------|------------------------|--|------------------------------|--------------------------|-----------|----------------------------|-----------------|-----------------|---------------|-----------------|--------------|--------------|-----------|-----------------------------|--------------------------|--------------|--|
| | 30985 | 51397 | AEP | Generation Interconnection | \$6,996,176 | GEN-2014-020 (SA 3137) | 138 kV, three-breaker ring bus substation including three (3) 138 kV, 3,000 Amp circuit breakers, line relaying, 3,000 Amp disconnect switches and all associated work and equipment. The Leonard switching station will be located on the Cornville - Cimarron (OG&E) 138 kV transmission line. Transmission Owner and Interconnection Customer will cooperate to identify a mutually agreeable location for the Leonard switching station.; Line terminals for the 138 kV transmission lines to Cimarron (OG&E) and Cornville.; A 138 kV line terminal to connect the transmission line from the Generating Facility; Turning structures to loop the Cornville - Cimarron (OG&E) line into the new Leonard switching station.; Land for Leonard Switching Station (provided by Interconnection Customer) - Estimated Cost of \$75,000 (not included in totals in section 3). | 10/31/2017 | | | | | | | | | | 138 | | | | |
| 200412 | 30985 | 51398 | OGE | Generation Interconnection | \$20,000 | GEN-2014-020 (SA 3137) | Cimarron Substation - Relay settings verification and field testing. | 10/31/2017 | 8/1/2017 | 8/1/2017 | | | | | | 1 | 138 | | | | | |
| | 30986 | 51402 | TSMO | Generation Interconnection | \$600,000 | GEN-2014-021 (SA 3148) | Construct one (1) 345kV line terminal including dead-end structure, line switch, line relaying, revenue metering, CTs, PTs, and associated equipment. No additional Right-of-Way ("ROW") is included in this cost. | 4/1/2017 | | | | | | | | | 345 | | | | | |
| | 30986 | 51403 | TSMO | Generation Interconnection | \$940,000 | GEN-2014-021 (SA 3148) | Transmission Owner's Nebraska City - Mullin Creek 345 kV: Transmission Owner will terminate line and 2-72 fiber OPGW on full tension deadends supplied within the Holt switch station. Estimate assumes dead ends are in line with the proposed Nebraska City-Mullin Creek line and no additional structures or modifications are needed. Exact alignment and costs will be agreed upon by Transmission Owner and Interconnection customer if changes are needed.; Mullin Creek 345 kV (T437): Install one (1) dual line differential relay panel with SEL 411L and 311L relays; Develop relay settings and perform relay testing at Holt switch station.; Procure and install security system at Holt switch station.; Test and Install RTU telecommunications at Holt switch station.; Perform construction oversight of Holt switch station. | 4/1/2017 | | | | | | | | | 345 | | | | | |
| 200367 | 30986 | 51404 | OPPD | Generation Interconnection | \$122,455 | GEN-2014-021 (SA 3148) | Nebraska City 345 kV (S3458): Install two (2) RFL 9780 PLCs and tuner at Nebraska City. | 4/1/2017 | 10/31/2016 | | | | | | | | 345 | | | | | |
| | 30986 | 51405 | TSMO | Generation Interconnection | \$16,570,000 | GEN-2014-021 (SA 3148) | Construct 345kV ring bus substation with three (3) 345kV breakers and two (2) line terminal positions, one for the Nebraska City transmission line and one for the Mullin Creek transmission line. The substation will include a check meter and 345 kV meter transformers in the Holt County switch station on the line from Nebraska City; install reactive compensation including 345 kV breaker(s) and associated switches and equipment | 4/1/2017 | | | | | | | | | 345 | | | | | |
| 200365 | 30987 | 51406 | SPS | Transmission Service | \$5,129,356 | SPS | Rebuild 6.5-mile 115 kV line from Cunningham to Monument Tap. | | 6/1/2021 | | | 527864 | CUNNINGHAM 3 | 528568 | MONUMNT_TP 3 | 1 | 115 | | 6.5 | | 184 | |
| 200365 | 30918 | 51407 | SPS | Transmission Service | \$3,630,770 | SPS | Rebuild 3.1-mile 115 kV line from Lea Road to Oil Center. | 6/1/2021 | 6/1/2021 | | | 528505 | LEA_ROAD 3 | 528552 | OIL_CENTER 3 | 1 | 115 | | 3.1 | | 162 | |
| 200366 | 30988 | 51408 | SPS | Transmission Service | \$10,425,309 | SPS | Reconfigure 230 kV bus tie at Eddy Co. substation to convert to a double bus and breaker scheme. | 6/1/2019 | 10/1/2017 | | | 527800 | EDDY_CNTY 6 | | | | 230 | | | | | |
| 200365 | 30989 | 51409 | SPS | Transmission Service | \$63,251 | SPS | Replace wavetrap at Potash Junction 230 kV substation. | 6/1/2018 | 6/1/2018 | | | 527963 | POTASH_JCT 6 | | | | 230 | | | | 372 | |
| 200365 | 30990 | 51410 | SPS | Transmission Service | \$6,640,592 | SPS | Rebuild 10.3-mile 115 kV line from Jal to Teague. | 6/1/2021 | 6/1/2021 | | | 528547 | S_JAL 3 | 528526 | TEAGUE 3 | 1 | 115 | | 10.3 | | 140 | |
| 200365 | 30991 | 51411 | SPS | Transmission Service | \$4,915,370 | SPS | Rebuild 6.8-mile 115 kV line from National Enrichment Plant to Teague. | 6/1/2018 | 6/1/2018 | | | 528596 | NA_ENRICHTP3 | 528526 | TEAGUE 3 | 1 | 115 | | 6.8 | | 147 | |
| | 30993 | 51412 | ITCGP | Generation Interconnection | \$838,727 | GEN-2011-016 (SA 3151) | 345kV dead end tower and miscellaneous 345kV terminal equipment to the Interconnection Customer Facility. | 9/1/2017 | | | | | | | | | 345 | | | | | |
| | 30993 | 51413 | ITCGP | Generation Interconnection | \$8,663,243 | GEN-2011-016 (SA 3151) | Add two (2) 345kV line terminals and three (3) 345kV breakers and associated switches to the Ironwood Substation to accommodate terminals to Spearville and Clark County. | 9/1/2017 | | | | | | | | | 345 | | | | | |
| 200375 | 30992 | 51425 | OGE | Generation Interconnection | \$7,103,971 | OGE | Install one (1) 138 kV phase shifting transformer along with upgrading relay, protective, and metering equipment, and all associated and miscellaneous materials. | 6/1/2017 | 6/1/2017 | 6/1/2017 | 18 | | | | | | 138 | | | | | |
| 200397 | 30995 | 51430 | WFEC | ITP | \$450,000 | WFEC | Install new 15-MVAR cap bank at Harrisburg 69 kV. | 12/31/2017 | 6/1/2017 | 6/1/2017 | 18 | 520933 | HARISBG2 | | | | 69 | | | | | |
| 200395 | 30996 | 51431 | SPS | ITP | \$10,195,335 | SPS | Tap the existing 230 kV line from Hobbs to Yoakum and the existing 115 kV line from Alfred Tap to Waits. Terminate all four end points into new substation. | 12/28/2018 | 6/1/2017 | 6/1/2017 | 30 | 527894 | HOBB5_INT 6 | 526935 | YOAKUM 6 | | 230 | | | | 319/351 | |
| 200395 | 30996 | 51432 | SPS | ITP | \$3,171,229 | SPS | Install 230/115 kV transformer at new Hobbs - Yoakum Tap substation. | 12/28/2018 | 6/1/2017 | 6/1/2017 | 30 | 527894 | HOBB5_INT 6 | 526935 | YOAKUM 6 | | 230 | | | | 246/283 | |
| 200386 | 30997 | 51433 | AEP | ITP | \$758,441 | AEP | Install new 14.4-MVAR capacitor bank at Sayre 138 kV. | 6/1/2018 | 6/1/2017 | 6/1/2017 | 18 | 511504 | SAYRE-4 | | | | 138 | | | | | |
| 200395 | 30999 | 51436 | SPS | ITP | \$914,347 | SPS | Upgrade terminal equipment at both Potter Co. and Harrington 230 kV substations. | 6/1/2019 | 6/1/2019 | 6/1/2019 | 18 | 523959 | POTTER_CO 6 | 523979 | HARRNG_EST 6 | | 230 | | | | 497/547 | |
| 200395 | 31001 | 51438 | SPS | ITP | \$443,866 | SPP | Construct new 115 kV line from Agave Red Hills to Road Runner. | 4/28/2017 | 4/1/2020 | 4/1/2020 | 24 | 528230 | AGAVE_RHILL | 528025 | RDRUNNER 115 kV | 1 | 115 | 0.8 | | | 158/173 | |
| 200395 | 31001 | 51439 | SPS | ITP | \$519,061 | SPP | Construct new 115 kV line from Ochoa to Road Runner. | 4/28/2017 | 4/1/2020 | 4/1/2020 | 24 | 528232 | OCHOA 3 | 528025 | RDRUNNER 115 kV | 1 | 115 | 0.8 | | | 158/173 | |
| 200395 | 31001 | 51440 | SPS | ITP | \$759,610 | SPP | Add new 1-mile segment to existing 115 kV line from Custer Mountain to Ochoa, re-terminating at Road Runner. | 4/28/2017 | 4/1/2020 | 4/1/2020 | 24 | 528239 | DISTSUB3TP 3 | 528025 | RDRUNNER 115 kV | 1 | 115 | 1 | | | 141 | |
| 200395 | 31001 | 51441 | SPS | ITP | \$4,580,864 | SPS | Install any terminal upgrades needed to accommodate new line terminals for Ochoa, Agave Red Hills, and Custer Mountain. | 4/28/2017 | 4/1/2020 | 4/1/2020 | 24 | 528025 | RDRUNNER 115 kV | | | | 115 | | | | 141 | |
| 200395 | 31001 | 51442 | SPS | ITP | \$25,280 | SPS | Install any terminal upgrades needed to accommodate new line terminal from Road Runner. | 4/28/2017 | 4/1/2020 | 4/1/2020 | 24 | 528232 | OCHOA 3 | | | | 115 | | | | 141 | |
| 200395 | 31001 | 51443 | SPS | ITP | \$25,280 | SPS | Install any terminal upgrades needed to accommodate new line terminal from Road Runner. | 4/28/2017 | 4/1/2020 | 4/1/2020 | 24 | 528230 | AGAVE_RHILL | | | | 115 | | | | 141 | |
| 200392 | 31002 | 51444 | OGE | ITP | \$750,000 | OGE | Construct new 138 kV line from Lincoln to Meeker. The total estimated length of the Lincoln to Meeker line is 12 miles. OGE and Western Farmers Electric Cooperative shall decide who shall build how much of these Network Upgrades and shall provide such information, along with specific cost estimates for each DTO's portion of the Network Upgrades, to SPP in its response to this NTC. | 6/1/2017 | 6/1/2017 | 6/1/2017 | 36 | 515442 | LINCOLN4 | 520994 | MEEKER 4 | 1 | 138 | 12 | | | 268/308 | |
| 200397 | 31002 | 51445 | WFEC | ITP | \$6,000,000 | WFEC | Construct new 8.5-mile 138 kV line from Lincoln to Meeker. | 8/1/2017 | 6/1/2017 | 6/1/2017 | 36 | 515442 | LINCOLN4 | 520994 | MEEKER 4 | 1 | 138 | 8.5 | | | 268/308 | |
| 200386 | 31005 | 51448 | AEP | ITP | \$2,904,911 | AEP | Move load from 69 kV bus to 138 kV bus at Elk City. | 6/1/2018 | 6/1/2017 | 6/1/2017 | 24 | 511458 | ELKCTY-4 | 511459 | ELKCTY-2 | | 138 | | | | | |
| 200396 | 31006 | 51449 | WFEC | ITP | \$30,500,000 | SPP | Install new SVC at Arco 138 kV substation with effective range of -20/+100 MVAR. | | 6/1/2017 | 6/1/2017 | 30 | 520816 | ARCO 4 | | | | 138 | | | | | |
| 200395 | 31008 | 51451 | SPS | ITP | \$2,290,117 | SPS | Convert the Artesia County Club 69 kV substation to 115 kV operation. | 12/15/2019 | 6/1/2017 | 6/1/2017 | 36 | 527775 | ARTESIA_SR 2 | | | | 115 | | | | 273/301 | |
| 200395 | 31008 | 51452 | SPS | ITP | \$336,134 | SPS | Tap the 115 kV line from Atoka to Eagle Creek and install 3-way switch at tap point. | 12/15/2019 | 6/1/2017 | 6/1/2017 | 36 | 527711 | EAGLE_CREEK3 | 527786 | ATOKA 3 | | 115 | | | | 273/301 | |

| NTC ID | PID | UID | Facility Owner | 2017 Project Type | Cost Estimate | Cost Estimate Source | Upgrade Description | TO Projected In-Service Date | RTO Determined Need Date | STEP Date | Project Lead Time (Months) | From Bus Number | From Bus Name | To Bus Number | To Bus Name | Circuit Code | Voltage (kV) | New Miles | Rebuild / Reconductor Miles | Voltage Conversion Miles | Ratings (kV) |
|--------|-------|-------|----------------|----------------------------|---------------|---------------------------------|---|------------------------------|--------------------------|-----------|----------------------------|-----------------|---------------|---------------|-------------|--------------|--------------|-----------|-----------------------------|--------------------------|--------------|
| 200395 | 31008 | 51453 | SPS | ITP | \$3,092,796 | SPS | Construct new 115 kV line from Artesia County Club to Artesia County Club Tap. | 12/15/2019 | 6/1/2017 | 6/1/2017 | 36 | | | | | | 1 | 115 | 3 | | 273/301 |
| 200406 | 31009 | 51454 | AEP | ITP | \$5,974,766 | AEP | Rebuild 69 kV line from Duncan to Tosco. Replace wave trap at Duncan. | 12/31/2018 | 6/1/2018 | 6/1/2018 | | 511452 | DUNCAN-2 | 511457 | TOSCO-2 | 1 | 69 | | 3.86 | | 72/79 |
| 200397 | 31010 | 51455 | WFEC | ITP | \$0 | SPP | Install 9-MVAR capacitor bank at Blanchard 69 kV. | | 6/1/2017 | 6/1/2017 | 18 | 520828 | BLANCHD2 | | | | 1 | 69 | | | |
| 200395 | 409 | 51459 | SPS | ITP | \$228,605 | SPS | Install any 115 kV terminal upgrades needed to replace first existing 115/69 transformer at Hereford Interchange. | 11/13/2018 | 6/1/2017 | 6/1/2017 | 24 | 524606 | HEREFORD_3 | | | | 1 | 115 | | | 83/95 |
| 200395 | 409 | 51460 | SPS | ITP | \$228,605 | SPS | Install any 115 kV terminal upgrades needed to replace second existing 115/69 transformer at Hereford Interchange. | 11/13/2018 | 6/1/2017 | 6/1/2017 | 24 | 524606 | HEREFORD_3 | | | | 2 | 115 | | | 83/95 |
| | 31014 | 51467 | NPPD | Generation Interconnection | \$875,000 | GEN-2014-039 (SA 3164) | Install 115kV line terminal to connect to the Interconnection Customer Interconnection Facilities. Work to include line switch, dead-end towers, metering, and associated and miscellaneous material.; One (1) 115 kV overhead transmission line from the Interconnection Customer's collector substation to the Transmission Owner's Friend 115 kV substation. | 10/15/2017 | | | | | | | | | 115 | | | | |
| | 31014 | 51468 | NPPD | Generation Interconnection | \$4,300,000 | GEN-2014-039 (SA 3164) | Expand the substation to a ring bus configuration. Work to include the installation of three (3) 115kV circuit breakers, disconnect switches, associated bus, supports, relay panels, and all associated and miscellaneous equipment. | 10/15/2017 | | | | | | | | | 115 | | | | |
| | 31016 | 51471 | SPS | Generation Interconnection | \$4,960,847 | IFS-2014-002 (DISIS-2014-002-5) | Rebuild Plant X - Tolk 230kV transmission circuit #1 which is approximately 10 miles in length. The existing 795 MCM ACSR conductor will be replaced with 995 MCM ACCS conductor along with upgrading associated disconnect switches, structural steel, foundations, relay, protective, and metering equipment, and all associated and miscellaneous materials. | 5/31/2018 | | | 18 | | | | | | 1 | 230 | 10 | | |
| | 31016 | 51472 | SPS | Generation Interconnection | \$4,960,847 | IFS-2014-002 (DISIS-2014-002-5) | Rebuild Plant X - Tolk 230kV transmission circuit #2 which is approximately 10 miles in length. The existing 795 MCM ACSR conductor will be replaced with 995 MCM ACCS conductor along with upgrading associated disconnect switches, structural steel, foundations, relay, protective, and metering equipment, and all associated and miscellaneous materials. | 5/31/2018 | | | 18 | | | | | | 2 | 230 | 10 | | |
| | 31017 | 51473 | SPS | Generation Interconnection | \$3,347,036 | IFS-2014-002 (DISIS-2014-002-5) | The existing 345/230kV 560/560MVA autotransformer at Tuco Substation will be replaced with a new transformer unit to match the other transformer at this site. The new transformer can be installed at Tuco Substation by removing the existing transformer from the existing foundation and replacing with the new unit. New 345kV and 230kV electrical connections will be required. All new control cable terminations will be required. The new transformer will have top emergency ratings of 644MVA in the summer/spring/fall seasons and 700MVA in the winter season. | 6/1/2018 | | | 24 | | | | | | | 345 | | | |
| 200407 | 31021 | 51478 | SPS | ITP | \$15,007,492 | SPP | Construct new 115 kV line from Mustang to Seminole. | 6/1/2020 | 6/1/2017 | 6/1/2017 | | 527146 | MUSTANG_N_3 | 527275 | SEMINOLE_3 | 1 | 115 | 19.7 | | | 240 |
| 200407 | 31021 | 51479 | SPS | ITP | \$2,500,387 | SPS | Install terminal upgrades at Mustang 115 kV substation needed to accommodate termination of new line from Seminole. | 6/1/2020 | 6/1/2017 | 6/1/2017 | | 527146 | MUSTANG_N_3 | | | | 115 | | | | 240 |
| 200407 | 31021 | 51480 | SPS | ITP | \$2,628,163 | SPS | Install terminal upgrades at Seminole 115 kV substation needed to accommodate termination of new line from Mustang. | 12/31/2019 | 6/1/2017 | 6/1/2017 | | 527275 | SEMINOLE_3 | | | | 115 | | | | 240 |
| 200395 | 31022 | 51481 | SPS | ITP | \$4,804,292 | SPS | Rebuild 3-mile segment of 115 kV line from Canyon East Tap to Randall. | 12/15/2019 | 6/1/2017 | 6/1/2017 | 24 | 524523 | CANYON_EAST3 | 524364 | RANDALL_3 | 1 | 115 | | 3 | | 240 |
| 200397 | 31065 | 51484 | WFEC | ITP | \$4,000,000 | WFEC | Install 3-breaker ring bus at Cleo Junction to allow load to be moved from 69 kV to 138 kV. | 12/31/2019 | 6/1/2017 | 6/1/2017 | 36 | 520855 | CLEO JT2 | | | | 138 | | | | |
| 200397 | 31066 | 51485 | WFEC | ITP | \$4,000,000 | WFEC | Install 3-breaker ring bus at Ringwood to allow load to be moved from 69 kV to 138 kV. | | 6/1/2017 | 6/1/2017 | 36 | 521039 | RNGWODJ2 | | | | 138 | | | | |
| 200390 | 31024 | 51486 | GRDA | ITP | \$1,134,600 | GRDA | Install new 9-MVAR cap bank at Skiatook 69 kV. | 6/1/2017 | 6/1/2017 | 6/1/2017 | 18 | 512702 | SKIACGR2 | | | | 69 | | | | |
| 200390 | 31025 | 51487 | GRDA | ITP | \$2,266,000 | GRDA | Install ring bus at Sallisaw 161 kV substation. | 12/31/2017 | 6/1/2017 | 6/1/2017 | 18 | 505550 | SAUSAW5 | | | | 161 | | | | |
| 200389 | 31030 | 51500 | ETEC | ITP | \$1,280,000 | ETEC | Install new 28.8-MVAR capacitor bank at Latexo 138 kV. | | 12/1/2017 | 12/1/2017 | 18 | 509323 | LATEXO 4 | | | | 138 | | | | |
| 200417 | 31031 | 51501 | BEPC | ITP | \$52,312,877 | BEPC | Construct new 345 kV line from Kummer Ridge to Roundup. | 12/31/2019 | 6/1/2017 | 6/1/2017 | 48 | | | | | | 1 | 115 | 32.4 | | 240 |
| 200388 | 31032 | 51506 | BEPC | ITP | \$4,110,395 | BEPC | Tap the 115 kV line from Makoti to Parrshall to create new Plaza substation. | 12/31/2017 | 6/1/2017 | 6/1/2017 | 12 | | | | | | 1 | 115 | | | 183 |
| 200388 | 31032 | 51507 | BEPC | ITP | \$15,272,151 | BEPC | Construct new 115 kV line from Blaisdell to new Plaza substation. | 12/31/2017 | 6/1/2017 | 6/1/2017 | 12 | | | | | | 1 | 115 | 36 | | 239 |
| 200388 | 31032 | 51508 | BEPC | ITP | \$820,000 | BEPC | Install new 15-MVAR cap bank at new Plaza substation. | 12/31/2017 | 6/1/2017 | 6/1/2017 | 12 | | | | | | 1 | 115 | | | |
| 200388 | 31033 | 51509 | BEPC | ITP | \$2,876,720 | BEPC | Reconductor 115 kV line from Berthold to Southwest Minot. Construct one (1) 115 kV line terminal, line switches, dead end structure, communications, revenue metering, line arresters and all associated equipment and facilities necessary to accept transmission line from Interconnection Customer's Generating Facility; Communications: It is Interconnection Customer's responsibility to provide both the data circuit and dial up telephone circuits, per Section 1.13 of the Transmission Owner's GEN-2014-034 Facility Study and Appendix C, Item 3(d) of this Agreement; Revenue Metering; and, 115 kV Line Arresters. | 9/30/2017 | 6/1/2017 | 6/1/2017 | 6 | | | | | | 1 | 115 | 26.44 | | 212 |
| | 31034 | 51514 | SPS | Generation Interconnection | \$260,000 | GEN-2014-034 (SA 3176) | Substation work to construct one (1) 115 kV bus rung, 3000 Amp breaker, switches, structures, and other associated equipment at the Point of Interconnection. | 8/16/2016 | | | | | | | | | 115 | | | | |
| | 31034 | 51515 | SPS | Generation Interconnection | \$755,000 | GEN-2014-034 (SA 3176) | Substation work to construct one (1) 115 kV bus rung, 3000 Amp breaker, switches, structures, and other associated equipment at the Point of Interconnection. | 8/24/2016 | | | | | | | | | 115 | | | | |
| 200393 | 31038 | 51521 | OPPD | ITP | \$722,660 | OPPD | Install new 10-MVAR capacitor bank at S964 69 kV. | 6/1/2020 | 6/1/2020 | 6/1/2020 | 18 | 647964 | S964 8 | | | | 69 | | | | |
| 200406 | 31039 | 51524 | AEP | ITP | \$4,365,864 | AEP | Rebuild 69 kV line from Comanche Tap to Tosco. | 12/31/2018 | 6/1/2020 | 6/1/2020 | | 511498 | COM-TAP2 | 511457 | TOSCO-2 | 1 | 69 | | 3.2 | | 156/173 |
| 200397 | 31040 | 51525 | WFEC | ITP | \$450,000 | WFEC | Install 7-MVAR capacitor bank at Ringwood 138 kV. | | 6/1/2018 | 6/1/2018 | 18 | 521039 | RNGWODJ2 | | | | 138 | | | | |
| 200397 | 31041 | 51526 | WFEC | ITP | \$550,000 | WFEC | Tap the 138 kV line from Byron to Cherokee City to construct new Driftwood substation. Install any required 138 kV terminal upgrades required to install 138/69 kV transformer. | 12/31/2018 | 6/1/2017 | 6/1/2017 | 30 | 520203 | BYRON_138 | | | | 138 | | | | 144/179 |
| 200397 | 31041 | 51527 | WFEC | ITP | \$3,000,000 | WFEC | Install new 138/69 kV transformer at new Driftwood substation. Install new 69 kV terminal for 69 kV line from Hazelton Junction. | 12/31/2018 | 6/1/2017 | 6/1/2017 | 30 | | | 520938 | HAZLTN2 | | 138 | | | | 55/70 |
| 200418 | 31042 | 51528 | OGE | ITP | \$7,700,661 | OGE | Tap the double-circuit 345 kV line from Woodward to Thistle to construct and interconnect the new DeGrasse substation. Install any 345 kV substation facilities needed for the new 345/138 kV transformer. | 6/1/2019 | 6/1/2017 | 6/1/2017 | 36 | 515375 | WWRDEHV7 | 539801 | THISTLE7 | | 345 | | | | 1561/1793 |
| 200418 | 31042 | 51529 | OGE | ITP | \$3,600,000 | OGE | Install new 345/138 kV transformer at the new DeGrasse substation. | 6/1/2019 | 6/1/2017 | 6/1/2017 | 36 | | | | | | 345 | | | | 493 |
| 200418 | 31042 | 51530 | OGE | OGE | \$8,383,000 | OGE | Construct new 138 kV line from the new DeGrasse substation to Knob Hill. | 6/1/2019 | 6/1/2017 | 6/1/2017 | 36 | | | 514795 | KNOBHILL4 | 1 | 138 | | | | 287 |
| 200419 | 31042 | 51531 | WFEC | ITP | \$1,400,000 | WFEC | Tap the existing 138 kV line from Mooreland to Rose Valley and terminate both end points into the new DeGrasse substation. WFEC and Oklahoma Gas and Electric Company shall decide who shall build how much of these Network Upgrades and shall provide such information, along with specific cost estimates for each DTO's portion of the Network Upgrades, to SPP in its response to this NTC. | 12/31/2019 | 6/1/2017 | 6/1/2017 | 36 | 520999 | MOORLND4 | | | | 138 | | | | 183/228 |
| 200395 | 31051 | 51549 | SPS | ITP | \$1,461,643 | SPS | Upgrade terminal equipment at Terry Co. and Wolfforth to increase the rating of the 115 kV line from Terry Co. to Wolfforth. | 6/1/2018 | 4/1/2020 | 4/1/2020 | 18 | 526736 | TERRY_CNTY 3 | 526524 | WOLFFORTH_3 | | 115 | | | | 210/230 |
| 200407 | 31052 | 51550 | SPS | ITP | \$12,730,092 | SPS | Tap the intersection of the 230 kV line from Tolk to Yoakum and the 115 kV line from Cochran to Lehman Tap and terminate all four ends into new substation. Install new 230/115 kV transformer at new substation. | 12/31/2019 | 6/1/2018 | 6/1/2018 | | 525531 | TOLK_WEST 6 | 526935 | YOAKUM_6 | | 230 | 2 | | | 280/308 |
| 200395 | 31054 | 51552 | SPS | ITP | \$273,060 | SPP | Install 7.2-MVAR capacitor bank at Bopco 115 kV. | | 6/1/2017 | 6/1/2017 | 18 | | | | | | 115 | | | | |
| 200398 | 31056 | 51557 | WR | ITP | \$364,080 | SPP | Install additional 9.6-MVAR capacitor bank at Sunset 69 kV. | | 6/1/2017 | 6/1/2017 | 18 | 533844 | SUNSET-2 | | | | 69 | | | | |
| 200386 | 31057 | 51558 | AEP | ITP | \$13,512,897 | AEP | Rebuild 9.9-mile 69 kV line from Army Ammo to McAlester. | 5/31/2017 | 6/1/2017 | 6/1/2017 | 30 | 510912 | A.DEPO72 | 510899 | MCALFST2 | 1 | 69 | | 9.9 | | 52/69 |
| 200386 | 31057 | 51559 | AEP | ITP | \$13,767,520 | AEP | Rebuild 9.6-mile 69 kV line from Army Ammo to Savanna to Pittsburg. | 12/31/2017 | 6/1/2017 | 6/1/2017 | 30 | 510912 | A.DEPO72 | 510885 | PITTSB-2 | 1 | 69 | | 9.6 | | 78/86 |

| NTC ID | PID | UID | Facility Owner | 2017 Project Type | Cost Estimate | Cost Estimate Source | Upgrade Description | TO Projected In-Service Date | RTO Determined Need Date | STEP Date | Project Lead Time (Months) | From Bus Number | From Bus Name | To Bus Number | To Bus Name | Circuit Code | Voltage (kV) | New Miles | Rebuild / Reconductor Miles | Voltage Conversion Miles | Ratings (kV) |
|--------|-------|-------|----------------|----------------------------|---------------|---|--|------------------------------|--------------------------|-----------|----------------------------|-----------------|---------------|---------------|-------------|--------------|--------------|-----------|-----------------------------|--------------------------|--------------|
| 200386 | 31057 | 51560 | AEP | ITP | \$23,047,526 | AEP | Rebuild 27.1-mile 69 kV line from Atoka to Atoka Pump to Pittsburg. | 12/31/2018 | 6/1/2017 | 6/1/2017 | 30 | 510882 | ATOKA--2 | 510885 | PITTSB-2 | 1 | 69 | | 27.1 | | 48/53 |
| 200386 | 31058 | 51561 | AEP | ITP | \$11,778,983 | AEP | Rebuild 9.0-mile 69 kV line from Fort Towson to Kiamichi Pump Tap. | 6/1/2019 | 6/1/2018 | 6/1/2018 | 24 | 510876 | KIPUMPT2 | 510917 | FTOWSON2 | 1 | 69 | | 9 | | 104/115 |
| 200386 | 31058 | 51562 | AEP | ITP | \$7,699,929 | AEP | Rebuild 4.8-mile portion of 69 kV line from Kiamichi Pump Tap to Valliant. | 6/1/2019 | 6/1/2018 | 6/1/2018 | 24 | 510876 | KIPUMPT2 | 510910 | VALIANT2 | 1 | 69 | | 4.8 | | 48/54 |
| 200379 | 31059 | 51563 | WR | Transmission Service | \$145,773 | WR | Install any necessary terminal upgrades at Crawford and/or Neosho to increase the rating of the 69 kV line between the two substations. | | 6/1/2021 | | | 533758 | CRAWFOR2 | 533768 | NEOSHO 2 | | 69 | | | | 50 |
| 200418 | 31042 | 51569 | OGE | ITP | \$7,723,383 | OGE | Tap the existing 138 kV line from Moreland to Rose Valley and terminate both end points into the new DeGrasse substation. OGE and Western Farmers Electric Cooperative shall decide who shall build how much of these Network Upgrades and shall provide such information, along with specific cost estimates for each DTO's portion of the Network Upgrades, to SPP in its response to this NTC. | 6/1/2019 | 6/1/2017 | 6/1/2017 | 36 | 520999 | MOORLND4 | | | | 138 | | | | 183/228 |
| 200399 | 30496 | 51570 | BEPC | ITP | \$2,499,727 | SPP | Install 345 kV breaker, terminal equipment, and dead end structure at the Stegall substation. | 6/1/2017 | 6/1/2014 | 6/1/2014 | | 659135 | STEGALL3 | | | | 345 | | | | 1792 |
| | 31070 | 51571 | ITCGP | Generation Interconnection | \$713,375 | GEN-2013-010 (SA 3193) | New Transmission Owner 345 kV Substation: Install new line terminal position, disconnect switch, station post insulators, arrestors, dead end structure, CCVTs, and relay panels into the Transmission Owner's new GEN-2013-010 Point of Interconnection substation. The estimate also includes all other associated yard, cable, grounding, communication, and conduit work. No additional Right-of-Way is included in this cost. | 7/21/2018 | | | | | | | | | 345 | | | | |
| | 31070 | 51572 | ITCGP | Generation Interconnection | \$9,843,606 | GEN-2013-010 (SA 3193) | New Transmission Owner 345 kV Substation: Install new three-breaker ring-bus including three (3) 345 kV breakers, eight (8) disconnect switches, communications, revenue metering, line arrestors, breaker control panels, associated siting, and all other associated yard, cable, grounding, and conduit work. Land for new switching substation to be provided by Interconnection Customer, and is not included in the estimated cost. Post Rock - Spearville 345 kV at new Transmission Owner 345 kV Substation: Loop Post Rock - Spearville 345 kV into new three-breaker ring-bus substation for GEN-2013-010. Cost includes two (2) new line structures, foundations, conductors, insulators and all other associated work and materials. | 7/21/2018 | | | | | | | | | 345 | | | | |
| | 31071 | 51573 | SPS | Generation Interconnection | \$337,375 | GEN-2014-047 (SA 3192) | Transmission Owner's Crossroads 345kV switching station: Construct one (1) 345 kV line terminal, line switches, dead end structure, communications, revenue metering, line arresters and all associated equipment and facilities necessary to accept transmission line from Interconnection Customer's Generating Facility: Communications: It is Interconnection Customer's responsibility to provide both the data circuit and dial up telephone circuits, per Section 1.13 of the Transmission Owner's GEN-2014-047 Facility Study and Appendix C, Item 3(d) of this Agreement; Revenue Metering; and, 345 kV Line Arresters. | 7/31/2017 | | | | | | | | | 345 | | | | |
| | 31071 | 51574 | SPS | Generation Interconnection | \$1,736,369 | GEN-2014-047 (SA 3192) | Transmission Owner Crossroad 345kV Substation: Expansion work, including new terminal position, install one (1) 3000A breaker and associated switches, structures, other terminal equipment. | 7/31/2017 | | | | | | | | | 345 | | | | |
| | 31072 | 51575 | WR | Generation Interconnection | \$1,261,334 | GEN-2015-024 (SA 3205) | 345 kV Interconnection Revenue Metering; Three (3) 345kV VTs; Three (3) 345kV CTs; Revenue interconnection metering, plus associated site, yard and conduit work. 345 kV Substation (Equipment on customer side of meter); Three (3) 345 kV Arresters; Three (3) 345 kV arrester stands; One (1) 345 kV full tension dead-end structure; Two (2) 3 phase bus support; All other associated yard, cable, grounding, communication and conduit work. Available Funds Used During Construction; Contingency | 12/1/2016 | | | | | | | | | 345 | | | | |
| | 31072 | 51576 | WR | Generation Interconnection | \$31,938,326 | GEN-2015-024 (SA 3205) | 345 kV Breaker and Half Substation (No metering or customer equipment); Eight (8) 345 kV Breakers; Twenty (20) 345 kV switches; Two (2) 345 kV reactor switches; Fourteen (14) VTs; Two (2) 345 kV 50 Mvar line reactors; New redundant primary relaying, relaying setting changes at Wichita and Thistle; All associated site, yard, cable, grounding and conduit work; Available Funds Used During Construction; Contingency; 345 kV Transmission Line Work; Four (4) 3-pole steel dead end and turning structures to connect to the existing Wichita - Thistle 345 kV transmission lines (circuit #1 and #2) into the interconnection substation, plus associated foundations and labor. These facilities and estimated costs assume that the interconnection substation is immediately adjacent to the existing 345 kV line easements.; Available Funds Used During Construction; Contingency; | 10/16/2016 | | | | | | | | | 345 | | | | |
| | 30786 | 51577 | NPPD | Generation Interconnection | \$450,000 | GEN-2010-051 & GEN-2011-027 (SA 2880R1) | Dixon County 230kV Substation Addition: Build 230kV Substation addition on the Twin Church - Hoskins 230kV to accommodate new 230kV interconnection. Includes: 230kV dead-end tower, arresters, line switch, revenue meter and other line relaying equipment necessary to interconnect the Interconnection Customer Interconnection Facilities to the new Transmission Owner substation. | 11/1/2018 | | | | | | | | | 230 | | | | |
| 200403 | 31073 | 51578 | MIDW | Transmission Service | \$2,663,963 | SPP | Upgrade the 115/69 kV transformer at Heizer (HEIZER T4). | | 6/1/2021 | | 24 | 530601 | HEIZER 3 | 530563 | HEIZER 2 | 4 | 115 | | | | 47 |
| | 30965 | 51598 | ITCGP | Generation Interconnection | \$767,163 | GEN-2011-008 (SA 2868R2) | 345kV Dead end tower and miscellaneous 345kV terminal equipment to the Interconnection Customer Facility. | 10/7/2016 | | | | | | | | | 345 | | | | |
| | 30933 | 51599 | SPS | Generation Interconnection | \$236,346 | GEN-2011-025 (SA 3041R2) | Install the following equipment to interconnect Interconnection Customer's Generating Facility.; Communications; Remote Terminal Unit; Revenue Metering; 115kV line arrestors. | 3/31/2017 | | | | | | | | | 115 | | | | |
| | 30969 | 51601 | OGE | Generation Interconnection | \$1,099,958 | GEN-2011-049 (SA 2869R1) | Install one (1) 345kV breaker, line relaying, disconnect switches and associated equipment to existing Border Substation.; Right-of-Way for new 345kV Terminal Addition. | 3/1/2017 | | | | | | | | | 345 | | | | |
| | 30938 | 51603 | ITCGP | Generation Interconnection | \$670,699 | GEN-2012-024 (SA 3006) | Add one (1) 345 kV line terminal including dead-end structure, substation steel, substation bus, disconnect switch and associated equipment. No additional Right-of-Way is included in this cost. | 10/7/2016 | | | | | | | | | 345 | | | | |
| | 30950 | 51606 | LES | Generation Interconnection | \$300,000 | GEN-2013-002 & GEN-2013-019 (SA 3023) | Add one (1) 115 kV line terminal to accept overhead generator interconnection line. Includes arrestors, line switch, revenue meter and other line relaying equipment and settings necessary to interconnect the Interconnection Customer Interconnection Facilities to the new Transmission Owner substation. | | | | | | | | | | 115 | | | | |
| | 30962 | 51607 | GRDA | Generation Interconnection | \$5,583,511 | GEN-2013-028 (SA 2999) | Add three (3) 345 kV dead-end structures, concrete foundations with conductor supporting equipment, relaying, three (3) interconnect metering equipment sets, communications, fault recorder, current and potential transformers, SCADA, and associated station lot supporting equipment. | 4/1/2017 | | | | | | | | | 345 | | | | |

| NTC ID | PID | UID | Facility Owner | 2017 Project Type | Cost Estimate | Cost Estimate Source | Upgrade Description | TO Projected In-Service Date | RTO Determined Need Date | STEP Date | Project Lead Time (Months) | From Bus Number | From Bus Name | To Bus Number | To Bus Name | Circuit Code | Voltage (kV) | New Miles | Rebuild / Reconductor Miles | Voltage Conversion Miles | Ratings (kV) |
|--------|-------|-------|----------------|----------------------------|---------------|--------------------------|--|------------------------------|--------------------------|-----------|----------------------------|-----------------|---------------|---------------|-------------|--------------|--------------|-----------|-----------------------------|--------------------------|--------------|
| | 30960 | 51609 | OGE | Generation Interconnection | \$1,099,958 | GEN-2013-030 (SA 2964R2) | Add one (1) 345 kV line terminal including dead-end structure, substation steel, substation bus, interconnection metering, line switch and associated equipment. No additional Right-of-Way is included in this cost. | 12/31/2017 | | | | | | | | | 345 | | | | |
| | 30956 | 51610 | NPPD | Generation Interconnection | \$700,000 | GEN-2013-032 (SA 3054) | Add one (1) 115 kV dead-end tower, arresters, line switch, revenue meter and other line relaying equipment necessary to interconnect the Interconnection Customer Interconnection Facilities to the new Transmission Owner substation. | 5/1/2017 | | | | | | | | | 115 | | | | |
| | 30958 | 51611 | SPS | Generation Interconnection | \$337,375 | GEN-2014-012 (SA 3098) | Communications; Revenue Metering; and, 230 kV Line Arrestors. | 2/1/2018 | | | | | | | | | 230 | | | | |
| | 30957 | 51612 | SPS | Generation Interconnection | \$260,000 | GEN-2014-040 (SA 3106R1) | Communications; Revenue Metering; and, 115kV Line Arrestors. | 10/28/2016 | | | | | | | | | 115 | | | | |
| | 31075 | 51613 | KCPL | Generation Interconnection | \$600,000 | GEN-2015-016 (SA 3225) | Construct one (1) 161 kV line terminal including dead-end structure, line switch, line relaying, revenue metering, Current Transformers, Potential Transformers, and associated equipment. No additional Right-of-Way is included in this cost. | 7/21/2018 | | | | | | | | | 161 | | | | |
| | 31075 | 51614 | KCPL | Generation Interconnection | \$7,978,000 | GEN-2015-016 (SA 3225) | Transmission Owner's new 161 kV Interconnection Switch Station: Construct a new ring bus switch station on the 161 kV transmission line between Centerville and Marmaton.; Transmission Owner's Centerville-Marmaton 161 kV transmission line: Transmission Owner will install two (2) new dead-end towers in the line and terminate transmission line to dead-ends in the Transmission Owner Switch Station.; Transmission Owner Switch Station: Install microwave communications for system protection, voice communication, and data telemetry. Commercial phone lines will not be utilized for communications.; Centerville Substation - Install new relays and relay panels.; Allowance Funds Used During Construction and contingency for all Transmission Owner construction. | 7/21/2018 | | | | | | | | | 161 | | | | |
| | 31076 | 51616 | SPS | Generation Interconnection | \$260,000 | GEN-2013-022 (SA 3002R2) | Construct one (1) 115 kV line terminal, line switches, dead end structure, communications, revenue metering, line arresters, and all associated equipment and facilities necessary to accept transmission line from Interconnection Customer's Generating Facility. | 11/28/2016 | | | | | | | | | 115 | | | | |
| | 31076 | 51617 | SPS | Generation Interconnection | \$1,477,078 | GEN-2013-022 (SA 3002R2) | Install one (1) new 115kV line terminal to accept 115kV transmission line from GEN-2013-022 Generating Facility and all associated equipment including new RTU. | 11/28/2016 | | | | | | | | | 115 | | | | |
| | 31078 | 51622 | OGE | Generation Interconnection | \$1,613,204 | GEN-2015-030 (SA 3232) | Add a single 345 kV line termination, dead end structure, line switch, line relaying, revenue metering. No additional Right-of-Way is included in this cost.; 345 kV transmission line: 345 kV transmission line from the Point of Change of Ownership to the Point of Interconnection to terminate generator lead outside of power plant property. | 6/1/2018 | | | | 514803 | SOONER 7 | | | | 345 | | | | |
| | 31078 | 51627 | OGE | Generation Interconnection | \$1,756,162 | GEN-2015-030 (SA 3232) | Install one (1) new line terminal, two (2) 3000A circuit breakers, line relaying, disconnect switches, and associated equipment. | 6/1/2018 | | | | 514803 | SOONER 7 | | | | 345 | | | | |
| | 31094 | 51646 | AEP | Transmission Service | | | Install terminal upgrades at Pirkey to accommodate new 138 kV line from Knox Lee. | | | | | 508562 | PIRKEY 4 | | | | 138 | | | | 286 |
| | 31109 | 51681 | BEPC | Transmission Service | | | Install second 230/115 kV transformer at Blaisdell. | | 10/1/2018 | | | 659143 | BLAISDELL 4 | 659144 | BLAISDELL 7 | 2 | 230 | | | | 166 |
| | 31147 | 51766 | SPS | Generation Interconnection | \$300,000 | GEN-2013-027 (SA 3233) | Construct one (1) 230 kV line terminal including line switches, dead end structure, communications, revenue metering, line arresters and all associated equipment and facilities necessary to accept transmission line from Interconnection Customer's Generating Facility. | 3/17/2018 | | | | | | | | | 230 | | | | |
| | 31147 | 51767 | SPS | Generation Interconnection | \$6,398,806 | GEN-2013-027 (SA 3233) | Construct 230 kV, three breaker ring bus substation with line terminals for transmission lines to Tolk Station 230 kV and Yoakum 230 kV. The remaining line terminal to interconnect the Generating Facility is apportioned by Appendix A, Item 1.(b). Transmission Owner's new substation to include three (3) 3000A circuit breakers, disconnect switches, line relaying, and all associated and miscellaneous equipment. Also includes approximately twenty acres of land for siting the new substation.; Loop Tolk - Yoakum 230kV line into new three breaker ring-bus substation for GEN-2013-027. Includes all new line structures, foundations, conductors, insulators and all other associated work and materials. | 3/17/2018 | | | | | | | | | 230 | | | | |
| | 31174 | 51817 | BEPC | Transmission Service | \$5,778,860 | SPP | Upgrade Neset 230/115 kV transformer ckt 1. | | | | | | | | | | 230 | | | | |
| | 31175 | 51818 | SPS | Transmission Service | | | Rebuild 19.88 miles of 115 kV transmission line from Cox Interchange to Hale Co Interchange. | | 6/1/2021 | | | | | | | 1 | 115 | | 19.88 | | |
| | 31176 | 51819 | SPS | Transmission Service | | | Replace wavetrap at Hockley County Interchange to increase the line capacity for Hockley County Interchange - Lamb County Interchange 115 kV Ckt 1. | | 6/1/2021 | | | | | | | | 115 | | | | |
| | 31177 | 51820 | SEPC | Transmission Service | \$3,908,969 | | Add new transformer at Garden City. | | 6/1/2017 | | | | | | | 1 | 115 | | | | |
| | 31178 | 51821 | GRDA | Transmission Service | | | Reconductor 3 miles of 69 kV line from Colcord Tap to Kansas. | | 6/1/2021 | | | | | | | 1 | 69 | | 3 | | |
| | 31179 | 51822 | GRDA | Transmission Service | | | Replace wavetrap at Maid Tap to increase the line capacity from Grd1 - Maid Tap - Hunt. | | 6/1/2018 | | | | | | | 1 | 69 | | | | |
| | 31180 | 51823 | MIDW | Transmission Service | | | Replace wavetrap and associated equipment | | 6/1/2018 | | | | | | | 1 | 115 | | | | |
| | 31181 | 51824 | NPPD | Transmission Service | | | Upgrade Broken Bow 115/69/13.8 kV transformer ckt 1. | | 6/1/2017 | | | | | | | | 115 | | | | |
| | 31182 | 51825 | NPPD | Transmission Service | | | Upgrade Broken Bow 115/69/13.8 kV transformer ckt 2. | | | | | | | | | | 115 | | | | |
| | 31183 | 51826 | OGE | Transmission Service | \$37,638 | OGE | Replace wavetrap at Muskogee. | | 6/1/2021 | | | | | | | 1 | 161 | | | | |
| | 31184 | 51828 | WR | Transmission Service | \$23,683,317 | | Rebuild 24.3 miles of 345 kV transmission line from Jeffrey Energy Center - Hoyt. | | 6/1/2021 | | | | | | | 1 | 345 | | 24.3 | | |
| | 31185 | 51830 | SPS | Transmission Service | | | Construct new 115 kV line from Legacy to Robertson | | | | | | | | | 1 | 115 | | | | |