# Sharyland Utilities, L.P. Nazareth to Hereford 345-kV Transmission Line Project Link Descriptions

Preferred Route:

Route HN 2: D-I-K-	-Y-EE
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Alternate Routes (not listed in order of priority):

- Route HN 1: A-B-H-L-S-Z-DD-FF
- Route HN 3: D-I-K-T-W-X-BB-FF
- Route HN 4: D-I-J-M-Q-R-U-AA-CC-EE
- Route HN 5: D-I-J-M-Q-R-V-BB-FF
- Route HN 6: A-C-G-O-R-V-BB-FF
- Route HN 7: A-C-G-O-R-U-AA-CC-EE
- Route HN 8: A-C-G-N-P-S-Z-DD-FF
- Route HN 9: A-C-E-F-I-K-Y-EE

# **Link Descriptions**

#### HN Link A

Link A begins at the northwest corner of the proposed Nazareth (Panhandle AA) Collection Station, approximately one mile south of SH 86 at the intersection of CR 529 and CR 616 in Castro County. It extends northwest for less than 0.1 mile, crossing CR 616 and an existing 69-kV transmission line, where it terminates at the junction of links B and C, on the north side of CR 616.

#### HN Link B

Link B begins at the junction of links A and C, on the north side of CR 616 approximately 0.5 mile west of CR 529 in Castro County. It extends northwest for approximately 4 miles, with two slight angle changes, crossing SH 86, CR 614, CR 527, an existing 230-kV transmission line, and CR 526, respectively. It terminates at the junction of links E, F, and H, on the west side of the intersection of CR 526 and CR 613.

#### HN Link C

Link C begins at the junction of links A and B, on the north side of CR 616 approximately 0.5 mile west of CR 529 in Castro County. It extends west, parallel to the north side of CR 616 and an existing 69-kV transmission line, for approximately 1.9 miles, where it angles southwest and crosses to the south side

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of CR 616 for approximately 0.3 mile. It continues west, now parallel to the south side of CR 616, for approximately 0.4 mile, crosses an existing 230-kV transmission line, and terminates at the junction of links E and G, on the south side of the intersection of CR 616 and CR 526.

# HN Link D

Link D begins at the northeast corner of the proposed Nazareth (Panhandle AA) Collection Station, approximately one mile south of SH 86 at the intersection of CR 529 and CR 616 in Castro County. It extends north, parallel to the west side of CR 529 for approximately 2 miles as it crosses SH 86 and CR 614. It then turns northwest for approximately 4.5 miles, as it crosses CR 528, CR 612, CR 527, an existing 230-kV transmission line, and Middle Tule Draw, respectively. It terminates at the junction of links F and I, approximately 0.8 mile south of CR 610 and one mile east of FM 168.

# HN Link E

Link E begins at the junction of links C and G, on the west side of an existing 230-kV transmission line and the south side of the intersection of CR 616 and CR 526 in Castro County. It extends north, parallel to the west side of CR 526 and the existing 230-kV transmission line for approximately 0.8 mile as it crosses CR 616. The link then angles slightly to the northwest for approximately 0.2 mile, crosses SH 86, and angles back northeast for approximately 0.2 mile to the west side of CR 526. It then continues north, parallel to the west side of CR 526 and the existing 230-kV transmission line for approximately 1.9 miles as it crosses CR 614, to where it terminates at the junction of links B, F, and H, on the west side of the intersection of CR 526 and CR 613.

#### HN Link F

Link F begins at the junction of links B, E and H, on the west side of the intersection of CR 526 and CR 613 in Castro County. It extends north, parallel to the west side of CR 526 and an existing 230-kV transmission line for approximately 1.5 miles as it crosses CR 612 to where the link and the existing 230-kV transmission line diverge and the transmission line turns east. The link continues north for approximately 0.8 mile, as it crosses Middle Tule Draw, to where it terminates at the junction of links D and I, approximately 0.8 mile south of CR 610 and one mile east of FM 168.

#### HN Link G

Link G begins at the junction of links C and E, on the west side of an existing 230-kV transmission line, south of the intersection of CR 616 and CR 526 in Castro County. It extends west, parallel to the south side of CR 616 for approximately 0.8 mile, where it turns northwest to the north side of CR 616 for approximately 0.2 mile, crosses FM 168, and then turns southwest back to the south side of CR 616 for approximately 0.2 mile. The link then parallels the south side of CR 616 for approximately 0.3 mile, turns northwest to the north side of CR 616 for approximately 0.3 mile, turns northwest to the north side of CR 616 for approximately 0.2 mile. The link then parallels the south side of CR 616 for approximately 0.3 mile, turns northwest to the north side of CR 616 for approximately 0.2 mile as it crosses CR 524 and CR 523, respectively. The link then turns southwest for approximately 0.2 mile and parallels the south side of CR 616 for approximately 2.6 miles as it crosses

CR 522, CR 521, and CR 520, respectively. It then terminates at the junction of links N and O, at the southwest corner of the intersection of CR 520 and CR 616.

# HN Link H

Link H begins at the junction of links B, E, and F, on the west side of an existing 230-kV transmission line, west of the intersection of CR 526 and CR 613 in Castro County. It extends northwest for approximately 3.8 miles, with one minor angle change as it crosses CR 612, FM 168, and CR 610, respectively. It terminates at the junction of links J, L, and M, on the north side of CR 610 approximately 1.3 miles west of FM 168.

# HN Link I

Link I begins at the junction of links D and F, approximately 0.8 mile south of CR 610 and one mile east of FM 168 in Castro County. It extends northwest for approximately 1.1 miles as it crosses CR 610, to where it terminates at the junction of links J and K, on the north side of CR 610 approximately 0.3 mile east of FM 168.

# HN Link J

Link J begins at the junction of links I and K, on the north side of CR 610 approximately 0.3 mile east of FM 168 in Castro County. It extends west, parallel to the north side of CR 610 for approximately 1.6 miles, as it crosses FM 168 and Middle Tule Draw, to where it terminates at the junction of links H, L, and M, on the north side of CR 610 approximately 1.3 miles west of FM 168.

# HN Link K

Link K begins at the junction of links I and J, on the north side of CR 610 approximately 0.3 mile east of FM 168 in Castro County. It extends northwest for approximately 7 miles as it crosses FM 168, CR 608, CR 523, and CR 607, respectively. It terminates at the junction of links T and Y, on the south side of CR 605 approximately 1.4 miles west of where FM 1075 becomes CR 605.

# HN Link L

Link L begins at the junction of links H, J and M, on the north side of CR 610 approximately 1.3 miles west of FM 168 in Castro County. It extends northwest for approximately 5.8 miles, with one minor angle change as it crosses CR 523, Middle Tule Draw, CR 607, and CR 520, respectively. It terminates at the junction of links P and S, on the west side of CR 520 approximately 0.9 mile south of CR 605.

# HN Link M

Link M begins at the junction of links L, H and J, on the north side of CR 610 approximately 1.3 miles west of FM 168 in Castro County. It extends west, parallel to the north side of CR 610, for approximately 0.5 mile, where Link M crosses CR 610 and continues west while the county road curves around to the

north. Link M continues west for approximately 0.3 mile, and crosses CR 610 again where CR 610 returns to its original orientation. At this point, Link M parallels the north side of CR 610 again for approximately 2.9 miles to the west, as it crosses CR 520, to where it terminates at the junction of links N, P, and Q, on the north side of the intersection of CR 520 and CR 610.

# HN Link N

Link N begins at the junction of links G and O, at the southwest corner of the intersection of CR 520 and CR 616 in Castro County. It extends north, parallel to the west side of CR 520 for approximately 1.8 miles, as it crosses an existing 69-kV transmission line and SH 86, respectively. It then angles northeast for approximately 0.2 mile as it crosses CR 520 and CR 614, respectively. It then begins to parallel the east side of CR 520 heading north for approximately 3 miles as it crosses CR 613 and CR 612, respectively. The link then angles northwest to cross to the west side of CR 520 again for approximately 0.2 mile, and parallels the west side for approximately 0.9 mile as it crosses CR 610 to where it terminates at the junction of links M, P, and Q, on the north side of CR 610 approximately one mile east of FM 2567.

# HN Link O

Link O begins at the junction of links G and N, at the southwest corner of the intersection of CR 520 and CR 616 in Castro County. It extends west and slightly northwest, crossing CR 616, for approximately 0.5 mile, where it angles northwest for approximately 6.7 miles, with one minor angle change, crossing an existing 69-kV transmission line, SH 86, FM 2567, CR 614, CR 518, CR 612, and CR 610, respectively. It terminates at the junction of links Q and R, on the north side of CR 610 approximately 0.8 mile east of CR 516.

#### **HN Link P**

Link P begins at the junction of links M, N, and Q, on the north side of the intersection of CR 610 and CR 520 in Castro County. It extends north for approximately 3.1 miles (crossing Middle Tule Draw) where it crosses CR 607, and begins to parallel the west side of CR 520. It continues north for approximately 0.7 miles where it terminates at the junction of links L and S, on the west side of CR 520 approximately 0.9 mile south of CR 605.

#### HN Link Q

Link Q begins at the junction of links M, N and P, on the north side of the intersection of CR 610 and CR 520 in Castro County. It extends west, parallel to the north side of CR 610 for approximately one mile, as it crosses CR 519 to where it intersects with CR 610 and FM 2567. It then turns southwest to cross CR 610 for approximately 0.2 mile, crosses back to the north side of CR 610 for approximately 0.2 mile, and then continues west parallel to the north side of CR 610 for approximately 0.2 mile, and then continues west parallel to the north side of CR 610 for approximately 1.8 miles as it crosses CR 518, to where it terminates at the junction of links O and R, on the north side of CR 610 approximately 0.8 mile east of CR 516.

# HN Link R

Link R begins at the junction of links O and Q, on the north side of CR 610 approximately 0.8 mile east of CR 516 in Castro County. It extends northwest for approximately 1.1 miles as it crosses CR 516, to where it terminates at the junction of links U and V, on the west side of CR 516 approximately 1.2 miles south of FM 2397.

# HN Link S

Link S begins at the junction of links L and P, on the west side of CR 520 approximately 0.9 mile south of CR 605 in Castro County. It extends northwest for approximately 1.3 miles as it crosses CR 605 to where it terminates at the junction of links T, W, and Z, on the north side of CR 605 approximately 0.1 mile east of the intersection of CR 519 and CR 605.

#### HN Link T

Link T begins at the junction of links K and Y, on the south side of CR 605 approximately 1.4 miles west of where FM 1075 becomes CR 605 in Castro County. It extends west, parallel to the south side of CR 605 for approximately 1.3 miles as it crosses CR 520. It then angles slightly northwest to cross CR 605 for approximately 0.2 mile, where it terminates at the junction of links S, W, and Z, on the north side of CR 605 approximately 0.1 mile east of the intersection of CR 519 and CR 605.

#### HN Link U

Link U begins at the junction of links R and V, on the west side of CR 516 approximately 1.2 miles south of FM 2397 in Castro County. It extends north, parallel to the west side of CR 516 for approximately 4.4 miles as it crosses FM 2397, CR 606, and CR 605, respectively, to where it terminates at the junction of links AA, W, and X, at the northwest corner of the intersection of CR 605 and CR 516.

#### HN Link V

Link V begins at the junction of links R and U, on the west side of CR 516 approximately 1.2 miles south of FM 2397 in Castro County. It extends northwest for approximately 1.7 miles as it crosses CR 515A and FM 2397. It then angles slightly more to the north for approximately 2.5 miles as it crosses CR 607, CR 606, and CR 514. The link then heads north for approximately 0.8 mile, where it crosses CR 605 and terminates at the junction of links BB and X, on the north side of CR 605 approximately one mile east of US 385.

#### HN Link W

Link W begins at the junction of links S, T, and Z, on the north side of CR 605 approximately 0.1 mile east of the intersection of CR 519 and CR 605 in Castro County. It extends west, parallel to the north side of CR 605, for approximately 3.2 miles, crossing CR 518 and CR 516. It terminates at the junction of links AA, U, and X, at the northwest corner of the intersection of CR 516 and CR 605.

### HN Link X

Link X begins at the junction of links AA, U and W, at the northwest corner of the intersection of CR 516 and CR 605 in Castro County. It extends west, parallel to the north side of CR 605, for approximately 2 miles as it crosses CR 515 to where it terminates at the junction of links BB and V, on the north side of CR 605 approximately one mile east of US 385.

### HN Link Y

Link Y begins at the junction of links K and T, on the south side of CR 605 approximately 1.4 miles west of where FM 1075 becomes CR 605 in Castro County. It extends northwest for approximately 5.5 miles as it crosses CR 520, CR 603, and CR 518, respectively, to the Deaf Smith-Castro county line. There it angles slightly more to the north for approximately 1.8 miles as it crosses FM 1259 (now in Deaf Smith County), and terminates at the junction of links CC and EE, on the east side of CR CC approximately 0.5 mile north of FM 1259.

# HN Link Z

Link Z begins at the junction of links S, T, and W, on the north side of CR 605 approximately 0.1 mile east of the intersection of CR 519 and CR 605 in Castro County. It extends northwest for approximately 4.2 miles as it crosses CR 518 and CR 603. It then angles very slightly more to the west for approximately 0.4 mile and terminates at the junction of links AA, CC, and DD, on the east side of CR 516 approximately 0.6 mile south of the Castro-Deaf Smith county line.

#### **HN Link AA**

Link AA begins at the junction of links U, W, and X, at the northwest corner of the intersection of CR 516 and CR 605 in Castro County. It extends north for approximately 0.4 mile before it begins to parallel the west side of CR 516 for approximately 2.2 miles while crossing CR 604 and CR 603. It then angles northeast to cross CR 516 for approximately 0.2 mile, and continues north, paralleling the east side of CR 516 for approximately 0.5 mile. It terminates at the junction of links CC, DD, and Z, on the east side of CR 516 approximately 0.6 mile south of the Castro-Deaf Smith county line.

#### **HN Link BB**

Link BB begins at the junction of links V and X, on the north side of CR 605 approximately one mile east of US 385 in Castro County. It extends north for approximately 2 miles as it crosses CR 604, begins to parallel the east side of CR 514, and crosses CR 603. It continues north, parallel to the east side of CR 514 for approximately 1.9 miles as it crosses the Castro-Deaf Smith county line, to where it begins to parallel the east side of CR E in Deaf Smith County. It continues north for approximately 1.3 miles, crossing CR 1, CR 2 and FM 1259, to where it terminates at the junction of links DD and FF, on the east side of FM 1259 approximately 0.9 mile south of CR 4.

# **HN Link CC**

Link CC begins at the junction of links AA, DD, and Z, on the east side of CR 516 approximately 0.6 mile south of the Castro-Deaf Smith county line in Castro County. It extends north, parallel to the east side of CR 516 (in Castro County) and CR CC (in Deaf Smith County) for approximately 2.2 miles as it crosses the Castro-Deaf Smith county line and FM 1259, to where it terminates at the junction of links EE and Y, on the east side of CR CC approximately 0.5 mile north of FM 1259 in Deaf Smith County.

#### **HN Link DD**

Link DD begins at the junction of links AA, CC and Z, on the east side of CR 516 approximately 0.6 mile south of the Castro-Deaf Smith county line in Castro County. It extends northwest for approximately 2.7 miles as it crosses CR 516, the Castro-Deaf Smith county line, and FM 1259, to where it terminates at the junction of links BB and FF, on the east side of FM 1259 approximately 0.9 mile south of CR 4 in Deaf Smith County.

#### **HN Link EE**

Link EE begins at the junction of links CC and Y, on the east side of CR CC approximately 0.5 mile north of FM 1259 in Deaf Smith County. It extends west for approximately 2 miles as it crosses CR CC, CR DD, and FM 1259, to where it enters the southeast corner of the proposed Hereford (Panhandle AB) Collection Station, at the southwest corner of the intersection of FM 1259 and CR 4.

#### **HN Link FF**

Link FF begins at the junction of links BB and DD, on the east side of FM 1259 approximately 0.9 mile south of CR 4 in Deaf Smith County. It extends north, parallel to the east side of FM 1259 for approximately 0.4 mile to where it enters the southeast corner of the proposed Hereford (Panhandle AB) Collection Station, at the southwest corner of the intersection of FM 1259 and CR 4.