



SPP 2024 ITP

(Integrated Transmission Plan)

THE
POWER OF
PEOPLE



NPPD Board of Directors Meeting
Strategic Session
November 2024

Evan Kinney, System Planning & Transmission
Business Manager



Nebraska Public Power District

Always there when you need us

Southwest Power Pool (SPP) Board Approves \$7.7 Billion Plan for Transmission Builds, Upgrades

- **2024 Integrated Transmission Plan (ITP)**
 - Reliability, Economics, Public Policy
- **Resiliency (winter weather, new to the ITP) – increase transfer capability**
- **The 2024 ITP includes 89 transmission upgrades needed to address increasing electricity consumption and changes in the region’s generating fleet**
- **2,333 miles of new transmission and 495 miles of transmission rebuilds**
- **The 2024 ITP portfolio is the product of 27 months of study and approximately 150 meetings of 11 working groups and committees comprising representatives of SPP’s member organizations**

SPP Highway Byway Cost Recovery

- **SPP allocates costs based on voltage level**
 - ✓ 300 kV or greater, 100% Regional, 0% Zonal
 - ✓ >100 kV and < 300 kV, 33% Regional, 67% Zonal
- **NPPD is responsible, based on load ratio share, for**
 - ✓ ~ 5% or Regional
 - ✓ ~85% of Zonal
- **NPPD preliminary cost responsibility resulting from the SPP 2024 ITP portfolio**
 - ✓ ~ \$364,000,000 total costs
 - ✓ Note costs in study are preliminary and will be updated as more detailed estimates are available
- **Costs are collected over a number of years and typically begin when projects go into service**

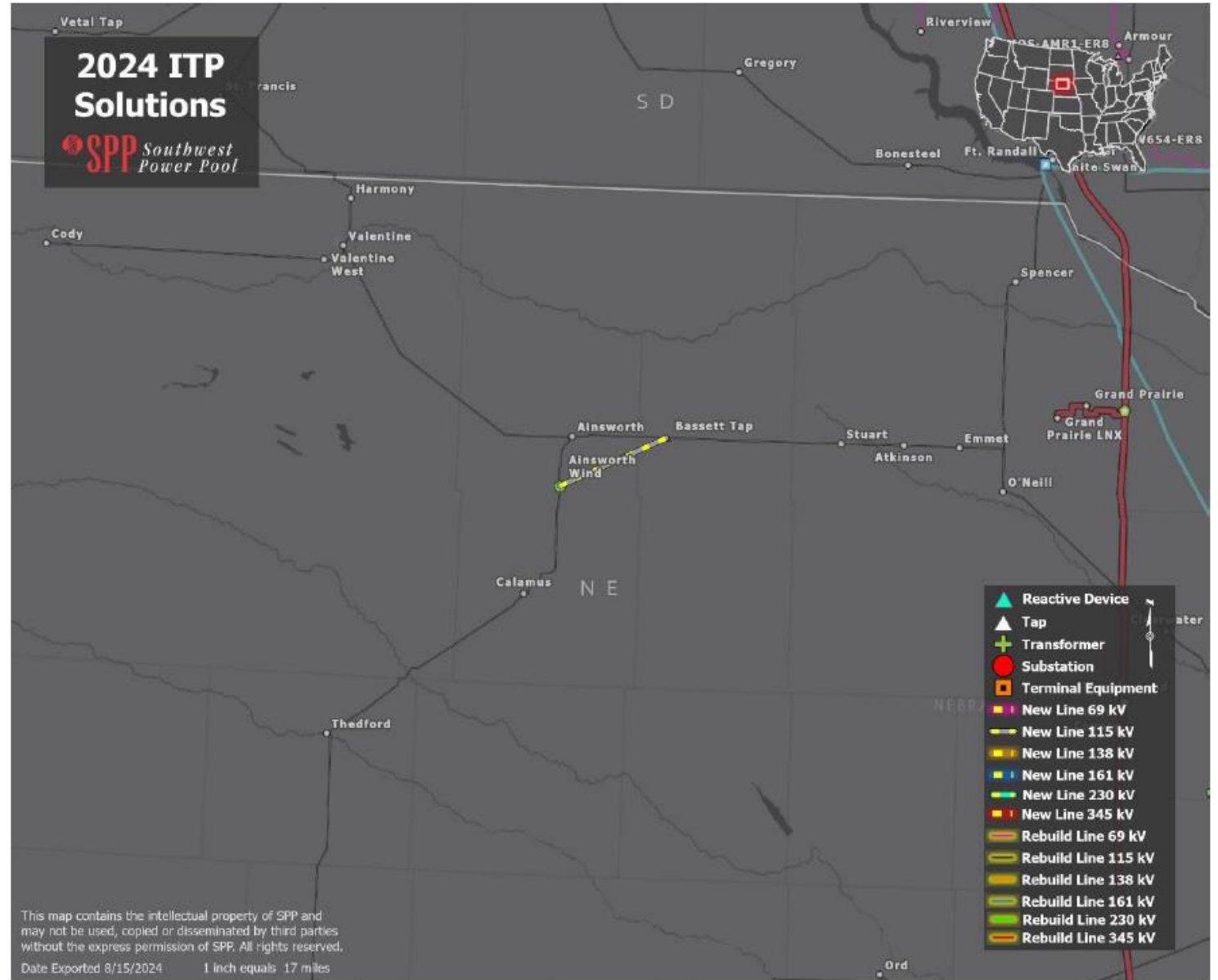
NPPD Projects

Description		Area	Project Cost* (2024\$)	NPPD Portion* (Estimate)
Ainsworth-Bassett	115 kV Ckt 1 New Line	NPPD	\$25,100,000	\$25,100,000
Aurora-Central City	115 kV Ckt 1 New Line	NPPD	\$13,700,000	\$13,700,000
Antelope-Holt County	345 kV Ckt 1 New Line	NPPD	\$67,100,000	\$67,100,000
Hoskins-Stanton North	115 kV Rebuild	NPPD	\$4,000,000	\$4,000,000
Elm Creek (KS)-Tobias	345 kV New Line	ITC GP / NPPD	\$148,419,672	\$74,209,386
Gering Tap-Scottbluff	115 kV Ckt 1 Rebuild	NPPD / WAPA-RMR	\$3,385,333	\$3,385,333

*Project costs and NPPD portion are preliminary from the study effort, costs will be refined when responding to notice to construct from SPP. Ultimate cost recovery per SPP Highway / Byway Cost Allocation.

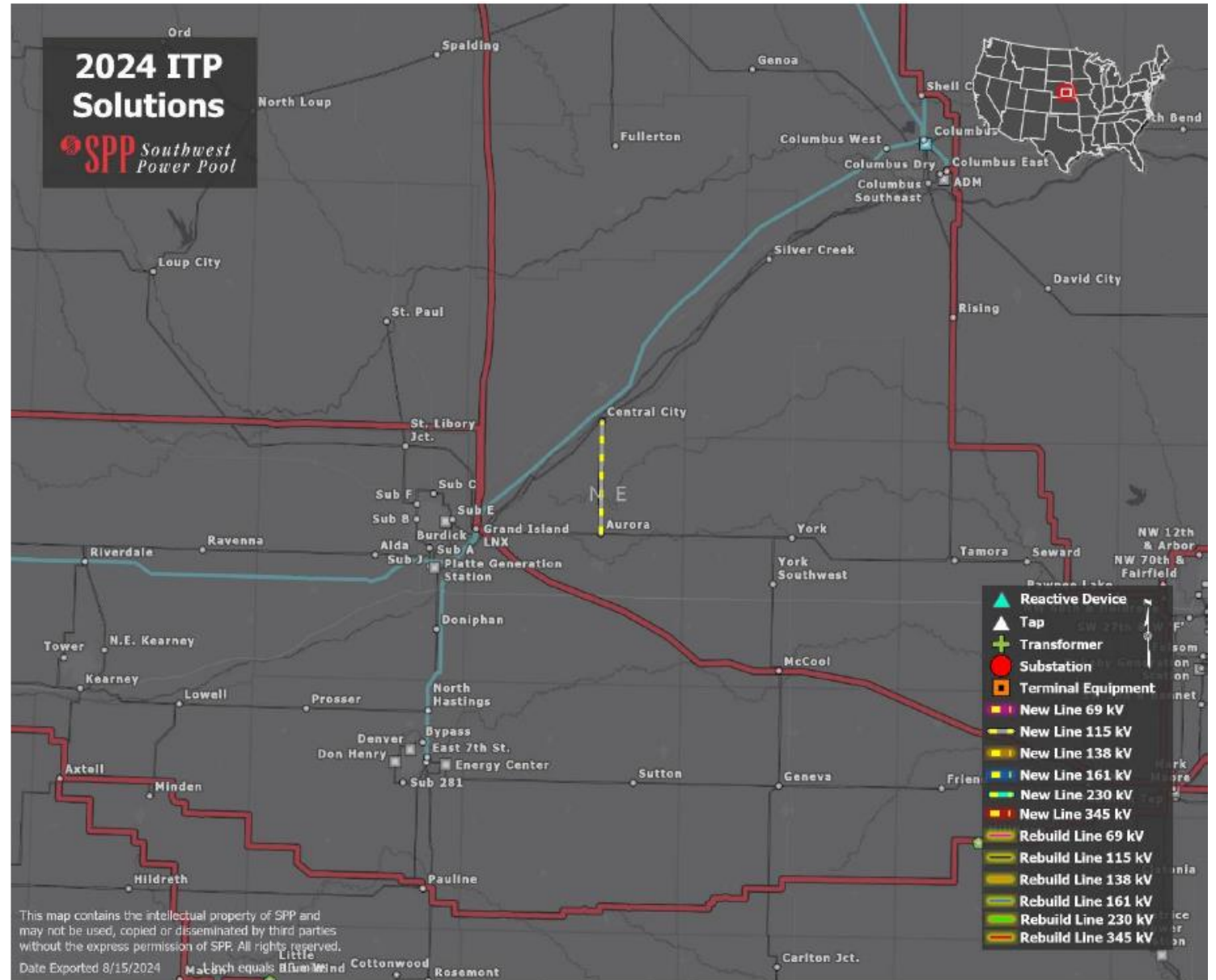
Ainsworth Wind – Bassett 115 kV

- Reliability
- Solves contingency voltages issues
- No routing studies have been completed; straight line shown to illustrate the end points of the line
- Estimated cost per the study: \$25,100,000



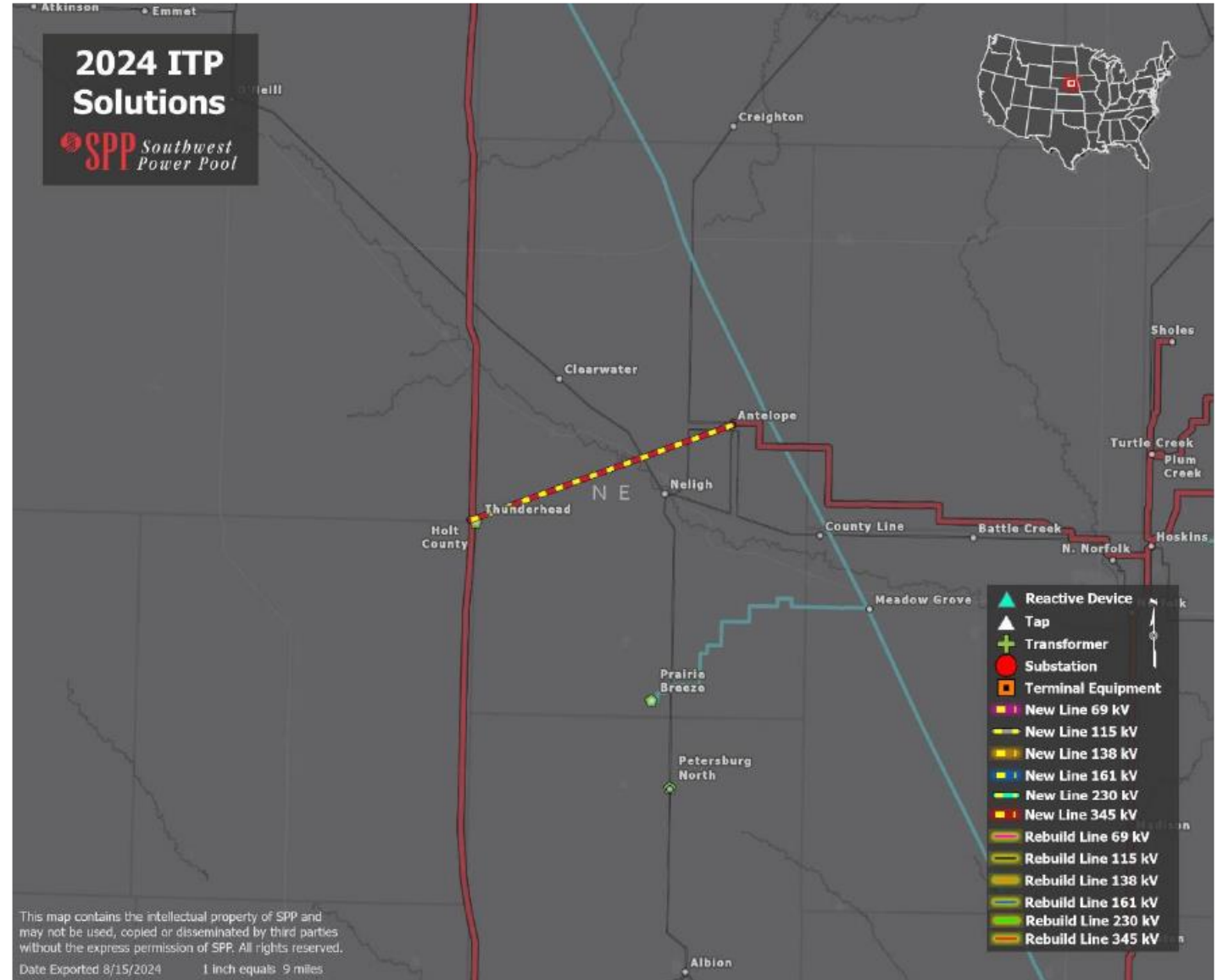
Aurora-Central City 115 kV

- Reliability
- Solves contingency voltages issues
- No routing studies have been completed; straight line shown to illustrate the end points of the line
- Estimated cost per the study: \$13,700,000



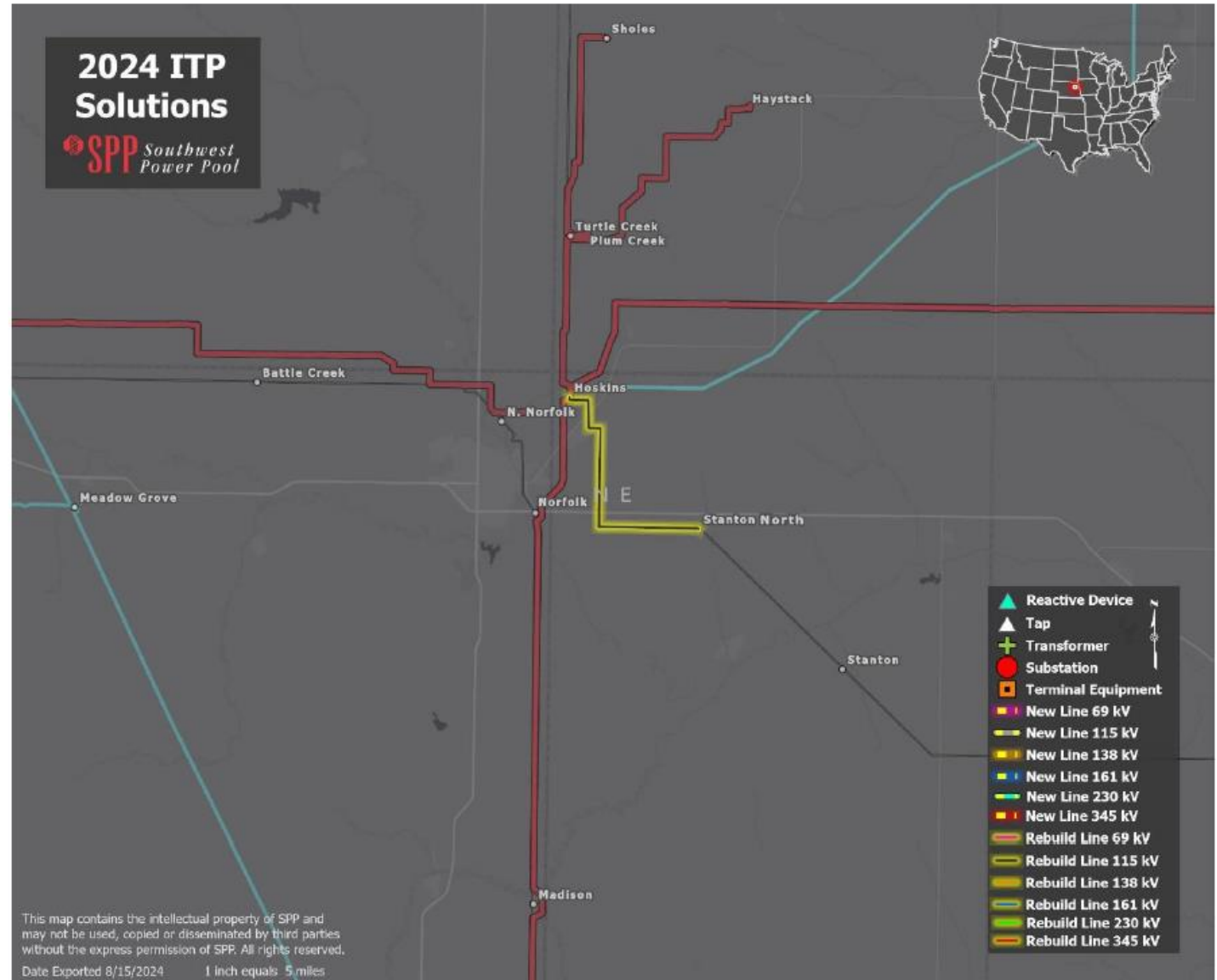
Antelope-Holt County 345 kV Line

- Economics
- Relieves congestion for several contingency scenarios
- No routing studies have been completed; straight line shown to illustrate the end points of the line
- Estimated cost per the study: \$67,100,000



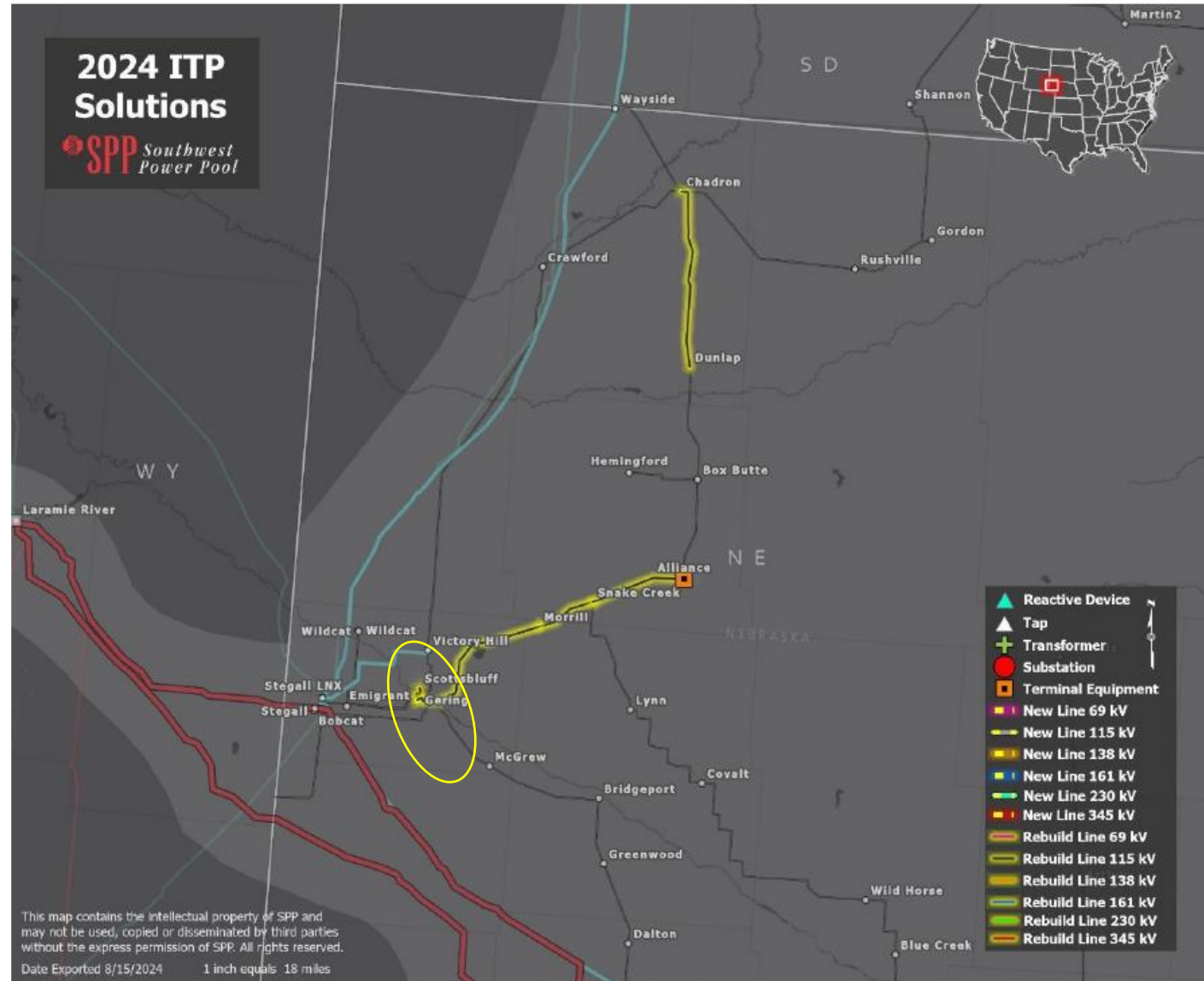
Hoskins-Stanton North 115 kV Rebuild

- Economics
- Relieves congestion for several contingency scenarios
- Estimated cost per the study: \$4,000,000



Gering Tap-Scottsbluff 115 kV Rebuild

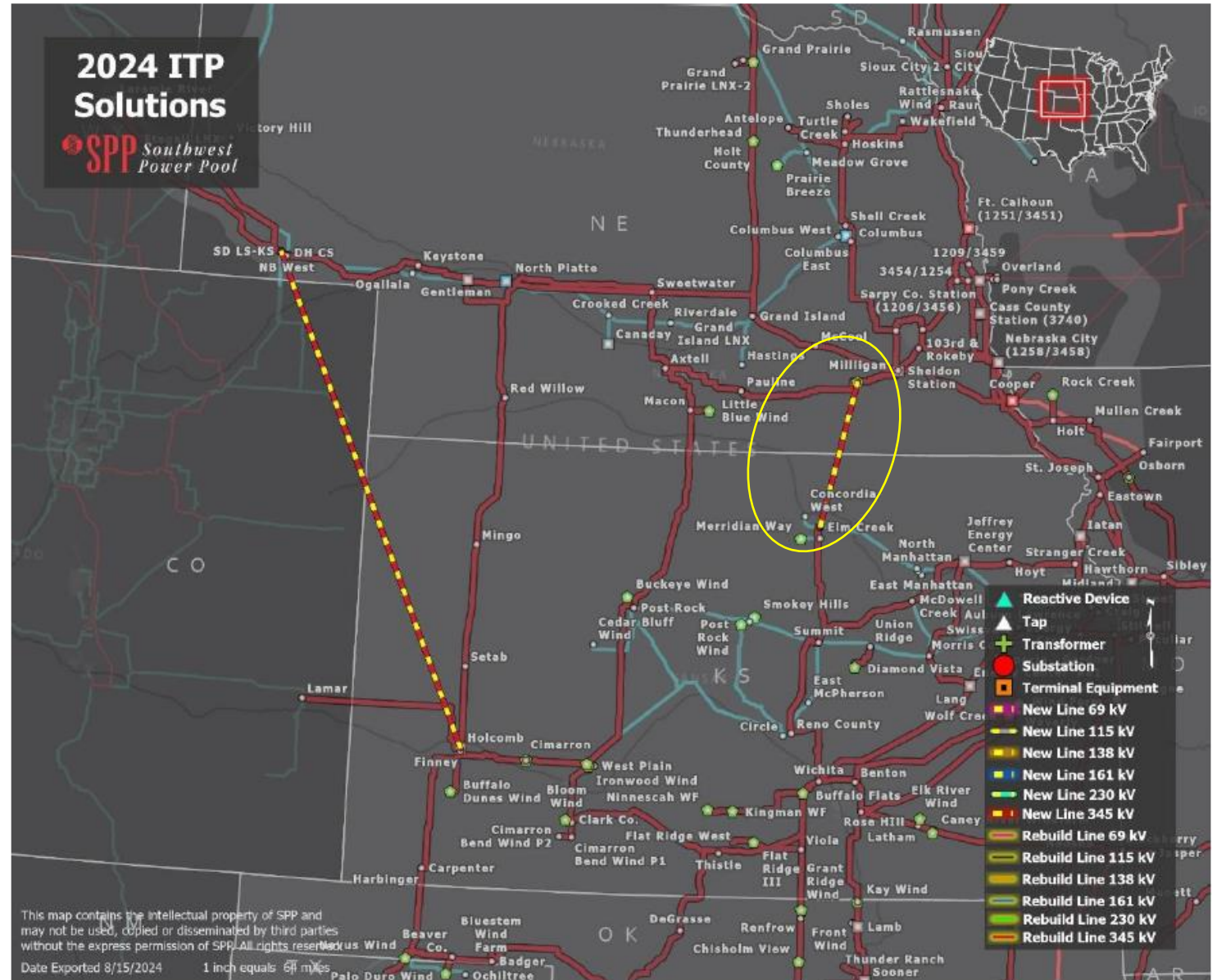
- Economics
- Relieves congestion for several contingency scenarios
- NPPD owns 1.89 miles from Gering Tap-Scottsbluff
- Terminal equipment upgrades
- Estimated cost per the study: \$3,385,333
- Other lines with upgrades shown are WAPA-owned



Elm Creek-Tobias

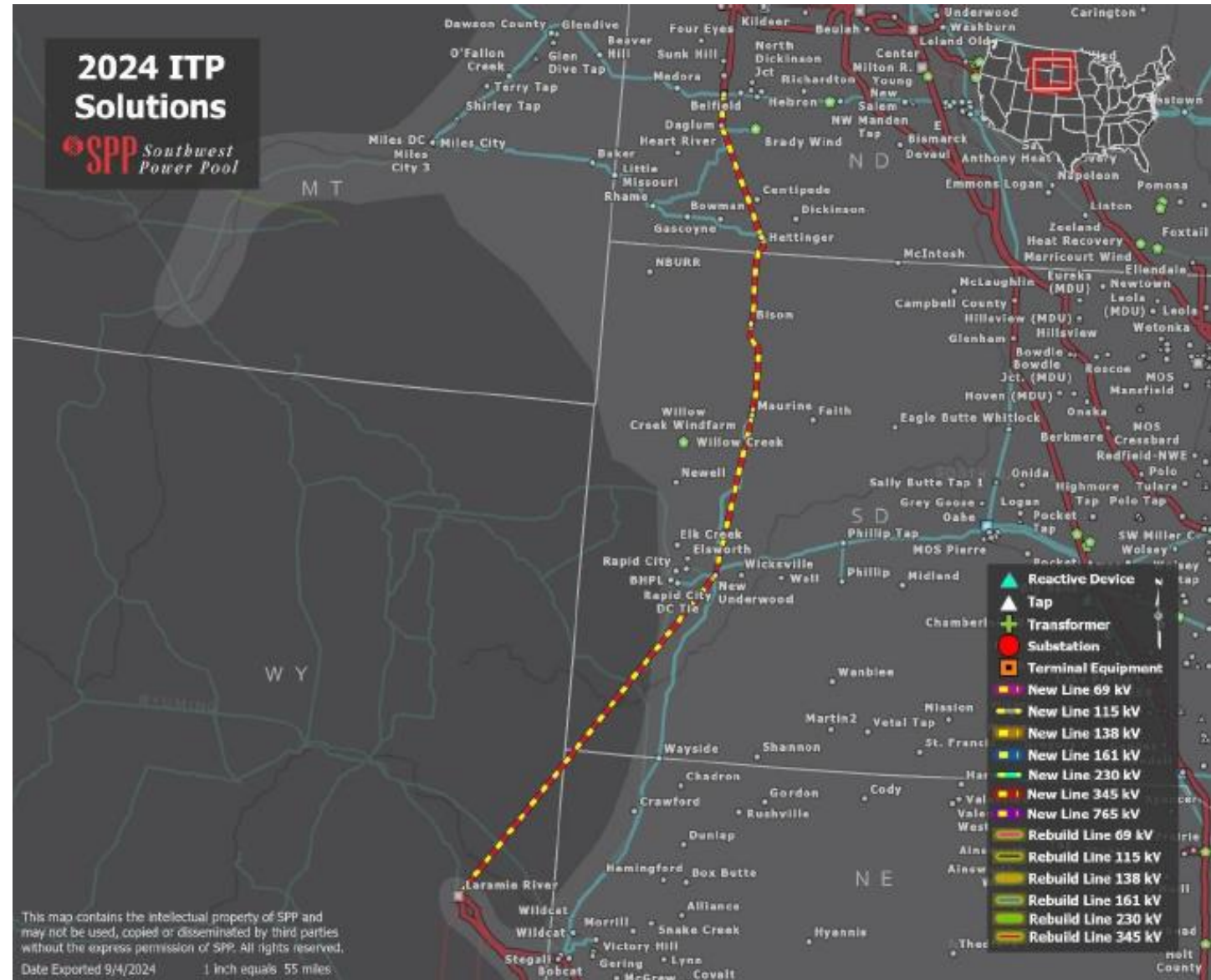
345 kV

- Winter Weather (resiliency)
- Provides increased power transfer capability of 900 MW and voltage support
- No routing studies have been completed; straight line shown to illustrate the end points of the line
- Nebraska portion only
- Estimated cost per the study for the total line: \$148,419,672, estimate Nebraska portion at 50% or \$74,209,836
- Sidney-Holcomb 345 kV addition also shown, increases power transfer to total of 1500 MW, estimated at \$887,460,816
- NPPD responsible for ~5% of costs, via SPP Highway cost allocation



Belfield-Maurine-New Underwood-Laramie River 345 kV New Line

- Economics
- Resolves congestion along the western boundary of SPP footprint (which is also the boundary with the Western Interconnection)
- **Non NPPD project** but benefits western Nebraska. NPPD responsible for ~5% of project estimated \$1,114,609,566 cost per SPP Highway cost allocation





THE POWER OF PEOPLE



Questions

Stay connected with us.



Nebraska Public Power District
Always there when you need us