PowerMO: SPP Update

Casey Cathey

VP Engineering

CPP



2026 ITP/CPP Transition Assessment 20-Year 765 kV Overlay

Notification to Construct Portfolio Fast Fasts

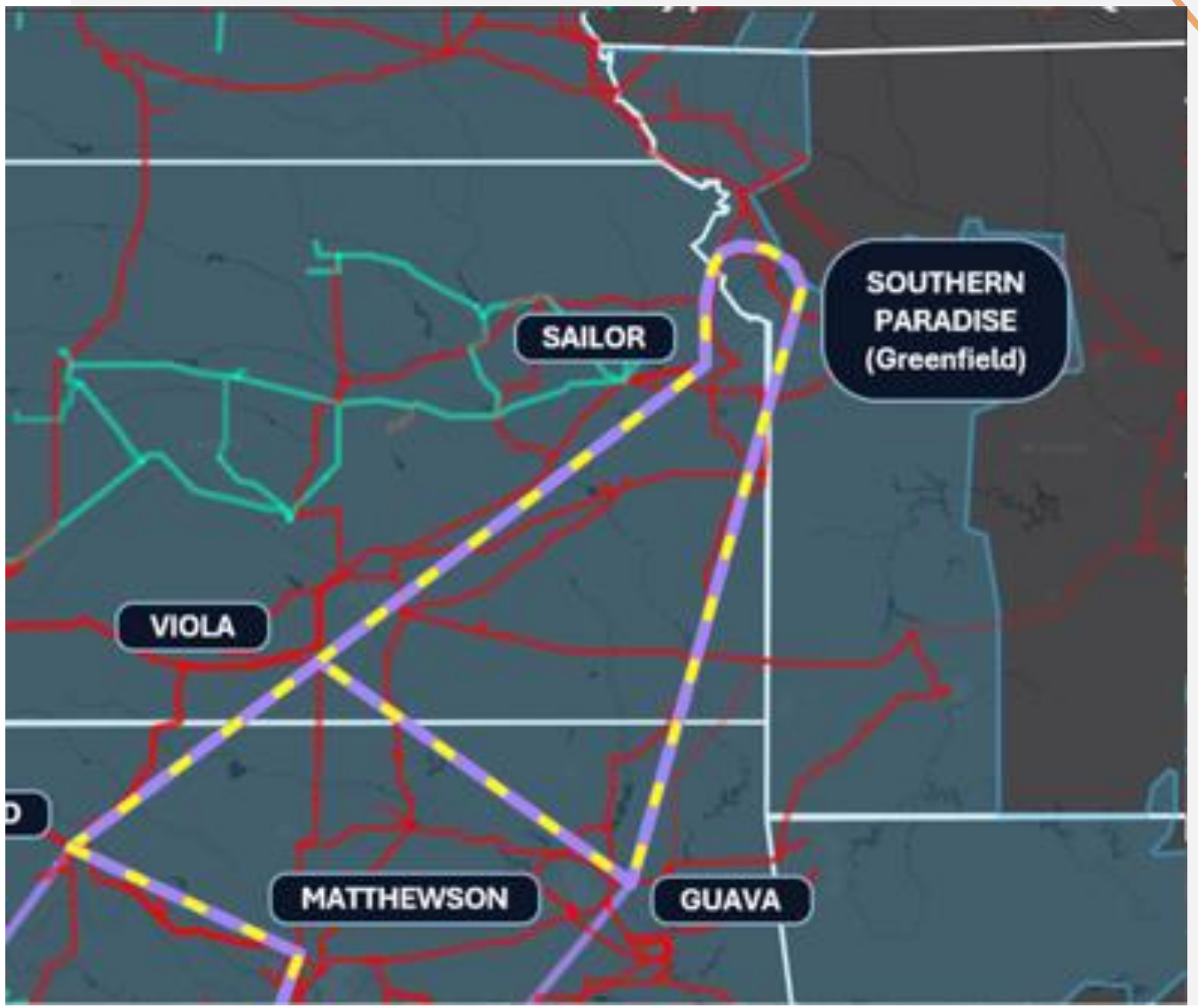
2026 ITP/CPP Portfolio Estimated 40-yr APC Benefit (NTC Only)	**$86.0B – $194.7B**
1,762	miles of new 765 kV transmission
684	miles of new 345 kV transmission
520	miles of rebuild
73	new transformers
$23.7B	portfolio cost (NTC Only)

- Totals almost 5,000 miles of 765 kV
- Major connection points to load centers and generation pockets

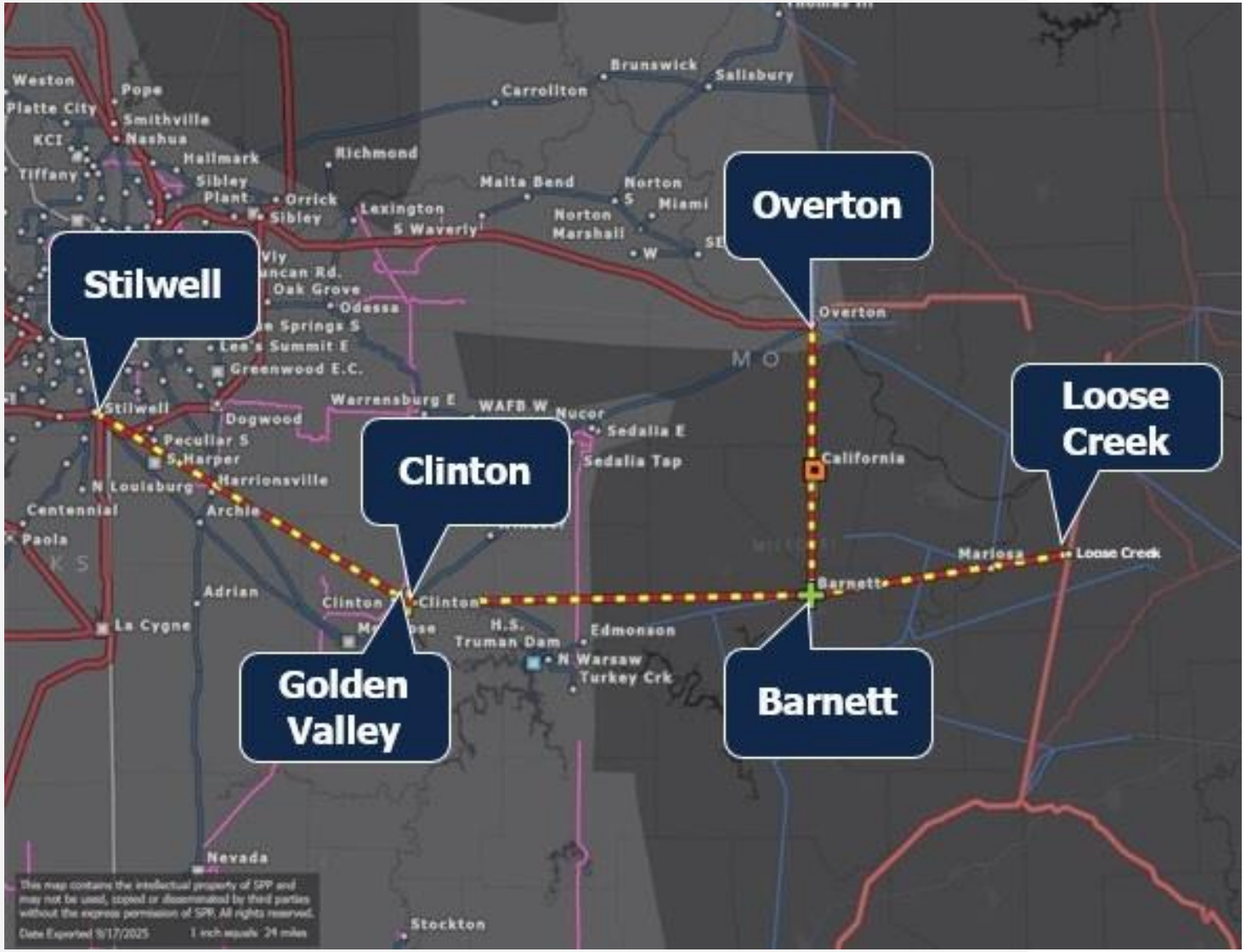
Pioneer
Leland Olds
Belfield
Oahe
Underwood
Fort Thompson
Fort Randle
Raun
3454/1254
128th & Adams (Wagener)
Gentleman
Grand Island
Southern Paradise
Sailor
Holcomb
Viola
Woodward
Matthewson
Guava
Potter Co
Seminole
Lawton Eastside
Crawfish Draw
Kiowa
Phantom
Southwest Shreveport

Southern Paradise 765 kV Project
(2026 ITP/CPP)

- 2026 ITP/CPP Transition Assessment project located in the northeast corner of the KC metro area
- Consists a 765 kV line to Sailor (SW area of KC metro) and a 765 kV line to Guava (east Tulsa)
- Benefits:
  - Direct path to renewables in western Kansas
  - Will provide support to growing load north of KC
  - Opportunities for 765 kV connection with MISO

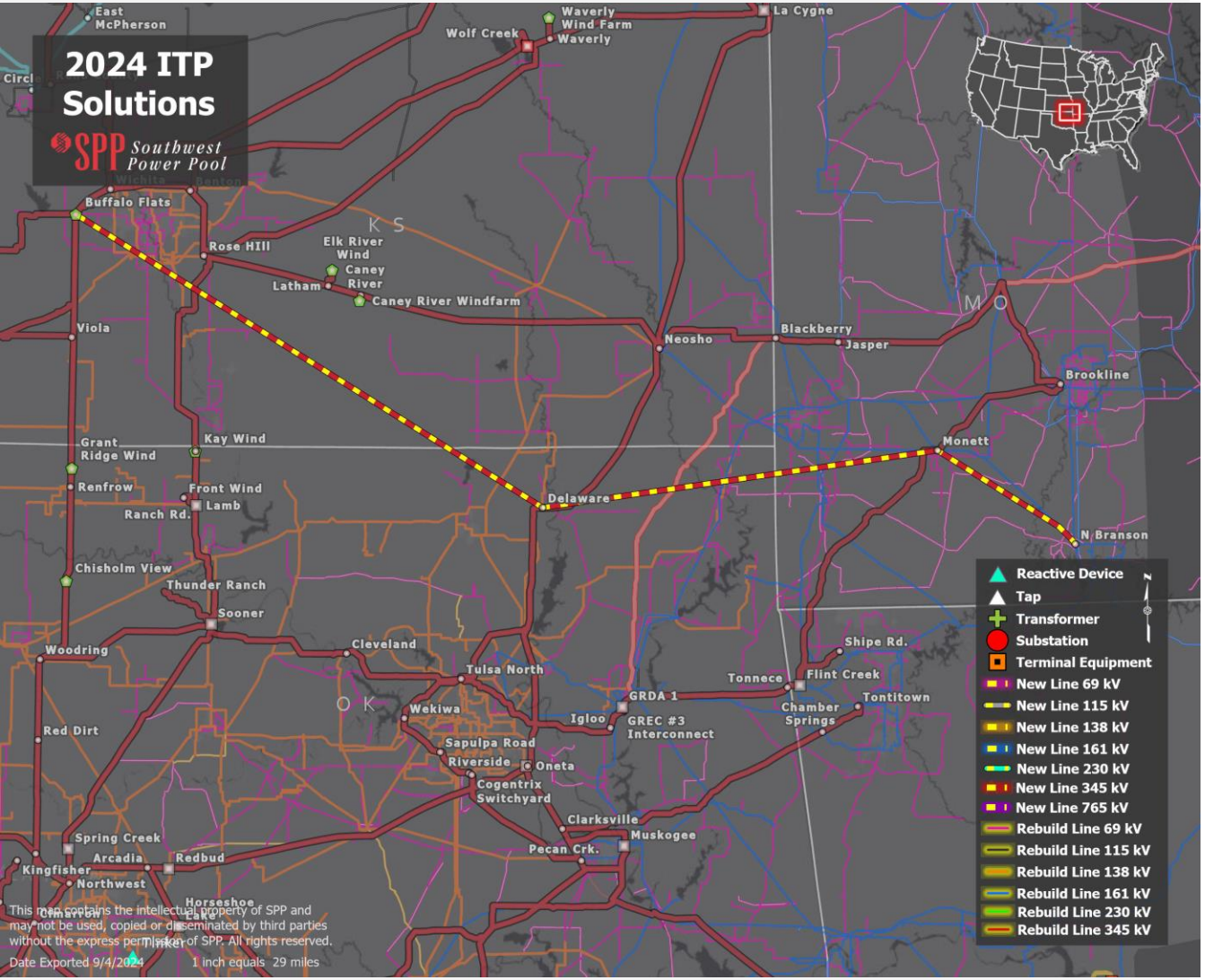


Seams Projects: MoMENT



- Partnership with **SPP (Evergy), AECI, MISO (Ameren)**
- Double circuit 345 kV line from Stilwell (SPP) to Barnett, continuing on to Overton and Loose Creek
- Expected to provide:
  - SPP: Economic relief to real-time congestion
  - AECI: Reliability support and access to lower cost resources
  - MISO: Economic benefit and transfer capability

Buffalo Flats – Delaware – Monett – Branson 345 kV line



- Solution in 2024 ITP addressing reliability issues observed during Winter Storm Elliott
- Adds a 345 kV source to Branson, increasing Missouri energy transfer capability during congestion or gas shortages.
- Full project scope includes:
  - Rebuilding and tying in existing 161 kV lines at new station
  - Converting out of service 69 kV lines to 161 kV near Branson



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