



Grain Belt Express
TRANSMISSION LINE

A Transformational Infrastructure Project

Moving Energy
From Source to Market

Invenergy

We are a leading
**privately held
global developer
and operator** of
sustainable energy
solutions

150+
Projects

24,000+
Megawatt

\$30B+
**in Completed
Transactions**

1000+
Employees

\$160M+
**Annual Local
Economic
Investment**

Deep Experience Across Technologies



Wind

94 Projects
14,081 MW



Solar

28 Projects
3,216 MW



Storage

13 Projects
653 MWh
250 MW



Natural Gas

11 Projects
5,641 MW



Transmission

32 Locations
400 Miles

Success Built on Strong Relationships

UTILITY & CO-OP



- 2.5GW+ of wind, solar and storage developed for BHE companies including PacifiCorp, MidAmerican & NV Energy
- Partner in building industry-leading renewables platform



- 1,517 MW of build-transfers, development-transfers and PPAs completed since 2008
- Partner in advancing 100% carbon free by 2050 goal

COMMERCIAL & INDUSTRIAL



- 2,850+ MW of renewables contracted with corporate buyers
- Helping leading global brands power operational and sustainability goals



- 547 MW helping power Google's 100% renewable operations
- 225 MW PPA with Bethel Wind Farm in TX and 150 MW solar farm in TN

PUBLIC POWER



- 868 MW across 6 projects with NYSEDA
- 290 MW PPA with NYPA
- Supporting New York's ambitious 50% by 2030 Clean Energy Standard





Grain Belt Express
TRANSMISSION LINE

Exhibit F

Transmission & Distribution Experience

32 locations, over **400** total transmission miles

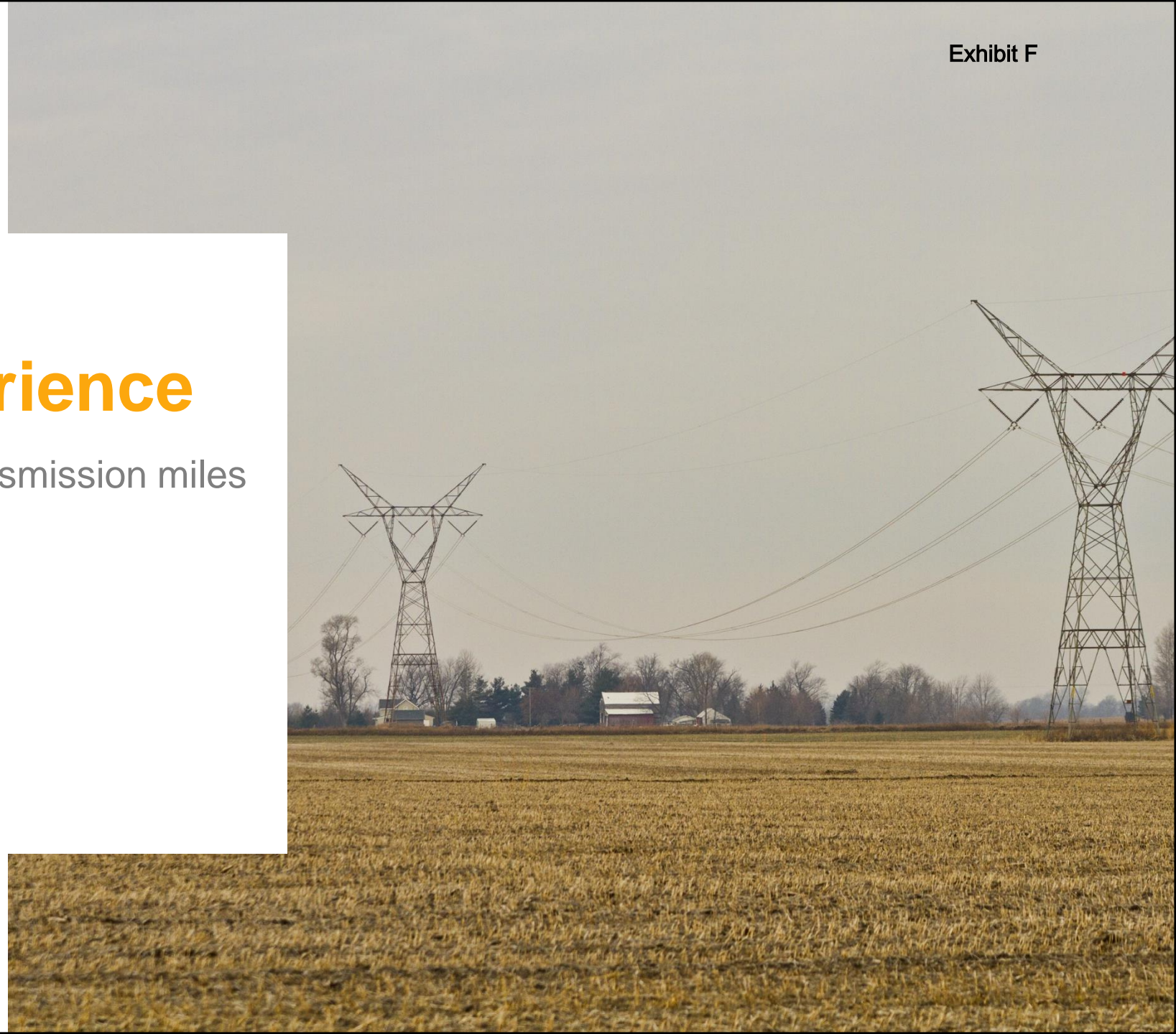
2,200 miles of distribution lines

62 Substations

82 GSU Transformers

3,734 Pad Mount Transformers

Invenergy



LEGEND

Route Alignment

Converter Station



Grain Belt Express

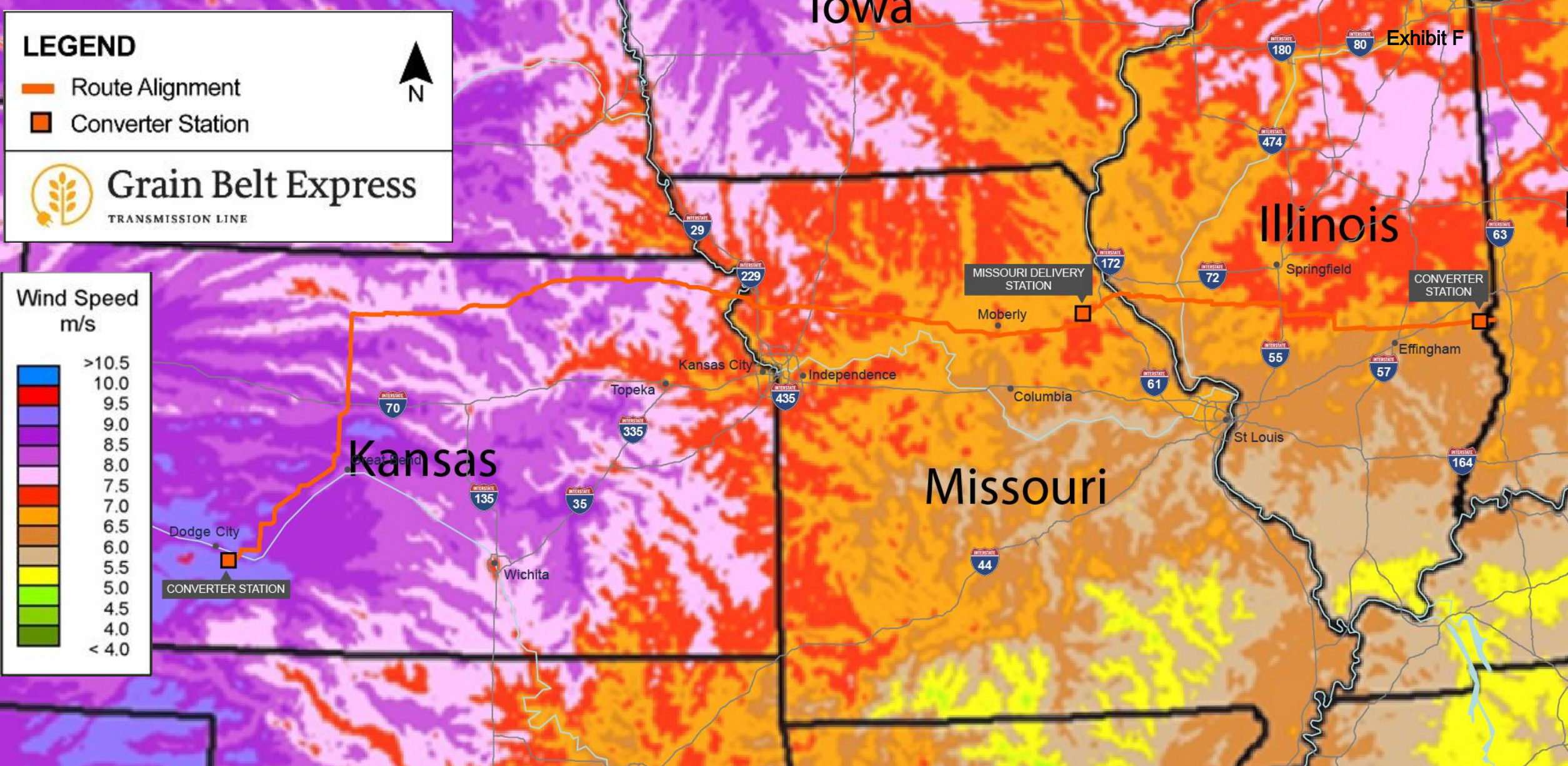
TRANSMISSION LINE

Exhibit F



Invenergy

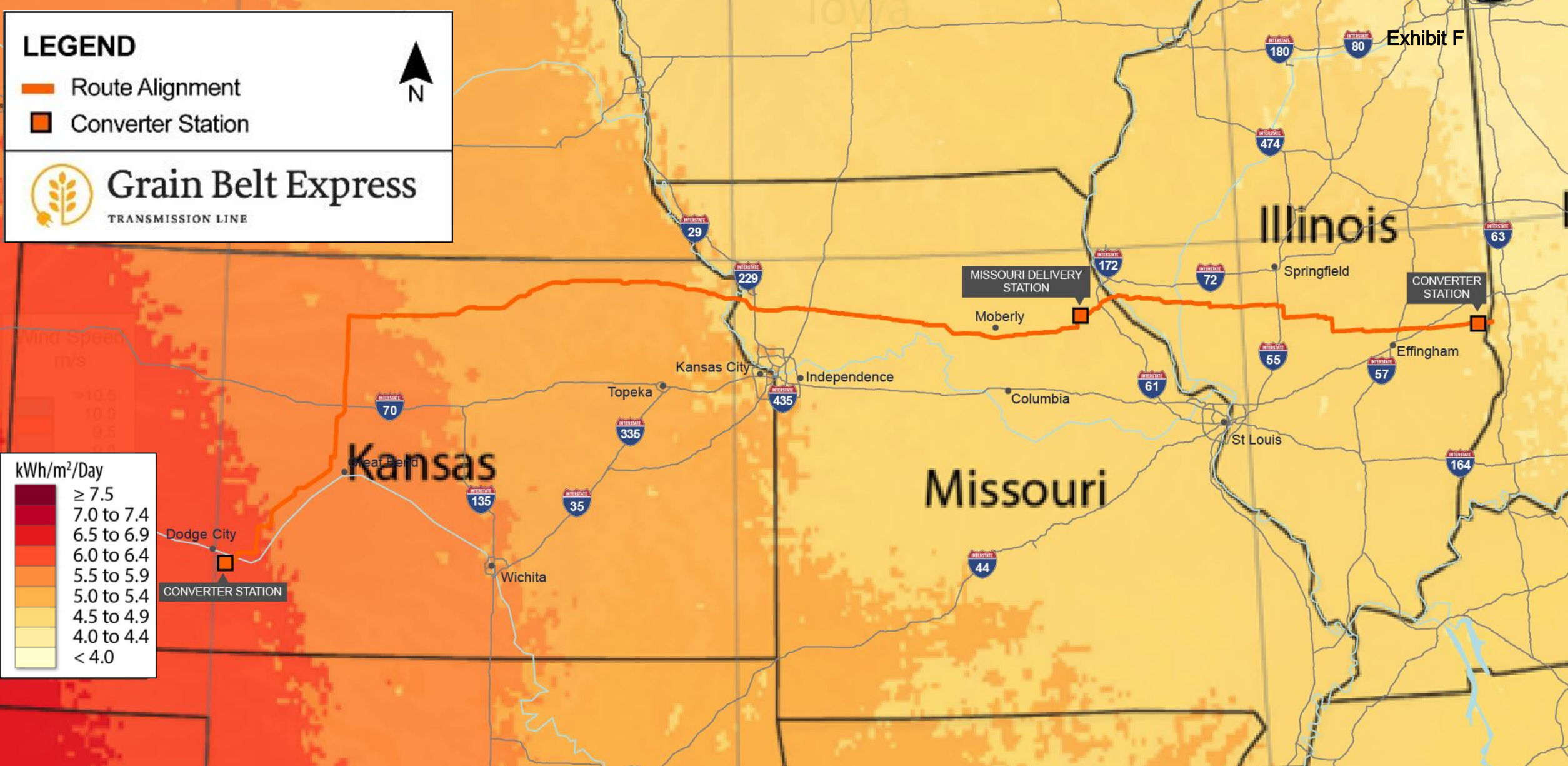
Final Route



Invenergy

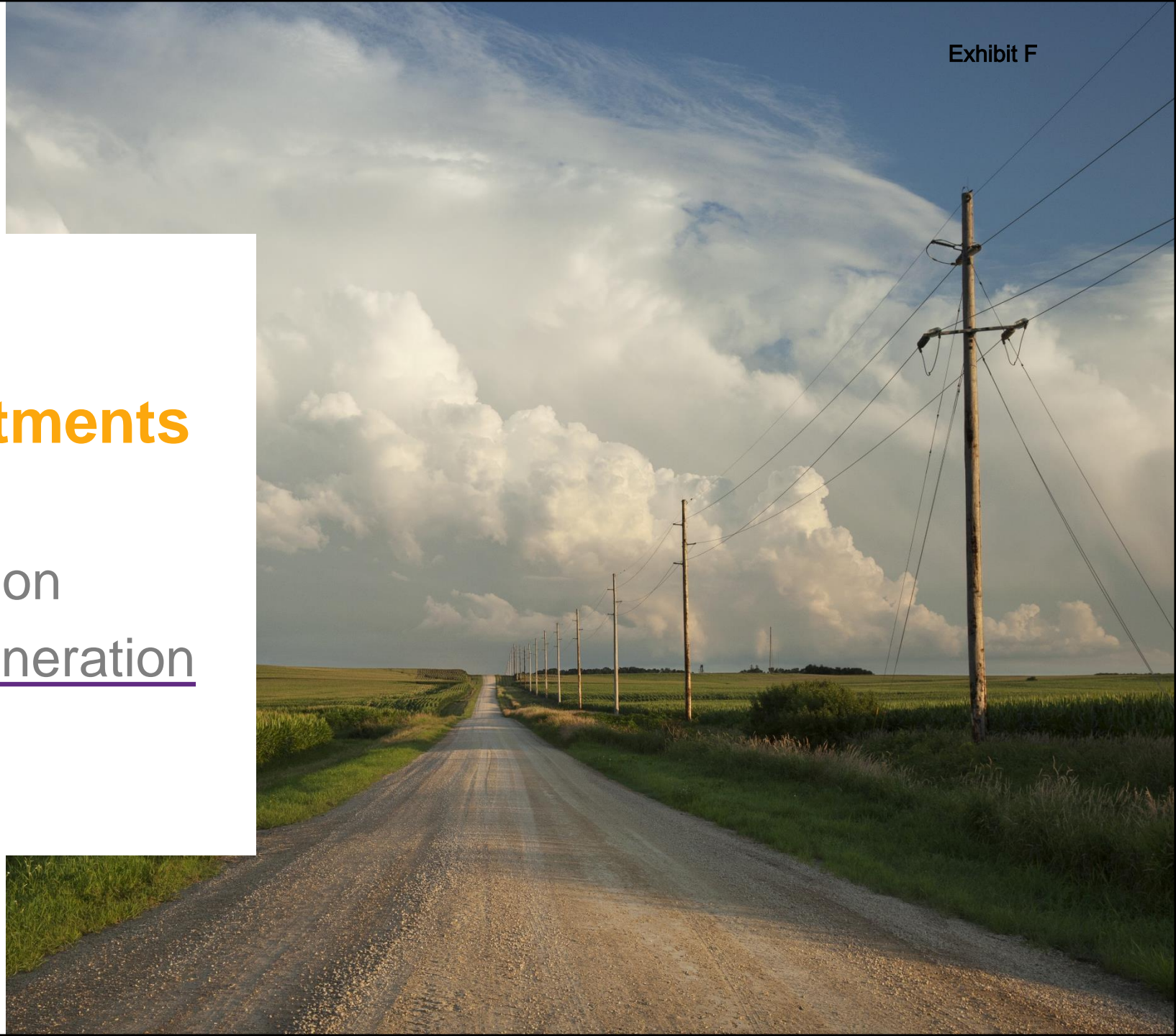
Permanent Access to America's Best Wind Resource

Wind resource map, National Renewable Energy Laboratory



Critical American Infrastructure Investments

\$2-3 Billion Transmission
+ 5 Billion Energy Generation
\$7-8 Billion Overall





Grain Belt Express
TRANSMISSION LINE

Exhibit F

Key Regulatory Approvals

Invenergy's Grain Belt Express Acquisition

- Kansas | June 2019
- Missouri | June 2019
- Indiana | January 2020

Certificate of Public Convenience & Necessity

- Kansas | September 2019
- Missouri | April 2019
- Indiana | January 2020

**Illinois Commerce Commission approvals to be pursued as soon as 2020*

Invenergy



Unanimous Approval

Development Updates



All preexisting easements have been acquired



Finalizing environmental, engineering, and land services contractor selection

- Landowner outreach and easement acquisition to ramp-up through 2020
- Crews will be in the field in 2020
- Engagement to state-level and county-level stakeholders in process



Commercial discussions with Missouri utilities and co-ops continue, identifying C&I customers with sustainability goals



Project offices in Dodge City, St. Joseph, and Moberly open in Q1 2020

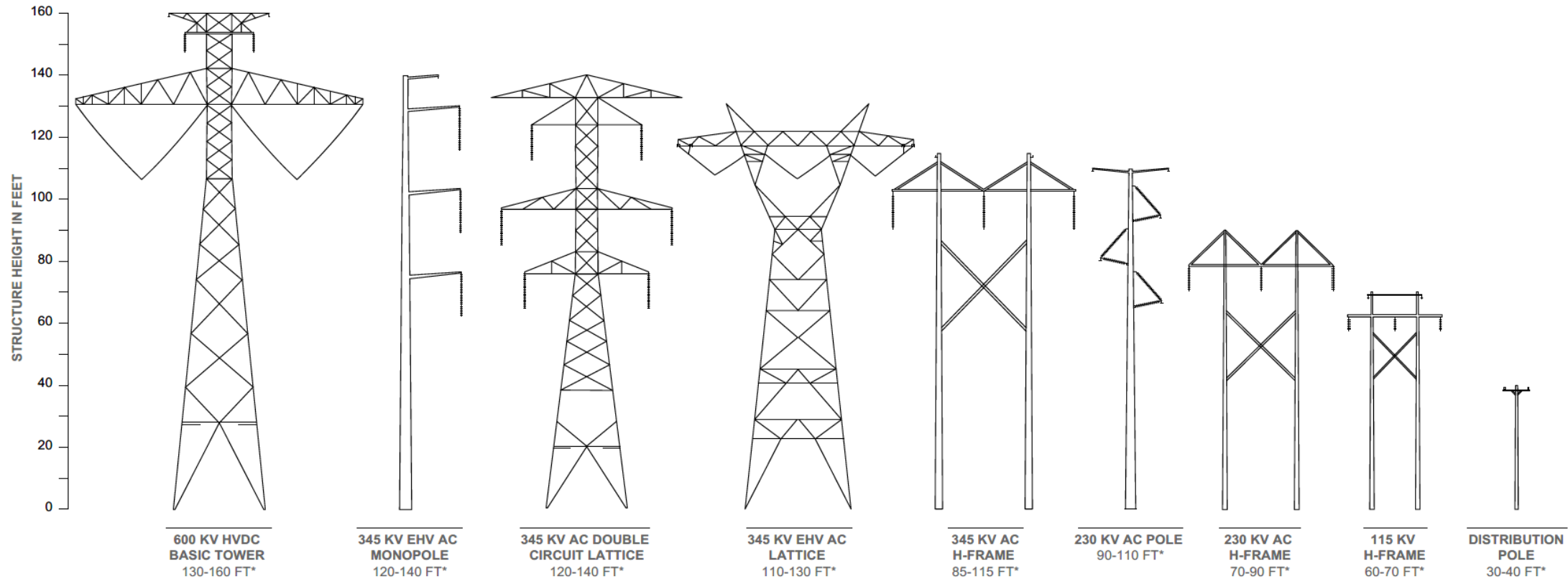
Transmission Structures



Exhibit F

*Approximate Height

**Structures will vary in the field based on topography, turning angles, and other engineering considerations.

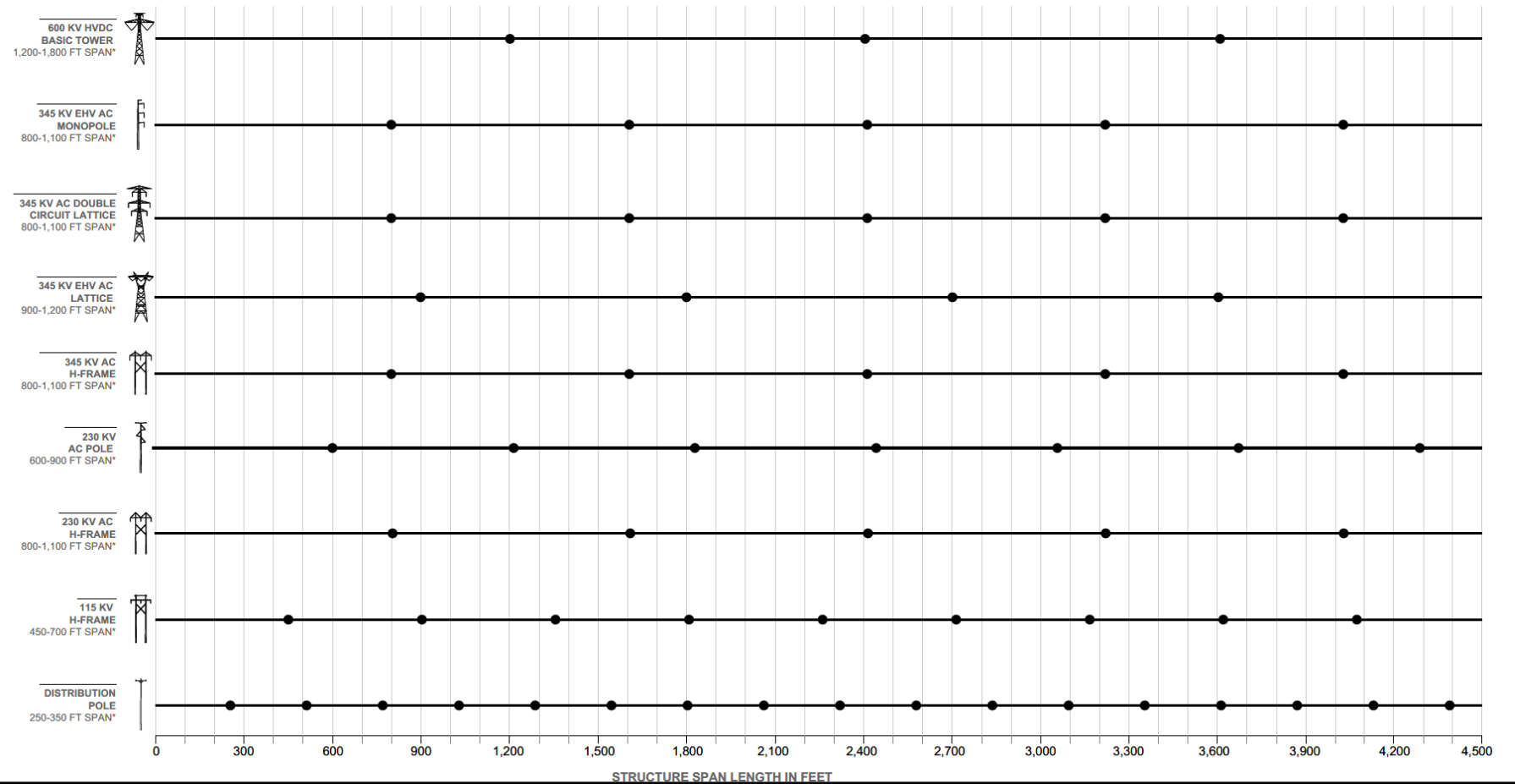


Transmission Structures



Exhibit F

*Approximate Span Width
**Structures will vary in the field based on topography, turning angles, and other engineering considerations.

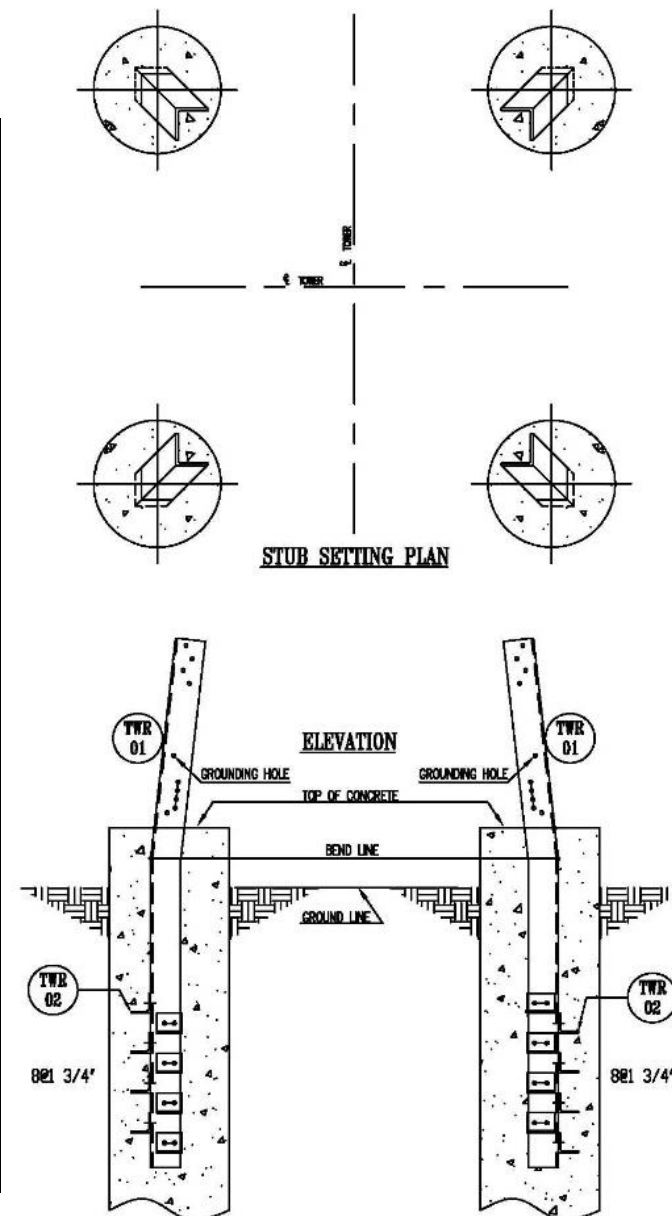
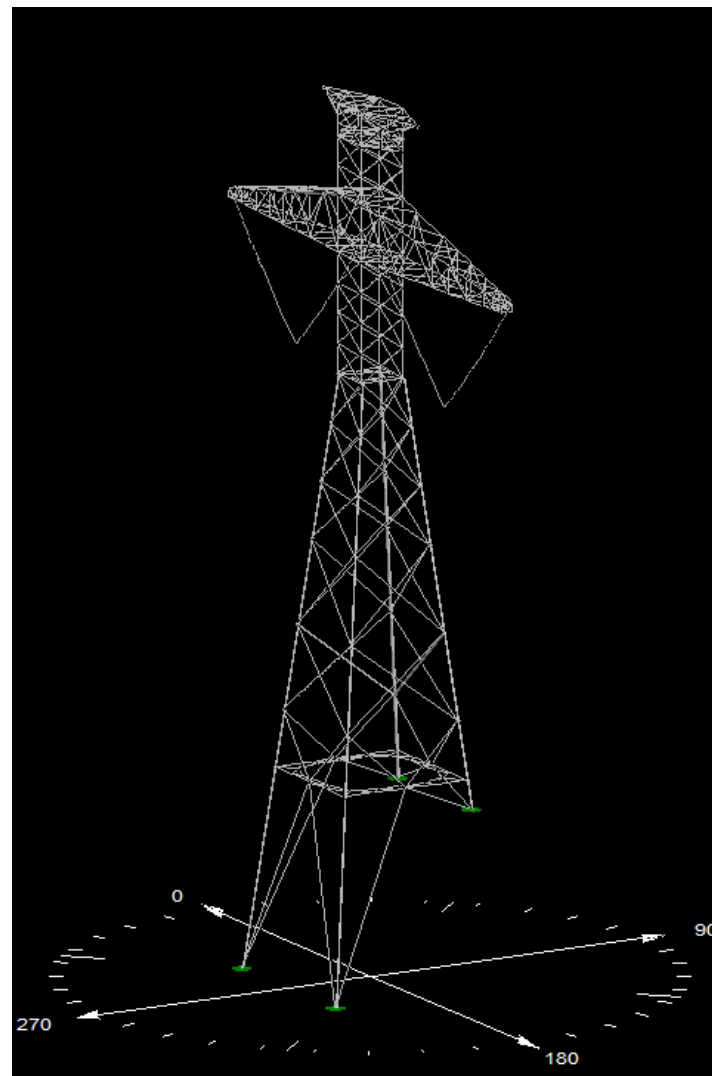


Typical Grain Belt Express Transmission Structure

Exhibit F

Tower Type	Est. Foundation Diameter (ft)	Minimum Tower Base Width (ft)	Maximum Tower Base Width (ft)	Surface Disturbance
0-2 Basic Suspension	4	35	44	0.00115
0-2 Medium Suspension	4	35	45	0.00115
0-2 Heavy Suspension	4	37	46	0.00115
2-10 Running Angle	4	38	48	0.00115
10-30 Running Angle	4	40	50	0.00115
0-30 Dead-end Tower	6	46	60	0.00260
30-60 Dead-end Tower	6	50	65	0.00260
60-90 Dead-end Tower	6	53	70	0.00260

All figures are approximate.



Tower Type:
Selected based on terrain and engineering criteria

Foundation Type:
Four (4) dilled concrete piers per structure

Surface Disturbance:
Minimize tower footprint by utilizing differential legs for sloped terrain in hilly areas

Typical Footprint:
40 ft. x 40 ft.

Center Pivots

The route has been designed to avoid impacts to irrigation structures.

Further minor adjustments can be made during landowner consultations.

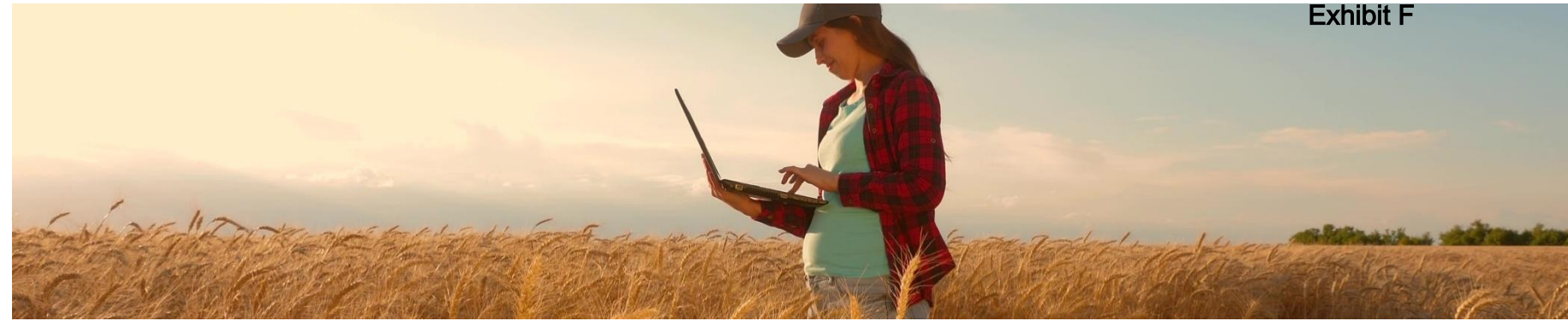
Area of greatest
pivot concentration
(Few if any impacts)

Invenergy





Grain Belt Express & Broadband Access



- May bring **better fixed broadband and mobile cellular service** by collocating fiber optic cable along the transmission line route
- Fiber and distribution architecture will allow Grain Belt Express to serve as **middle mile broadband service** along the route
- Grain Belt Express seeking to partner with local ISPs to deliver **new or better broadband service** to rural schools, libraries, healthcare facilities, agriculture operations, and other community institutions
- Working with **broadband design firm to advance fiber network design** in parallel to Grain Belt Express development process



- Exhibit F**
- **\$500M** in project infrastructure investment
 - **Thousands** of construction, manufacturing and operations jobs
 - **\$20M** in landowner payments
 - **\$7M+** in property tax revenue annually once operational
 - **\$12M+** saved annually in electricity cost savings by Missouri municipal utilities
 - 2019 MPSC granted **Certificate of Convenience and Necessity**



Grain Belt Express
TRANSMISSION LINE

Questions

www.grainbeltexpressline.com

Krista Mann

Director, Renewable Development

kmann@invenergyllc.com

(303) 800-9335 (office)

(720) 384-4047 (cell)

Exhibit F

