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Witness: Timothy B. Gaul
Sponsoring Party: Grain Belt Express
Clean Line LLC
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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. EA-2014-0207

SURREBUTTAL TESTIMONY OF

TIMOTHY B. GAUL

ON BEHALF OF

GRAIN BELT EXPRESS CLEAN LINE LLC

October 14, 2014

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1 **I. INTRODUCTION AND PURPOSE OF TESTIMONY**

2 **Q: Please state your name, present position and business address.**

3 A. My name is Timothy B. Gaul. I am the Vice President of Louis Berger’s Power and
4 Energy Division, and a siting consultant to Clean Line Energy Partners LLC, the ultimate
5 parent company of Grain Belt Express Clean Line LLC (“Grain Belt Express” or
6 “Company”), the Applicant in this proceeding.

7 **Q: Have you previously submitted prepared testimony and exhibits in this proceeding?**

8 A. Yes, I have previously submitted direct testimony.

9 **Q: What is the subject matter of your surrebuttal testimony?**

10 A. The principal purpose of my surrebuttal testimony is to respond to the rebuttal testimony
11 of Robert F. Allen, on behalf of Rockies Express Pipeline LLC, and to the rebuttal
12 testimony of Floyd McElwain, Roseanne Meyer, and Charles Kruse.

13 **II. ROUTING QUESTIONS**

14 **Q: At pages 3 and 9 of his rebuttal testimony Mr. Allen addresses situations where the**
15 **Grain Belt Express transmission line will run parallel to the Rockies Express**
16 **pipeline. What are the potential benefits of paralleling existing linear utility**
17 **infrastructure when siting new transmission corridors?**

18 A. Paralleling existing linear rights-of-way is a common practice used when routing new
19 transmission lines and is supported by many state utility commissions, state and federal
20 regulatory agencies, industry trade groups (see example references¹) and the Federal

¹ “The Corridor Concept, Theory and Application,” Charles H. Weir and June P. Klassen, International Right of Way Association (2008); Building Interstate Natural Gas Transmission Pipelines: A Primer. Interstate Natural Gas Association of America (INGAA) (2008) (includes offset guidance for different voltages and pipe diameters).

1 Energy Regulatory Commission.² Utilities often parallel existing linear infrastructure
2 such as transmission lines and pipelines since doing so consolidates utility infrastructure
3 into corridors, logically placing the new linear utility in close alignment with an existing
4 linear utility right-of-way. In this way, impacts of the new right-of-way are considered
5 incremental to the impacts from the existing right-of-way, rather than completely new
6 impacts in otherwise un-impacted areas. Importantly, this strategy also reduces the
7 fragmentation of habitats and land uses (both existing and future) across the landscape
8 and allows for the potential re-use of existing access routes to the utility corridor. Several
9 state and federal regulatory agencies, as well as non-governmental organizations
10 throughout the Grain Belt Express route development process have expressed their
11 support of the use of parallel alignments adjacent to existing transmission lines and
12 pipelines in order to consolidate the area of impact, reduce the impact of potential habitat
13 fragmentation, and limit the overall effect of new access road construction.

14 **Q: On page 9 of his rebuttal testimony, Mr. Allen recommends a condition that the**
15 **Grain Belt Express Project maintain a distance of 1,000 feet from the Rockies**
16 **Express Pipeline. Would such a mandatory separation of 1,000 feet between the**
17 **Project and the Rockies Express Pipeline limit the benefits of parallel siting?**

18 A. Yes. Requiring a separation of at least 1,000 feet between the transmission line and the
19 pipeline would limit the benefits of paralleling and would result in two distinct rights-of-
20 way crossing the landscape, each having the potential to fragment forest tracts into

² “Guidelines for the Protection of Natural, Historic, Scenic, and Recreational Values in the Design and Location of Rights-of-Way and Transmission Facilities” adopted by the Federal Power Commission in Order No. 414 (Nov. 27, 1970), and now applied by the Federal Energy Regulatory Commission.

1 smaller habitat patches and to increase the amount of edge habitat.³ In addition, due to
2 the increased separation, it is likely that fewer of the existing access roads could also be
3 used for accessing the transmission line right-of-way, thereby increasing the amount of
4 new access roads required and the impacts associated with them.

5 **Q: In your experience, is it common for pipelines to parallel transmission lines?**

6 A. Yes. Pipelines and transmission lines commonly run parallel and adjacent to one another.
7 Not only do we frequently see this situation in the field as part of normal field
8 reconnaissance while siting transmission lines, but Louis Berger has recently been
9 involved in projects that are now approved, permitted, and under construction with
10 pipeline rights-of-way immediately adjacent to the transmission right-of-way. These
11 include AEP's Jackson Ferry – Wythe 138 kV line (Va. State Corp. Comm'n Case No.
12 PUE-2012-00132) and PSEG's Susquehanna Roseland 500 kV line (N.J. Bd. of Public
13 Util. Docket No. EM09010035). Additionally, in working with other clients regarding
14 this issue, several have commented about existing and new pipelines being proposed
15 adjacent to their existing transmission rights-of-way.

16 **Q: In response to Mr. Allen's rebuttal regarding cathodic protection at pages 5 and 8,**
17 **in your experience is it common for cathodic protection studies to be requested**
18 **when pipelines and transmission lines have parallel alignments?**

19 A. Yes. These studies are commonly required, and specific construction constraints and
20 protocols are commonly negotiated prior to the initiation of construction but after the

³ Edge habitat is the type of habitat that occurs on the border between two different habitats, such as the border between forest and grassland. Edge habitats often serve as corridors for the introduction and expansion of invasive and exotic species, and through a range of effects degrade forest interior habitats required for many native and often declining species.

1 receipt of key permits and regulatory approvals when the route and other project
2 specifications can be known with greater certainty.

3 **Q. Charles Kruse, testifying on behalf of Eastern Missouri Landowners Association,**
4 **d/b/a Show Me Concerned Landowners, concludes in his rebuttal testimony at pages**
5 **9-14 that Grain Belt Express will negatively impact farming operations by creating**
6 **obstacles to farming equipment, including vehicles and center-pivot irrigation**
7 **systems. Specifically, Mr. Kruse states at page 14 that “Farmers will have to take**
8 **more time and use more fuel to maneuver around these obstacles,” and that “the**
9 **fact that Grain Belt structures would traverse fields at an angle would make**
10 **precision farming extremely difficult.” How did the Grain Belt Express routing**
11 **process seek to minimize impacts to farming operations?**

12 A. The Grain Belt Express route development and selection process sought to minimize
13 impacts on agricultural uses by avoiding agricultural infrastructure, such as barns, pivots,
14 and their accessory facilities, and by developing alignments along parcel and section
15 boundaries where structures would be less disruptive to farming operations. In those
16 instances where the line does cross agricultural fields, when paralleling existing linear
17 utilities or as a result of alignments designed to avoid specific constraints, Grain Belt
18 Express will work with individual landowners to consider structure placement strategies
19 that reduce the overall impact of the line on farming operations.

20 **Q. Mr. Kruse addresses potential impediments to center pivot irrigation, stating at**
21 **pages 8-9 of his rebuttal testimony: “The structures that are being proposed by**
22 **Grain Belt would make it an impossibility to irrigate the fields impacted by Grain**
23 **Belt structures.” Is this the case?**

1 A. No. Only three known center-pivot irrigation systems would be crossed by the Grain
2 Belt Express Project. In each case, the Proposed Route is on the edge of the pivot and the
3 pivot would be spanned with no impact to its operation. That said, on parcels where
4 impact to irrigation systems is later identified as unavoidable, Grain Belt Express will
5 work with the landowner to modify or replace the irrigation system, and will provide
6 compensation for any crop damages that may occur, as discussed in Section IV of the
7 surrebuttal testimony of Company witness Mark Lawlor.

8 **Q. The rebuttal testimonies of Floyd McElwain, Roseanne Meyer, and Charles Kruse**
9 **state that transmission lines pose an impediment for aerial spraying. Ms. Meyer**
10 **summarizes their concerns associated with aerial application near transmission lines**
11 **at page 5 of her rebuttal: “[The aerial applicator] would have to fly parallel to the**
12 **line and would not be able to fly under it because of the swag in the line. The**
13 **inability to have total or uniform aerial spraying will cause a decrease in row crop**
14 **production.” How did the Grain Belt Express routing process seek to minimize**
15 **impacts to aerial spraying operations?**

16 A. The route selection process sought to minimize impacts to aerial spraying operations by
17 routing along existing transmission lines, parcel boundaries or section lines wherever
18 possible, while balancing other routing criteria. Proximity to airfields was also a routing
19 constraint avoided in the routing process.

20 **Q. On page 6 of Roseanne Meyer’s rebuttal testimony she states that the proposed**
21 **route involved her property in an effort to bypass a private airport. Are you aware**
22 **of this airfield?**

23 A. Yes. As part of our routing and reconnaissance work we identified this airfield known as

1 the Shiloh Airpark, which is noted in Table 5.23 on page 5-62 of the Missouri Route
2 Selection Study attached as Schedule TGB-2 to my direct testimony. Given the presence
3 of the airfield as an existing land use, we attempted to minimize impacts to it in
4 compliance with our routing criteria. We are not aware that the airfield has been
5 abandoned. During the course of our review, it appeared to be maintained and
6 operational. As further described in Sections IV and V of the surrebuttal testimony of
7 Mr. Lawlor, Grain Belt Express will discuss minor adjustments to the route (or micro-
8 siting changes) with landowners prior to the commencement of construction as part of the
9 effort to minimize impacts to existing land use.

10 **Q. Would you normally attempt to avoid an airfield during the routing process, even if**
11 **it was a private recreational airfield?**

12 A. If possible and practical, yes. Although Federal Aviation Administration (FAA)
13 protections do not extend to private airfields, aligning the Grain Belt Express Project
14 immediately adjacent and perpendicular to an existing airfield may significantly impact
15 the use of that airfield and pose a potential safety risk to the landowner and the line itself.

16 **Q: Does this conclude your testimony?**

17 A. Yes.