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MISSOURI PUBLIC SERVICE COMMISSION

FILE NO.

EA-2023-0017

DIRECT TESTIMONY

OF

ROLANDA SHINE

ON

BEHALF OF

GRAIN BELT EXPRESS LLC

August 24, 2022

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I. INTRODUCTION

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

A. A. My name is Rolanda Shine. I am the Vice President of Finance and Capital Markets for Invenergy LLC (“Invenergy”). My business address is One South Wacker, Suite 1800, Chicago, Illinois 60606.

Q. Please describe your education and professional background.

A. I have worked at Invenergy since 2014. In my role at Invenergy, I oversee analyses of project economics for utility scale renewable, transmission and thermal projects. I provide guidance to the origination team on strategic opportunities and bid tenders. I also negotiate commercial and financing agreements, joint venture agreements, power purchase agreements, sales and purchase agreements and members interest purchase agreements. I have assisted with over \$1 billion in construction, tax equity and preferred equity financing by utilizing a range of structures to maximize project value and recycle capital.

For example, I closed a \$650 million debt financing deal for the first liquified natural gas (“LNG”)-to-power project in El Salvador. For the project, I mandated a four-bank club of multilateral and expert credit lenders. I also managed construction funds through COVID impacts and identified and addressed working capital challenges arising from LNG market volatility and delays in revenue.

Prior to working at Invenergy, I was the Director of Project Finance and Corporate Development from 2011 to 2014 and a Senior Manager of Project Finance and Corporate Development from 2008 to 2011, both roles at Sun Edison, LLC. While at Sun Edison, LLC, among other things, I closed over 150 solar projects with leading tax equity and debt players across the Unites States and Spain. I also raised three funds of distributed generation assets and

1 streamlined financing process by standardizing documentation and credit analysis. I maximized
2 project value by driving favorable terms on investor yield and lease terms.

3 Prior to Sun Edison, LLC, I worked as an Assistant Vice President of the Structured
4 Finance Group – Emerging Markets for Sumitomo Mitsui Banking Corporation (“Sumitomo”)
5 from 2007 to 2008. In that role, among other things, I provided structured financing solutions to
6 United States and Canadian clients operating in the international markets related to hydropower,
7 oil and gas, offshore drilling, LNG and mining. I also conducted underwriting analyses on sponsor
8 credit, technology, offtake quality and market uncertainty.

9 Prior to Sumitomo, I worked as an associate at Delphos International, where, among other
10 things, I advised on multilateral financing strategies for sponsors in natural resource sectors. I also
11 served in the Financial Sector Vice Presidency for the World Bank.

12 I received a Master of Arts in International Relations degree from the Johns Hopkins
13 University, School of Advanced International Studies, with a concentration in international
14 economics and Latin American studies. I received a Bachelor of Music degree from Rice
15 University.

16 My curriculum vitae is attached as Schedule RS-1.

17 **Q. What is the purpose of your direct testimony?**

18 A. I am testifying on behalf of Grain Belt Express LLC (“Grain Belt Express”), which
19 is requesting that the Missouri Public Service Commission (“Commission”) amend its existing
20 certificate of public convenience and necessity (“CCN”) to construct, install, own, operate,
21 maintain, and otherwise control and manage an approximately 800-mile, overhead, multi-terminal
22 +/-600 kilovolt (“kV”) high-voltage, direct current (“HVDC”) transmission line (and associated

1 facilities including converter stations and alternating current (“AC”) connector lines (the
2 “Project”).

3 As described in more detail in Shashank Sane’s testimony, the Project is being developed
4 in two phases. Phase I is that portion of the Project from the interconnect in Kansas to the
5 interconnect with the Midcontinent Independent System Operator, Inc., (“MISO”) and Associated
6 Electrical Cooperative, Inc., (“AECI) in Missouri (subject to regulatory approvals). Phase II is
7 that portion of the Project from the interconnect in Missouri to the interconnect at the Sullivan
8 Substation in Indiana.

9 For clarification, Phase I and Phase II of the Project will be financed separately. Grain Belt
10 Express witness Kevin Chandler discusses limited modifications to the financing condition
11 attached to the current CCN which are necessary for financing Phase I and Phase II separately.
12 Specifically, I will describe Grain Belt Express’ capability to finance the proposed construction of
13 Phase I and Phase II of the Project without significant adverse financial consequences for Grain
14 Belt Express or its customers. The model, resources, and experience on which Invenenergy
15 Transmission and Grain Belt Express will rely to finance both Phase I and Phase II are the same.

16 **Q. Are you sponsoring any schedules or exhibits as part of your direct testimony?**

17 A. Yes, I am sponsoring the following exhibits/schedules:

- 18 • Schedule RS-1 – Curriculum Vitae
19 • Schedule RS-2 – Table of generation and transmission projects developed and/or
20 constructed by Invenenergy Transmission and its affiliates.

21 **II. GRAIN BELT EXPRESS’ PLAN FOR PROJECT FINANCING**

22 **Q. Is Grain Belt Express capable of financing the Project?**

23 A. Yes. Grain Belt Express has access to the necessary financial resources to carry
24 out the necessary development work for the Project prior to engaging in project-specific financings

1 for the construction of each Phase of the Project. Invenergy Renewables has sufficient capital
2 resources to provide the funding necessary to enable Invenergy Transmission and its subsidiaries
3 to undertake the initial development and permitting work for each Phase of the Project. Once each
4 Phase of the Project reaches an advanced stage of development and licensing, Grain Belt Express
5 can enter into project-specific financing arrangements with investors and lenders to secure the
6 capital needed to complete development and construction of each Phase of the Project and place it
7 into operation.

8 **Q. Does Grain Belt Express have experience financing large infrastructure**
9 **projects?**

10 A. Yes. Invenergy Transmission has developed and financed over 4,000 miles of
11 transmission and collection lines, 88 substations, 96 generator step-up transformers and over 5,000
12 pad mount transformers over the past 20 years. This is in addition to over 191 large-scale clean
13 power projects in the United States and globally, totaling 30 gigawatts and representing \$47 billion
14 in completed transactions. Through these relationships, Invenergy Transmission will have access
15 to significant amounts of expertise and capital. Invenergy Transmission's financing relationships
16 include such institutions as Wells Fargo, MUFG, GE Capital, JP Morgan, Santander, Morgan
17 Stanley, Natixis, Bank of America and Rabobank.

18 For example, in 2021, Invenergy Transmission expanded into Latin America and closed
19 financing for the Cardal transmission project, which consists of 55 kilometers of new 500 kV high-
20 voltage transmission line, 20 kilometers of new 150 kV transmission line, a new 500 kV substation,
21 and accompanying infrastructure. The project was financed through multilateral and private
22 placement sources of funding.

23 **Q. How much is the Project expected to cost?**

1 A. A: The projected cost to construct the entire Project and place it into operation
2 is approximately \$4.95 billion. This figure encompasses the entire Project cost, including the
3 Kansas, Missouri, Illinois and Indiana segments, but not including any estimated network upgrade
4 costs for RTO interconnections. The projected cost to construct Phase I of the Project and place it
5 in operation is approximately \$3.52 billion, not including the upgrade costs for RTO
6 interconnections. The projected cost to construct Phase II of the Project and place it in operation
7 is approximately \$1.43 billion, not including the upgrade costs for RTO interconnections.¹
8 Network upgrade costs are excluded from the numbers discussed above because the majority of
9 the upgrades will be paid for separately from the other costs of the Project. Typically upgrade
10 costs are paid upfront and included in the project costs, but for this Project, Grain Belt Express
11 will enter into facilities services agreements to pay for the upgrades over time. The transmission
12 owner will pay for the upgrades upfront, and Grain Belt Express will repay the transmission owner
13 over a twenty-year period. These payments will be covered by the Project's revenue, so will not
14 be included in the upfront cost of the Project.

15 **Q. Does Grain Belt Express have a viable plan for raising capital?**

16 A. Yes, Grain Belt Express has a viable plan for raising the capital necessary to finance
17 the cost of constructing each Phase of the Project on a project finance basis. Specifically, after
18 advancing development and permitting activities to a stage at which developers of wind and solar
19 generation facilities and other potential customers of the transmission line are willing to enter into
20 commercial agreements for an undivided interest (purchase or lease) or long-term contracts for
21 transmission capacity on the Project, Grain Belt Express will enter into such contracts with

¹ A portion of the Kansas converter station may be built out with Phase II in which case the proportional amount would change.

1 interested subscribers that satisfy necessary creditworthiness and other requirements. Grain Belt
2 Express will then raise debt capital using the aforementioned contracts as security for the debt.
3 Grain Belt Express may also raise additional equity capital.

4 Recent experience shows that significant amounts of liquidity exist in the capital markets
5 for transmission projects that have reached an advanced stage of development. The capital markets
6 have a substantial history of supporting transmission projects including merchant projects and
7 other infrastructure projects through both debt financings (on a project finance basis) and equity
8 investments. Numerous institutional lenders and investors have provided capital to transmission
9 projects and other infrastructure projects and demonstrate continued interest in this sector.
10 Invenergy Transmission has developed relationships with many of the major lenders and investors
11 that have been involved in financing transmission projects, which will directly benefit Grain Belt
12 Express. The table attached as Schedule RS-2 includes a list of transmission line projects financed
13 and constructed or under construction by Invenergy Transmission or its affiliates.

14 **Q. At what point will the company obtain financing for the construction of the**
15 **Project?**

16 A. Our current plan is to obtain construction financing once we have obtained the major
17 regulatory approvals necessary to proceed with each Phase of the Project and we have contracted
18 offtake for a majority of the capacity on each Phase of the Project.

19 Grain Belt Express has already obtained certificates to operate as a public utility in Kansas
20 and to construct the 370-mile Kansas portion of the HVDC Line from the Kansas Corporation
21 Commission. Grain Belt Express also received a certificate to operate as a public utility from the

1 Indiana Utility Regulatory Commission and negotiated rate authority from FERC.² On July 26,
2 2022, Grain Belt Express filed for a certificate to operate as public utility in Illinois and an Order is
3 expected from the Illinois Commerce Commission in March 2023.

4 In addition to obtaining state regulatory approvals, Grain Belt Express will need to enter
5 into contracts for a portion of the transmission capacity on the Project prior to obtaining full
6 financial commitments for the Project. The exact percentage of capacity that needs to be under
7 contract prior to obtaining full financing commitments will depend on the price, counterparty
8 creditworthiness and term in years of the signed transmission contracts.

9 **Q. Please describe the nature of these transmission capacity contracts and why**
10 **they are necessary to support the Project's financing.**

11 Grain Belt Express and any potential co-owners will offer long-term transmission capacity
12 contracts to its customers. Grain Belt Express will offer firm and non-firm point-to-point
13 transmission service over its available transmission capacity on the line to deliver low-cost
14 renewable resources from western Kansas to potential off-takers in Missouri, Illinois and Indiana
15 utilizing a “shipper pays” or participant-funded model.

16 Grain Belt Express anticipates it will enter into long-term transmission service or capacity
17 contracts with its off-takers that require the transmission customer to pay a reservation charge that
18 will be paid regardless of how often the reservation is called upon. A reservation charge will
19 require the transmission customer to pay for its reserved capacity regardless of what percentage of
20 the time the customer uses the reserved capacity. This pricing arrangement is typical for

²Grain Belt will be seeking amendments to existing regulatory approvals in Kansas and Indiana in 2022 and 2023 in order to incorporate any material changes in the design and engineering of the project that have occurred in recent years as development has advanced in those states.

1 transmission lines operated by the transmission owner members of SPP, MISO and PJM. It is also
2 similar to the contractual arrangements for natural gas and other pipelines.

3 Grain Belt Express' transmission contracts will also include credit requirements for its
4 transmission customers. The credit requirements will require each transmission customer to have
5 investment grade credit ratings or post additional security in the form of cash, a letter of credit or
6 a parent guarantee from an entity with investment grade credit ratings. These credit requirements
7 will provide revenue certainty, which will allow lenders to be comfortable that Grain Belt Express
8 can repay its debt.

9 As stated above, Grain Belt Express then intends to raise debt secured by the revenue
10 stream from the transmission capacity contracts to raise the capital necessary to complete the
11 remaining development activities, construct the Project and place it into operation. Grain Belt
12 Express anticipates utilizing a combination of commercial and governmental sources of financing,
13 and at this time is still evaluating all potential options for financing. Options for governmental
14 sources of financing include the Western Area Power Administration ("WAPA") Transmission
15 Infrastructure Program ("TIP"); and the Bipartisan Infrastructure Bill Transmission Facilitation
16 Program; Department of Energy loans to non-federal borrowers for transmission facilities pursuant
17 to the Inflation Reduction Act and potentially other government funding options. Additional equity
18 capital may also be raised to help finance construction of the Project, or Grain Belt Express'
19 existing investors may make additional equity investments in the Project.

20 **Q. How will lenders size the debt they lend to Grain Belt Express?**

21 A. Lenders typically look at project finance borrowing capability based on debt
22 service coverage ratios, where the numerator is contracted cash flow available to service debt, and
23 the denominator is principal and interest owed. In my experience, typical coverage ratios for

1 project finance are 1.25 to 1.50 times. These coverage ratios allow projects like the Project to raise
2 substantial amounts of debt financing to fund construction costs, while maintaining a margin of
3 safety on debt repayment in the event of unforeseen operational or commercial problems.

4 **Q. If Grain Belt Express is able to obtain the regulatory approvals and the**
5 **transmission contracts as you describe, do you foresee any difficulty in obtaining the**
6 **necessary financing to build the Project?**

7 A. No. Invenenergy Transmission and its affiliates have significant experience as
8 described above in obtaining financing for large infrastructure projects like the Project and have
9 the resources and network to finance this Project.

10 **Q. Is it typical for energy projects using project finance to obtain full financing**
11 **prior to obtaining the necessary permits and other regulatory approvals?**

12 A. No. In my experience project lenders require the necessary permits and
13 approvals as a condition to funding a project loan. Project-based equity investors typically
14 have the same requirement. While I am aware of certain transactions in which debt and equity
15 investors have made commitments conditioned on obtaining remaining permits and approvals,
16 this model is not preferable for projects such as the Project. First, banks and other lending
17 institutions will not make conditional commitments until they have a high degree of certainty
18 that the Project will actually be approved by the applicable regulatory agencies. Second, the time
19 horizon of the Project is such that construction will not begin for at least three years after obtaining
20 necessary state approvals. Conditional commitments to project finance are made where there is a
21 much shorter period of time anticipated between the commitment being made and the anticipated
22 date of the event that will trigger the release of the funds. Third, lenders typically charge a
23 commitment fee on future loan commitments, which can be quite costly to the Project. In summary,

1 debt providers would not make such a long-term commitment to finance the Project before key
2 regulatory approvals are in place.

3 **Q. What conditions may project lenders require before they advance the money**
4 **to build the Project?**

5 A. In my experience, lenders only will advance money once certain conditions have
6 been met. Those conditions may include (a) having all necessary permits, (b) having procured any
7 remaining financial commitments beyond lenders' funding to complete construction, and (c) having
8 a high degree of certainty on budget and timeline. While this due diligence creates an additional
9 administrative burden for the transmission developer, it ensures that projects proceed prudently.
10 Construction lenders will not release funds to begin construction unless Grain Belt Express
11 demonstrates that it has commitments for sufficient financing to construct the entire Phase of the
12 Project. Lenders will not take the risk that additional necessary financing cannot be obtained,
13 resulting in an incomplete project with limited collateral value. Therefore, in the CCN Order, the
14 Commission placed a condition on Grain Belt Express' CCN that Grain Belt Express will not install
15 transmission structures associated with each respective Phase of the Project on easement property
16 in Missouri until it has obtained adequate funding to complete each respective Phase of the
17 Project.³ In light of Grain Belt Express' request that it be permitted to construct the Project in
18 phases, Grain Belt Express is requesting an amendment to this condition, as discussed in greater
19 detail in Kevin Chandler's testimony.

20 **III. THE COMMISSION'S PREVIOUS FINDINGS**

³ Section I of the *Conditions Agreed to by Grain Belt Express Clean Line LLC and the Staff of the Missouri Public Service Commission*, marked as Exhibit 206 and included as Attachment 1 to the CCN Order ("Exhibit 206").

1 **Q. Are you familiar with the Commission’s Order granting the CCN in this**
2 **proceeding?**

3 A. Yes, In the Commission’s March 20, 2019 Report & Order on Remand,⁴ the
4 Commission found that “Grain Belt and Invenergy together have ... the financial ability to
5 develop, construct, and operate the Project,” concluding that “Invenergy’s financial condition is
6 very strong.”⁵ And in the Commission’s September 11, 2019 Report and Order,⁶ the Commission
7 restated that Invenergy possessed requisite financial abilities.⁷

8 **Q. Should the Commission come to the same conclusion as it did previously?**

9 A. Yes, it should. Nothing occurring in the intervening years, nor the requested
10 changes to the CCN justify a different conclusion to the one reached in 2019—Grain Belt Express
11 and Invenergy have the financial ability to develop construct and operate this Project.

12 **IV. GRAIN BELT EXPRESS MEETS THE *TARTAN* FACTORS FOR ISSUING A**
13 **CCN**

14 **Q. Are you familiar with the Commission’s factors for granting a CCN, referred**
15 **to as the “*Tartan* Factors”?**

16 A. While I am not an attorney, yes, it is my understanding that, in its review of CCN
17 applications, the Commission has traditionally applied several criteria, which it refers to as the

⁴ Dkt. No. EA-2016-0358.

⁵ *Id.* at p. 43. In the Commission’s Findings of Fact, it referenced, among other things, that: Invenergy has raised more than \$30 billion of financing in connection with the successful development of more than 20,046 MW in projects in the United States, Canada, Europe, Central America, and Japan (*id.* at ¶ 60, p. 21); and that Invenergy and its affiliates have in excess of \$9 billion in total assets and \$3 billion in total equity on a consolidated basis (as of December 31, 2017) (*id.* at ¶ 59, p. 21).

⁶ Dkt. No. EM-2019-0150.

⁷ *Id.* at ¶ 7. The Commission again referenced the findings listed above in fn. 5. *Compare id.* at ¶¶ 11-17 with Report & Order on Remand, EA-2016-0358 (March 20, 2019) at ¶¶ 56-63, pp. 20-22.

1 “*Tartan* Factors.” Other Grain Belt Express witnesses address several of the *Tartan* Factors in
2 their testimonies. In this testimony, I provide support for the third *Tartan* factor, which requires
3 that an applicant for a CCN must have the financial ability to provide the service.

4 **Q. In your view, does Grain Belt Express have the financial ability to build and**
5 **operate the Project, consistent with the Commission’s *Tartan* Factors?**

6 A. Yes, as the Commission previously found in 2019,⁸ Grain Belt Express has the
7 financial ability to develop, construct, and operate the Project. As explained above, Grain Belt
8 Express and its associated partners have a proven record of financing transmission projects like
9 this and are well prepared to finance the Project as amended.

10 **V. CONCLUSION**

11 **Q. Does this conclude your testimony?**

12 A. Yes, it does.

13

⁸ “Report & Order on Remand,” Dkt. No. EA-2016-0358 (March 20, 2019).

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of the Application of Grain Belt)	
Express LLC for an Amendment to its Certificate)	
of Convenience and Necessity Authorizing it to)	
Construct, Own, Operate, Control, Manage, and)	File No. EA-2023-0017
Maintain a High Voltage, Direct Current)	
Transmission Line and Associated Converter)	
Station)	

AFFIDAVIT OF ROLANDA SHINE

1. My name is Rolanda Shine. I am the Vice President of Finance and Capital Markets for Invenergy LLC (“Invenergy”). My business address is One South Wacker, Suite 1800, Chicago, Illinois 60606.

2. I have read the above and foregoing Direct Testimony and the statements contained therein are true and correct to the best of my information, knowledge, and belief.

3. Under penalty of perjury, I declare that the foregoing is true and correct to the best of my knowledge and belief.

DocuSigned by:

 0A71646FB7164AD

Rolanda Shine
Vice President of Finance and Capital Markets

Date: 8/24/2022