STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

COMMONWEALTH EDISON COMPANY	:	
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Application for a Certificate of Public Convenience and	:	
Necessity, pursuant to Section 8-406.1 of the Illinois	:	No. 13-0657
Public Utilities Act, and an Order pursuant to Section	:	
8-503 of Illinois Public Utilities Act, to Construct,	:	
Operate and Maintain a new 345 kilovolt transmission	:	
line in Ogle, DeKalb, Kane and DuPage Counties, Illinois	:	

INITIAL POST-HEARING BRIEF OF COMMONWEALTH EDISON COMPANY

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INITIAL POST-HEARING BRIEF OF COMMONWEALTH EDISON COMPANY

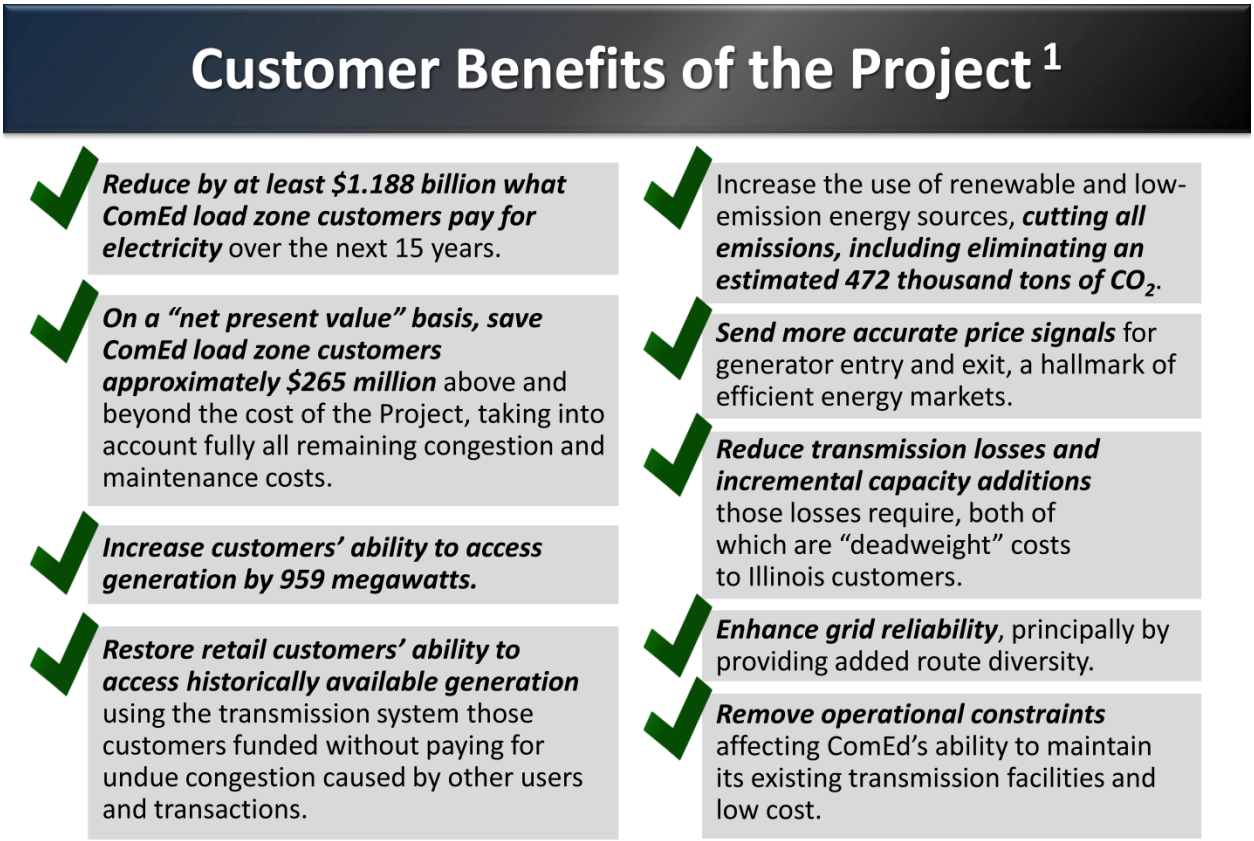
Commonwealth Edison Company ("ComEd") submits its Initial Post-Hearing Brief under the Rules of Practice of the Illinois Commerce Commission (the "Commission" or "ICC") and the schedule set by the Administrative Law Judges ("ALJs"). As shown herein, the Commission should grant ComEd a Certificate of Public Convenience and Necessity ("CPCN") for the Grand Prairie Gateway ("GPG") Project (the "Project") under Section 8-406.1 of the Illinois Public Utilities Act (the "PUA"), 220 ILCS 5/8-406.1 ("Section 8-406.1") and enter an Order under Section 8-503 of the PUA, 220 ILCS 5/8-503, authorizing and directing its construction.

I. INTRODUCTION

A. Customer Benefits are Material

ComEd has demonstrated that the GPG Project will serve the public convenience and necessity and deliver significant and tangible benefits to Illinois customers. By increasing transmission capacity, expanding access to low-cost generation, improving price signals, reducing congestion, and permitting efficient hedging of the remaining congestion, the Project promotes the development of an effectively competitive electricity market that operates efficiently. The Project is also the least-cost alternative, with customers ***saving hundreds of millions of dollars***

more than the Project's cost. The Project's benefits to customers are significant, established by undisputed evidence, and summarized below.



B. The Project Solves the Existing Infeasibility of Financial Hedges For Customers (Stage 1A ARRs)

PJM Interconnection, L.L.C. ("PJM"), through its open stakeholder-intensive process also confirmed the importance of the Project both to congestion management and, ultimately,

[1] References to the record, for each enumerated benefit, are: (1) Zuraski Reb., Staff Ex. 4.0, 30:653-54 ($1.188.1 billion in load zone LMP savings); Oppel Dir., ComEd Ex. 4.0, 2:26-28, 5:88-89 ($1.228 billion in load zone savings). Both calculations are in constant 2012 dollars. (2) *E.g.*, Naumann Reb., ComEd Ex. 9.0 CORR, 31:657 (net load savings of $537.4 million less $270.0 million costs equals $267.4 million net present value at a 3.53% societal discount rate). (3) Naumann Sur., ComEd Ex. 21.0 CORR, 14:249-52; Solomon Sur., ComEd Ex. 23.0 CORR: 9:184-85. (4) Zuraski Reb., Staff Ex. 4.0, 24:540-42. (5) Oppel Dir., ComEd Ex. 4.0, 6:101-04. (6) *See* Shanker Reb. ComEd Ex. 12.0, 16:318-24; Naumann Sur., ComEd Ex. 21.0 CORR, 9:164, 11:195-01; Naumann Reb., ComEd Ex. 9.0 CORR, 13:272-74 (observing that an efficient market, among other things, presents accurate price signals and encourages efficient entry and exit). (7) Oppel Reb., ComEd Ex. 13.0, 4:75 – 6:105; Naumann Reb., ComEd Ex. 9.0 CORR, 33:679-90; Naumann Sur., ComEd Ex. 21.0, 9:164; Zuraski Reb., Staff Ex. 4.0, 21:466-74. (8) Leeming, ComEd Ex. 2.0, 11:226 – 14:297. (9) Naumann Dir., ComEd Ex. 1.0, 7:136-39; Leeming Dir., ComEd Ex. 2.0, 11:229-32.

delivering electricity to customers at efficient market prices. In particular, the Project is essential if native load customers in the ComEd zone – including customers supplied by ComEd and Retail Electric Suppliers ("RESs") – are to retain the protection the PJM market gives them against congestion costs imposed by other transmission flows. This protective mechanism, called Stage 1A Auction Revenue Rights ("ARRs"), is being impaired even now, causing customers to pay more for power due to transmission limitations that the Project is the only practical means of addressing.[2]

C. The Need for the Project is Unquestioned

The benefits of the Project are uncontradicted. No party disputed the nature and extent of the congestion, the resulting harm to customers, or that the Project uniquely resolves those issues. Staff sought and reviewed an unprecedented body of data supporting the Project and its benefits to the competitive market, among other things. After reviewing all that evidence, Staff concluded that the "Project is likely to be cost-beneficial to Illinois consumers by a wide margin"[3] and that the "relationship between the Project and 'an ***effectively*** competitive electricity market that operates efficiently' should be sufficient for the Commission" to approve the Project.[4] Finally, there are no offsetting harms from the Project. Indeed, Staff could identify no way "in which the competitive electricity market will be harmed if the Project is constructed and energized as proposed by ComEd."[5]

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[2] McGlynn Dir., ComEd Ex. 3.0, 24:450-51.

[3] Zuraski Reb., Staff Ex. 4.0, 3:36-37.

[4] ComEd Group CX Ex. 4.0, Data Request Response ("DRR") ComEd → Staff DR 6.01.

[5] *Id.*, DRR ComEd → Staff DR 6.03.

D. The Primary Route Emerged after 20,000 Hours of Analysis and Public Engagement

The Project is properly routed as well. Its route was selected through a detailed, 20,000 person-hour analysis that applied Commission-accepted and industry best-practice methodologies to environmental, land use, and other route data gained through both empirical research and listening to public input. Staff reviewed the route and concurs that ComEd's proposals are "satisfactory" and "have no features that should preclude their use."[6] To be sure, some protests remain by individual landowners, but they are largely personal efforts to shift the route to other customers and/or expressions of misinformed fears about the safety of the line or the value and usability of land near it. The evidence shows that the Project is well engineered, safe, and poses a threat to no human or animal. Like the tens of thousands of miles of transmission lines in PJM, it will be safely built and operated alongside neighboring land uses. Some will always wish that public works projects, including transmission lines, go somewhere else or are expensively hidden from view. But efforts like this Project provide significant benefits to the public and the General Assembly has authorized them to proceed where, as here, the statutory requirements are met. The Commission, therefore, should approve the GPG Project.

II. THE GPG PROJECT SHOULD BE APPROVED UNDER SECTIONS 8-406.1 AND 9-503 OF THE PUA

The GPG Project will promote the public convenience and necessity, consistent with the requirements of Sections 8-406.1 and 8-503 of the PUA. The Illinois Supreme Court long ago held that the "public convenience and necessity" is not to be viewed "in its lexicographical sense of 'indispensably requisite[,]'" but rather contemplates significant public benefit. Projects that

[6] Rashid Dir., Staff Ex. 2.0, 11:241-42.

are "highly important to the public convenience and desirable for the public welfare may be regarded as necessary. If it is of sufficient importance to warrant the expense of making it, it is a public necessity." *Wabash, Chester & Western R.R. Co. v. Ill. Commerce Comm'n*, 309 Ill. 412, 418 (1923); *accord Eagle Bus Lines v. Ill. Commerce Comm'n*, 3 Ill. 2d 66, 78 (1954). The Commission is thereby empowered to recognize, in its discretion, a broad range of public benefits. *E.g.*, *New Landing Util. v. Ill. Commerce Comm'n*, 58 Ill. App. 3d 868, 871 (2d Dist. 1977).

Section 8-406.1 also establishes specific criteria for issuance of a CPCN. In particular, two alternative means are provided by which a proposed transmission expansion can be shown to be necessary. ComEd seeks approval of the Project under the "market development" prong of Section 8-406.1. Ver. Petition, ¶ 17. Under this, the Commission may issue a CPCN if the evidence shows that a project "will promote the public convenience and necessity" and:

> (1) That … the Project will promote the development of an effectively competitive electricity market that operates efficiently, is equitable to all customers, and is the least-cost means of satisfying those objectives.
>
> (2) That the public utility is capable of efficiently managing and supervising the construction process and has taken sufficient action to ensure adequate and efficient construction and supervision of the construction.
>
> (3) That the public utility is capable of financing the proposed construction without significant adverse financial consequences for the utility or its customers.

220 ILCS 5/8-406.1(f). The Project amply meets all those requirements, as shown in Sections II.A – II.C, below. ComEd has also satisfied the pre-filing requirements applicable under Section 8-406.1, as shown in ComEd's Verified Petition (¶¶ 22-34) and Section II.D, below.

Finally, ComEd also requests that the Commission authorize and direct construction of the Project under Section 8-503 of the PUA (Ver. Petition, p.1 & ¶¶ 35, 36). Under Section 8-

406.1, if a CPCN is granted, the applicant is entitled to such an order as a matter of law. No additional showing is required to obtain this relief. The law provides instead that:

> [A] decision granting a certificate under this Section shall include an order pursuant to Section 8-503 of this Act authorizing or directing the construction of the high voltage electric service line and related facilities as approved by the Commission, in the manner and within the time specified in said order.

220 ILCS 5/8-406.1(i).

A. The Project Meets the Legal Requirements for a CPCN

1. The Project Promotes the Public Convenience and Necessity and the Development of an Effective and Efficient Competitive Market

ComEd's transmission system is the backbone linking customers in the ComEd zone – no matter who supplies their electricity – and competitive electric supply markets. Leeming Dir., ComEd Ex. 2.0, 4:75 – 5:90. Those electric markets are regional and, recognizing that fact, Illinois law requires ComEd to be part of a regional transmission system managed by an independent transmission organization. 220 ILCS 16-126; *Ill. Commerce Comm'n v. Cent. Ill. Light Co.*, ICC Docket No. 98-0818 (Order, May 10, 1999).

PJM, a Regional Transmission Organization ("RTO"), operates the regional electricity markets that include the ComEd load zone and is the Planning Coordinator for the ComEd system. Leeming Dir., ComEd Ex. 2.0, 5:91-98. Because customers participate in the integrated PJM regional markets, they gain access to generators throughout the PJM footprint and, through inter-RTO connections, beyond. PJM itself is an independent organization, managed by an independent board ("Board"), and PJM's members include customers, municipal and private utilities, sellers of electric power at wholesale and retail, generators, and others. McGlynn Dir., ComEd Ex. 3.0, 4:76-78. PJM is governed by and operates under tariffs, including PJM's Operating Agreement, filed with the Federal Energy Regulatory Commission ("FERC") and approved under federal law. *Id.* at 4:80-82. Those tariffs themselves also have the force and

effect of federal law. *See, e.g., Bryan v. Bellsouth Commc'ns, Inc.*, 377 F.3d 424, 429 (4th Cir. 2004) ("[A] filed tariff carries the force of federal law."); *MCI Telecommunications. Corp. v. Garden State Inv. Corp.*, 981 F.2d 385, 387 (8th Cir. 1992) ("[F]ederal tariffs are the law, not mere contracts."); *Carter v. Am. Tel. & Tel. Co.*, 365 F.2d 486, 496 (5th Cir. 1966) (federal tariff "is the law").

Regional competitive electric markets are critical to delivering energy to customers at the lowest cost and with the greatest efficiency. Elliott Reb., ComEd Ex. 11.0, 1:19 – 2:23. Illinois legislators, and the Commission, recognized this early on, and expressly required that Illinois utilities join independent system operators that "coordinate, plan, and order the installation of new transmission facilities." 220 ILCS 5/16-126(a)(4). As former Commissioner Elliott testified, "[t]he benefits of competition that Illinois has enjoyed over the last decade have been made possible to a large degree because Illinois transmission policy has evolved in conjunction with regional transmission organizations and because Illinois has recognized that our market is part and parcel of larger regional markets that must all work together." Elliot Reb., ComEd Ex. 11.0, 1:19 – 2:23; *accord id*. at 4:61 – 7:128. Those benefits are hard to overstate; data cited by Mr. Elliott estimate the total benefit to Illinois electricity consumers since the advent of retail competitive markets at $37 billion dollars. *Id.* at 6:123 – 7:128.

The established mechanisms to deal with congestion, *i.e.*, bottlenecks on the transmission system that impede the efficient flow of power from least-cost generation to the customer, are critical to our competitive regional markets. *See* McGlynn, ComEd Ex. 3.013:259-60. To address congestion, PJM first relies on structures – including locational marginal pricing and financial instruments such as ARRs and Financial Transmission Rights – to permit the market to operate as efficiently as possible and to send the correct price signals for efficient growth and

development over time. *Id.* at 13:257 – 14:272; Naumann Dir., ComEd Ex. 1.0, 12:242-45. In particular, Stage 1A ARRs are the financial mechanism by which native load customers in PJM can continue to use the transmission system that they funded to access traditional generation without bearing the costs of congestion caused by other transactions. *Id.* Put another way, those native load customers are all customers in the ComEd zone that take delivery services from ComEd, regardless of who supplies their actual electricity. At some point, however, the transmission limitations and related congestion reach the point at which the financial hedging mechanisms that protect them simply can no longer function as designed. This can only be addressed by physically expanding the transmission system. *Id.* at 13:269 – 14:290; McGlynn Dir., ComEd Ex. 3.0, 25:467 – 27:508.

To address transmission expansion needs, PJM has a formal Regional Transmission Expansion Planning ("RTEP") process that is strictly governed by PJM's FERC-approved tariffs. This process is open, unbiased, and includes stakeholders at every level. McGlynn Dir., ComEd Ex. 3.0, 10:186 – 11:214; Leeming Dir., ComEd Ex. 2.0, 5:99 – 6:123. The RTEP's purpose is not only to identify transmission expansion projects required to preserve reliability. It also identifies expansions required for the competitive electric market, and the market structures created under the PJM tariffs, to operate efficiently and effectively. In particular, PJM through the RTEP, is required to evaluate transmission congestion and to ensure that the transmission system can support basic customer rights, including the right to Stage 1A ARRs. McGlynn Dir., ComEd Ex. 3.0, 12:232-46; Naumann Dir., ComEd Ex. 1.0, 19:360 – 20:380.

In 2012, the RTEP process identified serious limitations on the connections between the load-rich greater Chicago area and the western portions of ComEd's transmission system that lead to generators in western Illinois and points further west. McGlynn Dir., ComEd Ex. 3.0,

21:415 – 22:422, 23:441 – 24:448. The congestion had, by that time, become sufficiently dire that the Stage 1A ARRs required to protect ComEd delivery customers from the costs of congestion were no longer simultaneously feasible. *Id.* at 21:415-16.

As part of the RTEP process, PJM examined both the growing congestion and the Stage 1A ARR insufficiency and concluded that the problem could not be addressed without transmission expansion. *Id.* at 19:364 – 20:380. Alternatives were also considered for addressing the problem, including proposals made by ComEd and others. *Id.* at 25:467 – 27:508. The alternatives were subject to open discussion/comment from stakeholders in the Transmission Expansion Advisory Committee. In the end, however, the data showed that a new 345kV connection between ComEd's Byron and Wayne substations, as implemented in the GPG Project, was the only option for addressing the growing congestion and restoring Stage 1A ARR sufficiency. *Id.* at 27:496-97. Moreover, PJM's RTEP process determined that "the Grand Prairie Gateway Project was the only proposed solution … that did not create new reliability violations." *Id*. at 27:502-04. PJM's Transmission Expansion Advisory Committee and professional planning Staff concurred that the GPG Project was essential, included the Project in the 2012 RTEP, which was approved by the independent PJM Board. *Id.* at 26:487 – 28:516. The need for the Project was re-affirmed in the 2013 RTEP process. *Id*.

Significantly more evidence still has been presented to the Commission in this case. ComEd has documented the seriousness of the transmission constraint, how that constraint impairs the ARR mechanism, and the essential need for physical transmission expansion to restore the feasibility of the Stage 1A ARRs. *Id.* at 19:370 – 28:522; Naumann Dir., ComEd Ex. 1.0, 10:195 – 22:434; Leeming Dir., ComEd Ex. 2.0, 7:143 – 10:218. ComEd has also shown that the GPG Project addresses this congestion. McGlynn Dir., ComEd Ex.3.0, 27:500-08;

Naumann Dir., ComEd Ex. 1.0, 19:354 – 22:434; Leeming Dir., ComEd Ex. 2.0, 8:168-70. Staff does not dispute the growing congestion in the absence of the Project, the existing infeasibility of the Stage 1A ARRs, or the results thereof. *See* ComEd Group CX Ex. 4.0, DRR ComEd → All 1.07; Naumann Reb., ComEd Ex. 9.0 CORR, 12:253-55. Nor does Staff dispute that the GPG Project will remedy those infeasibilities. Zuraski Dir., Staff Ex. 1.0, 8:185-87, 11:258-64; Naumann Reb., ComEd Ex. 9.0 CORR, 12:245-52. Indeed, there is no contrary evidence in the record.

By relieving congestion, restoring Stage 1A ARR feasibility, and allowing customers greater and more efficient access to low-cost, greener generation, the Project promotes the development of an effectively competitive electricity market. Specifically, the GPG Project will relieve limits on access to generation in the PJM market by nearly 1,000 MW (the size of a large generating unit). Naumann Sur., ComEd Ex. 21.0 CORR, 14:249-52; Solomon Sur., ComEd Ex. 23.0 CORR, 9:184-85. It will be especially effective at relieving congestion to the west of Chicago, which currently constrains efficient access to lower-cost and lower-emission generation. Naumann Dir., ComEd Ex. 1.0, 4:72 – 5:91; Oppel Dir., ComEd Ex. 4.0, 5:82 – 5:104; *see also* Naumann Reb., ComEd Ex. 9.0 CORR, 23:488 – 24:505. Specifically, by restoring the feasibility of Stage 1A ARRs in this area, the Project also restores their ability to protect native load customers from increased congestion costs incurred in accessing historical generation. *See* McGlynn Dir., ComEd Ex. 3.0, 20:381-91, 28:517-22; Naumann Dir., ComEd Ex. 1.0, 4:81-86. The Commission has recognized that eliminating congestion "and provid[ing] a pathway for lower-cost energy to reach consumers constitutes a benefit to the competitive market under Section 8-406.1." *See* Elliott Reb., ComEd Ex. 11.0, 9:191-92. ComEd believes that this is the correct test for approval of a CPCN under the "market" prong of the law.

This and analogous tests have been adopted by the Commission in prior decisions. In *Ameren Transmission Co. of Illinois*, ICC Docket No. 12-0598 (Order, Aug. 20, 2013) ("*ATXI Order*"), the petitioner ("ATXI") requested a CPCN pursuant to Sections 8-406.1 for a 375-mile transmission line that incorporated certain projects identified as "Multi-Value Projects" by Midcontinent Independent System Operator, Inc.'s ("MISO") regional planning process. ATXI presented evidence that the project was not only needed for reliability, but eliminated transmission constraints and allowed for additional connectivity across the grid. *Id.* at 10-12. According to ATXI and MISO, these improvements increased market efficiency, competitive supply, and provided an opportunity for economic benefits to ratepayers in excess of portfolio costs. *Id.* (summarizing Webb Dir., MISO Ex. 1.0, 19:366-78). Staff concluded that the ATXI proposal was superior to alternatives in part because it addressed needs within the entire MISO operating region and not just Illinois. *ATXI Order* at 13. Furthermore, Staff relied on MISO's planning process and results, and did not apply an Illinois-only benefits test. *Id.* Based on this evidence, the Commission concluded that the ATXI project not only addressed reliability, but "will benefit the development of a competitive electricity market." *Id.* at 14.

Similarly, in *American Transmission Co.*, ICC Docket No. 11-0661 (Order, April 10, 2012) ("*ATC Order*"), the petitioner ("ATC") requested a CPCN under Section 8-406.1 for a 345kV expansion to relieve congestion across the ATC-ComEd interface. *ATC Order* at 2. ATC pointed out that by relieving congestion, access to generation from outside Illinois would be promoted, which would, in turn, promote the development of an effectively competitive electricity market that operates efficiently and is equitable to all customers. *Id.* at 4-5. Staff agreed. *Id.* at 7 (summarizing Rockrohr Dir., Staff Ex. 1.0, 7:143-53). The Commission also concluded that "ATC … presented convincing evidence that the relief of this congestion will

promote the development of an effectively competitive electricity market by allowing additional generation resources to reach Illinois economically." *Id.* at 8.

However, the benefits to the market do not end there. In this case, the record is clear that the improved access to generation, reduced congestion, and greater ability to manage and hedge remaining congestion has a direct effect on prices paid by ComEd delivery customers. Those effects were rigorously studied, forecasted, and quantified, and that evidence shows that, as a result of the Project, customers can expect to pay ***$1.188 billion less*** for electricity over the next 15 years in constant 2012 dollars. Zuraski Reb., Staff Ex. 4.0, 30:653 (tabulating data). Those are compelling benefits, by any measure.

ComEd also analyzed the net effect of the Project on customers, including not just the energy savings, but also the cost of the Project paid by customers and the value of existing congestion hedges themselves, and considering the time value of money at a social discount rate.[7] Including the cost to construct and operate the Project as well as its effect on the value of hedges, ***the Project is projected to save ComEd zone customers a net present value of more than $265 million dollars***. Naumann Reb., ComEd Ex. 9.0 CORR, 30:650 – 31:657.[8] No witness disputes these facts and Staff, after reviewing ComEd's data, agrees that the "Project is

[7] Ironically, by reducing congestion and making the market more efficient, the value of those hedges will decline. This makes sense, as these hedges are akin to insurance. As the risk of fire goes down, fire insurance is less "valuable," but everyone, including homeowners, are still better off with less fire. In addition, the Project will increase the funding available for the hedges when they are used (or, proceeding with the fire insurance analogy, improve the coverage under the policies). ComEd's analysis takes both these factors into account, as explained in Mr. Naumann's rebuttal. ComEd Ex. 9.0 CORR, 22:470 – 23:485.

[8] At a societal discount rate of 3.53%, the net load savings of customers total $537.4 million, which exceeds the total project cost of $270.0 million by $267.4 million, or essentially a 2-to-1 ratio. This calculation uses a conservative estimate of actual customer savings because it does not reflect customers' savings due to reduced transmission losses and resulting reductions in their capacity requirements. Naumann Reb., ComEd Ex. 9.0 CORR, 33:679-90.

likely to be cost-beneficial to Illinois consumers by a wide margin." Zuraski Reb., Staff Ex. 4.0, 3: 36-37.

While ComEd believes that solving the Stage 1A ARR infeasibilities alone should be sufficient to justify a finding under Section 8-406.1(f)(1), Staff witness Zuraski also discussed the "relationship between the Project and 'an ***effectively*** competitive electricity market that operates efficiently" in the context of these cost savings. ComEd Group CX Ex. 4.0, Staff Response to ComEd → Staff DRR 6.03 at 3. Mr. Zuraski states that the "price reductions [related to the Project] are the result of a centrally managed power pool efficiently minimizing costs, subject to fewer constraints." *Id.* at 3 n. 1. That is a market efficiency benefit, which is powerful additional evidence that the Project promotes the development of an effectively competitive electricity market that operates efficiently. *See* Shanker Reb., ComEd Ex. 12.0, 15:313-15.

Mr. Zuraski, moreover, agrees that the savings the Project delivers are:

> certainly the type of outcome that is consistent with an electricity market that operates efficiently and is overseen and managed in such ways as to mimic competition (a market that is ***effectively*** competitive). Going further, but stopping short of expressing a legal opinion, I would opine that this relationship between the Project and 'an ***effectively*** competitive electricity market that operates efficiently' should be sufficient for the Commission to make finding (2),

i.e., that the Project promotes the development of an effectively competitive electricity market that operates efficiently. ComEd Group CX Ex. 4.0, DRR ComEd → Staff 6.03 at 3. ComEd concurs.[9]

[9] Prior to the evidentiary hearing, Mr. Zuraski submitted detailed data request responses confirming that the body of evidence he analyzed, including ComEd's surrebuttal testimony, was sufficient to address concerns he had previously expressed. He further concurred that the Project would have substantial customer benefits and would promote an effectively competitive electricity market that operates efficiently. *See generally* ComEd Group CX Ex. 4.0, DRRs ComEd → Staff 6.01 – 6.03. In response, ComEd waived cross-examination of Mr. Zuraski. Tr. 328:7-

ComEd, finally, notes that the belated "rebuttal" testimony[10] of Utility Risk Management Company ("URMC") challenges load growth assumptions used by PJM in its RTEP process. While this is not a response brief, URMC's claims do not undermine the need for the Project or its benefits. Dr. Tabors' conducted no studies specific to the GPG Project and its costs, or load in this area, and did not object to PJM's approval of the Project. ComEd Group CX Ex. 1, DRRs ComEd → URMC 1.25, 1.26, 1.29, 1.33. In fact, the need for the Project does not depend on future load growth; current transmission limitations result in Stage 1A ARRs being infeasible today, costing customers millions even without considering future load growth. McGlynn Dir., ComEd Ex. 3.0, 24:449-53. And, while the rate of growth will affect the magnitude of benefits over time, ComEd specifically analyzed low-growth sensitivity cases and those analyses confirmed that the Project remains highly beneficial even with less growth. Oppel Dir., ComEd Ex. 4.0, 6:105 – 7:124.

URMC's view that utility load will shrivel is, moreover, an extreme outlier, unsupported by empirical data and uniformly rejected in the industry. Dr. Tabors cites no actual load growth data from PJM, his claims have never been published or peer reviewed, and his outlandish views were not shared with the stakeholders and PJM planning professionals or Board members involved in the load forecasting process and the RTEP process. ComEd Group CX Ex. 1, DRRs

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8. By doing so, ComEd does not agree that the economic tests and standards that Mr. Zuraski suggested should be applied to transmission expansions under Sections 8-406.1 and 8-503, and ComEd does not waive its right to challenge those methodologies in any subsequent proceeding. Rather, ComEd observes that in this case, the Project met even those tests so any further debate about their necessity became moot.

[10] URMC filed no direct testimony and intervened well after the time for filing such testimony, promising to accept the record as it then existed. URMC Pet. to Intervene (March 19, 2014), ¶ 9. Nonetheless, URMC filed testimony raising new issues, including principally an attack on the PJM load forecast. *See* Tabors Reb., URMC Ex. 2.0. Because it was filed as "rebuttal," ComEd had less than a week to conduct discovery regarding that testimony and to present ComEd's response. ComEd also moved to strike that testimony, although that motion was denied. For purposes of any further review, ComEd renews its objection to that testimony. However, as pointed out here, the testimony is not specific to, and does not undermine the case for, the GPG Project. Among other things, the need for the GPG Project is not dependent on any level of future load growth.

ComEd → URMC 1.04, 1.05, 1.20, 1.21, 1.28. Neither Dr. Tabors nor URMC participated in the PJM planning or load forecasting processes. The PJM stakeholders and professionals do not share his views either. Indeed, Dr. Tabors' claims would require changing the regional plans and load forecasts adopted by every ISO or RTO in the nation. *Id*., DRR ComEd → URMC 2.02. What is more, while URMC invites the Commission to question the GPG Project based on unsubstantiated and extraordinarily deviant load growth projections filed in rebuttal, URMC evaluated the financial valuation of its own merchant transmission expansion proposal under the same load growth projections as used for the GPG Project. *Id*., DRR ComEd → URMC 1.31.

The Commission should also give great weight to the results of the PJM planning process and its growth forecast. Illinois law requires ComEd to be part of a regional organization that "coordinate[s], plan[s], and order[s] the installation of new transmission facilities. 220 ILCS 5/16-126(a)(4). Moreover, the record shows that PJM is a multi-stakeholder organization with a highly inclusive planning process established by federal law and tariff. PJM's staff is professional and independent and their actions are subject to review both by PJM's own independent Board and by FERC. And, unlike URMC, PJM has no parochial or financial axe to grind. ComEd has clearly met the requirements of Section 8-406.1(f)(1).

2. The Project Also Serves the Public Convenience and Necessity by Providing Additional Benefits to Customers and the State

In addition to the financial and market benefits, the record demonstrates that the Project will benefit the environment. By reducing congestion, the Project will support more efficient dispatch, which decreases emissions. In addition, by expanding access to generation to the west, which includes a greater proportion of low-emission sources, the Project allows increased reliance by ComEd zone load on low-emission energy generally. Navigant utilized a widely accepted methodology to study the future effect of the Project on emissions as part of its analysis

of the effect of the Project on the generation mix generally. Navigant was then able to quantify the reductions, particularly carbon emissions and in the reduction of SO_x and NO_x, that the Project delivers. Most notably, the evidence shows that the Project will, within its first 15 years of operation, ***reduce CO_2 emissions by an estimated 473 thousand tons***. Oppel Dir., ComEd Ex. 4.0, 6:101-04. This benefit, too, is uncontested.

The Project also delivers reliability and operational benefits. Clearly, the Project will provide additional diversity in the transmission routes connecting the eastern and western portions of the ComEd zone. Adding this diversity enhances reliability. Also, because of the currently limited number of west-to-east transmission lines, ComEd's ability to perform line maintenance is limited and requires the use of expensive and more difficult maintenance protocols, such as working only at night and overtime. Leeming Reb., ComEd Ex. 15.0, 8:163-66. The Project addresses such limitations, facilitating effective maintenance and lowering expected maintenance costs. Naumann, Tr. 398:1-5. Moreover, ComEd currently must employ special operating procedures at its Byron and Wayne substations to avoid impermissible outage contingency conditions on east-west transmission lines. While these procedures are acceptable under applicable standards, they are not ideal, and the Project will permit the grid to be operated without these special limitations. Though these operational and reliability benefits were not the drivers of the Project, they are meaningful nonetheless. These benefits are substantiated by the evidence, and provide additional grounds supporting the conclusion that the project serves the public convenience and necessity. Furthermore, none of these benefits are questioned by Staff or any other witness.

3. The GPG Project Meets the Remaining Requirements of Section 8-406.1(f)

The record shows that the Project is least-cost and equitable to customers. The Commission's analysis in this regard should begin with the fact that the GPG Project will ***reduce*** net delivered energy costs to ComEd customers by more than a quarter of a billion dollars. Naumann Dir., ComEd Ex. 1.0, 4:81 – 5:91; *see* Zuraski Reb., Staff Ex. 4.0, 3:36-37. More limited and theoretically less expensive concepts were investigated as part of the 2012 RTEP planning process, but they did not work, or worse, created reliability violations. McGlynn Dir., ComEd Ex. 3.0, 26:487-89. Indeed, PJM concluded that the Project was the "optimal solution" (*id.* at 26:492 – 27:494) in large part because the GPG Project resolved the ARR infeasibility issues and did not create new reliability violations, unlike the other eight alternatives considered. *Id.* at 27:500-08. The Project is, thus, not only the least-cost means of meeting the need, it is the only practical way to do so and is forecast to more than pay for itself in customer benefits. PJM is not alone in this conclusion; the determination that the GPG Project is the least-cost means of assuring Stage 1A ARR feasibility is also supported by the independent analysis conducted by ComEd witness Laurie J. Oppel. *See* ComEd Ex. 4.0, 2:25-32.

ComEd also proposes least-cost overhead construction on the least-cost route. Kaup Dir., ComEd Ex. 6.0, 15:292-306. Several intervenors claim that underground construction would be superior, citing fears of EMF exposure and decreased property values.[11] Those fears are addressed in Section III.A.3 and III.A.4 of this Brief. But, the evidence is also clear that, for a line like this, underground construction is not just more expensive – it is cost prohibitive. Kaup Reb., ComEd Ex. 16.0, 4:69 – 5:103. Further, underground construction is more time consuming, more complex, would require additional work, and would require the development

[11] *See, e.g.*, Kaptain Dir., Elgin Ex. 1.0, 10:210-13; J. Payne Dir. at 5-6; Mason Dir., Mason Ex. 1.0, 4:58-63; Tomasiewicz Dir., Tomasiewicz Ex. 1.0, 8:156-57.

of additional facilities. *Id.* Undergrounding just a one mile section of line would increase the line cost by approximately $31 million, and when the requisite terminal stations are added, the cost increase would expand to $43 million. *Id.*

Finally, the record is clear that Project promotes the competitive market and delivers benefits to customers in a manner that is equitable. The benefits of a more efficient market accrue to all customers throughout the ComEd zone, regardless of supplier. Moreover, the Project rectifies the persistent infeasibilities of Stage 1A ARRs, the hedging mechanism specifically designed to protect ComEd delivery customers' access to historical generation free of the added congestion costs caused by outside transactions. This protection, inherent in the PJM market structure, has been found just and reasonable to customers. The Project's costs are also allocated fairly in accordance with the benefits – in this case, the costs and benefits are both heavily localized in Illinois – and in the manner found just and reasonable under federal law, resulting in hundreds of millions of dollars of savings to Illinois customers.

B. ComEd Is Capable of Efficiently Managing and Supervising the Construction Process

Using ComEd crews and contractors supervised by ComEd, ComEd is capable of efficiently managing and supervising construction of the GPG Project. Kaup Dir., ComEd Ex. 6.0, 15:308 – 16:316. ComEd's Project Management Department will manage contractors and will field inspection and construction review. *Id.* ComEd's Project Management Department has many years of experience in managing this type of construction and is adequately staffed to assure work is done per specifications and in a workmanlike manner. *Id.* Therefore, ComEd is capable of efficiently managing and supervising the construction process and has taken sufficient action to ensure adequate and efficient construction and supervision of construction. Staff agrees. Rashid Dir., Staff Ex. 2.0, 11:243-58. There is no evidence to the contrary.

Consequently, the Commission should find that ComEd has met the requirements of Section 8-406.1(f)(2) of the PUA.

C. ComEd Is Capable of Financing the Proposed Construction

The record proves that ComEd is capable of financing the proposed construction without significant adverse financial consequences for ComEd or its customers. 220 ILCS 5/8-406.1(f)(3). Compared to its historic and projected levels of capital expenditures, the Project's cost will only comprise between 0% and 6% of ComEd's total capital expenditures during the years of construction. Garrido Dir., ComEd Ex. 8.0, 4:71 – 5:79. The Project will be funded through internal financing from ComEd's budget, which ComEd manages with a combination of cash, existing credit facilities, external financing sources and other financing alternatives. *Id.* at 5:81-83. Furthermore, ComEd has the ability to access short- and long-term credit markets in a manner that ensures the Project can be financed at competitive market rates. *Id.* at 5:85 – 6:105. Finally, there will be no adverse impact to ComEd's credit ratings after the Project goes into service. *Id.* at 7:139 – 8:144. Thus, ComEd has demonstrated that it is capable of financing the proposed construction without significant adverse financial consequences for ComEd or its customers. Staff agrees. Kight-Garlisch Aff., Staff Ex. 3.0, ¶ 4. Again, there is no contrary evidence.

D. ComEd Has Met All Procedural Prerequisites for Filing Under Section 8-406.1.

A public utility requesting approval of a CPCN pursuant to Section 8-406.1 of the PUA must satisfy a number of procedural requirements. The evidence shows that ComEd satisfied those requirements. Staff agrees, and no party contests that ComEd:

- ✓ Provided a detailed description of the Project, including location maps and plot plans to scale showing all major components, as required by Section 8-406.1(a)(1)(A) of the PUA (ComEd Ex. 5.02);
- ✓ Provided the engineering data called for by Section 8-406.1(a)(1)(B) (ComEd Ex. 6.01);
- ✓ Paid an application fee of $100,000 to the Public Utility Fund at the time of filing, as provided by Section 8-406.1(a)(2) (*see* Naumann Dir., ComEd Ex. 1.0, 23:458-60; Rashid Dir., Staff Ex. 2.0, 12:263-66);
- ✓ Held the pre-filing public meetings called for by Section 8-406.1(a)(3) (Murphy Dir., ComEd Ex. 5.0, 15:287-89, 18:332-33, 20:387-89);
- ✓ Published notice of its application in the official state newspaper within 10 days after filing required by Section 8-406.1(d) of the PUA (ComEd Ex. 18.01); and
- ✓ Established a dedicated website for the Project pursuant to Section 8-406.1(e) (ComEd Ex. 5.10).

Based on the foregoing, the Commission should determine that ComEd has satisfied the Section 8-406.1 requirements described above.

III. THE GPG PROJECT SHOULD BE CONSTRUCTED ON THE PRIMARY ROUTE PROPOSED BY COMED

A. The Primary Route Resulted from Rigorous Analysis and is Reasonable and Appropriate

1. ComEd's Primary Route is the Best Route

To assist in identifying and developing a primary and alternate route for the Project (the "Primary Route" and the "Alternate Route" respectively), Ms. Donell Murphy and a team of experts from Environmental Resources Management ("ERM") conducted a comprehensive

routing study in coordination with ComEd. As the evidence reflects, ERM and ComEd together spent approximately ***20,000 hours*** evaluating maps, data layers, and photographs; conducting an in-depth public process; as well as working with public agencies and authorities to develop the best possible route for the Project. Murphy, Tr. 260:16-22. More specifically, as Ms. Murphy explains both in her testimony and in the Routing Study, ComEd implemented an integrated, three-phase route selection and public process, which included establishing the project area (Phase I), identifying potential route corridors (Phase II), and selecting the proposed Primary Route and Alternate Routes (Phase III).[12] Staff agrees that the Primary Route should be approved.

The public process included:

- Nine Stakeholder Working Groups (Murphy Dir., ComEd Ex. 5.0, 9:186 – 10:208);
- More than 50 individual stakeholder meetings (*id.*);
- Sending tens of thousands of direct mail invitations to landowners for public open houses (*id.*);
- Sending individual invitations to more than 240 stakeholders (*id.*);
- Posting more than one hundred public open house flyers (*id.*);
- Fielding hundreds of calls through a project hotline (*id.*);
- Receiving and evaluating hundreds of comment forms (*id.*);
- Conducting legislative outreach (*id.*); and
- Engaging in numerous meetings and outreach with pertinent agencies (*id.*; *see* ComEd Ex. 5.11).

[12] ComEd Ex. 5.03, p. 4.

This extensive public process not only met, but far exceeded the statutory requirements of Section 8-406.1, which, among other things, requires that an applicant hold at least three pre-filing public meetings in each county that the project is to be located, provide notice via newspaper of each public meeting, publish notice of its application in the official State newspaper within 10 days of filing its application, and establish a dedicated website for the project. 220 ILCS 5/8-406.1(a)-(e).

In conjunction with its public process, ComEd conducted a detailed routing study, where the extent of the study was reduced with each stage of route selection. ComEd Ex. 5.03, p. 4. ComEd collected and evaluated well over 100 different layers of data representing more than 50 categories of data, including existing infrastructure, existing electric transmission facilities, administrative boundaries, property boundaries, existing and future land use and zoning, and various environmental features – including ecological, hydrological, topographical, geological, soils, archaeological and historic. *Id* at 4. As part of the public process, ComEd additionally received public input concerning those environmental features which were most important or sensitive to them. *Id* at 6-7. As this data was evaluated, environmental opportunities and sensitivities emerged, from which potential route corridors were developed. *Id* at 11. These potential route corridors were further narrowed based on field reconnaissance and further refining the environmental criteria. *Id* at 12.

Ultimately, the Primary Route and Alternate Route emerged, with the Primary Route being selected as the superior route because it is shorter and makes more use of existing ComEd property rights. Thus, the Primary Route will result in less ground disturbance and will cost less than the Alternate Route. By proposing the Primary Route and the Alternate Route, ComEd has satisfied Section 8-406.1(a)(1)(B)(viii) of the PUA, which requires petitioners to submit a

primary right-of-way "and one or more alternate rights-of-way for the Project as part of the filing." Staff agrees.

The Commission should consequently reject Mr. Dauphinais' suggestion that ComEd should not receive a CPCN because ComEd did not meet his skewed reading of the statute. *See* Dauphinais Dir., SKP Ex. 1.0, 18:380-405. Put simply, Mr. Dauphinais' Direct Testimony attempts to read additional requirements into the PUA. The statute does not define what constitutes an "alternate" right of way, and offers no grounds to conclude that minimal overlap between alternate routes does not meet that standard. Moreover, no party in this proceeding has identified any case in which the Commission has adopted Mr. Dauphinais' interpretation of the statute.

However, to the extent that the ALJs find that such limited overlap does not satisfy the PUA's "alternate rights-of-way" requirement, the record at least shows that good cause exists to excuse the aforementioned overlap. Staff Witness, Mr. Rashid, agrees with that assessment. Murphy Reb., ComEd Ex. 18.0, 6:118-22 (citing DRR SKP → Staff 1.03); Rashid Dir., Staff Ex. 2.0, 11:241-42). On the 12-mile, eastern portion of the Primary Route, there were extremely limited opportunities to site the Project along existing linear features where no existing residence would be displaced. Murphy Reb., ComEd. Ex. 18.0, 6:111-14. Indeed, there was only one potential opportunity, which was not carried forward due to its excessive length and cost. *Id.* at 6:114-16.

In sum, the evidence clearly demonstrates that the Primary Route proposed by ComEd, which is uncontested by Staff and supported by ComEd's detailed and methodical routing analysis, offers a reasonable and superior routing option that should be approved.

2. Efforts to Shift the Route to Other Landowners are Not Supported by Recognized Routing Criteria and Should Be Rejected

In comparison, the body of evidence that underlies intervenors' proposed route adjustments is questionable, at best. Unlike ComEd, the intervenors do not propose routes resulting from meaningful analysis and vetting, and have invested little time and professional investigation in their development. *Compare* Dauphinais, Tr. 215:1 – 218:18 (proposal developed in a week, without any public process, or a site visit) *with* Murphy, Tr. 260:16-22 (describing ComEd's and ERM's comprehensive study spanning 20,000 hours' work). Rather, with the sole exception of the Kenyon Brothers Company ("Kenyon Bros."), intervenors generally narrowed their focus to finding some way to route the project elsewhere. As discussed below, the Project should be constructed across the properties identified as ComEd's Primary Route.[13] For the benefit of the Commission, ALJs, and parties, maps showing the Primary Route and the adjustments are attached to this Brief.

a. SKP Parties – Adjustment #1 and Adjustment #2

Motivated by their own parochial concerns, the SKP Parties rely on self-serving analyses to support routing the line on someone else's land. *See* Dauphinais Dir., SKP Ex. 1.0, 11:224 – 17:379 (describing the SKP Parties' proposed "Adjustment #1" and "Adjustment #2").[14] The Commission should remember that these proposals do not reduce the land required by the Project; they are efforts to change *whose land* is required. In this, ComEd and its study are

[13] The Village of South Elgin and Kane County each submitted pre-filed testimony, in which they expressed their preference for ComEd's Alternate Route; however, neither party appeared at hearing or submitted an affidavit. Accordingly, those testimonies were not admitted into the record and cannot be relied upon.

[14] ComEd Ex. 26.01, attached hereto as Appendix A, is a map depicting SKP Adjustment #1 and the nearby Deutsch proposal. ComEd Ex. 18.03, attached as Appendix B, is a map depicting SKP Adjustment #2.

neutral; ComEd has no reason to favor or disfavor any party. ComEd's only interest is to select the best, most "buildable," and least-cost route.

Turning to the specifics, the record shows that Adjustment #1 is inferior to ComEd's Primary Route in several respects. Despite the acknowledged value of paralleling the existing railroad corridor where practical (*see* Dauphinais Dir., SKP Ex. 1.0, 7:146-52), SKP Adjustment #1 fails to take advantage of the opportunity to do so or the opportunity to make use of ComEd's existing property rights, thereby creating new environmental impacts.[15] Murphy Reb., ComEd. Ex. 18.0, 4:69-71. And, while SKP witness Dauphinais acknowledges it to be more expensive than the Primary Route (Dauphinais Dir., SKP Ex. 1.0, 14:296-97), that alternative would in fact be even more expensive than Mr. Dauphinais reckons. That is because Mr. Dauphinais excludes the cost of acquiring the additional land rights necessary to construct this counterproposal. *Id.* at 12:268-69.

Mr. Dauphinais nevertheless claims that Adjustment #1 is superior because it would reduce the already-minimal number of "impacted" residences from five to one – removing, of course, the home of his client, Mr. Lenschow. *See* Dauphinais Dir., SKP Ex. 1.0, 14:297-98; *see also* Dauphinais Tr., 214:6-25 (indicating that Mr. Dauphinais was retained by counsel for Mr. Lenschow to develop Adjustment #1 because Mr. Lenschow was concerned about the proximity of the Primary Route to his dairy farm and residence). Mr. Dauphinais' measure of "impact," moreover, is simply proximity and there is no evidence that the Project would actually affect the use of *any* residence. It also requires more difficult and expensive construction, and a greater

[15] Although Adjustment #1 is marginally shorter than ComEd's Primary Route, it would also require ComEd to utilize additional angle poles, thereby increasing the cost of the Project. Murphy Reb., ComEd Ex. 18.0, 4:65-66.

number of larger and more expensive corner poles. *See* Dauphinais, Tr. 239:19-21, 240:7 – 241:8.

The record shows that Adjustment #2 is just as misguided and its rationale is at odds with Adjustment #1. The defining characteristic of Adjustment #2 is that it would steer the Project away from the properties owned by SKP Parties (Drexlers and Pienkowskis). To do this, it trades one fewer residence within 500 feet of the route (a reduction from four to three) for *seven* additional non-residential structures. *See* Dauphinais Dir., SKP Ex. 1.0, 17:367-68. Thus, as Ms. Murphy pointed out, Adjustment #2 "does not appear to provide for a net reduction of environmental impacts either and again simply shifts the location of the impact." Murphy Reb., ComEd. Ex. 18.0, 5:95-97.

Additionally, unlike ComEd's Primary Route and Alternate Route, Adjustment #1 and Adjustment #2 have not been vetted and affected landowners have not received the same notice, nor had the same opportunity to be heard. Mr. Dauphinais acknowledges that no public input was solicited in developing Adjustment #1 and Adjustment #2. *See* Dauphinais, Tr. 217:5-19. His claim – that Adjustment #1 "only impacts landowners that have been previously noticed in this proceeding" and that Adjustment #2 "only impacts one landowner that has not previously noticed [*sic*] in this proceeding" (SKP Ex. 1.0, 19:408-15) – misses this point. While the landowners whose property interests would be affected by SKP's Adjustment #1 and Adjustment #2 received notice of ComEd's proposal, there is no evidence that they received notice of the SKP Parties' proposed adjustments. Their silence can only weigh in support of Primary Route, the route that was called to their attention. It says nothing about Adjustment #1 and Adjustment #2, which place additional burdens on their land.

b. Deutsch

Mr. Deutsch's proposed route adjustment is also infeasible and, thus, does not constitute a superior alternative to ComEd's Primary Route.[16] As Ms. Murphy explained in her Surrebuttal Testimony, Mr. Deutsch's proposed alternative to the SKP Parties' Adjustment #1 would enter the Burlington Prairie Forest Preserve, which is owned by the FPDKC. Murphy Sur., ComEd Ex. 26.0 CORR, 4:64-76. ComEd cannot occupy this property. The FPDKC has previously indicated that it cannot authorize an easement across this property and, the property, like the Muirhead Springs Forest Preserve, is not subject to condemnation. Meyers Reb., FPDKC Ex. 1.0, 2:28-30 ("Initially, the District felt that it could not grant this right, due to covenants made with the Illinois Department of Natural Resources.").

c. Forest Preserve District of Kane County

ComEd's Primary Route is also superior to the route adjustment proposed by the Forest Preserve District of Kane County ("FPDKC").[17] In its rebuttal testimony, the FPDKC for the first time advocated for a route through the Muirhead Springs Forest Preserve. Meyers Reb., FPDKC Ex. 1.0, 3:40-43. Plausible only in theory, this belated alternative would saddle the Project with uncertainty and imperil its constructability. FPDKC has not granted ComEd the necessary land rights, nor has it executed any documents indicating an intention to do so. Also, the District is not subject to eminent domain. Until and unless FPDKC actually grants the rights, requiring the Project to be routed across FPDKC land would give the District a unilateral veto over the construction of the Project at these locations. In comparison, the Primary Route uses

[16] As noted above, this adjustment is depicted on ComEd Ex. 26.01, attached as Appendix A.

[17] ComEd Ex. 26.03, attached hereto as Appendix C, is a map depicting the FPDKC rerouting proposal.

property that has not only been determined to be the most appropriate, but that is reasonably available to be utilized. *See, e.g.*, Murphy Sur., ComEd Ex. 26.0 CORR, 6:112-23.

The FPDKC's adjustment is also subject to other significant shortcomings. Ms. Murphy testified that "locating the proposed transmission line along the railroad that runs through the Muirhead [Springs] Forest Preserve and in the vicinity of Plato Center … would displace existing buildings and also locate the line immediately adjacent to more existing residences than currently proposed." *Id.* at 6:123-27. The FPDKC's proposed adjustment would also appear to benefit only those landowners that live and work within a stone's throw of ComEd's primary route. In this respect, the route appears to be another example of simply shifting the impact. The alternative raises further concerns regarding cost. *See id.* at 7:134-40 (explaining that the FPDKC asks to be compensated in an amount equal to the construction cost savings that result from reducing the Project's length). Ms. Meyers's testimony takes none of this into account.

In addition, there is considerable uncertainty with respect to the FPDKC proposal itself. Whereas public input was sought regarding ComEd's Primary Route, FPDKC's proposal has not been thoroughly vetted. Indeed, it was introduced into the public record for the first time in Ms. Meyers's rebuttal testimony. And, while Ms. Meyers states that such an alternative would "satisfy the concerns of many local landowners," she does not specify who those landowners might be, what concerns they may have, or how the FPDKC's proposal may mollify those concerns. *See* Meyers Reb., FPDKC Ex. 1.0, 3:47-52. Notably, no other party in this proceeding has challenged this segment of ComEd's proposed route, nor supported FPDK's proposal.

d. <u>Kenyon Brothers Company</u>

The only route adjustment presented in this proceeding that does not attempt to relocate the line to another owner's property without their agreement, or rely on flawed or incomplete route analyses, is proposed by the Kenyon Bros. Kenyon Bros. propose to simply adjust the path

the Primary Route takes across its property (generally, from the south side to the north).[18] No additional owners, rights, or siting criteria are involved, and the request does not increase the cost, difficultly, or complexity of the Project or add risk of non-completion. *See* Kaup Sur., ComEd. Ex. 27.0, 2:39-41. Therefore, ComEd requests that the Commission grant ComEd authority to construct the Project in accordance with the alignment agreed to by Kenyon Bros.

3. The Line Poses no Health Risks to People or Animals

The Project poses no threat to the health of humans or animals. The only probative evidence of the physics of EMF and the interaction of EMF with humans and animals is the testimony of Dr. Peter Valberg, a qualified expert in both EMF and public health. As Dr. Valberg makes clear, the scientific evidence developed over the course of the past 35 years does not support fears that power line EMF adversely affects human health. There is no credible mechanism by which such EMF could harm the body (*see* Valberg Sur., ComEd Ex. 29.0, 2:22 – 4:69), and despite many years of examination in laboratories, the scientific community has identified "no firm evidence of adverse EMF effects[.]" Valberg Reb., ComEd Ex. 20.0, 14:333 – 15:346. Epidemiological studies, which merely attempt to discern a statistical correlation between EMF and disease, have not been consistent and do not show that EMF causes any harm to health. Moreover, the absence of support in laboratory studies for any plausible mechanism by which EMF could cause disease has also led scientists to give less weight to the statistical studies. *Id.* at 14:331-32.

For these reasons and based on the body of research as a whole, no regulatory or health assessment body has determined that there is any causal relationship between power lines, like those proposed, and cancer or any other disease. Dr. Valberg testified:

[18] ComEd Ex. 26.02, attached hereto as Appendix D, depicts the realignment proposed by Kenyon Bros.

> At this point in time, a large volume of literature on the question of EMF health effects has been generated, representing the accumulation of many years of laboratory work and many years of human experience with EMF, *i.e.*, use of electricity for more than one hundred years. The scientific data on EMF and health have been assembled and reviewed by many independent consensus groups of research and health scientists. These groups and agencies include the International Commission on Non-Ionizing Radiation Protection, World Health Organization, the National Radiation Protection Board (UK), the National Academy of Sciences, the American Medical Association, the American Physical Society (the professional society for American physicists), the American Cancer Society, the Swedish National Health and Welfare Board, and the Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR). These "blue-ribbon" panels do not identify EMF from electric-power transmission lines as unsafe for nearby residents and public. The reports of these groups are voluminous, thorough, and even-handed.

Id. at 15:348-61.

Even applying a strategy of "prudent avoidance" or the so-called "precautionary principle" – neither of which have ever been adopted in Illinois, and for which there is no scientific basis – the record evidence weighs heavily in favor of the Project. *See id.* at 18:440 – 22:485, 23:510 – 25:556. Dr. Valberg identified a number of non-binding guidelines promulgated by state governments, as well as national and international health organizations. *Id.* at 18:440 – 20:453. Those guidelines range from 85 milliGauss ("mG") to 30,000,000 mG. The State guidelines are simply intended to maintain the status quo, and are not based on any specific health effects, while the occupational exposure standards, set at level tens-of-thousands times higher, still are not based on any supposed link to cancer or other disease. *Id.* at 18:440-51. In comparison, the EMF models conducted by ComEd project EMF levels between 13 mG and 16 mG at the edge of the right-of-way – which is considerably below any levels permitted by the guidelines from other jurisdictions. *Id.* at 21:466-79.

That is not to say that the intervenors concerns are insincere. People can and do sincerely fear many things in the absence of any evidence and in the absence of any actual threat. But, the EMF concerns raised by intervenors in this proceeding are scientifically groundless and do not

call ComEd's Primary Route into question. Transmission lines are critical to the modern economy, and to the public health and well-being. As a matter of public policy, the Commission should not deny a CPCN to the Project, or require far more costly routing or construction, based on unsubstantiated concerns.

Intervenors' stray voltage concerns are equally unfounded and do not call the Project's construction or routing into question. Stray voltage generally is not caused by transmission lines, but rather arises from faulty electrical grounding and poor wiring practices in distribution circuits. *Id.* at 27:587-600. Moreover, even static charges – sometimes mistaken for stray voltage – can only occur rarely in conjunction with transmission lines and again, only when the object accumulating the charge is not grounded. *See* Valberg. Tr. 355:19-24. These concerns, moreover, are reflected in safety and line standards which prevent any dangerous charge. *See, e.g.*, Kaup, Tr. 123:4 – 124:1. Thus, while ComEd understands the concern being expressed, stray voltage is not a realistic risk of the line, and certainly not a valid concern if the farmer has properly grounded his or her own equipment.

4. Claimed Effects on Property Values Do Not Warrant Any Adjustment to the Primary Route

The alleged impact of the Project on property values does not warrant revisions to the Primary Route. Owners of properties across which the line will run will be compensated for the recognized and substantiated cost of their land being occupied by the line, whether the land is acquired through negotiations – as ComEd expects – or through eminent domain. But, other parties argue that the presence of the line not on their property, but nearby will negatively affect their property values. The only evidence in this proceeding of the actual effect on such properties – studies presented by ComEd witness Mr. Richard Roddewig, an expert specializing in assessing environmental impacts on real property – demonstrates that the Project will not

adversely affect the value of such parcels. *See* Roddewig Reb., ComEd Ex. 19.0, 9:171-77, 13:258 – 15:311. Mr. Roddewig testified that property values often experience small and fleeting reductions following the announcement or construction of new power lines. *Id.* at 14:284-89. But, the data – including data relating to residences and properties on this very same right-of-way – support no material or continued effect. Indeed, Mr. Roddewig confirmed that property values following the construction of new power lines have, in some cases, actually increased as a result of the additional open space on the facility's right-of-way. *Id.* at 14:289-91. However, even if one ignores this expert testimony, and assumes that the Project will adversely affect the value of property along the Project's route, modifying the Primary Route would not eliminate or even mitigate that effect. Rather, this would simply transfer the issue to a different parcel of land. Public works projects are a fact of life and not everyone can push such projects out of sight. Intervenors' claims that the Project will adversely affect the value of their properties, in this respect, are nothing more than transparent requests for the Commission to shift that burden from one landowner to another.

B. The Project's Design Maximizes Future Opportunities for Customers and Minimizes Long-Term Costs

In its CPCN request, ComEd is seeking to install the new 345kV circuit on poles also capable of supporting one or two (depending upon the location) future transmission circuits. ComEd Ver. Pet., ¶ 13. ComEd's proposed use of double- and triple-circuit ready poles reflect reasonable, forward-looking planning, and is least-cost in the long-term. As with similar requests in prior Dockets, the request should be approved. Staff does not dispute this approach.

1. ComEd Has Demonstrated the Need for Multi-Circuit Ready Poles

In this proceeding, Specifically, ComEd is proposing to use double-circuit ready poles between the Byron substation and the future Charter Grove substation upon which ComEd will

install one 345kV circuit. Leeming Dir., ComEd Ex. 2.0, 10:197-202; Kaup Dir., ComEd Ex. 6.0, 9:182-88. In the future, ComEd expects to request Commission approval to add another 345kV circuit to these poles. Leeming Dir., ComEd Ex. 2.0, 10:197-202. ComEd is also proposing to use triple circuit ready poles between the future Charter Grove substation and its Wayne substation upon which ComEd will install one 345 kV circuit. Leeming Dir., ComEd Ex. 2.0, 10:204-18; Kaup Dir., ComEd Ex. 6.0, 9:189-95. In the future, ComEd expects to request approval to add another 345kV circuit and a 138kV circuit to these poles. Leeming Dir., ComEd Ex. 2.0, 10:204-18.

Importantly, Staff does not object to ComEd's proposal to construct the Project using multi-circuit ready poles. Rashid Dir., Staff Ex. 2.0, 9:211 – 11:242. This minimizes long-term costs and impacts on customers. And, despite intervenor arguments to the contrary,[19] the need for these additional circuits is well supported by the evidence. The route of the GPG Project is centrally located in ComEd's service territory, which makes it critical for future transmission system expansion. Leeming Reb., 2:40 – 3:43. The Project will connect the west to the east transmission system and will provide a corridor for future west-to-east transmission. *Id.*

2. Installing Single-Circuit Poles Would Be More Costly and Would Be More Intrusive to Customers

The GPG Project not only remedies the Stage 1A ARR violation identified by PJM but also addresses future transmission needs identified by ComEd. The proposed multi-circuit poles address these future transmission needs, which if installed as part of this Project, is the least-cost option and least intrusive to customers. Unless multi-circuit poles are approved here, ComEd anticipates needing to begin to replace the Project's poles just seven years after the Project is

[19] Dauphinais Reb., SKP Ex. 2.0, 13:274 – 14:293.

energized. That is neither efficient nor cost-effective, for the several reasons explained by Mr. Leeming. *See* ComEd Ex. 15.0, 6:116 – 8:152. It is also more intrusive to customers, and would require ComEd to acquire more private land. *Id.*

This is not the first time ComEd has requested, or the Commission has approved, installation of poles capable of holding additional circuits. In fact, in issuing ComEd's most recent CPCN in Docket No. 12-0431, the Commission approved the use of double-circuit ready poles even though ComEd was installing only one 138kV circuit as part of the proposed project. *See* ICC Docket No. 12-0431 (Order, Nov. 28, 2012), at 3, 7-8. When contemplating such projects, ComEd cannot view its transmission system in a vacuum; otherwise, projects become more costly and more intrusive to customers over the long term. ComEd has also indicated that it will seek Commission approval before adding any additional circuits to these poles. Leeming Reb., ComEd Ex. 15.0, 3:61-63; Leeming Sur., ComEd Ex. 25.0, 3:45-46.

IV. CONCLUSION / REQUEST FOR RELIEF

The evidence proves that the GPG Project will deliver significant benefits to customers. By promoting the continued efficient and effective competitive development of the regional electric market, costs decrease; emissions shrink, congestion abates, and customers' ability to access both new and historical generation grows. In addition, the Project uniquely restores the ability to Stage 1A ARRs to protect Illinois retail customers from additional congestion costs. The benefits of the Project, net of all costs, exceed $250 million, accrue equitably and are achieved at least cost. The record is equally clear that ComEd can finance and build the Project and has proposed to do so in a manner and on a route that is the best overall.

For these reasons, ComEd requests that the Commission's Order grant ComEd under Section 8-406.1 of the PUA a Certificate of Public Convenience and Necessity for the GPG

Project, as proposed herein and supported by the record, and that the Commission's Order authorize and direct ComEd to construct the Project, as so Certified, pursuant to Section 8-503 of the PUA.

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Respectfully submitted,

COMMONWEALTH EDISON COMPANY

By: _____
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