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**DIRECT TESTIMONY OF MARK D. EWEN AND ROBERT D. KNECHT**

1 **1. Witness Identification and Overview**

2 **Q. Mr. Ewen, please state your name and briefly describe your qualifications.**

3 A. My name is Mark D. Ewen. I am a Principal of Industrial Economics, Incorporated (“IEc”),  
4 a consulting firm located at 2067 Massachusetts Avenue, Cambridge, MA 02140. My  
5 consulting practice focuses on expert case management and economic damages estimation  
6 in a variety of litigation contexts, regulatory and environmental economics, and financial  
7 analysis. I obtained a B.A. degree in Economics and Political Science from the University  
8 of North Dakota, and a Master of Public Policy degree from the University of Michigan.  
9 My résumé and a listing of the expert testimony that I have filed in various litigation and  
10 utility regulatory proceedings are attached in Exhibit IEc-1A. I am appearing in this  
11 proceeding on behalf of the Attorney General of the State of Rhode Island (“RIAG”).

12 **Q. Mr. Knecht, please state your name and briefly describe your qualifications.**

13 A. My name is Robert D. Knecht. I am also a Principal of IEc. I specialize in the economic  
14 analysis of basic industries. My consulting practice currently consists primarily of the  
15 preparation of analysis and expert testimony in the field of regulatory economics on a  
16 variety of topics. I obtained a B.S. degree in Economics from the Massachusetts Institute  
17 of Technology in 1978, and a M.S. degree in Management from the Sloan School of  
18 Management at M.I.T. in 1982, with concentrations in applied economics and finance. I  
19 am also appearing in this proceeding on behalf of the RIAG.

20 Mr. Ewen and I have not previously testified before either the Rhode Island Division of  
21 Public Utilities and Carriers (“Division”) or the Rhode Island Public Utilities Commission  
22 (“Commission”). However, I have participated in similar utility acquisition proceedings  
23 in Pennsylvania and New Brunswick, Canada. I have also submitted testimony on a variety  
24 of topics related to PPL Electric Utilities Corporation (“PPL Electric”) and its predecessor  
25 firm in Pennsylvania.

1 My résumé and a listing of the expert testimony that I have filed in utility regulatory  
2 proceedings during the past five years are attached in Exhibit IEC-1B.

3 **Q. Please describe your assignment in this matter.**

4 A. PPL Corporation (“PPL”) proposes to acquire the Narragansett Electric Company (“NEC”)  
5 from National Grid USA (“NG”). This transaction must be approved by, *inter alia*, the  
6 Rhode Island Division of Public Utilities and Carriers (“Division”).<sup>1</sup> The RIAG requested  
7 that we prepare an evaluation of the following topics related to this acquisition, subject to  
8 time and information constraints in the context of this proceeding:

- 9 • The financial aspects of the proposed transaction, including the financial viability of  
10 each PPL entity individually and of the proposed subsidiary structure;
- 11 • The due diligence and actions of the transacting parties in determining to pursue the  
12 proposed transaction, including review of financial documents;
- 13 • The potential environmental consequences and costs of the proposed transaction and  
14 its effects on Rhode Island's ability to meet mandated carbon emission reductions  
15 pursuant to the 2021 Act on Climate;
- 16 • The tax implications of the proposed transaction; and,
- 17 • Other costs and efficiencies incident to transferring services to PPL in light of regional  
18 assets and availabilities of resources for, *inter alia*, customer support and storm  
19 response.

20 **Q. How is the balance of your testimony organized?**

21 A. This testimony is organized as follows. This section introduces the witnesses and provides  
22 a brief review of the proposed transaction. It includes a statement of our conclusions,  
23 subject to the caveats detailed below. Sections 2 through 6 present our evaluation of the

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<sup>1</sup> This proceeding consists of the review of a petition submitted by PPL, PPL Rhode Island Holdings, LLC, NG, and NEC (collectively, “Petitioners”).

1 five tasks listed above, respectively. Note also that a list of references cited herein, and  
2 copies of documents cited that are not part of the record, can be found in Exhibit IEC-2.

3 **Q. Please state the caveats associated with this testimony.**

4 A. An exhaustive review of all five aspects of the proposed transaction could not realistically  
5 be undertaken given time constraints for this assignment. In addition, as documented  
6 herein, the Petitioners have declined to provide some information necessary for a thorough  
7 review for various reasons, including legal opinions regarding their obligations and  
8 practical reasons that the information is not yet available.

9 This testimony is therefore provided on a best-efforts basis given those constraints. Our  
10 review of discovery responses and the regulatory background is ongoing. We will notify  
11 parties promptly if this additional work results in substantive changes to the conclusions  
12 and recommendations in this testimony.

13 **Q. Please briefly summarize the transaction at issue in this proceeding.**

14 A. The proposed transaction involves a relatively straightforward sale of NEC to PPL  
15 Corporation (“PPL”) for \$5.3 billion. NEC will become the sole subsidiary of a newly  
16 formed PPL Rhode Island Holdings, LLC (“PPLRI”), which will be an indirect subsidiary  
17 to PPL.<sup>2</sup>

18 Of the \$5.3 billion purchase price, approximately \$1.5 billion of long-term debt is assumed  
19 by PPL. The remaining \$3.8 billion applies to the purchase of equity, although PPL obtains  
20 a \$0.5 billion tax benefit from the transaction resulting in a net cost to PPL of the equity of  
21 \$3.3 billion. PPL’s \$4.8 billion purchase price (net of the tax benefit) significantly exceeds  
22 NEC’s current rate base of approximately \$2.8 billion, substantially due to the \$0.7 billion  
23 of goodwill already on NEC’s books and approximately \$1.0 billion of additional goodwill  
24 associated with the proposed transaction.<sup>3</sup>

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<sup>2</sup> Petition, at para. 42.

<sup>3</sup> PPL-Div-2-36.

1 In considering this transaction, however, it should be recognized that it takes place within  
2 the context of an overall larger transaction arrangement, in which PPL sells its UK Western  
3 Power Distribution (“WPD”) utility to NG, and purchases NEC. In brief, NG paid some  
4 \$10.2 billion for PPL’s equity in WPD, and assumed approximately \$8.9 billion in debt.<sup>4</sup>  
5 PPL has generally indicated that the proceeds from the WPD sale will be used (a) for the  
6 purchase of NEC equity, (b) to draw down PPL debt, and (c) be available for “incremental  
7 organic and strategic growth opportunities.”<sup>5</sup>

8 This transaction is of particular importance to Rhode Island, because NEC provides electric  
9 distribution service to nearly all of the residents of the state (with some 510,000 customers),  
10 as well as being the primary natural gas distribution utility (with some 270,000 customers).  
11 As such, the RIAG and other parties to this proceeding understandably desire, at a  
12 minimum, to ensure that the transaction will not have any negative impacts on ratepayers  
13 and the general public.

14 **Q. Please state your understanding of the legal standard in Rhode Island for approving**  
15 **this transaction.**

16 A. It is our understanding (as non-lawyers) that the legal standard for approving the proposed  
17 transaction under R.I. Gen. Laws § 39-3-25 is that “the facilities for furnishing service to  
18 the public will not thereby be diminished and . . . the terms [of the proposed transaction]  
19 are consistent with the public interest.”

20 Based on our review of the Petitioners filings, Petitioners have interpreted the standard as  
21 follows:

22 *“As the Hearing Officer explained in his Order (In response to Motion to*  
23 *Intervene, Strike and Recusal), Order No. 24109, the review of the Transaction*  
24 *is limited to “confirm[ing] that the ‘facilities for furnishing service to the public*  
25 *will not thereby be diminished’ and that the sale is ‘consistent with the public*  
26 *interest.’” As the Hearing Officer explained, the Division determines the first*

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<sup>4</sup> Strategic Repositioning of PPL Corporation, March 18, 2021, page 4, <https://pplweb.investorroom.com/Strategic-Rep positioning-of-PPL>.

<sup>5</sup> Strategic Repositioning of PPL Corporation March 18, 2021, page 4, <https://pplweb.investorroom.com/Strategic-Rep positioning-of-PPL>.

1            *prong by considering PPL's "experience and financial strength" and*  
2            *determines the second prong by finding whether the Transaction will*  
3            *"unfavorably impact the general public (including ratepayers)."*

4            In effect, Petitioners appear to have adopted a "no-harm" standard for approving the  
5            proposed transaction. Moreover, Petitioners appear to apply that standard on an "expected"  
6            basis, wherein the burden would be satisfied if the transaction is not expected to have a  
7            negative impact on ratepayers, employees or the general public.<sup>6</sup>

8            In our view as non-lawyers, what is not entirely clear from these standards is how the *risk*  
9            *of harm* to the public interest should be evaluated. From a practical standpoint, all life has  
10           risk, and thus all such transactions necessarily involve some risk. However, from our non-  
11           legal perspective, exposing ratepayers and the general public to some material increase in  
12           risk would not appear to be in the public interest. Thus, this testimony addresses not only  
13           the best estimates for the impact of the proposed transaction, but also the increased risks to  
14           the general public.

15    **Q.    Is the public interest standard the same as the ratepayer impact standard?**

16    A.    Not always (again, in our non-legal opinion). For many areas of utility regulation, there  
17           can be programs or policies that are perceived to have a public benefit, but which come at  
18           the expense of ratepayers. These can include, *inter alia*, assistance for low-income  
19           customers, employment guarantees, and energy efficiency/environmental programs  
20           beyond those required by law. In preparing our evaluation, we remain cognizant of those  
21           tradeoffs.

22    **Q.    It is sometimes argued in similar proceedings that a public benefit of the transaction**  
23           **is that the current owner desires to sell and the new owner desires to buy, which**  
24           **implies that the new owner is strategically more interested in properly managing the**  
25           **utility. Does that argument apply to this matter?**

26    A.    Less so than in other utility acquisition proceedings. Regarding PPL, the NEC acquisition  
27           is desirable and consistent with the Company's (current) strategic planning framework.

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<sup>6</sup> See Petition at paragraph 17, Pre-Filed Direct Testimony of Vincent Sorgi at 16, Pre-Filed Direct Testimony of Gregory N. Dudkin at 21, 22,

1           However, for NG, the discovery evidence indicates that NG was not interested in selling  
2           NEC, except in exchange for its ability to purchase WPD. Since both entities have a  
3           strategic interest in ownership of NEC, there is no obvious advantage to PPL ownership.  
4           In light of the fact that the WPD transaction has been approved, it is not clear how strong  
5           NG's current interest is in having the NEC transaction approved.<sup>7</sup>

6           **Q. It is also sometimes argued in similar regulatory proceedings that commitments by**  
7           **the purchasing utility to make significant capital investments in the acquired firm**  
8           **constitute a public benefit. Do you agree?**

9           A. No. Utilities, of course, have an obligation to make necessary and prudent investments in  
10          plant and equipment for safety, reliability and cost efficiency reasons. However, simply  
11          agreeing to invest more capital does not involve any particular sacrifice on the part of  
12          regulated utilities.<sup>8</sup> Capital commitments generally involve investment in utility rate base,  
13          for which ratepayers are obligated to provide a return of and on the invested capital. As  
14          evidenced by the substantial increase in equity risk premiums awarded by regulators across  
15          the country over the past twenty years, and the substantial market price premiums for utility  
16          equity over its book value, regulated utilities generally have an economic interest in making  
17          capital investments, as long as they can be shown to be prudent.<sup>9</sup> The ability to grow rate  
18          base and thus earnings is a key factor in the evaluation of the attractiveness of utility equity  
19          investments in the capital markets.

20          **Q. Are there any aspects for this proposed transaction that are unusual compared to**  
21          **other utility sale proceedings in which you have participated?**

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<sup>7</sup> NG presumably retains a strong interest in having a good working relationship with PPL for a smooth transition period for WPD.

<sup>8</sup> See, e.g., Petition at para. 25.

<sup>9</sup> Economists often refer to the incentive to over-capitalize when allowed returns are set above the cost of capital as the "Averch-Johnson" effect. Averch, Harvey, and Leland L. Johnson. "Behavior of the Firm Under Regulatory Constraint." *The American Economic Review*, vol. 52, no. 5, American Economic Association, 1962, pp. 1052-69, <http://www.jstor.org/stable/1812181>.

1 A. This is an unusual transaction, in that the selling utility operates adjacent utilities, and it  
2 proposes to sell only one of them.<sup>10</sup> It is unusual for a utility holding company to have an  
3 interest in one utility but not its neighboring utility, unless there are significant extenuating  
4 circumstances. Moreover, because many utility costs are geographic in nature, a selling  
5 utility with adjacent service territories may be able to take advantage of economies of scale  
6 associated with (a) conducting electric and gas supply procurement, (b) operating the  
7 transmission and distribution operations, (c) providing various customer services, and (d)  
8 performing basic administrative functions. It is unclear whether the purchasing utility,  
9 which will not have adjacent operations, will be able to achieve those efficiencies. Having  
10 said that, we note that it should also be recognized that larger utilities with centralized  
11 management and operations are not necessarily more cost-efficient than smaller utilities,  
12 as they can become bureaucratic and less responsive to local concerns.

13 Like other utility transactions, this one involves the use of a Transition Services Agreement  
14 (“TSA”) under which the incumbent utility continues to provide certain specialized  
15 services until such time as the new owner can develop the necessary skills and expertise.  
16 However, for most transactions, the vast majority of the incumbent’s workforce are  
17 retained and simply transferred to the surviving utility company under new ownership.  
18 Thus, the proponents for the sale in most transactions can reasonably claim that the  
19 necessary skills and expertise will be available to the new owner. In this case, however,  
20 NG uses a “shared services” model for much of its customer service and administrative  
21 functions in the U.S. northeast, as well as for some significant aspects of its operations and  
22 engineering functions.<sup>11</sup> Thus, rather than inheriting a complete workforce and  
23 management team, PPL will need to engage in a larger effort to either convince current NG

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<sup>10</sup> In addition to NEC, NG currently owns northeast US gas and electric utilities in Massachusetts and New York. Pre-Filed Direct Testimony of Terence Sobolewski at 5.

<sup>11</sup> Petitioners’ filing indicates that some 5,100 employees within the NG “Service Company” provided services to NEC in FY 2021. Pre-Filed Direct Testimony of Terence Sobolewski, page 6. NG updated and clarified this information to indicate that some 300-370 employees in the NG Service Company will be assigned, in whole or in part, to TSA functions. NG-Div-7-34. Gas operations shared services in the TSA are updated in NG-Div-7-36-2-4, which include dispatching and control center operations (which NG describes as the “nerve center” of NEC’s gas distribution network). Electric operations in the TSA (NG-Div-7-36-2-5) include asset management, engineering, lab and field testing, the meter shop, capital planning, mapping and records, reliability and emergency planning.

1 employees to work directly for NEC, or to hire qualified staff directly. This problem affects  
2 both basic operations and emergency storm response functions, as well as an assortment of  
3 customer service and administrative tasks. Based on our review of the discovery, it is  
4 unclear how long it will take PPL to make the transition, and it is especially unclear whether  
5 PPL will be able to do so without an overall increase in operating costs. While PPL made  
6 a belated effort to compare operating costs under PPL ownership compared to NG, the  
7 estimates remain uncertain.<sup>12</sup> Because ratepayers are at risk for higher costs, these  
8 circumstances suggest that, if the transaction is approved, it is more important for the  
9 regulator to adopt ratepayer protections in this matter than in those that apply to other utility  
10 acquisitions.

11 Nevertheless, our view is that PPL must presumably believe that it can operate NEC at or  
12 near as cost-efficiently as NG. PPL is surely aware that its proposed costs in both its next  
13 base rates and gas/electric procurement proceedings will be carefully compared to NG's  
14 costs, and any substantial variances will be viewed with substantial skepticism by the  
15 regulator and other participants to the proceedings, particularly in light of PPL's  
16 representations in this matter. Thus, an important feature to any approval of the proposed  
17 transaction would be to provide reasonable protections to ratepayers in the event PPL is  
18 unable to perform as it expects.

19 **Q. Please summarize your views regarding the salient features of the proposed**  
20 **transaction, subject to the caveats and commentary provided above.**

21 A. As is common in utility acquisition proceedings, PPL, as the purchasing utility, indicates  
22 that it intends to abide by the legislation, the regulatory policies, and the current operating  
23 policies and practices of the incumbent utility, until such time as it has developed its own  
24 analyses and practices. In general, PPL indicates that it will not change these practices  
25 without regulatory approval. With that as context, some of the key features of this proposed  
26 transfer of ownership are the following:

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<sup>12</sup> PPL-Div-1-54-1 Supplemental.

- 1           • PPL has declined to provide post-transaction financial statements and forecasts.<sup>13</sup>  
2           As such, it is impossible to evaluate the financial structure and viability of NEC  
3           or PPLRI. However, based on information available, it appears that the major  
4           impacts on the Rhode Island utility will be a significant reduction in accumulated  
5           deferred income taxes (“ADIT”), and a substantial increase in goodwill on the  
6           PPLRI books. PPL indicates that it intends to make ratepayers whole for the  
7           reduction in ADIT associated with the sale, and it generally indicates that the  
8           goodwill will be entirely financed through equity, at least initially.
- 9           • PPL intends to replace some of NG’s shared services approach to operations with  
10          more local staff, as well as shifting certain of the shared services to central PPL  
11          administration. PPL recognizes that it may lose some economies of scale in so  
12          doing.
- 13          • At the transition, PPL will need to rely on NG to provide a significant portion of  
14          both operations and administrative services through the TSA. PPL expects to be  
15          able to transition these services over a 24-month period, although the TSA can be  
16          extended.
- 17          • PPL appears to generally believe that it will be able to transition NEC’s electric  
18          distribution operations to a more flexible modern approach, to allow it to better  
19          accommodate both central utility and distributed generation resources, as well as  
20          more innovative approaches to advanced metering and distribution system  
21          management.<sup>14</sup> \*\*\*\* BEGIN CONFIDENTIAL \*\*\*\* [REDACTED]  
22          [REDACTED]  
23          [REDACTED].<sup>15</sup> \*\*\*\* END CONFIDENTIAL \*\*\*\*

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<sup>13</sup> PPL-AG-1-8 and PPL-AG-1-10.

<sup>14</sup> See, e.g., Pre-Filed Direct Testimony of Gregory N. Dudkin at 31-35.

<sup>15</sup> CONFIDENTIAL PPL-Div-6-2-3.

- 1           • PPL appears to believe that NEC’s gas distribution business represents a good  
2           opportunity for rate base growth, and that Rhode Island has a relatively favorable  
3           regulatory climate for gas system expansion. This view may not be so different  
4           from that of NG, which forecasts that its highest rate base and distribution revenue  
5           growth rates are in its gas distribution business. PPL, however, has provided little  
6           in the way of forecasts for capital spending for any of the NEC operating areas.
- 7           • PPL has prepared a rough estimate for an operating cost comparison for NEC  
8           under its ownership compared to NG. That analysis indicates that PPL believes  
9           it can operate NEC at slightly lower costs than NG, but substantial uncertainty  
10          remains. However, the risk for higher than anticipated costs lies with ratepayers,  
11          unless strong ratepayer protections are built into any regulatory approval of the  
12          transaction.

13   **Q. Please summarize your recommendations, subject to the context provided above.**

14   A. Our current recommendations are as follows:

- 15          • As proposed, the transaction should not be approved. PPL has failed to provide  
16          even the most rudimentary post-transaction financial statements for either NEC  
17          or PPLRI. PPL has generally indicated that it will continue to operate NEC in the  
18          same manner as NG without explaining fully how it will be able to do so, and  
19          ratepayers are absorbing significant risk that operating costs will be materially  
20          higher under PPL ownership. Moreover, recent changes in Rhode Island policy  
21          will require a more aggressive approach for reducing carbon emissions associated  
22          with electric supply, for overall gas usage, and for distribution services. At this  
23          time, PPL has offered little in the way of proposals to expand upon NG’s current  
24          policies and activities to begin to address this new policy environment.
- 25          • The Division should not approve the proposed transaction if PPL has not provided  
26          at least a reasonable estimate of post-transaction financial statements for NEC  
27          and PPLRI, and parties have had a chance to review and analyze those statements.

- 1           • To provide reasonable protection for NEC ratepayers from risks associated with  
2           the potential for increased debt financing for existing and new goodwill assets,  
3           the Division should establish as a condition for approving any sales that PPL not  
4           allow the debt share of capital for either PPLRI or NEC to exceed 50 percent of  
5           capital excluding goodwill, without regulatory approval. Similarly, PPL should  
6           commit that it will not use NEC assets to support any debt instruments that are  
7           not used to finance NEC assets.
  
- 8           • The Division should require that PPL limit its capital expenditures for the natural  
9           gas distribution system to those projects that are already underway or are  
10          necessary for public safety. The Division should require PPL to prepare an  
11          evaluation of the long-term viability of the natural gas distribution system in the  
12          context of Rhode Island’s 2021 Act on Climate, within 12 months of the closing  
13          date for the sale. The study should address (a) efforts to expand the natural gas  
14          distribution grid, (b) its repair versus replace policies for the existing system, and  
15          (c) the potential to substitute abandonment/electrification for mains replacement.
  
- 16          • The Division should require PPL to prepare an evaluation relating to  
17          standardizing policies for the incorporation of distributed energy resources to the  
18          electric distribution grid, along the lines of the analysis prepared in Pennsylvania,  
19          within 36 months of the closing date for the sale.
  
- 20          • Regarding PPL’s stated position that ratepayers will not be negatively impacted  
21          by the change in ADIT, the Division should formally recognize that as a condition  
22          of sale.
  
- 23          • To reflect the substantial uncertainty associated with operating costs under PPL  
24          as compared to NG, we recommend that the Division not approve the transaction  
25          unless PPL commits to at least a three-year base rate stay-out, by which time PPL  
26          should have a much better understanding of its costs to operate NEC.

27    **2.    Financial Viability**

1 **Q. Please identify the specific aspects of the proposed transaction that you considered**  
2 **when evaluating the viability of PPL and the relevant subsidiaries.**

3 A. In our experience, the financial aspects of a proposed sale that require review include the  
4 following:

- 5 • Will the resulting utility company and its parent companies be reasonably financed,  
6 such that the financial risk of the firm has not increased as a result of the transaction?  
7 For utility acquisitions, which often have a significant price premium above book  
8 equity value, the transactions can result in the need to record a goodwill asset on the  
9 purchasing firm's books. Because goodwill assets associated with a sale are generally  
10 not included in utility rate base, the capital structure of the purchased firm should be  
11 evaluated net of goodwill. Thus, for example, if the post-transaction balance sheet  
12 shows that debt represents 45 percent of capital, but goodwill represents 25 percent of  
13 capital, the effective debt to capital ratio for revenue-producing assets is  $45/(100-25) =$   
14 60 percent. If the purchasing firm uses debt capital to finance some or all of the  
15 goodwill asset, it is likely that the financial riskiness of the purchased firm will have  
16 increased.
- 17 • Does the post-transaction utility and its parent have the financial wherewithal to be able  
18 to raise capital in the capital markets to meet the investment requirements of the utility?
- 19 • How will the transaction affect the debt ratings for new debt issuances?
- 20 • Are there sufficient "ring-fencing" provisions for the utility to prevent the new owner  
21 from encumbering the assets of the purchased utility as security for financial  
22 obligations by other subsidiaries of the new owner?

23 **Q. Please provide a summary of the financial aspects of the proposed transaction.**

24 A. Narragansett Electric Company ("NEC") is currently a wholly-owned subsidiary of  
25 National Grid USA, which itself is owned by National Grid plc, a public company  
26 organized under the laws of England and Wales. NEC's business comprises three regulated  
27 utility operations, namely electric transmission (generally regulated by the FERC), along  
28 with electric distribution and natural gas distribution (both regulated by the

1 Division/Commission). The proposed transaction involves the sale of NEC to PPL  
2 Corporation (“PPL”) for \$5.3 billion. Of that amount, \$1.5 billion consists of long-term  
3 debt assumed by PPL. The remaining \$3.8 billion applies to the purchase of equity,  
4 although PPL obtains a \$0.5 billion tax benefit from the transaction resulting in a net cost  
5 of equity to PPL of \$3.3 billion.

6 In considering this transaction, however, it must be recognized that it takes place within  
7 the context of an overall larger transaction arrangement, in which PPL sells its UK Western  
8 Power Distribution (“WPD”) utility to NG, and purchases NEC. In brief, NG paid some  
9 \$10.2 billion for PPL’s equity in WPD, and assumed approximately \$8.9 billion in debt.<sup>16</sup>  
10 PPL has generally indicated that the proceeds from the WPD sale will be used (a) for the  
11 purchase of NEC equity, (b) to draw down PPL debt, and (c) be available for “incremental  
12 organic and strategic growth opportunities.”<sup>17</sup>

13 By way of contrast, the current book value of NEC’s long-term debt and equity assets is  
14 \$3.90 billion, and its rate base is approximately \$2.8 billion. Much of this difference  
15 between book value and rate base is some \$0.7 million in goodwill on NEC’s books that is  
16 not included in rate base, resulting from NG’s purchase of these utilities in 2000 and 2006.

17 PPL will pay \$5.3 billion to obtain assets upon which it can earn a return of \$2.8 billion.  
18 From an equity perspective, PPL will pay approximately \$3.3 billion for NEC rate base  
19 equity of about \$1.4 billion (at 51 percent equity).

20 In effect, PPL’s investment in NEC will substantially exceed the asset base on which it will  
21 be permitted to earn a return. This is unsurprising, as purchase prices for utility companies  
22 typically show a significant market price premium. Moreover, this market premium should  
23 not have a significant negative impact on ratepayers, unless the market premium is financed

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<sup>16</sup> Strategic Repositioning of PPL Corporation, March 18, 2021, page 4, <https://pplweb.investorroom.com/Strategic-Rep positioning-of-PPL>.

<sup>17</sup> *Id.*

1 by increasing long-term debt, thereby increasing the overall riskiness of the enterprise.  
2 PPL indicates that it does not intend to use debt financing for the acquisition.<sup>18</sup>

3 **Q. Please review the implications of the proposed transaction on the financial viability**  
4 **of PPL Corporation.**

5 A. The impact of the financial viability of PPL can only reasonably be evaluated in the context  
6 of the combined transaction of the sale of WPD and purchase of NEC. From that  
7 perspective, PPL's balance sheet is improved, as the net proceeds from the WPD sale above  
8 the NEC purchase price will be used, in part, to pay down debt. Some financial analysts  
9 have expressed concern that PPL's longer term business risk has increased, due to  
10 increased reliance on an integrated electric utility (LG&E and KU) and the associated coal-  
11 fired generating capacity. More importantly, the overall riskiness and viability of PPL will  
12 depend on future acquisitions (which are generally expected by financial analysts) and their  
13 financial implications.

14 Overall, PPL is a much larger firm than NEC, with total book assets of \$36.8 billion  
15 compared to NEC's book assets of \$5.6 billion.<sup>19</sup> We conclude that, if NEC is reasonably  
16 financed, PPL has the financial credibility to be able to raise funds in the capital markets  
17 to meet NEC's investment requirements.<sup>20</sup>

18 **Q. Please review the financial implications for PPLRI from the transaction.**

19 A. PPLRI is the parent entity for NEC that has been created as part of the transaction. NEC  
20 will, at least in the near term, be its only subsidiary. PPL has declined to provide any post-  
21 transaction financial information for PPLRI.<sup>21</sup> However, it is our understanding that the  
22 primary difference between the consolidated PPLRI books and the NEC books will be that

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<sup>18</sup> Pre-filed Direct Testimony of Vincent Sorgi at 11.

<sup>19</sup> <https://pplweb.investorroom.com/financials-2021>, Q2 2021 report, accessed 31 October 2021.

<sup>20</sup> See PPL-Div-8-13 regarding PPL's plan that NEC will issue its own debt, but will also have access to market capital through PPL Capital Funding. By way of comparison, NG's pre-transaction books show assets of GBP 46.8 billion (\$63.9 billion), with US assets of about GBP 22 billion (\$30 billion). <https://www.nationalgrid.com/document/142126/download> page 34.

<sup>21</sup> PPL-AG-1-10.

1 some \$1 billion in goodwill associated with the proposed transaction will be recorded on  
2 the PPLRI books, but not the NEC books.

3 **Q. Please review the financial implications for NEC from the proposed transaction.**

4 A. PPL has thus far also declined to provide post-transaction financial information for NEC.<sup>22</sup>  
5 As such, we conclude from our non-legal perspective that PPL has not met its burden to  
6 demonstrate that the resulting Company will be reasonably financed and will not impose  
7 undue risks on ratepayers. Based on our review of discovery, it appears that the only known  
8 significant change under new ownership will be an impact on ADIT. Unless an  
9 accommodation is made, this change would serve to increase utility rate base and thus  
10 increase rates in the next base rates proceeding. As discussed further below, PPL generally  
11 promises to indemnify ratepayers for any impact that this change in ADIT would otherwise  
12 have on rates.

13 **Q. Will NEC or PPLRI be reasonably financed after the transaction?**

14 A. PPL generally indicates (a) that it is using equity capital from the WPD sale to purchase  
15 the current equity of NEC plus the goodwill from the price premium, and (b) that it intends  
16 to maintain a debt to capital ratio that is similar to the approved regulatory capital structure  
17 with goodwill excluded. As such, there is no obvious reason to believe at this time that  
18 there will be any increase in financial leverage for NEC (or PPLRI, with the goodwill asset)  
19 as a result of the transaction.

20 However, PPL has thus far declined to provide a post-transaction balance sheet for either  
21 PPLRI or NEC.<sup>23</sup> Moreover, it has not made an explicit commitment regarding the capital  
22 structure for NEC. We therefore recommend that PPL be required to provide its best  
23 estimates of its post-transaction financial statements, and that parties be given the  
24 opportunity to evaluate those statements. We also recommend that the Division require

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<sup>22</sup> *Id.*

<sup>23</sup> PPL-AG-1-8.

1 that PPL’s debt to capital ratio, calculated net of goodwill, be limited to no more than 50  
2 percent for both PPLRI and NEC, except upon approval of the Division/Commission.

3 **Q. Does PPL intend to increase debt capital to finance the significant investment in**  
4 **goodwill assets?**

5 A. It does not appear so. PPL indicates that it will accomplish the purchase of NG’s equity  
6 stake in NEC using the proceeds from the sale of WPD, and that it generally plans to  
7 finance the utility with a capital structure excluding goodwill that is comparable to that  
8 approved by the regulator for deriving the allowed return on capital.<sup>24</sup>

9 **Q. Will the proposed transaction affect NEC’s cost of debt capital?**

10 A. Subject to the caveats detailed earlier, it does not appear that the change in ownership is  
11 likely to have a negative impact on NEC’s debt ratings.<sup>25</sup> In general, the debt ratings for  
12 PPL are similar to or slightly better than the NEC ratings.<sup>26</sup>

13 **Q. Please describe the “ring-fencing” protections that PPL proposes to apply to NEC.**

14 A. PPL indicates that no particular additional ring-fencing provisions are required, because:

- 15 • PPL intends that NEC will continue to issue its own debt to finance its operations.
- 16 • PPL indicates that NEC “has no plans” to guarantee the credit of any PPL  
17 affiliates, and indicates that it has no plan to do so without regulatory approval.
- 18 • PPL indicates that it has no plans to pledge any NEC assets as security for PPL  
19 or any affiliate debt without regulatory approval.
- 20 • PPL’s financial strength is at least equivalent to NG.

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<sup>24</sup> PPL-AG-1-11(c) et al.

<sup>25</sup> See also PPL-Div-8-8 regarding PPL’s plan to evaluate whether NEC should become an SEC registrant to be able to issue secured debt in addition to its current unsecured debt approach.

<sup>26</sup> PPL-Div-8-5, PPL-Div-8-6, PPL-AG-1-7-1.

- 1           • The aforementioned provisions are consistent with those that apply to PPL’s  
2           current utility operations.<sup>27</sup>

3           PPL clarifies that these reasons represent its plans, but do not represent commitments made  
4           to obtain approval for the proposed transaction.<sup>28</sup>

5           We note that at least one of the bond rating agencies observes that the lack of ring-fencing  
6           for NEC adds to the riskiness of the company, in light of the relatively high risk of the  
7           parent. Specifically, Moody’s indicated that lack of ring-fencing protection added to the  
8           risk of NEC before the sale announcement:

9                     *“The absence of significant ring-fencing provisions contrasts with other US*  
10                    *regulated utilities within the National Grid group, principally those operating*  
11                    *in New York, where a number of provisions exist, such as (1) specific leverage*  
12                    *restrictions at conservative levels (usually defined by a debt-to-capitalisation*  
13                    *ratio); (2) a special class of preferred stock (the Golden Share), which is*  
14                    *subordinated to all other existing preferred stock and limits a regulated utility’s*  
15                    *ability to commence any voluntary bankruptcy (or similar) proceedings without*  
16                    *the consent of the holder; and (3) a requirement to maintain an investment-*  
17                    *grade rating. Together, these provisions provide a material benefit to creditors*  
18                    *and may allow regulated utilities to be rated more highly than the group to*  
19                    *which they belong. Of these restrictions, we view an explicit leverage restriction*  
20                    *at conservative leverage levels as having the greatest benefit for protecting a*  
21                    *single- A rating, while other measures have power only at lower rating*  
22                    *levels.”*<sup>29</sup>

23       **Q. Overall, what are your conclusions and recommendations regarding the financial**  
24       **aspects of the proposed transaction.**

25       A. Unfortunately, PPL apparently has not yet prepared any post-transaction financial  
26       statements for regulatory review.<sup>30</sup> While we are not attorneys, it is unclear how PPL meets  
27       even the no harm burden without providing at least its best estimate of post-transaction

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<sup>27</sup> PPL-Div-6-3.

<sup>28</sup> PPL-Div-8-7.

<sup>29</sup> NG-Div-8-5-1.

<sup>30</sup> PPL-AG-1-10.

1 financial statements. Unless and until PPL makes such a submission, and parties to this  
2 proceeding are permitted to review and analyze the filing, we recommend against  
3 approving the proposed transaction.

4 If the proposed transaction is to be approved, we recommend that the following conditions  
5 be attached:

6 First, to address the concerns about the limited ring fencing provisions that currently apply  
7 to NEC, we recommend that PPL's "planned" ring-fencing provisions be adopted as  
8 commitments, which can only be varied by Division/Commission approval. PPL's "plans"  
9 are unlikely to carry much weight with debt rating agencies regarding the riskiness of NEC.

10 Second, to address the potential for risk associated with the possibility for increased  
11 leverage for financing goodwill, we recommend that the maximum debt to capital ratio  
12 excluding goodwill for NEC and PPLRI not exceed 50 percent without regulatory approval.  
13 This recommendation would formalize PPL's plan that it would set the financial structure  
14 for the utility excluding goodwill at or near the approved regulatory capital structure.<sup>31</sup>

15 **3. Due Diligence**

16 **Q. Please describe your evaluation of PPL's due diligence efforts associated with this**  
17 **transaction.**

18 A. Our analysis of PPL's due diligence efforts was limited due to time and availability of  
19 information constraints. With that caveat, we observe that PPL has provided a significant  
20 amount of documentary evidence relating to its due diligence activities. This testimony is  
21 limited to a review of whether the purchase price for NEC was unreasonably high, and  
22 whether that purchase price will impose undue risk to the resulting utilities.

23 For conducting our evaluation, we recognize that high market to book price premiums are  
24 the norm for utility purchases, due in significant part to the substantial increase in risk

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<sup>31</sup> PPL-Div-8-11, PPL-Div-8-14, PPL-Div-8-16.

1 premium built into return on equity awards approved by regulators across the country over  
2 the past 20 years.

3 As part of their due diligence efforts, acquiring companies typically retain investment  
4 banking or other experts to evaluate prices for similar acquisitions, and to determine what  
5 level of price premium (or, in the case of utilities, the market cost to acquire rate base) is  
6 reasonable.

7 In this proceeding, PPL generally declined to provide the RIAG with any specific  
8 information regarding the basis for the purchase price of NEC.<sup>32</sup> Based on our cursory  
9 review, it does not appear that the purchase price for NEC is out of line with other actions,  
10 but we have not conducted a detailed review, recognizing that there is substantial variation.

11 One test for assessing the reasonableness of the purchase price is a review of the impact of  
12 the announcement of the transaction on the acquiring company's share price, and on the  
13 reaction of financial analysts.

14 The announcement of PPL's sale of WPD and purchase of NEC occurred in March 2021.  
15 However, this announcement was foreshadowed by PPL's much earlier announcement that  
16 it intended to sell its WPD assets. Nevertheless, the market reaction applies to both  
17 transactions, and not simply the purchase of NEC.

18 While we did not conduct a formal event study, our review of the PPL share prices does  
19 not indicate any particular negative effect associated with the announcement.

20 Based on our review of the reports provided by the Petitioners from financial analysts and  
21 debt rating agencies, the market reaction to the proposed transactions was at least neutral  
22 and generally favorable for PPL. For example: **\*\*\*\* BEGIN CONFIDENTIAL \*\*\*\***

- • [REDACTED]
- [REDACTED]

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<sup>32</sup> PPL-AG-1-2.



1 As is common for these types of proceedings, the acquiring party (PPL) generally indicates  
2 that it will abide by all laws and regulations, and that it will continue to follow the policies  
3 and practices of the selling party (NG) until such time as it can evaluate those practices. In  
4 general, PPL does not commit to either increasing or decreasing environmental efforts at  
5 NEC.

6 **Q. Which environmental issues have you reviewed?**

7 A. We have reviewed the issues of the longer-term viability of natural gas distribution  
8 systems, renewable energy portfolio standards for electric supply, energy efficiency  
9 programs, electric vehicle (“EV”) charging and rates programs, and policies regarding the  
10 incorporation of distributed energy resources (“DER”). For the most part, however, PPL  
11 indicates simply that it will continue to follow existing policy for the time being. We  
12 therefore limit our review in this testimony to issues involving the long-term viability of  
13 the natural gas utility and PPL’s approach to integrating DER into the electric grid.

14 **Q. Please describe the implications of Rhode Island’s 2021 Act on Climate for the  
15 proposed transaction.**

16 A. The 2021 Act on Climate (“Climate Act”) has implications for NEC regardless of whether  
17 it is owned by NG or PPL. However, because the Climate Act has recently been adopted,  
18 it will not be sufficient for PPL to simply follow existing NG environmental policies  
19 through the transition period. Like NG, it will need to react immediately to the changed  
20 legislative environment and make efforts to prepare for potential changes.

21 The key feature of the Climate Act is that it establishes an executive climate change  
22 coordinating council (“Council”) with the responsibility to, by December 31, 2025,  
23 develop and then pentennially update a plan to reduce Rhode Island greenhouse gas  
24 emissions to 45 percent below 1990 levels by 2030, 80 percent below 1990 levels by 2030  
25 and to achieve net zero emissions by 2050. By statute, the Council comprises a variety of  
26 state officials, including the administrator of the Division. What makes this legislation  
27 particularly important is that § 42-6.2-9 specifies that the emission reduction targets  
28 specified for the plan are mandatory, and § 42-6.2-10 indicates that the mandatory

1 reductions can be enforced through court proceedings brought by the RIAG, any Rhode  
2 Island resident, or any registered Rhode Island organization.

3 This legislation thus sets one of the most aggressive goals for greenhouse gas reductions  
4 in the nation. But more importantly, perhaps, it appears (to our non-legal eyes) to provide  
5 for an enforcement mechanism that could subject industry participants to judicial decree if  
6 the targets are not met, rather than defaulting to the normal legislative and regulatory  
7 procedures. In effect, industry participants may need to respond to a judge's order, rather  
8 than have the opportunity to influence policy through the regulatory process. Thus,  
9 industry participants appear to have strong incentives to aggressively develop plans to meet  
10 these targets, beyond simply participating with the Council and abiding by the associated  
11 regulations.

12 To state the obvious, these targets and the associated litigation threat are critical to NEC,  
13 as it is directly or indirectly involved in almost all aspects of Rhode Island's greenhouse  
14 gas emissions. While electricity and residential/commercial natural gas consumption  
15 directly account for less than half of Rhode Island's emissions, the primary technologies  
16 for eliminating other sources of emissions (substantially petroleum-based transportation  
17 and home heating) are energy efficiency programs and electrification. Thus, NEC will  
18 need to develop plans to expand its carbon-free electricity supplies, expand its energy  
19 conservation efforts, and determine how it can serve the heating needs of its current gas  
20 customers without traditional fossil fuel supplies, all within 30 years and most within 20  
21 years.

22 PPL appears to agree that it will need to undertake extraordinary efforts, but it has offered  
23 little in the way of specific modifications to NG's activities as part of its petition.<sup>36</sup> With  
24 its efforts focused on simply coming up to speed regarding NG's current practices, it is  
25 unclear how much corporate effort PPL can focus on meeting the aggressive goals set out  
26 in the legislation.

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<sup>36</sup> See, e.g., Petition at para. 33.

1 **Q. If the Climate Act was to be substantially amended, are there issues associated with**  
2 **the long-term viability of distributed natural gas?**

3 A. Yes. Even without the specific strictures of the Climate Act, legal and societal pressures  
4 are building to substantially reduce fossil fuel consumption. Moreover, policymakers are  
5 becoming increasingly concerned about methane emission in both gas production and  
6 distribution activities. In addition, the costs associated with replacing obsolescent natural  
7 gas distribution systems have increased substantially over the past decade, as many  
8 distribution utilities have accelerated their system replacement efforts. Finally, electric  
9 alternatives to natural gas heating (e.g., “mini-splits”) are becoming more efficient and cost  
10 competitive. The economic risks to gas distribution service are both environmental and  
11 economic. Having a monopoly on natural gas distribution service does not insulate the  
12 utility from competition with alternative energy sources.

13 In that context, it is not clear that natural gas distribution systems serving residential and  
14 smaller commercial customers have a long-term future. Potential alternatives to traditional  
15 natural gas such as blending hydrogen and renewable natural gas are not, as yet,  
16 demonstrably cost-effective and scalable to meet current market requirements. Moreover,  
17 these environmental problems are compounded by the high costs associated with replacing  
18 aging gas distribution mains. Thus, even if alternative renewable gas supplies are  
19 available, it is unclear that gas distribution will be cost competitive.

20 Nevertheless, PPL appears to be operating on the expectation that NEC’s natural gas load  
21 will continue to grow, and that substantial investments in the gas distribution business are  
needed. \*\*\*\* BEGIN CONFIDENTIAL \*\*\*\*

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

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■ [REDACTED]

[REDACTED]

1 [REDACTED]

2 [REDACTED]<sup>38</sup> \*\*\*\*\* END CONFIDENTIAL \*\*\*\*\*

3 In fairness, PPL’s view of the potential for gas system rate base growth is not necessarily  
4 at odds with NG’s approach. NG’s financial forecast for NEC shows that approximately  
5 half of the planned capital investments for the next three years will relate to the natural gas  
6 distribution business.<sup>39</sup> \*\*\*\*\* BEGIN CONFIDENTIAL \*\*\*\*\* [REDACTED]

7 [REDACTED]

8 [REDACTED]<sup>40</sup> \*\*\*\*\* END CONFIDENTIAL We note that NG’s forecast for revenue  
9 growth (net of passthrough items) for the gas distribution business averages 6.8 percent per  
10 year from 2022 to 2026, above the growth rates for the electric distribution and  
11 transmission businesses.

12 **Q. Is this consistent with the long-term outlook for natural gas distribution utilities?**

13 A. We acknowledge that many U.S. gas distribution utilities are making investments for  
14 replacing and expanding distribution systems, and that obsolescent portions of gas  
15 distribution systems are only abandoned under extreme circumstances.<sup>41</sup>

16 Nevertheless, in light of the uncertainties facing the industry, it is imprudent to continue to  
17 make large capital investments to replace obsolescent assets and attract new customers and  
18 loads, based on the assumption that the gas distribution mains will be needed for the next  
19 half century. This is particularly true in Rhode Island, in light of the recent passage of the  
20 Climate Act.

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<sup>38</sup> CONFIDENTIAL [REDACTED]  
[REDACTED]  
[REDACTED]

<sup>39</sup> A summary of NG’s forecasts for NEC are provided in NG-AG-1-10.

<sup>40</sup> CONFIDENTIAL NG-Div-6-4-2 page 28.

<sup>41</sup> See, e.g., Petition at para. 31, and Pre-Filed Direct Testimony of Lonnie Bellar at 4-5, where PPL addresses its mains replacement policy for its LG&E subsidiary in Kentucky.

1 We recommend that, as a condition of sale, PPL limit its capital spending for gas mains to  
2 that needed for public safety, and to complete projects already underway. Where possible,  
3 it should focus on repairing existing mains rather than replacing them entirely. The  
4 Division should require PPL to prepare a detailed evaluation of the economic efficacy of  
5 (a) any future efforts to expand the natural gas distribution grid, (b) its repair versus replace  
6 policies for the existing system, and (c) the potential to substitute  
7 abandonment/electrification for mains replacement.

8 We note that undertaking such a review is not completely without value to PPL. First,  
9 consideration of electrification options is not necessarily as problematic for NEC as it is  
10 for other gas utilities, because NEC provides the electric service in its natural gas service  
11 territory. Second, if the result of restrictions on greenhouse gas emissions do lead to the  
12 need to abandon substantial portions of the gas distribution system, PPL will doubtless  
13 wish to recover the stranded costs from ratepayers. However, it is likely that any such  
14 effort before a regulator would be met by questions regarding whether PPL should  
15 reasonably have known that its investments for grid replacement and expansion were  
16 uneconomic and imprudent. Taking on these issues directly would provide evidence of the  
17 contemporaneous views of both PPL and the regulator.

18 We therefore recommend that PPL provide the results of its detailed evaluation to the  
19 regulator within 12 months of the sale closure, should the sale be approved.<sup>42</sup>

20 **Q. Please address the issue of accommodating DER in the electric grid.**

21 A. The traditional model for the electric grid is that it is designed to flow power from large  
22 central generating stations to distribution customers. As a result of technological,  
23 economic and environmental factors, this model is changing. Remote generation and  
24 storage technologies are becoming attractive options as supplements to, or substitutions  
25 for, the traditional model. Rather than unidirectional, power flow is often bidirectional,  
26 and distribution systems must be designed to manage such flows. In addition, rather than

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<sup>42</sup> While it is probably not relevant to this proceeding, we would make the same recommendation to NG if the proposed transaction is rejected.

1 having both remote generation and distribution wires capacity being sized to meet peak  
2 customer demands, remote storage options can potentially shift load to off peak periods  
3 and reduce the need for capacity. Often, the adoption of DER technologies serves to  
4 provide environmental benefits, as renewable generation and battery storage options often  
5 replace fossil fuel generation with renewable options.

6 Managing this process is a complex matter, and the best practices are by no means resolved.  
7 Moreover, while the adoption of DER technology can be encouraged by top-down  
8 legislative or regulatory policies (e.g., net metering requirements), individual utilities have  
9 considerable flexibility regarding detailed rules that apply to DER facilities. These include  
10 rules regarding the calculation of customer contributions (“CIAC”) related to DER  
11 facilities, as well as technological requirements.

12 In this respect, PPL takes the position that it is a relatively innovative utility with respect  
13 to designing the distribution grid to accommodate DER. Moreover, in Pennsylvania, PPL  
14 made an effort to standardize its rules for technology related to DER attachment, and filed  
15 its plan with the Pennsylvania Public Utility Commission for review.

16 For the purposes of this proceeding, PPL indicates that it is still in the process of  
17 implementing the DER plan in Pennsylvania and has no immediate plans to make a similar  
18 filing for Rhode Island.<sup>43</sup> We recommend that PPL commit to undertaking such an effort  
19 in the near future, once the Pennsylvania pilot is fully implemented and the implications  
20 have been reviewed. Based on the timetable for the Pennsylvania pilot, a three-year time  
21 horizon for this evaluation would be reasonable.

22 **5. Tax Implications**

23 **Q. What are the primary tax implications of the proposed transaction?**

24 A. PPL has declined to provide post-transaction financial statements. At this writing, our  
25 understanding of the major tax implications of the proposed transaction are (a) the  
26 transaction is structured as an asset sale rather than a stock sale, which allows for a step up

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<sup>43</sup> PPL-AG-1-25, PPL-Div-2-14(f).

1 in the tax basis for the acquired firm, and (b) the transaction will substantially reduce or  
2 eliminate the accumulated deferred income tax (“ADIT”) liability on the NEC books.<sup>44</sup>

3 **Q. What are the implications of the tax effects associated with the asset sale approach on**  
4 **ratepayers?**

5 A. In general, we expect that the primary implication of the asset sale approach will be that  
6 PPL will be able to amortize the goodwill associated with the sale over a 15-year period  
7 for tax purposes.<sup>45</sup> Because the goodwill associated with the transaction will be recorded  
8 in the PPLRI books, and because that goodwill will not be reflected in ratebase, we do not  
9 believe that there will be significant tax implications for NEC ratepayers associated with  
10 amortizing the goodwill. However, PPL declines to provide any information regarding that  
11 impact.<sup>46</sup> As part of the requirements for PPL to provide post-transaction financial  
12 statements prior to sale approval, PPL should provide its evaluation of the tax impacts.

13 **Q. What are the implications of the ADIT tax impact?**

14 A. While we are not tax specialists, we understand that the NEC purchase will substantially  
15 reduce or eliminate the ADIT amounts on NEC’s financial statements by some \$372  
16 million. Because ADIT generally represents tax costs that have been charged to ratepayers  
17 but not yet paid by the utility, ADIT is treated as a rate base offset.<sup>47</sup> Thus, eliminating the  
18 ADIT would serve to increase rate base in the next base rates proceeding, unless an  
19 adjustment is made.

20 Needless to say, it would be inappropriate for ratepayers to lose the rate base credit as a  
21 result of the proposed transaction, since ratepayers have effectively already paid those tax  
22 costs. PPL agrees, and it has indicated that it will make ratepayers whole for the loss of

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<sup>44</sup> PPL-DIV-2-3

<sup>45</sup> PPL-Div-2-3 (a). On a GAAP basis, the goodwill asset is generally not amortized, subject to an annual evaluation for impairment. NEC has followed the approach for the goodwill associated with NG’s acquisitions of the assets since 2001. NG-AG-1-11 (Under GAAP, firms can also elect to amortize the goodwill over a period up to 10 years.)

<sup>46</sup> PPL-AG-1-9.

<sup>47</sup> NG-Div-4-6. Some \$366 million of the \$372 million is an offset to rate base.

1 ADIT. Exactly how that will work is not determined and will depend on the  
2 timing/circumstances of the next base rates case.<sup>48</sup> At this time, we do not have any  
3 significant concerns regarding this proposal. However, we believe that PPL’s commitment  
4 should be formalized as part of any approval of the proposed transaction.

5 **6. Operations and Cost Impacts**

6 **Q. Please summarize the overall impacts on NEC’s operations associated with the**  
7 **proposed transaction.**

8 A. Due to NG’s fairly extensive use of shared services, the proposed transaction will  
9 presumably result in some significant changes in the nature of NEC’s operations, which  
10 will be effected through a complicated transition arrangement. Substantial uncertainty  
11 remains regarding exactly how PPL will operate NEC, and thus cost impacts are difficult  
12 to quantify. PPL intends to move to more of a local operations model and away from the  
13 shared services model used by NG. This approach has the benefit of more localized control  
14 and increased employment in Rhode Island. As is not uncommon for these transactions,  
15 NG will continue to provide certain operations and administrative services through a TSA.  
16 PPL expects that it can transition to self-provision of these services over the 24-month  
17 duration of the TSA, although the TSA can be extended if need be. In general, the TSA  
18 will be used to provide significant services for numerous IT services, some engineering,  
19 gas supply, accounting and billing, finance, HR, regulatory, emergency response, legal,  
20 customer service, and pipeline safety.<sup>49</sup> Since PPL does not have a firm plan for exactly  
21 how all of those services will be replaced, the cost implications of the proposed transaction  
22 are substantially uncertain.

23 ■ \*\*\*\*\* BEGIN CONFIDENTIAL \*\*\*\*\* [REDACTED]  
24 ■ [REDACTED]  
25 ■ [REDACTED]

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<sup>48</sup> PPL-DIV-4-7.

<sup>49</sup> Details for the 146 potential TSA services are provided in the attachments to NG-Div-1-28.

█ [REDACTED]

█ [REDACTED]

3 [REDACTED] \*\*\*\* END CONFIDENTIAL

4 \*\*\*\*

5 **Q. Has PPL attempted to address the issue of the cost impact of the proposed transaction**  
6 **on NEC ratepayers?**

7 A. PPL did not do so in its filing in May 2021. However, on September 30, 2021, PPL  
8 circulated a partial estimate of the cost impact of the change in ownership, in its  
9 supplemental response to PPL-Div-1-54. This analysis considers only “managed” costs,  
10 namely O&M, A&G and allocated NG depreciation costs. It does not address pass-through  
11 costs, such as electric/gas supply procurements, wheeling costs, storm costs, depreciation  
12 on existing assets and taxes.<sup>52</sup>

13 **Q. Have you conducted a detailed review of the cost estimates prepared by PPL for**  
14 **operating NEC post-transaction?**

15 A. We have reviewed the study prepared by PPL, as well as the terms of the TSA, and our  
16 review of the discovery evidence is ongoing. A detailed critique of the operating cost  
17 analysis goes beyond the scope of our work, as we have no direct experience in utility  
18 operations management.

19 Nevertheless, as PPL acknowledges, the cost estimates are substantially uncertain at this  
20 time. Moreover, PPL’s cost analysis does not directly address many of the specific

<sup>50</sup> See CONFIDENTIAL PPL-Div--6-1(d,e), PPL-Div-6-2-3.

<sup>51</sup> \*\*\*\* BEGIN CONFIDENTIAL \*\*\*\* [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]. \*\*\*\* END CONFIDENTIAL \*\*\*\*

<sup>52</sup> Unless PPL’s electric and gas procurement policies are substantially different from NG, or its capital investment policy deviates substantially from NG’s plan, these costs are likely to be similar under PPL ownership to those that would be incurred by NG.



1 services will also involve the need to invest in local facilities.<sup>55</sup> While the cost for these  
2 facilities would presumably displace the costs for comparable NG facilities, it appears that  
3 PPL’s cost comparison includes the costs for the comparable NG facilities in the “allocated  
4 depreciation” cost category, but it does not appear to include the direct capital cost for PPL  
5 in the comparison.<sup>56</sup> As such, PPL’s cost comparison may not be “apples to apples.”

6 **Q. Will the proposed transaction have an impact on allocated corporate costs?**

7 A. One of the concerns in utility acquisitions (or divestitures) is that corporate administrative  
8 costs can change when subsidiaries are added or sold off.<sup>57</sup> Utilities with multiple  
9 operating utilities generally have some form of cost allocation manual which determines  
10 how centralized costs, including corporate administrative costs, are allocated among the  
11 operating companies. Obviously, these allocations change when the operating company  
12 ownership changes.

13 In this case, for the combined transaction, PPL is selling off a very large UK utility and  
14 purchasing a much smaller Rhode Island utility. PPL has generally declined to provide  
15 any evaluation of the impact of the combined transactions on allocated corporate costs,  
16 asserting only that it will have no impact on NEC ratepayers.<sup>58</sup> It is therefore unknown  
17 whether these transactions will have a material impact on the allocated costs, or whether  
18 PPL has reflected any impact of the change in allocated corporate costs in its operating cost  
19 comparison.

20 **Q. Are there other concerns regarding PPL’s ability to manage NEC’s gas supply**  
21 **function?**

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<sup>55</sup> See, for example, Pre-Filed Direct Testimony of Gregory N. Dudkin at page 32 regarding an electric/gas control center.

<sup>56</sup> PPL-Div-1-54-1 at 6-7.

<sup>57</sup> For example, in a recent base rates proceeding in Pennsylvania, the cost claim by Columbia Gas of Pennsylvania increased by a material amount after the forced divestiture of Columbia Gas of Massachusetts required a reallocation of corporate costs. See Docket No. R-2021-3024296, OCA Statement No. 1 at 20-21.

<sup>58</sup> PPL-AG-1-36.

1 A. PPL acknowledges that it has little direct corporate experience in managing LNG  
2 operations, which can affect both gas supply and distribution operations.<sup>59</sup> This may be of  
3 particular concern as it appears that much of the LNG operations are part of the shared  
4 services and will be provided through the TSA, implying that PPL will need to retain the  
5 necessary expertise.<sup>60</sup>

6 **Q. Do you have any concerns regarding the effective transition of emergency planning  
7 and operations activities, particularly storm response, after closing of the proposed  
8 transaction?**

9 A. Yes. Our concern is that the information provided to date indicates the potential for the  
10 degradation of the quality of these services, at an increase in cost, if the transition is not  
11 planned and implemented effectively.

12 **Q. Please describe these concerns in further detail.**

13 A. As a general rule, costs associated with major storms are not predictable, and thus are  
14 subject to rate reconciliation mechanisms. Typically, rates include a provision for storm  
15 costs, and variations around that provision are recorded in a variance account for future  
16 recovery or refund. Thus, from a utility incentive standpoint, major storm costs are unlike  
17 regular operating costs that are evaluated in base rate proceedings, for which utilities have  
18 a strong incentive for cost-efficient management. Storm costs, subject only to prudence  
19 reviews, are passed fully on to ratepayers, with much less incentive for utility cost control.  
20 This may be an important issue in Rhode Island, since the unrecovered balance in the storm  
21 damage account is significant and the Commission has opened a docket to address this  
22 issue.<sup>61</sup>

23 One obvious concern regarding storm response costs is that NG currently serves both RI  
24 and Massachusetts, and that there may be efficiencies to having co-located service

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<sup>59</sup> PPL-Div-3-5.

<sup>60</sup> NG-Div-1-28-4.

<sup>61</sup> We do not believe that the issues related to the recovery of past storm costs are affected by the proposed transaction, other than to heighten concerns about potential negative impacts going forward.

1 personnel and shared supplies.<sup>62</sup> The potential offsetting advantage to PPL is diversity in  
2 storms, in that significant storm events may affect both Massachusetts and RI, while it is  
3 less likely that Kentucky, Pennsylvania and RI will all be similarly affected by a storm.<sup>63</sup>  
4 It is not clear from the record how these countervailing effects will balance out.

5 Moreover, PPL's goals and timing of securing mutual assistance agreements are uncertain.  
6 PPL only notes that it anticipates that NEC will be included in a mutual assistance  
7 agreement with PPL's existing utilities, and that it expects to enter into a mutual assistance  
8 agreement with National Grid USA. No other assurances are provided.<sup>64</sup>

9 **Q. Do you have any other concerns?**

10 A. Yes. Our experience is that a critical component of storm response performance is effective  
11 logistics coordination and, especially, communication. PPL has generally committed to  
12 employing NEC's currently operative emergency response plans, relying on NG for  
13 support during the transition period. Effective integration and system takeover by PPL will  
14 be essential to ensure that no degradation in storm response performance occurs post-  
15 closing. Unfortunately, many logistical and operational details are mainly left to future  
16 planning and coordination with NG.

17 For example, under the TSA transition services schedule for emergency planning and  
18 operation, NG commits to providing emergency planning and operations to PPL in a  
19 manner consistent with the support provided prior to closing. The proposed duration of  
20 the transition period for these services, however, is only six months post-closing.<sup>65</sup> This  
21 duration is concerning, as PPL represents that it continues to work with National Grid on

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<sup>62</sup> See, e.g., NG-Div-11-25, NG-Div-11-28.

<sup>63</sup> Pre-Filed Direct Testimony of Gregory N. Dudkin at 31.

<sup>64</sup> PPL-Div-1-45

<sup>65</sup> Attachment NG-Div-7-36-2-5, page 32

1 Day 1 staffing with the Incident Command Structure, and a related gap analysis is not yet  
2 completed.<sup>66</sup>

3 Beyond this issue, PPL indicates only limited planning has occurred and provides  
4 generalities in its approach with respect to storm response effectiveness. For example,  
5 concerning PPL’s emergency response strategy and systems for communicating with state  
6 and local officials, the general public, and other relevant emergency management  
7 personnel, PPL simply asserts that it will “...maintain continuity with all established  
8 communication methods interacting with state and local officials as well as the public as  
9 outlined” in NG’s ERP.<sup>67</sup> Similarly, concerning specific information on its systems and  
10 approach for effective communication regarding outage locations, potential outage  
11 durations, and staging and mobilization, PPL again avers that it will “...maintain continuity  
12 with the existing communication strategy regarding outage locations and estimated  
13 restoration times,” and with respect to staging will “...maintain the ability to execute the  
14 staging site plans as outlined...” in NG’s ERP.<sup>68</sup> Another example of limited planning  
15 activities and uncertain future performance involves PPL’s discussion of any potential  
16 changes to response to outages and extreme conditions in the Block Island or Pascoag  
17 Utility Districts. Here again, PPL simply avers that it “...does not expect there to be any  
18 changes in the relationship with and/or provision of services” to these districts.<sup>69</sup>

19 **Q. What are the implications of this uncertainty regarding the future cost of operations**  
20 **under PPL ownership?**

21 A. In general, over the longer term, ratepayers are at risk for any increase in the operating cost  
22 associated with PPL ownership. Moreover, the need for NG to continue to provide a  
23 significant number of services through the TSA for the next two years implies that PPL

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<sup>66</sup> PPL-AG-2-8. See NG-Div-1-28-5 for a listing of emergency planning and operations functions to be provided under the TSA.

<sup>67</sup> PPL-AG-2-9

<sup>68</sup> PPL-AG-2-9

<sup>69</sup> PPL-AG-2-6

1 and the regulator will not have a clear idea as to going forward operating costs for many  
2 months.

3 To address this uncertainty, and to provide some basic protection to ratepayers who bear  
4 the risk of higher costs, it is not uncommon in utility acquisition proceedings for the  
5 acquiring utility to commit to a base rate stayout, during which no base rate case is filed,  
6 and base rates remain in place. (Basic flowthrough mechanisms also remain in place.)

7 In the case of NEC, it is our understanding that NEC is entering the last year of a four-year  
8 base rate plan, and that NG had intended to submit a base rate filing in November 2021.  
9 PPL has not made plans to file a base rate case.<sup>70</sup>

10 We therefore recommend that the Commission condition any approval of the proposed  
11 transaction on a commitment from PPL that it will not submit a base rate case filing for at  
12 least 36 months from the closing date for the transaction. Such a commitment will provide  
13 some modest protection to ratepayers associated with unknown cost impacts, while  
14 allowing PPL and the regulator to develop a much clearer idea of the going forward  
15 operating costs for NEC under PPL management.

16 **Q. Does this conclude your direct testimony?**

17 A. Yes, it does.

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<sup>70</sup> Pre-Filed Direct Testimony of Gregory N. Dudkin at 23, PPL-AG-1-20.

## CERTIFICATION

I hereby certify under oath that the foregoing testimony is true and correct to the best of my knowledge, and that this declaration has been executed on this 8<sup>th</sup> day of November, 2021 in Arlington, Massachusetts.

By: Mark Ewen

Mark D. Ewen  
Principal  
Industrial Economics, Inc.

## CERTIFICATION

I hereby certify under oath that the foregoing testimony is true and correct to the best of my knowledge, and that this declaration has been executed on this 8<sup>th</sup> day of November, 2021 in Lexington, Massachusetts.

By:  \_\_\_\_\_

Robert D. Knecht  
Principal  
Industrial Economics, Inc.

**EXHIBIT IEc-1A**

**RÉSUMÉ AND EXPERT TESTIMONY LIST**

**FOR**

**MARK D. EWEN**

## Overview

Mr. Ewen has a strong background in applied economics, empirical methodologies, and financial analysis. As a Principal at Industrial Economics, Incorporated (IEc), he focuses on expert case management and economic damages estimation in a variety of litigation contexts, regulatory and environmental economics, and financial analysis. Within his areas of expertise, Mr. Ewen has been qualified as an expert witness before judicial and regulatory bodies (see schedule of testimony and appearances). He has also served as a Managing Director of the firm.

## Education

Master of Public Policy, University of Michigan

Bachelor of Arts, summa cum laude in Economics and Political Science, University of North Dakota

## Project Experience

Examples of his project work include the following:

For the **NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY (NYSERDA) AND DEPARTMENT OF PUBLIC SERVICE (DPS)**, Mr. Ewen provided expert services assessing the economic impacts to municipal governments of extended electricity outages related to Tropical Storm Isaias. As part of this work, he constructed a model to estimate various costs of incremental staffing requirements for over 500 localities, including excess overtime, surge time (i.e., bringing on extra staff for outage response coordination and logistics), and idle time (e.g., crews waiting extended periods for downed lines to be de-energized). The review also included consideration of other direct costs, including, among others: effects to water systems; delivery of bottled water; operation of generators; and other constraints on the provision of essential governmental services. The litigation was settled to the satisfaction of the involved parties.

Mr. Ewen has participated in various proceedings concerning energy markets and regulated utilities. These efforts, which focus on issues related to cost allocation and rate design, include working on behalf of industry and consumer intervenor groups in rate-making cases before the public utility commissions in Pennsylvania and Alberta, Canada, and the U.S. Postal Rate Commission. For example, for the **PENNSYLVANIA OFFICE OF SMALL BUSINESS ADVOCATE**, he has provided consulting and analytic support relating to electricity and natural gas tariff design, revenue requirements, and other regulatory initiatives concerning electrical and natural gas distribution utilities.

For the **NYSERDA AND NEW YORK DPS**, Mr. Ewen directed the development of a Generic Environmental Impact Statement (GEIS), pursuant to the requirement of the State Environmental Quality Review Act (SEQRA) that assessed the environmental and economic impacts of the “Reforming the Energy Vision” and “Clean Energy Fund” initiatives within the state. He also directed the preparation of a Supplemental EIS to assess the environmental and economic impacts of the newly proposed Clean Energy Standard (CES). The CES is being

developed to support the state's goal of supplying 50 percent of electricity demand with renewable generation resources by the year 2030. More recently, he directed the development of a model to assess the financial viability of various waste-to-energy technologies, and related social welfare benefits. This model uses detailed capital budgeting scenarios for specific facilities to generate forecast scenarios.

For the **U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF OCEAN ENERGY MANAGEMENT**, directing an assessment of the Bureau's approach to calculating and presenting the operating fee included in offshore wind leases under BOEM's jurisdiction. As part of this engagement, IEc provided a number of recommendations for simplifying the implementation of the operating fee formula and identified available data sources and approaches to estimating individual components of the fee formula. The review also addressed the structure and levels of fees associated with operations of renewable wind energy projects in the U.S. and worldwide. More recently, IEc has been supporting the development of Standard Operating Procedures for the fee calculation and lease management process. The overall goal is to provide information resources and a methodological approach that will allow lessees to derive accurate data for fee equation variables efficiently and consistently, and for BOEM to present the fee calculation clearly in the lease.

For the **U.S. DEPARTMENT OF JUSTICE**, providing expert analysis in the bankruptcy proceeding for First Energy Corporation. The matter involved testimony regarding bankruptcy reorganization plan feasibility and related financial matters, including the liquidation of fossil generation plants and the consolidation of distribution entities.

For private counsel, estimating economic damages to businesses and housing rental entities resulting from a catastrophic power outage on the Outer Banks of North Carolina.

For the **U.S. COAST GUARD, NATIONAL POLLUTION FUNDS CENTER**, Mr. Ewen provides ongoing support to the NPFC in adjudicating damages claims resulting from oil spills. These claims include damages for business interruption, lost profits, property damage or value diminution, increased costs, and lost wages or employment, among other categories. Cases have also included damages for contract delays to construction projects and shipping demurrage. Industry sectors that Mr. Ewen has evaluated include: *electricity generation (nuclear and coal); railroads; cruise ships; oil ship transport; lodging and tourism; food and beverage; gambling; fisheries; marinas; real estate development, oil and gas development; and oil refining.*

Mr. Ewen's analytic work includes expert financial analysis and economic damages estimation in the context of general litigation and environmental enforcement actions. These efforts include assessing damages in breach of contract, nuisance, and cost recovery actions, and assessing the financial capabilities and economic benefit of noncompliance of firms accused of environmental violations. Clients in this area of his practice include the **U.S. DEPARTMENT OF JUSTICE, U.S. COAST GUARD, U.S. ENVIRONMENTAL PROTECTION AGENCY, STATES**, and private parties.

For the Commercial Litigation Branch of the **U.S. DEPARTMENT OF JUSTICE**, Mr. Ewen provided case management support and assessed potential economic damages for contract litigation involving nuclear utility interests and spent nuclear fuel storage.

## Testimony and Appearances

Mr. Ewen has provided testimony or appeared in the following cases and regulatory proceedings.

Expert reports and deposition testimony on bankruptcy reorganization plan feasibility and related financial matters, *in re: First Energy Solutions Corp., et al., Debtors, Case No. 18-50757*; expert reports filed July 2019, deposition testimony given August 9, 2019.

Expert declaration concerning economic damages and related financial matters, *in re: Outer Banks Power Outage Litigation, all actions, No. 4:17-CV-141-D*, March 2018.

Expert report and deposition testimony on Economic Damages in *State of Alaska v. Williams Alaska Petroleum, Inc., et al., Case No. 4FA-14-01544 CI*; expert report filed December 2016, deposition testimony given February 15, 2017.

Expert reports and deposition testimony on Economic Benefit in *Sierra Club v. Energy Future Holdings Corp. et al., Case No. 5:10-cv-156 (E.D. Tex.)* and *Sierra Club v. Energy Future Holdings Corp. et al., Case No. 6:12-cv-108 (W.D. Tex.)*; expert reports filed in June and July 2013, deposition testimony given August 2013. Trial testimony given in *Case No. 6:12-cv-108 (W.D. Tex.)* in March 2014.

Expert testimony on ability-to-pay provided, in the matter of Mercury Vapor Processing Technologies, Inc., et al. (No. RCRA-05-2010-0015), July 2011.

Expert Declaration in a patent case concerning economic and financial matters in the context of environmental credits valuation -- In re Patent Application of: Jeff Andrienas et al., Application No.: 12/328,219, For: VALUING ENVIRONMENTAL CREDITS, submitted June 2011.

Expert report and deposition testimony on financial matters in *Evansville Greenway and Remediation Trust v. Southern Indiana Gas and Electric Company, Inc., et al. (03:07-cv-0066-SEB-WGH)*; expert report filed July 2009, deposition testimony given January 2010.

Expert testimony on ability-to-pay provided, in the matter of Robert J. Heser, Andrew J. Heser, and Heser Farms (No. CWA-05-2006-0002), May 2007.

On behalf of Pennsylvania's Office of Small Business Advocate, submitting testimony before the Pennsylvania Public Utility Commission, concerning tariff design issues for Columbia Gas of Pennsylvania (Docket No. R-00049783, May 2005).

On behalf of Pennsylvania's Office of Small Business Advocate, submitting testimony before the Pennsylvania Public Utility Commission, concerning cost allocation, revenue assignment, and rate design for Pennsylvania Power and Light (Docket No. R-00049255, August 2004).

Expert report on economic damages in *United States v. Southern California Edison No. CIV. F-01-5167 OWW DLB (E.D. Cal.)*, July 2004; deposition testimony provided September 2004.

Expert testimony on ability-to-pay provided in *U.S. v. Peter Thorson, Managed Investments, Inc., Construction Management, Inc., and Gerke Excavating, Inc. (No. 03-C-0074)*, May 2004.

Expert testimony on ability-to-pay provided in U.S. v. Paul A. Heinrich and Charles Vogel Enterprises, Inc. (No. 03-C-0075-S), October 2003.

Expert testimony on ability-to-pay provided in the matter of Dearborn Refining Company (No. RCRA-05-2001-0019), February 2003.

On behalf of Pennsylvania's Office of Small Business Advocate, submitting testimony before the Pennsylvania Public Utility Commission, concerning recovery of purchased gas costs and revenue sharing for PFG Gas and Northern Penn Gas (Docket No. R-00027389, July 2002).

Expert report and testimony on economic damages in Carol Marmo et al. v. IBP, Inc.; expert report filed March 2002, deposition testimony given June 2002, September 2004, and testimony at trial given February 2005.

On behalf of Pennsylvania's Office of Small Business Advocate, submitting testimony before the Pennsylvania Public Utility Commission, concerning recovery of purchased gas costs and revenue sharing for National Fuel Gas Distribution Corporation (Docket No. R-00016789, March 2002).

On behalf of the Office of the Consumer Advocate, providing testimony before the United States Postal Rate Commission regarding cost allocation of city carrier street time costs. Docket No. R2000-1, July 11, 2000.

Expert report and declaration on ability-to-pay in re Indspec Chemical Corporation and Associated Thermal Services, Inc., and related testimony in U.S. EPA administrative court on February 24, 1998 (No. CAA-III-086).

Expert report on ability-to-pay in re Harrisburg Hospital and First Capital Insulation, Inc. and related testimony in U.S. EPA administrative court on October 8, 1997 (No. CAA-III-076).

2021

**EXHIBIT IEc-1B**

**RÉSUMÉ AND EXPERT TESTIMONY LIST**

**FOR**

**ROBERT D. KNECHT**

## Overview

Mr. Knecht has more than 35 years of practical economic consulting experience, focusing on the energy, utility, metals and mining industries. For the past 25 years, Mr. Knecht's practice has primarily involved providing analysis, consulting support and expert testimony in regulatory matters, primarily involving electric and natural gas utilities. Mr. Knecht's work includes many aspects of utility regulation, including industry restructuring, cost unbundling, cost allocation, rate design, rate of return, customer contributions, energy efficiency programs, smart metering programs, treatment of stranded costs and utility revenue requirement issues. He has worked for state advocacy agencies, industrial customer groups, law firms, regulatory agencies, government agencies and utilities, in both the United States and Canada. He has provided expert testimony in more than one hundred separate utility proceedings.

In addition to his work with regulated utilities, Mr. Knecht has consulted on international industry restructuring studies, prepared economic policy analyses, participated in a variety of litigation matters involving economic damages, and developed energy industry forecasting models.

## Education

Master of Science, Management (Applied Economics and Finance), Sloan School of Management, M.I.T.

Bachelor of Science, Economics, Massachusetts Institute of Technology

## Select Project Experience

For more than twenty years, Mr. Knecht has provided consulting services, analysis and expert testimony before the Pennsylvania Public Utility Commission on all manner of regulatory proceedings to the **PENNSYLVANIA OFFICE OF SMALL BUSINESS ADVOCATE**. In addition to expert testimony, Mr. Knecht has assisted OSBA with the development of public policy positions, litigation strategy, and longer term strategy.

For the **INDUSTRIAL GAS USERS ASSOCIATION**, Mr. Knecht provided consulting and expert witness services in a generic cost allocation proceeding involving Gaz Métro before the Régie de l'énergie in Québec.

For the **NEW BRUNSWICK PUBLIC INTERVENER**, Mr. Knecht provides consulting and expert witness services in a variety of regulatory proceeding before the New Brunswick Energy and Utilities Board involving New Brunswick Power, Enbridge Gas New Brunswick, and petroleum products. Mr. Knecht has addressed issues of load forecasting, costs forecasting, cost of capital, allocation of corporate overhead costs, utility cost allocation, revenue allocation, market-based rate design, cost-based rate design, and rate decoupling.

For **L'ASSOCIATION QUÉBÉCOISE DES CONSOMMATEURS INDUSTRIELS D'ÉLECTRICITÉ (AQCIE) AND LE CONSEIL DE L'INDUSTRIE FORESTIÈRE DU QUÉBEC (CIFQ)**, Mr. Knecht provided analysis, consulting advice and expert testimony before the Régie de l'énergie in regulatory matters involving Hydro Québec Distribution and TransÉnergie. This work includes revenue requirement, power purchasing, cost allocation, treatment of cross-subsidies, and rate design.

For the **INDEPENDENT POWER PRODUCERS SOCIETY OF ALBERTA**, Mr. Knecht provided consulting advice, analysis and expert testimony before the Alberta Energy and Utilities Board in a series of proceedings involving the restructuring of the electric utility industry, the unbundling of rates, and the development of transmission rates.

DOCKET #	REGULATOR	UTILITY	DATE	CLIENT	TOPICS
R-2020-3025652	Pennsylvania Public Utility Commission	UGI Utilities, Inc. (Gas Division)	July 2021	Pennsylvania Office of Small Business Advocate	Renewable natural gas procurement.
R-2021-3024750	Pennsylvania Public Utility Commission	Duquesne Light Company	June 2021	Pennsylvania Office of Small Business Advocate	Cost allocation, rate design
R-2021-3024296	Pennsylvania Public Utility Commission	Columbia Gas of Pennsylvania	June 2021	Pennsylvania Office of Small Business Advocate	Economic viability, cost allocation, rate design.
R-2021-3023618	Pennsylvania Public Utility Commission	UGI Utilities Inc. (Electric Division)	May 2021	Pennsylvania Office of Small Business Advocate	Cost allocation, rate design
R-2020-3023970	Pennsylvania Public Utility Commission	Philadelphia Gas Works	April 2021	Pennsylvania Office of Small Business Advocate	Procurement of renewable natural gas
R-2020-3022134	Pennsylvania Public Utility Commission	Pike County Light & Power Company (Gas)	February 2021	Pennsylvania Office of Small Business Advocate	Cost allocation, rate design.
R-2020-3022135	Pennsylvania Public Utility Commission	Pike County Light & Power Company (Electric)	February 2021	Pennsylvania Office of Small Business Advocate	Cost allocation, rate design.
Matter 485	New Brunswick Energy & Utilities Board	Retail Petroleum Distributors	February 2021	Pennsylvania Office of Small Business Advocate	Maximum retail margins.
R-2020-3018929	Pennsylvania Public Utility Commission	PECO Energy Company (Gas Division)	December 2020	Pennsylvania Office of Small Business Advocate	Cost allocation, revenue allocation, rate design, negotiated rates
P-2020-3021191	Pennsylvania Public Utility Commission	Peoples Natural Gas Company LLC	December 2020	Pennsylvania Office of Small Business Advocate	Sharing benefits of tax repair election
Matters 467, 478	New Brunswick Energy & Utilities Board	Liberty Utilities (Gas New Brunswick)	October 2020	New Brunswick Public Intervener	Historical financial review, test year revenue requirement, earnings sharing mechanism, cost allocation, rate design, deferral accounts
P-2020-3019907	Pennsylvania Public Utility Commission	UGI Utilities, Inc. (Electric Division)	August 2020	Pennsylvania Office of Small Business Advocate	Default service procurement
R-2020-3018835	Pennsylvania Public Utility Commission	Columbia Gas of Pennsylvania	July 2020	Pennsylvania Office of Small Business Advocate	Cost allocation, revenue allocation, rate design, flex rates
P-2020-3019356	Pennsylvania Public Utility Commission	PPL Electric	June 2020	Pennsylvania Office of Small Business Advocate	Default service procurement, TOU rates, renewable energy rates
R-2020-3017206	Pennsylvania Public Utility Commission	Philadelphia Gas Works	June 2020	Pennsylvania Office of Small Business Advocate	Revenue requirement, cost allocation, revenue allocation, rate design

DOCKET #	REGULATOR	UTILITY	DATE	CLIENT	TOPICS
R-2020-3018993	Pennsylvania Public Utility Commission	Columbia Gas of Pennsylvania	May 2020	Pennsylvania Office of Small Business Advocate	Purchased gas costs, interest on penalty credits.
R-2019-3015162	Pennsylvania Public Utility Commission	UGI Utilities, Inc. - Gas Division	May 2020	Pennsylvania Office of Small Business Advocate	Revenue requirement, rate of return, load forecast, cost allocation, revenue allocation, rate design, interruptible service, line extension
R-2020-3015251	Pennsylvania Public Utility Commission	National Fuel Gas Distribution	March 2020	Pennsylvania Office of Small Business Advocate	Charge for monthly metered transportation service
Matter 458	New Brunswick Energy & Utilities Board	New Brunswick Power	December 2019	New Brunswick Public Intervener	Historical financial review, DSM, rate trajectory, revenue requirement, cost allocation, rate design
P-2019-3012628	Pennsylvania Public Utility Commission	Pennsylvania Power Company	November 2019	Pennsylvania Office of Small Business Advocate	Waiver of distribution system improvement charge cap.
Matters 443, 453	New Brunswick Energy & Utilities Board	Enbridge Gas New Brunswick	October 2019	New Brunswick Public Intervener	Historical financial review, regulatory deferral account, system expansion test, revenue requirement, return on rate base, load forecast, corporate allocations, cost allocation, rate design, sharing mechanism, income taxes
Matter 444	New Brunswick Energy & Utilities Board	Petroleum Distributors	August 2019	New Brunswick Public Intervener	Motor fuel and home heating oil maximum margins
R-2018-3006814	Pennsylvania Public Utility Commission	UGI Utilities, Inc. -- Gas Division	April 2019	Pennsylvania Office of Small Business Advocate	Incentive mechanism, cost allocation, rate design, rate harmonization, expansion program, EE&C plan.
Matter 430	New Brunswick Energy & Utilities Board	New Brunswick Power	April 2019	New Brunswick Public Intervener	Historical financial review, DSM, rate trajectory, revenue requirement, long-term planning, load forecast, deferral accounts, cost allocation, rate design

DOCKET #	REGULATOR	UTILITY	DATE	CLIENT	TOPICS
A-2018-3006061 et al.	Pennsylvania Public Utility Commission	Aqua Pennsylvania, Peoples Gas	April 2019	Pennsylvania Office of Small Business Advocate	Financial implications for acquisition, affirmative public benefits
M-2018-3004144	Pennsylvania Public Utility Commission	UGI Utilities, Inc., Electric Division	November 2018	Pennsylvania Office of Small Business Advocate	Energy efficiency plan, performance, forecast, cost sharing, avoided costs
P-2018-3002709	Pennsylvania Public Utility Commission	Pike County Light & Power	September 2018	Pennsylvania Office of Small Business Advocate	Default service procurement, hedging strategies
R-2018-2647577	Pennsylvania Public Utility Commission	Columbia Gas of Pennsylvania	June 2018	Pennsylvania Office of Small Business Advocate	C&I Network costs, cost allocation, revenue allocation, rate design
R-2018-3000253	Pennsylvania Public Utility Commission	Columbia Gas of Pennsylvania	June 2018	Pennsylvania Office of Small Business Advocate	Design day demand forecasting
A-2017-2629534	Pennsylvania Public Utility Commission	PPL Electric Utilities	April 2018	Pennsylvania Office of Small Business Advocate	Corporate restructuring
R-2017-2640058	Pennsylvania Public Utility Commission	UGI Utilities, Inc., Electric Division	April 2018	Pennsylvania Office of Small Business Advocate	Cost allocation, revenue allocation, rate design
M-2017-2640306	Pennsylvania Public Utility Commission	Peoples Natural Gas	April 2018	Pennsylvania Office of Small Business Advocate	Energy efficiency and conservation plan, combined heat and power plan.
C-2017-2633651	Pennsylvania Public Utility Commission	PPL Electric Utilities	March 2018	Pennsylvania Office of Small Business Advocate	Present OSBA legal position
P-2017-2636755, 2637857, 2637858, 2637866	Pennsylvania Public Utility Commission	Metropolitan Edison, Pennsylvania Electric, Pennsylvania Power, West Penn Power	February 2018	Pennsylvania Office of Small Business Advocate	Default service procurement plans, eligibility rules, risk premiums, market enhancement mechanism, TOU rates, net metering
Matter 375	New Brunswick Energy & Utilities Board	New Brunswick Power	January 2018	New Brunswick Public Intervener	Integrated resource plan, demand side management, long term rate trajectory, rate adjustment mechanism, revenue requirement, cost allocation, rate design

DOCKET #	REGULATOR	UTILITY	DATE	CLIENT	TOPICS
M-2016-2578051	Pennsylvania Public Utility Commission	PPL Electric Utilities	December 2017	Pennsylvania Office of Small Business Advocate	Time-of-use rates, net metering
Matter 371	New Brunswick Energy & Utilities Board	Enbridge Gas New Brunswick	October 2017	New Brunswick Public Intervener	Capital expenditure prudence, allocated corporate costs, revenue requirement, flex rates, tariff language.
R-2017-2602627, 2602633, 2602638	Pennsylvania Public Utility Commission	UGI Utilities, Gas Division, Central Penn Gas, Penn Natural Gas	June 2017	Pennsylvania Office of Small Business Advocate	Consolidation of purchased gas cost filings.
R-2017-2586783	Pennsylvania Public Utility Commission	Philadelphia Gas Works	May 2017	Pennsylvania Office of Small Business Advocate	Revenue requirement relevance, financial review, cost allocation, revenue allocation, rate design
R-2016-2580030	Pennsylvania Public Utility Commission	UGI Penn Natural Gas	April 2017	Pennsylvania Office of Small Business Advocate	Test year, load forecast, O&M expenses, rate base, rate of return, cost allocation, rate design, EE&C program, capacity assignment
Matter 336	New Brunswick Energy & Utilities Board	New Brunswick Power	January 2017	New Brunswick Public Intervener	Financial forecast, equity requirement, depreciation life, variance mechanisms, cost allocation, rate design
Matter 338	New Brunswick Energy & Utilities Board	Generic	December 2016	New Brunswick Public Intervener	Retail petroleum margins
Matter 330	New Brunswick Energy & Utilities Board	Enbridge Gas New Brunswick	September 2016	New Brunswick Public Intervener	Revenue requirement, investment test, customer retention initiatives, cost allocation, rate design
R-2016-2537359	Pennsylvania Public Utility Commission	West Penn Power Company	July 2016	Pennsylvania Office of Small Business Advocate	Cost allocation, revenue allocation, rate design.
R-2016-2537355	Pennsylvania Public Utility Commission	Pennsylvania Power Company	July 2016	Pennsylvania Office of Small Business Advocate	Cost allocation, revenue allocation, rate design.

DOCKET #	REGULATOR	UTILITY	DATE	CLIENT	TOPICS
P-2016-2537609, 2537594	Pennsylvania Public Utility Commission	UGI Central Penn Gas, UGI Penn Natural Gas	July 2016	Pennsylvania Office of Small Business Advocate	Waiver of DSIC cap.
P-2016-2543523	Pennsylvania Public Utility Commission	UGI Utilities, Inc., Electric Division	July 2016	Pennsylvania Office of Small Business Advocate	Default service procurement.
R-2016-2529660	Pennsylvania Public Utility Commission	Columbia Gas of Pennsylvania, Inc.	June 2016	Pennsylvania Office of Small Business Advocate	Cost allocation, revenue allocation, rate design.
R-2015-2469275	Pennsylvania Public Utility Commission	PPL Electric Utilities Corporation	May 2016	Pennsylvania Office of Small Business Advocate	Default service procurement plan.
R-2015-2518438	Pennsylvania Public Utility Commission	UGI Utilities, Inc., Gas Division	April 2016	Pennsylvania Office of Small Business Advocate	Cost allocation, revenue allocation, rate design, energy efficiency and conservation program.
P-2016-2521993	Pennsylvania Public Utility Commission	Columbia Gas of Pennsylvania, Inc.	April 2016	Pennsylvania Office of Small Business Advocate	Waiver of DSIC cap.
M-2015-2477174	Pennsylvania Public Utility Commission	UGI Utilities, Inc., Electric Division	February 2016	Pennsylvania Office of Small Business Advocate	Energy efficiency and conservation plan review and development.
Matter No. 306	New Brunswick Energy & Utilities Board	Enbridge Gas New Brunswick	February 2016	New Brunswick Public Intervenor	Financial review, investment prudence, revenue requirement, cost allocation, rate design, market-based pricing.
P-2015-2511333, 2511351, 2511355, 2511356	Pennsylvania Public Utility Commission	Metropolitan Edison, Pennsylvania Electric, Pennsylvania Power, West Penn Power	January 2016	Pennsylvania Office of Small Business Advocate	Default service procurement plans, purchase of receivables.

Note: Dates shown reflect submission date for direct testimony.

July 2021